

Installation Guide for Android on Windows

Install Appium using NPM (Appium CLI)

-> Commands to check if node and NPM are installed:

node -v

npm -v

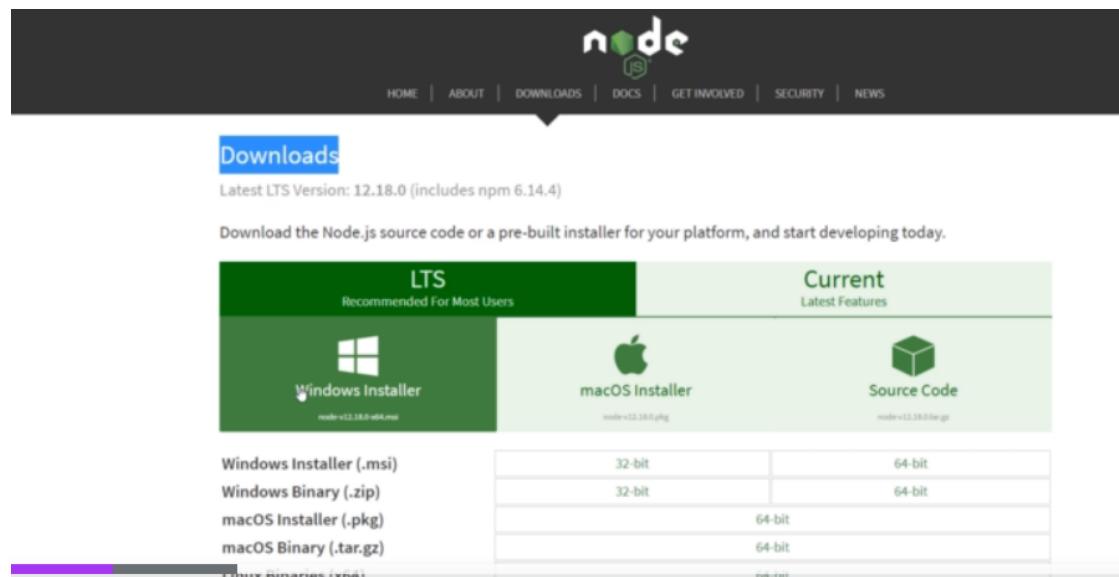
-> Install node.js (NPM is included) from link - <https://nodejs.org/en/download/>

Important note: Use the LTS and not current version.

-> Command to install Appium using npm: npm install -g appium

-> Command to start Appium: appium

-> Command to uninstall Appium: npm uninstall -g appium



<https://appium.io/>

<https://github.com/appium/appium-desktop/releases/tag/v1.22.0>

Since this version, please use <https://github.com/appium/appium-inspector> as an inspector.

- Moved the inspector feature (*New session windows* section) to <https://github.com/appium/appium-inspector>
- Bump embedded Appium version to 1.22.0
 - The version still expects to have `/wd/hub` prefix as Remote Path

▼ Assets 11

 Appium-Server-GUI-1.22.0-mac.zip	158 MB
 Appium-Server-GUI-linux-1.22.0.AppImage	131 MB
 Appium-Server-GUI-mac-1.22.0.dmg	146 MB
 Appium-Server-GUI-mac-1.22.0.dmg.blockmap	158 KB
 Appium-Server-GUI-windows-1.22.0.exe	239 MB
 Appium-Server-GUI-windows-1.22.0.exe.blockmap	222 KB
 Appium-Server-GUI-windows-1.22.0.zip	148 MB
 latest-linux.yml	401 Bytes
 latest-mac.yml	550 Bytes
 Source code (zip)	
 Source code (tar.gz)	

<https://github.com/appium/appium-inspector>

[Releases](#) / v1.22.0

1.22.0

Latest

Compare ▾



dpgraham released this Sep 26, 2021

· 3 commits to master since this release

🔗 v1.22.0

-o- 1e2aa92



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 Appium-Server-GUI-windows-1.22.0.exe	239 MB

<https://github.com/appium/appium-inspector>

The screenshot shows the GitHub repository page for `appium/appium-inspector`. The top navigation bar includes links for Apps, Managed bookmarks, and various GitHub features like Quality Assurance, Watch 'BDD Overvi...', Remove specific pr..., Parallel Test Executi..., and Install Windows Su... . The main navigation tabs are Code, Issues (30), Pull requests (10), Actions, Projects, Wiki, Security, and Insights. The Code tab is selected.

Key statistics displayed on the page are:

- main branch: 13 branches, 13 tags
- Code: Go to file, Add file, Code dropdown
- Commits: 34ce7b7 yesterday, 126 commits

The commit history table lists recent changes:

Commit	Message	Date
ci: use correct submodule checkout syntax	github-actions and jlipps chore: Update translations (#220)	6 months ago
fix: Ensure Appium Protocol is included when attaching to a session id (14 days ago
chore: Update translations (#220)		yesterday
refactor: pull in code from old appium-desktop repo		6 months ago
chore: use current node LTS for CI instead of really old versions		3 months ago
docs: add comprehensive readme		3 months ago
refactor: pull in code from old appium-desktop repo		6 months ago
chore: upgrade spectron to latest, which requires rewriting test code...	gui-common @ 2b154f5	4 months ago
Fix: android hybrid app and chrome support		2 months ago

The About section describes the repository as a "GUI inspector for mobile apps and more, powered by a (separately install) Appium server". It includes links for Readme, View license, and Code of conduct.

The Releases section shows one release: 2021.9.2 (Latest) on Oct 5, with 5 more releases available.

github.com/appium/appium-inspector/releases/tag/v2021.9.2

donmezburak and wswebcreation

▼ Assets 12

Appium-Inspector-2021.9.2-mac.zip	92.7 MB
Appium-Inspector-linux-2021.9.2.AppImage	95 MB
Appium-Inspector-mac-2021.9.2.dmg	97 MB
Appium-Inspector-mac-2021.9.2.dmg.blockmap	103 KB
Appium-Inspector-windows-2021.9.2.exe	135 MB
Appium-Inspector-windows-2021.9.2.exe.blockmap	143 KB
Appium-Inspector-windows-2021.9.2.zip	94.4 MB
Appium.Inspector-2021.9.2-mac.zip.blockmap	100 KB
latest-linux.yml	404 Bytes
latest-mac.yml	529 Bytes
Source code (zip)	
Source code (tar.gz)	

Set Up Java JDK Path

Install JAVA JDK and configure environment variables

-> Command to check if JAVA is already installed: `java -version`

-> JAVA JDK download link: <https://www.oracle.com/technetwork/java/javase/downloads/index.html>

Important note: Please use Java 8/11/15 for now. Don't use Java 16 or higher. The current Appium Java Client 7.6.0 is not compatible with Java 16+. You may use Java 16+ once Appium Java client 8.0.0 is released to the market.

-> Create `JAVA_HOME` system environment variable and set it to JDK path (without bin folder).

Edit `PATH` system environment variable and add `%JAVA_HOME%\bin`

Note: Usually JDK path is "`C:\Program Files\Java\<your_jdk_version>`"

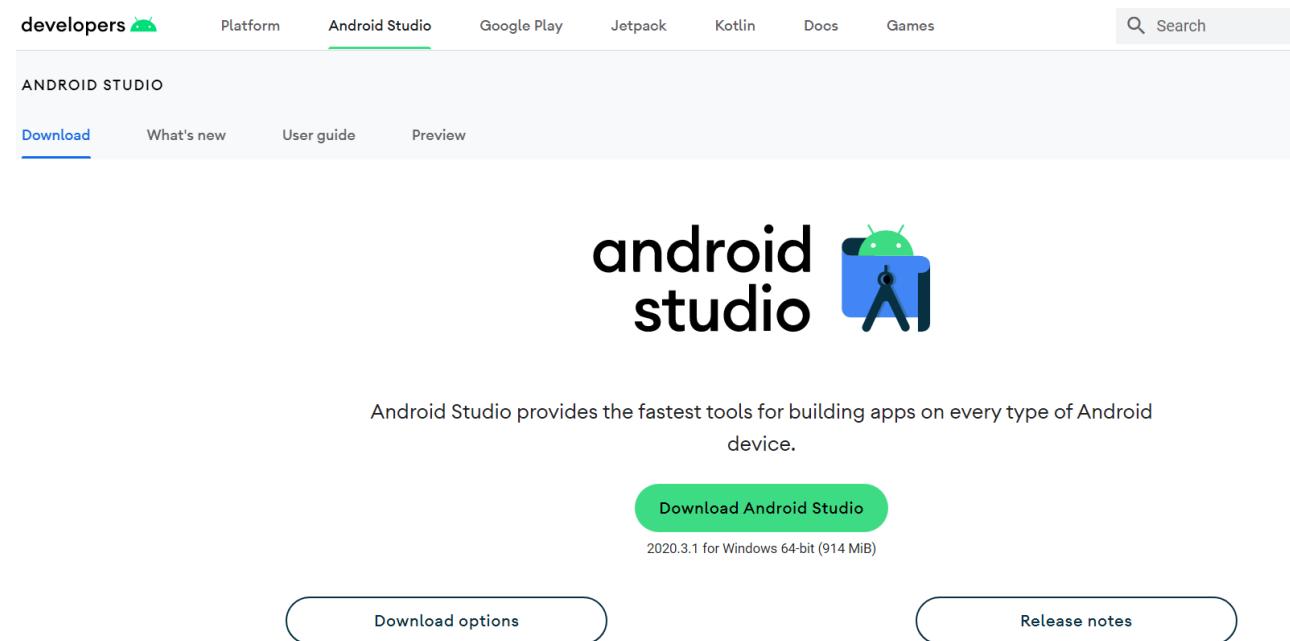
Set Up Android Studio

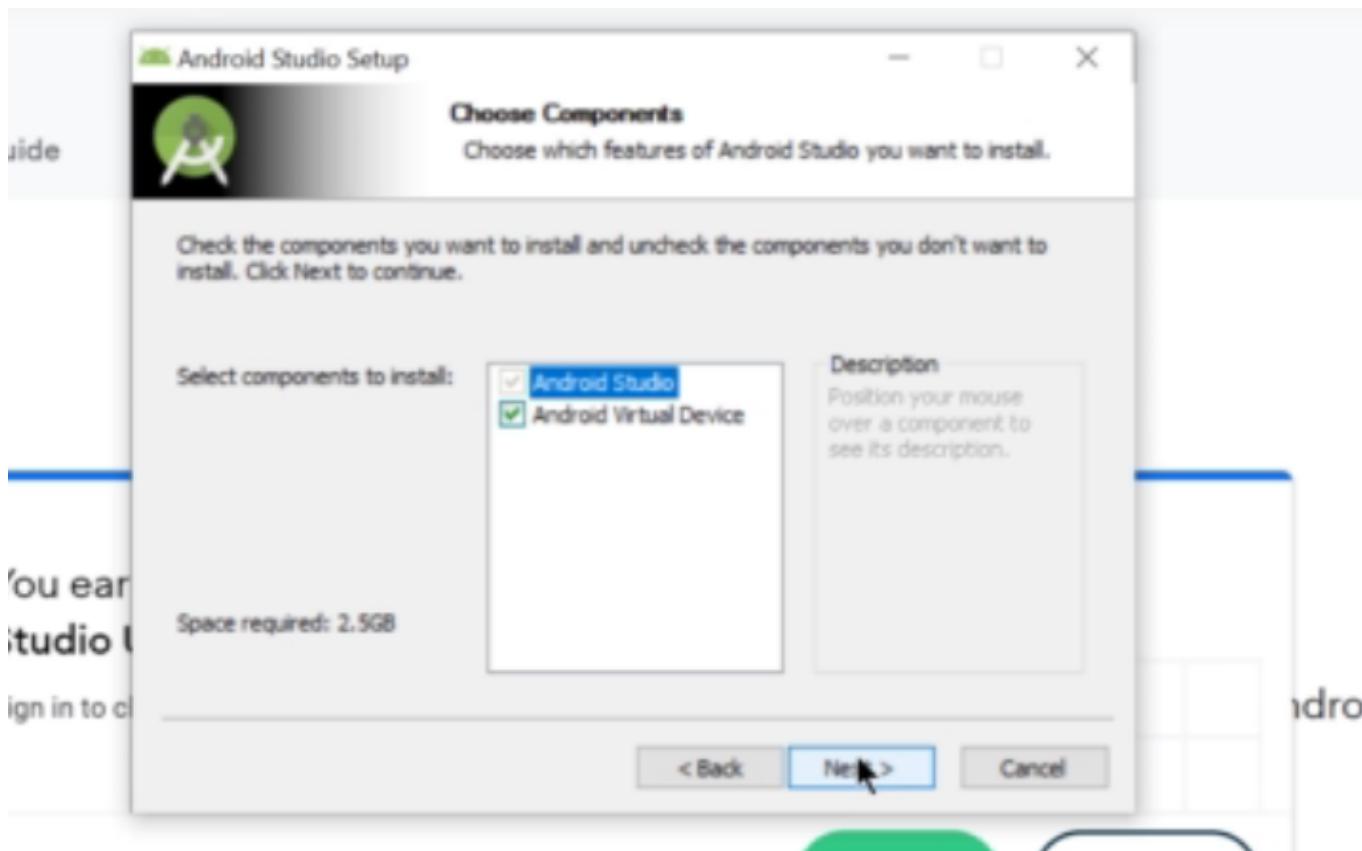
Install Android Studio and configure environment variables

- =====
- > Android Studio download link: <https://developer.android.com/studio>
 - > Create ANDROID_HOME system environment variable and set it to SDK path.

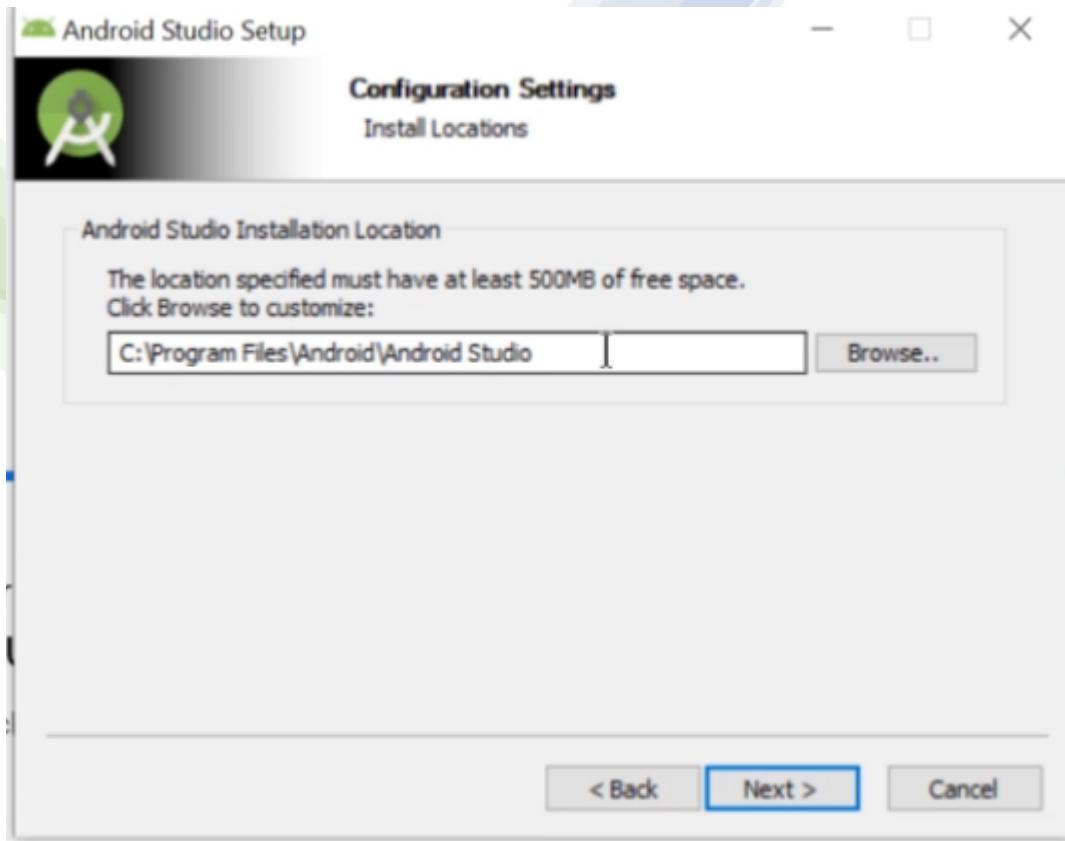
Edit PATH system environment variable and add below,

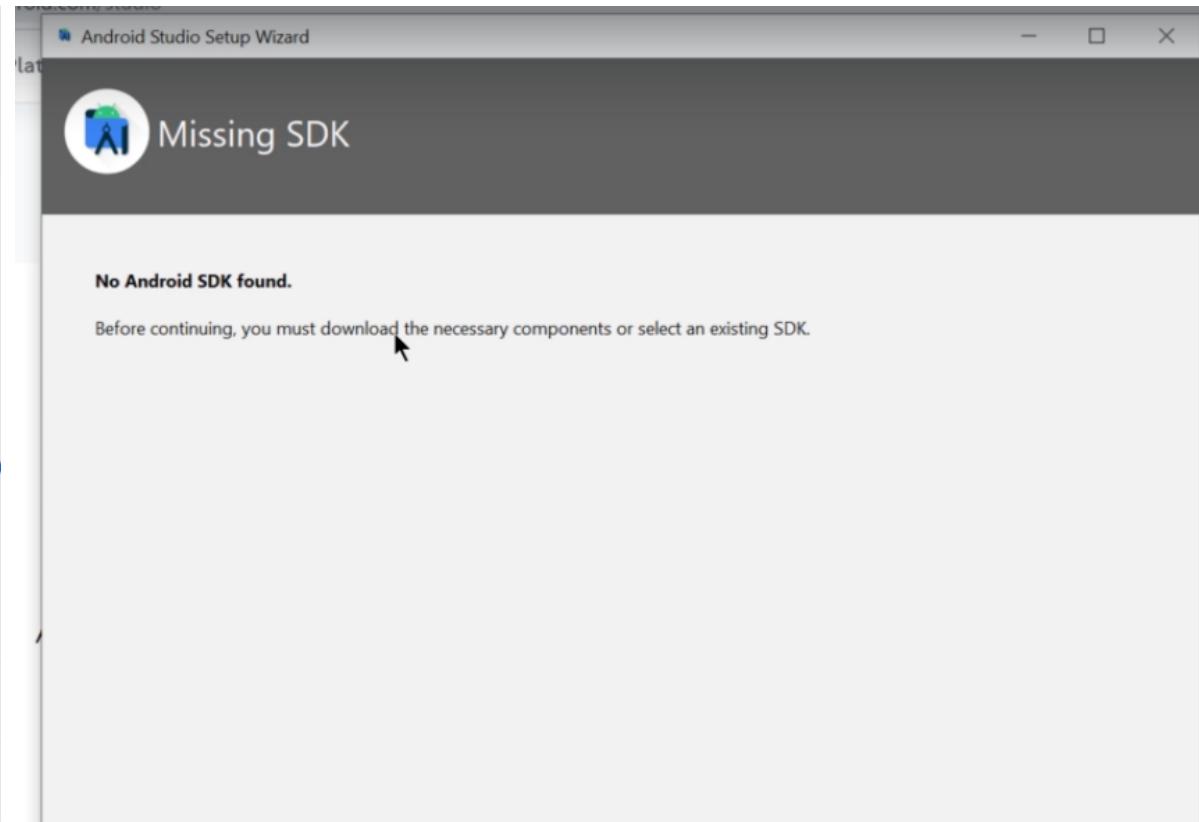
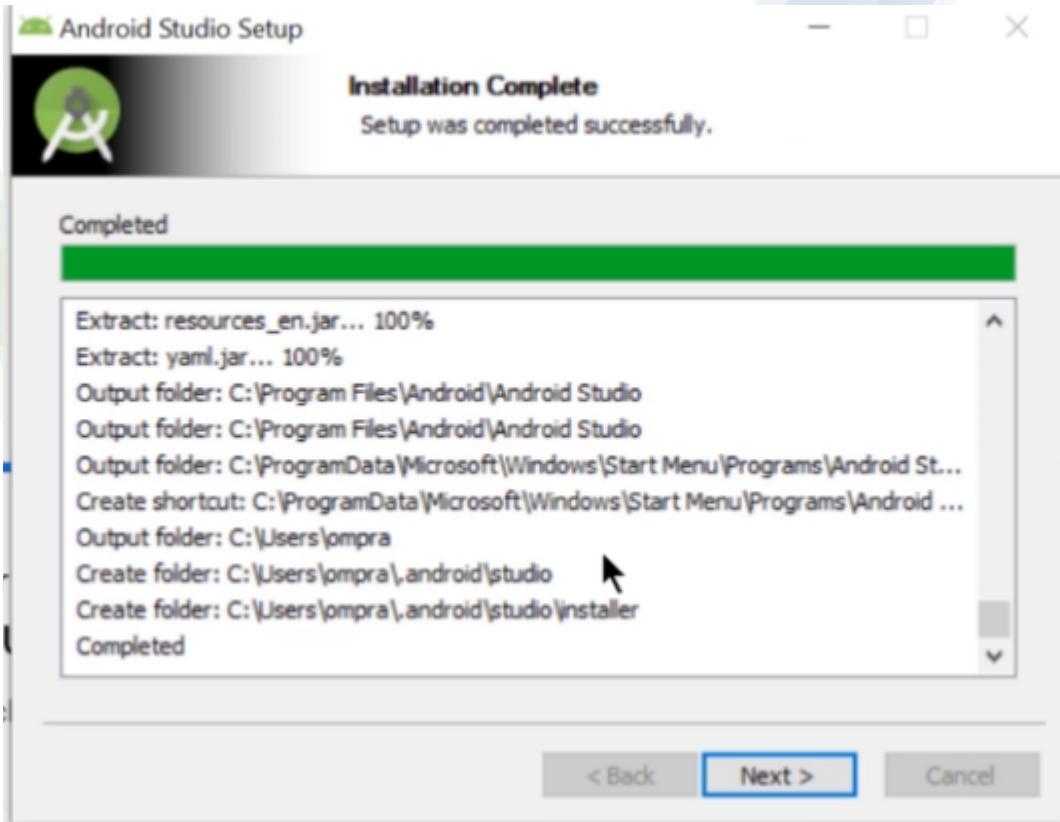
```
%ANDROID_HOME%\platform-tools  
%ANDROID_HOME%\tools  
%ANDROID_HOME%\tools\bin
```

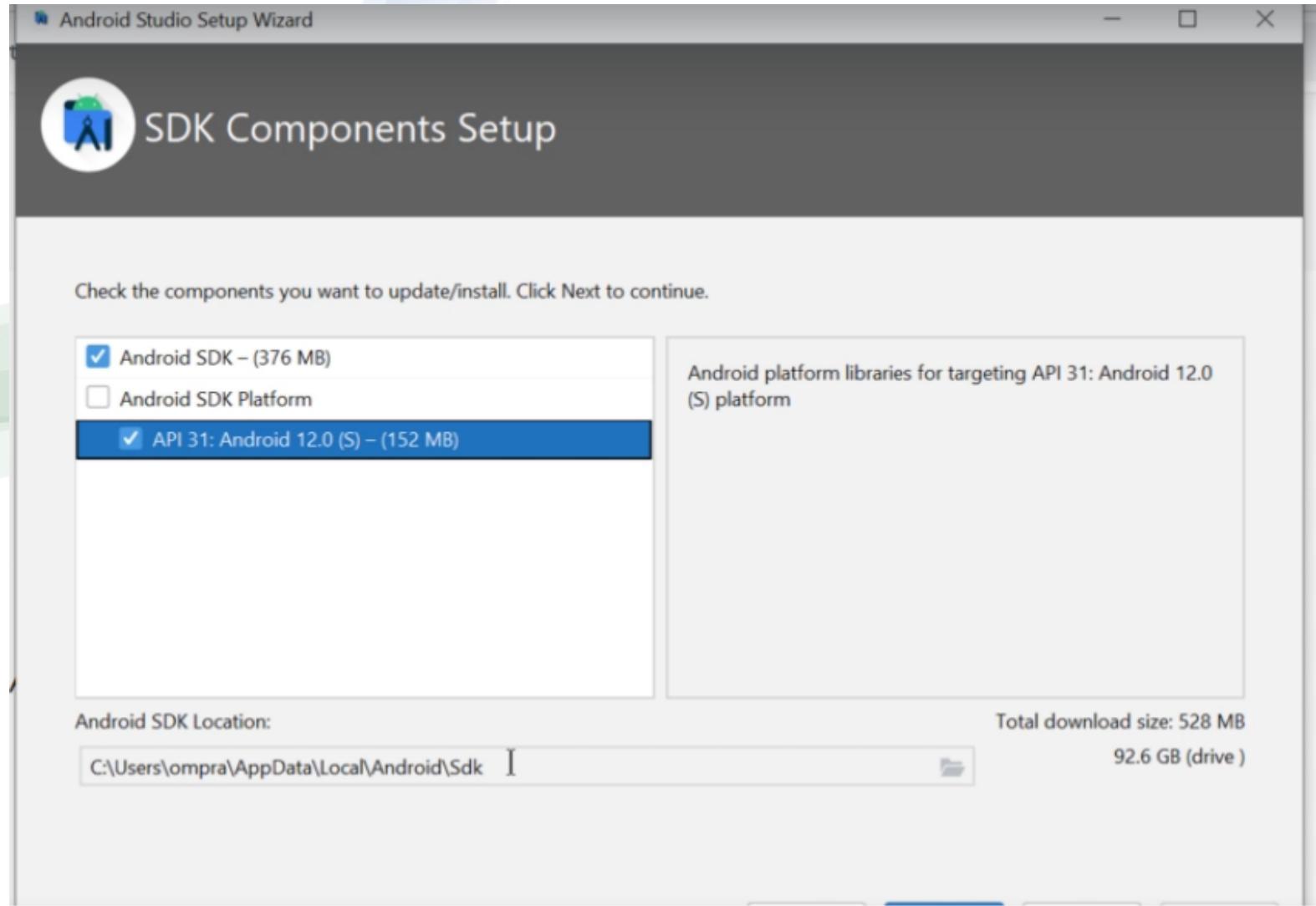


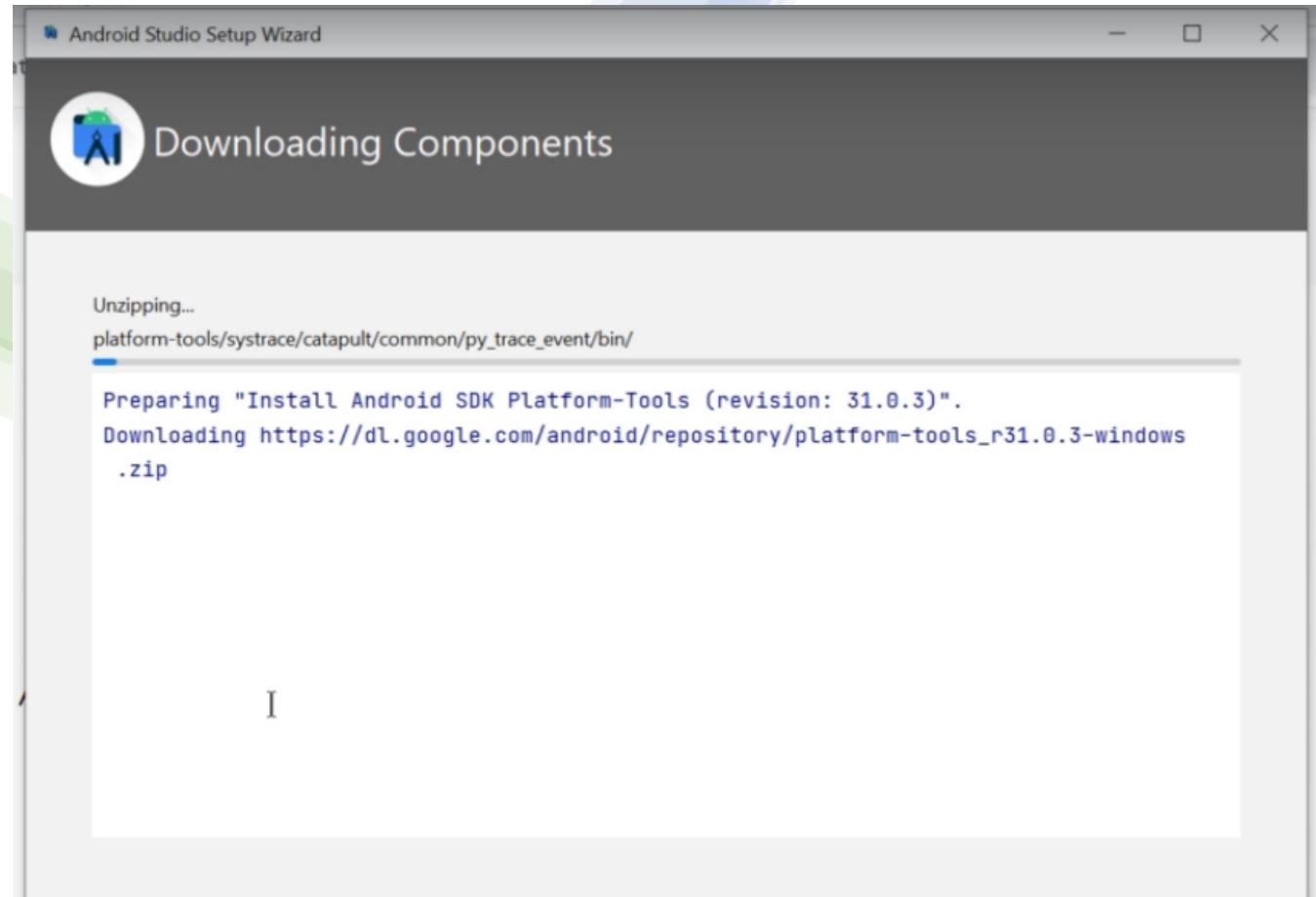


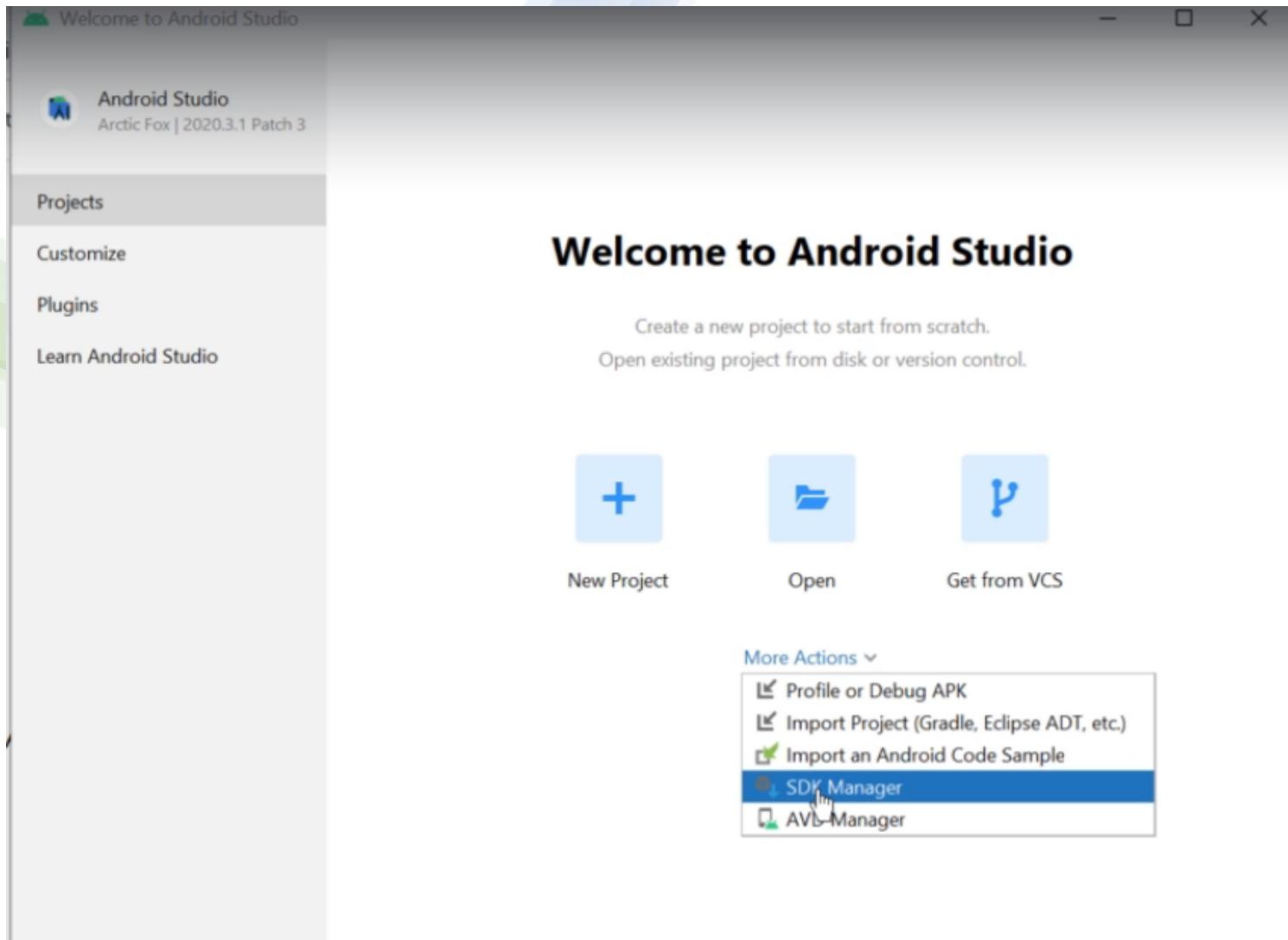
Set Up Android Studio











Settings for New Projects

Appearance & Behavior > System Settings > Android SDK

Manager for the Android SDK and Tools used by the IDE

Android SDK Location: C:\Users\ompra\AppData\Local\Android\Sdk

Edit Optimize disk space

SDK Platforms SDK Tools SDK Update Sites

Each Android SDK Platform package includes the Android platform and sources pertaining to an API level by default. Once installed, the IDE will automatically check for updates. Check "show package details" to display individual SDK components.

Name	API Level	Revision	Status
<input type="checkbox"/> Android Sv2 Preview	Sv2	1	Not installed
<input checked="" type="checkbox"/> Android 12.0 (S)	31	1	Installed
<input type="checkbox"/> Android 11.0 (R)	30	3	Not installed
<input type="checkbox"/> Android 10.0 (Q)	29	5	Not installed
<input type="checkbox"/> Android 9.0 (Pie)	28	6	Not installed
<input type="checkbox"/> Android 8.1 (Oreo)	27	3	Not installed
<input type="checkbox"/> Android 8.0 (Oreo)	26	2	Not installed
<input type="checkbox"/> Android 7.1.1 (Nougat)	25	3	Not installed
<input type="checkbox"/> Android 7.0 (Nougat)	24	2	Not installed
<input type="checkbox"/> Android 6.0 (Marshmallow)	23	3	Not installed
<input type="checkbox"/> Android 5.1 (Lollipop)	22	2	Not installed
<input type="checkbox"/> Android 5.0 (Lollipop)	21	2	Not installed
<input type="checkbox"/> Android 4.4W (KitKat Wear)	20	2	Not installed
<input type="checkbox"/> Android 4.4 (KitKat)	19	4	Not installed
<input type="checkbox"/> Android 4.3 (Jelly Bean)	18	3	Not installed
<input type="checkbox"/> Android 4.2 (Jelly Bean)	17	3	Not installed
<input type="checkbox"/> Android 4.1 (Jelly Bean)	16	5	Not installed

Hide Obsolete Packages Show Package Details

Appearance & Behavior

- Appearance
- Menus and Toolbars

System Settings

- HTTP Proxy
- Data Sharing
- Date Formats
- Updates
- Process Elevation
- Passwords

Android SDK

- Memory Settings
- Notifications
- Quick Lists
- Path Variables

Keymap

> Editor

> Build, Execution, Deployment

Kotlin

> Tools

Settings for New Projects X

Appearance & Behavior > System Settings > Android SDK

Manager for the Android SDK and Tools used by the IDE

Android SDK Location: C:\Users\ompra\AppData\Local\Android\Sdk Edit Optimize disk space

SDK Platforms SDK Tools SDK Update Sites

Each Android SDK Platform package includes the Android platform and sources pertaining to an API level by default. Once installed, the IDE will automatically check for updates. Check "show package details" to display individual SDK components.

	Name	API Level	Revision	Status
<input type="checkbox"/>	Google APIs Intel x86 Atom_64 System Image	Sv2	1	Not installed
<input type="checkbox"/>	Google Play Intel x86 Atom_64 System Image	Sv2	1	Not installed
<input checked="" type="checkbox"/>	Android 12.0 (S)			
<input checked="" type="checkbox"/>	Android SDK Platform 31	31	1	Installed
<input checked="" type="checkbox"/>	Sources for Android 31	31	1	Installed
<input type="checkbox"/>	Android TV Intel x86 Atom System Image	31	3	Not installed
<input type="checkbox"/>	ARM 64 v8a System Image	31	2	Not installed
<input type="checkbox"/>	Intel x86 Atom_64 System Image	31	2	Not installed
<input type="checkbox"/>	Google TV Intel x86 Atom System Image	31	3	Not installed
<input type="checkbox"/>	Google APIs ARM 64 v8a System Image	31	8	Not installed
<input type="checkbox"/>	Google APIs Intel x86 Atom_64 System Image	31	8	Not installed
<input type="checkbox"/>	Google Play Intel x86 Atom_64 System Image	31	8	Not installed
<input checked="" type="checkbox"/>	Android 11.0 (R)			
<input type="checkbox"/>	Android SDK Platform 30	30	3	Not installed
<input type="checkbox"/>	Sources for Android 30	30	1	Not installed
<input type="checkbox"/>	Android TV Intel x86 Atom System Image	30	3	Not installed
<input type="checkbox"/>	China version of Wear OS - Preview Intel x86 Atom System Image	30	5	Not installed

Hide Obsolete Packages Show Package Details



Reset

Appearance & Behavior

Appearance

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Process Elevation

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Quick Lists

Path Variables

Keymap**> Editor****> Build, Execution, Deployment****Kotlin****> Tools****Appearance & Behavior > System Settings > Android SDK**

Manager for the Android SDK and Tools used by the IDE

Android SDK Location:

C:\Users\ompra\AppData\Local\Android\Sdk

[Edit](#) [Optimize disk space](#)[SDK Platforms](#) [SDK Tools](#) [SDK Update Sites](#)

Below are the available SDK developer tools. Once installed, the IDE will automatically check for updates. Check "show package details" to display available versions of an SDK Tool.

Name	Version	Status
<input checked="" type="checkbox"/> Android SDK Build-Tools 32-rc1		Update Available: 32.0.0 rc1
<input type="checkbox"/> NDK (Side by side)		Not Installed
<input checked="" type="checkbox"/> Android SDK Command-line Tools (latest)		Not Installed
<input type="checkbox"/> CMake		Not Installed
<input type="checkbox"/> Android Auto API Simulators	1	Not installed
<input type="checkbox"/> Android Auto Desktop Head Unit Emulator	1.1	Not installed
<input checked="" type="checkbox"/> Android Emulator	30.9.5	Installed
<input type="checkbox"/> Android Emulator Hypervisor Driver for AMD Processors [installer]	1.7.0	Not installed
<input checked="" type="checkbox"/> Android SDK Platform-Tools	31.0.3	Installed
<input type="checkbox"/> Google Play APK Expansion library	1	Not installed
<input type="checkbox"/> Google Play Instant Development SDK	1.9.0	Not installed
<input type="checkbox"/> Google Play Licensing Library	1	Not installed
<input type="checkbox"/> Google Play services	49	Not installed
<input type="checkbox"/> Google USB Driver	13	Not installed
<input type="checkbox"/> Google Web Driver	2	Not installed
<input type="checkbox"/> Intel x86 Emulator Accelerator (HAXM installer)	7.6.5	Not installed
<input type="checkbox"/> Layout Inspector image server for API 29-30	6	Not installed
<input type="checkbox"/> Layout Inspector image server for API 5	3	Not installed

 Hide Obsolete Packages Show Package Details

SDK Quickfix Installation

License Agreement

Licenses

- android-sdk-license
 - Android SDK Command-line Tools

Terms and Conditions

This is the Android Software Development Kit License Agreement

1. Introduction

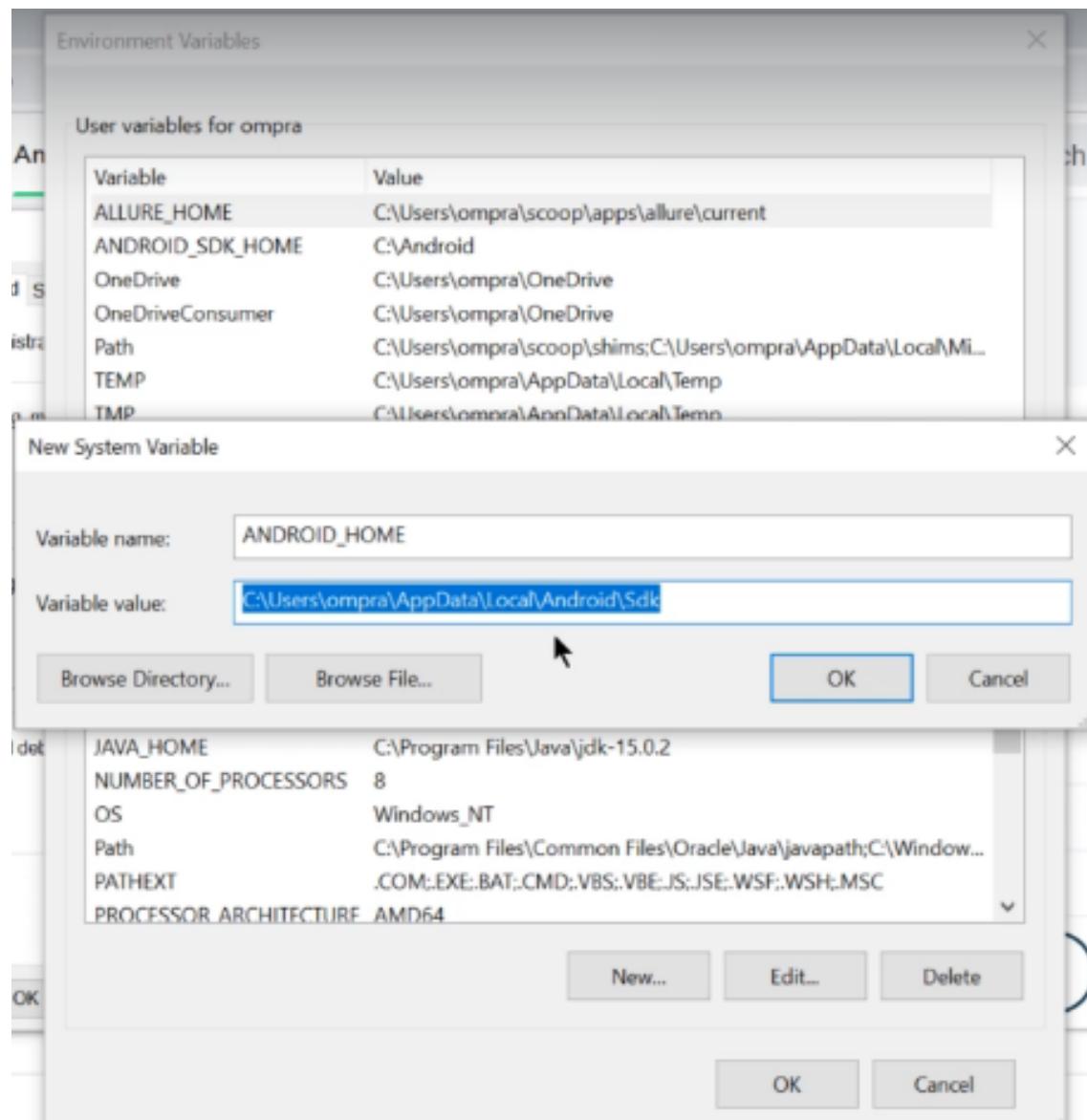
1.1 The Android Software Development Kit (referred to in the License Agreement as the "SDK" and specifically including the Android system files, packaged APIs, and Google APIs add-ons) is licensed to you subject to the terms of the License Agreement. The License Agreement forms a legally binding contract between you and Google in relation to your use of the SDK.

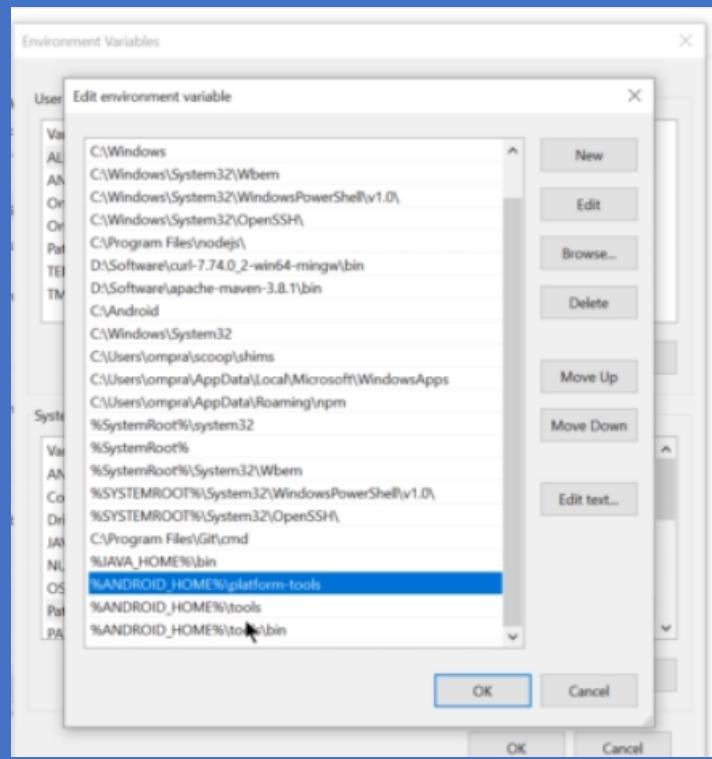
1.2 "Android" means the Android software stack for devices, as made available under the Android Open Source Project, which is located at the following URL: <http://source.android.com/>, as updated from time to time.

1.3 A "compatible implementation" means any Android device that (i) complies with the Android Compatibility Definition document, which can be found at the Android compatibility website (<http://source.android.com/compatibility>) and which may be updated from time to time; and (ii) successfully passes the Android Compatibility Test Suite (CTS).

Decline Accept

Previous **Next** Cancel Finish





```
C:\Users\ompra>echo %ANDROID_HOME%
C:\Users\ompra\AppData\Local\Android\Sdk

C:\Users\ompra>echo %PATH%
C:\Program Files\Common Files\Oracle\Java\javapath;C:\Windows\system32;C:\Windows\System32\Wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;C:\Program Files\nodejs\;D:\Software\curl-7.74.0_2-win64-mingw\bin;D:\Software\Apache\maven-3.8.1\bin;C:\Android;C:\Windows\System32;C:\Users\ompra\scoop\shims;C:\Users\ompra\AppData\Local\Microsoft\WindowsApps;C:\Users\ompra\AppData\Roaming\npm;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wbem;C:\WINDOWS\System32\WindowsPowerShell\v1.0;C:\WINDOWS\System32\OpenSSH\;C:\Program Files\Git\cmd;C:\Program Files\Java\jdk-15.0.2\bin;C:\Users\ompra\AppData\Local\Android\Sdk\platform-tools;C:\Users\ompra\AppData\Local\Android\Sdk\tools;C:\Users\ompra\AppData\Local\Android\Sdk\tools\bin;C:\Users\ompra\scoop\shims;C:\Users\ompra\AppData\Local\Microsoft\WindowsApps;C:\Users\ompra\AppData\Roaming\npm;%USERPROFILE%\AppData\Local\Microsoft\WindowsApps;

C:\Users\ompra>sdkmanager -version
Exception in thread "main" java.lang.NoClassDefFoundError: javax/xml/bind/annotation/XmlSchema
        at com.android.repository.api.SchemaModule$SchemaModuleVersion.<init>(SchemaModule.java:156)
        at com.android.repository.api.SchemaModule.<init>(SchemaModule.java:75)
        at com.android.sdklib.repository.AndroidSdkHandler.<clinit>(AndroidSdkHandler.java:81)
        at com.android.sdklib.tool.sdkmanager.SdkManagerCli.main(SdkManagerCli.java:73)
        at com.android.sdklib.tool.sdkmanager.SdkManagerCli.main(SdkManagerCli.java:48)
Caused by: java.lang.ClassNotFoundException: javax.xml.bind.annotation.XmlSchema
        at java.base/jdk.internal.loader.BuiltinClassLoader.loadClass(BuiltinClassLoader.java:606)
        at java.base/jdk.internal.loader.ClassLoaders$AppClassLoader.loadClass(ClassLoaders.java:168)
        at java.base/java.lang.ClassLoader.loadClass(ClassLoader.java:522)
        ... 5 more
```

<https://github.com/intel/haxm>

github.com/intel/haxm

Apps Managed bookmarks https://ctl.atlassian.... Login to StoHRM Quality Assurance... Watch 'BDD Overvi... Remove specific pr... Parallel Test E

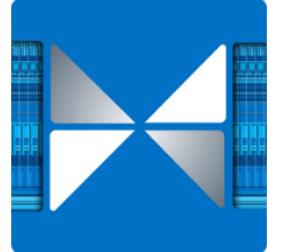
READMD.md Fix release URL 10 months ago

README.md

Intel Hardware Accelerated Execution Manager (HAXM)

HAXM is a cross-platform hardware-assisted virtualization engine (hypervisor), widely used as an accelerator for [Android Emulator](#) and [QEMU](#). It has always supported running on Windows and macOS, and has been ported to other host operating systems as well, such as Linux and NetBSD.

HAXM runs as a kernel-mode driver on the host operating system, and provides a KVM-like interface to user space, thereby enabling applications like QEMU to utilize the hardware virtualization capabilities built into modern Intel CPUs, namely [Intel Virtualization Technology](#).



Downloads

The latest HAXM release for Windows and macOS hosts are available [here](#).

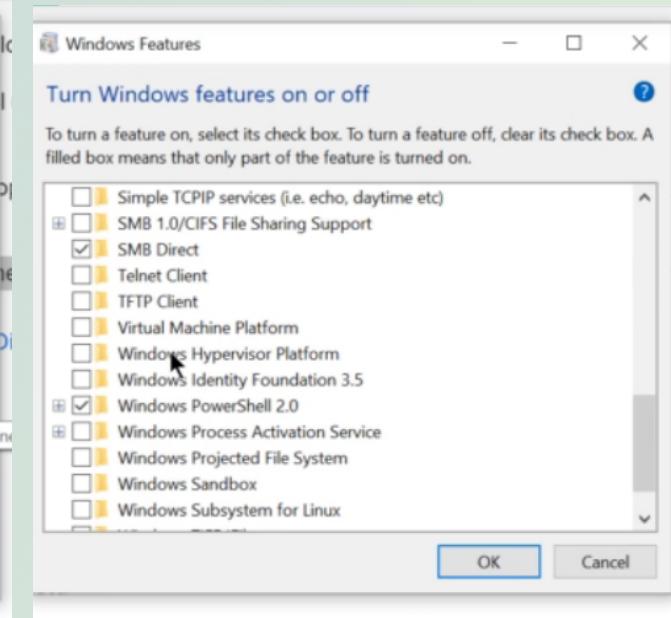
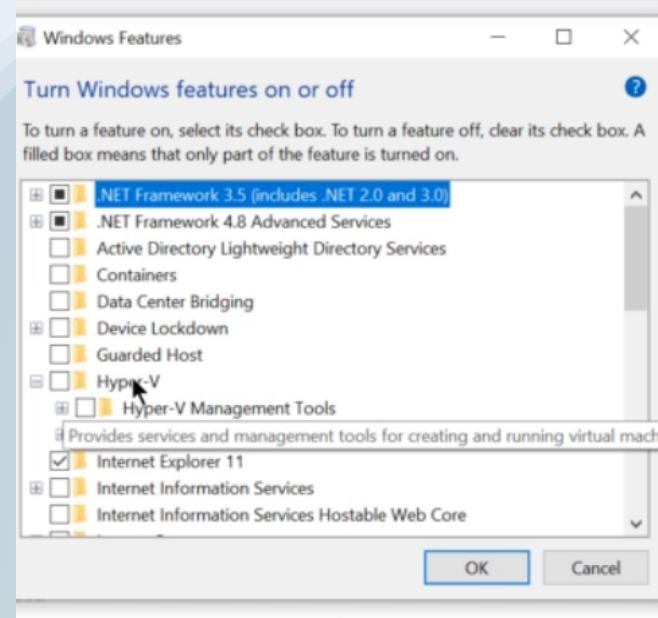
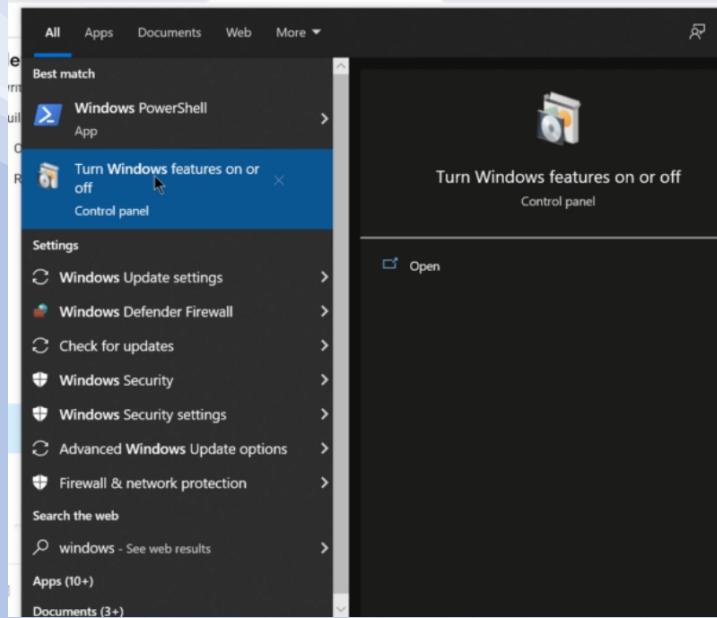
Contributing

Detailed instructions for building and testing HAXM can be found at:

- [Manual for Linux](#)
- [Manual for macOS](#)
- [Manual for Windows](#)

<https://developer.android.com/studio/run/emulator-acceleration>

<https://www.thewindowsclub.com/disable-hardware-virtualization-in-windows-10>



Settings for New Projects



<input type="checkbox"/>	Appearance & Behavior
<input type="checkbox"/>	Appearance
<input type="checkbox"/>	Menus and Toolbars
<input checked="" type="checkbox"/>	System Settings
<input type="checkbox"/>	HTTP Proxy
<input type="checkbox"/>	Data Sharing
<input type="checkbox"/>	Date Formats
<input type="checkbox"/>	Updates
<input type="checkbox"/>	Process Elevation
<input type="checkbox"/>	Passwords
<input checked="" type="checkbox"/>	Android SDK
<input type="checkbox"/>	Memory Settings
<input type="checkbox"/>	Notifications
<input type="checkbox"/>	Quick Lists
<input type="checkbox"/>	Path Variables
<input type="checkbox"/>	Keymap
<input type="checkbox"/>	Editor
<input type="checkbox"/>	Build, Execution, Deployment
<input type="checkbox"/>	Kotlin
<input type="checkbox"/>	Tools

Appearance & Behavior > System Settings > Android SDK

Manager for the Android SDK and Tools used by the IDE

Android SDK Location: C:\Users\ompra\AppData\Local\Android\Sdk

Edit

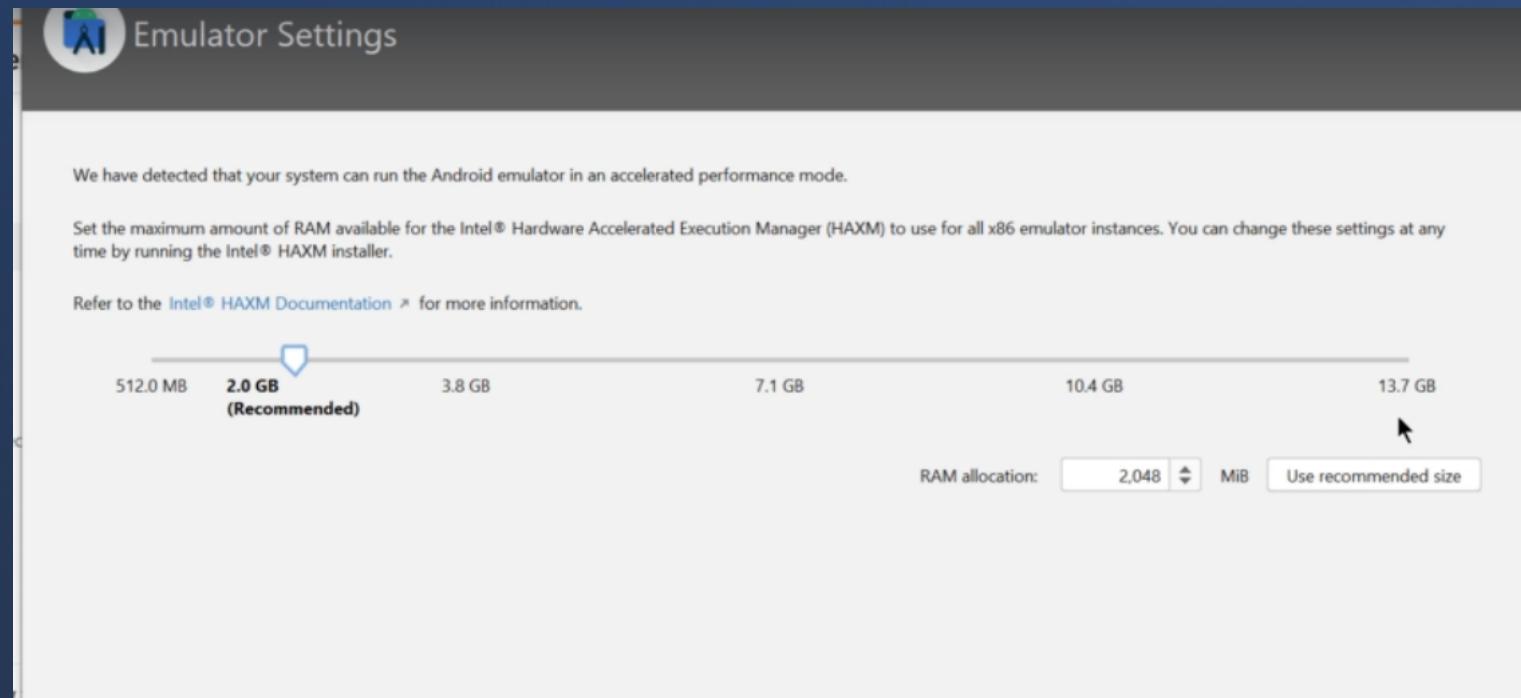
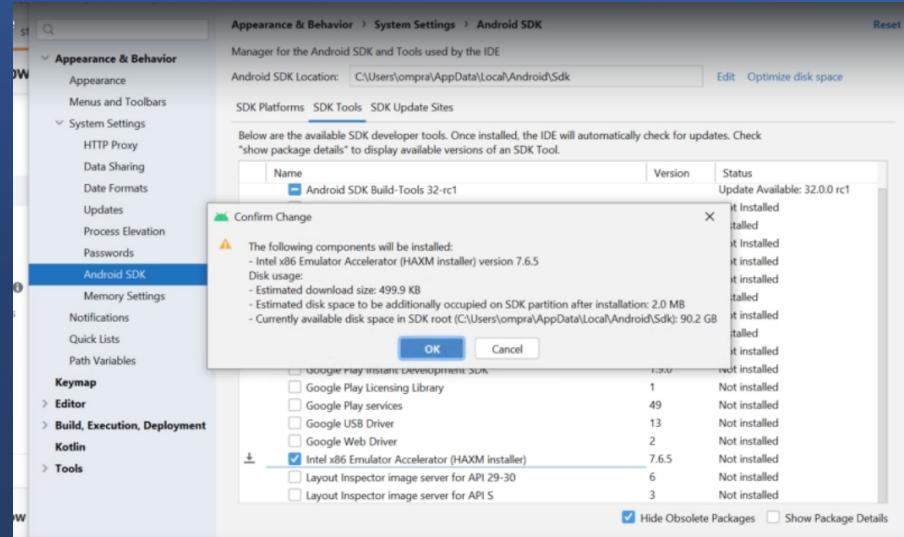
Optimize disk space

SDK Platforms [SDK Tools](#) [SDK Update Sites](#)

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<input type="checkbox"/> Layout Inspector image server for API 29-30	6	Not installed
<input type="checkbox"/> Layout Inspector image server for API 5	3	Not installed

Hide Obsolete Packages Show Package Details



```
HAXM  
nce  
 Invoking installer  
  
Parsing C:\Users\ompra\AppData\Local\Android\Sdk\emulator\package.xml  
Parsing C:\Users\ompra\AppData\Local\Android\Sdk\extras\intel\Hardware_Accelerated_Execution_Manager\package.xml  
Parsing C:\Users\ompra\AppData\Local\Android\Sdk\extras\intel\Hardware_Accelerated_Execution_Manager-2\package.xml  
Warning: Observed package id 'extras;intel;Hardware_Accelerated_Execution_Manager' in inconsistent location  
  'C:\Users\ompra\AppData\Local\Android\Sdk\extras\intel\Hardware_Accelerated_Execution_Manager-2' (Expected  
  'C:\Users\ompra\AppData\Local\Android\Sdk\extras\intel\Hardware_Accelerated_Execution_Manager')  
Warning: Already observed package id 'extras;intel;Hardware_Accelerated_Execution_Manager' in  
  'C:\Users\ompra\AppData\Local\Android\Sdk\extras\intel\Hardware_Accelerated_Execution_Manager'. Skipping duplicate at  
  'C:\Users\ompra\AppData\Local\Android\Sdk\extras\intel\Hardware_Accelerated_Execution_Manager-2'  
Parsing C:\Users\ompra\AppData\Local\Android\Sdk\patcher\v4\package.xml  
Parsing C:\Users\ompra\AppData\Local\Android\Sdk\platform-tools\package.xml  
Parsing C:\Users\ompra\AppData\Local\Android\Sdk\platforms\android-31\package.xml  
Parsing C:\Users\ompra\AppData\Local\Android\Sdk\sources\android-31\package.xml  
Parsing C:\Users\ompra\AppData\Local\Android\Sdk\tools\package.xml  
Android SDK is up to date.  
Running Intel® HAXM installer  
Intel HAXM installed successfully!  
Done
```

Verify installation using appium-doctor

```
=====
```

Command to install appium-doctor: npm install -g appium-doctor

Command to get appium-doctor help: appium-doctor --help

Command to check Android setup: appium-doctor --android

Emulator Setup: Accelerate Performance

```
=====
```

Launch Android Studio -> SDK Manager -> SDK Tools

Intel processor: Check "Intel x86 Emulator Accelerator (HAXM Installer)" and Apply

AMD processor: Check "Android Emulator Hypervisor Driver for AMD Processors (installer)" and Apply

Emulator Setup: Create AVD and start it

```
=====
```

Open Android Studio -> Configure -> AVD Manager -> Create Virtual Device ->

Select Model -> Download Image for desired OS version if not already downloaded

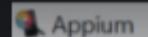
-> Start AVD

Emulator Setup: Create Driver Session using Appium Desktop

```
=====
```

Download link for dummy app:

<https://github.com/appium/appium/blob/master/sample-code/apps/ApiDemos-debug.apk>



File View Help

Appium Server

Select Cloud Providers

Remote Host 127.0.0.1

Remote Port 1723

Remote Path /wd/hub

SSL

> Advanced Settings

Desired Capabilities

Saved Capability Sets 1

Attach to Session...

platformName	text	Android	
deviceName	text	Any device name	
automationName	text	UiAutomator2	
app	text	D:\\Software\\apps\\ApiDemos-	
udid	text	emulator-5554	

Automatically add necessary Appium vendor prefixes on start

JSON Representation

```
{  
  "platformName": "Android",  
  "deviceName": "Any device name",  
  "automationName": "UiAutomator2",  
  "app": "D:\\Software\\apps\\ApiDemos-debug.apk",  
  "udid": "emulator-5554"  
}
```