**COMPILING NEXUS 4 KERNEL**

By

Regards

Ashish Tanwer

Masters, Computer Science, Stony Brook University

1063 morse avenue, apt 3-200, Sunnyvale, California-94089

[ashishtanwer@gmail.com](mailto:ashishtanwer@gmail.com), +1-[(631) 551-3060](tel:%28631%29%20551-3060)

<http://ashishtanwer.info>, <http://in.linkedin.com/in/ashishtanwer>

<http://www.youtube.com/user/ashishtanwer> <https://github.com/ashishtanwer>

environment: ubuntu 10.04 LTS 64bit

**get some package**

sudo apt-get install gnupg flex bison gperf build-essential \

zip curl zlib1g-dev libc6-dev lib32ncurses5-dev ia32-libs \

x11proto-core-dev libx11-dev lib32readline5-dev lib32z-dev \

libgl1-mesa-dev g++-multilib mingw32 tofrodos python-markdown \

libxml2-utils xsltproc

**install git**

first install some packages that git depends on:

sudo apt-get install libcurl4-gnutls-dev libexpat1-dev gettext libz-dev libssl-dev

get the new git source code from <http://code.google.com/p/git-core/downloads/list>.

download git-1.8.0.tar.gz

tar -xvf git-1.8.0.tar.gz

cd git-1.8.0

./configure

make

sudo make install

this will install git to /usr/local/bin/

**get the kernel source code:**

mkdir -p ~/android/kernel

cd ~/android/kernel

git clone <https://android.googlesource.com/kernel/msm>

**check which version of kernel to checkout**

mkdir ~/work/android/nexus4-kernel

cd ~/work/android/nexus4-kernel

git clone <https://android.googlesource.com/device/lge/mako-kernel>

cd mako-kernel

git log kernel

get the commit rev, which is e039dcb (nov 25, 2012), this number seems to correspond to the latest commit revision in [https://android.googlesource.com/ker...ako-3.4-jb-mr1](https://android.googlesource.com/kernel/msm/android-msm-mako-3.4-jb-mr1)

**check out the kernel**

cd ~/android/kernel/kernel\_msm

git checkout <commit version>

note: commit version is e039dcb, which is the result of the git log kernel command in the previous step

**install google toolchain**

mkdir ~/android/toolchain

cd ~/android/toolchain

git clone [https://android.googlesource.com/pla...ndroideabi-4.6](https://android.googlesource.com/platform/prebuilts/gcc/linux-x86/arm/arm-linux-androideabi-4.6)

add “export PATH=$PATH:~/android/toolchain/arm-linux-androideabi-4.6/bin” to ~/.profile and run source ~/.profile

**setup environment variables and build**

cd ~/android/kernel/kernel\_msm

export ARCH=arm

export SUBARCH=arm

export CROSS\_COMPILE=arm-linux-androideabi-

make mako\_defconfig

make -j4