
Subject: CALL_EXTERNAL/shared libraries on HP
Posted by [keith](#) on Thu, 01 Jul 1993 18:56:32 GMT
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Seeking advice for linking a shared library on the HP...

I've written C code that I'm using with CALL_EXTERNAL in IDL. I'm trying to port the code to the HP (a 9000/720 with HPUX 8.07) and am having link errors from trying to create a shared library. I'm pretty closely following the notes from RSI for external C code on the HP. Here's what I'm doing:

(1) I create an object file with position independent code (PIC):

```
cc -v +z -c pic1.c -I../include
```

This file contains references to other C functions I have written and also contains global variables.

(2) I link this with other libraries:

```
ld -v -o pic1.sl -b pic1.o -L../lib -lmylib1 -lmylib2
```

Normally I create only archive versions of the other libraries (e.g. libmylib1.a). In this case I get the following link error:

```
ld: Unsatisfied symbols:
```

```
  $global$ (data)
```

```
  _end (data)
```

```
ld: DP-Relative Code in file libmylib1.a(func1.o) - Shared  
Library must be Position-Independent
```

As a test, I tried recompiling all the functions in my archive libraries as PIC and linked them into shared libraries (e.g. libmylib1.sl). When I do this I still get a link error on step (2):

```
ld: Unsatisfied symbols:
```

```
  $global$ (data)
```

Have any IDL users on the HP tried doing this? What am I doing wrong here? This same code links fine on IBM AIX and Sunos (with different system-dependent linker options, of course). Any suggestions would be welcome (I don't normally develop software on the HP). Thanks.

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