Installation Procedure for Android Studio with Cordova

To make it easier for developers to manage their projects the Cordova project team build a single, unified command-line interface (CLI) that works across all of the Cordova support mobile device platforms.

To develop Android apps, you need to install the Android SDK, and also Java if not already installed on your machine. For the Android SDK, you have to install Android Studio.

Installing and Configuring a Cordova Development Environment

To install a fully functional Cordova platform, the following software needs to be installed and configured properly:

1. Node.js
2. Git
3. Cordova
4. Java JDK
5. Android Studio
6. Gradle
7. Correct Environmental Variables

1. Installing node.js

Installing Cordova is done using a command line tool called Node. Node is a JavaScript runtime built on Google Chrome's V8 JavaScript engine. Essentially, Node allows you to run JavaScript in a terminal window instead of a browser. This upgrades JavaScript to be a full-fledged programming language, no longer dependent on the browser. Node includes NPM, the Node Package Manager, which allows you to install Node modules, called packages, from the command line. Cordova is installed by a NPM.

To download node.js, go to https://nodejs.org/en, then click the Downloads link and download the version of Node for your operating system.

You'll need to be an administrator to install **node**. Node.js needs to be added to the PATH environment variable, which is done by default.

To test the installation, open a command window (make sure you open a new command window to get the updated path settings made by the Node.js installation), and type:

node –version

If the version number is displayed, Node.js is installed and working!

2. Installing Git

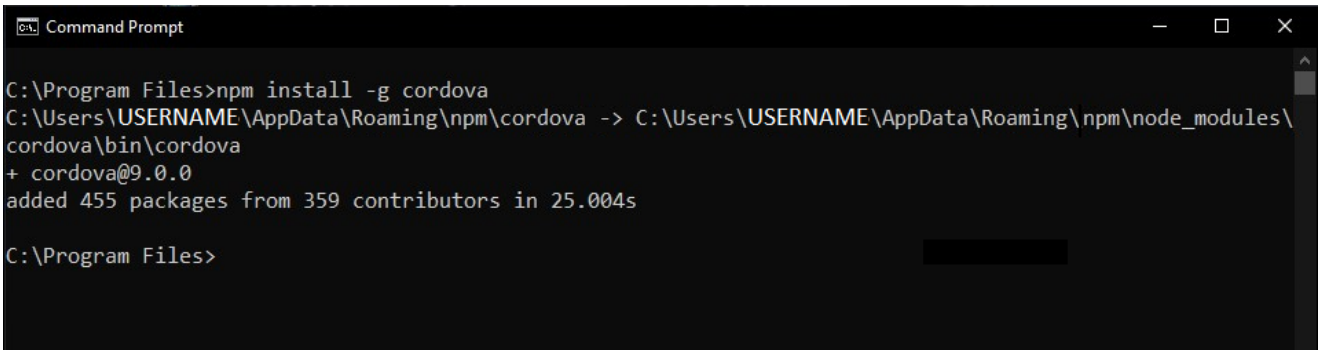
When the CLI was first released, it relied heavily upon GitHub for storage of many of the components it used to manage Cordova application projects. Because of this, you'll need to install a version of Git before you can use the CLI.

You can download the latest version Git at https://git-scm.com/

3. Installing Cordova

Cordova is installed using the Node Package Manager (npm). Type the following in a command window as seen below to install (under Program Files root):

npm install -g cordova



*-replace the USERNAME with your own profile name

Test the Cordova install by typing:

cordova --version

If you see the version number, you have successfully installed Apache Cordova!

4. Installing Android Development Tools

For Android Development, there is a step of supporting materials that you need to download and configure:

1. Java Development Kit (JDK) installation

On Windows, you will need to go to oracle.com and download the version 8 JDK

https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html

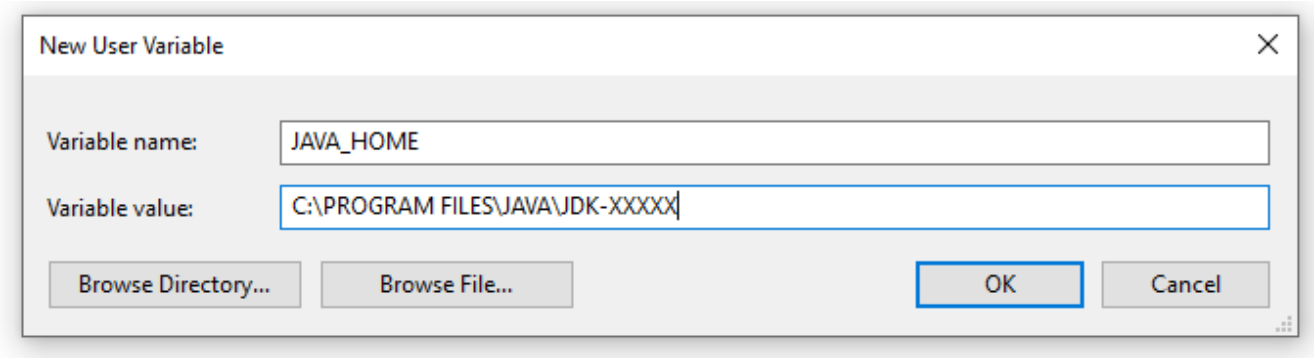
2. Creating the JAVA_HOME path

To check and/or create the PATH on Windows, Right-click on this PC, My Computer, which we'll find in File Explorer's left quick toolbar. Left-click Properties, then left-click advanced system settings.

Left-click Environment Variables, and at this point, you can change the variables for the current user or the system if you are an administrator.

In Environment Variables window, look for a user variable entry labeled JAVA_HOME; if there is already one there, you can skip this step. If not click the New button.

In the New User Variable dialog, type JAVA_HOME into the Variable name field, then populate the Variable value field with the full path pointing to the JDK installation folder. To find the JDK folder location, you can go to **C:\Program Files\Java** and check from the Java folder if the JDK was installed.



*-Replace XXXXX with the proper version on the jdk installed.

5. Installing Android Studio

Google is currently in transition between developer tools. Since the beginning, Google has offered developers an Eclipse-based IDE[1] called Android Developer Tools (ADT). More than a year ago, Goodle announced a new IDE called Android Studio.

You can download Android Studio from https://developer.android.com/studio/index.html

After installing Android Studio, you need to install the following emulators through the AVD Manager in Android Studio:

Android 7.1.1	API 25
Android 8.0	API 26
Android 8.1	API 27
Android 9.0	API 28
Android 10	API 29

AVD – Phones

Nexus 6	API 25
Nexus 6	API 26
Nexus 6	API 27
Nexus 6	API 28
Nexus 6	API 29

6. Installing Gradle

Gradle is an open-source build automation tool focused on flexibility and performance. Gradle build scripts are written using a Groovy or Kotlin DSL. Read about Gradle features to learn what is possible with Gradle.

You can download Gradle from https://gradle.org/install/

Installing manually

Step 1. Download the latest Gradle distribution

Step 2. Unpack the distribution

Step 3. Create a new directory C:\Gradle with File Explorer.

Open a second File Explorer window and go to the directory where the Gradle distribution was downloaded. Double-click the ZIP archive to expose the content. Drag the content folder gradle-5.6.2 to your newly created C:\Gradle folder.

Alternatively you can unpack the Gradle distribution ZIP into C:\Gradle using an archiver tool of your choice.

Step 4. Configure your system environment

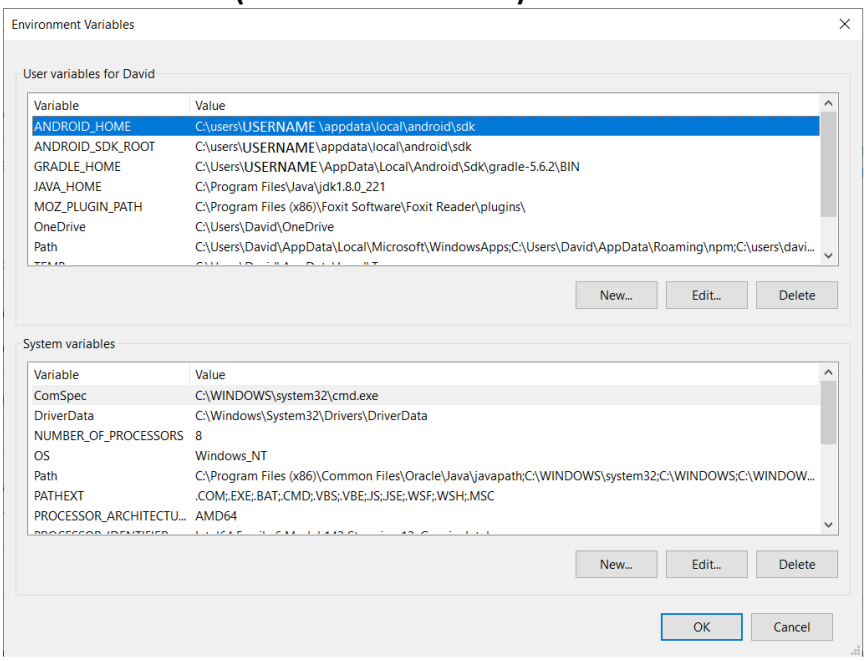
In File Explorer right-click on the This PC (or Computer) icon, then click Properties -> Advanced System Settings -> Environmental Variables.

Under System Variables select Path, then click Edit. Add an entry for C:\Gradle\gradle-5.6.2\bin. Click OK to save.

8. Correct Environmental Variables

The following is of critical importance if Cordova is to run correctly. You need to add the following to the environmental variables for the current user as shown in the following diagrams:

USER VARIABLES (FIRST FOUR ENTRIES)



USER PATH