Building netrek

Summary
Pertainent steps taken to get this far.

KITS/PORTS
Installed the following kits from the FreeBSD port directory:
autoconf 2.5.9
libtool 1.5
gcc 4.1.2
gmake 3.80-2

Installed from netrek.org
Vanilla Server 2.11.1

PROCESS
- Unpacked the kit
- Initiated gmake – compile failure
- Initiated autoconf – the recompile got further along.
- Copied a gdbm.h into ntserv working directory, modified the source so it picked it up locally rather than from system includes
- Failed, so modified config.h, config.h.in – commented out the #define PLAYER_INDEX
- Installed gcc 4.1.2, attempted another gmake
- Failed with compiling ntserv/main.c
- Gave up – returned to Knights (Chess)

Detail
Step 0:
Standard make doesn't work. (Prompt is netrek# as it's a standalone server)
        netrek# make
        cd ntserv; make libnetrek.a
        "Makefile", line 159: Need an operator
        make: fatal errors encountered -- cannot continue
        *** Error code 1
Stop in /usr/local/netrek/netrek-server-vanilla-2.11.1.

Install gmake from – cd /usr/devel/gmake && make install && make clean

Return to build location – cd /usr/local/netrek/netrek-server-vanilla-2.11.1
Retry using gmake results in:
        netrek# gmake
        cd ntserv; gmake libnetrek.a
        gmake[1]: Entering directory `/usr/local/netrek/netrek-server-vanilla-
        2.11.1/ntserv'
        gcc -g -O2 -Wall -DRSA   -I../include   -c -o balance.o balance.c
        gcc -g -O2 -Wall -DRSA   -I../include   -c -o bay.o bay.c
        gcc -g -O2 -Wall -DRSA   -I../include   -c -o coup.o coup.c

```
gcc -g -O2 -Wall  -DRSA   -I../include   -c -o data.o data.c
gcc -g -O2 -Wall  -DRSA   -I../include  -c db.c
db.c:14:18: gdbm.h: No such file or directory
db.c: In function `db_index_fetch':
…
gmake[1]: *** [db.o] Error 1
gmake[1]: Leaving directory `/usr/local/netrek/netrek-server-vanilla-
2.11.1/ntserv'
gmake: *** [do_library] Error 2
netrek#
```

Step 1.
Install GNU DBM – cd /usr/ports/databases/gdbm && make install netrek

Step 1a.
Retry…
cd /usr/local/netrek/netrek-server-vanilla-2.11.1

```
# gmake
        cd ntserv; gmake libnetrek.a
        gmake[1]: Entering directory `/usr/local/netrek/netrek-server-vanilla-
        2.11.1/ntserv'
        gcc -g -O2 -Wall  -DRSA   -I../include  -c db.c
        db.c:14:18: gdbm.h: No such file or directory
        db.c: In function `db_index_fetch':
        …
        gmake[1]: *** [db.o] Error 1
        gmake[1]: Leaving directory `/usr/local/netrek/netrek-server-vanilla-
        2.11.1/ntserv'
        gmake: *** [do_library] Error 2
        netrek# ls /usr/src/contrib/gdb/include/gdbm.h
        ls: /usr/src/contrib/gdb/include/gdbm.h: No such file or directory
        netrek#
```

Comment: I know that gdbm.h is located in /usr/src/contrib/gdb/include/gdbm.h on
another server. Do I want to copy just that file, and pollute the build process?
Tempting but no…

Check out http://wiki.us.netrek.org/netrek-dev/Building/FromDarcs
Ok I have autoconfig (standard), libgdbm (from install earlier), libncurses (.so.6)
don't have X11 stuff, nor libglib (what's does this do?).
Clearly more to do.

Check out http://wiki.us.netrek.org/netrek-dev/NewbieServer

After some trolling, I need to install these packages:
expat-2.0.0_1, fontconfig-2.3.2_5,1, freetype2-2.1.10_3, libdrm-2.0.2, pkg-config-
0.20_2, xorg-libraries-6.9.0

All installed… stuck in Step 1a.

Try fresh autoconf

    netrek# autoconf259
    load: 0.11 cmd: perl 55793 [runnable] 0.89u 0.03s 2% 5488k
    configure.in:493: error: possibly undefined macro: AC_PROG_LIBTOOL
        If this token and others are legitimate, please use m4_pattern_allow.
        See the Autoconf documentation.

Ok try a couple more things to try to shed some light…

    netrek# gmake -v
    GNU Make 3.80
    Copyright (C) 2002 Free Software Foundation, Inc.
    This is free software; see the source for copying conditions.
    There is NO warranty; not even for MERCHANTABILITY or FITNESS FOR
    A
    PARTICULAR PURPOSE.
    netrek# gmake
    if [-f config.status]; then \
          ./config.status; \
    else \
          ./configure -v; \
    fi
    config.status: creating system.mk
    config.status: creating Makefile
    config.status: creating ntserv/Makefile
    config.status: creating tools/Makefile
    config.status: creating sequencer/Makefile
    config.status: creating newstartd/Makefile
    config.status: creating robots/Makefile
    config.status: creating keycomp/Makefile
    config.status: creating xsg/Makefile
    config.status: creating pledit/Makefile
    config.status: creating robotd/Makefile
    config.status: creating docs/Makefile
    config.status: creating tools/no_geno_timer
    config.status: creating tools/geno_timer
    config.status: creating docs/sample_geno_timer_crontab
    config.status: creating docs/sample_sysdef
    config.status: creating include/config.h
    config.status: include/config.h is unchanged
    cd ntserv; gmake libnetrek.a
    gmake[1]: Entering directory `/usr/local/netrek/netrek-server-vanilla-
    2.11.1/ntserv'
    gcc -g -O2 -Wall -DRSA   -I../include -c db.c
    db.c:14:18: gdbm.h: No such file or directory
    db.c: In function `db_index_fetch':

Identified PLAYER_INDEX was defined in include/config.h and include/config.h.in
which I commented out.

autoconf259 returned no errors.

So returned to the top level –

```
netrek# cd /usr/local/netrek/netrek-server-vanilla-2.11.1
netrek# gmake
if [ -f config.status ]; then \
      ./config.status; \
else \
      ./configure -v; \
fi
config.status: creating system.mk
config.status: creating Makefile
config.status: creating ntserv/Makefile
config.status: creating tools/Makefile
config.status: creating sequencer/Makefile
config.status: creating newstartd/Makefile
config.status: creating robots/Makefile
config.status: creating keycomp/Makefile
config.status: creating xsg/Makefile
config.status: creating pledit/Makefile
config.status: creating robotd/Makefile
config.status: creating docs/Makefile
config.status: creating tools/no_geno_timer
config.status: creating tools/geno_timer
config.status: creating docs/sample_geno_timer_crontab
config.status: creating docs/sample_sysdef
config.status: creating include/config.h
cd ntserv; gmake libnetrek.a
gmake[1]: Entering directory `/usr/local/netrek/netrek-server-vanilla-
2.11.1/ntserv'
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o coup.o coup.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o data.o data.c
gcc -g -O2 -Wall  -DRSA  -I../include  -c db.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o detonate.o detonate.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o distress.o distress.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o enter.o enter.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o feature.o feature.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o features.o features.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o gencmds.o gencmds.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o genspkt.o genspkt.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o getpath.o getpath.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o getship.o getship.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o glog.o glog.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o interface.o interface.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o ltd_stats.o ltd_stats.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o openmem.o openmem.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o orbit.o orbit.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o phaser.o phaser.c
gcc -g -O2 -Wall  -DRSA  -I../include   -c -o ping.o ping.c
```

```
gcc -g -O2 -Wall -DRSA -I../include  -c -o plasma.o plasma.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o rsa_key.o rsa_key.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o reserved.o reserved.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o salt.o salt.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o slotmaint.o slotmaint.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o sintab.o sintab.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o smessage.o smessage.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o socket.o socket.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o startrobot.o startrobot.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o sysdefaults.o sysdefaults.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o torp.o torp.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o transwarp.o transwarp.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o util.o util.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o warning.o warning.c
ar cru libnetrek.a balance.o bay.o coup.o data.o db.o detonate.o distress.o
enter.o feature.o features.o gencmds.o genspkt.o getpath.o getship.o glog.o
interface.o ltd_stats.o openmem.o orbit.o phaser.o ping.o plasma.o rsa_key.o
reserved.o salt.o slotmaint.o sintab.o smessage.o socket.o startrobot.o
sysdefaults.o torp.o transwarp.o util.o warning.o
ranlib -c libnetrek.a
ranlib: '-c': No such file
gmake[1]: Leaving directory `/usr/local/netrek/netrek-server-vanilla-
2.11.1/ntserv'
gmake[1]: Entering directory `/usr/local/netrek/netrek-server-vanilla-
2.11.1/res-rsa'
gcc -O2  -c rsa_math.c
gcc -O2  -c rsa_encode.c
ar cvr librsa.a rsa_math.o rsa_encode.o
a - rsa_math.o
a - rsa_encode.o
ranlib librsa.a
gmake[1]: Leaving directory `/usr/local/netrek/netrek-server-vanilla-
2.11.1/res-rsa'
cd ntserv; gmake
gmake[1]: Entering directory `/usr/local/netrek/netrek-server-vanilla-
2.11.1/ntserv'
gcc -g -O2 -Wall -DRSA -I../include  -c -o cluecheck.o cluecheck.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o death.o death.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o findslot.o findslot.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o getentry.o getentry.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o getname.o getname.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o input.o input.c
gcc -g -O2 -Wall -DRSA -I../include  -c -o main.o main.c
main.c: In function `main':
main.c:166: warning: implicit declaration of function `signal'
main.c:166: error: `SIGALRM' undeclared (first use in this function)
main.c:166: error: (Each undeclared identifier is reported only once
main.c:166: error: for each function it appears in.)
main.c:166: error: `SIG_IGN' undeclared (first use in this function)
main.c:167: error: `SIGTERM' undeclared (first use in this function)
```

```
main.c:168: error: `SIGPIPE' undeclared (first use in this function)
main.c:199: error: `SIGINT' undeclared (first use in this function)
main.c:200: error: `SIGCHLD' undeclared (first use in this function)
main.c:365: error: `NSIG' undeclared (first use in this function)
main.c:379: error: `SIGILL' undeclared (first use in this function)
main.c:379: error: `SIG_DFL' undeclared (first use in this function)
gmake[1]: *** [main.o] Error 1
gmake[1]: Leaving directory `/usr/local/netrek/netrek-server-vanilla-
2.11.1/ntserv'
gmake: *** [do_server] Error 2
netrek# gcc -v
Using built-in specs.
Configured with: FreeBSD/i386 system compiler
Thread model: posix
gcc version 3.4.4 [FreeBSD] 20050518
netrek#
```

The box runs the latest release (ie production) of FreeBSD, built from scratch, the server being used is pristine.

```
netrek# uname -a
FreeBSD netrek.dmz 6.1-RELEASE FreeBSD 6.1-RELEASE #0: Tue May 30
00:13:08 EST 2006    root@ps1.hs:/usr/obj/usr/src/sys/epia-hs-en  i386

netrek# gcc -v
Using built-in specs.
Configured with: FreeBSD/i386 system compiler
Thread model: posix
gcc version 3.4.4 [FreeBSD] 20050518

netrek# libtool --version
ltmain.sh (GNU libtool) 1.5.22 (1.1220.2.365 2005/12/18 22:14:06)

netrek# autoconf259 --version
autoconf (GNU Autoconf) 2.59
```

As a special favour to a country lad, I installed gcc 4.1

Installed gcc 4.1.2, but compiler errors remained.
```
netrek# cd /usr/local/netrek/netrek-server-vanilla-2.11.1/ ntserv
netrek# /usr/local/bin/gcc41 -g -O2 -Wall -DRSA -I../include -c -o main.o
main.c
main.c: In function 'main':
main.c:166: warning: implicit declaration of function 'signal'
main.c:166: error: 'SIGALRM' undeclared (first use in this function)
main.c:166: error: (Each undeclared identifier is reported only once
main.c:166: error: for each function it appears in.)
main.c:166: error: 'SIG_IGN' undeclared (first use in this function)
main.c:167: error: 'SIGTERM' undeclared (first use in this function)
```

```
main.c:168: error: 'SIGPIPE' undeclared (first use in this function)
main.c:199: error: 'SIGINT' undeclared (first use in this function)
main.c:200: error: 'SIGCHLD' undeclared (first use in this function)
main.c:365: error: 'NSIG' undeclared (first use in this function)
main.c:379: error: 'SIGILL' undeclared (first use in this function)
main.c:379: error: 'SIG_DFL' undeclared (first use in this function)
netrek#
```