Subject: CALL_EXTERNAL failure.
Posted by Octavi Fors on Tue, 20 Jul 1999 07:00:00 GMT
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<html>
Hi everybody,
<p>I'm trying to execute a FORTRAN subroutine (example1.for) with CALL_EXTERNAL

using a C wrapper function (example.c), but I'm having problems. I
guess they're related to

compiler option but I'm not sure.
<p>Here you have both C wrapper and FORTRAN subroutine code (they are simplistic
just

for test purpose):
<p>example.c (C wrapper function) ----------
<p>#include <stdio.h>
<p>int example(argc, argv)

int argc;

void *argv[];

{

void example1_();
<p>int j;

double *x1,*y1,*x2,*y2;

double *rlimit1,*rlimit2,*var1,*var2;

int *n1,*n2,*nmatch;

int *match1,*match2;
<p>n1=(int *) argv[0];

x1=(double *) argv[1];

y1=(double *) argv[2];

var1=(double *) argv[3];

rlimit1=(double *) argv[4];

n2=(int *) argv[5];

x2=(double *) argv[6];

y2=(double *) argv[7];

var2=(double *) argv[8];

rlimit2=(double *) argv[9];
<p>example1_(n1,x1,y1,var1,rlimit1,n2,x2,y2,var2,rlimit2);
<p>return(0);

}

 ---------- --------
<p>example1.for (FORTRAN subroutine) ----------
<p>SUBROUTINE
example1(N1,X1,Y1,VARXY1,RLIMIT1,N2,X2,Y2,VARXY2,RLIMIT2)
<p>   INTEGER*4 N1,N2

   REAL*8 VARXY1,
VARXY2, RLIMIT1, RLIMIT2

   REAL*8
X1(N1),Y1(N1)

   REAL*8
X2(N2),Y2(N2)
<p>   DO I=1,N1

PRINT*, X1(I)

   ENDDO
<p>   RETURN
<p> ---------- --------
<p>This is the compilation procedure, which I suspect is wrong:
<p>$ pwd

/home/octavi/idl

$ uname -a

SunOS mizar 5.5.1 Generic_103640-05 sun4u sparc
SUNW,Ultra-Enterprise
<p>$ gcc -fPIC -c example.c

$ f77 -c -pic example1.for

$ /usr/ucb/ld -o example.so -z text -G example.o example1.o
<p>Inside IDL I'm proceeding in the following way:
<p>a) first define input data

IDL> n1=2L & n2=2L

IDL> x1=[2.34d, 4.56d] & y1=[2.5d,1.2d] & x2=[5.44d,
4.86d] & y2=[43.34d, 41.56d]

IDL> var1=23.4d & var2=34.5d

IDL> rlimit1= 10.0d & rlimit2=10.0d
<p>b) call subroutine

IDL> value = CALL_EXTERNAL('/u/imatge/ofors/idl/groth/example.so','exampl
e',
$

n1, x1, y1, var1, rlimit1,n2, x2, y2, var2, rlimit2)
<p>the result of last line is that IDL hangs up (idlde desappears) and
the following message

appears in the shell:
<p>ld.so.1: /usr/local/rsi/idl_5/bin/bin.solaris2.sparc/idlde:

fatal: relocation error: symbol not found: __s_wsle_nv:
referenced in /home/octavi/idl/example.so
<p>Well, any ideas are welcome.
<p>Thanks in advance,
<p>Octavi.</html>