
Subject: Re: idl

Posted by [thompson](#) on Tue, 25 Feb 1992 17:14:00 GMT

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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:
>
> Id.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 -pic -fsingle -c interpol_c.c  
f77 -fast -pic -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
