GDP - Bug #22

Darwin: Compiling ep fails: EVP_DigestSignFinal not found

07/20/2016 06:42 AM - Anonymous

Status:	Closed	**Start date:**	07/20/2016
Priority:	Normal	**Due date:**	
Assignee:	Eric Allman	**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:			

Description

Under Darwin, running make in gdp/ep fails because /opt/local/lib/libcrypto.dylib is not used at link time

How to reproduce:

```
bash-3.2$ make
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC -D_CURRENT_DATE_=\"`
date +'%Y-%m-%d_%H:%M'`\" -c ep_version.c
ar -r libep.a ep_adm.o ep_app.o ep_assert.o ep_b64.o ep_crypto.o ep_crypto_cipher.o ep_crypto_key.
o ep_crypto_md.o ep_crypto_sign.o ep_crypto_vrfy.o ep_dbg.o \
ep_dumpfds.o ep_fopen_smem.o ep_fopen_syslog.o ep_fread_unlocked.o ep_funclist.o ep_hash.o ep_hexd
ump.o ep_lib.o ep_log.o ep_mem.o ep_net.o ep_pcvt.o ep_pprin\
t.o ep_prflags.o ep_rpool.o ep_stat.o ep_statcodes.o ep_string.o ep_syslog.o ep_thr.o ep_thr_pool.
o ep_time.o ep_xlate.o  ep_version.o
ranlib libep.a
rm -f ../libs/libep.a
cp libep.a ../libs
cc -shared  -o libep.so.3.0 ep_adm.o ep_app.o ep_assert.o ep_b64.o ep_crypto.o ep_crypto_cipher.o
ep_crypto_key.o ep_crypto_md.o ep_crypto_sign.o ep_crypto_vr\
fy.o ep_dbg.o ep_dumpfds.o ep_fopen_smem.o ep_fopen_syslog.o ep_fread_unlocked.o ep_funclist.o ep_
hash.o ep_hexdump.o ep_lib.o ep_log.o ep_mem.o ep_net.o ep_p\
cvt.o ep_pprint.o ep_prflags.o ep_rpool.o ep_stat.o ep_statcodes.o ep_string.o ep_syslog.o ep_thr.
o ep_thr_pool.o ep_time.o ep_xlate.o  ep_version.o  -lcrypto
Undefined symbols for architecture x86_64:
  "_EVP_DigestSignFinal", referenced from:
      _ep_crypto_sign_final in ep_crypto_sign.o
  "_EVP_DigestSignInit", referenced from:
      _ep_crypto_sign_new in ep_crypto_sign.o
  "_EVP_DigestVerifyFinal", referenced from:
      _ep_crypto_vrfy_final in ep_crypto_vrfy.o
  "_EVP_DigestVerifyInit", referenced from:
      _ep_crypto_vrfy_new in ep_crypto_vrfy.o
  "_EVP_PKEY_print_private", referenced from:
      _ep_crypto_key_print in ep_crypto_key.o
  "_EVP_PKEY_print_public", referenced from:
      _ep_crypto_key_print in ep_crypto_key.o
ld: symbol(s) not found for architecture x86_64
clang: error: linker command failed with exit code 1 (use -v to see invocation)
make: *** [libep.so.3.0] Error 1
bash-3.2$
```

My workaround was to add -L${LOCAL2}/lib to LIBS in gdp/ep/Makefile:

~~~

```
bash-3.2$ git diff
diff --git a/ep/Makefile b/ep/Makefile
index 77366b0..6e7c1f7 100644
--- a/ep/Makefile
+++ b/ep/Makefile
@@ -201,7 +201,7 @@ RM=         rm
LD=         ld
```
~~~

```
LDFLAGS=       -L. ${LIBSEARCH}
LDLIBS=              ${LIBNAME}.a -pthread
-LIBS=         -lcrypto
+LIBS=         -L${LOCAL2}/lib -lcrypto
LN=            ln
MV=            mv
CP=            cp
bash-3.2$
```

History

#1 - 07/20/2016 07:32 AM - Eric Allman

- Status changed from New to Closed

It turns out that LIBSEARCH was supposed to do this but, due to a cut-and-paste error, the Makefile was using -I instead of -L.

eric

#2 - 07/20/2016 08:27 AM - Anonymous

I'm not sure how to reopen a bug in RedMine. The Status field shows "Closed" and has no way to edit it.

Not a big deal, but I prefer to close bugs that I create after I verify them.

Anyway, I just checked out a clean gdp repo and this still fails for me:

```
~~~
bash-3.2$     git clone repoman@repo.eecs.berkeley.edu:projects/swarmlab/gdp.git
Cloning into 'gdp'...
remote: Counting objects: 9765, done.

remote: Compressing objects: 100% (6988/6988), done.

remote: Total 9765 (delta 6710), reused 3994 (delta 2608)

Receiving objects: 100% (9765/9765), 6.24 MiB | 59.00 KiB/s, done.
Resolving deltas: 100% (6710/6710), done.
Checking connectivity... done.
bash-3.2$ cd gdp/
bash-3.2$ make
#(cd doc;       make all)       # needs pandoc
(cd ep;        make all)
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_adm.o ep_adm.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_app.o ep_app.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_assert.o ep_assert.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_b64.o ep_b64.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_crypto.o ep_crypto.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_crypto_cipher.o ep_crypto_cipher.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_crypto_key.o ep_crypto_key.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_crypto_md.o ep_crypto_md.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_crypto_sign.o ep_crypto_sign.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_crypto_vrfy.o ep_crypto_vrfy.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_dbg.o ep_dbg.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_dumpfds.o ep_dumpfds.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_fopen_smem.o ep_fopen_smem.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_fopen_syslog.o ep_fopen_syslog.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_fread_unlocked.o ep_fread_unlocked.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_funclist.o ep_funclist.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_hash.o ep_hash.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_hexdump.o ep_hexdump.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_lib.o ep_lib.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_log.o ep_log.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_mem.o ep_mem.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_net.o ep_net.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_pcvt.o ep_pcvt.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_pprint.o ep_pprint.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_prflags.o ep_prflags.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_rpool.o ep_rpool.c
```

```
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_stat.o ep_stat.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_statcodes.o ep_statcodes.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_string.o ep_string.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_syslog.o ep_syslog.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_thr.o ep_thr.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_thr_pool.o ep_thr_pool.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_time.o ep_time.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC   -c -o ep_xlate.o ep_xlate.c
cc  -Wall -g -O   -I -I/usr/local/include -I/opt/local/include -I. -I.. -fPIC -D_CURRENT_DATE_=\"date +'%Y-%m-%d_%H:%M'\" -c ep_version.c
ar -r libep.a ep_adm.o ep_app.o ep_assert.o ep_b64.o ep_crypto.o ep_crypto_cipher.o ep_crypto_key.o ep_crypto_md.o ep_crypto_sign.o
ep_crypto_vrfy.o ep_dbg.o \
ep_dumpfds.o ep_fopen_smem.o ep_fopen_syslog.o ep_fread_unlocked.o ep_funclist.o ep_hash.o ep_hexdump.o ep_lib.o ep_log.o ep_mem.o
ep_net.o ep_pcvt.o ep_pprin\
t.o ep_prflags.o ep_rpool.o ep_stat.o ep_statcodes.o ep_string.o ep_syslog.o ep_thr.o ep_thr_pool.o ep_time.o ep_xlate.o  ep_version.o
ar: creating archive libep.a
ranlib libep.a
rm -f ../libs/libep.a
cp libep.a ../libs
cc -shared  -o libep.so.3.0 ep_adm.o ep_app.o ep_assert.o ep_b64.o ep_crypto.o ep_crypto_cipher.o ep_crypto_key.o ep_crypto_md.o
ep_crypto_sign.o ep_crypto_vr\
fy.o ep_dbg.o ep_dumpfds.o ep_fopen_smem.o ep_fopen_syslog.o ep_fread_unlocked.o ep_funclist.o ep_hash.o ep_hexdump.o ep_lib.o ep_log.o
ep_mem.o ep_net.o ep_p\
cvt.o ep_pprint.o ep_prflags.o ep_rpool.o ep_stat.o ep_statcodes.o ep_string.o ep_syslog.o ep_thr.o ep_thr_pool.o ep_time.o ep_xlate.o
ep_version.o  -lcrypto
Undefined symbols for architecture x86_64:
"EVP_DigestSignFinal", referenced from:
  ep_crypto_sign_final in ep_crypto_sign.o
"EVP_DigestSignInit", referenced from:
  ep_crypto_signnew in epcrypto_sign.o
"_EVP_DigestVerifyFinal", referenced from:
_epcrypto_vrfy_final in ep_crypto_vrfy.o
"EVP_DigestVerifyInit", referenced from:
_ep_cryptovrfy_new in ep_crypto_vrfy.o
"EVP_PKEYprint private", referenced from:
  ep_crypto_key_print in ep_crypto_key.o
"EVP_PKEY_print_public", referenced from:
  ep_crypto_keyprint in epcrypto_key.o
ld: symbol(s) not found for architecture x86_64
clang: error: linker command failed with exit code 1 (use -v to see invocation)
make[1]: *** [libep.so.3.0] Error 1
make: *** [all] Error 2
bash-3.2$
~~~
```

#3 - 07/20/2016 08:29 AM - Anonymous

Here's a diff that fixes it for me

```
diff --git a/ep/Makefile b/ep/Makefile
index 11b3626..7ee2e30 100644
--- a/ep/Makefile
+++ b/ep/Makefile
@@ -231,7 +231,7 @@ ${LIBNAME}.a: ${OBJS}
        ${CP} $@ ${LOCALLIBSDIR}

 ${LIBNAME}.so.${EPLIBVER}: ${OBJS}
-       ${CC} ${SHARED} -o $@ ${OBJS} ${LIBS}
+       ${CC} ${SHARED} -o $@ ${OBJS} ${LDFLAGS} ${LIBS}
        (cd ${LOCALLIBSDIR} && sh makelinks.sh ep ${EPLIBMAJVER} ${EPLIBMINVER})

 ${OBJS}: ${HFILES}
bash-3.2$
```

#4 - 07/20/2016 08:53 AM - Eric Allman

Mea culpa. Some time back I updated the ep Makefile so that it would be more like the others (in particular, using the same variable names), and I obviously missed some. Oddly, everything compiled fine on Ubuntu (the only platform we "officially" support) and on MacOS (and even on FreeBSD!), but apparently Red Hat is different.