SDK Tools

**android**

Used for managing virtual devices, creat,ng and updating projects, listing and updating SDK’s

**Dalvik Debug Monitor Server**

Provides direct access to the device. Used for viewing and managing processes and threads. analyzing device memory, port forwarding and screen capture.

**Draw 9-patch**

Used for creating nine-patch graphics. Basically there are guides on each side of the image. Two of them are used for scaling the image horizontally and verticallay, and two of them used for filling the area

**emulator**

Used for creating virtual android devices that running on computer. It is used to test developed applications without any physical device. It can create various virtual devices with different API’s

**Hirearchy viewer**

Used for designing, debugging and profiling layouts and user interfaces. It is a tool for debugging and testing user interfaces accross multiple devices in order to improve user interfaces.

**hprof-conv (HPROF- Converter)**

Used for converting HProf files to a standart format. HProf is a file that saves the heap dump of the process at the time of failure when a Java process crashes. It is shows the CPU and heap usage within JVM. In Android case Dalvik generates the HProf file.

**layoutopt**

Similar to hierarchy viewer this tool is also used for layouts. It is for optimizing, validating and correcting the layouts and hierachies. It validates the input layout files and suggests optimization and correction options for hem.

**mksdcard**

This tool is used for creating virtial disk image as sd card. And we can use these virtual images to mount on virtual devices on emulator, use their virtual storage for device.

**monkey**

It is a program that runs on device and genrates random inputs. It is used for testing the application you developed.

**monkeyrunner**

Basically it is similar to monkey program, but it is an API. It can be used by writing a Python code or jython script, and it can install android program, send random inputs and take screenshots of UI.

**ProGuard**

This tool is used for shrinking and optimizng code, faster transfer across network, making code more cryptic to harden reverse-engineering etc. It generally aims to improve program efficiency and performance.

**Systrace**

This tool is used for analyzing the execution of application we developed. It compares the main Android system processes execution time to the our application’s processes’.

**sqlite3**

It is a basic database management tool. It allows user to manually write and execute SQL commands.

**zipalign**

This tool used for optimizing the application packaging, so system can run application more efficiently and overall system performance improves.

Platform Tools

**Android Debug Bridge (adb)**

This tool is the only one that is called directly. The other platfrom tools are usually called other SDK tools. The Bridge establishes the connection between pc and android device. By using this tool, we can pull and push files, reboot and report bugs etc.

**Android Asset Packaging Tools (aapt)**

This tool is used for creating and updateing archives.

**DX**

It generates Dalvik bytecode from java class file.

SOURCES

<https://developer.android.com/tools/help/index.html>

<http://smartapps-android.blogspot.com/2012/02/dalvik-debug-monitor-server-ddms.html>

<http://developer.att.com/developer/forward.jsp?passedItemId=5000010>

<http://docwiki.cisco.com/wiki/Java_HProf_Files>

<http://blog.apkudo.com/tag/hierarchy-viewer/>

<http://radleymarx.com/blog/simple-guide-to-9-patch/>

<http://www.kpbird.com/2011/08/android-layout-optimize-layoutopt.html>

<http://xjaphx.wordpress.com/2011/06/26/create-and-use-emulated-sd-card/>

<https://groups.google.com/forum/#!topic/android-developers/n7RRC9pWjvY>

<http://proguard.sourceforge.net/>

<http://java.llp2.dcc.ufmg.br/apiminer/static/docs/tools/help/systrace.html>

<http://www.sqlite.org/sqlite.html>

<http://android-developers.blogspot.com/2009/09/zipalign-easy-optimization.html>