
Subject: Problems compiling shared libraries

Posted by johnpeterkelly@gmail.com on Thu, 02 Mar 2006 15:55:55 GMT

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I'm having a consistent problem compiling shared libraries for use with the `call_external()` command. I've tried using the `make_dll` function as well as compiling the code manually with `cc` or `gcc`. Here's what I do:

in idl:

```
make_dll, 'tester', 'simple_return'
```

Where `tester.c` is the name of my file, and `simple_return` is the name of a function that just returns a number.

or at the command prompt:

```
cc -c -fPIC tester.c
```

```
cc -shared tester.o -o tester.so
```

When I try in IDL:

```
x = call_external('tester.so', 'simple_return')
```

I get:

```
% CALL_EXTERNAL: Error loading sharable executable.
```

```
    Symbol: simple_return, File = tester.so
```

```
    tester.so: cannot open shared object file: No such  
file or directory
```

It would seem IDL can't find the `.so` file. What really confuses me is that I have another library file that I downloaded to run some LAPACK routines on older version of IDL (note: not compiled on my computer) which is sitting the same directory as `tester.so`. When I run:

```
x = call_external('liblidl.so', 'c_eigen_all', matrix, 3l, e_vec, e_val)
```

It works fine. This leads me to the conclusion that it's not that it can't find the file, but rather it doesn't recognize it as a library.

If it helps, I'm running IDL 6.2 and my machine has a 64 bit processor (this has led to some completely different problems, but it might be relevant).

Thanks in advance for your help.

--John

Subject: Re: Problems compiling shared libraries

Posted by johnpeterkelly@gmail.com on Thu, 02 Mar 2006 18:57:36 GMT

Okay, I figured out something that will work. I simply added "-m32" to my compile commands. I think this switches the compiler to 32-bit mode and then the libraries become readable by IDL. I imagine I can fix the make_dll program by using -m32 as one of the compiler commands.

Subject: Re: Problems compiling shared libraries
Posted by [Nigel Wade](#) on Fri, 03 Mar 2006 12:27:48 GMT
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johnpeterkelly wrote:

> Okay, I figured out something that will work. I simply added "-m32" to
> my compile commands. I think this switches the compiler to 32-bit mode
> and then the libraries become readable by IDL. I imagine I can fix the
> make_dll program by using -m32 as one of the compiler commands.

The default for IDL 6.2 on 64bit platforms (at least for Linux AMD64 and IRIX) is to run the 64bit version of IDL.

What processor/OS/architecture are you running?

--

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