
Subject: Re: make_dll and call_external woes

Posted by [Craig Markwardt](#) on Sun, 18 Apr 2010 23:33:05 GMT

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On Apr 18, 6:02 pm, James <donje...@gmail.com> wrote:

> Hi everyone,
>
> I'm working on some code that's loop-heavy, so I'd like to do the
> loopy part with an external C program. I'm using MAKE_DLL to compile
> and then CALL_EXTERNAL. My system is Windows XP with the Microsoft
> Visual C++ Express compiler, running in 32-bit mode.
>
> I'm using very large data sets, so I would like to pass only pointers
> to my C function. I wrote a little test program like this. It takes
> all the arguments that my actual program needs, but it just alters one
> value to see if anything happens:
>
> void raycast(unsigned char * image, unsigned char * angles, unsigned
> char * magnitudes, int * dims)
> {
> angles[0] = 100;
>
> }
>
> I compile this using MAKE_DLL successfully. I've tested if the code
> is getting called by adding an IDL_message(), and it works - the
> message prints out on the IDL console. Unfortunately, the above code
> does not work. I call it in IDL like this:
>
> [stack is a preexisting 3-dimensional byte array]
> dims = fix(size(*stack, /dimensions))
> angles = ptr_new(bytarr(dims))
> magnitudes = ptr_new(bytarr(dims))
> dimsptr = ptr_new(long(reverse(dims)))
> call_external (dir + "raycast.dll", "raycast", \$
> stack, angles, magnitudes, dimsptr, /cdecl, /all_value)
>
> but when I check the value of (*angles)[0] afterward, it's still 0. I
> also check with max(*angles) and it's 0 as well. Why is my C program
> not changing anything in the array? I get the same problem whether I
> include the /ALL_VALUE keyword or not.
>
> Many thanks to anyone who can make sense of this issue!

From the documentation:

"/CALL_VALUE. Set this keyword to indicate that all parameters are
passed by value."

Parameters passed by value can be changed by the called routine, but changes do not appear to the caller.

Craig
