

---

Subject: Re: idl

Posted by [thompson](#) on Tue, 25 Feb 1992 17:41:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

In article <1992Feb25.150743.20626@cs.tulane.edu>, terrie@merl.noarl.navy.mil  
(Greg Terrie) writes...

>  
> I am trying to call a fortran subroutine from IDL using the call\_external  
> function. I am running on a SUN 4/390 f77 version 1.3.1, SUNOS 4.1.1. I have  
> followed the instructions for creating a shareable library as described in the  
> IDL manual. However when I issue the command from the IDL prompt:  
>  
> iret=call\_external('fcode.so','\_test\_')  
>  
> I get the error message:  
>  
> ld.so: call to undefined procedure \_s\_wsle from 0xf?????????  
>

I think the problem is that you are trying to call the Fortran routine  
directly. IDL on the Sun doesn't want to do this (although it can in VMS).  
What I do (and I think this came from RSI originally) is to create a C-program  
to sit between IDL and the FORTRAN program. For instance,

```
#include <stdio.h>

void interpol_c(argc, argv)
    int argc; /* The number of arguments */
    void *argv[]; /* The arguments */
{
    float *x_in, *y_in, *x_out, *y_out;
    long *n_in, *n_out;

    /* Convert the IDL input parameters into FORTRAN parameters. */

    x_in = (float *) argv[0];
    y_in = (float *) argv[1];
    n_in = (long *) argv[2];
    x_out = (float *) argv[3];
    y_out = (float *) argv[4];
    n_out = (long *) argv[5];

    /* Call the FORTRAN routine INTERPOL. */

    interpol_(x_in,y_in,n_in,x_out,y_out,n_out);
    return;
}
```

The Makefile for this would include the commands

```
cc -fPIC -fPIC -c interpol_c.c  
f77 -fast -fPIC -c interpol.f  
ld -o external.so -assert pure-text interpol_c.o interpol.o
```

Then call\_external attaches to "\_interpol\_c" rather than "\_interpol\_".

Bill Thompson

---