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 iphonesubinfo       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
```

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

`adbd` 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 adbd with root permissions.
```