



Setting up Cross-device OpenXR on Unity For Windows PCVR

Goal of that document

Step by step guide to create a Unity project based on Unity's OpenXR Plugin that can build and run vendor-agnostic OpenXR application on Windows for PCVR

Create a cross-platform Unity OpenXR project

The simple way to create a Unity project that works on multiple OpenXR PCVR platforms is through the Unity OpenXR Plugin and Unity XR Interaction Toolkit. Make sure you have installed the latest Unity editor version before creating a new "Universal 3D" project, as is shown below :

Unity Hub 3.11.1			- 🗆 X	
	Nev Editor Version:	/ project 6000.0.37f1 цтs 🗘		
≅ All templates	Q Search Core templates			
Core	Universal 2D			
Sample	Core		Universal 3D This template includes the settings and assets you need to start creating with the Universal Render Pipeline (URP).	
Learning	Universal 3D Core			
			Read more	
	High Definition 3D Core		PROJECT SETTINGS Project name UnityOperk(RDemo	
	Core			
		4	Location C:\open\Projects	
	2D Mobile	•	Unity Organization	
			Cancel Create project	

In Unity editor, Enable XR Plug-in Management, and then check "OpenXR" to install the Unity OpenXR Plugin

XR Plug-in Management	
- -	A
Initialize XR on Startup 🗸	
Plug-in Providers 🕑	
Oculus	
✓ OpenXR 😧 🛕	
Unity Mock HMD	
Information about configuration, tracking and migration can be found bel	ow.
View Documentation	

Fix the Project Validations, and then Add "Oculus Touch Controller Profile" to remove the warning sign above.

OpenXR			
		~	
Render Mode	Single Pass Instanced		
Auto Color Submission Mode	~		
Depth Submission Mode	None		
Foveated Rendering Api	Legacy		
Additional Graphics Queue (Vulkan)			
Play Mode OpenXR Runtime	System Default		
Only enable interaction profil profile, to allow the OpenXR r	es that you actually test, to ensure tl runtime to remap user input from a p	heir input bindings are complete. Otherwise, disable that interaction rofile you do test.	
Enabled Interaction Profiles			
Oculus Touch Controller Profile 3			
		t	
OpenXR Feature Groups			
All Features	D-Pad Binding 🤨		\$
	Foveated Rendering 3		
	Hand Interaction Poses 3		
	Mock Runtime		\$
	Palm Pose 😗		
	Runtime Debugger		₽
	XR Performance Settings 😢		

From Package Manager, install XR Interaction Toolkit

+ ▼ Sort: Name (asc) ▼ Filters	✓ Clear Filters	:
 In Project Updates 	Q interaction × V Packages	XR Interaction Toolkit 3.0.7 · November 15, 2024 From Unity Registry by Unity Technologies Inc.
Image: Unity Registry My Assets Built-in Services	XR Interaction Toolkit 3.0.7	com.unity.xr.interaction.toolkit Documentation Changelog Licenses Install Description Version History Dependencies
		A high-level, component-based, interaction system for creating VR and AR experiences. It provides a framework that makes 3D and UI interactions available from Unity input events. The core of this system is a set of base interactor and interactable components, and an Interaction Manager that itse these two types of components together. It also contains components that you can use for locomotion and drawing visuals.

Import "Starter Assets" from the Samples panel

XR Interaction Toolkit		
3.0.7 · November 15, 2024		
From Unity Registry by Unity Technologies Inc.		
com.unity.xr.interaction.toolkit		
Documentation Changelog Licenses Remove Image: Changelog Image: Changelog		
Description Version History Dependencies Samples		
Starter Assets 8.85 MB	Import	
Assets to streamline setup of behaviors, including a default set of input actions and presets for use with XR Interaction Toolkit behaviors that use the Input System. Also contains a demo scene. Dependencies: • <u>Shader Graph</u>		

Open the XR Interaction Toolkit's "DemoScene" located under the StarterAssets subfolder installed with the package under : Assets\Samples\XR Interaction Toolkit\



Set default OpenXR Runtime

Now make sure your favorite OpenXR runtime on Windows's set as default runtime. For SteamVR for example, hit the three-line top-left button and click the "Settings" menu.



Then select "OpenXR" and set SteamVR as OpenXR Runtime.

SteamVR Settings			- 0	×
Startup / Shutdown	Current OpenXR Runtime:	Oculus		
OpenXR	SET STEAMVR AS OP	PENXR RUNTIME]
	MANAGE OPENXR API L	AYERS 0 ACTIVE		-
	RESET PAGE TO	DEFAULT		
	Meta Plugin Compatibility	Off Automatic	On	
Advanced Settings				
Hide Show				

Note: Make sure the "Meta Plugin Compatibility" is "Off" to prevent SteamVR from simulating the behaviour of a Meta OpenXR runtime. You could switch it to "On" later if needed.

Launch the scene by clicking the "Play" button.

