

Interactive Piano VR Unity Package Documentation

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1. Introduction

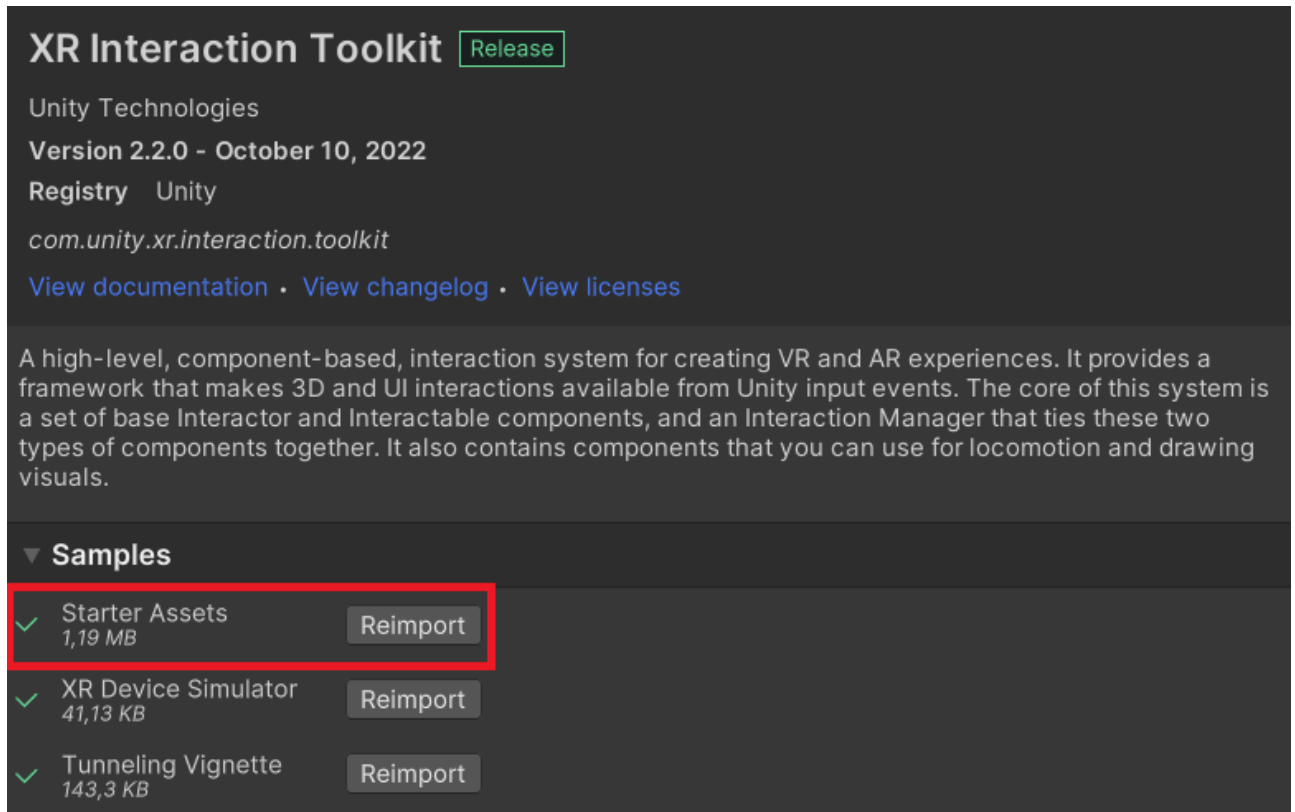
Welcome to the documentation for the "Interactive Piano VR" Unity package. This package enables users to play music on virtual pianos in a virtual reality (VR) environment, mimicking the experience of using real life piano. The asset provides a fun and immersive experience.

2. Package Setup

To set up the Interactive Piano VR package in your Unity project, please follow these steps:

1. Ensure that you have the Universal Render Pipeline (URP) installed in your project. The Interactive Piano VR package was developed using URP and requires it to function properly.
2. If your project is using a different render pipeline, you may encounter pink materials in the demo scenes and on the prefabs. To resolve this, you need to update the shaders on the affected materials to match your render pipeline. Refer to the documentation or resources provided by your chosen render pipeline for instructions on how to update the shaders.

3. In order for the Interactive Piano VR package to work, you will need to have a VR setup in your project. This includes having OpenXR installed and configured.
4. Additionally, the package relies on the XR Interaction Toolkit, which is a Unity package for building VR and AR interactions. To use the Interactive Piano VR package, you will need to install the XR Interaction Toolkit and include the sample "Starter Assets" provided with it.



The screenshot shows the Unity Package Manager interface for the XR Interaction Toolkit. At the top, the package name "XR Interaction Toolkit" is displayed with a "Release" tag. Below this, the publisher "Unity Technologies" is listed, followed by the version "Version 2.2.0 - October 10, 2022". The registry is identified as "Unity" with the package path "com.unity.xr.interaction.toolkit". Links for "View documentation", "View changelog", and "View licenses" are provided. A descriptive paragraph explains that it is a high-level, component-based interaction system for VR and AR. A "Samples" section is expanded, showing three items: "Starter Assets" (1,19 MB) with a "Reimport" button, "XR Device Simulator" (41,13 KB) with a "Reimport" button, and "Tunneling Vignette" (143,3 KB) with a "Reimport" button. The "Starter Assets" row is highlighted with a red rectangle.

XR Interaction Toolkit Release

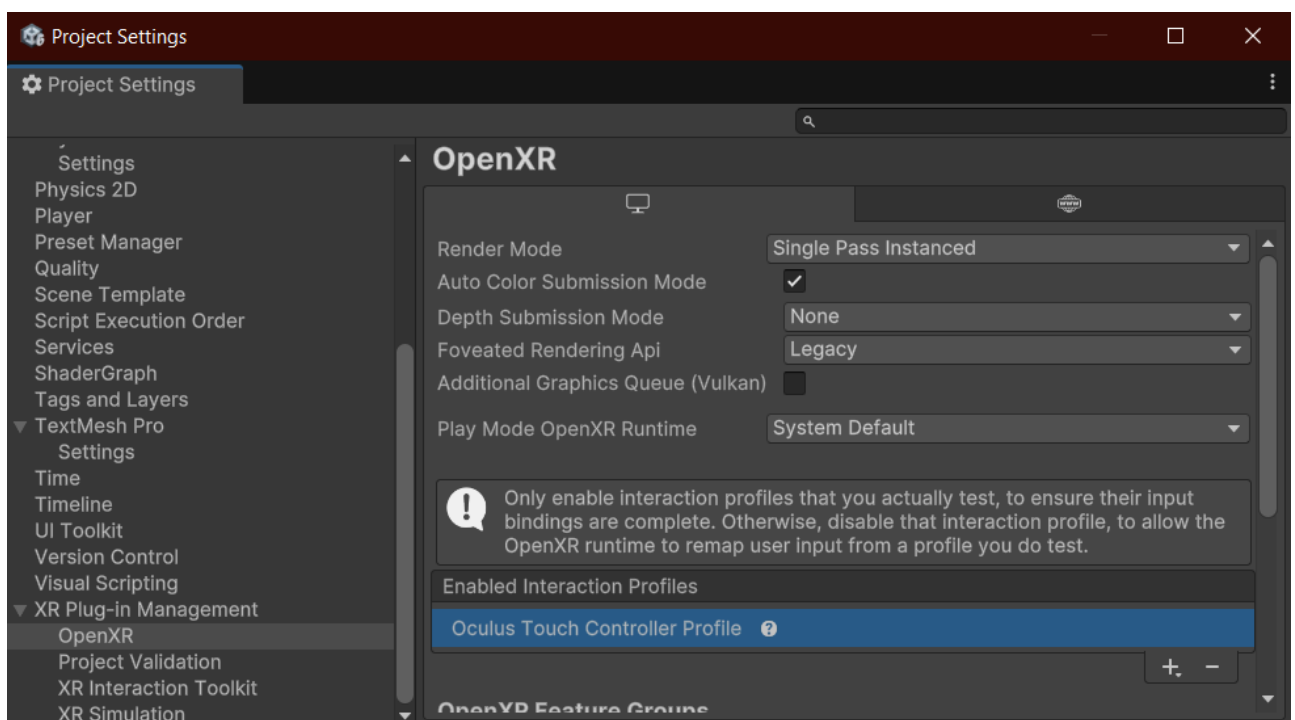
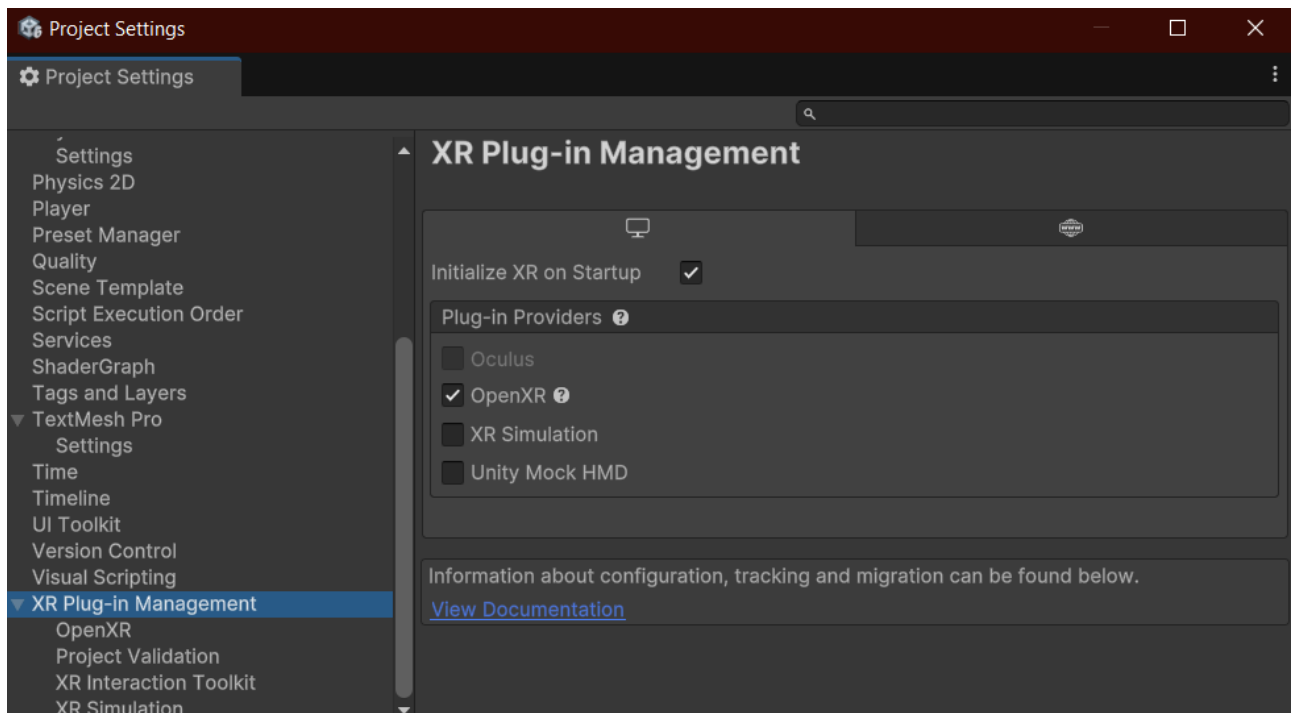
Unity Technologies
Version 2.2.0 - October 10, 2022
Registry Unity
`com.unity.xr.interaction.toolkit`
[View documentation](#) • [View changelog](#) • [View licenses](#)

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 ties these two types of components together. It also contains components that you can use for locomotion and drawing visuals.

▼ **Samples**

✓ Starter Assets 1,19 MB	Reimport
✓ XR Device Simulator 41,13 KB	Reimport
✓ Tunneling Vignette 143,3 KB	Reimport

5. Make sure that OpenXR is set as a plug-in provider and the correct interaction profile is added to Enabled Interaction Profiles.



6. The package uses layer "Player" to ignore non kinematic pianos collisions with the player to avoid some unwanted physics issues. Make sure there is "Player" layer in your project and that your player GameObject uses the layer. Make sure that the hands of your player are not in the "Player" layer or the pianos will not work! If you don't want to ignore piano collisions with the player (which I do not recommend) on "Keyboard", "Grand Piano" and

“Upright Piano” prefabs uncheck “Ignore Player” on “Ignore Player Collision” component.

3. Features

The Interactive Piano VR package offers a range of features to enhance your virtual music experience:

- Grand Piano, Upright Piano and Keyboard: 3 different pianos that mimic the look and feel of physical boards. Open the lid of the grand piano, change the sound of the keyboard with a button press. Everything to make the experience as immersive as possible.
- Piano Interaction: Use VR controllers to interact with every single key of a piano just as in real life.
- 4 Audio Sets: The package comes with 4 audio sets: Acoustic Grand Piano, Honky-Tonk Piano, Church Organ and Harpsichord. You can also create your own audio sets.
- Change audio sets dynamically: You can use `ChangeAudioSet()` method to change the sounds of the piano at runtime.

4. Usage

To use the Interactive Piano VR package in your Unity project, follow these steps:

1. Drag and drop one of the piano prefabs from the prefabs folder into your scene.
2. You're ready to go!
3. In case you want to use your own models for a piano you need to duplicate “Piano 49 Base”, “Piano 61 Base” or “Piano 88 Base” and place the model under the “Main Body” game object in the duplicated prefab.

5. API Reference

The Interactive Piano VR package provides the following API methods for interacting with the virtual pianos:

PianoVR Class

- **void ChangeAudioSet(PianoAudioSet set)** - Changes sounds of the piano.
- **void EnablePiano()** - Enable the piano. When the piano is enabled it can play sounds.

- **void DisablePiano()** - Disable the piano. When the piano is disabled it cannot play sounds.

6. Troubleshooting

If you encounter any issues or have trouble using the Interactive Piano VR package, try the following troubleshooting steps:

- Ensure that you have installed the package correctly by following the installation instructions.
- Verify that your VR controllers are properly configured and recognized by Unity.
- Check the Unity Console for any error messages related to the package.

7. Support and Feedback

For support or feedback regarding the Interactive Piano VR Unity package, you can reach out to the package developer through the following channels:

- Discord Server: <https://discord.gg/Hc4D9Z64WH>
- Email: sillytigerroars@gmail.com