Lab 1.3 Oculus setup

Introduction

In this lab, you will set up your VR headset and learn how to build and run your project. Unity supports many headsets, such as Oculus Rift, Quest, and HTC Vive Headsets, and we will use Oculus Quest provided by the department in this course.

Unity has a robust API for both scene building and VR incorporation. We provide you with a starter package for this lab and later projects. After familiarizing the API, feel free to import new packages and assets.

## Real work (still windows, should be similar for other OS)

Download and open the start package
1. Download and unzip the start package. StartVRProject.zip
2. In Unity Hub, click the "Add" button and navigate the folder you unzipped the start package.
3. After adding the project, open it. Note it may take a long time to open for the first time, so be patient.

Build and run (ask on piazza on in-person labs for any question)

1. Connect Quest 3 to your phone. You should be able to do this when you start your Quest 3 for the first time. If not, download the "Meta Quest" app from your app store (IOS or Android). Then go to Menu -> Devices -> Connect new device and follow the instruction. You can find the 5 digit connection code under Settings -> System -> About on your Quest 3.
2. Enable the developer mode on both your phone and Quest 3. In the app on your phone, navigate to your device under Menu -> Device. Under "Manage your device", go to Headset settings -> Developer Mode and enable it. In Quest 3, go to Settings -> System -> Developer and enable it. Note you may not find the "Developer" in Quest 3 without first enable the developer mode on your phone. Here is the official website if you are curious: Device Setup | Oculus Developers.
3. After the first time you connect the Quest 3 to your computer, a window will pop up on Quest 3 to ask for the permission to send data to your computer. Choose "Always allow".
4. Then in the StartVRProject, navigate to the StarterScene in the Scenes folder. You can double click the scene to enter it.
5. Then you will build and run on your headset. First, go to Files -> Build Settings, change the platform to Android by choosing the Android and click "Switch Platform." It will take a long time to finish. You also need to make sure you "Run Device" here is your device.

Check that by make sure "Run Device" is not the "Default device" but your Quest 3. If it's not found, you will need to turn on the developer mode. After that, you can build and run the scene on your headset by clicking the "Build and Run" button in the Build Setting window or File -> "Build and Run." Make sure you connect your headset to your computer using a USB-C. For the first time, you will need to create an apk file. It will take a long time to build for the first time.
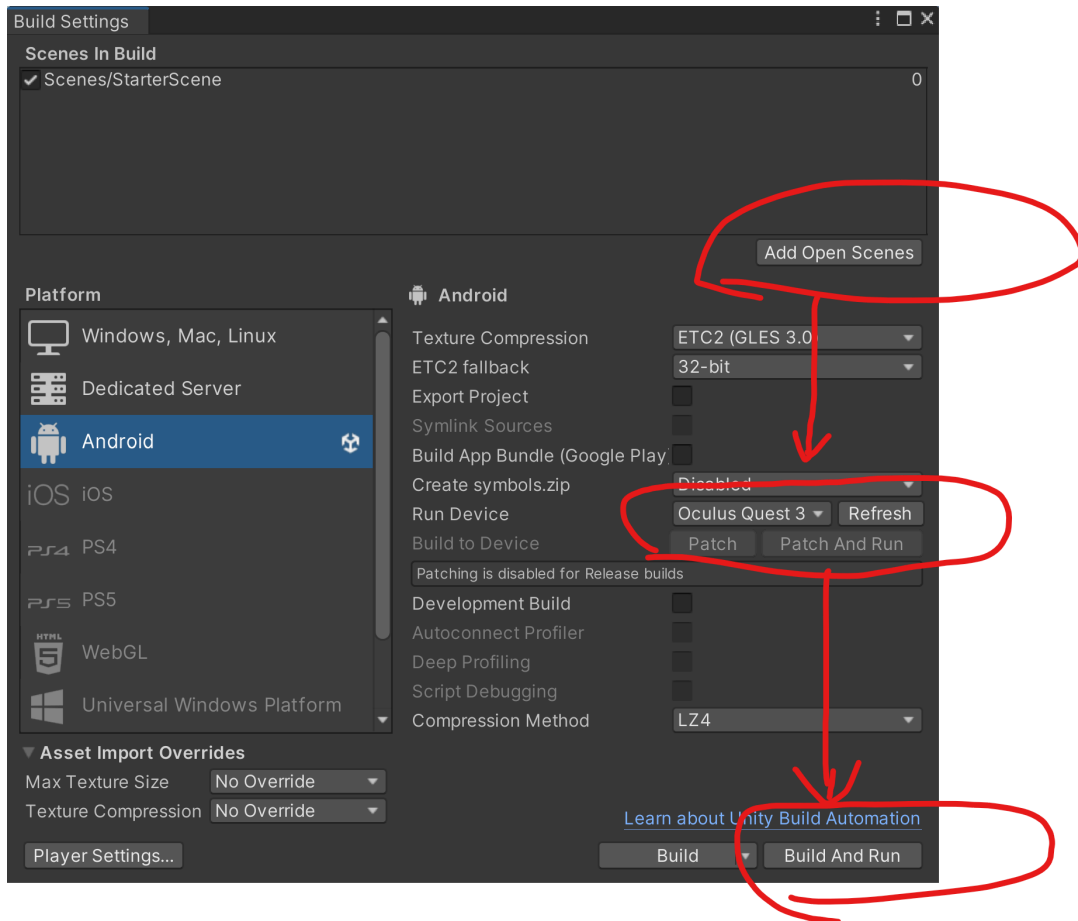
6. During setup, you may encounter many problems, so feel free to contact the TA or post on Piazza. First-time building can take more than 10 minutes. If you see something like this in the console panel:
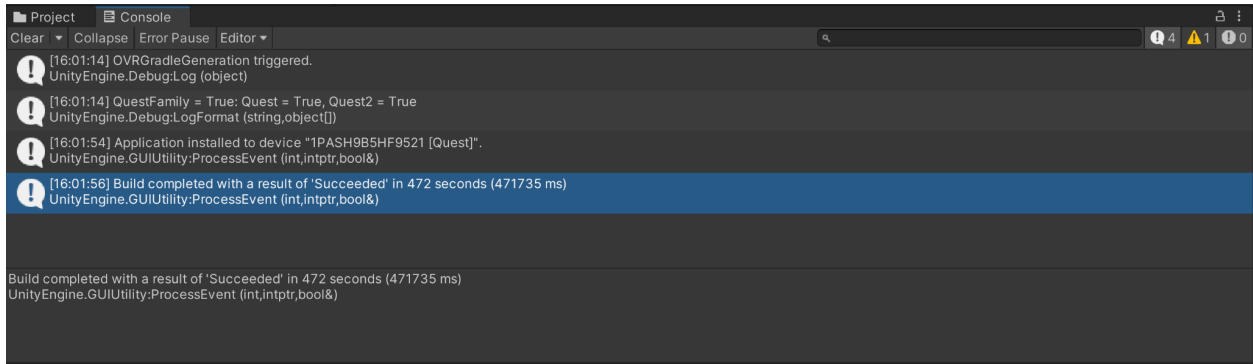
Then congratulations. You can now put on your headset, and the game should have started. If the game does not start, navigate to Apps -> Unknown Source, and you should be able to find your game there.