
Subject: Re: CALL_EXTERNAL
Posted by [ronn](#) on Sat, 20 Jul 2002 13:25:32 GMT
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in article onofd3ml8d.fsf@cow.physics.wisc.edu, Craig Markwardt at
craigmnet@cow.physics.wisc.edu wrote on 7/19/02 6:00 PM:

>
>
> "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 muddy 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.
>
Hi Ian,

Craig is correct in that you can't use CALL_EXTERNAL to pass a structure,
but you CAN use a DLM to do it. The details are in my "IDL calling C" book,
but the trick is to create a structure in C and mimic it exactly on the IDL
side. This means IDL ints must be C shorts, etc.

I also agree that you don't want to pass raw memory from C to IDL. IDL just
doesn't know what to do with a memory address. Instead you would want to
create an IDL structure on the C side and fill one of the fields with your
data. Then you can use the structure in IDL just like normal.

Hope that helps a little.

-Ronn

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Ronn Kling
KRS, inc.
email: ronn@rlkling.com
"Application Development with IDL" 1½ programming book updated for IDL5.5!

"Calling C from IDL, Using DLM's to extend your IDL code!"
<http://www.rkling.com/>
