
Subject: Re: fstat, file_info and file_test
Posted by [Richard Younger](#) on Wed, 14 May 2003 16:13:21 GMT
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Ben Tupper wrote:

[...]

> What I would like to have is a function similar to:

>

> result = FILE_ISOPEN(filename)

>

> that returns a 1 (for open) or a 0 (for closed). Or, perhaps better in

> the long run, I'd like to see an /ISOPEN keyword added to FILE_TEST.

Hi Ben.

I don't think IDL associates file names with open files except through LUNs,
so I can only think of the brute force method:

```
FUNCTION IsFilenameOpen, filename
```

```
  COMPILE_OPT idl2
```

```
  test_struct = Fstat(0)
```

```
  struc_array = Replicate(test_struct, 129)
```

```
  FOR i=1, 128 DO BEGIN
```

```
    struc_array[i] = Fstat(i)
```

```
  ENDFOR
```

```
  index = Where(struc_array.name EQ File_Expand_Path(filename), count)
```

```
  IF count EQ 0 THEN RETURN, 0 ELSE RETURN, 1
```

```
END
```

Wouldn't want to put it in an inner loop, though.

Good luck,
Rich

--

Richard Younger
younger@spaMIT.edu (with obvious modification)

Subject: Re: fstat, file_info and file_test

Posted by [Bruce Bowler](#) on Wed, 14 May 2003 16:56:22 GMT

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> I see that in the now distant past, my question has been asked here
> before, but the answers were pre-IDL 5.4 when FILE_XXXX routines appeared.
>
> I would like to have a test that reports if the file is open - by simply
> providing the filename. FSTAT almost does it, but I have to associate
> the file with a LUN first. FILE_INFO and FILE_TEST each take the
> filename as an argument (instead of the lun that FSTAT requires), but
> neither test for 'openess'.
>
> What I would like to have is a function similar to:
>
> result = FILE_ISOPEN(filename)
>
> that returns a 1 (for open) or a 0 (for closed). Or, perhaps better in
> the long run, I'd like to see an /ISOPEN keyword added to FILE_TEST.

Ask the OS. On *nix and OS/X (but not windows, hence not xplatform)
there's a utility called lsof (list open files) which can tell you not
only if a file is open, but who's got it open, in case it's opened by
someone other than yourself...

--

```
+-----+-----+
Bruce Bowler      | Normally that's the way we do it, except when we
1.207.633.9600    | don't. - Jo Ellen Eros
bbowler@bigelow.org |
+-----+-----+
```

Subject: Re: fstat, file_info and file_test

Posted by [btt](#) on Wed, 14 May 2003 17:48:39 GMT

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Bruce Bowler wrote:

>> I see that in the now distant past, my question has been asked here
>> before, but the answers were pre-IDL 5.4 when FILE_XXXX routines appeared.
>>
>> I would like to have a test that reports if the file is open - by simply
>> providing the filename. FSTAT almost does it, but I have to associate
>> the file with a LUN first. FILE_INFO and FILE_TEST each take the
>> filename as an argument (instead of the lun that FSTAT requires), but
>> neither test for 'openess'.
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>> What I would like to have is a function similar to:
>>

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>> result = FILE_ISOPEN(filename)
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>> the long run, I'd like to see an /ISOPEN keyword added to FILE_TEST.
>
>
> Ask the OS. On *nix and OS/X (but not windows, hence not xplatform)
> there's a utility called lsof (list open files) which can tell you not
> only if a file is open, but who's got it open, in case it's opened by
> someone other than yourself...
>
```

Thanks Richard and Bruce,

I see that MacOSX (ie BSD *nix) has FSTAT and LSOF (but not FUSER); each of which would do the trick.

Cheers,
Ben

Subject: Re: fstat, file_info and file_test
Posted by [btt](#) on Wed, 14 May 2003 18:28:53 GMT
[View Forum Message](#) <> [Reply to Message](#)

Richard Younger wrote:

```
> Ben Tupper wrote:
> [...]
>
>> What I would like to have is a function similar to:
>>
>> result = FILE_ISOPEN(filename)
>>
>> that returns a 1 (for open) or a 0 (for closed). Or, perhaps better in
>> the long run, I'd like to see an /ISOPEN keyword added to FILE_TEST.
>
>
> Hi Ben.
>
> I don't think IDL associates file names with open files except through LUNs,
> so I can only think of the brute force method:
>
> FUNCTION IsFilenameOpen, filename
>
> COMPILE_OPT idl2
>
> test_struc = Fstat(0)
> struc_array = Replicate(test_struc, 129)
```

```
>
> FOR i=1, 128 DO BEGIN
>   struc_array[i] = Fstat(i)
> ENDFOR
>
> index = Where(struc_array.name EQ File_Expand_Path(filename), count)
>
> IF count EQ 0 THEN RETURN, 0 ELSE RETURN, 1
>
> END
>
> Wouldn't want to put it in an inner loop, though.
>
> Good luck,
> Rich
>
>
```

Hi,

OK, how about running through the possible LUNs (100-128) until a match is found. I like the cross-platforminess of your solution.

```
FUNCTION File_IsOpen, filename
```

```
  COMPILE_OPT idl2
```

```
  For i = 100, 128 Do $
```

```
    If ( (Fstat(i)).NAME EQ File_Expand_Path(filename) ) Then Return, 1
```

```
  Return, 0
```

```
END
```

Thanks,
Ben

Subject: Re: fstat, file_info and file_test

Posted by [Karsten Rodenacker](#) on Thu, 15 May 2003 09:19:21 GMT

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Hmm, what about using help,/file,output=st and string search for the appropriate file?

Regards
Karsten

Ben Tupper schrieb:

> Hello,

>
> This appears to be the week for file questions.
>
> I see that in the now distant past, my question has been asked here
> before, but the answers were pre-IDL 5.4 when FILE_XXXX routines appeared.
>
> I would like to have a test that reports if the file is open - by simply
> providing the filename. FSTAT almost does it, but I have to associate
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> filename as an argument (instead of the lun that FSTAT requires), but
> neither test for 'openess'.
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> What I would like to have is a function similar to:
>
> result = FILE_ISOPEN(filename)
>
> that returns a 1 (for open) or a 0 (for closed). Or, perhaps better in
> the long run, I'd like to see an /ISOPEN keyword added to FILE_TEST.
>
>
> Any suggestions?
>
> Thanks,
> Ben
>

--

Karsten Rodenacker

-----:-)

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Karsten@Rodenacker.de | <http://www.gsf.de/ibb/>
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Subject: Re: fstat, file_info and file_test
Posted by [Nigel Wade](#) on Thu, 15 May 2003 09:26:14 GMT
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Ben Tupper wrote:

> Hello,
>
> This appears to be the week for file questions.
>
> I see that in the now distant past, my question has been asked here
> before, but the answers were pre-IDL 5.4 when FILE_XXXX routines

> appeared.
>
> I would like to have a test that reports if the file is open - by simply
> providing the filename. FSTAT almost does it, but I have to associate
> the file with a LUN first. FILE_INFO and FILE_TEST each take the
> filename as an argument (instead of the lun that FSTAT requires), but
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> What I would like to have is a function similar to:
>
> result = FILE_ISOPEN(filename)
>
> that returns a 1 (for open) or a 0 (for closed). Or, perhaps better in
> the long run, I'd like to see an /ISOPEN keyword added to FILE_TEST.
>
>
> Any suggestions?
>
> Thanks,
> Ben

How do you deal with the issue of the file being renamed or deleted after you've opened it? What do you do if the file you opened is renamed and new file created with the same name - should the test indicate it's open or not?

In general, not even the OS can tell you reliably what you want for these reasons.

--

Nigel Wade, System Administrator, Space Plasma Physics Group,
University of Leicester, Leicester, LE1 7RH, UK
E-mail : nmw@ion.le.ac.uk
Phone : +44 (0)116 2523548, Fax : +44 (0)116 2523555

Subject: Re: fstat, file_info and file_test
Posted by [btt](#) on Thu, 15 May 2003 14:56:41 GMT
[View Forum Message](#) <> [Reply to Message](#)

Nigel Wade wrote:
> Ben Tupper wrote:
>
>
>> Hello,
>>
>> This appears to be the week for file questions.
>>

```

>> I see that in the now distant past, my question has been asked here
>> before, but the answers were pre-IDL 5.4 when FILE_XXXX routines
>> appeared.
>>
>> I would like to have a test that reports if the file is open - by simply
>> providing the filename. FSTAT almost does it, but I have to associate
>> the file with a LUN first. FILE_INFO and FILE_TEST each take the
>> filename as an argument (instead of the lun that FSTAT requires), but
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>> the long run, I'd like to see an /ISOPEN keyword added to FILE_TEST.
>>
>>
>> Any suggestions?
>>
>> Thanks,
>> Ben
>
>
> How do you deal with the issue of the file being renamed or deleted after
> you've opened it? What do you do if the file you opened is renamed and new
> file created with the same name - should the test indicate it's open or
> not?
>
> In general, not even the OS can tell you reliably what you want for these
> reasons.
>

```

Good questions! Another question to add to your list, what happens if more than one valid pointers exist to the single file? Witness below, that u1 and u2 are each valid LUNs to the same file. Gaak! I can see why the underlying OS can't be counted upon for 'truth' - too many cooks!

```

IDL> get_LUN, u1
IDL> get_LUN, u2
IDL> openW, u1, file
IDL> for i = 0, 2 do print, s[i]
Unit  Attributes                      Name
100   Read, Write, New, Reserved      /Users/ben/data.dat
101   Closed, Reserved
IDL> openU, u2, file
IDL> help, /file, output = s

```

```
IDL> for i = 0, n_elements(s)-1 do print, s[i]
Unit  Attributes                      Name
100   Read, Write, New, Reserved      /Users/ben/data.dat
101   Read, Write, Reserved           /Users/ben/data.dat
```

Thanks,
Ben

Subject: Re: fstat, file_info and file_test
Posted by [Richard Younger](#) on Fri, 16 May 2003 18:16:38 GMT
[View Forum Message](#) <> [Reply to Message](#)

Ben Tupper wrote:

```
>
> [...]
>
> Hi,
>
> OK, how about running through the possible LUNs (100-128) until a match
> is found. I like the cross-platforminess of your solution.
>
> FUNCTION File_IsOpen, filename
>
> COMPILE_OPT idl2
>
> For i = 100, 128 Do $
>   If ( (Fstat(i)).NAME EQ File_Expand_Path(filename) ) Then Return, 1
>
> Return, 0
> END
```

Hi Ben

Been sick the last couple days, so I'm a tad late responding.

That certainly would shortcut things a bit. I'm brainwashed into the Cult of the Array, but I suppose since the loop will actually run faster almost all the time, I'll have to give some ground. :-) But isn't being able to do WHERE(struc_array.name EQ filename) just plain cool?

By cutting out LUNs 0-99, you are trusting your users not to (foolishly) manage their own LUNs. Only you can tell if that is a wise decision.

Best,
Rich

--

Richard Younger
younger@spaMIT.edu (with obvious modification)
Phone: (781)981-4464
