
Subject: Re: NCDF_ATTPUT _FillValue problem for string arrays?

Posted by [Foldy Lajos](#) on Mon, 06 Jul 2009 19:38:24 GMT

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On Mon, 6 Jul 2009, Paul van Delst wrote:

```
> Hello,
>
> I've encountered a strange problem with some netCDF output using IDL.
>
> I define a character string array variable in my output netCDF file like so:
>
> VarId = NCDF_VARDEF( fid, 'Absorber_Units_Name', [32,n_Absorbers_DimId], /CHAR)
>
> where the "32" is the maximum string length.
>
> Now if I try to set a fill value attribute for that variable, like so
>
> NCDF_ATTPUT, fid, VarId, '_FillValue', ' '
> or
> NCDF_ATTPUT, fid, VarId, '_FillValue', 0B
>
> when I run the code I get the following error when I take the file out of
> define mode:
>
> % NCDF_CONTROL: Attempt to take the file out of define mode (ENDEF) failed.
> (NC_ERROR=-45)
>
> If I simply comment out the call to NCDF_ATTPUT for these character
> variables, there's no problem.
>
> I do this sort of thing (i.e. _FillValue of " " for character string
> variables) all the time using the Fortran90 API to netCDF so I assume an
> empty space is a valid fill value.
>
> Has anyone else encountered this behaviour in IDL? I.e. is this a known bug
> in the IDL netCDF interface, or do I need to do something special with
> character fill values?
>
> Thanks for any info.
>
> cheers,
>
> paulv
>
>
```

NCDF_VARDEF needs dimension ID, not dimension size. The following code

works for me:

```
ncid=ncdf_create('test.nc', /clobber)
dim32=ncdf_dimdef(ncid, 'dim1', 32)
n_absorbers_dimid=ncdf_dimdef(ncid, 'dim2', 9)
varid = ncdf_vardef( ncid, 'absorber_units_name', [dim32,n_absorbers_dimid], /char)
ncdf_attput, ncid, varid, '_fillvalue', ''
ncdf_control, ncid, /endef
ncdf_close, ncid
```

and 'ncdump test.nc' produces:

```
netcdf test {
dimensions:
    dim1 = 32 ;
    dim2 = 9 ;
variables:
    char absorber_units_name(dim2, dim1) ;
        absorber_units_name:_fillvalue = " " ;
data:
```

[illegible]

NCDF_VARDEF does not print an error message, it returns -1 on failure :-(

regards,
lajos