
Subject: dynamic linking on Mac

Posted by brodzik@nsidc.org on Fri, 10 Jun 2011 23:01:06 GMT

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Hi, all,

Has anyone running IDL on a Mac successfully linked to a shared C library?

I've got some code that lets me call the routines in a C library from IDL. It's name is `call_grids.c` and everything works fine on my linux system. I'm trying to port the whole thing from Suse linux to a Mac, and I'm having trouble on the linker step for `call_grids.so`. I've already compiled and tested the original C library (which is `libmapx.a`), it has some command-line programs that call it, and they are working fine.

But for `call_grids.c`, in my Linux options, my makefile sets `CFLAGS` to `-fPIC` and `C_LD_FLAGS` to `-shared`, but I found out pretty quickly that Darwin's `ld` doesn't support `"-shared"`. I found one helpful site on-line that suggested that the Darwin equivalent of `'-shared'` is `'-bundle -flat_namespace -undefined suppress'`, but that returns this problem:

```
ld -bundle -flat_namespace -undefined suppress -o call_grids.so
call_grids.o -L/Users/mj/lib -lmapx -lm
ld: symbol dyld_stub_binding_helper not defined (usually in crt1.o/
dylib1.o/bundle1.o) for inferred architecture x86_64
make[1]: *** [call_grids.so] Error 1
```

Then I started researching these `ld` switches and found several alternatives to `-bundle`, including `-dynamic`, `-dylib`, `-dylinker`. My trouble is that I'm not sure what it is I should be *trying* build, here. Going back to the suse `ld` man page, it just says `-shared` "builds a shared library". Well, I guess I knew that. What I don't know is what that's supposed to look like on a Mac.

Can anyone offer me some tips on what I should be trying to create?

Thanks,
Mary Jo
