



SX-560 Linux/GNU Cross Compiling

SX-560 User World Application Building

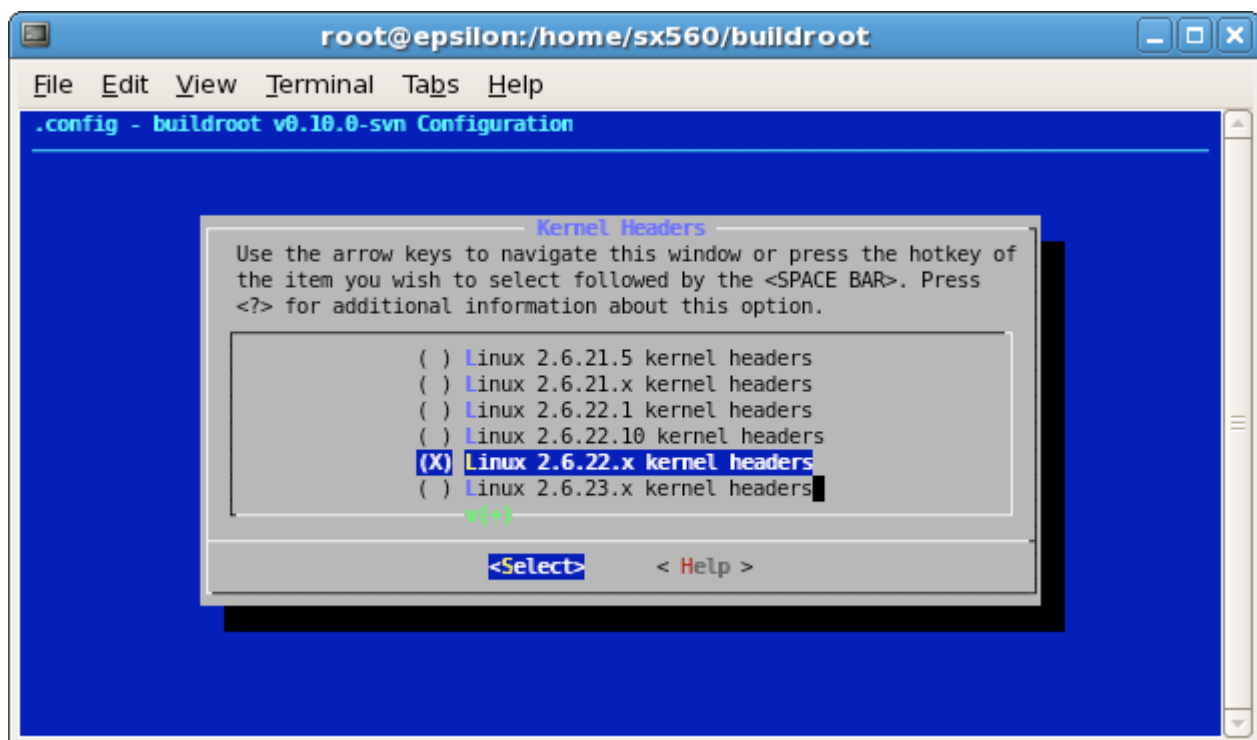
0) A Linux/GNU machine or Vmplayer Linux/GNU is required.

1) Acquire buildroot from buildroot.busybox.net
issue

```
svn co svn://uclibc.org/trunk/buildroot
```

from desired install directory. It is suggested to make /home/sx560/
This package will build and install tools needed for SX-560

- 2) Run `make menuconfig` from ./buildroot directory
- 3) Change target architecture to arm
- 4) Change target architecture variant to arm926t
- 5) Under Toolchain-->KernelHeaders-->
select Linux 2.6.22.x kernel headers



6) Run

`make` to build/config tools

This may take 60 minutes. PC must be connected to network so buildroot can download required packages.

7) make will stop and request input at some point....choose 8 which will be defaulted already.

8) The cross compiler and other tools will be in

`/home/sx560/buildroot/build_arm/staging_dir/usr/bin`

9) Create a convenient useful link:

```
ln -s /home/sx560/buildroot/build_arm/staging_dir/usr/bin/arm-linux-gcc /usr/sbin/560-gcc
```

10) Test it by issuing 560-gcc

11) Create a user space development area:

```
mkdir /home/sx560/user_files
```

12) Create a hello.c for the 560 using vi editor:

```
#include<stdio.h>
#include <stdlib.h>

int main(void)
{
    printf("Silex SX-560 says hello world!\n");
}
```

13) Compile hello.c:

```
560-gcc -o hello ./hello.c
```

14) Transfer the compiled file to the 560. The easiest way is with TFTP. On a linux machine try:

```
tftp -m binary a.b.c.d -c put ./hello
```

a.b.c.d is of course 560 IP

15) The SX-560 tftp server puts the received file in /tmp which is a RAM file system. It can be copied elsewhere to preserve it.