
Subject: Strange bug in IDL or AIX

Posted by [dov](#) on Mon, 03 Feb 1992 10:10:14 GMT

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I have encountered a very strange bug. I don't know if it belongs to IDL or AIX. It occurs when I use `call_external` from IDL.

Here is my idl program bug.pro:

```
--
1: a=call_external('./bug', ' ')
2:
3: end
--
```

And here is my external routine bug.c:

```
--
1: #include <math.h>
2:
3: bugsub(double *r)
4: {
5:   *r= sqrt(5.0);
6: }
7:
8: bug(int argc, void *argv[])
9: {
10: }
--
```

I compile and link the c program with the sequence of commands

```
cc -O -c bug.c
ld -e bug -o bug.o -lm -lc
```

and then I try to run the program from idl. Here a copy of idl's output:

```
IDL> .run bug
% Compiled module: $MAIN$.
% CALL_EXTERNAL: Error loading sharable executable.
      Symbol: <not relevant>, File = ./bug

      Exec format error
% Execution halted at $MAIN$ <bug2.pro( 1)> (CALL_EXTERNAL).
IDL>
```

But here comes the strange part. There are several ways this bug can

dissappear. If I change line 5 of bug.c to read:

```
5:  *r=sin(5.0);
```

the bug dissappears!

The output from idl follows:

```
IDL> .run bug
% Compiled module: $MAIN$.
IDL>
```

Or if line 3 and 5 are changed to

```
3:  bugsub(double r)
5:  r=sqrt(5.0)
```

the bug also doesn't appear.

Neither does it appear if line 3 and 4 are changed to (the only workaround of the bug that I have found...)

```
3:  bugsub(double *rr)
4:  { double *r; r=rr;
```

Does anybody have any idea what is going on here? Where is the bug?
Why is there a difference between sqrt() and sin()?

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"Where the tree of wisdom carries oranges"