
Subject: Re: CALL_EXTERNAL

Posted by [Craig Markwardt](#) on Fri, 19 Jul 2002 22:00:34 GMT

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"Ian Dean" <ian.d.dean@baesystems.com> writes:

> Hi,
> I'm running IDL 5.4 under VMS (!!!), and would like some help using
> CALL_EXTERNAL to a C routine.
>
> The C routine has a single parameter passed to it, but it is a structure
> (similar to that below)
> The routine returns to the caller a variable sized array starting at the
> address of item buffer and the number of elements in buff_size. (Other
> control fields are also used but I won't cloudy the water with these).

The answer to your question is simple. You can't use CALL_EXTERNAL to pass IDL structures to an external routine. In fact, I don't believe you can do this with the DLM or LINK_IMAGE facilities either. IDL structures are intentionally a black box not meant to be interrogated.

Also, it's not as straightforward as you think to pass raw memory, such as your "void *buffer", to and from IDL. You'll have to investigate the External Developers Guide and find out how to insert user data into an IDL variable.

The much easier approach is to make two wrapper routines, written in both IDL and C. On the IDL side, this routine would transfer IDL structure values into simple IDL variables which can then be passed easily to CALL_EXTERNAL. On the C side, you would need a similar wrapper which would pack those values back into your own C structure, and proceed on your merry way.

Good luck,
Craig

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