Android Development

Android platforms are evolving rapidly and so are the Developer tools. At the time of preparation (April 2013) of this document the Android SDK used to test the Apps is:

- Platform 4.2.2 (Apps built for platform 2.1)

- ADT plugin REV 21.1

- SDK API 17

- (Native Development Kit) NDK -r7b (OSX) and NDK-r8e (Ubuntu)

- Development platforms

  1. Macintosh OS-X 10.8.3 Mountain Lion
  2. Ubuntu 10.04 (GNU/Linux)

  Windows is not the most appropriate platform for development because the NDK is best used as a command line tool. The makefiles

- Integrated development environment *Eclipse Indigo service release 2*. App development can be moved between Mac and Ubuntu.

To build the JNI native static object (SO) libraries, open a command prompt, navigate to the project folder, (in the Eclipse workspace) and then into the .JNI folder. In all the JNI folders there will be a makefile Android.mk, this makefile forms part of the NDK development chain. From a location in the JNI folder execute the script `ndk-bulid`. Make sure you get the proper path to the `ndk-build` script. (A relative path is the best approach.)

Comments

- On Ubuntu, DDMS does not recognise the phone You need to run adb manually using sudo. If you just run adb without sudo (or if you let Eclipse/ADT do it for you), it won't have the permissions necessary to see your devices. If it's already running, then sudo adb kill-server and sudo adb start-server. ADB is located in folder android-sdks/platform-tools

- To install an APK on a development computer use the command line give command:

  ```
  adb install <path_to_apk>
  ```

  Adb is located in the folder platform tools.

  It device cannot connect to developement host then copy apk to storage device (internal or external) and execute the ,ppk

- Java compiler must be at least version 1.6 this needs to be set for a project and for Eclipse itself. Do this for the Eclipse Preferences as well, as is done for each project

- Use Eclipse's import existing project menu command to install the projects into your workspace.

- Clean and rebuild the project.

- If you get errors, delete `gen` folder and rebuild. The generated files, from the resources will be regenerated for you.