

Folks,

I have a general need to be able to create, browse, and write netCDF files in an extremely flexible way. In particular, I want to be able to copy variables and attributes from one file to another without thinking too much about it.

To this end, I have borrowed heavily (well, I stole most of the good ideas, really) from Mark Hadfield's Motley Library and its wonderful netCDF routines.

<http://www.dfanning.com/hadfield/IDL/README.html>

When I started this project, I thought Mark's routines could use more documentation and error handling. When I finished, I realized I hadn't added much value to what Mark had already provided. But, of course, hindsight is 20-20. I have learned a lot about netCDF files in the past month or so, and certainly enough to know I am probably going to be surprised in the future by how little I know.

In any case, the new programs I have written have provided me with some new tools for working with netCDF files and I thought they might be of interest to a wider audience.

http://www.dfanning.com/progrms/ncdf_tools.zip

Because most of these tools are written as objects, and because that scares the bejesus out of many IDL users, I have provided an example file, `NCDF_File_Examples`, that shows you exactly how to create a netCDF file, copy some of the contents to another netCDF file, and then read the netCDF file to do something useful in IDL.

http://www.dfanning.com/programs/ncdf_file_examples.pro

I have been particularly careful to document these routines so they can be used by a wider audience.

In addition to Mark, I have been greatly enlightened in my netCDF studies by IDL newsgroup regulars Paul van Delst and Ken Bowman. I am exceedingly grateful to them and to all of you who pester me with questions and suggestions for improvement. Even though I already have a wife, I appreciate

you, too. :-)

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: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [Mark\[1\]](#) on Mon, 22 Feb 2010 01:43:00 GMT

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> When I started this project, I thought Mark's routines could
> use more documentation and error handling.

How cruel!

Documentation lacking? Indubitably. Error handling? I am a
practitioner of the "If in doubt, crash" approach to error handling

> http://www.dfanning.com/progrms/ncdf_tools.zip

http://www.dfanning.com/progrms/ncdf_tools.zip

Subject: Re: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [Mark\[1\]](#) on Mon, 22 Feb 2010 01:46:45 GMT

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>> http://www.dfanning.com/progrms/ncdf_tools.zip

>

> http://www.dfanning.com/progrms/ncdf_tools.zip

http://www.dfanning.com/programs/ncdf_tools.zip !!!!!!!!!!!!!

Subject: Re: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [David Fanning](#) on Mon, 22 Feb 2010 02:32:06 GMT

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Mark writes:

> http://www.dfanning.com/programs/ncdf_tools.zip !!!!!!!!!!!!!

I could put them in a tarball for you, but I have to ask myself, "Why am I doing all the work around here!?"

I'm going to talk to Mike Galloy at this week's IDL User's Group meeting. He has a nice Subversion solution for me if I would just get off my duff and use it. It involves learning something new, which I am REALLY loath to do. :-)

Cheers,

David

P.S. Anyway, don't download them yet. I just finished my presentation preparation and I have a slew of new programs to upload, including a new one for the NCDF_Tools.zip file. ;-)

--

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Subject: Re: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [Paul Van Delst\[1\]](#) on Mon, 22 Feb 2010 17:40:05 GMT

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David Fanning wrote:

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With a subversion repository, you wouldn't be. Users would be responsible for upgrading their own working copies.

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> User's Group meeting. He has a nice Subversion solution
> for me if I would just get off my duff and use it. It
> involves learning something new, which I am REALLY
> loath to do. :-)

It's not a perfect system, but I have to say that I found using subversion was one of

those rare experiences where you think "Why can't everything work this well?" It really is a tool that will make you life easier. And, while the learning curve isn't flat, it's not that steep. It's a good mix of functionality and ease-of-use for those of us who aren't hard-core software engineering types.

Couple it with a SCM tool (e.g. <http://www.edgewall.com/trac>. I use it here and I believe MikeG uses that for his idldoc stuff) and you'll be set! :o)

cheers,

paulv

Subject: Re: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [Michael Galloy](#) on Mon, 22 Feb 2010 21:11:51 GMT
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On 2/22/10 10:40 AM, Paul van Delst wrote:

> David Fanning wrote:

>> Mark writes:

>>

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>

> Couple it with a SCM tool (e.g. <http://www.edgewall.com/trac>. I use it here and I believe
> MikeG uses that for his idldoc stuff) and you'll be set! :o)

Yes, I have Trac and svn setup and ready to go!

Mike

--

Subject: Re: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [Michael Galloy](#) on Mon, 22 Feb 2010 21:11:53 GMT
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On 2/21/10 7:32 PM, David Fanning wrote:

> Mark writes:
>
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> User's Group meeting. He has a nice Subversion solution
> for me if I would just get off my duff and use it. It
> involves learning something new, which I am REALLY
> loath to do. :-)

I definitely want to talk to you about this. Also, there are community related aspects to this that I think would be good fodder for the round table discussion on Tuesday. I assume you will be there on Tuesday also?

> Cheers,
>
> David
>
> P.S. Anyway, don't download them yet. I just finished my
> presentation preparation and I have a slew of new programs
> to upload, including a new one for the NCDF_Tools.zip file. ;-)
>

Mike

--

www.michaelgalloy.com
Research Mathematician
Tech-X Corporation

Subject: Re: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [Paul Van Delst\[1\]](#) on Tue, 23 Feb 2010 16:02:26 GMT
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mgalloy wrote:

> On 2/22/10 10:40 AM, Paul van Delst wrote:

>> David Fanning wrote:

>>> Mark writes:

>>>

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>> here and I believe

>> MikeG uses that for his idldoc stuff) and you'll be set! :o)

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> Yes, I have Trac and svn setup and ready to go!

The is OT, but do you use different repositories for your different projects? I noticed the unit testing project revision numbers are much lower than those for your idldoc project? I presume that was done so you could use an externals defn for various projects to see others (like you did in your unit test project for idldoc)?

Currently, we have your entire library explicitly checked into our repository. I will soon move that to externals definitions of a tag+revision# - do you have a list (or a link to a list) of your trac/svn project URLs on your blog? Or do they all use the same URL naming convention?

cheers,

paulv

Subject: Re: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [Michael Galloy](#) on Tue, 23 Feb 2010 17:49:01 GMT

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On 2/23/10 9:02 am, Paul van Delst wrote:

> The is OT, but do you use different repositories for your different projects? I noticed
> the unit testing project revision numbers are much lower than those for your idldoc
> project? I presume that was done so you could use an externals defn for various projects
> to see others (like you did in your unit test project for idldoc)?
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> Currently, we have your entire library explicitly checked into our repository. I will soon
> move that to externals definitions of a tag+revision# - do you have a list (or a link to a
> list) of your trac/svn project URLs on your blog? Or do they all use the same URL naming
> convention?

Yes, each project has its own svn/Trac.

svn URL is `http://svn.idldev.com/${PROJECT}`
Trac site is `http://${PROJECT}.idldev.com`

where `${PROJECT}` is:

idldoc
mgunit
cmdline_tools
dist_tools
ridl

My regular library doesn't have a Trac site, but the svn URL is:

`http://svn.idldev.com/idllib`

I should probably bring that one into line with the others.

Mike

--

www.michaelgalloy.com
Research Mathematician
Tech-X Corporation

Subject: Re: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [R.Bauer](#) on Thu, 04 Mar 2010 14:36:32 GMT

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Paul van Delst schrieb:

> David Fanning wrote:

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>> involves learning something new, which I am REALLY

>> loath to do. :-)

May be use mercurial. <http://mercurial.selenic.com/>

It is much easier to handle and you don't rely on only one server.

>

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> those rare experiences where you think "Why can't everything work this well?" It really is
> a tool that will make you life easier. And, while the learning curve isn't flat, it's not
> that steep. It's a good mix of functionality and ease-of-use for those of us who aren't
> hard-core software engineering types.

>

working with a distributed source control management tool is more fun ;)

cheers

Reimar

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> MikeG uses that for his idldoc stuff) and you'll be set! :o)

>

> cheers,

>

> paulv

Subject: Re: New Tools for Creating, Browsing, and Reading netCDF Files
Posted by [R.Bauer](#) on Thu, 04 Mar 2010 14:37:59 GMT

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David Fanning schrieb:

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> and its wonderful netCDF routines.
>
> <http://www.dfanning.com/hadfield/IDL/README.html>

in case you don't know i get currently

Not Found

The requested URL /hadfield/IDL/README.html was not found on this server.
