
Subject: FILE_EXPAND_PATH

Posted by [Jonathan Joseph](#) on Thu, 03 Jul 2003 16:07:59 GMT

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I have IDL 5.5 on Windows and 5.6 on Solaris. I am using the FILE_EXPAND_PATH function, but am not getting the behavior I would like on the Windows platform. It works well in all cases except if I pass the null string ". On the unix version, I get back what I expect, which is the current working directory. On the Windows platform I get back garbage: a short string of meaningless characters.

Does anyone know if this behavior is fixed in 5.6 for windows? Or is this function undefined for the null string?

Thanks.

-Jonathan

Subject: Re: file_expand_path

Posted by [David Fanning](#) on Wed, 13 Dec 2006 00:11:03 GMT

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damonanomad@gmail.com writes:

```
> I am trying to to use IDL and have run into some a strange behavior
> in 6.2 using file_expand_path. The following lines illustrate what I
> am seeing:
>
> IDL> file_a=file_expand_path('full28field.table')
> IDL> print, file_a
> C:\DocSet\MyDoc\IDL\working\full28field.table
> IDL> print, file_test(file_a)
>      0
> IDL> file_b='C:\DocSet\MyDoc\IDL\working\FieldInfo\full28field.ta ble'
> IDL> print, file_test(file_b)
>      1
>
> As can be seen above, the path that it is returning is not the true
> path of the file but I don't know why it isn't.
```

Probably because that function doesn't try to determine the "true path" of the file. It just "builds" a path from wherever you happen to be located at the moment you execute the function. That is, if your current working directory is C:\somewhere, then when you execute the function you get this:

```
IDL> Print, File_Expand_Path('foo.pro')
C:\somewhere\foo.pro
```

This is true whether foo.pro exists or not! (This is basically the way FILEPATH works, but perhaps the name of this function doesn't disappoint you with inflated expectations.)

- > The search path that I
- > have set in "Preferences" (in addition to default) is
- > 'C:\DocSet\MyDoc\IDL' and its sub-directories. (note that
- > '\DocSet\MyDoc' = '\Documents and Settings\user\My Documents' in
- > reality)
- > Any ideas out there why I am running into this problem? Suggestions
- > would be greatly appreciated.

You will have to get into the directory where the file exists before you execute the command:

```
IDL> CD, 'fieldinfo'
IDL> Print, File_Expand_Path('full28field.table')
C:\DocSet\MyDoc\IDL\working\FieldInfo\full28field.table
```

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: file_expand_path

Posted by [damonanomad](#) on Fri, 15 Dec 2006 00:36:05 GMT

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First off, thanks for the fast reply, David. I didn't get back to IDL until today.

- > if your current
- > working directory is C:\somewhere, then when you
- > execute the function you get this:
- >
- > IDL> Print, File_Expand_Path('foo.pro')
- > C:\somewhere\foo.pro
- >

> This is true whether foo.pro exists or not! (This
> is basically the way FILEPATH works, but perhaps the
> name of this function doesn't disappoint you with inflated
> expectations.)

This is a surprising result to me. It appears, then, that
File_expand_path is basically equivalent to "pwd" in linux, with the
exception that it tacks on a file name that may or may not be in that
current working directory. Strange.

> You will have to get into the directory where the file exists
> before you execute the command:
>
> IDL> CD, 'fieldinfo'
> IDL> Print, File_Expand_Path('full28field.table')
> C:\DocSet\MyDoc\IDL\working\FieldInfo\full28field.table
>

I guess that the short answer is that the file_expand_path function
will not do what I had hoped (give the path of a file in some "unknown"
sub-directory of my working directory). In looking at the online help
index some, I think that file_search may be more suited to what I am
trying to do. However, when I try to use it following one of their
examples (#6):

```
Result = FILE_SEARCH('$HOME', '*', /EXPAND_ENVIRONMENT,  
/TEST_DIRECTORY)
```

Result has nothing in it although there are sub-directories and
sub-sub-directories in my working directory. Is '\$HOME' not the
working directory in windows?

Damon

Subject: Re: file_expand_path
Posted by [David Fanning](#) on Fri, 15 Dec 2006 02:17:30 GMT
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damonanomad@gmail.com writes:

> I guess that the short answer is that the file_expand_path function
> will not do what I had hoped (give the path of a file in some "unknown"
> sub-directory of my working directory). In looking at the online help
> index some, I think that file_search may be more suited to what I am
> trying to do. However, when I try to use it following one of their
> examples (#6):

```
>  
> Result = FILE_SEARCH('$HOME', '*', /EXPAND_ENVIRONMENT,  
> /TEST_DIRECTORY)  
>  
> Result has nothing in it although there are sub-directories and  
> sub-sub-directories in my working directory. Is '$HOME' not the  
> working directory in windows?
```

Yeah, I'm not sure what they are thinking with that example. \$HOME is not a standard Windows environment variable. Perhaps they mean "this is how you would do it IF you had defined an environment variable named \$HOME." Hard to say.

I think in general you have to know where you are when you create a file path. If you are sure the file is located in a known subdirectory (say IMAGES) of where you are currently located, you might create a path to an image file like this:

```
CD, Current=thisDir  
filename = Filepath(Root_Dir=thisDir, SubDir='images', 'test.img')
```

Programs exist that help with this. PROGRAMROOTDIR, for example:

<http://www.dfanning.com/programs/programrootdir.pro>

Or, you could create your own IDL system variable:

```
IDL> DefSysVar, '!HOME', 'C:\RSI\COYOTE\TEST'  
IDL> filename = Filepath(Root_Dir=!HOME, SubDir='images', 'test.img')
```

Anyway, a few ideas.

Cheers,

David

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David Fanning, Ph.D.

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Sepore ma de ni thui. ("Perhaps thou speakest truth.")