
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

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- > 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
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- >
- > 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:

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>> 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).

>
>

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> are they written "by scientists for scientists" but much of the
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> 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 hdfdumpp[*] utility output into the ncgen utility to convert files I use. E.g.

```
hdfdumpp <hdfpp> | 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

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> Hey - me too! Except rather than write a conversion program each time, I
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> convert files I use. E.g.
>
> hdfdumpp <hdfpp> | 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 hdfdumpp and ncgen are you using? If I can simply do
that from the command line now, that'd be so much easier.

-Mike
