Subject: Re: dynamic memory in call_external Posted by David Foster on Tue, 26 Jan 1999 08:00:00 GMT

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Mark Rivers wrote:

>

> In article <88Inirufne.fsf@catspaw.jpl.nasa.gov>, Vapuser <vapuser@catspaw.jpl.nasa.gov> writes:

>>

>>

>> I have someone in my office who wants to know:

>>

- >> Is it advisable to create and destroy memory within a CALL_EXTERNAL
- >> routine? (that is, can one safely use malloc and free?) Or must one
- >> make the routine(s) in question LINKIMAGE routines and the idl memory
- >> management routines (IDL_MEMAlloc, IDL_MEMfree and IDL_GetScratch)
- >> available in that environment.

>

- > No, you should not create and destroy memory within CAII_EXTERNAL. The reason
- > is that when you use CALL_EXTERNAL you are passed only the address of the data
- > storage part of the IDL variable. You are not passed other important pieces of
- > information for that variable, such as how big it is, what the data type is,
- > etc. If you create and destroy memory you will only change the pointer, but
- > not the other descriptive information. It might work OK if you are sure you
- > won't change the size or type of the IDL variable, but I would not bet on it.

>

I think we should be clear what we are talking about. I believe the question was whether one can safely use malloc() and free() to allocate and free memory *within* a CALL_EXTERNAL module, and the answer to this is yes. But you cannot allocate memory for variables that you intend to pass back to IDL (the well-known rule that you have to allocate all arguments before passing them to CALL_EXTERNAL).

If we don't clarify this distinction I think people will get confused.

Dave

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