
Subject: Re: Building sharable object libraries for CALL_EXTERNAL
Posted by [rmlongfield](#) on Wed, 17 Mar 1999 08:00:00 GMT
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In article <36E9649A.7F5C8B65@fajnm1.am.ub.es>,

Octavi Fors <octavi@fajnm1.am.ub.es> wrote:

> Hello,

>

> This is my first trial calling a C-routine from IDL with CALL_EXTERNAL,

> and I have some problems with building routine.so file. It's just a

> test, so the routine it's very simple:

Hello Octavi, I am a few days late, but do not know if you have solved your problem. I work on an SGI and have the following Makefile, where grouptest is your example program. I recall that it took a lot of testing and searching in the SGI man pages to find the right flags. It was a lot simpler than the sample programs provided by IDL. ----- LDFLAGS=-lm

OBJS = grouptest.o

grouptest : \$(OBJS)

ld -shared -o grouptest.so \$(OBJS) \$(LDFLAGS)

grouptest.o : grouptest.c

cc -c -KPIC grouptest.c -o grouptest.o

This compiles ok on my SGI. When run from IDL, the only problem is with the returned value of output.

--IDL sample file ---->

```
pro grouptest
```

```
a = FLOAT(1.4)
```

```
b = LONG(2)
```

```
c = LONG(7)
```

```
d = LONG(9)
```

```
output = CALL_EXTERNAL('grouptest.so','grouptest',a,b,c,d)
```

```
print,'Returned value from group test: ',output
```

```
end
```

If you can search back in this newsgroup a couple of months (Dejanews, for example, can be used to search archives) you will find a lot of discussion about CALL_EXTERNAL and pointers. Maybe it is different for a SUN, but I am pretty sure that you cannot pass a pointer with the C return statement. Note also that all memory for variables sent through CALL_EXTERNAL must first be specified in IDL. This may also be a source of error. Another note is that,

if you change your C code, you must exit IDL before running again from within IDL.

I use CALL_EXTERNAL with C and Fortran programs in a simple way which works. Please feel free to ask further questions and I will try to help.

Good Luck!
Rose

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