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@fainm1.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)
Id -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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