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
```

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.
```