1. Introduction

recommend Ubuntu "Xenial Xerus" (16.04) 64Bit.

2. Installing the required Ubuntu packages

openjdk-8-jdk/openjre-8-jre or higher version

$ sudo apt-get install build-essential default-jdk git curl autoconf unzip zlib1g-dev gawk gperf cmake libcurl4-openssl-dev zip

$ sudo apt-get install lib32stdc++6 lib32z1 lib32z1-dev

3. Installing and setting up the Android environment

3.1. Getting the Android SDK and NDK

download android-ndk-r15c-linux-x86\_64.zip， sdk-tools-linux-3859397.zip

3.2. Installing Android SDK packages

$ cd <android-sdk>/tools/bin

$ ./sdkmanager platform-tools

$ ./sdkmanager "platforms;android-21"

$ ./sdkmanager "build-tools;20.0.0"

3.3. Setup the Android toolchain

**3.3.1 fix Compilation failure with android ndk r15b**

(<https://github.com/openssl/openssl/issues/3826#issuecomment-313269094>)

pass --deprecated-headers to make\_standalone\_toolchain.py

john@u1604:~/soft/android/android-ndk-r15c/build/tools$ diff -urN make-standalone-toolchain.sh.orig make-standalone-toolchain.sh

--- make-standalone-toolchain.sh.orig 2017-10-12 14:14:23.049382463 +0800

+++ make-standalone-toolchain.sh 2017-10-12 14:14:50.320942572 +0800

@@ -154,6 +154,7 @@

fi

run python `dirname $0`/make\_standalone\_toolchain.py \

+ --deprecated-headers \

--arch $ARCH $PLATFORM\_ARG --stl $STL $INSTALL\_ARG $FORCE\_ARG

fail\_panic "Failed to create toolchain."

**3.3.2 Building a standalone toolchain for arm architecture:**

$ cd /home/john/soft/android/android-ndk-r15c/

$ ls platforms

$ cd build/tools

$ ./make-standalone-toolchain.sh \

--install-dir=/home/john/soft/android/arm-linux-androideabi-4.9-vanilla/android-21 --platform=android-21 \

--toolchain=arm-linux-androideabi-4.9

3.4. Create a (new) debug key to sign debug APKs

$ keytool -genkey -keystore ~/.android/debug.keystore -v -alias \

androiddebugkey -dname "CN=Android Debug,O=Android,C=US" -keypass \

android -storepass android -keyalg RSA -keysize 2048 -validity 10000

4. Getting the source code

$ cd $HOME/git

$ git clone <git://github.com/xbmc/xbmc.git> kodi-android

$ cd kodi-android

$ git checkout Krypton

5. How to compile

5.1. Building dependencies

$ cd $HOME/git/kodi-android/tools/depends

$ ./bootstrap

$ ./configure --with-tarballs=/home/john/soft/xbmc/tarballs --host=arm-linux-androideabi \

--with-sdk-path=/home/john/soft/android/android-sdk-linux/ --with-ndk=/home/john/soft/android/android-ndk-r15c \

--with-toolchain=/home/john/soft/android/arm-linux-androideabi-4.9-vanilla/android-21/ --prefix=/home/john/soft/xbmc/depends

$ make -j 16

$ make -j 16 -C target/binary-addons

5.2. Building Kodi

$ cd $HOME/git/kodi-android

$ make -C tools/depends/target/cmakebuildsys

$ cd build

$ make -j 16

$ make -j 16 apk

6. install the apk

$ adb connect 192.168.1.121

$ adb install -r /home/john/git/kodi-android/kodiapp-armeabi-v7a-debug.apk

Appendix A: How to install jdk7 on ubuntu 16.04

$ sudo add-apt-repository ppa:openjdk-r/ppa

$ sudo apt-get update $ sudo apt-get install openjdk-7-jdk

$ sudo update-alternatives --config java $ sudo update-alternatives --config javac