
Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [d.poreh](#) on Wed, 21 Jul 2010 11:32:04 GMT

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On Jul 21, 4:17 am, aa8533 <matthew.blackett.coven...@gmail.com> wrote:

```
> Hi - I'm trying to make a program which automatically runs through
> 100s of images (MODIS Fire data) and extracts data at a particular
> point. The program works fine where there is data to extract (in the
> case below, when there is data in FP_Sample) but halts for an image
> where there is none with message "Array dimensions must be greater
> than 0".
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> Extract of code is:
>
> sd=hdf_sd_start(fileName)
> index=hdf_sd_nametoindex(sd,'FP_sample')
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> here
>
> Is there a way to test the size of the variable (in this case Sample)
> and if, say it's -1 (no data) then skip the last line of this code?
>
> Would very much appreciate any help.
>
> Matt
```

can you post entire code from beginning to see what happen?

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [aa8533](#) on Wed, 21 Jul 2010 11:42:51 GMT

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On Jul 21, 12:32 pm, Dave Poreh <d.po...@gmail.com> wrote:

```
> On Jul 21, 4:17 am, aa8533 <matthew.blackett.coven...@gmail.com>
> wrote:
>
>
>
>
>
>> Hi - I'm trying to make a program which automatically runs through
>> 100s of images (MODIS Fire data) and extracts data at a particular
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```

```

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>> and if, say it's -1 (no data) then skip the last line of this code?
>
>> Would very much appreciate any help.
>
>> Matt
>
> can you post entire code from beginning to see what happen?

```

SURE, Thank you for getting back so quickly. It is below, the hdf bit is contained within a for statement. So basically, i need to skip bits where there is no data but from what I can figure out, it only knows there is no data when I ask it to get it, hence the array error.

Very thankful - Matt (Dr Matthew Blackett, Coventry University, UK)

```

pro attemptcorfocusedcov

```

```

v=double(0.000003959)
e=double(2.718281828)
h=double(6.6262E-34)
c=double(2.99792458E8)
k=double(1.3807E-23)

```

```

Radearth =6378.137
height =705
r = Radearth + height
s = 1.0/height
angle=findgen(1354)
theta=((-1)*(677*s))+((0.5*s))+((angle)*s)
asps=Radearth*s*((cos(theta)/(((Radearth/r)^2)-
sin(theta)^2)^0.5)-1.0)
atps=r*s*(cos(theta)-(((Radearth/r)^2)-(sin(theta)^2))^0.5)
area=(asps)*(atps)

```

```
pathName="G:\FTPmod14\  
List = findfile(pathName+"*.hdf")  
nosFiles=N_ELEMENTS(List)
```

```
for i = 0, nosFiles-1 do begin
```

```
    fileName = List[i]
```

```
    sd=hdf_sd_start(fileName)  
    index=hdf_sd_nametoindex(sd,'FP_sample')  
    sds=hdf_sd_select(sd,index)  
    hdf_sd_getdata,sds,sample  
    hdf_sd_endaccess,sds
```

```
    index=hdf_sd_nametoindex(sd,'FP_T21')  
    sds=hdf_sd_select(sd,index)  
    hdf_sd_getdata,sds,bt21  
    hdf_sd_endaccess,sds
```

```
    index=hdf_sd_nametoindex(sd,'FP_MeanT21')  
    sds=hdf_sd_select(sd,index)  
    hdf_sd_getdata,sds,btmean21  
    hdf_sd_endaccess,sds
```

```
    index=hdf_sd_nametoindex(sd,'FP_latitude')  
    sds=hdf_sd_select(sd,index)  
    hdf_sd_getdata,sds,lat  
    hdf_sd_endaccess,sds
```

```
    index=hdf_sd_nametoindex(sd,'FP_longitude')  
    sds=hdf_sd_select(sd,index)  
    hdf_sd_getdata,sds,longit  
    hdf_sd_endaccess,sds
```

```
    index=hdf_sd_nametoindex(sd,'FP_line')  
    sds=hdf_sd_select(sd,index)  
    hdf_sd_getdata,sds,horiz  
    hdf_sd_endaccess,sds
```

```
    index=hdf_sd_nametoindex(sd,'FP_sample')  
    sds=hdf_sd_select(sd,index)  
    hdf_sd_getdata,sds,vertic  
    hdf_sd_endaccess,sds
```

```
    hdf_sd_end,sd
```

```

radiance=((((2.0*h*c^2)/v^5)*(1/(exp((h*c)/
(v*k*(double(bt21))))-1)))^1e-6
bgradiance=((((2.0*h*c^2)/v^5)*(1/(exp((h*c)/
(v*k*(double(btmean21))))-1)))^1.0e-6
mirpower=((area[vertic,horiz]*20.25)*((1/0.957)*(radiance-
bgradiance))
print, btmean21

results=where(((lat gt 37) and (lat lt 38)) AND ((longit gt 14.5) and
(longit lt 15.5)))
print, "_____ "
print, i
print, results
print, horiz
print, vertic
print, longit
print, lat
PRINT, MIRPOWER

if (results(0) ne -1) then begin
    PRINT, 'RESULTS:'
    print, mirpower(results)
    endif else begin
    print, 'no result'
    endelse

endifor

end

```

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
 Posted by [David Fanning](#) on Wed, 21 Jul 2010 12:54:20 GMT
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aa8533 writes:

```

> Hi - I'm trying to make a program which automatically runs through
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> and if, say it's -1 (no data) then skip the last line of this code?

```

In my code, I check the index number to see if it is valid (e.g., something other than -1) before I try to read the data. Do you know what the value of the index number is when you get this error?

My code looks like this:

```

; Get the index of the variable.
index = HDF_SD_NameToIndex(fileID, theVariable)
IF index EQ -1 THEN $
    Message, 'Variable (' + theVariable + ') not found.'

; Select the variable and read it.
varID = HDF_SD_Select(fileID, index)
HDF_SD_GetData, varID, data, COUNT=count, $
    START=start, STRIDE=stride

```

Cheers,

David

--

David Fanning, Ph.D.
 Fanning Software Consulting, Inc.
 Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
 Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
 Posted by [aa8533](#) on Wed, 21 Jul 2010 14:59:08 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 21, 1:54 pm, David Fanning <n...@dfanning.com> wrote:

```

> aa8533 writes:
>> Hi - I'm trying to make a program which automatically runs through
>> 100s of images (MODIS Fire data) and extracts data at a particular
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>     IF index EQ -1 THEN $
>         Message, 'Variable (' + theVariable + ') not found.'
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>     ; Select the variable and read it.
>     varID = HDF_SD_Select(fileID, index)
>     HDF_SD_GetData, varID, data, COUNT=count, $
>         START=start, STRIDE=stride
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> David
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> David Fanning, Ph.D.
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```

Hi - thanks for that David. However, I examined the index values and they are the same (3) both for scenes where there is (and is not) data. So the problem seems to remain.

What I think I need to do is kind of what you suggested but to check the sample for data (i.e. check that it is not -1) before I get to `hdf_sd_getdata,sds,sample` - I just don't know how ...!

Thank you again and if you have any more suggestions, I'd be most grateful.

Regards, Matt

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [David Fanning](#) on Wed, 21 Jul 2010 15:05:05 GMT
[View Forum Message](#) <> [Reply to Message](#)

aa8533 writes:

> Hi - thanks for that David. However, I examined the index values and
> they are the same (3) both for scenes where there is (and is not)
> data. So the problem seems to remain.
>
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> the sample for data (i.e. check that it is not -1) before I get to
> hdf_sd_getdata,sds,sample - I just don't know how ...!
>
> Thank you again and if you have any more suggestions, I'd be most
> grateful.

Well, I'm kind of interested in this topic myself,
since I have a lot of code that reads scientific
data sets, and I would like to make the code as
robust as possible.

Is it possible to get ahold of a file that "works"
and one that doesn't? I could run some tests.

Cheers,

David

--

David Fanning, Ph.D.
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Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [aa8533](#) on Wed, 21 Jul 2010 15:07:20 GMT
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On Jul 21, 4:05 pm, David Fanning <n...@dfanning.com> wrote:

> aa8533 writes:

>> Hi - thanks for that David. However, I examined the index values and
>> they are the same (3) both for scenes where there is (and is not)
>> data. So the problem seems to remain.

>

>> What I think I need to do is kind of what you suggested but to check
>> the sample for data (i.e. check that it is not -1) before I get to
>> hdf_sd_getdata,sds,sample - I just don't know how ...!

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> Cheers,

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> David

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> --

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> Fanning Software Consulting, Inc.

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

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

Sure, no probs at all, let me have an email address and I'll shoot a
few examples over ... thank you for this!

Subject: Re: HDF_SD_GETACCESS: No content in variable, error

Posted by [David Fanning](#) on Wed, 21 Jul 2010 15:21:00 GMT

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aa8533 writes:

> Sure, no probs at all, let me have an email address and I'll shoot a
> few examples over ... thank you for this!

Well, "david" at the usual place. :-)

Cheers,

David

--

David Fanning, Ph.D.

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

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

Subject: Re: HDF_SD_GETACCESS: No content in variable, error

Posted by [aa8533](#) on Wed, 21 Jul 2010 15:24:48 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Jul 21, 4:21 pm, David Fanning <n...@dfanning.com> wrote:

> aa8533 writes:

>> Sure, no probs at all, let me have an email address and I'll shoot a

>> few examples over ... thank you for this!

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> Well, "david" at the usual place. :-)

>

> Cheers,

>

> David

>

> --

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> Fanning Software Consulting, Inc.

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

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

...Sent, thank you again, Matt

Subject: Re: HDF_SD_GETACCESS: No content in variable, error

Posted by [aa8533](#) on Wed, 21 Jul 2010 15:25:20 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Jul 21, 4:21 pm, David Fanning <n...@dfanning.com> wrote:

> aa8533 writes:

>> Sure, no probs at all, let me have an email address and I'll shoot a

>> few examples over ... thank you for this!

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> Well, "david" at the usual place. :-)

>

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

Sent, thank you again, Matt

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [David Fanning](#) on Wed, 21 Jul 2010 15:33:49 GMT
[View Forum Message](#) <> [Reply to Message](#)

aa8533 writes:

>
> On Jul 21, 4:21 pm, David Fanning <n...@dfanning.com> wrote:
>> aa8533 writes:
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>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
>
> Sent, thank you again, Matt

Humm. Well, the usual place is "dfanning.com". Is that
where you sent it? Hasn't arrive here, unfortunately. :-(

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [aa8533](#) on Wed, 21 Jul 2010 15:48:04 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 21, 4:33 pm, David Fanning <n...@dfanning.com> wrote:

> aa8533 writes:

>

>> On Jul 21, 4:21 pm, David Fanning <n...@dfanning.com> wrote:

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done (again), missed out the d!

Regards, Matt

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [David Fanning](#) on Wed, 21 Jul 2010 15:54:16 GMT
[View Forum Message](#) <> [Reply to Message](#)

aa8533 writes:

> done (again), missed out the d!

Humm. Well, maybe we should try this. Do you have
an FTP site where I can download them. :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [David Fanning](#) on Wed, 21 Jul 2010 16:12:32 GMT
[View Forum Message](#) <> [Reply to Message](#)

David Fanning writes:

> Humm. Well, maybe we should try this. Do you have
> an FTP site where I can download them. :-)

OK, got them now. I'll have a look when I get a few
minutes.

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [David Fanning](#) on Wed, 21 Jul 2010 16:38:43 GMT

aa8533 writes:

```
> Hi - I'm trying to make a program which automatically runs through
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I opened each of the two files you sent me up in my NCDF_Browser program and I could immediately see that FP_sample in the file that causes the problem has a dimension of 0. Obviously, nothing is there, even though the variable has been defined in the file!

To look for this possibility (I have modified my own code in ncdf_data__define.pro and it will be on my web page shortly) you will have to check for a zero length dimension:

```
sd=hdf_sd_start(fileName)
index=hdf_sd_nametoindex(sd,'FP_sample')
sds=hdf_sd_select(sd,index)
HDF_SD_GetInfo, sds, DIMS=dims
IF dims[0] NE 0 THEN BEGIN
  hdf_sd_getdata,sds,sample
ENDIF
```

I notice that every variable in that particular data file has a dimension of 0. That is one very sick puppy! :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: HDF_SD_GETACCESS: No content in variable, error
Posted by [d.poreh](#) on Thu, 22 Jul 2010 06:54:51 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 21, 9:38 am, David Fanning <n...@dfanning.com> wrote:

> aa8533 writes:

>> Hi - I'm trying to make a program which automatically runs through
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> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

That is a wise solution. You are the man David!

Cheers

Dave

Subject: Re: HDF_SD_GETACCESS: No content in variable, error

Posted by [aa8533](#) on Fri, 23 Jul 2010 08:11:01 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Jul 22, 7:54 am, Dave Poreh <d.po...@gmail.com> wrote:

> On Jul 21, 9:38 am, David Fanning <n...@dfanning.com> wrote:

>

>

>

>

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>> aa8533 writes:

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>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
>
> That is a wise solution. You are the man David!
> Cheers
> Dave
```

David, thank you so much, that works fine now, saving me hours of frustration

I appreciate it.

Matt
