

Interactive Piano VR Unity Package Documentation

Table of Contents

1. Introduction
2. Package Setup
3. Features
4. Usage
5. API Reference
6. Troubleshooting
7. Support and Feedback

1. Introduction

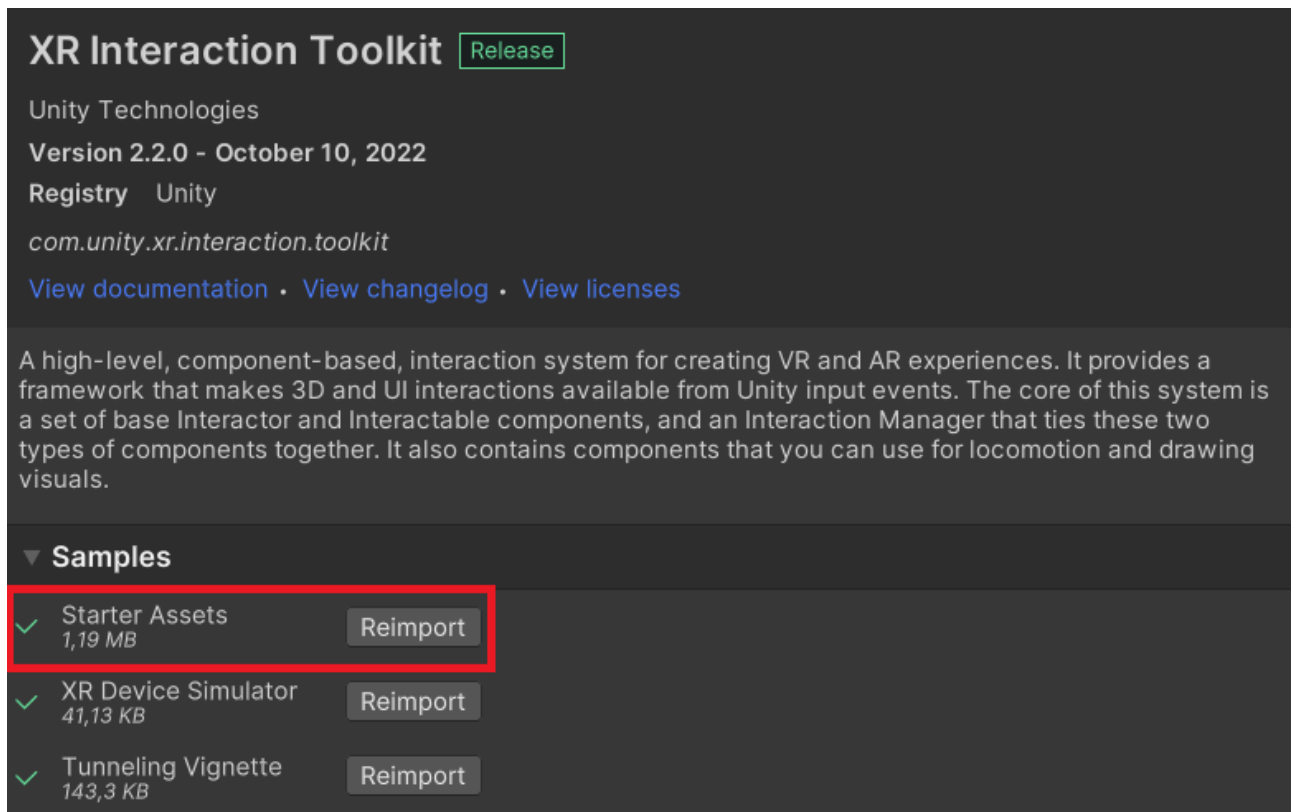
Welcome to the documentation for the "Interactive Piano VR" Unity package. This package enables users to play music on virtual pianos in a virtual reality (VR) environment, mimicking the experience of using real life piano. The asset provides a fun and immersive experience.

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.



5. The package uses layer 11 "Player" to ignore non kinematic pianos collision with the player. In case the layer is already in use in your project, use a different layer and assign it to the "XR Origin" object under "BLS XR Origin Setup". Do not assign it to children! Only XR Origin game object! If you don't want to ignore piano collisions with the player (which I do not recommend) just remove "exclude layers" on rigidbody components of "Keyboard", "Grand Piano" and "Upright Piano".

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:

- Email: sillytigersalwaysroar@gmail.com