Subject: Re: Can't get out of define mode in ncdf, not specific to variable.
Posted by neleh.mac on Mon, 19 Nov 2012 20:25:09 GMT
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So someone here has just pointed out the solution and it is frustratingly simple. I just needed to add the /NETCDF4_FORMAT keyword when creating the file. Pah.

I can't quite believe how in the exuberant amount of googling I've been doing that I didn't find this.

Thanks for the suggestions though :-)

Helen

On Monday, November 19, 2012 2:46:34 PM UTC-5, Helen Mac wrote:
> Thanks for your suggestions.
>
>
>
> Ok, I tried Chip's suggestion of syncing, but I still run into the problem.
>
>
>
> Paul, I am writing around 30 variables and have around 20 dimensions defined, so I don't think this is the problem.
>
>
>
> However, the file I am writing will be just larger than 2Gb, so Fab this looks like the most likely candidate for the problem. However, I have read that if I am using netcdf 3.6 or higher it should be ok. (I am using netcdf 3.6.3 and IDL 8). Is there something else I'm missing with the setup?
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>
>
> FYI, I also tried writing and closing the file part way through so that it was opened up again and less than 2Gb was appended and written second time round, but I still encounter the error.
>
>
>
> Still confused, if anyone has any more suggestions I'd really appreciate it :-)
>
>
>
> On Friday, November 16, 2012 10:35:45 PM UTC-5, Fab wrote:
>
>> On 11/17/2012 12:25 AM, Paul van Delst wrote:
>
>>
>

>>> How many variables are you writing? What version of IDL? What version of
>
>>
>
>>> netCDF?
>
>>
>
>>
>
>>
>
>>
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>>
>
>> Also, before NCDF4 (7.1 patched and IDL8+), files could not be larger
>
>>
>
>> than 2Gb. If you attempt to define to many variables that will make the
>
>>
>
>> file larger than 2Gb (NCDF knows how big a file is going to be since you
>
>>
>
>> define the size of your variables first) this could also cause such an
>
>>
>
>> error...
>
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>
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>

>>> If you are writing lots of variables, there used to be a limit to the

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>>

>

>>> total number (in older netcdf's at least. I think it was 300).

>

>>

>

>>>

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>>

>

>>> Complete shot in the dark.....

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>>>

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>>>

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>

>>> On 11/15/12 17:57, neleh.mac wrote:

>

>>

>

>>>> So I am using IDL to read in ncdf data, and write out (to a new

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>>

>

>>>> file)

>

>>

>

>>>> the processed data. So I go to define mode, set up the variable, add

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>>

>

>>>> some attributes, switch to data mode, stick in the data, and then go

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>>

>

>>>> back to define for the next one.

>

>>

>

```
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>
>>
>
>>>> e.g.
>
>>
>
>>>>    ncid = ncdf_create(file_name, /CLOBBER)
>
>>
>
>>>>    londim = ncdf_dimdef(ncid, 'longitude_dim', 144)
>
>>
>
>>>>    latdim = ncdf_dimdef(ncid, 'latitude_dim', 91)
>
>>
>
>>>>
>
>>
>
>>>>    vid = ncdf_vardef(ncid, 'emission', [londim,latdim], /float)
>
>>
>
>>>>    ncdf_attput, ncid, vid, 'long_name', "Some emissions"
>
>>
>
>>>>    ncdf_control, ncid, /ENDEF
>
>>
>
>>>>    ncdf_varput, ncid, vid, emiss_dat
>
>>
>
>>>>    ncdf_control, ncid, /REDEF
>
>>
>
>>>>
>
>>
>
```

```
>>>>      vid = ncdf_vardef(ncid, 'emission2', [londim,latdim], /float)
>
>>
>
>>>>      ncdf_attput, ncid, vid, 'long_name', "Some emissions 2"
>
>>
>
>>>>      ncdf_control, ncid, /ENDEF
>
>>
>
>>>>      ncdf_varput, ncid, vid, emiss_dat2
>
>>
>
>>>>      ncdf_control, ncid, /REDEF
>
>>
>
>>>>
>
>>
>
>>>>      ... etc.
>
>>
>
>>>>
>
>>
>
>>>> This works fine for several variables, over and over, until a certain
>
>>
>
>>>> point in the code and then at it will not get out of define mode. I
>
>>
>
>>>> commented out that particular part of the code where it was falling
>
>>
>
>>>> over, and got it to work fine (but my output file now has one less
>
>>
>
```

>>>> variable).

>

>>

>

>>>>

>

>>

>

>>>> Now the weird part.

>

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>

>>>> If I take the chunk of code for the variable that it falls at, and

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>>>> copy it back in further up the code, it works through it fine. It

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>>

>

>>>> only fails when it gets to that line again, this time on a variable

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>>

>

>>>> it wrote fine first time round.

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>>>>

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>>

>

>>>> It's like it's failing after going into define mode a certain number

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>>

>

>>>> of times, it's not specific to any variable I'm trying to write, it

>

>>

>

>>>> just always fails on the nth one, regardless of what it is. I've

>

>>

>

>>>> swopped round the order it writes them to the file, and they all get

>

>>

>

>>>> written, just not if they happen to be at a certain point in the

>

>>

>

>>>> order. I have tried removing attributes from the variables but this

>

>>

>

>>>> doesn't seem to have any effect. I am very confused by this, please

>

>>

>

>>>> can you help?