Radeon ProRender Game Engine Importer for Unreal Engine

Getting Started Guide
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STEP 1

Launch Unreal® Engine 4.15.3 from the Epic Games Launcher. Select the “New Project” tab and choose the “Virtual Reality” Blueprint template and the “With Starter Content” option selected. By clicking “Create Project” you will now enter the Unreal Editor.

Note: Radeon™ ProRender supports the following Unreal Engine versions: 4.15.1, 4.15.2, 4.15.3.
STEP 2

Using the Content Browser in the lower left corner, double click in on the “VirtualRealityBP” folder...

...then double click in on the “Maps” folder...

...then select the “MotionControllerMap”, which will open in the Unreal Editor window.
STEP 3

Verify that the Radeon™ ProRender plug-in is installed and enabled by clicking “Edit...Plugins” from the Unreal Editor toolbar, then “Importers” from the list of plugin categories. “RprsImporter” should be installed and enabled (“Enabled” must be checked.)
**STEP 4**

In the “Content Browser” pane in the lower left corner of the screen, click the “Import” button, and choose any Radeon™ ProRender scene, which is a file with the “.frs” file extension.
STEP 5

To activate physics interactions in Unreal with the Radeon™ ProRender object, set the “Combine Levels” option to “All” in the RPRS Options dialog. The duration of the import process varies with the number of materials contained in the Radeon™ ProRender object. The imported Radeon™ ProRender asset opens by default in Unreal’s Blueprint editor in a separate window on top of the main Unreal Editor.

All attributes affecting material appearances (color, texture, refractivity, reflectivity, specular properties, etc.) assigned in the CAD application are automatically mapped into Unreal. The Radeon™ ProRender material appearances are also automatically inherited by the asset’s Unreal reflection map.
STEP 6

In the Blueprint Editor, select the “CombineAll” static mesh component in the Components pane in the upper left corner.
STEP 7

With “CombineAll” in the Components pane still highlighted, move to the Details pane on the right side, navigate to the Physics section (just below Materials) and check the “SimulatePhysics” option.
STEP 8

By pressing the tool bar at the top of the Blueprint Editor, “Compile” the Blueprint. The icon on the Compile button will switch from a question mark to a green check.
STEP 9

Minimize the Blueprint Editor and switch back to the Unreal Editor. The imported Radeon™ ProRender asset will be located at the 0,0,0 position of the Unreal coordinate plane, which places half of the object above the floor and half of it below. Raise the imported Radeon™ ProRender asset above the Unreal floor by selecting and dragging the blue arrow up, or by entering a value (in centimeters) in the Z location of the “Transform” section of the “Details” pane for the imported Radeon™ ProRender object.
STEP 10

With SteamVR™ running (and headset and controllers tracking), “Play” the experience from the Unreal Editor toolbar in “VR Preview” for viewing through an HTC VIVE™ or Oculus Rift VR headset. (Note that there is a drop-down selector associated with the “Play” button. “VR Preview” must be selected from the list.)

Teleport around the scene using the thumb pad of the left or right HTC VIVE controller. Push and hold the thumb pad to set the distance of the teleportation, and rotate your thumb around the thumb pad to indicate which direction the player will be facing when the teleportation is complete. Release the thumb to invoke the teleportation.
Pulling the trigger of either hand controller will invoke the “grab” action for that hand. The blue blocks in the scene can be picked up and manipulated with physics interactions. A clenched hand can be collided with the imported Radeon™ ProRender asset, so the Radeon™ ProRender object can be toppled and moved in a limited fashion. For more advanced interactions such as grabbing the Radeon™ ProRender object, more advanced scripting is required in the Blueprint for that object.
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07/07/2017

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