To compile stockfish, type:

make target ARCH=arch [COMP=comp]

Supported targets:

build > Standard build

signature-build > Standard build with embedded signature

profile-build > PGO build

signature-profile-build > PGO build with embedded signature

strip > Strip executable

install > Install executable

clean > Clean up

Supported archs:

x86-64 > x86 64-bit

x86-64-modern > x86 64-bit with popcnt support

x86-32 > x86 32-bit with SSE support

x86-32-old > x86 32-bit fall back for old hardware

osx-ppc-64 > PPC-Mac OS X 64 bit

osx-ppc-32 > PPC-Mac OS X 32 bit

osx-x86-64 > x86-Mac OS X 64 bit

osx-x86-32 > x86-Mac OS X 32 bit

armv7 > ARMv7 32 bit

general-64 > unspecified 64-bit

general-32 > unspecified 32-bit

Supported compilers:

gcc > Gnu compiler (default)

mingw > Gnu compiler with MinGW under Windows

clang > LLVM Clang compiler

icc > Intel compiler

Non-standard targets:

make hpux > Compile for HP-UX. Compiler = aCC

Examples. If you don't know what to do, you likely want to run:

make build ARCH=x86-64 (This is for 64-bit systems)

make build ARCH=x86-32 (This is for 32-bit systems)

TRIALS

First need:

/usr/bin/ntpdate -b -s -u pool.ntp.org

**make profile-build ARCH=armv7**

root@beaglebone:~/Stockfish/src# make profile-build ARCH=armv7

make ARCH=armv7 COMP=gcc config-sanity

make[1]: Entering directory `/home/root/Stockfish/src'

Config:

debug: 'no'

optimize: 'yes'

arch: 'armv7'

os: 'any'

bits: '32'

prefetch: 'yes'

bsfq: 'yes'

popcnt: 'no'

sse: 'no'

Flags:

CXX: g++

CXXFLAGS: -Wall -Wcast-qual -fno-exceptions -fno-rtti -ansi -pedantic -Wno-long -long -Wextra -Wshadow -DNDEBUG -O3 -fno-gcse -DUSE\_BSFQ -flto

LDFLAGS: -lpthread -Wall -Wcast-qual -fno-exceptions -fno-rtti -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -fno-gcse -DUSE\_BSFQ -flto

Testing config sanity. If this fails, try 'make help' ...

make[1]: Leaving directory `/home/root/Stockfish/src'

Step 0/4. Preparing for profile build.

make ARCH=armv7 COMP=gcc gcc-profile-prepare

make[1]: Entering directory `/home/root/Stockfish/src'

make ARCH=armv7 COMP=gcc gcc-profile-clean

make[2]: Entering directory `/home/root/Stockfish/src'

make[2]: Leaving directory `/home/root/Stockfish/src'

make[1]: Leaving directory `/home/root/Stockfish/src'

Step 1/4. Building executable for benchmark ...

make ARCH=armv7 COMP=gcc gcc-profile-make

make[1]: Entering directory `/home/root/Stockfish/src'

make ARCH=armv7 COMP=gcc \

EXTRACXXFLAGS='-fprofile-generate' \

EXTRALDFLAGS='-lgcov' \

all

make[2]: Entering directory `/home/root/Stockfish/src'

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedant ic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -fno-gcse -DUSE\_BSFQ -flto -c -o benchmark.o benchmark.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedant ic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -fno-gcse -DUSE\_BSFQ -flto -c -o bitbase.o bitbase.cpp

/tmp/ccwdZG5A.s: Assembler messages:

/tmp/ccwdZG5A.s:2090: Error: selected processor does not support ARM mode `rbit r5,r2'

/tmp/ccwdZG5A.s:2112: Error: selected processor does not support ARM mode `rbit r5,r3'

/tmp/ccwdZG5A.s:2524: Error: selected processor does not support ARM mode `rbit r5,r2'

/tmp/ccwdZG5A.s:2552: Error: selected processor does not support ARM mode `rbit r5,r3'

make[2]: \*\*\* [bitbase.o] Error 1

make[2]: Leaving directory `/home/root/Stockfish/src'

make[1]: \*\*\* [gcc-profile-make] Error 2

make[1]: Leaving directory `/home/root/Stockfish/src'

make: \*\*\* [profile-build] Error 2

root@beaglebone:~/Stockfish/src# **make profile-build ARCH=general-32**

make ARCH=general-32 COMP=gcc config-sanity

make[1]: Entering directory `/home/root/Stockfish/src'

Config:

debug: 'no'

optimize: 'yes'

arch: 'any'

os: 'any'

bits: '32'

prefetch: 'no'

bsfq: 'no'

popcnt: 'no'

sse: 'no'

Flags:

CXX: g++

CXXFLAGS: -Wall -Wcast-qual -fno-exceptions -fno-rtti -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto

LDFLAGS: -lpthread -Wall -Wcast-qual -fno-exceptions -fno-rtti -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto

Testing config sanity. If this fails, try 'make help' ...

make[1]: Leaving directory `/home/root/Stockfish/src'

Step 0/4. Preparing for profile build.

make ARCH=general-32 COMP=gcc gcc-profile-prepare

make[1]: Entering directory `/home/root/Stockfish/src'

make ARCH=general-32 COMP=gcc gcc-profile-clean

make[2]: Entering directory `/home/root/Stockfish/src'

make[2]: Leaving directory `/home/root/Stockfish/src'

make[1]: Leaving directory `/home/root/Stockfish/src'

Step 1/4. Building executable for benchmark ...

make ARCH=general-32 COMP=gcc gcc-profile-make

make[1]: Entering directory `/home/root/Stockfish/src'

make ARCH=general-32 COMP=gcc \

EXTRACXXFLAGS='-fprofile-generate' \

EXTRALDFLAGS='-lgcov' \

all

make[2]: Entering directory `/home/root/Stockfish/src'

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o benchmark.o benchmark.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o bitbase.o bitbase.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o bitboard.o bitboard.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o book.o book.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o endgame.o endgame.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o evaluate.o evaluate.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o main.o main.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o material.o material.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o misc.o misc.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o movegen.o movegen.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o movepick.o movepick.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o notation.o notation.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o pawns.o pawns.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o position.o position.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o search.o search.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o thread.o thread.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o timeman.o timeman.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o tt.o tt.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o uci.o uci.cpp

g++ -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto -c -o ucioption.o ucioption.cpp

g++ -o stockfish benchmark.o bitbase.o bitboard.o book.o endgame.o evaluate.o main.o material.o misc.o movegen.o movepick.o notation.o pawns.o position.o search.o thread.o timeman.o tt.o uci.o ucioption.o -lgcov -lpthread -Wall -Wcast-qual -fno-exceptions -fno-rtti -fprofile-generate -ansi -pedantic -Wno-long-long -Wextra -Wshadow -DNDEBUG -O3 -DNO\_PREFETCH -flto

/usr/lib/gcc/arm-angstrom-linux-gnueabi/4.7.3/../../../../arm-angstrom-linux-gnueabi/bin/ld: cannot find -lgcov

collect2: error: ld returned 1 exit status

make[2]: \*\*\* [stockfish] Error 1

make[2]: Leaving directory `/home/root/Stockfish/src'

make[1]: \*\*\* [gcc-profile-make] Error 2

make[1]: Leaving directory `/home/root/Stockfish/src'

make: \*\*\* [profile-build] Error 2