
Subject: Re: catching netcdf error codes

Posted by [Paul Van Delst\[1\]](#) on Fri, 26 Mar 2004 21:17:16 GMT

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Benjamin Hornberger wrote:

> Hi all,

>

> I don't know how to catch a netcdf error code. I want to write a
> function is_netcdf() which checks if a file is a netcdf file. For
> that, I use the ncdf_open() function. If the file is not a netcdf
> file, then I will get an error which I want to catch. The error sais
> "%NCDF_OPEN: Unable to open the file "...". (NC_ERROR=-51)".

>

> If I now check !error_state.code, it is -1088 and not -51. Which
> variable holds the "nc_error", how can I get that?

I don't know if you can in IDL (you can in Fortran90 and C/C++). I would check the IDL netcdf help (which I can't currently do and, as far as I can tell, the idlwave html docs also don't have it?). Anyway, below is an incomplete list of the corresponding errors from the netcdf library.

I say incomplete because of the following:

```
IDL> id=ncdf_open('blah')
% Loaded DLM: NCDF.
% NCDF_OPEN: Unable to open the file "blah". (NC_ERROR=-31)
% Execution halted at: $MAIN$
```

where there is no file named "blah". I don't see an error value of -31 in the list below.
Or -32 for that matter.

```
; #define NC_NOERR      0      /* No Error */
;
; #define NC_EBADID     (-33) /* Not a netcdf id */
; #define NC_ENFILE     (-34) /* Too many netcdfs open */
; #define NC_EEXIST     (-35) /* netcdf file exists && NC_NOCLOBBER */
; #define NC_EINVAL     (-36) /* Invalid Argument */
; #define NC_EPERM      (-37) /* Write to read only */
; #define NC_ENOTINDEFINE (-38) /* Operation not allowed in data mode */
; #define NC_EINDEFINE  (-39) /* Operation not allowed in define mode */
; #define NC_EINVALCOORDS (-40) /* Index exceeds dimension bound */
; #define NC_EMAXDIMS   (-41) /* NC_MAX_DIMS exceeded */
; #define NC_ENAMEINUSE  (-42) /* String match to name in use */
; #define NC_ENOTATT     (-43) /* Attribute not found */
; #define NC_EMAXATTRS   (-44) /* NC_MAX_ATTRS exceeded */
; #define NC_EBADTYPE    (-45) /* Not a netcdf data type */
; #define NC_EBADDIM     (-46) /* Invalid dimension id or name */
; #define NC_EUNLIMPOS   (-47) /* NC_UNLIMITED in the wrong index */
```

```
; #define NC_EMAXVARS    (-48) /* NC_MAX_VARS exceeded */
; #define NC_ENOTVAR    (-49) /* Variable not found */
; #define NC_EGLOBAL    (-50) /* Action prohibited on NC_GLOBAL varid */
; #define NC_ENOTNC     (-51) /* Not a netcdf file */
; #define NC_ESTS       (-52) /* In Fortran, string too short */
; #define NC_EMAXNAME   (-53) /* NC_MAX_NAME exceeded */
; #define NC_EUNLIMIT   (-54) /* NC_UNLIMITED size already in use */
; #define NC_ENORECVARS (-55) /* nc_rec op when there are no record vars */
; #define NC_ECHAR      (-56) /* Attempt to convert between text & numbers */
; #define NC_EEDGE      (-57) /* Edge+start exceeds dimension bound */
; #define NC ESTRIDE    (-58) /* Illegal stride */
; #define NC_EBADNAME   (-59) /* Attribute or variable name
;                               contains illegal characters */
; /* N.B. following must match value in ncx.h */
; #define NC_ERANGE     (-60) /* Math result not representable */
; #define NC_ENOMEM     (-61) /* Memory allocation (malloc) failure */
```

Subject: Re: catching netcdf error codes

Posted by [R.Bauer](#) on Fri, 26 Mar 2004 21:53:56 GMT

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Benjamin Hornberger wrote:

```
> Hi all,
>
> I don't know how to catch a netcdf error code. I want to write a
> function is_netcdf() which checks if a file is a netcdf file. For
> that, I use the ncdf_open() function. If the file is not a netcdf
> file, then I will get an error which I want to catch. The error sais
> "%NCDF_OPEN: Unable to open the file "...". (NC_ERROR=-51)".
>
> If I now check !error_state.code, it is -1088 and not -51. Which
> variable holds the "nc_error", how can I get that?
>
> Thanks for your help,
> Benjamin
```

Dear Benjamin

we have already written such a routine.

You'll find it here

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_work/rb_lib_is_ncdf_file.pro

You need only to check the first three bytes of the file. If it is 'CDF' then it is a netCDF file.

For further routines and licensing please have a look at

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html

best regards

Reimar

Subject: Re: catching netcdf error codes

Posted by [Mark Hadfield](#) on Mon, 29 Mar 2004 01:04:33 GMT

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Reimar Bauer wrote:

> You need only to check the first three bytes of the file. If it is 'CDF'
> then it is a netCDF file.

Or possibly some other sort of file with 'CDF' in the first three bytes!

--

Mark Hadfield "Ka puwaha te tai nei, Hoesa tatou"

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