

# Android Debug Bridge

## Cheat Sheet

### Selecting a device

```
adb devices          List of devices
                      by serial number.
adb devices -l       List of devices
                      by product/model.
adb -s <serial> ...   Command line selection.
export ANDROID_SERIAL=<serial> Env. variable selection.
```

If a command starts with \$ it has to be run from the Android shell or via `adb shell <command>`, or even better

```
adb shell <command> | less.
```

### Package installation

```
adb install <apk>      Installs app.
$ pm install <path>    Install app from phone path.
$ pm install -r <path> Reinstall app from phone path.
$ pm uninstall <name>  Remove the app.
$ pm get-install-location Install location:
                        0 - Auto
                        1 - Internal
                        2 - External
```

### Package info

```
$ pm list packages      List package names.
$ pm list packages -f   As above + path to apks.
$ pm list packages -3   Only third party packages.
$ pm list packages -s   Only system packages.
$ pm list packages -u   Also uninstalled packages.
$ dumpsys package packages List info on all apps.
$ pm dump <name>        List info on one package.
$ pm path <package>     Path to the apk file.
```

### Permissions

```
$ pm permission groups  Permission groups definitions.
$ pm list permissions -g -f List permissions details.
```

### File operations

```
adb push <local> <remote>    Copy file/dir to device.
adb pull <remote> [<local>]   Copy file/dir from device.
adb backup -f <file> [<packages...>]
                               Backup the phone.
```

If you want to access the private package files just use

```
run-as <package> cat <file>.
```

### Paths

/data/data/<package>	App data, as described below.
databases/	App databases.
shared_prefs/	Shared preferences.
/data/app	APK files installed by user.
/system/app	Pre-installed APK files.
/mnt/asec	Encrypted apps (App2SD).
/mnt/emmc	Internal SD Card.
/mnt/sdcard	External/Internal SD Card.
/mnt/sdcard/external_sd	External SD Card.

### Phone info

```
$ sqlite3 /data/data/
    com.android.providers.settings/
    databases/settings.db .dump
                               Dump phone settings.
$ getprop                  Get properties (e.g. model).
$ dumpsys phonesubinfo     Get the IMEI.
adb get-serialno           Get the serial number.
$ dumpsys battery          Battery status.
$ pm list users             Lists phone users (4.1+).
$ pm list features         List phone features.
```

### Services & activities

```
$ service list             List all services.
$ dumpsys activity <package>/<activity>
                               Activity info.
```

Activity Manager usage:

```
$ am start|startservice|broadcast <INTENT>
                               [<COMPONENT>]
```

where <INTENT> is specified with following options:

```
-a <ACTION>      e.g. android.intent.action.VIEW
-c <CATEGORY>    e.g. android.intent.category.LAUNCHER
```

### Common actions

To open the URL:

```
$ am start -a android.intent.action.VIEW -d URL
```

To launch camera:

```
$ am start -a android.media.action.IMAGE_CAPTURE
```

To launch Device Administrator Settings:

```
$ am start -S "'com.android.settings.Settings$
DeviceAdminSettingsActivity'"
```

### Logs

All logs are accessed by using either

```
$ logcat [options] [filter] [filter] ...
```

or

```
adb logcat [options] [filter] [filter] ...
```

Useful options are:

```
-d          Only dump logs (do not block).
-c          Flush the buffers.
-b <buffer> Buffer to display (default: system, main).
<tag>[:priority] filter spec at the end of command.
```

Available priorities are:

V	Verbose
D	Debug
I	Info
W	Warn
E	Error
F	Fatal
S	Silent (suppress all output)

Other useful log information:

```
$ dumpstate  Dump current phone state.
$ dumpsys    Dump all system data.
```

### Miscellaneous

```
$ screencap -p <path>.png  Screenshot (saved on device).
$ screenrecord <path>.mp4  Screen capture (path on device).
```

### ADB daemon

adb runs on TCP/5037.

```
adb kill-server  Kill the server if it is running.
adb start-server Ensure that there is a server running.
adb root         Restarts the adb with root permissions.
```

v 0.2 by @maldr0id

based on L<sup>A</sup>T<sub>E</sub>X cheat sheet by Winston Chang

<http://www.stdout.org/~winston/latex/>