Subject: Re: External c calls broken in IDL 5.5
Posted by Nigel Wade on Wed, 04 Sep 2002 11:22:21 GMT
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Bob wrote:

> I have some dlm's that I made using DLMFORM (see
> http://www.astro.uio.no/~steinhh/idl/dlmform.html). They call fortran
> code through a c wrapper. They worked fine on IDL 5.3 and Tru64 Unix
> 5.0 but now that I've upgraded to IDL 5.5 and Tru64 Unix 5.1A they will
> no longer work (they core dump). I've tried remaking them and that
> doesn't help. Has anyone else had this problem?
>
> So I've tried a really simple example (below) using call_external and
> just using c code and even the simple code that follows doesn't work
> (it should print out "n = 25" and "x = 3.14159"). Anyone have any
> ideas.
>
> And last, is there a newer version of dlmform. I really like this
> routine but it is using some obsolete functions.
>
> Thanks,
> Bob
>
> In test.c
> #include <stdio.h>
> #include "export.h"
>
> void test(int argc, IDL_VPTR argv[])
> {
>   IDL_LONG n = argv[0]->value.l;
>   printf("n = %i\n", n);
>   float x = argv[1]->value.f;
>   printf("x = %f\n", x);
> }
>
> I complile and link with:
> cc -c -I/usr/local/rsi/idl/external -pthread test.c
> ld -S -expect_unresolved '*' -shared -all -hidden -o test.so test.o
>
> then trying it:
> $ idl
> IDL Version 5.5, Compaq Tru64 (OSF alpha). (c) 2001, Research Systems,
> Inc.
> IDL> n = 25l
> IDL> x=!PI
> IDL> help,n,x
> N   LONG   =   25

```
> X               FLOAT     =        3.14159
> IDL> dum = call_external('./test.so', 'test',n,x)
> n = 1074012760
> x = 0.000000
> IDL>
```

The interface you have specified is for a DLM/LINKIMAGE function, but you have tried to call it with call_external (which has a completely different execution method).

Try instead:

```
IDL> linkimage,'test','./test.so',0,'test'
IDL> test,n,x
```

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