

---

Subject: Re: call\_external: ld.so.1 relocation error  
Posted by [Nigel Wade](#) on Tue, 13 Feb 2001 10:00:46 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Martin Rother wrote:

```
>
>     hi wizards!
>
>     I used 'call_external' very exceptionally yet. now I run into a
>     'relocation error' while executing 'call_external' -- with a very
>     simple test-application too. the IDL 'call_external' demo is still
>     running, but as my fortran-code is calling 'atan' (or other
>     trig.-functions.), the 'ld.so.1' fails to resolve the symbol.
>     'make' is designed to call:
>
> /opt/zrt_opt/SUNWspro/bin/f77 -pic -G test.f -o test.so -IF77 -Im -Ic -IM77
>   test.f:
>   test:
>   test_slave:
>
>     and 'ldd' on 'test.so' seems to be fine:
>
>     libF77.so.4 => /opt/zrt_opt/SUNWspro/lib/libF77.so.4
>     libm.so.1 => /opt/zrt_opt/SUNWspro/lib/libm.so.1
>     libc.so.1 => /usr/lib/libc.so.1
>     libM77.so.2 => /opt/zrt_opt/SUNWspro/lib/libM77.so.2
>     libdl.so.1 => /usr/lib/libdl.so.1
>     /usr/platform/SUNW,Ultra-60/lib/libc_psr.so.1
```

That's telling you it can find the libraries you have requested, it  
isn't  
telling you which externals remain unresolved.

```
>
>     but my 'test.pro' crashes IDL with:
>
>     IDL >> test
>     ld.so.1: /opt/rsi/idl_5.4/bin/bin.solaris2.sparc/idl: \
>             fatal: relocation error: \
>             file /home/mt/rother/prj/champ/Lib/ME/6/test.so: \
>             symbol __atanf: referenced symbol not found
>
>             Killed
>
>     (but 'atan' seems to be in 'libM77.so.2'!)
>
```

It is actually undefined in libM77.so :

```
$ nm libM77.so | grep atan
[428] | 0|FUNC |GLOB |0 |UNDEF |__atan
[379] | 0|FUNC |GLOB |0 |UNDEF |__atan2
[491] | 0|FUNC |GLOB |0 |UNDEF |__atan2f
[493] | 0|FUNC |GLOB |0 |UNDEF |__atan2l
[353] | 0|FUNC |GLOB |0 |UNDEF |__atanf
[354] | 0|FUNC |GLOB |0 |UNDEF |__atanl
```

On my system the function which is undefined in your DSO (`__atanf`) is defined in `libsunmath.so`. Try adding `-lsunmath` to the end of your list of libraries.

--

---

Nigel Wade, System Administrator, Space Plasma Physics Group,  
University of Leicester, Leicester, LE1 7RH, UK  
E-mail : [nmw@ion.le.ac.uk](mailto:nmw@ion.le.ac.uk)  
Phone : +44 (0)116 2523568, Fax : +44 (0)116 2523555

---