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Subject: Problems compiling shared libraries

Posted by [johnpeterkelly@gmail.com](mailto: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

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