
Subject: filename check

Posted by [Stuart Colley](#) on Tue, 24 Oct 2000 07:00:00 GMT

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Can anyone suggest a way to check that a file exists before attempting to read from it, since the error messages obtained from trying to read from a non-existing file, don't make it clear that file doesn't exist.

cheers,
S

Subject: Re: filename check

Posted by [Edward Max Pottasch](#) on Tue, 24 Oct 2000 07:00:00 GMT

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Stuart Colley <src@star.ucl.ac.uk> wrote in message
news:Pine.OSF.3.96.1001024143333.20360F-100000@zuaxp7.star.ucl.ac.uk...

>
> Can anyone suggest a way to check that a file exists before attempting to
> read from it, since the error messages obtained from trying to read from a
> non-existing file, don't make it clear that file doesn't exist.

>
> cheers,
> S
>

hi Stuart,

my way of IDL programming is rather simple since I am only familiar with the older versions of IDL (v.3.4.1). Anyway this works for me:

ciao, Ed

```
fn='filename'
```

```
; check if file exists  
ff=FINDFILE(fn)
```

```
IF (ff(0) EQ fn) THEN BEGIN
```

```
; do your stuff
```

```
ENDIF
```

Subject: Re: filename check

Posted by [Paul van Delst](#) on Tue, 24 Oct 2000 07:00:00 GMT

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Craig Markwardt wrote:

```
>
> Stuart Colley <src@star.ucl.ac.uk> writes:
>> Can anyone suggest a way to check that a file exists before attempting to
>> read from it, since the error messages obtained from trying to read from a
>> non-existing file, don't make it clear that file doesn't exist.
>
> Use the ERROR keyword to OPENR to detect an error condition quietly.
> The value returned in this keyword will be non-zero if the file could
> not be opened. Also the !ERROR_STATE system variable will contain
> helpful information describing the error:
>
> NAME      STRING  'IDL_M_CNTOPNFIL'
> MSG       STRING  'OPENR: Error opening file: snorg.'
> SYS_MSG   STRING  'No such file or directory'
>
> According to RSI, the error conditions in !ERROR_STATE.NAME are
> guaranteed to remain constant in future versions of IDL. To implement
> it in practice, consider this:
>
> get_lun, unit
> openr, unit, filename, error=err
>
> if err NE 0 then begin
>   free_lun, unit
>   message, 'ERROR: could not open '+filename
> endif
> ; Read file ...
>
> I tend to use GET_LUN explicitly so that the unit is guaranteed to be
> valid when it is freed. I've nit-picked about this on the newsgroup
> before.
```

Seeing the word nit-pick makes me want to so here goes..... :o)

I used to do the above but now I use CATCH for even open errors, forgoing the ERROR= keyword in the open statements:

```
CATCH, error_status
```

```
IF ( error_status NE 0 ) THEN BEGIN
  MESSAGE, !ERR_STRING, /CONTINUE
  FREE_LUN, lun ; If needed
  CATCH, /CANCEL
  RETURN, failure_code
```

ENDIF

```
GET_LUN, lun ; Craig is right. Do this!  
OPENR, lun, filename
```

```
....  
..  
.
```

And if one of my nested routines returns an error, then

```
IF ( result NE success_code ) THEN MESSAGE, 'This routine failed!', /NONAME, /NOPRINT
```

which sets all the error variables and the CATCH takes over.

For some bizarre reason, despite the double use of MESSAGE in the second example, error handling this way makes me feel all warm and fuzzy on the inside coz I only have two exit points - the bad one and the good one. Yay.

O.k. so it's not really a nit-pick, but what the hell. :o)

paulv

--

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Subject: Re: filename check
Posted by [Dick Jackson](#) on Tue, 24 Oct 2000 07:00:00 GMT
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"Stuart Colley" <src@star.ucl.ac.uk> wrote...

>

> Can anyone suggest a way to check that a file exists before attempting to
> read from it, since the error messages obtained from trying to read from a
> non-existing file, don't make it clear that file doesn't exist.

Of course, the solutions in all the other replies point to why this was needed, and now appears in IDL 5.4:

```
IDL> Print, File_Test('image.gif')  
0  
IDL> Print, File_Test('image.tif')  
1
```

File_Test has many fancy keywords for "what kind of file do you expect to find?", etc.:

[, /DIRECTORY | , /EXECUTABLE | , /READ | , /REGULAR | , /WRITE | , /ZERO_LENGTH] [, GET_MODE=variable]

Cheers,

--

-Dick

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Calgary, Alberta, Canada / Voice/Fax: +1-403-242-7398

Subject: Re: filename check
Posted by [R.Bauer](#) on Wed, 25 Oct 2000 07:00:00 GMT
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Dear Stuart,

there are two more routines available for you from our library.

file_exist:

```
; PURPOSE:
; The result of this function is 1 if a file exist and 0 if not
;
; CATEGORY:
; DATAFILES
;
; CALLING SEQUENCE:
; Result=file_exist(file_name,[valid=valid])
```

http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/file_exist.tar.gz
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/file_exist.sav

is_read_access:

```
; PURPOSE:
; Test if read access is possible of a file
;
; CATEGORY:
```

```
; PROG_TOOLS
;
; CALLING SEQUENCE:
; result=is_read_access(path_and_file)
;
```

http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/is_read_access.tar.gz
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/is_read_access.sav

For further routines and copyright and licence.
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_lib_intro.html

regards
Reimar

Subject: Re: filename
Posted by [Martin Schultz](#) on Wed, 07 Feb 2001 13:21:31 GMT
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Gernot Reishofer wrote:

```
>
> hi,
>
> I have to save two files with the same filename but different
> extensions. Using DIALOG_PICKFILE creates path+filename+extention.
> Can you experts tell me the shortest way to get the filename avoiding
> too many string operations?
>
> thanks for help
>
> Gernot
```

I'm not sure it is the shortest, but it is sure convenient to use a utility routine from one of several public domain librarians for this. In my own library this is `extract_filename.pro`. You can browse through this and other libraries at <http://www.mpimet.mpg.de/~schultz.martin/idl/>

CHeers,
Martin

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