

APPIUM MAC INSTALLATION STEP BY STEP PROCEDURE

Requirements

- MAC-15.X.Y and above (or latest Version)
- Xcode-16.X (or latest Version)
- Appium 2.x cmd line version (latest version)
- Android SDK
- Any IDE
- Java (JDK) greater than 11
- Other MAC internal software to execute Appium scripts (External dependencies)

IDE Installation

Install Eclipse or IntelliJ or any IDE of your choice **(Note: Please install the latest version of IDE)**

Java Installation

1. To install java latest version, navigate to the below link [Java Downloads | Oracle India](#)

JDK 22 JDK 21 JDK 17 GraalVM for JDK 22 GraalVM for JDK 21 GraalVM for JDK 17

JDK Development Kit 22.0.1 downloads

JDK 22 binaries are free to use in production and free to redistribute, at no cost, under the [Oracle No-Fee Terms and Conditions](#) (NFTC).

JDK 22 will receive updates under these terms, until September 2024, when it will be superseded by JDK 23.

Linux **macOS** Windows

Product/file description	File size	Download
ARM64 Compressed Archive	180.03 MB	https://download.oracle.com/java/22/latest/jdk-22_macos-aarch64_bin.tar.gz (sha256)
ARM64 DMG Installer	179.47 MB	https://download.oracle.com/java/22/latest/jdk-22_macos-aarch64_bin.dmg (sha256)
x64 Compressed Archive	182.21 MB	https://download.oracle.com/java/22/latest/jdk-22_macos-x64_bin.tar.gz (sha256)
x64 DMG Installer	181.65 MB	https://download.oracle.com/java/22/latest/jdk-22_macos-x64_bin.dmg (sha256)

2. Click on the latest version of JAVA and download.
3. After download completed, double click on dmg file.
4. Drag the JAVA dmg file to the application folder.
5. Once installation is completed, open the terminal, and enter the below command
java -version
6. Should display the version of java installed.
7. If shown JAVA installation is completed.

NOTE: You can install any version of JDK which is greater than version 11.

To set JAVA Path (Environment variables)

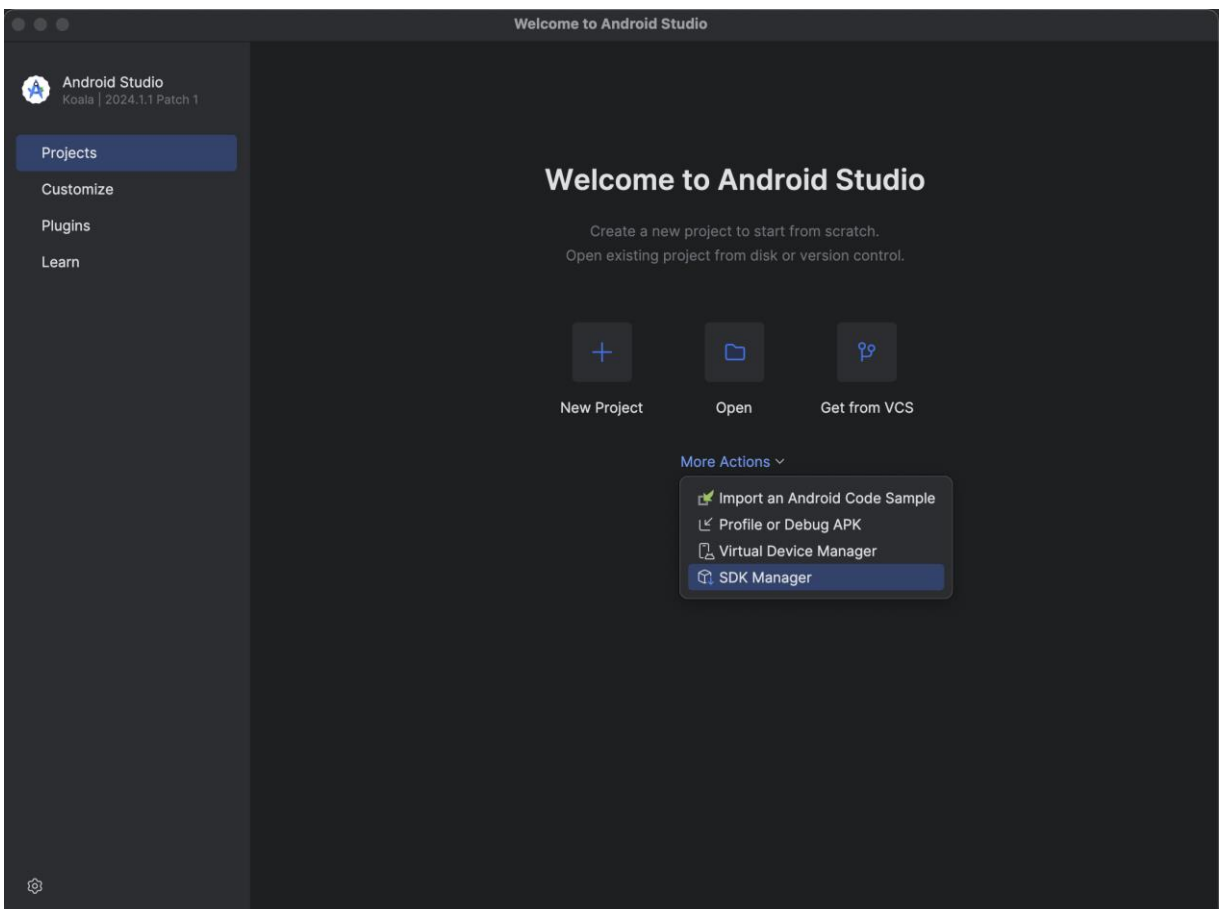
1. Open the terminal and enter the below command and press Enter
vim ~/.bash_profile (or) vim ~/.zprofile (Depending upon the default profile set in MAC)
2. Press I button to make the editor in Edit/Insert mode

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3. Now to enter the following command in editor
`export JAVA_HOME=/Library/Java//Contents/Home` **(Note: Provide correct path of folder)**
`export PATH=$JAVA_HOME/bin:$PATH`
4. After entering above command click on esc key on keyboard
5. Enter the following command in terminal
`:wq`
6. Command will save the profile and you navigate to the terminal window.
7. Type `echo $JAVA_HOME` in new terminal window and verify the path is displayed in terminal.
8. If shown JAVA environment variable is set.

Android Studio installation for Android SDK and Emulator

1. To download the latest version of Android Studio navigate to below link
https://developer.android.com/studio?utm_source=android-studio
2. Click on the download Android Studio link and choose the option as INTEL chip or MAC chip and download the file.
3. Once download is completed open the dmg file.
4. Drag the Android Studio dmg file to applications so it will be installed.
5. Open the Android studio and navigate to SDK Manager from the **More Actions** drop down

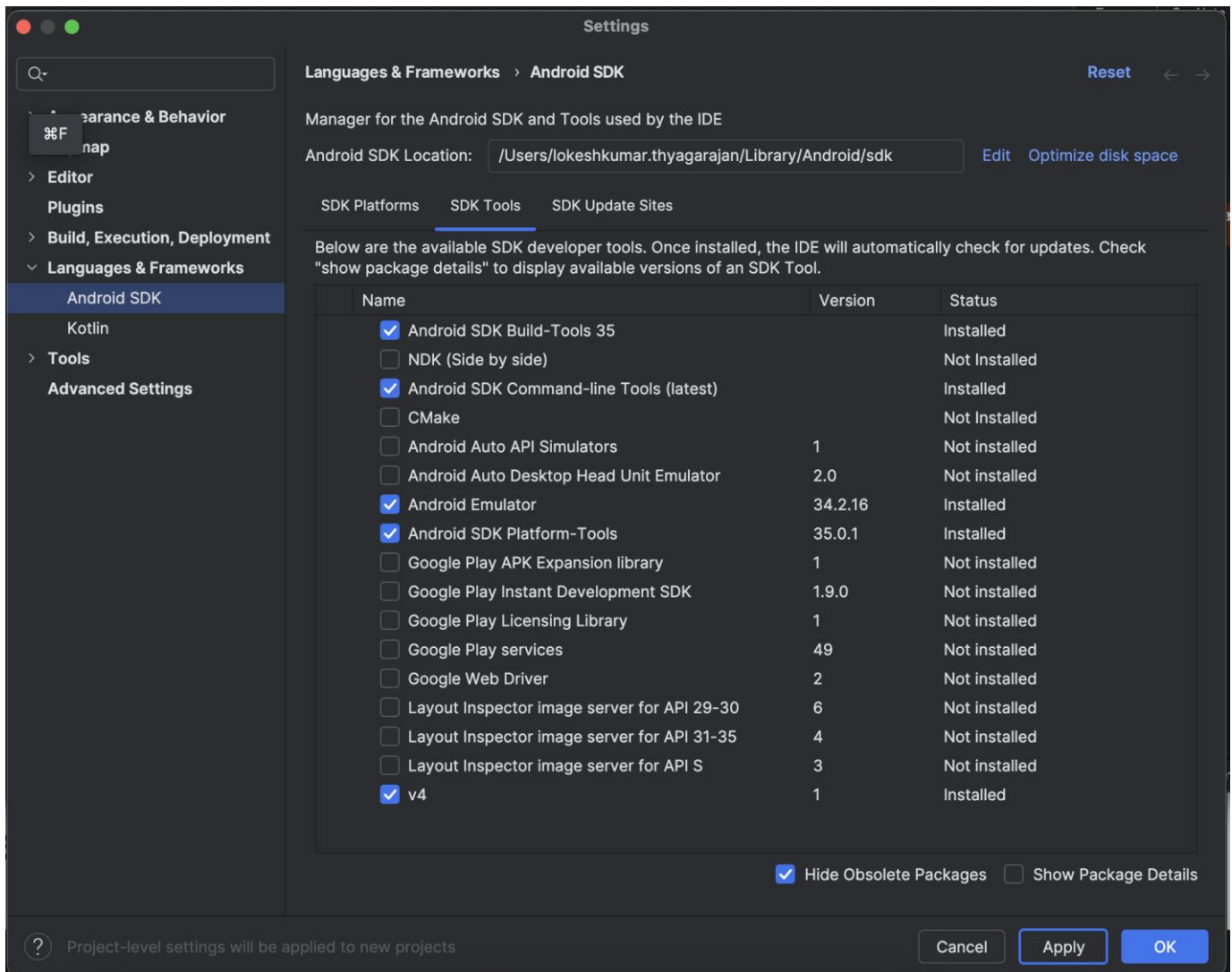


6. Click the SDK Tools tab and install the below **Mandatory** items
 - Android SDK Build Tools 35
 - Android SDK Command-line tools (latest)
 - Android SDK Platform – tools

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7. Install the below optional items in case you would be using an emulator for your testing
 - Android Emulator

Note: Emulator should be used only if you have 100 GB of free space in ROM and 6 to 8 GB of free space in RAM



To set ANDROID_HOME Path (Environment variables)

1. Open the terminal and enter the below command and press Enter
vim ~/.bash_profile (or) vim ~/.zprofile (Depending upon the default profile set in MAC)
2. Press **I** button to make the editor in Edit/Insert mode
3. Now to enter the following command in editor
export ANDROID_HOME=/users/<username>/Library/android/sdk (Note: Provide correct path of folder)
export PATH=\$ANDROID_HOME/platform-tools:\$PATH
4. After entering above command click on esc key on keyboard
5. Enter the following command in terminal
:wq
6. Command will save the profile and you navigate to the terminal window.
7. Type **echo \$ANDROID_HOME** in new terminal window and verify the path is displayed in terminal.

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XCode installation

Method 1

1. Login with the Developer Account in apple website.
2. Go to downloads page (<https://developer.apple.com/download/>) and download the latest version of Xcode
3. After download completed, double click on dmg file of Xcode.
4. Drag the Xcode dmg file to application folder.

Method 2

1. Open App Store in Mac
2. Search for XCode
3. Click Get option
4. Enter valid developer account and install the XCode

Method 3

1. Navigate to <https://xcodereleases.com/>
2. Download the **RELEASE** version of the latest Xcode.
3. After download completed, double click on dmg file of Xcode.
4. Drag the Xcode dmg file to application folder.

NOTE: It is always recommended to use the latest version of XCode by either Method 1 or 2



To install XCode command line tools

1. Once Xcode is installed then go to the terminal and type the below command
xcode-select --install
2. Open the terminal and enter the below command and press Enter
xcode-select --version

If the version is displayed, then xcode-select is installed properly.

Note: If command line tools are already installed the try to update the same to latest version by using the system software update option

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To set XCode - Environment variables

1. Open the terminal and enter the below command and press Enter
`sudo xcode-select -s /Applications/Xcode.app/Contents/Developer`

Note: Ensure the name of the Xcode applications in Applications folder is mentioned as Xcodesss

External Dependencies

Note: If the below dependencies are already installed in your machine then ensure the latest version is installed.

Run the below command in terminal one by one to install the external dependencies required for Appium

1. **Homebrew:** Homebrew installs the stuff you need that Apple didn't. (Note below command needs to be entered in a single line). **(MANDATORY once)**
`/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"`
2. **Homebrew update:** To update brew to the latest version . **(MANDATORY)**
`brew update`
3. To upgrade all the brew dependencies to the latest version . **(MANDATORY)**
`brew upgrade`
4. **Node:** npm makes it easy for JavaScript developers to share and reuse code, and it makes it easy to update the code that you're sharing.
`brew install node`
5. Confirm the node and npm installation with below commands
`node -v`
`npm -v`
6. **Appium :** Install Appium cmd line version **(MANDATORY)**
`npm install -g appium`
7. **Appium Doctor:** Install Appium doctor cmd line
`npm install -g appium-doctor`
8. **UiAutomator2 driver** for Appium command line **(MANDATORY for Android)**
`appium driver install uiautomator2`
9. **XCUITest driver** for Appium command line **(MANDATORY for iOS)**
`appium driver install xcuitest`
10. **ideviceinstaller:** Cross-platform library and tools for communicating with iOS devices. Supports upto iOS 9. (included as part of libimobiledevice)
`brew install ideviceinstaller`
11. **Carthage:** It is a dependency management tool and intended to be the simplest way to add frameworks to your Cocoa application. **(MANDATORY)**
`brew install carthage`
12. **iOS-deploy:** To prepare for your Appium tests to run on a real device, It can deploy the iOS apps in real devices.
`brew install ios-deploy`
13. **xcPretty:** It is a fast and flexible formatter for xcodebuild
`gem install xcpretty`
14. **libimobiledevice:** A library to communicate with services of Apple iOS devices using native protocols. **(MANDATORY)**

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```
brew install libimobiledevice --HEAD
```

Appium Inspector installation

1. Navigate to <https://github.com/appium/appium-inspector/releases/latest> for the latest Appium inspector installation executable file.
2. Download the MAC executable file. i.e., **Appium-Inspector-mac-X.Y.Z.dmg** (X.Y.Z should be the latest version displayed in page)
3. Open the downloaded file and wait till installation is completed.
4. Once setup is completed Appium Inspector will be launched.
5. Proceed with below steps only if you face error in launching Appium Inspector
6. Open terminal and run the below command
`xattr -cr /Applications/Appium\ Inspector.app`

Update WebDriverAgent for Appium 2.x (optional)

Open terminal and run the below command

```
npm i -g appium-webdriveragent
```

Note: This step is used to update the WebDriverAgent alone and not the XCUITest driver. Recommended option is to update the XCUITest only so the WebDriverAgent updates automatically.

WebDriverAgent Configuration for real iOS devices:

More details are available in [ios xcuitest real devices - appium](#)