Building Cross-toolchain for at920t using Buildroot:

Buildroot

- Buildroot provides a full-featured environment for cross-development.
- Buildroot can generate a cross-compilation toolchain, a root filesystem, a Linux kernel image and a bootloader for your target.
- Buildroot can be configured for any combination of above menctioned options, independently.

- Create **at91** directory under **/usr/local/bin**

  $ mkdir /usr/local/bin/at91

  Note : This is the path where we will install Cross-Tool chain

- Download Buildroot Source
  - **http://buildroot.net/downloads/**

- untar the buildroot source and change directory to buildroot

- cp **dl** folder provided as part of give sources to buildroot directory

- Use default config file for configuring buildroot

  $ make mini2440_defconfig

- Select following options

  $ make menuconfig

  - Goto Build options and change **Host dir (/usr/local/bin/at91) Host dir**

  - Goto **Toolchain** menu and select following to avoid dependence errors in furute lads:

    [*] Enable large file (files > 2 GB) support
    [*] Enable IPv6 support
    [*] Enable RPC support
    [*] Enable C++ support

- **save** and **exit** from the configuration

- Now build toolchain

  $ make toolchain

  Note: The make command will generally perform the following steps:

  - download source files (as required).
    if internet not available copy the pre-downloaded required packages into dl directory
  - configure, build and install the cross-compiling toolchain.

- Once build is successful **Cross-compilation toolchain** is installed at
$(Buildroot_src)output/host/usr/bin/

```
root@linux:~/elinux/workspace/buildroot-2013.08.1# ls output/host/usr/bin/
aclocal                                  arm-buildroot-linux-uclibcgnueabi-ld         arm-linux-cpp          arm-linux-readelf
aclocal-1.11                             arm-buildroot-linux-uclibcgnueabi-ld.bfd     arm-linux-elfedit      arm-linux-size
arm-buildroot-linux-uclibcgnueabi-addr2line  arm-buildroot-linux-uclibcgnueabi-ldconfig  arm-linux-g++          arm-linux-strings
arm-buildroot-linux-uclibcgnueabi-ar     arm-buildroot-linux-uclibcgnueabi-ldd        arm-linux-gcc          arm-linux-strip
arm-buildroot-linux-uclibcgnueabi-as     arm-buildroot-linux-uclibcgnueabi-nm         arm-linux-gcc-4.7.3    autoconf
arm-buildroot-linux-uclibcgnueabi-c++    arm-buildroot-linux-uclibcgnueabi-objcopy    arm-linux-gcc-ar       autoheader
arm-buildroot-linux-uclibcgnueabi-cc     arm-buildroot-linux-uclibcgnueabi-objdump    arm-linux-gcc-nm       autom4te
arm-buildroot-linux-uclibcgnueabi-c++filt  arm-buildroot-linux-uclibcgnueabi-ranlib   arm-linux-gcc-ranlib   automake
arm-buildroot-linux-uclibcgnueabi-cpp    arm-buildroot-linux-uclibcgnueabi-readelf    arm-linux-gcov         automake-1.11
arm-buildroot-linux-uclibcgnueabi-elfedit  arm-buildroot-linux-uclibcgnueabi-size     arm-linux-gprof        autoreconf
arm-buildroot-linux-uclibcgnueabi-g++    arm-buildroot-linux-uclibcgnueabi-strings    arm-linux-ld           autoscan
arm-buildroot-linux-uclibcgnueabi-gcc    arm-buildroot-linux-uclibcgnueabi-strip      arm-linux-ld.bfd       autoupdate
arm-buildroot-linux-uclibcgnueabi-gcc-4.7.3  arm-linux-addr2line                      arm-linux-ldconfig     ifnames
arm-buildroot-linux-uclibcgnueabi-gcc-ar  arm-linux-ar                               arm-linux-ldd          ldconfig
arm-buildroot-linux-uclibcgnueabi-gcc-nm  arm-linux-as                               arm-linux-nm           ldd
arm-buildroot-linux-uclibcgnueabi-gcc-ranlib  arm-linux-c++                          arm-linux-objcopy      libtool
arm-buildroot-linux-uclibcgnueabi-gcov   arm-linux-cc                               arm-linux-objdump      libtoolize
arm-buildroot-linux-uclibcgnueabi-gprof  arm-linux-c++filt                           arm-linux-ranlib       m4
```