Subject: Re: NCDF_IS_NCDF
Posted by Michael Galloy on Fri, 22 Jan 2016 19:53:17 GMT
View Forum Message <> Reply to Message

On 1/22/16 12:26 PM, kimberly.hyde@noaa.gov wrote:
> On Friday, January 22, 2016 at 2:20:25 PM UTC-5, kimber...@noaa.gov
> wrote:
>> On Thursday, January 21, 2016 at 10:26:36 PM UTC-5, Michael Galloy
>> wrote:
>>> On 1/21/16 1:21 PM, KH wrote:
>>>> Hello,
>>>>
>>>> Is there a netcdf equivalent to HDF_ISHDF? I am basically
>>>> looking for a way to test if a file is a netcdf file before
>>>> trying to open the file (and the having the program crash
>>>> because it isn't actually a netcdf file).
>>>
>>> Yes, I would normally recommend just trying to open the file and
>>> catching the error if it fails, but, as you noted, it actually
>>> crashes IDL:
>>>
>>> IDL> id = ncdf_open(filename) Assertion failed: (0), function
>>> NC4_open, file nc4file.c, line 2696. Abort trap: 6
>>>
>>> Are your files netCDF 4 files? You can use H5F_IS_HDF5 if you
>>> don't want pre-4 netCDF files:
>>>
>>> IDL> help, h5f_is_hdf5(file_which('ncgroup.nc')) <Expression>
>>> LONG = 1 IDL> help,
>>> h5f_is_hdf5(file_which('sample.nc')) <Expression> LONG =
>>> 0
>>>
>>>
>>> Mike -- Michael Galloy www.michaelgalloy.com Modern IDL: A Guide
>>> to IDL Programming (http://modernidl.idldev.com)
>>
>> These particular files are netcdf4 so I can use the H5f program,
>> but not all of my files are netcdf4 so I was hoping to find a way
>> to automatically test what type of files they are. Thanks for your
>> assistance, Kim
>
>
> In the end, I am mainly trying to quickly determine if the netcdf
> files I downloaded are corrupt or incomplete. That way if they are
> bad, I can remove them so that they don't crash during subsequent
> processing. Currently I am opening the file and then using
> NCDF_INQUIRE to get the basic structure information, but if there is
> an easier way to check the file, I am open for ideas.

>
> Kim
>

I have a routine, MG_NC_ISNCDF, in my library mglib (at github.com/mgalloy/mglib). You have to build the library to get the routine (and, of course, put the location of where the DLM is installed into your IDL DLM path). You will need the netCDF, HDF5, curl, libsz, and libz libraries installed. Change the paths to the proper locations, but something like the following should work for your system:

```
mkdir build
cd build

cmake \
  -DCMAKE_INSTALL_PREFIX:PATH=~/software/mglib \
  -DNETCDF_INCLUDE_DIR:PATH=/usr/local/include \
  -DNETCDF_LIBRARY:PATH=/usr/local/lib/libnetcdf.a \
  -DHDF5_LIBRARY:PATH=/usr/local/lib/libhdf5.a \
  -DHDF5_LA_LIBRARY:PATH=/usr/local/lib/libhdf5_hl.a \
  -DCURL_LIBRARY:PATH=/usr/lib/libcurl.dylib \
  -DSZ_LIBRARY:PATH=/usr/local/lib/libsz.a \
  -DZ_LIBRARY:PATH=/usr/lib/libz.dylib \
  ..
```

Mike
--
Michael Galloy
www.michaelgalloy.com
Modern IDL: A Guide to IDL Programming (http://modernidl.idldev.com)