
Subject: Re: netCDF Read/Write Variable
Posted by [Homeyer](#) on Fri, 06 Mar 2009 17:08:02 GMT
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On Mar 6, 7:19 am, David Fanning <n...@dfanning.com> wrote:
> Folks,
>
> Rather than fooling around with this for an hour while I have
> better things to do, I thought I would just ask.
>
> Would it be possible to read a single variable out of
> an netCDF file, massage it a bit, and then stick it
> back into the same file? Presume that I (a) don't change
> the variable dimensions or type, and (b) do change the variable
> dimensions or type.
>
> Thanks,
>
> 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.")

David,

Ive attached some test code to illustrate the process. First, creating a simple netCDF:

```
IDL> id = NCDF_CREATE('test.nc')
IDL> xid = NCDF_DIMDEF(id, 'x', 20)
IDL> vid = NCDF_VARDEF(id, 'y', [xid], /FLOAT)
IDL> NCDF_CONTROL, id, /ENDEF
IDL> NCDF_VARPUT, id, 'y', FINDGEN(20)
IDL> NCDF_CLOSE, id
```

For situation (a), it is simple:

```
IDL> id = NCDF_OPEN('test.nc', /WRITE)
IDL> NCDF_VARGET, id, 'y', values
IDL> values2 = 2.0*VALUES
IDL> NCDF_VARPUT, id, 'y', values2, OFFSET = 0
IDL> NCDF_CLOSE, id
```

For situation (b), I am not aware of a way to redefine a netCDF dimension or variable. However, an alternative solution would be to rename the old dimension and data and write a new dimension and data

for the massaged version:

```
IDL> id = NCDF_OPEN('test.nc', /WRITE)
IDL> NCDF_CONTROL, id, /REDEF
IDL> NCDF_DIMRENAME, id, 'x', 'x_old'
IDL> NCDF_VARRENAME, id, 'y', 'y_old'
IDL> xid = NCDF_DIMDEF(id, 'x', 21)
IDL> vid = NCDF_VARDEF(id, 'y', [xid], /LONG)
IDL> NCDF_CONTROL, id, /ENDEF
IDL> NCDF_VARPUT, id, 'y', LINDGEN(21)
IDL> NCDF_CLOSE, id
```

Cheers,
Cameron Homeyer

Subject: Re: netCDF Read/Write Variable
Posted by [David Fanning](#) on Fri, 06 Mar 2009 17:21:07 GMT
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Homeyer writes:

> I've attached some test code to illustrate the process.

Thank you, I appreciate it. :-)

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.")
