
Subject: catching netcdf error codes

Posted by [Benjamin Hornberger](#) on Fri, 26 Mar 2004 20:48:18 GMT

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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 says "%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

Subject: Re: catching netcdf error codes

Posted by [Kenneth P. Bowman](#) on Sun, 28 Mar 2004 15:38:11 GMT

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In article <pn5960dosp9jukipt69tb9ku1h3g24eq7h@4ax.com>,
Benjamin Hornberger <hornberg@xray1.physics.sunysb.edu> 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 says
> "%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
>

RSI will have to answer that one, but I think the routine below works.
I haven't used CATCH before, so the experts can (and assuredly will)
point out where I have erred.

This function is not specific. It returns 0 if any kind of error
occurs (e.g., if the file does not exist).

Ken Bowman

FUNCTION IS_NETCDF, infile

```
;+
; Name:
;   IS_NETCDF
; Purpose:
;   Determine whether a file is a netCDF file.
; Calling sequence:
;   ncdf = IS_NETCDF(infile)
; Inputs:
;   infile : input file name
; Output:
;   This function returns 1B if a file is a netCDF file, 0B otherwise.
; Keywords:
;   None.
; Author and history:
;   Kenneth P. Bowman. 2004-03-27.
;-
```

```
COMPILE_OPT IDL2           ;Set compile options
```

```
CATCH, error_status      ;Establish error handler
IF (error_status NE 0) THEN BEGIN
  CATCH, /CANCEL          ;Cancel error handler
  RETURN, 0B              ;Return FALSE
ENDIF
```

```
id = NCDF_OPEN(infile)    ;Attempt to open input file
NCDF_CLOSE, id            ;Close file
```

```
RETURN, 1B               ;Return TRUE
```

```
END
```

Subject: Re: catching netcdf error codes
Posted by [R.Bauer](#) on Mon, 29 Mar 2004 15:56:35 GMT
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Mark Hadfield wrote:

> 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!
>

Yes if you have one other. Do you have an example. It works since a while for us.

Reimar

--

Reimar Bauer

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Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de

a IDL library at ForschungsZentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html
=====

Subject: Re: catching netcdf error codes
Posted by [Mark Hadfield](#) on Tue, 30 Mar 2004 05:27:58 GMT
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Reimar Bauer wrote:

> Mark Hadfield wrote:
>
>> Reimar Bauer wrote:
>>
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>>
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>>
>
> Yes if you have one other. Do you have an example.

No.

> It works since a while for us.

I'm just worried that it will fail to work when you least expect it.

I like the idea of trying to open the file with NCDF_OPEN and catching any errors, because that directly answers the question: "can I open this file as netCDF?".

--

Mark Hadfield "Ka puwaha te tai nei, Hoesa tatou"
m.hadfield@niwa.co.nz
National Institute for Water and Atmospheric Research (NIWA)

Subject: Re: catching netcdf error codes
Posted by [R.Bauer](#) on Tue, 30 Mar 2004 10:39:21 GMT
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Mark Hadfield wrote:

> Reimar Bauer wrote:

>

>> Mark Hadfield wrote:

>>

>>> Reimar Bauer wrote:

>>>

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>>>

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>

>

> No.

>

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>

>

> I'm just worried that it will fail to work when you least expect it.

>

> I like the idea of trying to open the file with NCDF_OPEN and catching
> any errors, because that directly answers the question: "can I open this
> file as netCDF?".

>

>

>

You are right, it could be better to do it this way because the internal
file format will be changed to HDF SD format by version 4 of netCDF.
I don't know when but then probably the string test of my routine stops

working.

Reimar

--

Reimar Bauer

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a IDL library at ForschungsZentrum Juelich

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

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