
Subject: Re: writing fixed-length string arrays to netcdf-4
Posted by [Chris O'Dell](#) on Tue, 05 Nov 2013 18:34:58 GMT
[View Forum Message](#) <> [Reply to Message](#)

Thanks David! However, your program seems to require your special NetCDF libraries, which I downloaded and installed so I could run your test program. However, it still produces the same fundamental netCDF objects inside the actual netcdf file. The reason they come out as string arrays when you read them seems to be because of logic you have built into your netCDF reader. Something like, "When you encounter a field that is a n-dimensional array of characters (length 1 strings), interpret this as an array of strings, where the string length is the size of the first dimension". Something like that.

To prove this to you, I ran your program and took a screenshot of HDFView's look at the output file; HDFView (as you likely know) is a standard reader for HDF files which also works on netCDF-4 (which itself is built on HDF-5). The output shows that the internal storage is actually a 2D array of single characters. Which sounds fine, except I know from past experience that HDF-5 does support fixed-length strings of length > 1. I assumed that netCDF-4 did as well, but perhaps not. I really don't know. Maybe this is the way it has to be internally stored.

I will email you the screenshot directly , as I don't see a way to do attachments in this forum.

Thanks again,
Chris

On Monday, November 4, 2013 12:15:07 PM UTC-7, David Fanning wrote:

```
> By the way, I notice now you specifically were asking about netCDF-4
>
> files. To create these kinds of files with my ncdf_file object you have
>
> to set the /NETCDF4_FORMAT keyword when you open the file for writing.
>
> Doing so doesn't affect the results of either of the two programs I sent
>
> earlier.
>
>
> fileObj = Obj_New('ncdf_file', 'tester.nc', /Clobber, $
>
>           /Create, /NETCDF4_FORMAT)
>
>
> Cheers,
```

> David
>
>
>
> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.
