Oculus Quest Starter Documentation



Oculus Quest Starter is a boilerplate project ready for Oculus Quest deployment. If you are new to Oculus Quest or Android development, setting up the environment could be really frustrating. This project (and this documentation) will probably save your day, seriously.

BEFORE YOU START

Before you launch UE4 and dive into this project, you should get your Android SDK, NDK and JDK installed. If you have no idea about those *DK stuff, never mind, just remember you need to have them to make apps for Oculus Quest.

You can follow the steps below to install the *DK stuff:

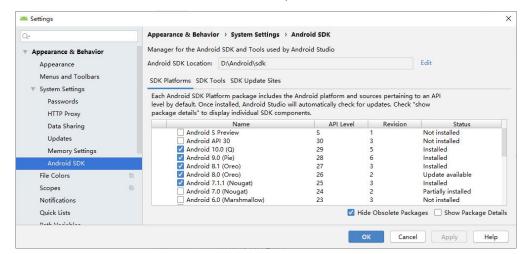
1. Install Android Studio 3.5.3, which you can find here: https://developer.android.com/studio/archive

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Installers
Windows IDE only (64-bit): android-studio-ide-191.6010548-windows.exe (753903288 bytes)
Chrome OS: android-studio-ide-191.6010548-cros.deb (650228460 bytes)
Mac: android-studio-ide-191.6010548-mac.dmg (768827600 bytes)

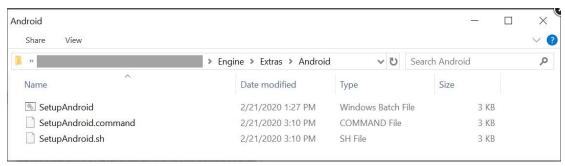
SHA-256 checksums
58b3728fc414602e17fd9827e5ad0c969e5942affflee82964eedf1686450265b android-studio-ide-191.6010548-windows.exe
87ca5f17f808ecb909e62c80da3e578156563309ca24f0b820064cc786d1360f android-studio-ide-191.6010548-cros.deb
6cb545c07ab4880513f47575779be7ae53a2de935435f8f22eb736ef72ecdf6e android-studio-ide-191.6010548-mac.dmg

Zip files
Windows (64-bit): android-studio-ide-191.6010548-windows.zip (756583283 bytes)
Windows (32-bit): android-studio-ide-191.6010548-windows32.zip (756078908 bytes)
Mac: android-studio-ide-191.6010548-mac.zip (768538043 bytes)
Linux: android-studio-ide-191.6010548-linux.tar.gz (774544822 bytes)
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2. Use Android Studio to install Android SDK, from API Level 25 to 29



3. Go to UE4 folder, open Engine/Extras/Android, run the SetupAndroid script to install NDK



NDK path will be: C:/Users/[Username]/AppData/Local/Android/SDK/ndk/21.1.6352462

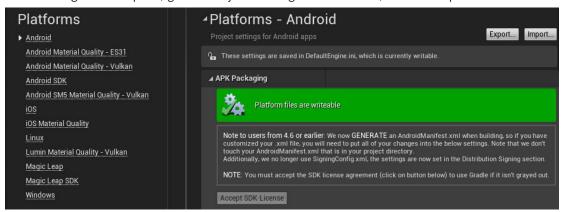
4. Download and install JDK. This project is tested with JDK8u131, which you can find here: https://www.oracle.com/java/technologies/javase/javase8-archive-downloads.html

PROJECT SETTINGS

With the *DK stuff installed, you can now open the project in UE4, and set the *DK path in project settings.



After setting the *DK path, go to "Project Settings -> Android", click "Accept SDK License".



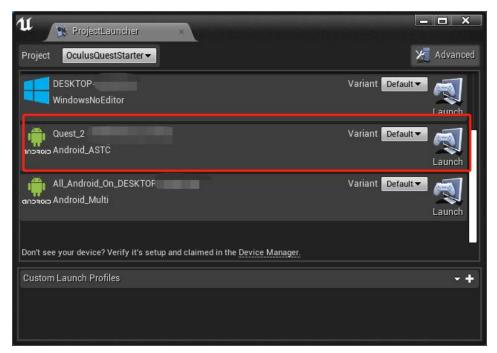
Now the project should be ready to launch on Oculus Quest.

LAUNCH ON QUEST

With all settings done, connect your Quest to PC, disable oculus link, make sure developer mode and debugging is enabled. Use the launch drop-down menu to launch the preview on Quest.



If the Quest does not show up in the drop-down menu, open Project Launcher to find it.



MAIN FOLDERS

Blueprints - Gravity Grab blueprints nested here.

Materials - Gravity Grab materials nested here.

Maps - Sample map nested here.

VRTemplate - UE4 VR template content.

BLUEPRINT REFERENCE

BP_MotionControllerPawn_Oculus – Pawn class inherited from BP_MotionControllerPawn, call setup function of **BP_MotionController_Oculus** at BeginPlay.

BP_MotionController_Oculus – Motion Controller inherited from BP_MotionController, setup offset and rotation of hand mesh for Oculus devices.

BP_PickupCube, **BP_PickupSphere** – Pickup blueprint examples.

To learn about more detail about implementation, please reference orange comment blocks and variable tooltips in each blueprint.

REFERENCE

Oculus Quest Unreal Quick Start Guide:

https://developer.oculus.com/documentation/unreal/unreal-quick-start-guide-quest/

Setting Up Android SDK and NDK for Unreal:

 $\underline{https://docs.unrealengine.com/en-US/SharingAndReleasing/Mobile/Android/Setup/Android}\\ \underline{Studio/index.html}$