Subject: Re: CALL_EXTERNAL
Posted by Nigel Wade on Mon, 22 Jul 2002 08:44:30 GMT
View Forum Message <> Reply to Message

Ian Dean wrote:

> 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 sinle 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).
>
> typedef struct
> {
> void *buffer;
> int buff_size;
> }ACCESS
>
> This routine and structure are already in use between several other C
> routines. I just want to use the same idea in IDL.

Unfortunately that won't be possible as IDL has no concept of void pointers. Even the pointers it does have are pointers to IDL variables, not raw memory addresses (at least I think that's correct).

What is that you are trying to achieve?

If you want to access the data in IDL then you'll have to create a variable of the appropriate type and either use your data from C as its data, or copy it, whichever you prefer.

If you want to pass on this structure to some other C function then you will need to create an IDL variable which can hold the pointer.

The former requires a DLM (or LINK_IMAGE) whilst the latter could be achieved via CALL_EXTERNAL provided you can be certain how much memory is required to hold your void pointer.

--

Nigel Wade, System Administrator, Space Plasma Physics Group,
University of Leicester, Leicester, LE1 7RH, UK
E-mail : nmw@ion.le.ac.uk

Phone : +44 (0)116 2523568, Fax : +44 (0)116 2523555