

预览安卓应用程序

在Qt设计工作室中，你可以使用安卓模拟器实时预览安卓应用。

先决条件

安装打开JDK 11

您需要按照[安卓版 Qt 入门](#)中所述安装 OpenJDK 11，才能执行以下操作：

› 在 Linux 上：

1. 在命令行中，运行：

```
sudo apt-get install openjdk-11-jdk
```

› 在苹果操作系统上：

1. 从下载打开[JDK下载打开JDK 11](#)。
2. 在命令行中，运行：

```
cd ~/Downloads  
tar xf microsoft-jdk-11.0.13.8.1-macos-x64.tar.gz
```

3. 默认情况下，将解压缩的文件夹复制到 macOS 搜索 Java 的位置：

```
sudo cp -Rv jdk-11.0.13+8 /Library/Java/JavaVirtualMachines/
```

4. 检查 Java 是否已正确安装：

```
java -version
```

```
openjdk version "11.0.13" 2021-10-19 LTS
OpenJDK Runtime Environment Microsoft-27990 (build 11.0.13+8-LTS)
OpenJDK 64-Bit Server VM Microsoft-27990 (build 11.0.13+8-LTS, mixed mode)
```

- › 在窗口上：
 - › OpenJDK 11 会自动随安卓工作室一起安装。

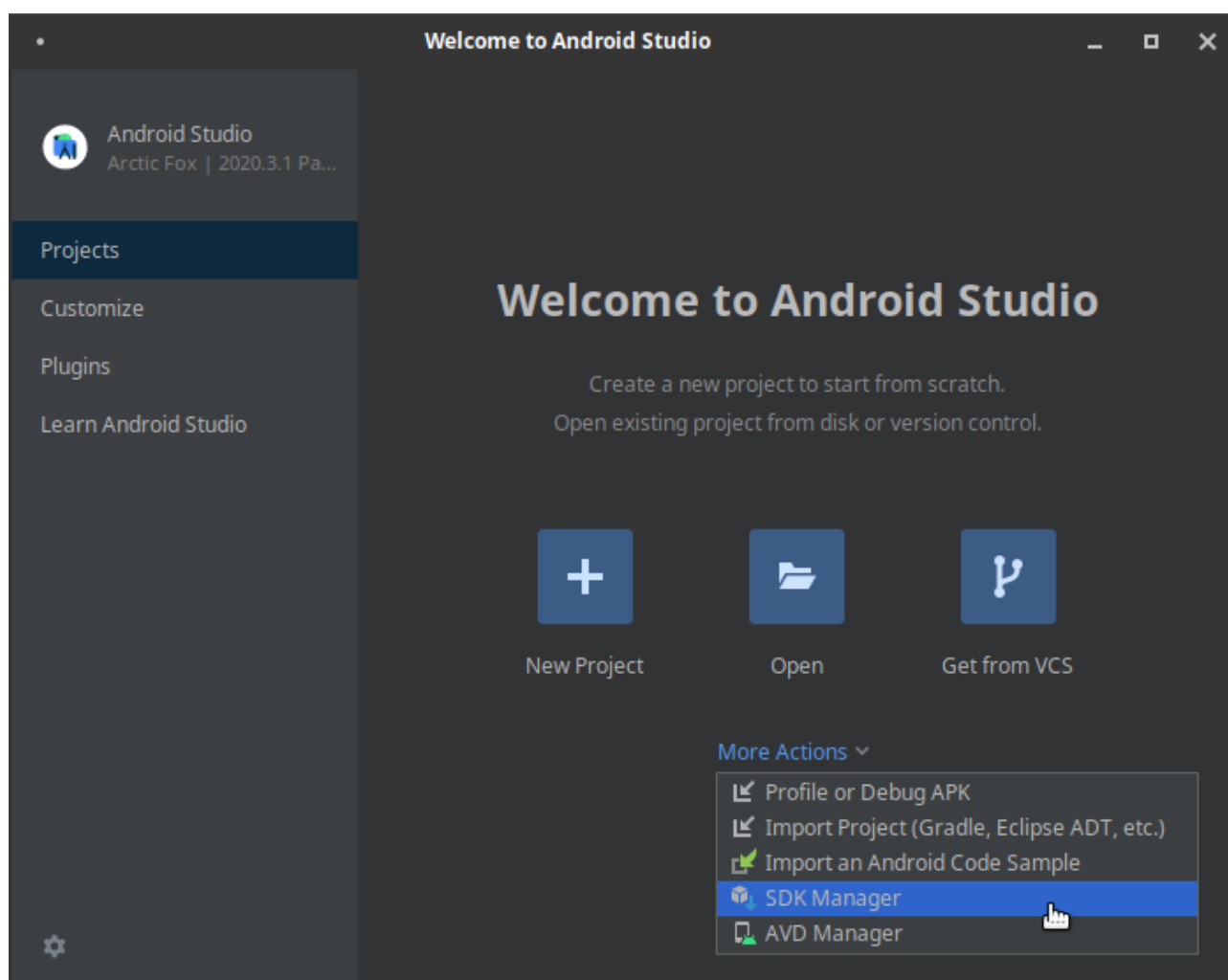
安装安卓工作室和 SDK 工具

您需要安装安卓工作室：

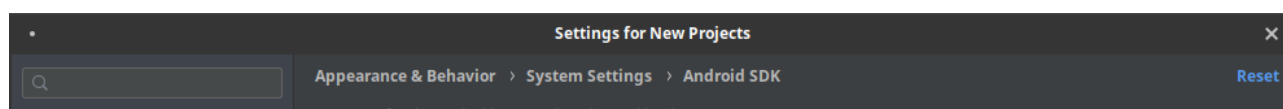
1. 从下载安卓工作室[下载安卓工作室](#)。
2. 根据安卓工作室[安装指南安装安卓工作室](#)。

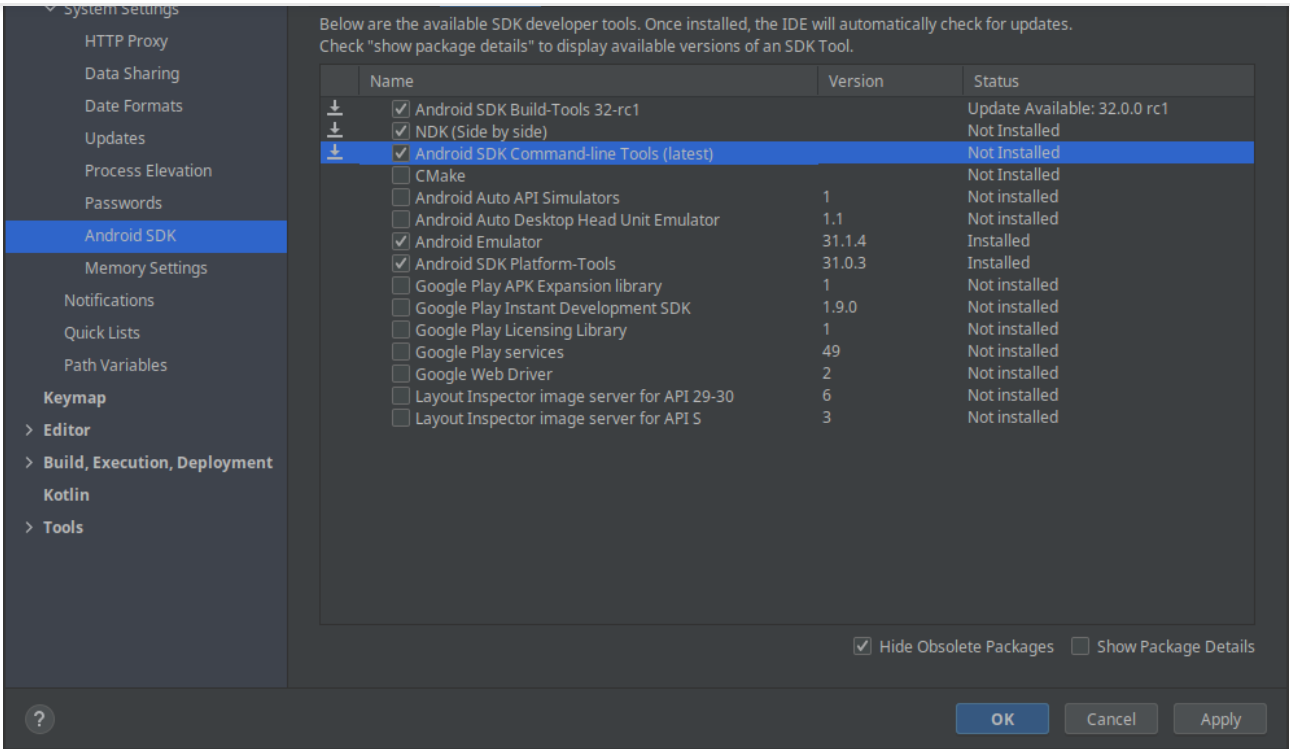
接下来，您需要安装安卓 SDK 命令行工具：

1. 运行安卓工作室，然后在欢迎页面上，选择“**更多操作**> SDK 管理器”。



2. Select **Android SDK Build-Tools 32-rc1**, **NDK (Side by side)**, and **Android SDK Command-line Tools (latest)**.



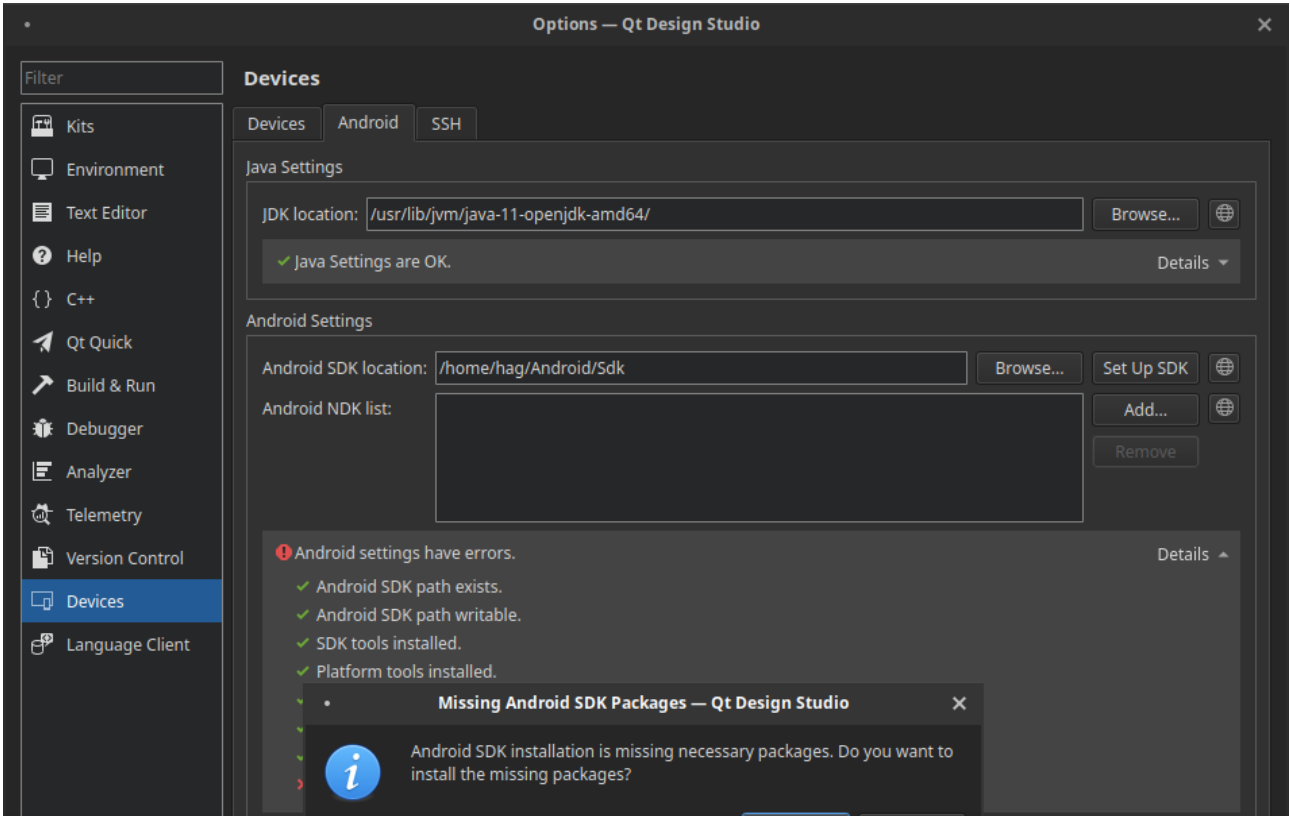


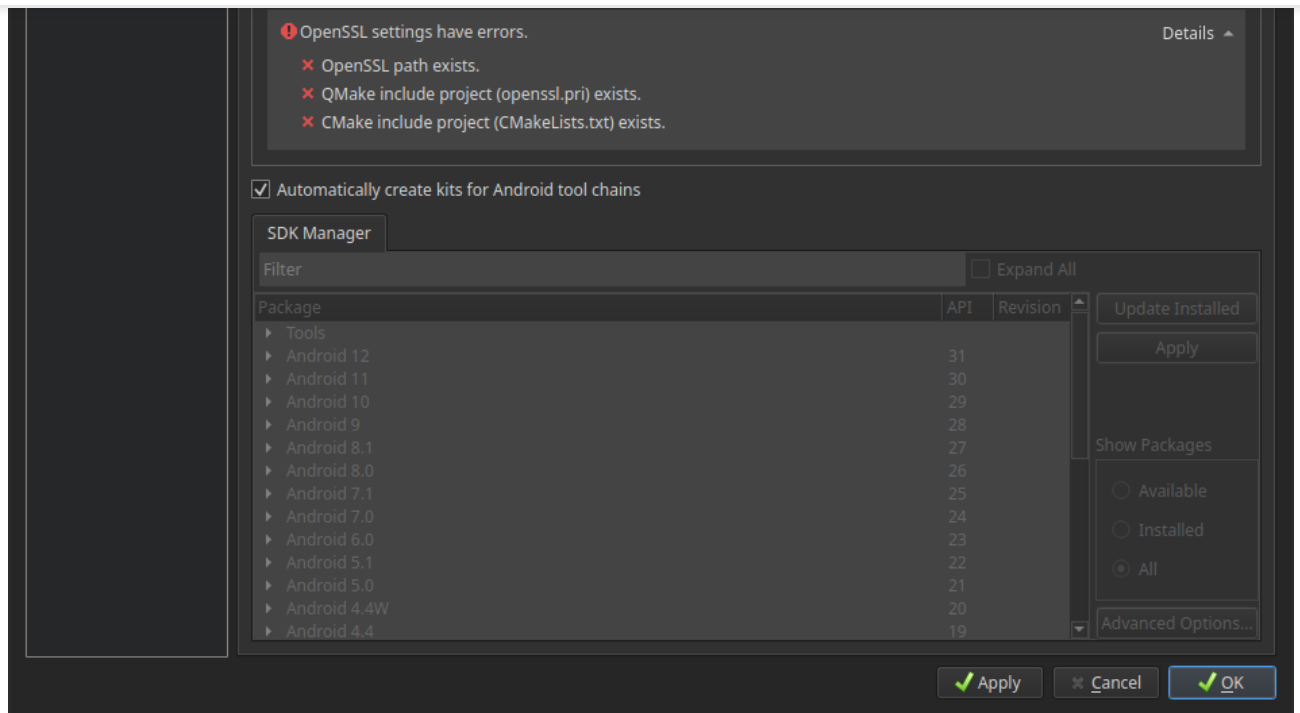
3. Select **Apply** and follow the instructions in the wizard to finalize the installation.

Install Android SDK Packages in Qt Design Studio

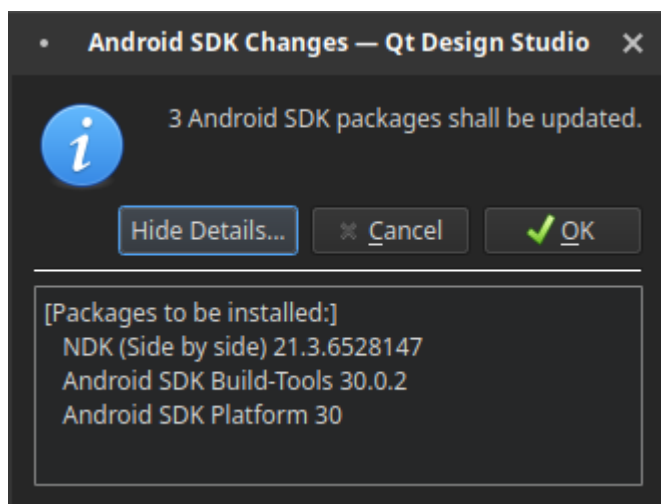
You need to install Android SDK packages in Qt Design Studio:

1. Run Qt Design Studio.
2. Go to **Edit > Preferences > Devices**.
3. Select **Yes** on the **Missing Android SDK Packages** dialog.

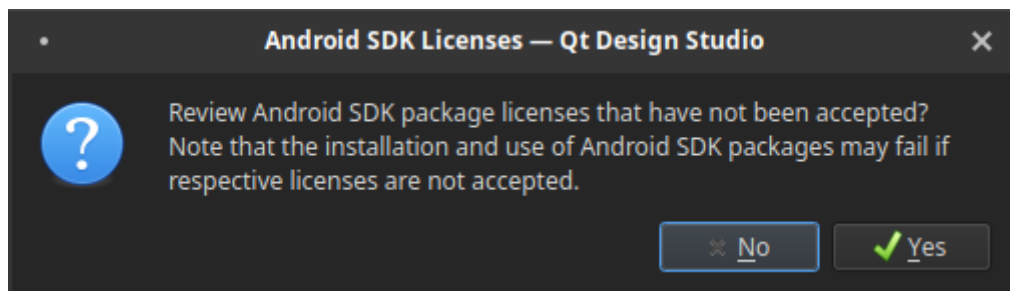




4. Select **OK** on the **Android SDK Changes** dialog.

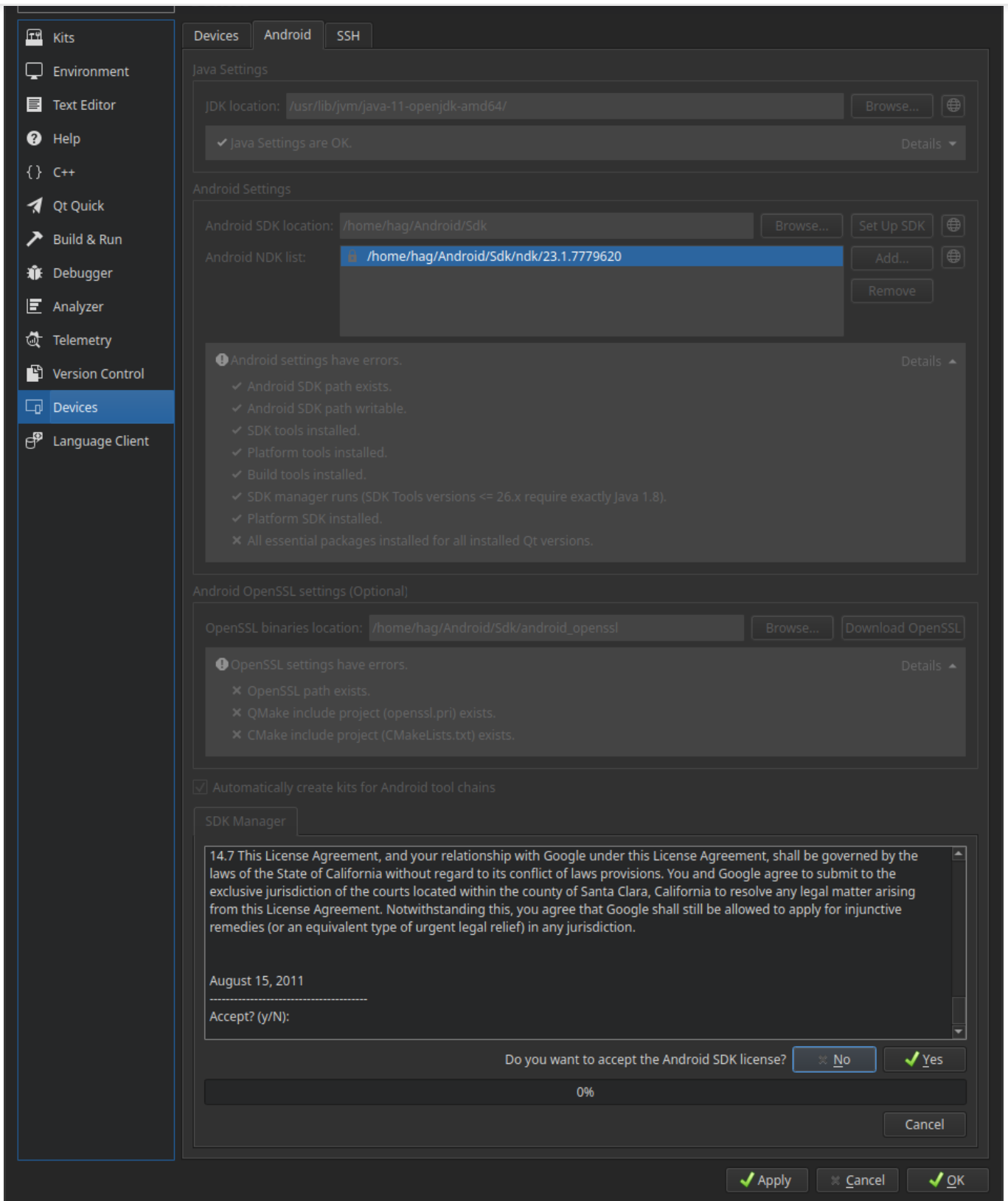


5. Select **Yes** on the **Android SDK Licenses** dialog.



Note: The installation can take a while. If the installation process seems to have stopped working, try to restart Qt Design Studio and run the installation again.

After completing these steps, you should no longer have any errors on the **Edit > Preferences > Devices** page.

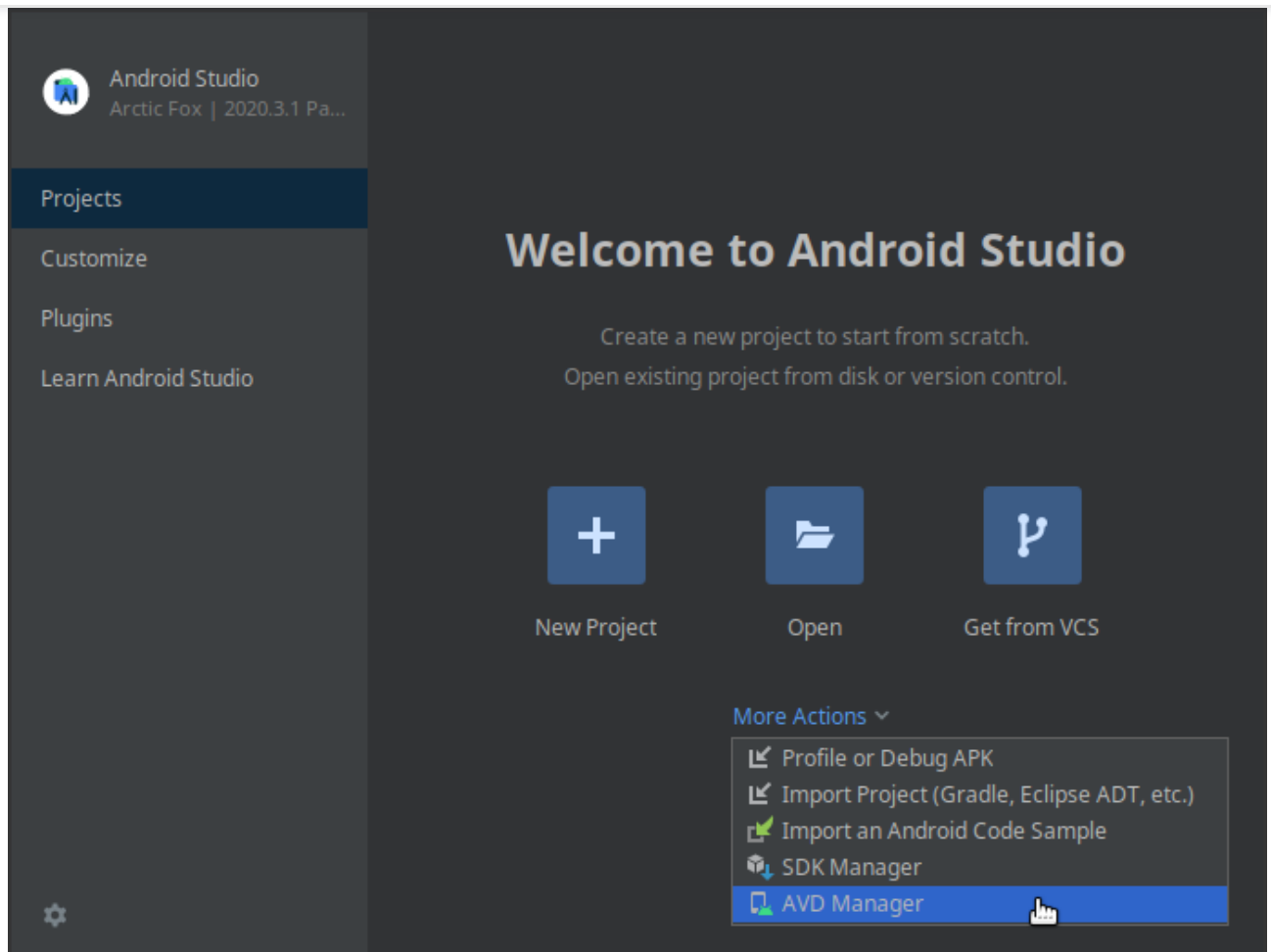


Create Android Virtual Devices

Next, you need to create an Android Virtual Device (AVD):

Note: You might need to download a system image depending on your setup.

1. Run Android Studio and on the welcome page, select **More Actions > AVD Manager**.



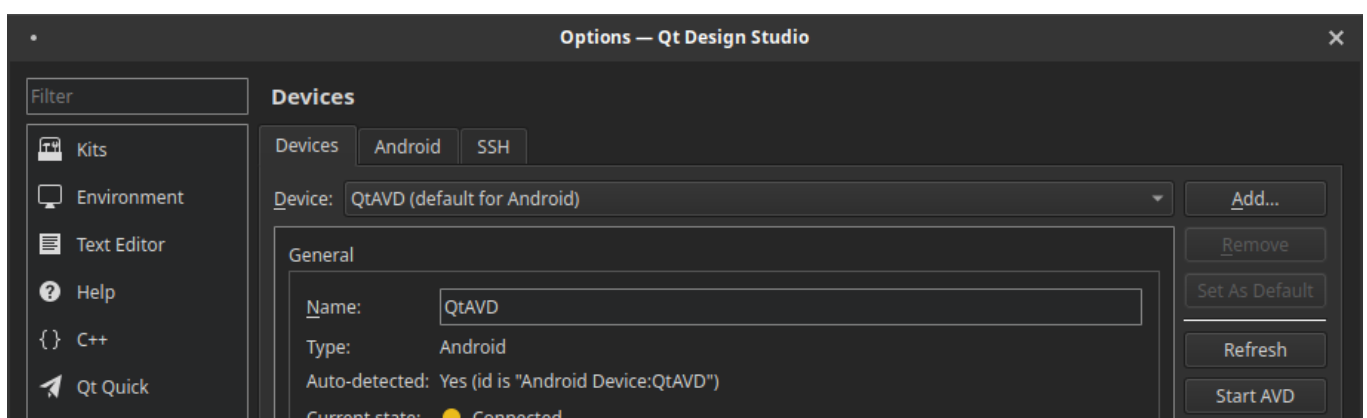
2. Select **Create Virtual Device** and follow the instructions in the wizard to finalize the creation.

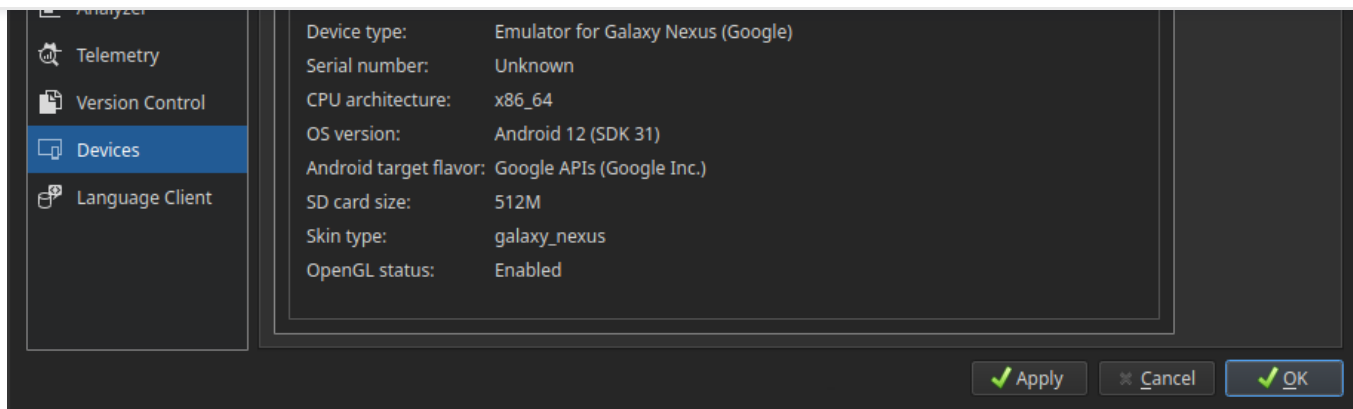
Qt Design Studio has a AVD manager where you can create AVDs as well but it is recommended to use Android Studio because then you can directly install the needed system package for the selected device configuration.

To create an AVD in Qt Design Studio:

1. Go to **Edit > Preferences**.
2. On the **Devices** tab, select **Add** and follow the wizard to finalize the creation. If there is no entry for *Android Device* in the **Available device types** list, try restarting Qt Design Studio.

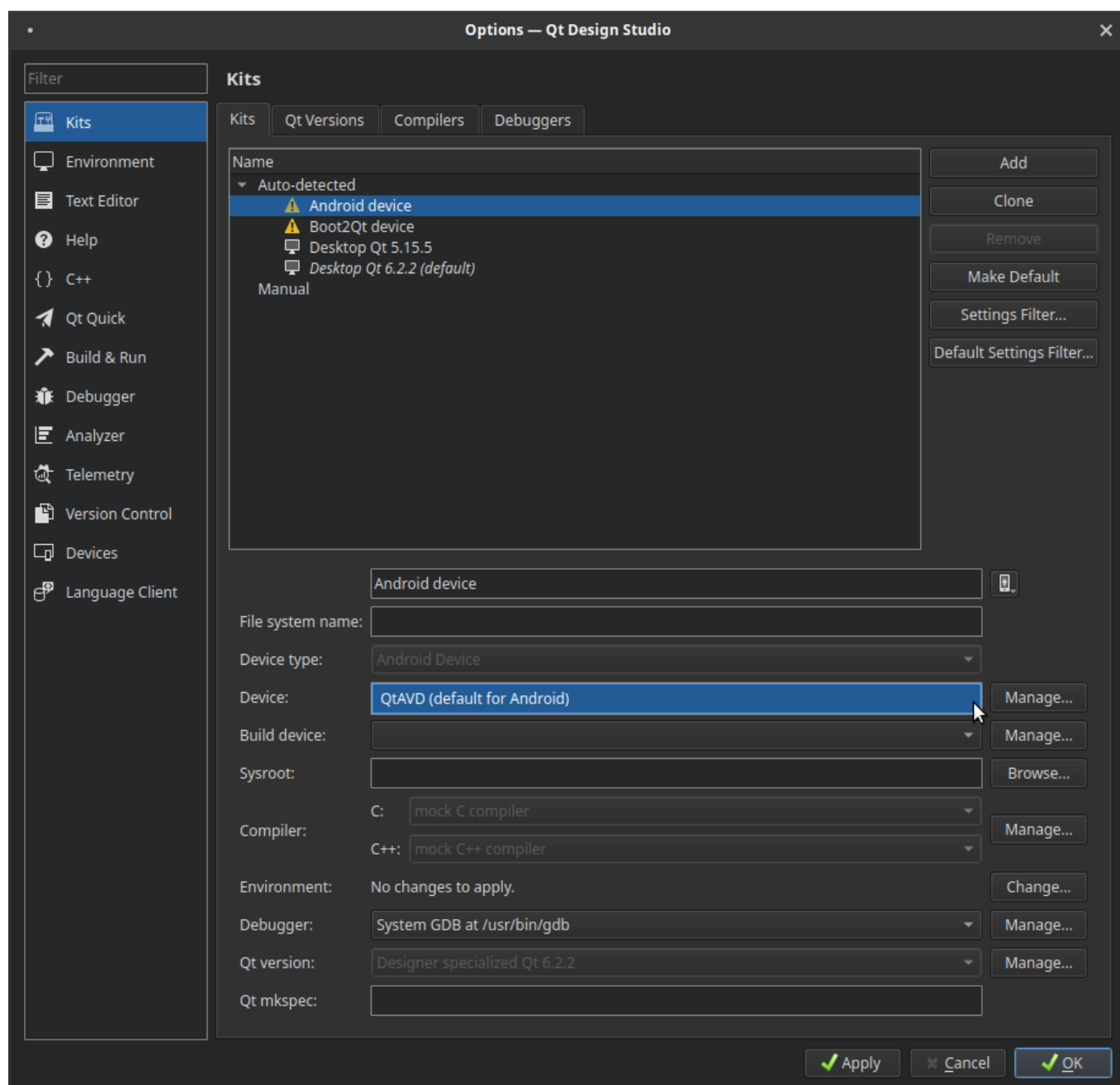
Note: Many device images require Intel HAXM to work on Windows 10 and later, you can download and install the drivers from [here](#).





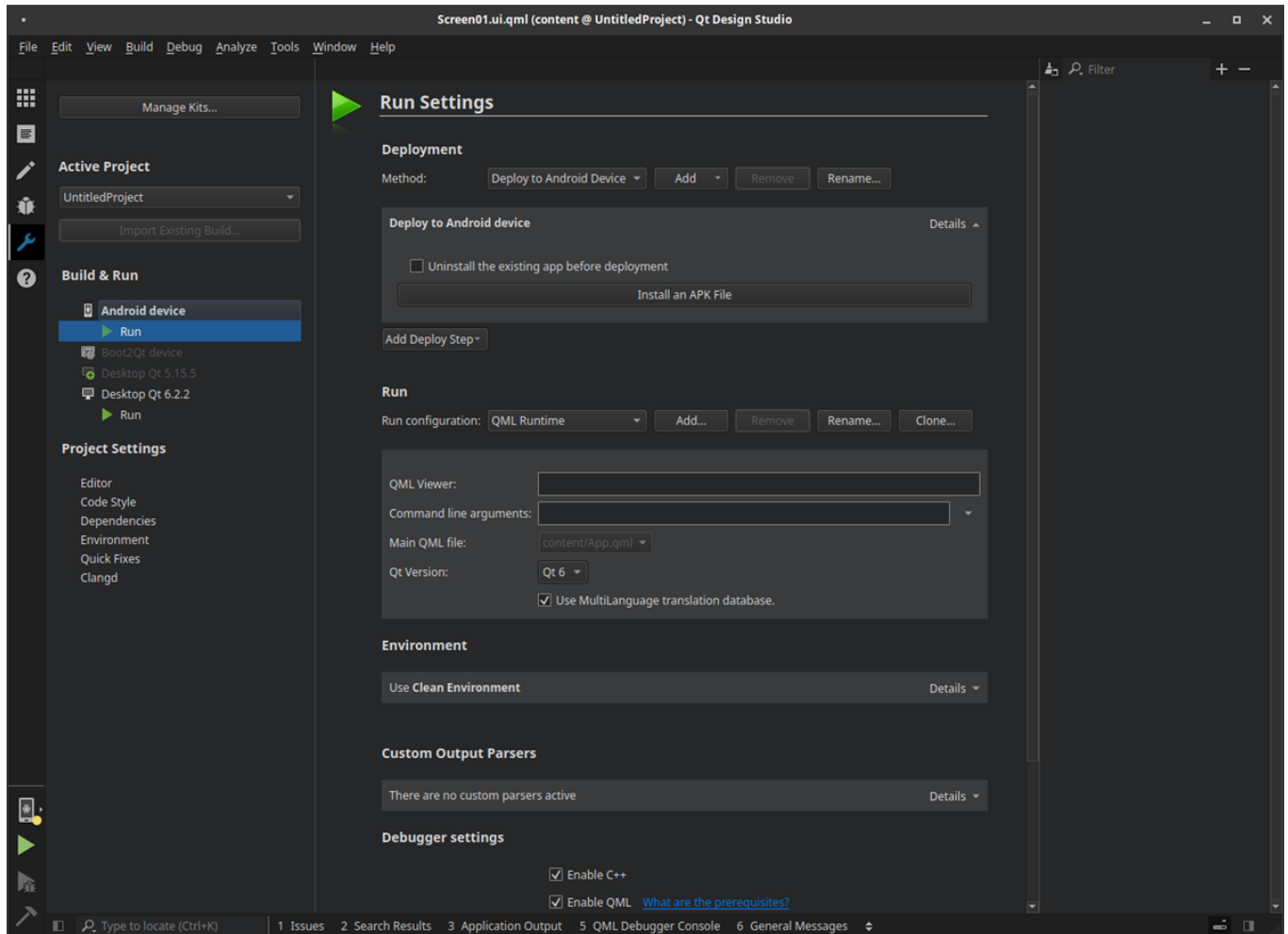
Set the AVD as the Device in the Android Kit

Next, you need to set the AVD as the Android device kit. You do this under the the **Kits** tab. If the **Kits** list is empty, restart Qt Design Studio.



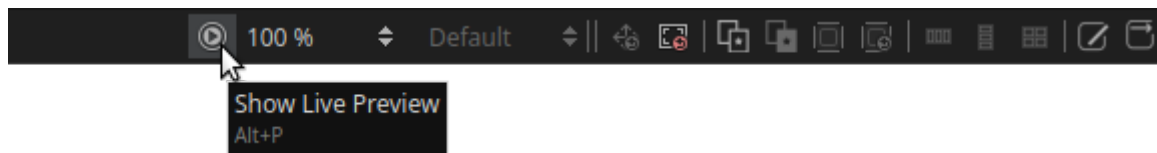
Now, you are set up and can create a project in Qt Design Studio. In the project, configure it to run on the Android device:

1. Select the **Projects** mode tab.
2. Under **Build & Run**, select the Android device.



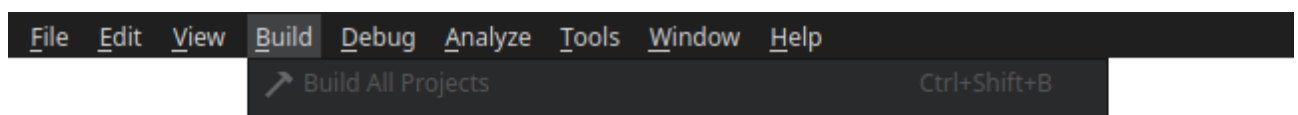
Next, to run the emulator, do one of the following:

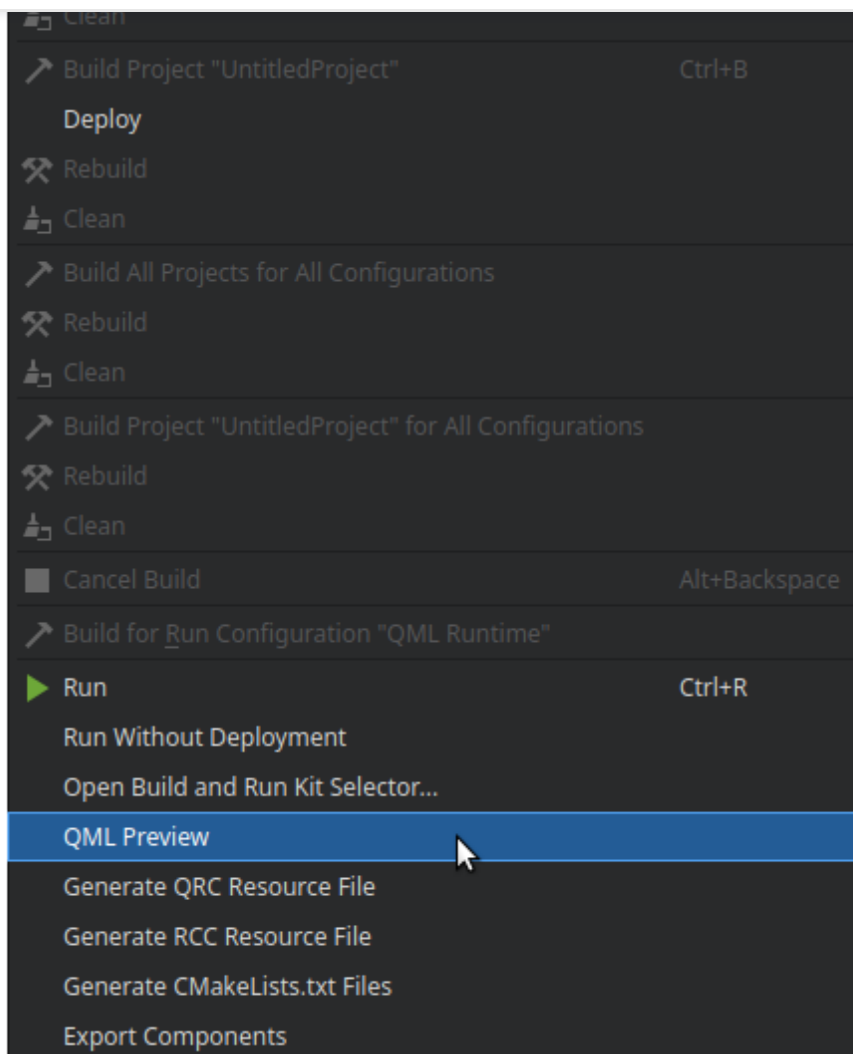
- Select **Show Live Preview** in the the **2D** view toolbar.



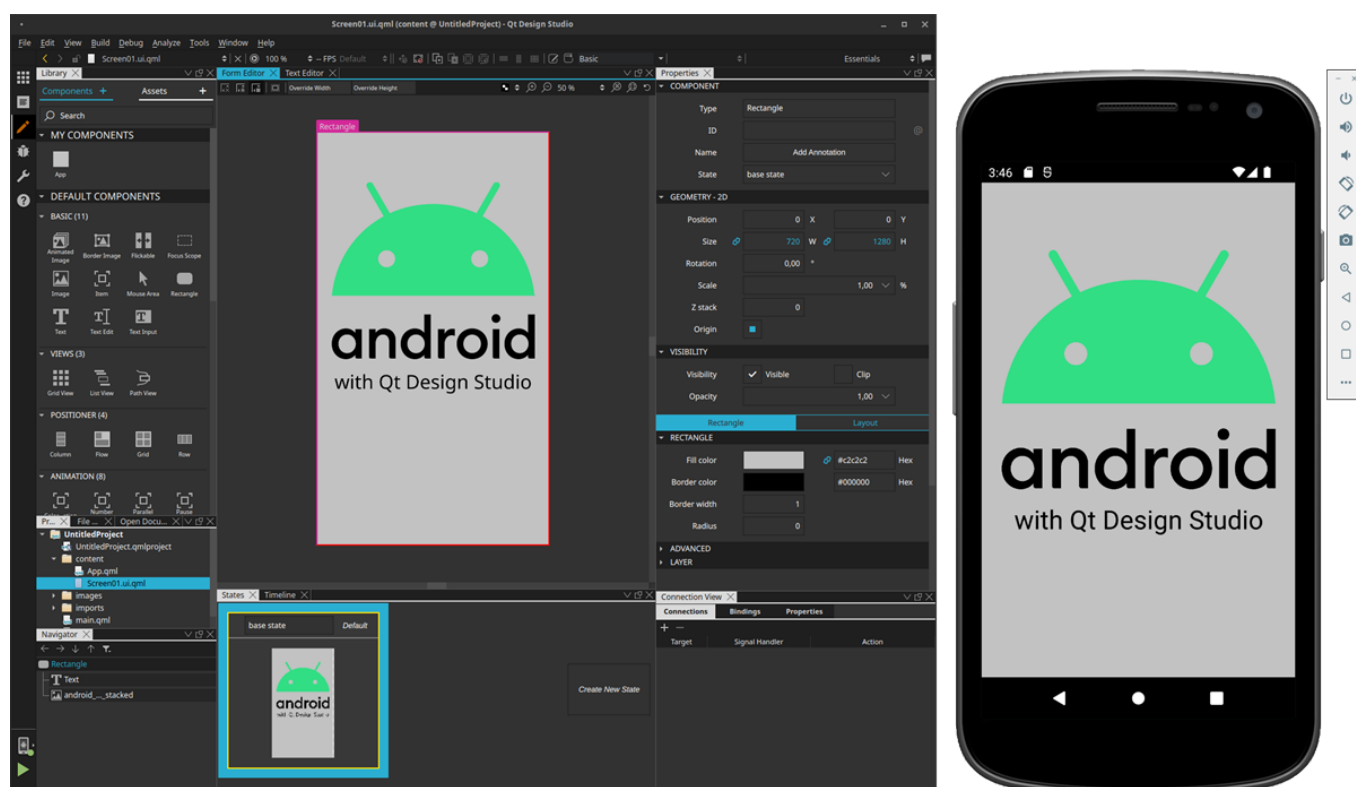
- Select **Build > QML Preview**.

Note: The **Build** menu option is not visible by default. To show it, go to **Edit > Preferences > Environment > Qt Design Studio Configuration**.





Now the emulator runs, the qtdesignviewer APK delivered with the Qt Design Studio installation is uploaded, and the project is uploaded and shown in the emulator.





- › The qtdesignviewer for Android currently has no live preview. You have to restart the preview to see updates.
- › Android typically has very high DPI and it is good to familiarize yourself with how [high DPI works in Qt 6](#). You can, for example, use `QT_SCALE_FACTOR` or `QT_USE_PHYSICAL_DPI`. You can define those in the `.qmlproject` file.
- › The qtdesignviewer for Android is currently built with Qt 6.2 and comes with all QML modules shipped with Qt Design Studio 2.3.

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