
Subject: Re: Makefile for external calls on Solaris 9 (64-bit)

Posted by [bjwhitcher](#) on Tue, 30 Mar 2004 09:09:42 GMT

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Michael Wallace <mwallace.removethis@swri.edu.invalid> wrote in message news:<106gm45g9rje7e2@corp.supernews.com>...

> What kind of errors do you see when you try to compile your code on
> Solaris? Knowing what to do is a little more complicated than including
> C_FLAGS, LD_FLAGS, etc. Can you provide an example of the makefile
> you're using?
>
> -Mike

Here is example output...

```
% make
gcc -O2 -Wall -fPIC -m64 -I/usr/local/idl_6.0/external -c
simpleExample.c
gcc -O2 -Wall -fPIC -m64 -I/usr/local/idl_6.0/external -c IDL_Load.c
IDL_Load.c: In function `IDL_Load':
IDL_Load.c:14: warning: missing braces around initializer
IDL_Load.c:14: warning: (near initialization for
`procedure_addr[0].funct_addr')
IDL_Load.c:18: warning: missing braces around initializer
IDL_Load.c:18: warning: (near initialization for
`function_addr[0].funct_addr')
ld -64 -G -o simpleExample.so\
    simpleExample.o IDL_Load.o
ld: fatal: file /usr/ucblib/libucb.so: wrong ELF class: ELFCLASS32
ld: fatal: file /usr/lib/libresolv.so: wrong ELF class: ELFCLASS32
ld: fatal: file /usr/lib/libsocket.so: wrong ELF class: ELFCLASS32
ld: fatal: file /usr/lib/libnsl.so: wrong ELF class: ELFCLASS32
ld: fatal: file /usr/lib/libelf.so: wrong ELF class: ELFCLASS32
ld: fatal: File processing errors. No output written to
simpleExample.so
*** Error code 1 (ignored)
```

... I've added additional libraries like /usr/ucblib/sparcv9 and /usr/lib/sparcv9, which gets rid of the linking problems but the code fails in IDL...

```
% SIMPLEFUNCTION: Error loading sharable executable.
    Symbol: IDL_Load, File = simpleExample.so
    ld.so.1:
/usr/local/idl_6.0/bin/bin.solaris2.sparc64/ld:
    fatal: /usr/ucblib/libucb.so.1: wrong ELF class:
    ELFCLASS32
```

Example makefile...

```
IDL_DIR      = /usr/local/idl_6.0
CC = gcc
CFLAGS =
C_FLAGS = -O2 -Wall -fPIC -m64 -I$(IDL_DIR)/external -c $(CFLAGS)
LD = ld
SHELL = /bin/sh
X_CFLAGS =
X_LD_FLAGS = -64 -G
LD_LIBS = -L /usr/ucblib/sparcv9 -L /usr/lib/sparcv9
SO_EXT = so
```

```
.c.o :
$(CC) $(C_FLAGS) $(X_CFLAGS) $*.c
```

```
simpleExample : simpleExample.$(SO_EXT)
@date
```

```
simpleExample.$(SO_EXT) : simpleExample.o IDL_Load.o
$(LD) $(X_LD_FLAGS) $(LD_LIBS) -o simpleExample.$(SO_EXT) \
    simpleExample.o IDL_Load.o
```

```
clean :
rm -f *.o *.so so_locations
```

cheers...
Brandon
