
Subject: Re: opening .h5 data files

Posted by [liamgumley](#) on Wed, 05 Jan 2011 14:45:18 GMT

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On Jan 5, 5:26 am, Neil <swapneil.v...@gmail.com> wrote:

> Dear all,

>

> I have this .h5 data format files and those are so many,

>

> i have to extract a particular data from these files,

> for that i have to go to the browser every time and extract the data

> for each individual file,

>

> how can i extract the data from each .h5 data file at one go ?

Neil, try this:

```
result = h5_parse(file, /read_data)
```

```
help, result, /structure
```

Liam.

Practical IDL Programming

<http://www.gumley.com/>

Subject: Re: opening .h5 data files

Posted by [David Fanning](#) on Wed, 05 Jan 2011 14:55:45 GMT

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Liam Gumley writes:

> Neil, try this:

>

> result = h5_parse(file, /read_data)

> help, result, /structure

Whoa! That's pretty impressive. :-)

So, now I have the data:

```
IDL> help, result.hdfeos.grids.set1.data_fields.u._data
```

```
<Expression>  FLOAT  = Array[360, 180]
```

How do I read just that variable out of the file
without reading everything?

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: opening .h5 data files

Posted by [Michael Galloy](#) on Wed, 05 Jan 2011 16:23:46 GMT

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On 1/5/11 7:55 am, David Fanning wrote:

> Liam Gumley writes:

>

>> Neil, try this:

>>

>> result = h5_parse(file, /read_data)

>> help, result, /structure

>

> Whoa! That's pretty impressive. :-)

>

> So, now I have the data:

>

> IDL> help, result.hdfEOS.grids.set1.data_fields.u._data

> <Expression> FLOAT = Array[360, 180]

>

> How do I read just that variable out of the file

> without reading everything?

I use MG_H5_GETDATA to do it:

```
IDL> u = mg_h5_getdata(file, '/result/hdfEOS/grids/set1/data_fields/u')
```

It also can grab a section of a variable if you don't want to read the entire variable:

```
IDL> f = filepath('hdf5_test.h5', subdir=['examples', 'data'])
```

```
IDL> res3 = mg_h5_getdata(f, '/arrays/3D int array[3, 5:*:2, 0:49:3]')
```

Get mg_h5_getdata.pro at:

http://michaelgalloy.com/wp-content/uploads/2011/01/mg_h5_getdata.pro

Mike

--

www.michaelgalloy.com

Subject: Re: opening .h5 data files
Posted by [David Fanning](#) on Wed, 05 Jan 2011 16:42:43 GMT
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Michael Galloy writes:

```
> I use MG_H5_GETDATA to do it:
>
> IDL> u = mg_h5_getdata(file, '/result/hdfeos/grids/set1/data_fields/u')
>
> It also can grab a section of a variable if you don't want to read the
> entire variable:
>
> IDL> f = filepath('hdf5_test.h5', subdir=['examples', 'data'])
> IDL> res3 = mg_h5_getdata(f, '/arrays/3D int array[3, 5:*:2, 0:49:3]')
>
> Get mg_h5_getdata.pro at:
>
> http://michaelgalloy.com/wp-content/uploads/2011/01/mg_h5_getdata.pro
```

Yeah, that's the one-liner I was looking for. I just didn't realize it was going to take a 1000 lines of code to do it. :-)

Thanks! Very useful.

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: opening .h5 data files
Posted by [David Fanning](#) on Wed, 05 Jan 2011 16:55:47 GMT
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Michael Galloy writes:

```
> I use MG_H5_GETDATA to do it:
>
> IDL> u = mg_h5_getdata(file, '/result/hdfeos/grids/set1/data_fields/u')
>
> It also can grab a section of a variable if you don't want to read the
> entire variable:
>
> IDL> f = filepath('hdf5_test.h5', subdir=['examples', 'data'])
> IDL> res3 = mg_h5_getdata(f, '/arrays/3D int array[3, 5*:2, 0:49:3]')
>
> Get mg_h5_getdata.pro at:
>
> http://michaelgalloy.com/wp-content/uploads/2011/01/mg\_h5\_getdata.pro
```

OK, I've looked this over and I know you didn't learn how to read HDF5 files from the IDL documentation. :-)

May I ask what you referred to when you were figuring all this out? Thanks.

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: opening .h5 data files
Posted by [Michael Galloy](#) on Wed, 05 Jan 2011 17:10:14 GMT
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On 1/5/11 9:55 AM, David Fanning wrote:

```
> Michael Galloy writes:
>
>> I use MG_H5_GETDATA to do it:
>>
>> IDL> u = mg_h5_getdata(file, '/result/hdfeos/grids/set1/data_fields/u')
>>
>> It also can grab a section of a variable if you don't want to read the
>> entire variable:
>>
```

```
>> IDL> f = filepath('hdf5_test.h5', subdir=['examples', 'data'])
>> IDL> res3 = mg_h5_getdata(f, '/arrays/3D int array[3, 5:*:2, 0:49:3]')
>>
>> Get mg_h5_getdata.pro at:
>>
>> http://michaelgalloy.com/wp-content/uploads/2011/01/mg_h5_getdata.pro
>
> OK, I've looked this over and I know you didn't
> learn how to read HDF5 files from the IDL documentation. :-)
>
> May I ask what you referred to when you were figuring
> all this out? Thanks.
```

The online help, library routines like H5_PARSE, and trial and error.

Mike

--

www.michaelgalloy.com
Research Mathematician
Tech-X Corporation

Subject: Re: opening .h5 data files

Posted by [Mark Piper](#) on Thu, 06 Jan 2011 16:39:05 GMT

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On Jan 5, 9:55 am, David Fanning <n...@dfanning.com> wrote:

```
>
> OK, I've looked this over and I know you didn't
> learn how to read HDF5 files from the IDL documentation. :-)
>
> May I ask what you referred to when you were figuring
> all this out? Thanks.
>
```

I've found helpful the docs directly from The HDF Group:

<http://www.hdfgroup.org/HDF5/doc/index.html>

since IDL presents just a thin layer over the HDF5 C API.
