

SDK Platform Tools release notes

Android SDK Platform-Tools is a component for the Android SDK. It includes tools that interface with the Android platform, such as [adb](/studio/command-line/adb.html) (</studio/command-line/adb.html>), [fastboot](#) (<https://android.googlesource.com/platform/system/core/+/master/fastboot/#fastboot>), and [systrace](#) (</studio/profile/systrace-commandline.html>). These tools are required for Android app development. They're also needed if you want to unlock your device bootloader and flash it with a new system image.

Although some new features in these tools are available only for recent versions of Android, the tools are backward compatible, so you need only one version of the SDK Platform-Tools.

Downloads

If you're an Android developer, you should get the latest SDK Platform-Tools from Android Studio's [SDK Manager](/studio/intro/update.html#sdk-manager) (</studio/intro/update.html#sdk-manager>) or from the [sdkmanager](/studio/command-line/sdkmanager.html) (</studio/command-line/sdkmanager.html>) command-line tool. This ensures the tools are saved to the right place with the rest of your Android SDK tools and easily updated.

But if you want just these command-line tools, use the following links:

- [Download SDK Platform-Tools for Windows](#)
- [Download SDK Platform-Tools for Mac](#)
- [Download SDK Platform-Tools for Linux](#)

Although these links do not change, they always point to the most recent version of the tools.

Revisions

29.0.4 (September 2019)

- **adb**
 - Hotfix for native debugging timeout with LLDB (see [issue #134613180](https://issuetracker.google.com/134613180) (<https://issuetracker.google.com/134613180>)). This also fixes a related bug in the Android Studio Profilers that causes an `AdbCommandRejectedException`, which you can see in the `idea.log` file.

29.0.3 (September 2019)

- **adb**
 - `adb forward --list` works with multiple devices connected.
 - Fix devices going offline on Windows.
 - Improve `adb install` output and help text.
 - Restore previous behavior of `adb connect <host>` without specifying port.

29.0.2 (July 2019)

- **adb**
 - Fixes a Windows heap integrity crash.
- **fastboot**

- Adds support for partition layout of upcoming devices.

29.0.1 (June 2019)

- **adb**
 - Hotfix for Windows crashes
(<https://issuetracker.google.com/134613180>)

29.0.0 (June 2019)

- **adb**
 - `adb reconnect` performs a USB reset on Linux.
 - On Linux, when connecting to a newer adb server, instead of killing the server and starting an older one, adb attempts to launch the newer version transparently.
 - `adb root` waits for the device to reconnect after disconnecting. Previously, `adb root; adb wait-for-device` could mistakenly return immediately if `adb wait-for-device` started before adb noticed that the device had disconnected.
- **fastboot**
 - Disables an error message that occurred when fastboot attempted to open the touch bar or keyboard on macOS.

28.0.2 (March 2019)

- **adb**
 - Fixes flakiness of `adb shell` port forwarding that leads to "Connection reset by peer" error message.
 - Fixes authentication via `ADB_VENDOR_KEYS` when reconnecting devices

Fixes authentication via `ADB_VENDOR_KEYS` when reconnecting devices.

- Fixes authentication—when the private key used for authentication does not match the public key—by calculating the public key from the private key, instead of assuming that they match.
- **fastboot**
 - Adds support for dynamic partitions.
- **Updated Windows requirements**
 - The platform tools now depend on the Windows Universal C Runtime, which is usually installed by default via Windows Update. If you see errors mentioning missing DLLs, you may need to manually fetch and install the [runtime package](https://support.microsoft.com/en-ca/help/2999226/update-for-universal-c-runtime-in-windows) (<https://support.microsoft.com/en-ca/help/2999226/update-for-universal-c-runtime-in-windows>)

28.0.1 (September 2018)

- **adb**
 - Add support for reconnection of TCP connections. Upon disconnection, adb will attempt to reconnect for up to 60 seconds before abandoning a connection.
 - Fix Unicode console output on Windows. (Thanks to external contributor Spencer Low!)
 - Fix a file descriptor double-close that can occur, resulting in connections being closed when an `adb connect` happens simultaneously.
 - Fix `adb forward --list` when used with more than one device

connected.

- **fastboot**

- Increase command timeout to 30 seconds, to better support some slow bootloader commands.

28.0.0 (June 2018)

- **adb:**

- Add support for checksum-less operation with devices running Android P, which improves throughput by up to 40%.
- Sort output of `adb devices` by connection type and device serial.
- Increase the socket listen backlog to allow for more simultaneous adb commands.
- Improve error output for `adb connect`.

- **fastboot:**

- Improve output format, add a verbose output mode (`-v`).
- Clean up help output.
- Add `product.img` and `odm.img` to the list of partitions flashed by `fastboot flashall`.
- Avoid bricking new devices when using a too-old version of fastboot by allowing factory image packages to require support for specific partitions.

27.0.1 (December 2017)

- **adb:** fixes an assertion failure on MacOS that occurred when connecting

devices using USB 3.0.

- **Fastboot:** On Windows, adds support for wiping devices that use F2FS (Flash-Friendly File System).

27.0.0 (December 2017)

- Re-fixes the macOS 10.13 fastboot bug first fixed in 26.0.1, but re-introduced in 26.0.2.

26.0.2 (October 2017)

- Add fastboot support for Pixel 2 devices.

26.0.1 (September 2017)

- Fixed fastboot problems on macOS 10.13 High Sierra ([bug 64292422](https://issuetracker.google.com/64292422) (<https://issuetracker.google.com/64292422>)).

26.0.0 (June 2017)

- Updated with the release of Android O final SDK (API level 26).

25.0.5 (April 24, 2017)

- Fixed adb sideload of large updates on Windows, manifesting as "std::bad_alloc" ([bug 37139736](https://issuetracker.google.com/37139736) (<https://issuetracker.google.com/37139736>)).
- Fixed adb problems with some Windows firewalls, manifesting as "cannot open transport registration socketpair" ([bug 37139725](https://issuetracker.google.com/37139725) (<https://issuetracker.google.com/37139725>)).
- Both `adb --version` and `fastboot --version` now include the install path.

- Changed adb to not resolve `localhost` to work around misconfigured VPN.
- Changed adb to no longer reset USB devices on Linux, which could affect other attached USB devices.

25.0.4 (March 16, 2017)

- Added experimental libusb support to Linux and Mac adb

To use the libusb backend, set the environment variable `ADB_LIBUSB=true` before launching a new adb server. The new `adb host-features` command will tell you whether or not you're using libusb.

To restart adb with libusb and check that it worked, use `adb kill-server; ADB_LIBUSB=1 adb start-server; adb host-features`. The output should include "libusb".

In this release, the old non-libusb implementation remains the default.

- fastboot doesn't hang 2016 MacBook Pros anymore ([bug 231129](https://code.google.com/p/android/issues/detail?id=231129) (<https://code.google.com/p/android/issues/detail?id=231129>))
- Fixed Systrace command line capture on Mac

25.0.3 (December 16, 2016)

- Fixed fastboot bug causing Android Things devices to fail to flash

25.0.2 (December 12, 2016)

- Updated with the Android N MR1 Stable release (API 25)

25.0.1 (November 22, 2016)

- Updated with the release of Android N MR1 Developer Preview 2 release (API

25)

25.0.0 (October 19, 2016)

- Updated with the release of Android N MR1 Developer Preview 1 release (API 25)

24.0.4 (October 14, 2016)

- Updated to address issues in ADB and Mac OS Sierra

[Previous](#)

[← SDK platform](#) (/studio/releases/platforms)

Content and code samples on this page are subject to the licenses described in the [Content License \(/license\)](#). Java is a registered trademark of Oracle and/or its affiliates.