Subject: Re: current directory Posted by David Fanning on Sat, 01 Mar 2003 14:51:27 GMT View Forum Message <> Reply to Message

Ulf-Dietrich Braumann (braumann@izbi.uni-leipzig.de) writes:

- > I wonder if there is some elegant way in IDL to
- > i) determine the directory where the current running *.pro file
- is stored in order to
- > ii) directly access some other stuff (i.e. images) just placed
- in the same directory as the "calling" *.pro

I'm not exactly sure what you are asking for. You can certainly determine the name of the program module that you are currently in, and the name of the program module that called you.

And you can find the "default" location of the current module you are in by using File_Which. But I don't think IDL keeps track of which of the 10 files you have named "junk.pro" is currently the compiled one. In other words, you can find out which of those 10 junk.pro files would be called if you opened up an IDL session and typed "junk", but you can't determine which of the 10 is actually being used in that IDL session.

I suppose this can be good news or bad news depending upon what you are trying to do here. :-)

But here is some code that gets you as far as you can get to:

```
PRO Tester
Help, Calls=callStack
thisRoutine = (Str_Sep(StrCompress(callStack[0])," "))[0]
callingRoutine = (Str Sep(StrCompress(callStack[1])," "))[0]
Print, 'In ' + thisRoutine + ', which is called by ' +
 callingRoutine + '.'
thisRoutine = StrLowCase(thisRoutine) + '.pro'
thePath = File_Which(thisRoutine, /Include_Current)
thePath = StrMid(thePath, 0, StrPos(thepath, thisRoutine))
Print, 'The default path to ' + thisRoutine + ' is: ' + thePath
END
```

Called like this:

IDL> tester

It produces this output:

In TESTER, which is called by \$MAIN\$.
The default path to tester.pro is: C:\IDL\DAVID\

Cheers,

David

--

David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

Phone: 970-221-0438, E-mail: david@dfanning.com

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Subject: Re: current directory

Posted by David Fanning on Sat, 01 Mar 2003 15:01:18 GMT

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David Fanning (david@dfanning.com) writes:

- > But here is some code that gets you as far as you
- > can get to:

Whoops! I see I used the archaic STR_SEP routine in that program. That is an obsolete IDL routine that I still have on my path for historical reasons. Better to use the modern STRSPLIT function:

;-----

PRO Tester

Help, Calls=callStack

thisRoutine = (StrSplit(StrCompress(callStack[0])," ", /Extract))[0]

callingRoutine = (StrSplit(StrCompress(callStack[1])," ", /Extract))[0]

Print, 'In ' + thisRoutine + ' which is called by ' + callingRoutine +

•

thisRoutine = StrLowCase(thisRoutine) + '.pro'

thePath = File_Which(thisRoutine, /Include_Current)

thePath = StrMid(thePath, 0, StrPos(thepath, thisRoutine))

Print, 'The default path to ' + thisRoutine + ' is: ' + thePath

END

· ·

Cheers,

David

--

David W. Fanning, Ph.D.

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Phone: 970-221-0438, E-mail: david@dfanning.com

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Subject: Re: current directory

Posted by R.Bauer on Sat, 01 Mar 2003 17:54:01 GMT

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Ulf-Dietrich Braumann wrote:

```
> Hi,
> I wonder if there is some elegant way in IDL to
> i) determine the directory where the current running *.pro file
> is stored in order to
> ii) directly access some other stuff (i.e. images) just placed
> in the same directory as the "calling" *.pro
> Thanks and greetings
> Ulf-Dietrich
```

Dear Ulf-Dietrich,

I believe you are looking for something like our get_profile_path function

```
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/get_profile_path.tar.gz or as idl binary http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/get_profile_path.sav
```

```
pro example
  restore,get_profile_path()+'example1.sav'
  plot,x,y
end
```

Please have look for further routines and licensing at http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro. html

best regards

Reimar

--

Forschungszentrum Juelich email: R.Bauer@fz-juelich.de http://www.fz-juelich.de/icg/icg-i/

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

Subject: Re: current directory

Posted by R.Bauer on Sat, 01 Mar 2003 18:10:42 GMT

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David Fanning wrote:

> David Fanning (david@dfanning.com) writes:

>

- >> But here is some code that gets you as far as you
- >> can get to:

>

- > Whoops! I see I used the archaic STR_SEP routine in
- > that program. That is an obsolete IDL routine that I
- > still have on my path for historical reasons. Better
- > to use the modern STRSPLIT function:

Dear David why not exchange the file_which by

;thePath = File_Which(thisRoutine, /Include_Current)

exchanged to

thePath = (strsplit(StrMid(callStack[0], 0, StrPos(callStack[0],\$ thisRoutine)),'<',/extr))[1]

All is known already

cheers

Reimar

```
>
> PRO Tester
> Help, Calls=callStack
> thisRoutine = (StrSplit(StrCompress(callStack[0])," ", /Extract))[0]
> callingRoutine = (StrSplit(StrCompress(callStack[1])," ", /Extract))[0]
 Print, 'In ' + thisRoutine + ' which is called by ' + callingRoutine +
> thisRoutine = StrLowCase(thisRoutine) + '.pro'
> thePath = File_Which(thisRoutine, /Include_Current)
> thePath = StrMid(thePath, 0, StrPos(thepath, thisRoutine))
> Print, 'The default path to ' + thisRoutine + ' is: ' + thePath
> END
> Cheers,
> David
Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
http://www.fz-juelich.de/icg/icg-i/
a IDL library at ForschungsZentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro. html
```

Subject: Re: current directory
Posted by David Fanning on Sat, 01 Mar 2003 19:35:07 GMT
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Reimar Bauer (R.Bauer@fz-juelich.de) writes:

```
> Dear David why not exchange the file_which by
>
> ;thePath = File_Which(thisRoutine, /Include_Current)
> exchanged to
> thePath = (strsplit(StrMid(callStack[0], 0, StrPos(callStack[0],$ thisRoutine)),'<',/extr))[1]
> All is known already
```

Well, I guess because I'm trying to advertise myself as a programmer who writes code you can understand after I

go home. :-)

Cheers,

David

-
David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

Phone: 970-221-0438, E-mail: david@dfanning.com

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Subject: Re: current directory
Posted by Ulf-Dietrich Braumann on Sat, 01 Mar 2003 22:44:38 GMT
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Thanks a lot, you two guys David and Reimar, both of you had just the solution to my problem!

- > Well, I guess because I'm trying to advertise myself as
- > a programmer who writes code you can understand after I
- > go home. :-)

Ok, the very scaring solution (which in fact also runs under IDL5.0) comes here (just before I go home now ...):

PRO Tester

Help, Calls=callStack

thisRoutine = (Str_Sep(StrCompress(callStack[0])," "))[0]

callingRoutine = (Str_Sep(StrCompress(callStack[1])," "))[0]

Print, 'In ' + thisRoutine + ', which is called by ' + \$

callingRoutine + '.'

thisRoutine = StrLowCase(thisRoutine) + '.pro'

thePath=strmid(StrMid(callStack[0], 0, StrPos(callStack[0],thisRoutine)),\$

StrPos(StrMid(callStack[0], 0, StrPos(callStack[0],thisRoutine)),'<')+1,\$

StrLen(StrMid(callStack[0], 0, StrPos(callStack[0],thisRoutine))) - \$

StrPos(StrMid(callStack[0], 0, StrPos(callStack[0],thisRoutine)),'<'))

Print, 'The default path to ' + thisRoutine + ' is: ' + thePath

END

Greetings

Ulf-Dietrich

Ulf-Dietrich Braumann, PhD Interdiscpilinary Centre for Bioinformatics

```
Subject: Re: current directory
Posted by David Fanning on Sun, 02 Mar 2003 00:03:42 GMT
View Forum Message <> Reply to Message
Ulf-Dietrich Braumann (braumann@izbi.uni-leipzig.de) writes:
> Ok, the very scaring solution (which in fact also runs under IDL5.0)
> comes here (just before I go home now ...):
Wow. That could be useful. :-)
Here is the program stripped of some control characters
that got embedded somehow when you sent it:
PRO Tester
Help, Calls=callStack
thisRoutine = (Str_Sep(StrCompress(callStack[0])," "))[0]
callingRoutine = (Str_Sep(StrCompress(callStack[1])," "))[0]
Print, 'In ' + thisRoutine + ', which is called by ' + $
 callingRoutine + '.'
thisRoutine = StrLowCase(thisRoutine) + '.pro'
thePath=strmid(StrMid(callStack[0], 0, $
 StrPos(callStack[0],thisRoutine)), $
 StrPos(StrMid(callStack[0], 0, $
 StrPos(callStack[0],thisRoutine)),'<')+1, $
 StrLen(StrMid(callStack[0], 0, $
 StrPos(callStack[0],thisRoutine))) - $
 StrPos(StrMid(callStack[0], 0, $
 StrPos(callStack[0],thisRoutine)),'<'))
Print, 'The file "' + thisRoutine + '" is in this directory: ' + thePath
END
Remember (those of you who faithfully update your
IDL version), this requires the obsolete STR_SEP
function. :-)
Cheers,
David
David W. Fanning, Ph.D.
```

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Subject: Re: current directory

Posted by R.Bauer on Sun, 02 Mar 2003 08:27:00 GMT

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David Fanning wrote:

> Ulf-Dietrich Braumann (braumann@izbi.uni-leipzig.de) writes:

>

- >> Ok, the very scaring solution (which in fact also runs under IDL5.0)
- >> comes here (just before I go home now ...):

>

> Wow. That could be useful. :-)

>

- > Here is the program stripped of some control characters
- > that got embedded somehow when you sent it:

Here is an other version to make it more readable.

I like using functions to get code more readable. within brackets is a routine which could solve a lot of extraction problems. one other is within_delimiter which you find in the library too

file_path_name_ext is used to extract from a given file location it's path it's name and it's extension.

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/within_backets.tar.gz or as idl binary http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/within_brackets.sav

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/file_path_name_ext.tar.gz or as idl binary http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/file_path_name_ext.sav

PRO Tester
Help, Calls=callStack
r=within_brackets(callStack[0],brackets=['<','('])

```
fpe=file_path_name_ext(r)
 print,fpe.path
END
best regards
Reimar
> PRO Tester
> Help. Calls=callStack
> thisRoutine = (Str_Sep(StrCompress(callStack[0])," "))[0]
> callingRoutine = (Str_Sep(StrCompress(callStack[1])," "))[0]
> Print, 'In ' + thisRoutine + ', which is called by ' + $
    callingRoutine + '.'
> thisRoutine = StrLowCase(thisRoutine) + '.pro'
> thePath=strmid(StrMid(callStack[0], 0, $
    StrPos(callStack[0],thisRoutine)), $
    StrPos(StrMid(callStack[0], 0, $
    StrPos(callStack[0],thisRoutine)),'<')+1, $
>
    StrLen(StrMid(callStack[0], 0, $
    StrPos(callStack[0],thisRoutine))) - $
    StrPos(StrMid(callStack[0], 0, $
>
    StrPos(callStack[0],thisRoutine)),'<'))
> Print, 'The file "' + thisRoutine + " is in this directory: ' + thePath
> END
> Remember (those of you who faithfully update your
> IDL version), this requires the obsolete STR_SEP
> function. :-)
>
> Cheers,
> David
Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
http://www.fz-juelich.de/icg/icg-i/
a IDL library at ForschungsZentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro. html
```

Subject: Re: current directory Posted by Ulf-Dietrich Braumann on Sun, 02 Mar 2003 14:48:51 GMT

```
On Sat, 1 Mar 2003, David Fanning wrote:
> Ulf-Dietrich Braumann (braumann@izbi.uni-leipzig.de) writes:
>
>> Ok, the very scaring solution (which in fact also runs under IDL5.0)
>> comes here (just before I go home now ...):
> Wow. That could be useful. :-)
>
> Remember (those of you who faithfully update your
> IDL version), this requires the obsolete STR SEP
> function. :-)
Well, due to a sudden ambition I just made a version
without STR_SEP, so here comes another unreadable, but
fairly compatible version :-)
PRO Tester
Help, Calls=callStack
thisRoutine = StrMid(callstack[0],0,StrPos(callstack[0]," "))
callingRoutine = StrMid(callstack[1],0,StrPos(callstack[1]," "))
Print, 'In ' + thisRoutine + ', which is called by ' + $
 callingRoutine + '.'
thisRoutine = StrLowCase(thisRoutine) + '.pro'
thePath=StrMid(StrMid(callStack[0], 0, $
 StrPos(callStack[0],thisRoutine)), $
 StrPos(StrMid(callStack[0], 0, $
 StrPos(callStack[0],thisRoutine)),'<')+1, $
 StrLen(StrMid(callStack[0], 0, $
 StrPos(callStack[0],thisRoutine))) - $
 StrPos(StrMid(callStack[0], 0, $
 StrPos(callStack[0],thisRoutine)),'<'))
Print, 'The file "' + thisRoutine + '" is in this directory: ' + thePath
END
which e.g. in my test prints out:
IDL> tester
In TESTER, which is called by $MAIN$.
The default path to tester.pro is: G:\
```

Greetings

Ulf-Dietrich Braumann, PhD Interdisciplinary Centre for Bioinformatics

University of Leipzig Kreuzstraße 7b D-04103 Leipzig Fed. Rep. of Germany +49-341-1495114

Subject: Re: current directory

Posted by David Fanning on Sun, 02 Mar 2003 15:39:32 GMT

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Reimar Bauer (R.Bauer@fz-juelich.de) writes:

> Here is an other version to make it more readable.

>

- > PRO Tester
- > Help, Calls=callStack
- > r=within_brackets(callStack[0],brackets=['<','('])
- > fpe=file_path_name_ext(r)
- > print,fpe.path
- > END

Oh, my, yes. Even I can figure out what is going on there. :-)

Well done, Reimar!

Cheers,

David

--

David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

Phone: 970-221-0438, E-mail: david@dfanning.com

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Subject: Re: current directory

Posted by Timm Weitkamp on Mon, 03 Mar 2003 17:00:22 GMT

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Dear Ulf and the others,

Maybe I'm missing something, but if the problem is finding the file path of a given compiled routine, why not use ROUTINE_INFO with the /SOURCE keyword (and, if appropriate, /FUNCTION)? Like this:

IDL> .run test

IDL> help, /structure, routine_info('test',/source)

** Structure <82329dc>, 2 tags, length=16, refs=1:

NAME STRING 'TEST'

PATH STRING '/users/weitkamp/idl/test.pro'

Avoids parsing HELP's output (which may even change in future versions of IDL). But maybe that takes away all the fun?

And then, admittedly, although ROUTINE_INFO can do a lot of things, one thing I think it doesn't do is find out the name of the current routine (as HELP, /CALLS does).

Cheers,

Timm

Timm Weitkamp http://people.web.psi.ch/weitkamp

Subject: Re: current directory
Posted by JD Smith on Mon, 03 Mar 2003 17:05:28 GMT
View Forum Message <> Reply to Message

On Sat, 01 Mar 2003 07:06:25 -0700, Ulf-Dietrich Braumann wrote:

- > Hi,
- >
- > I wonder if there is some elegant way in IDL to i) determine the
- > directory where the current running *.pro file
- is stored in order to
- > ii) directly access some other stuff (i.e. images) just placed
- > in the same directory as the "calling" *.pro

>

> Thanks and greetings

>

> Ulf-Dietrich

If you're trying to do what I think you're trying to do, here's the recipe I always use:

```
source=(routine_info('my_routine',/SOURCE)).PATH
dir=strmid(source,0,strpos(source,path_sep(),/REVERSE_SEARCH))
```

It should even be platform independent. You can use the callstack stuff to find out the calling routine's name programmatically, to replace "my_routine".

That said, I'm not sure how good of an idea it is to use the code directories for data storage. You don't want people poking around in there too much. I use this technique for reading in static data bundled with the code, but never for writing.

JD

Subject: Re: current directory
Posted by R.Bauer on Mon, 03 Mar 2003 17:16:29 GMT
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Dear Timm,

good idea in combination whith file_path_name_ext we can save one line. But if we like to use it in a function then where did the name 'test' comes from?

regards

Reimar

Timm Weitkamp wrote:

- > Dear Ulf and the others,
- > Maybe I'm missing something, but if the problem is finding the file path
- > of a given compiled routine, why not use ROUTINE INFO with the /SOURCE
- > keyword (and, if appropriate, /FUNCTION)? Like this:

> IDL> .run test

>

>

>

>

- > IDL> help, /structure, routine info('test',/source)
- > ** Structure <82329dc>, 2 tags, length=16, refs=1:
- > NAME STRING 'TEST'
- > PATH STRING '/users/weitkamp/idl/test.pro'

> Avoids parsing HELP's output (which may even change in future versions of

- > IDL). But maybe that takes away all the fun?
- > And then, admittedly, although ROUTINE_INFO can do a lot of things, one
- > thing I think it doesn't do is find out the name of the current routine
- > (as HELP, /CALLS does).
- > Cheers,
- > Timm

>

--

Forschungszentrum Juelich email: R.Bauer@fz-juelich.de http://www.fz-juelich.de/icg/icg-i/

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

Subject: Re: current directory

Posted by Timm Weitkamp on Tue, 04 Mar 2003 10:13:42 GMT

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On 03.03.03 at 18:16 +0100, Reimar Bauer wrote:

> Dear Timm,

>

- > good idea in combination whith file_path_name_ext we can save one line.
- > But if we like to use it in a function then where did the name 'test'
- > comes from?

That's what I meant when I said that ROUTINE_INFO does not give you the name of the current routine or of any of its callers, whereas HELP, /CALLS does. I feel there should be a better way than HELP to do that sort of query from inside a routine, and I'd be interested to learn if there actually is one.

Timm

--

Timm Weitkamp http://people.web.psi.ch/weitkamp