
Subject: Reopen HDF5 file to add more data?

Posted by [dg86](#) on Mon, 09 Feb 2015 16:25:55 GMT

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Dear Folks,

It appears not to be possible to add more data to an HDF5 file once the file has been closed, at least not in the IDL implementation. Is that correct?

Here's a minimal example of what I'm trying to do. This triggers the error that inspires my question.

Is there a way to reopen an file for writing, or do I have to read in the old archive and recopy everything to a new archive?

Many thanks,

David

```
;--- cut here for minimal example ---
```

```
filename = 'testfile.h5'
```

```
group = 'group'
```

```
name = 'testdata'
```

```
;;; Create and close an HDF5 archive with one group and no data
```

```
fid = h5f_create(filename)
```

```
gid = h5g_create(fid, group)
```

```
h5g_close, gid
```

```
h5f_close, fid
```

```
;;; Reopen the HDF5 archive to add some data to the group
```

```
fid = h5f_open(filename)
```

```
gid = h5g_open(fid, group)
```

```
;;; attempt to write some data
```

```
a = bindgen(640, 480)
```

```
tid = h5t_idl_create(a)
```

```
sid = h5s_create_simple(a.dim)
```

```
did = h5d_create(gid, name, tid, sid) ;;; <-- this fails
```

```
h5d_write, did, a
```

```
;;; close the file
```

```
h5d_close, did
```

```
h5s_close, sid
```

```
h5t_close, tid
```

```
h5g_close, gid
```

```
h5f_close, fid
```

Subject: Re: Reopen HDF5 file to add more data?
Posted by [markb77](#) on Tue, 10 Feb 2015 08:17:37 GMT
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On Monday, February 9, 2015 at 5:25:56 PM UTC+1, David Grier wrote:

```
> Dear Folks,  
>  
> It appears not to be possible to add more data to an HDF5 file once  
> the file has been closed, at least not in the IDL implementation.  
> Is that correct?  
>  
> Here's a minimal example of what I'm trying to do. This triggers  
> the error that inspires my question.  
>  
> Is there a way to reopen an file for writing, or do I have to read in the  
> old archive and recopy everything to a new archive?  
>  
> Many thanks,  
>  
> David  
>  
> ;--- cut here for minimal example ---  
> filename = 'testfile.h5'  
> group = 'group'  
> name = 'testdata'  
>  
> ;;; Create and close an HDF5 archive with one group and no data  
> fid = h5f_create(filename)  
> gid = h5g_create(fid, group)  
> h5g_close, gid  
> h5f_close, fid  
>  
> ;;; Reopen the HDF5 archive to add some data to the group  
> fid = h5f_open(filename)  
> gid = h5g_open(fid, group)  
>  
> ;;; attempt to write some data  
> a = bindgen(640, 480)  
> tid = h5t_idl_create(a)  
> sid = h5s_create_simple(a.dim)  
> did = h5d_create(gid, name, tid, sid) ;;; <-- this fails  
> h5d_write, did, a  
>  
> ;;; close the file  
> h5d_close, did  
> h5s_close, sid  
> h5t_close, tid  
> h5g_close, gid  
> h5f_close, fid
```

hi David,

You need to use H5D_EXTEND to increase the size of your dataset before you can append additional data.

best
Mark

Subject: Re: Reopen HDF5 file to add more data?
Posted by [dg86](#) on Tue, 10 Feb 2015 17:25:49 GMT
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On Tuesday, February 10, 2015 at 3:17:39 AM UTC-5, superchromix wrote:

> On Monday, February 9, 2015 at 5:25:56 PM UTC+1, David Grier wrote:

>> Dear Folks,

>>

>> It appears not to be possible to add more data to an HDF5 file once
>> the file has been closed, at least not in the IDL implementation.

>> Is that correct?

>>

>> Here's a minimal example of what I'm trying to do. This triggers
>> the error that inspires my question.

>>

>> Is there a way to reopen an file for writing, or do I have to read in the
>> old archive and recopy everything to a new archive?

>>

>> Many thanks,

>>

>> David

>>

>> ;--- cut here for minimal example ---

>> filename = 'testfile.h5'

>> group = 'group'

>> name = 'testdata'

>>

>> ;; Create and close an HDF5 archive with one group and no data

>> fid = h5f_create(filename)

>> gid = h5g_create(fid, group)

>> h5g_close, gid

>> h5f_close, fid

>>

>> ;; Reopen the HDF5 archive to add some data to the group

>> fid = h5f_open(filename)

>> gid = h5g_open(fid, group)

>>

```
>> ;; attempt to write some data
>> a = bindgen(640, 480)
>> tid = h5t_idl_create(a)
>> sid = h5s_create_simple(a.dim)
>> did = h5d_create(gid, name, tid, sid) ;; <-- this fails
>> h5d_write, did, a
>>
>> ;; close the file
>> h5d_close, did
>> h5s_close, sid
>> h5t_close, tid
>> h5g_close, gid
>> h5f_close, fid
>
>
> hi David,
>
> You need to use H5D_EXTEND to increase the size of your dataset before you can append
additional data.
>
> best
> Mark
```

It turns out the answer is even simpler than that.
H5F_OPEN opens a file read-only by default. The /WRITE switch opens it
read-write. Everything is working now!

TTFN,

David
