

---

Subject: Re: idl

Posted by [thompson](#) on Tue, 25 Feb 1992 17:14:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

In article <1992Feb25.150743.20626@cs.tulane.edu>, terrie@merl.noarl.navy.mil (Greg Terrie) writes...

```
>
> I am trying to call a fortran subroutine from IDL using the call_external
> function. I am running on a SUN 4/390 f77 version 1.3.1, SUNOS 4.1.1. I have
> followed the instructions for creating a shareable library as described in the
> IDL manual. However when I issue the command from the IDL prompt:
>
> iret=call_external('fcode.so','_test_')
>
> I get the error message:
>
> Id.so: call to undefined procedure _s_wsle from 0xf????????
>
```

I think the problem is that you are trying to call the Fortran routine directly. IDL on the Sun doesn't want to do this (although it can in VMS). What I do (and I think this came from RSI originally) is to create a C-program to sit between IDL and the FORTRAN program. For instance,

```
#include <stdio.h>
```

```
void interpol_c(argc, argv)
    int argc; /* The number of arguments */
    void *argv[]; /* The arguments */
```

```
{
    float *x_in, *y_in, *x_out, *y_out;
    long *n_in, *n_out;
```

```
/* Convert the IDL input parameters into FORTRAN parameters. */
```

```
x_in = (float *) argv[0];
y_in = (float *) argv[1];
n_in = (long *) argv[2];
x_out = (float *) argv[3];
y_out = (float *) argv[4];
n_out = (long *) argv[5];
```

```
/* Call the FORTRAN routine INTERPOL. */
```

```
interpol_(x_in,y_in,n_in,x_out,y_out,n_out);
return;
```

```
}
```

The Makefile for this would include the commands

```
cc -pic -fsingle -c interpol_c.c
f77 -fast -pic -c interpol.f
ld -o external.so -assert pure-text interpol_c.o interpol.o
```

Then call\_external attaches to "\_interpol\_c" rather than "\_interpol\_".

Bill Thompson

---

---

Subject: Re: idl

Posted by [thompson](#) on Tue, 25 Feb 1992 17:39:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

In article <1992Feb25.150743.20626@cs.tulane.edu>, terrie@merl.noarl.navy.mil (Greg Terrie) writes...

```
>
> I am trying to call a fortran subroutine from IDL using the call_external
> function. I am running on a SUN 4/390 f77 version 1.3.1, SUNOS 4.1.1. I have
> followed the instructions for creating a shareable library as described in the
> IDL manual. However when I issue the command from the IDL prompt:
>
> iret=call_external('fcode.so','_test_')
>
> I get the error message:
>
> Id.so: call to undefined procedure _s_wsle from 0xf????????
>
```

I think the problem is that you are trying to call the Fortran routine directly. IDL on the Sun doesn't want to do this (although it can in VMS). What I do (and I think this came from RSI originally) is to create a C-program to sit between IDL and the FORTRAN program. For instance,

```
#include <stdio.h>
```

```
void interpol_c(argc, argv)
    int argc; /* The number of arguments */
    void *argv[]; /* The arguments */
{
    float *x_in, *y_in, *x_out, *y_out;
    long *n_in, *n_out;
```

```
/* Convert the IDL input parameters into FORTRAN parameters. */
```

```
x_in = (float *) argv[0];
y_in = (float *) argv[1];
```

```

n_in = (long *) argv[2];
x_out = (float *) argv[3];
y_out = (float *) argv[4];
n_out = (long *) argv[5];

/* Call the FORTRAN routine INTERPOL. */

interpol_(x_in,y_in,n_in,x_out,y_out,n_out);
return;
}

```

The Makefile for this would include the commands

```

cc -pic -fsingle -c interpol_c.c
f77 -fast -pic -c interpol.f
ld -o external.so -assert pure-text interpol_c.o interpol.o

```

Then call\_external attaches to "\_interpol\_c" rather than "\_interpol\_".

Bill Thompson

Subject: Re: idl

Posted by [thompson](#) on Tue, 25 Feb 1992 17:41:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

In article <1992Feb25.150743.20626@cs.tulane.edu>, terrie@merl.noarl.navy.mil (Greg Terrie) writes...

```

>
> I am trying to call a fortran subroutine from IDL using the call_external
> function. I am running on a SUN 4/390 f77 version 1.3.1, SUNOS 4.1.1. I have
> followed the instructions for creating a shareable library as described in the
> IDL manual. However when I issue the command from the IDL prompt:
>
> iret=call_external('fcode.so','_test_')
>
> I get the error message:
>
> ld.so: call to undefined procedure _s_wsle from 0xf????????
>

```

I think the problem is that you are trying to call the Fortran routine directly. IDL on the Sun doesn't want to do this (although it can in VMS). What I do (and I think this came from RSI originally) is to create a C-program to sit between IDL and the FORTRAN program. For instance,

```
#include <stdio.h>
```

```

void interpol_c(argc, argv)
    int argc; /* The number of arguments */
    void *argv[]; /* The arguments */
{
    float *x_in, *y_in, *x_out, *y_out;
    long *n_in, *n_out;

    /* Convert the IDL input parameters into FORTRAN parameters. */

    x_in = (float *) argv[0];
    y_in = (float *) argv[1];
    n_in = (long *) argv[2];
    x_out = (float *) argv[3];
    y_out = (float *) argv[4];
    n_out = (long *) argv[5];

    /* Call the FORTRAN routine INTERPOL. */

    interpol_(x_in,y_in,n_in,x_out,y_out,n_out);
    return;
}

```

The Makefile for this would include the commands

```

cc -pic -fsingle -c interpol_c.c
f77 -fast -pic -c interpol.f
ld -o external.so -assert pure-text interpol_c.o interpol.o

```

Then call\_external attaches to "\_interpol\_c" rather than "\_interpol\_".

Bill Thompson

---

Subject: Re: idl  
 Posted by [khh](#) on Wed, 26 Feb 1992 04:40:03 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

> solution proposed...

I don't have IDL, so I can't say for sure ... but from the glue posted, it sounds very much like PRAGMA C (interpol) and careful use of %val and friends would do the trick.

See the section of the Fortran docs on interlanguage calling, specifically the section on C meets Fortran and visa versa.

--

-----  
 Keith H. Bierman    keith.bierman@Sun.COM | khb@chiba.Eng.Sun.COM

---

Subject: IDL for Windows 3.0: Any more info?  
Posted by [howp](#) on Wed, 18 Mar 1992 21:48:25 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Hello, IDL users:

I have heard that IDL for the PC is coming out in August/92. This is what a fellow graduate student found out after talking to the IDL company (RSI). Apparently they had a beta version of IDL for DOS but it was so slow that they decided to abandon the program and the next implementation of IDL will be for Microsoft Windows 3.0.

My questions are:

- 1) Has anybody heard anything more about this ( or is this vapourware )?
- 2) Has anybody used the beta version of IDL for Windows ( if it exists yet ) and where can I get a copy?

Thanks for your time.

Peter How ( Graduate Student )  
Institute of Space and Atmospheric Studies,  
University of Saskatchewan,  
Saskatoon, SK  
CANADA  
S7N 0W0  
I can be reached at  
(306) 966-6452  
IN%"HOW@SKISAS.USASK.CA"  
IN%"HOWP@SKYFOX.USASK.CA"

---

---

Subject: Re: IDL for Windows 3.0: Any more info?  
Posted by [bradleyt](#) on Fri, 20 Mar 1992 03:45:34 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

In article <18MAR92.21482584@skyfox.usask.ca> howp@skyfox.usask.ca writes:

> I have heard that IDL for the PC is coming out in August/92. This  
> is what a fellow graduate student found out after talking to the IDL  
> company (RSI). Apparently they had a beta version of IDL for DOS but  
> it was so slow that they decided to abandon the program and the next  
> implementation of IDL will be for Microsoft Windows 3.0.

So you're saying it is too slow to run under DOS, so they made it run under Windows 3.0? Talk about a diverging solution...

Todd.

ps. I would, of course, love to hear ANY attempt to explain how a Windows port is going to make any program run faster.

--

Todd "Slan" Bradley -- Postmodern Reaganomics Renaissance Man, The Exception to Every Rule, An Example To All Men, The Biggest Jerk In The World, Supreme Ruler Of The Galaxy, AND Captain of The Flying Bitheads Ultimate Frisbee Team. (303) 443-6317 or 492-5826

---

---

Subject: Re: IDL for Windows 3.0: Any more info?  
Posted by [bradleyt](#) on Fri, 20 Mar 1992 06:00:55 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

In article <1992Mar20.034534.10318@ucsu.Colorado.EDU> bradleyt@spot.Colorado.EDU (Todd "Slan" Bradley) writes:

> In article <18MAR92.21482584@skyfox.usask.ca> howp@skyfox.usask.ca writes:

>

>> I have heard that IDL for the PC is coming out in August/92. This  
>> is what a fellow graduate student found out after talking to the IDL  
>> company (RSI). Apparently they had a beta version of IDL for DOS but  
>> it was so slow that they decided to abandon the program and the next  
>> implementation of IDL will be for Microsoft Windows 3.0.

>

>

> So you're saying it is too slow to run under DOS, so they  
> made it run under Windows 3.0? Talk about a diverging  
> solution...

As if PVI even HAS a scientific visualization solution for the PC!

>

> Todd.

> ps. I would, of course, love to hear ANY attempt to explain  
> how a Windows port is going to make any program run faster.

>

> --

> Todd "Slan" Bradley -- Postmodern Reaganomics Renaissance Man, The  
> Exception to Every Rule, An Example To All Men, The Biggest Jerk In  
> The World, Supreme Ruler Of The Galaxy, AND Captain of The Flying  
> Bitheads Ultimate Frisbee Team. (303) 443-6317 or 492-5826

Well, Todd, I suppose you'll forgive me for using your account to post this followup... I just can't resist!

Obviously, the previous poster is a bit misinformed. Since I have worked with both versions of IDL for the PC, I can attest to the fact that the Windows version of IDL *is* faster. Part of the reason is that the Windows port is simply better done than the previous PC port... better programming, etc. Also, since the original PC version had to have built-in drivers for many video cards that were not necessarily optimized, many users will note a speed up when they use their manufacturer-supplied Windows graphics drivers.

I hope that explains a bit better why the Windows version is, in many ways, faster than the old version. The Windows device is also much more like the "X" device. You can have multiple windows, cursor control, etc. In the DOS version, you were stuck with alternating between a text-only and a graphics-only screen.

Anyway, Todd should know this information already as he has seen both versions of IDL for the PC since he is a close friend of mine and partner in industrial music crime.

Also, to correct the previous post: The Windows version of IDL has been in ALPHA testing. We got some good feedback and right now, just about everything seems to work well. We will be announcing availability of the Windows BETA release (which will include a free upgrade to the final release version) in the April IDL newsletter. I'm working on the Windows version installation and release notes now. They'll be done before I go on my well-earned vacation in early April.

Say "hi" to everyone at PVI for me, Todd!!

Keith R Crosley  
Director of Technical Communication  
Research Systems, Inc. / 777 29th Street / Boulder, CO 80303 / (303)786-9900  
e-mail: [idl@boulder.colorado.edu](mailto:idl@boulder.colorado.edu)

---

Subject: Re: IDL for Windows 3.0: Any more info?  
Posted by [bradleyt](#) on Fri, 20 Mar 1992 15:26:24 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

In article <1992Mar20.060055.21428@ucsu.Colorado.EDU> [idl@boulder.colorado.edu](mailto:idl@boulder.colorado.edu) (Keith Crosley) in the guise of [bradleyt@ucsu.Colorado.EDU](mailto:bradleyt@ucsu.Colorado.EDU) (God) writes:

>

> Obviously, the previous poster is a bit misinformed. Since I have

> worked with both versions of IDL for the PC, I can attest to the fact  
> that the Windows version of IDL \*is\* faster. Part of the reason is that  
> the Windows port is simply better done than the previous PC port...  
> better programming, etc. Also, since the original PC version had to have  
> built-in drivers for many video cards that were not necessarily optimized,  
> many users will note a speed up when they use their manufacturer-supplied  
> Windows graphics drivers.

First, let me explain a few things to those readers who may be a little confused at this point. No, I am not replying to my own post. A friend of mine named Keith Crosley (see below) who works at RSI, the manufacturer of IDL, has been using one of my computer accounts to read mail and news. However, as part of the University's agreement for getting a computer account, my login may not be used for any commercial projects. Let me apologize for giving anybody the impression that the account [bradleyt@ucsu.colorado.edu](mailto:bradleyt@ucsu.colorado.edu) has anything to do with Research Systems Inc., a for-profit company. Keith may be contacted at his address below, but not by replying to the previously posted message.

> Anyway, Todd should know this information already as he has seen both  
> versions of IDL for the PC since he is a close friend of mine and  
> partner in industrial music crime.

For those of you unacquainted with the warped minds of RSI's "Technical Communications" department, this is Keith's idea of a joke. Actually, I have seen neither the DOS version nor the Windows version of IDL. However, I would be more than happy to offer to be part of RSI's BETA program for IDL for Windows. Does anyone know where I can apply for this program?

> Keith R Crosley  
> Director of Technical Communication  
> Research Systems, Inc. / 777 29th Street / Boulder, CO 80303 / (303)786-9900  
> e-mail: [idl@boulder.colorado.edu](mailto:idl@boulder.colorado.edu)

If you are trying to contact Mr. Crosley, be sure to send mail to the above address, not to [bradleyt@ucsu.colorado.edu](mailto:bradleyt@ucsu.colorado.edu).

--

Todd "Slan" Bradley -- Postmodern Reaganomics Renaissance Man, The Exception to Every Rule, An Example To All Men, The Biggest Jerk In The World, Supreme Ruler Of The Galaxy, AND Captain of The Flying Bitheads Ultimate Frisbee Team. (303) 443-6317 or 492-5826

---

---



Subject: Re: IDL for Windows 3.0: Any more info?  
Posted by [fireman](#) on Fri, 20 Mar 1992 17:58:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

In article <1992Mar20.060055.21428@ucsu.Colorado.EDU>,  
KEITH writes...

> The Windows version of IDL has been... (stuff deleted)  
> ...in the April IDL newsletter.

Newsletter? Is this for users or system managers?  
E-mail or snail-mail? Where do I sign up?

Also, what about IDL for Macintosh?

Gwyn Fireman (new to Unix)      phone: (301) 794-1560  
Computer Sciences Corporation    span: IUEGTC::FIREMAN  
IUE Observatory                  internet: fireman@iue.gsfc.nasa.gov

---