

**Streye**

**Platform**

**HOW TO DEVELOP FOR  
GLASS ENTERPRISE**

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# 1 Introduction.

By using this document, you will get to know everything that is required to initiate app development for Glass Enterprise.

This document has been put together from an iMac with macOS 10.12.4

## 2 Install Android Studio.

Download Android Studio from the official link:

<https://developer.android.com/studio/index.html>

Once you have downloaded the file, go through the following steps:

Instructions for MAC:

1. Execute DMG file from Android Studio.
2. Drag Android Studio and Drop on the Applications folder. Then, initiate Android Studio.
3. Choose whether you wish to import previous configurations from Android Studio and click **OK**.
4. Android Studio config assistant will guide you through the rest of required steps; this includes downloading Android SDK components needed for development.

Instructions for Windows:

1. Execute downloaded **.exe** file.
2. Follow config assistant indications to install Android Studio and required SDK tools.
3. In some Windows OS's, start command sequence does not find the JDK installation destination. If this occurs, you must configure an environment variable to point at the right location.
4. Select **Start menu > Computer > System Properties > Advanced System Properties**. Then, open **Advanced > Environment Variables** and add a new system variable **JAVA\_HOME** to point at your JDK folder. For example, **C:\Program Files\Java\jdk1.8.0\_77**.

## Instructions for Linux:

1. Unzip the downloaded `.zip` file in a location for your apps; for example, inside `/usr/local/` for your user profile or in `/opt/` for user sharing.
2. To start Android Studio, open a terminal, navigate toward the `android-studio/bin/` desk and execute `studio.sh`.
3. **Suggestion:** Add `android-studio/bin/` in your ACCESS ROUTE environment variable to enable you to start Android Studio from any directory.
4. Choose whether you wish to import previous configurations from Android Studio and click **OK**
5. Android Studio config assistant will guide you through the rest of required steps; this includes downloading Android SDK components needed for development.

**Nota:** If you execute 64-bit Ubuntu, you must install some 32-bit libraries with the following line:

```
sudo apt-get install lib32z1 lib32ncurses5 lib32bz2-1.0 lib32stdc++6
```

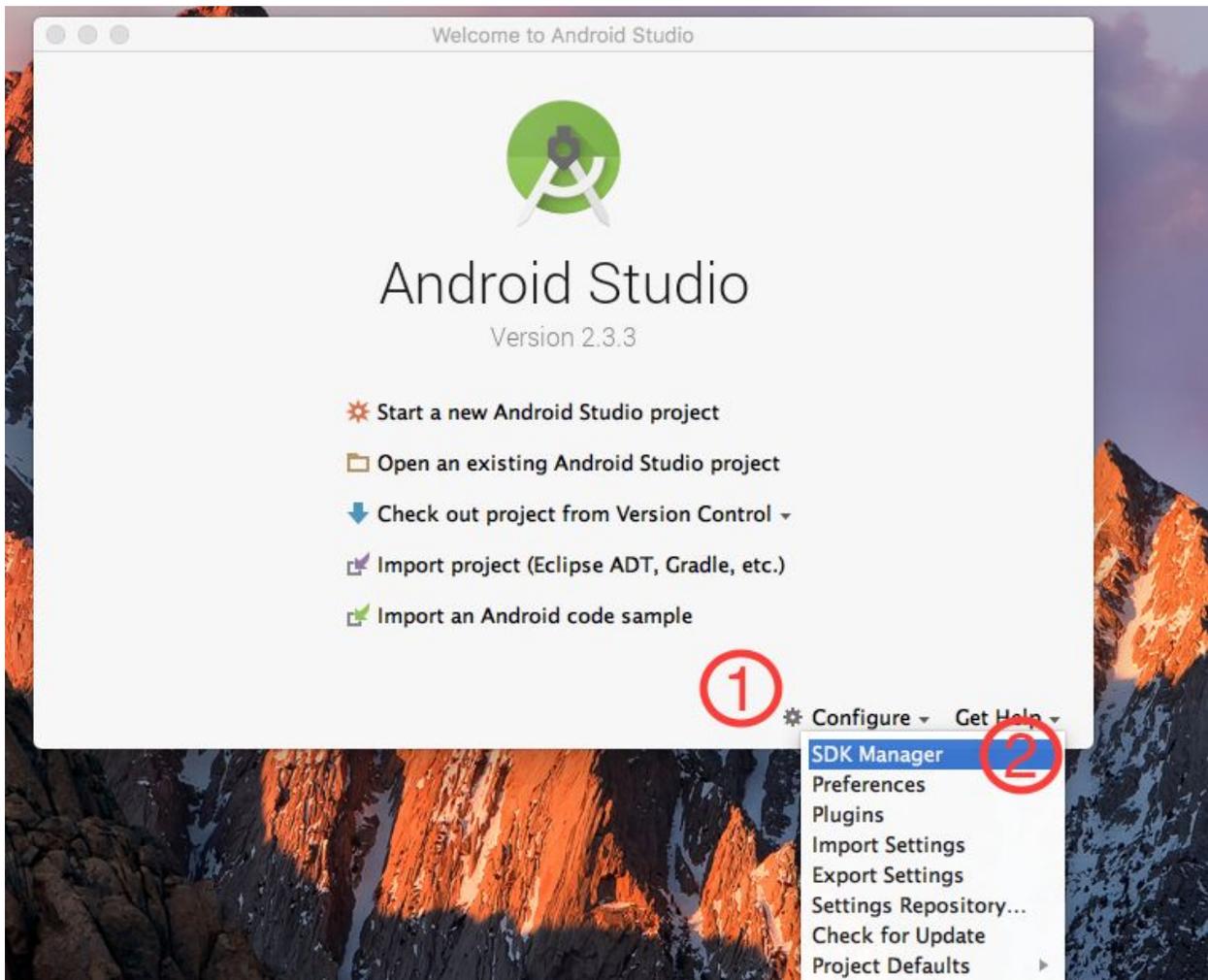
If you use 64-bit Fedora:

```
sudo yum install zlib.i686 ncurses-libs.i686 bzip2-libs.i686
```

By following these steps, Android Studio will be correctly installed in your system.

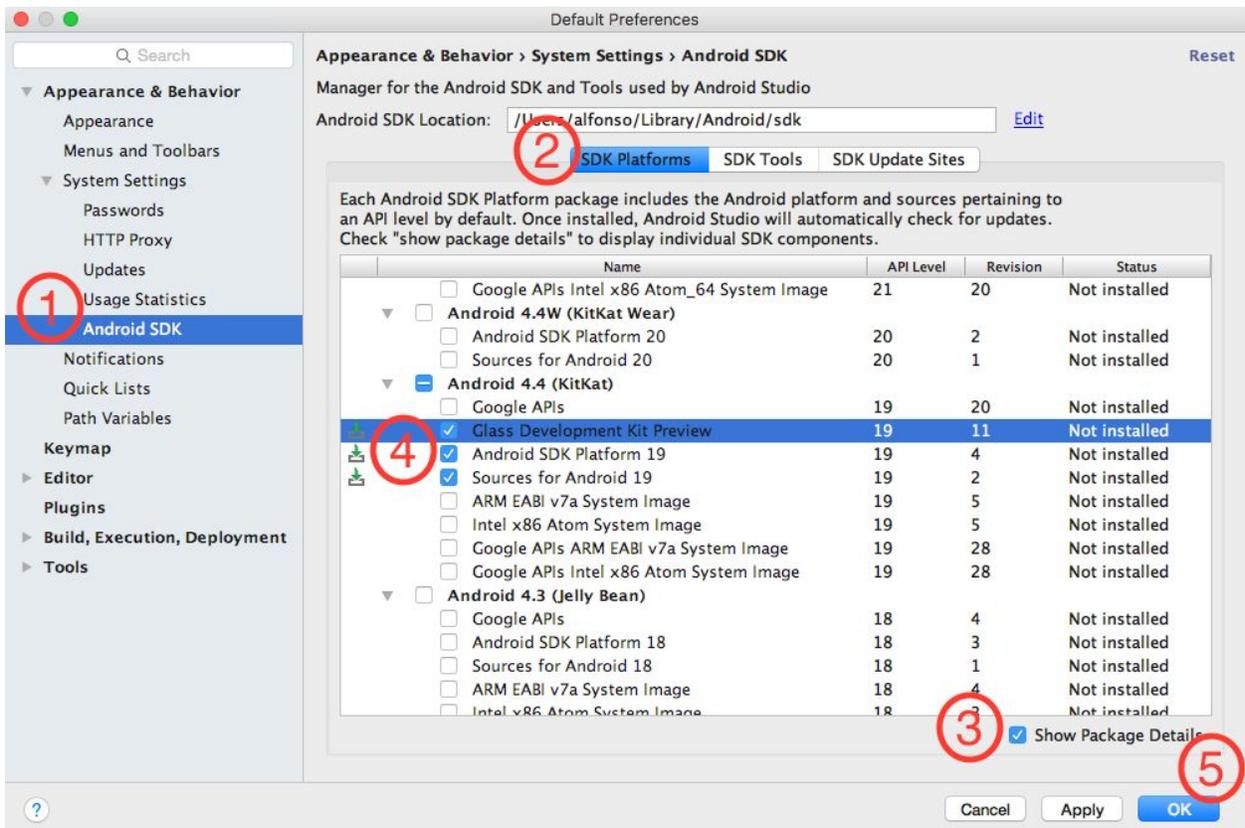
## 3 SDK Platform and Glass Development Kit preview for Android 4.4.2 (API 19).

Click on Configure > SDK Manager.



From this window, go to: Android SDK > SDK Platforms > click on Show Package Details > Select SDK, Sources and Glass Development Kit Preview > OK.

Downloading occurs automatically. You will be informed about which files will be downloaded, accept all of them and click Next. Once downloading ends, click on Finish.



## 4 Activate debug.

On your Glass Enterprise, go to Settings > Device Options > Device Info > Turn on debug. In this manner, you activate adb enabling Android Studio to communicate with Glass.

1



Settings

Battery charged

Wi-Fi data

2



Device options

3



Device info

EE13 up to date

10.8 GB free

4



Device info

EE13 up to date

10.8 GB free

Turn off debug

## 5 Connect Glass. Authorize.

As you connect to the computer, you will have to tap on the touchpad to allow access to your Glass.

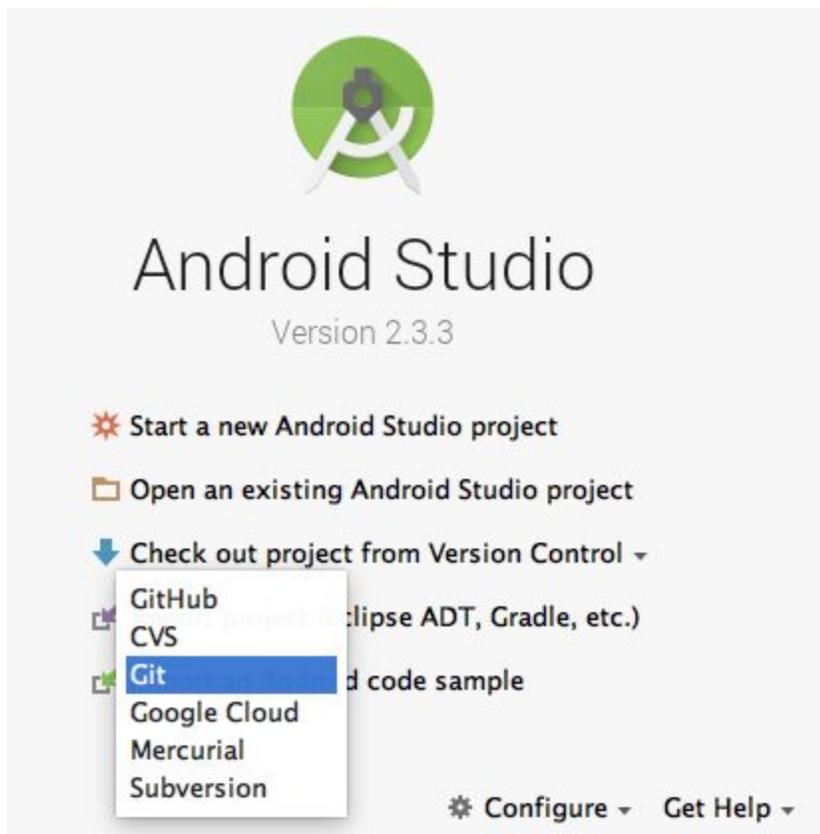
Now, if you type `adb devices` from a terminal, our Glass will look like this:

```
[→ ~ adb devices
List of devices attached
[REDACTED] device
```

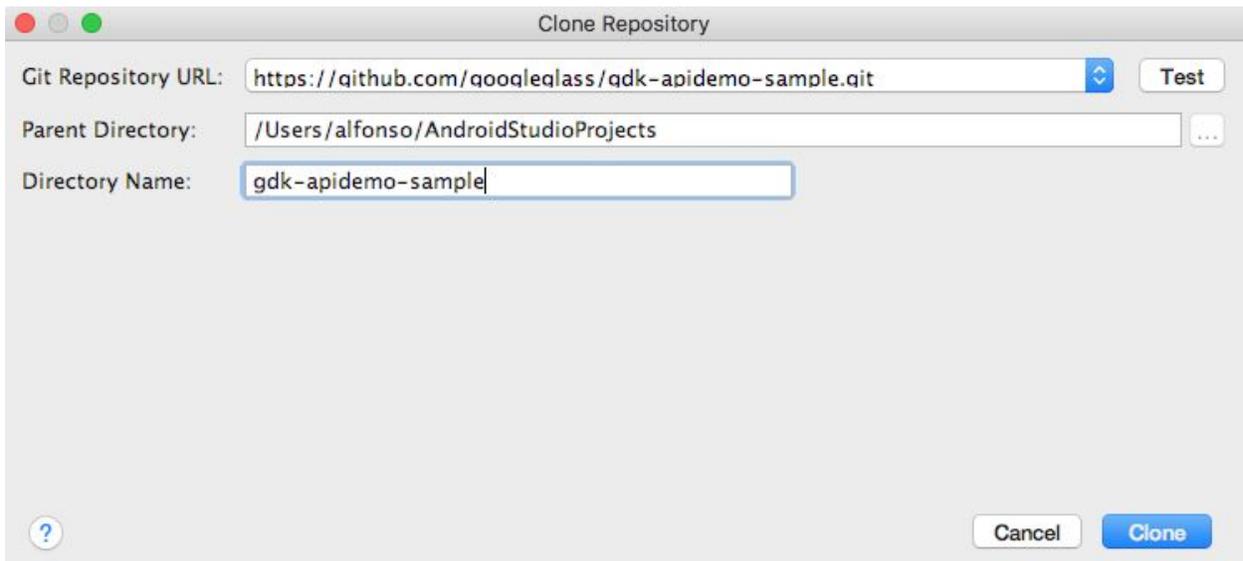
## 6 Import a Project.

To import a project to your Android Studio:

1. Click on Version Control > Git.



2. Indicate your project URL and the directory where you want it located. Take a look at this example:



3. Click OK.
4. Then, you can compile and run this project on your connected Glass by tapping Play.

## 7 Extras.

We would like to share some information to be considered when developing for Glass Enterprise.

### 7.1 Gradle.

In your Gradle file, in "compileSdkVersion" you will have to indicate the Glass Development Kit and your minimum SDK version, something that reads 19 or less.

```
android {  
    compileSdkVersion "Google Inc.:Glass Development Kit Preview:19"  
    buildToolsVersion "22.0.1"  
  
    defaultConfig {  
        applicationId "com.google.gdk.sample"  
        minSdkVersion 19  
        targetSdkVersion 22  
        versionCode 517  
        versionName "5.17"  
    }  
}
```

A screenshot of a Gradle file snippet. The text is as follows: 'android {', 'compileSdkVersion "Google Inc.:Glass Development Kit Preview:19"', 'buildToolsVersion "22.0.1"', 'defaultConfig {', 'applicationId "com.google.gdk.sample"', 'minSdkVersion 19', 'targetSdkVersion 22', 'versionCode 517', 'versionName "5.17"', '}'. Three red arrows point to the 'compileSdkVersion' line, the 'minSdkVersion 19' line, and the 'targetSdkVersion 22' line.

### 7.2 Gestures.

In order to capture and make use of gestures with Glass:

1. Declare your GestureDetector:  
private GestureDetector mGestureDetector;
2. Start it on init or on onCreate:  
mGestureDetector = createGestureDetector(this);
3. Declare the method createGestureDetector, where you will indicate which action is to be carried out depending on what is done on the touchpad:

```
private GestureDetector createGestureDetector(final Context context) {
    GestureDetector gestureDetector = new GestureDetector(context);
    gestureDetector.setBaseListener(new GestureDetector.BaseListener() {
        @Override
        public boolean onGesture(Gesture gesture) {
            if (gesture == Gesture.TAP) {
                tapSound();
                alertPresenter.goToScrollView();
                return true;
            } else if (gesture == Gesture.SWIPE_DOWN) {
                dismissSound();
                finish();
                return true;
            } else if (gesture == Gesture.SWIPE_RIGHT) {
                launchLogoutActivity();
                return true;
            } else if (gesture == Gesture.LONG_PRESS) {
                if (isSoundActivated) {
                    changeSound(false);
                } else {
                    changeSound(true);
                }
                return true;
            } else if (gesture == Gesture.SWIPE_UP) {
                checkConnection();
                return true;
            }
            return true;
        }
    });
    return gestureDetector;
}
```

## 7.3 Integrate your app on the Streye Launcher.

To be able to integrate your app on the Streye Launcher so that it will be shown on the Apps Menu (Interface) you need to add **com.streye** as a prefix to your app's pack name (**com.streye.yourappsnamehere**)

This is enough to get it done for your app to show on the Launcher's Menu: go back to the main interface, tap and swipe until you see your app with the rest of them.

## 8 Webs of interest.

- Google glass developers: <https://developers.google.com/glass/>
- Android Developers: <https://developer.android.com/index.html>
- Android Studio Web: <https://developer.android.com/studio/index.html>