



Device Management

Basic Device Commands

<code>adb devices</code>	Lists all connected Android devices. Shows serial number and state (device, offline, unauthorized).
<code>adb devices -l</code>	Lists connected devices with more details like transport ID and product/model information.
<code>adb get-state</code>	Prints the device's current state (device, offline, unauthorized, unknown).
<code>adb get-serialno</code>	Retrieves the serial number of the connected device.
<code>adb wait-for-device</code>	Blocks execution until a device is connected. Useful in scripts.
<code>adb kill-server</code>	Kills the ADB server process. The server will restart automatically when another ADB command is executed.
<code>adb start-server</code>	Starts the ADB server. Usually not required as ADB commands start the server if it's not running.

File Management

File Transfer

<code>adb push <local> <remote></code>	Copies a file or directory from your computer (local) to the Android device (remote). Example: <code>adb push myfile.txt /sdcard/</code>
<code>adb pull <remote> <local></code>	Copies a file or directory from the Android device (remote) to your computer (local). Example: <code>adb pull /sdcard/myimage.jpg .</code> (copies to current directory)

Device Selection

<code>adb -s <serialNumber> <command></code>	Specifies the device by serial number to execute the command on. Useful when multiple devices are connected. Example: <code>adb -s emulator-5554 shell getprop ro.product.model</code>
<code>adb -e <command></code>	Directs the command to the only connected emulator. Returns an error if more than one emulator is running.
<code>adb -d <command></code>	Directs the command to the only connected hardware device. Returns an error if more than one device is connected.

Reboot Commands

<code>adb reboot</code>	Reboots the Android device.
<code>adb reboot bootloader</code>	Reboots the device into the bootloader (fastboot) mode.
<code>adb reboot recovery</code>	Reboots the device into recovery mode.

Shell File Operations

<code>adb shell ls <path></code>	Lists files and directories in the specified path on the device. Use <code>-l</code> for detailed listing. Example: <code>adb shell ls /sdcard/DCIM/Camera</code>
<code>adb shell mkdir <path></code>	Creates a new directory at the specified path on the device. Example: <code>adb shell mkdir /sdcard/new_folder</code>
<code>adb shell rm <path></code>	Removes the file at the specified path on the device. Example: <code>adb shell rm /sdcard/temp.txt</code>
<code>adb shell rm -r <path></code>	Removes the directory recursively at the specified path on the device. Example: <code>adb shell rm -r /sdcard/temp_folder</code>
<code>adb shell mv <source> <destination></code>	Moves a file from source to destination path on the device. Example: <code>adb shell mv /sdcard/test.txt /sdcard/backup/test.txt</code>

Shell Commands

Basic Shell Interaction

<code>adb shell</code> <code><command></code> >	Executes a shell command on the Android device. Example: <code>adb shell getprop ro.product.model</code> (gets the device model)
<code>adb shell</code>	Opens an interactive shell session on the Android device. Type <code>exit</code> to close the session.
<code>adb emu</code> <code><command></code> >	Runs emulator console command. Example: <code>adb emu geo fix -80 30</code>

Debugging & Logging

Logcat Commands

<code>adb logcat</code>	Starts streaming system log messages to your console.
<code>adb logcat -c</code>	Clears the current log buffers.
<code>adb logcat -v</code> <code><format></code> >	Specifies the log message format (<code>brief</code> , <code>process</code> , <code>tag</code> , <code>thread</code> , <code>raw</code> , <code>time</code> , <code>threadtime</code> , <code>long</code>). Example: <code>adb logcat -v threadtime</code>
<code>adb logcat</code> <code><tag>:</code> <code><level></code>	Filters log messages by tag and priority level (<code>V</code> - Verbose, <code>D</code> - Debug, <code>I</code> - Info, <code>W</code> - Warning, <code>E</code> - Error, <code>F</code> - Fatal, <code>S</code> - Silent). Example: <code>adb logcat MyTag:D *:S</code> (shows Debug messages from MyTag and suppresses all other tags)
<code>adb logcat -f</code> <code><filename></code> >	Saves the log output to the specified file. Example: <code>adb logcat -f mylog.txt</code>
<code>adb logcat grep</code> <code><search_term></code>	Filters logcat output using grep for specific strings. Example: <code>adb logcat grep "MyApp"</code>

Package Management

<code>adb install</code> <code><path_to_apk></code> >	Installs an Android application package (APK) from your computer to the device. Example: <code>adb install myapp.apk</code>
<code>adb install -r</code> <code><path_to_apk></code> >	Reinstalls an existing application, keeping its data. Example: <code>adb install -r myapp.apk</code>
<code>adb uninstall</code> <code><package_name></code> >	Uninstalls the application with the specified package name from the device. Example: <code>adb uninstall com.example.myapp</code>
<code>adb shell pm list packages</code>	Lists all installed packages on the device.
<code>adb shell pm clear</code> <code><package_name></code> >	Clear user data of a package. Example: <code>adb shell pm clear com.example.myapp</code>

Debugging Applications

<code>adb jdwp</code>	Lists the process IDs (PID) of all applications that are enabled for JDWP (Java Debug Wire Protocol) debugging.
<code>adb forward tcp:</code> <code><local_port></code> > <code>jdwp:</code> <code><remote_pid></code> >	Sets up port forwarding for debugging a specific application process. Example: <code>adb forward tcp:8000 jdwp:1234</code> (forwards local port 8000 to process 1234)
<code>adb shell am start -D -n</code> <code><package>/<activity></code>	Starts an application in debug mode, waiting for a debugger to attach. Example: <code>adb shell am start -D -n com.example.myapp/.MainActivity</code>

Screen and Media

<code>adb shell screencap -p</code> <code>/sdcard/screenshot.png</code>	Takes a screenshot of the device screen and saves it as a PNG file on the device. Then use <code>adb pull /sdcard/screenshot.png</code> to copy it to your computer.
<code>adb shell screenrecord</code> <code>/sdcard/screen.mp4</code>	Records a video of the device screen and saves it as an MP4 file on the device. Press Ctrl+C to stop recording. Then use <code>adb pull /sdcard/screen.mp4</code> to copy it to your computer.

ADB over Network

<code>adb tcpip</code> <code><port></code>	Restarts ADB in TCP/IP mode on the specified port (usually 5555). Run on the device itself (via USB connection).
<code>adb connect</code> <code><device_ip>:</code> <code><port></code>	Connects to the device over the network. Run on the computer after enabling <code>adb tcpip</code> on the device. Example: <code>adb connect 192.168.1.100:5555</code>
<code>adb disconnect</code> <code><device_ip>:</code> <code><port></code>	Disconnects from a network-connected device. Example: <code>adb disconnect 192.168.1.100:5555</code>