
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, /edef
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:
absorber_units_name =
    "",,
    "",,
    "",,
    "",,
    "",,
    "",,
    "",,
    "",,
    "",;
}
```

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

regards,
lajos
