
Subject: Re: netCDF-4 support in IDL?

Posted by [David Fanning](#) on Fri, 03 Apr 2009 13:52:51 GMT

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Paul van Delst writes:

- > Do any insiders out there know about the status of future support for netCDF-4 in IDL? I
- > received third/fourth-hand news yesterday that there are no plans for IDL to support
- > netCDF-4 and I wanted to get some more scoop before contacting ITTVIS directly. I searched
- > the ng on google but didn't find anything.

I have absolutely **no** inside information about ITTVIS's plans, but from the perspective of someone on the periphery of a project (not using IDL) that is thinking about supporting netCDF-4, I can certainly understand why they would have no current plans to do so. The lack of tools and good documentation make this a constant frustration to deal with. Not to mention, in our case, a cumbersome scheme for including map information in the file. I think everyone is probably holding their breath, hoping (against reason, I'm sure) that no one wants to use this format. :-)

At the very least, I think most companies will wait for things to settle down a bit before tackling the project. This seems reasonable to me.

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: netCDF-4 support in IDL?

Posted by [Andy Heaps](#) on Fri, 03 Apr 2009 16:40:08 GMT

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Hi Paul,

I contacted ITT-VIS about this a few weeks back and they have an open feature request number cr43022 to support netCDF4. I gather they hope to look more closely at this after the 7.1 release this summer. It's a non-trivial update as it relies on the HDF5 1.8 release which has hundreds of new API calls. If you email ITT-VIS and ask to be added to the feature request then hopefully they'll move it up on their list of priorities a little.

Cheers
Andy

David Fanning wrote:

> Paul van Delst writes:

>

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> this format. :-)

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> At the very least, I think most companies will wait for things

> to settle down a bit before tackling the project. This seems

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>

> Cheers,

>

> David

Subject: Re: netCDF-4 support in IDL?

Posted by [Paul Van Delst\[1\]](#) on Fri, 03 Apr 2009 16:43:51 GMT

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David Fanning wrote:

> Paul van Delst writes:

>

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> in our case, a cumbersome scheme for including map information
> in the file. I think everyone is probably holding their breath,
> hoping (against reason, I'm sure) that no one wants to use
> this format. :-)
>
> At the very least, I think most companies will wait for things
> to settle down a bit before tackling the project. This seems
> reasonable to me.

Hmm.. interesting. The issue here is that, in some cases, netCDF-4 has been adopted as a standard for product output. No IDL netCDF-4 support, means no IDL usage. At the very least, it means a whole of more make-work to visualise the data (e.g. convert from netCDFv4 to v3.6) and some prayers to hope that the data conversion didn't introduce any artifacts.

Sigh. I thought common data formats (like netCDF) and tools (like IDL) were supposed to make out lives *easier*.

cheers,

paulv

Subject: Re: netCDF-4 support in IDL?
Posted by [David Fanning](#) on Fri, 03 Apr 2009 17:27:32 GMT
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Paul van Delst writes:

> Sigh. I thought common data formats (like netCDF) and tools (like IDL) were supposed to
> make out lives *easier*.

How long have you been doing science? ;-)

Cheers,

David

--

David Fanning, Ph.D.
Coyote's Guide to IDL Programming (www.dfanning.com)
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: netCDF-4 support in IDL?
Posted by [ben.bighair](#) on Fri, 03 Apr 2009 20:14:44 GMT
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Hello,

On Apr 3, 12:43 pm, Paul van Delst <Paul.vanDe...@noaa.gov> wrote:
> David Fanning wrote:
>> Paul van Delst writes:
> Sigh. I thought common data formats (like netCDF) and tools (like IDL) were supposed to
> make out lives *easier*.

I think it is likely that the only person to see improvement in "make out" life after using IDL is David.

Have a great weekend!
Ben

Subject: Re: netCDF-4 support in IDL?
Posted by [David Fanning](#) on Fri, 03 Apr 2009 20:29:23 GMT
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ben.bighair writes:

> I think it is likely that the only person to see improvement in "make
> out" life after using IDL is David.

Ah, those sweet memories of my IDL shirt and those big women
in Hawaii! :-)

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: netCDF-4 support in IDL?
Posted by [George White](#) on Sat, 04 Apr 2009 18:35:26 GMT
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On Fri, 3 Apr 2009, Paul van Delst wrote:

> Do any insiders out there know about the status of future support for

> netCDF-4 in IDL? I received third/fourth-hand news yesterday that there are
> no plans for IDL to support netCDF-4 and I wanted to get some more scoop
> before contacting ITTVIS directly. I searched the ng on google but didn't
> find anything.

I'm not an insider, but I was at the HDF meeting in Denver last fall where there was considerable discussion about support for HDF-5 and netCDF-4 support in commercial packages (IDL, Matlab, etc.). The problem is that netCDF-4 depends on HDF-5, which has a very big API that so far defies attempts to automate the task of writing wrappers for other languages.

Commercial developers have no way to predict which parts of the API are needed by user A, so they have no choice but to implement most of the API. Meanwhile, open source (R, octave, gdl, ...) users have been writing wrappers for the parts of the API needed for their work. So at present, octave allows you to save vars to hdf5, but R won't read the file if one of the variables is a range/sequence.

Add to this the issues that some hdf5 users are writing 64-bit programs, so we have a 64-bit hdf5 library that lets us build program X, but need to use the data in a program that uses a different library for which we don't have the 64-bit version, so in the end one has to dump data in some binary file using the 64-bit library and then read it into your 32-bit application.

I recommend that people start playing with hdf-5 and then netCDF-4 using gdl with the goal of working out the subsets of the API's needed to use some important data sets. Then, rather than asking ITTVIS to implement all of hdf-5+netCDF-4, just ask for the parts of the API's you need now.

--

George White <aa056@chebucto.ns.ca> <gnw3@acm.org>
189 Parklea Dr., Head of St. Margarets Bay, Nova Scotia B3Z 2G6

Subject: Re: netCDF-4 support in IDL?
Posted by [R.Bauer](#) on Mon, 06 Apr 2009 09:09:22 GMT
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George White schrieb:

> On Fri, 3 Apr 2009, Paul van Delst wrote:

>

>> Do any insiders out there know about the status of future support for
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> netCDF-4 support in commercial packages (IDL, Matlab, etc.). The
> problem is that netCDF-4 depends on HDF-5, which has a very
> big API that so far defies attempts to automate the task of writing
> wrappers for other languages.
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> needed by user A, so they have no choice but to implement most of the
> API. Meanwhile, open source (R, octave, gdl, ...) users have been
> writing wrappers for the parts of the API needed for their work. So at
> present, octave allows you to save vars to hdf5, but R won't read the
> file if one of the variables is a range/sequence.
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> Add to this the issues that some hdf5 users are writing 64-bit programs,
> so we have a 64-bit hdf5 library that lets us build program X, but need
> to use the data in a program that uses a different library for which we
> don't have the 64-bit version, so in the end one has to dump data in
> some binary file using the 64-bit library and then read it into your
> 32-bit application.
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> I recommend that people start playing with hdf-5 and then netCDF-4 using
> gdl with the goal of working out the subsets of the API's needed to use
> some important data sets. Then, rather than asking ITTVIS to implement
> all of hdf-5+netCDF-4, just ask for the parts of the API's you need now.
>
> --
> George White <aa056@chebucto.ns.ca> <gnw3@acm.org>
> 189 Parklea Dr., Head of St. Margarets Bay, Nova Scotia B3Z 2G6

I can't resist to say

commercial developers are paid for that kind of job.

It has ever worked to read XDR files on different architectures and it
does not matter to read XDR files on 32bit and 64bit. Please clarify

"> Add to this the issues that some hdf5 users are writing 64-bit programs,"

cheers
Reimar

Subject: Re: netCDF-4 support in IDL?
Posted by [Paul Van Delst\[1\]](#) on Mon, 06 Apr 2009 17:01:36 GMT

Paul van Delst wrote:

> Hi,
>
> Do any insiders out there know about the status of future support for
> netCDF-4 in IDL? I received third/fourth-hand news yesterday that there
> are no plans for IDL to support netCDF-4 and I wanted to get some more
> scoop before contacting ITTVIS directly. I searched the ng on google but
> didn't find anything.

A reply to my email to ITTVIS:

Amanda O'Connor wrote:

> NetCDF4 is on the list for IDL 7.2 which is slated for January
> of 2010. We may have tech previews before hand, if you would like to
> participate let me know!
>
> Amanda O'Connor
> ITT Visual Information Solutions
[email address and ph# snipped]

So, about one year from now we will get netCDF4 support in IDL.

Yaybert.

cheers,

paulv

Subject: Re: netCDF-4 support in IDL?

Posted by [David Fanning](#) on Mon, 06 Apr 2009 17:05:26 GMT

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Paul van Delst writes:

> So, about one year from now we will get netCDF4 support in IDL.

I hope this doesn't slow down more whiz-bang features
in the Workbench!!

Cheers,

David

--

David Fanning, Ph.D.

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

Subject: Re: netCDF-4 support in IDL?
Posted by [Paul Van Delst\[1\]](#) on Mon, 06 Apr 2009 18:27:02 GMT
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David Fanning wrote:
> Paul van Delst writes:
>
>> So, about one year from now we will get netCDF4 support in IDL.
>
> I hope this doesn't slow down more whiz-bang features
> in the Workbench!!

Workbench? What's that? :o)

My concern would be the other direction (i.e. I hope the Workbench doesn't slow down the more whiz-bang features of IDL) but since I don't use the Workbench my concern is unwarranted.

cheers,

paulv

Subject: Re: netCDF-4 support in IDL?
Posted by [Mark\[1\]](#) on Wed, 08 Apr 2009 05:17:31 GMT
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On Apr 7, 5:05 am, David Fanning <n...@dfanning.com> wrote:
> I hope this doesn't slow down more whiz-bang features
> in the Workbench!!

Paranoia aside, it's hard to see how it could. But then, some people believe the moon landings were real.
