
Subject: Compiling shared libraries for use with call_external on a Mac
Posted by [arkos](#) on Wed, 12 Apr 2000 07:00:00 GMT

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Hi,

A question for those out there who have used call_external in IDL with (hopefully) C subroutines on the Macintosh.

I have an older version of Metrowerks Codewarrior (IDE 1.6.3, CW 9), and have set the Project type to shared library, in the preferences for the project. However, it doesn't seem to want to compile and produce the shared library (it keeps looking for main(), while the C file I'm compiling only contains a collection of subroutines).

I've (obviously) never created shared libraries before, so if anyone has any pointers to help create one of these things, that would be great. The documentation is scarce or non-existent in this matter.

Thanks in advance,

-- Greg

--

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Subject: Re: Compiling shared libraries for use with call_external on a Mac
Posted by [Rob Preece](#) on Fri, 14 Apr 2000 07:00:00 GMT

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In article <arkos-1204001537010001@merlin.phys.ucalgary.ca>, arkos@NOSPAMphys.ucalgary.ca (Gregory G. Arkos) wrote:

> An addition to what I asked below:

>

> I can add a "dummy" main() to the C file, and produce something
> which appears to be a shared library. However, when I try to
> use call_external from the IDL side, I get the error:

>

> % CALL_EXTERNAL: Error loading sharable executable.

> Symbol: testing_external, File =

> Documents:Arkos:SMS:PLOT:test_external_libs

> symbol was not found

> % Execution halted at: TEST_CALL_EXTERNAL 18

> Documents:Arkos:SMS:PLOT:test_call_external.pro
> % \$MAIN\$
>
> I don't know if I am doing something wrong on the C side in
> creating the shared library, or on the IDL side in the
> implementation, so any suggestions would be appreciated.
>
> Thanks again,
>
> -- Greg
>

OK, Greg, you have not exported your library's symbols (that is: function names). There are several ways to do this.

The easiest is:

Go to the CW project's Settings Panel and look for the PPC PEF settings panel under "Linker". Change the "Export" option from 'None' to 'All Globals'. Re-link; things should be fine.

The better way is:

Do most of the previous, but this time select the 'Use ".exp" file' option for "Export". Link once, find the .exp file that was created for your project and open it for editing. Take out all but the function names you wish IDL to call (there could be hundreds you don't care about). Save the much reduced file and re-link.

- Rob Preece
UAH Dept. of Physics

Many thanks to the rest of you for enduring this somewhat of-topic, Mac-centric ramble. I'll go and re-lurk now...
