Subject: CALL_EXTERNAL
Posted by Ian Dean on Fri, 19 Jul 2002 10:15:53 GMT
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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.

I have created a similar structure in IDL

```
ACCESS = {buffer: ????, buff_size:0L, ident:0L}
```

The question is - what should the buffer tag be defined as?

I have tried it as a scalar (0L - Addresses are long ints) but I get an access violation
I have tried a pointer - but this causes an access violation (it passes address 1,2,3... etc.)
I have tried an array - this didn't crash, but overwrote the other fields
I have tried setting it to array[0] - this also failed dramatically

Since CALL_EXTERNAL passes individual parameters by reference, is it possible for me to get the reference of a variable internally (similar to %LOC in Fortran)?

I hope I've explained this sensibly - I am not really a C programmer.

Any help would be gladly received

Regards,
Ian