Subject: Re: Reading HDF5 Variable
Posted by K. Bowman on Mon, 14 Feb 2005 20:41:16 GMT
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In article <MPG.1c7a6e292d3e283e989910@news.frii.com>, David Fanning <davidf@dfanning.com> wrote:

- > Folks,
- >
- > Does anyone know if it is even *possible* to learn how
- > to access a variable from an HDF5 file from the IDL
- > documentation!?

I think the short answer is "no".

At the risk of starting a flame war, the netCDF interface (about 25 functions) seems to have been written by scientists for scientists, while the HDF interface appears to have been written by programmers for programmers (hundreds(?) of functions).

Admittedly, HDF files are more flexible than netCDF files, but the user interface is much more complex. The HDF files that I have seen don't appear to use any of the features that are not in the netCDF interface.

Your best bet is to find some sample code that reads your HDF files.

:-(

Ken

```
I really don't have a week to figure this out. Does
anyone have a simple example. I can see and access
the data with H5_QUERY. But I can't make any sense
of the palette that is suppose to be attached to the
data. It is 976 elements long. That doesn't even
begin to divide by 256. :-(
What I am trying to do is extract a 2D image and its
accompanying palette in order to build and save a JPEG
file. (Typically I don't mind spending hours and hours
researching a topic, but the FAFSA Student Aid forms
are due today and I'm working on income taxes. :-(
```

> Thanks,

>

>

> David

Subject: Re: Reading HDF5 Variable Posted by Michael Wallace on Mon, 14 Feb 2005 21:13:41 GMT View Forum Message <> Reply to Message

- > Does anyone know if it is even *possible* to learn how
- > to access a variable from an HDF5 file from the IDL
- > documentation!?

No. Do not pass Go. Do not collect \$200.

I always use HDF_BROWSER to create a template of the HDF file and use that template with HDF_READ. I'm not familiar with H5_QUERY, but I'd just go into HDF_BROWSER, select and name everything I need and let HDF_READ do the magic of pulling the data. At least that should rule out errors made when trying to do the extraction by hand.

-Mike

Subject: Re: Reading HDF5 Variable
Posted by David Fanning on Mon, 14 Feb 2005 21:18:00 GMT
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Kenneth Bowman writes:

> I think the short answer is "no".

>

- > At the risk of starting a flame war, the netCDF interface (about 25
- > functions) seems to have been written by scientists for scientists,
- > while the HDF interface appears to have been written by programmers for
- > programmers (hundreds(?) of functions).

>

- > Admittedly, HDF files are more flexible than netCDF files, but the user
- > interface is much more complex. The HDF files that I have seen don't
- > appear to use any of the features that are not in the netCDF interface.

>

> Your best bet is to find some sample code that reads your HDF files.

After I stopped panicking, I realized that the h5_browser was written in the IDL language. 15 minutes of fooling around with that got me what I was looking for, although I am no further ahead with understanding the format. :-(

Cheers,

David

--

Subject: Re: Reading HDF5 Variable
Posted by Michael Wallace on Mon, 14 Feb 2005 21:19:42 GMT
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- > At the risk of starting a flame war, the netCDF interface (about 25
- > functions) seems to have been written by scientists for scientists,
- > while the HDF interface appears to have been written by programmers for
- > programmers (hundreds(?) of functions).

The various problems with HDF are what led me to use netCDF. Not only are they written "by scientists for scientists" but much of the underpinnings of the format appear to have been written by "computer scientists rather than scientists." Issues with the format aside, I just like the fact that there are *stable, working* netCDF access routines in IDL, Java, C, Perl, Python, etc. In fact, whenever I have to work with HDF, the first thing I usually do is write a small conversion program that converts the file to netCDF and then I work with it from there. :-)

-Mike

Subject: Re: Reading HDF5 Variable
Posted by Paul Van Delst[1] on Mon, 14 Feb 2005 21:35:44 GMT
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Michael Wallace wrote:

- >> At the risk of starting a flame war, the netCDF interface (about 25
- >> functions) seems to have been written by scientists for scientists,
- >> while the HDF interface appears to have been written by programmers
- >> for programmers (hundreds(?) of functions).

>

- > The various problems with HDF are what led me to use netCDF. Not only
- > are they written "by scientists for scientists" but much of the
- > underpinnings of the format appear to have been written by "computer
- > scientists rather than scientists." Issues with the format aside, I
- > just like the fact that there are *stable, working* netCDF access
- > routines in IDL, Java, C, Perl, Python, etc. In fact, whenever I have
- > to work with HDF, the first thing I usually do is write a small
- > conversion program that converts the file to netCDF and then I work with
- > it from there. :-)

Hey - me too! Except rather than write a conversion program each time, I just pipe the hdfdump[*] utility output into the negen utility to convert files I use. E.g.

hdfdump <hdfile> | ncgen -b <ncfile>

and I end up with a nice simple, useful netCDF file. :o)

paulv

[*] Earlier HDF libraries called this "ncdump" which was very annoying.

Paul van Delst CIMSS @ NOAA/NCEP/EMC

Subject: Re: Reading HDF5 Variable Posted by Michael Wallace on Mon, 14 Feb 2005 21:40:53 GMT View Forum Message <> Reply to Message

- > Hey me too! Except rather than write a conversion program each time, I
- > just pipe the hdfdump[*] utility output into the negen utility to
- > convert files I use. E.g.

>

> hdfdump <hdfile> | ncgen -b <ncfile>

> and I end up with a nice simple, useful netCDF file. :o)

>

Cool. I tried doing this a while back but I was never successful. Which versions of hdfdump and ncgen are you using? If I can simply do that from the command line now, that'd be so much easier.

-Mike