Ghost Shader | Ciconia Studio

Online Documentation

Overview

Easily turn any model into a Ghost. From characters to vehicles, thanks to the different settings you can achieve many results. Take advantage of the X-Ray feature integrated to create a different look when the models are visible through an object.

URP Package :

Supported Unity versions
2019.4.x

The package includes **Built-in** and **URP** shaders. The v2020.1 package is only compatible with Unity 2019.4.0 or higher.
The package is set up to Built-In Render Pipeline by default.

The package contains **6 Ghost shaders** for the **Built-In** render pipeline and **7 Ghost shaders** for the Universal Render Pipeline :

- **CS_Advanced Ghost**

+ XRay See Through : See the model skeleton, defined by the XRay properties, through any objects.
+ Always Visible : See model through any objects.

- **CS_Fast Ghost |** Always privilege these shaders for mobile projects.

  + XRay See Through : *URP only*
  + Always Visible : See model through any objects.
  + Only Through : Only visible through objects.

To visualize correctly the **demo scene** included, make sure to enable **Linear color space** rendering in the player settings (Project Settings/Player/Other Settings)

HDRP Package :

Supported Unity versions
2019.4 LTS
2020.3 LTS

The file includes **HDRP** shaders for Unity 2019.4 LTS and 2020.3 LTS
By default, the package is set up to be compatible for Unity 2019.4.x. If you are using Unity 2020.3.x, delete the HDRP folder and unpack the HDRP-Ghost Shaders_2020.3.x.unitypackage.

The package contains **2 Ghost shaders.**

- **CS_Advanced Ghost**
- **CS_Fast Ghost**

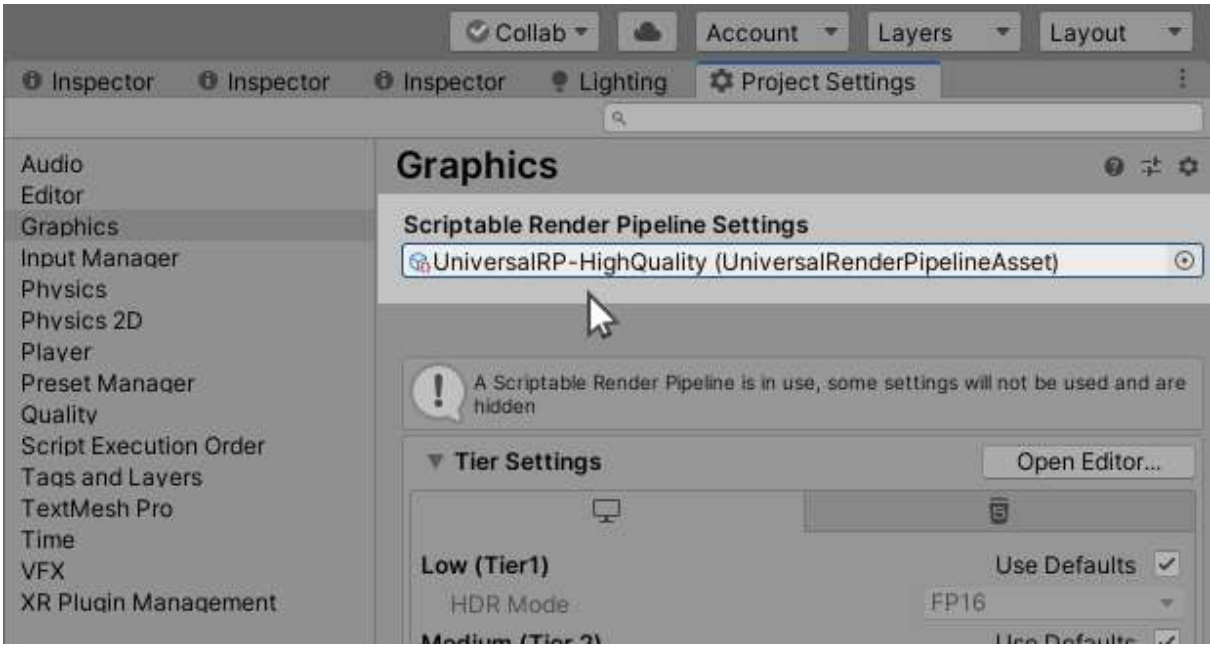
Due to some differences between the Render Pipelines, we could not integrate (For Now?) the other shaders available for the Built-In and URP versions. They will be added in a future update if we can.

URP Setup

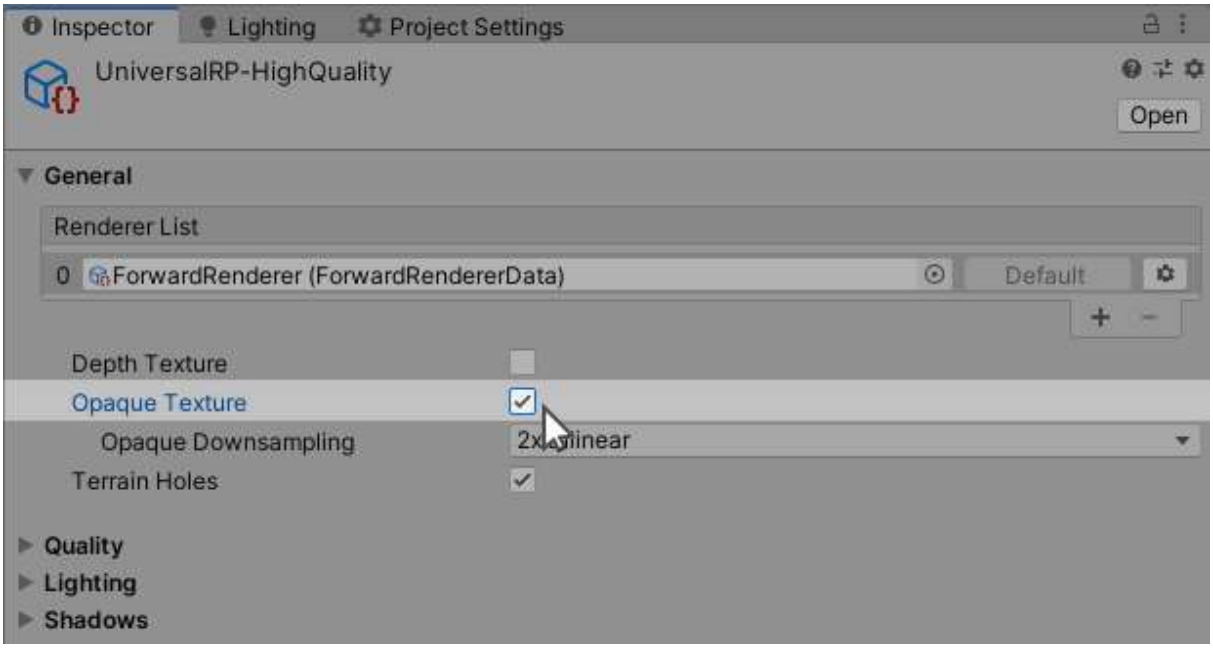
Support Unity versions
2019.4.0 or higher

First delete the Builtin folder and unpack the URP-Ghost shaders.unitypackage. In order to use the shaders with the Universal Render Pipeline you will need to enable the Opaque Texture toggle in the pipeline asset inspector.

Go to Edit/Project Settings/Graphics.



Go to the UniversalRenderPipelineAsset's inspector and enable Opaque Texture.



Shader Parameter

Main Properties | These properties affect all the maps selected in the Main Properties.

Color – Specifies the RGB color of the model. The color is affected directly by the directional light. A black value will render transparent if the opacity value is below 1.

Base Color – Selects a color map.

Enable Specular Light – Enables or disables Smoothness effect

Smoothness – Specifies a roughness map

Normal Map – Selects a normal map.

Scale – Controls the normal intensity.

Fresnel Properties | These properties control the Fresnel effect.

Color – Specifies the RGB color of the Fresnel.

Self Illumination – Increase the amount of light passing through the model. Enabled only if Opacity > 0

Fresnel Intensity – Controls the intensity of the Fresnel.

Fresnel Power – Controls the spread amount of the Fresnel. The higher this value is, the more contrasted the Fresnel will be.

Bias – Specifies the Bias of the Fresnel.

Invert – Invert the Fresnel.

Animation Properties | These properties control the sinusoidal animation of the fresnel effect.

Min Value – Specifies a minimum value for the fresnel intensity. This value multiply the Fresnel intensity value.

Min Value – Specifies a maximum value for the fresnel intensity. This value multiply the Fresnel intensity value.

Speed – Defines the speed of the sinusoidal animation.

Details Properties | These properties control the detail directly linked with the Fresnel effect.

Detail Map – Selects a grayscale detail map.

Contrast – Controls the amount of contrast of the detail map.

Spread – Controls the diffusion amount of the grayscale. Higher values will change pixels to white color.

Intensity – Controls the intensity of the detail map.

Duplicate Details – Enables the duplication of the detail map. The secondary map created will have inverted value compared to the first one.

Translation Speed – Defines the speed offset of the detail map.

Rotation Speed – Defines the rotation speed of the detail map.

Rotation Angle – Determines the angle of rotation in degrees of the detail map.

UV/Screen Projection – Selects between UV texture coordinates and screen projection for the detail map. If the textures seams are too visible, select screen projection to hide them.

Textures Scale – Controls the tiling amount of the detail map

Map Contribution – Selects which maps will influence the refraction in addition to the normal surfaces.

Refraction – Controls the amount of refraction. By default, the refraction is affected by the surface normal. The refraction value is directly affected by the map contribution you choose. If you select detail map as map contribution, be aware that the values for the contrast and the spread will affect the refraction as well.

Transparency Properties | These properties control the opacity of the model.

Fill Color Background – Specifies the RGB color of the pixels visible behind the model.

Desaturate Background – Controls the desaturation of the pixels visible behind the model. .

Opacity – Controls the amount of transparency.

Shadow Opacity – Controls the intensity of the shadow.

Fade – (Only for HDRP). Controls the fade effect.

Note that this property can also be used to be able to see other objects using the same shader. As the opacity uses the Grab screen function, it cannot capture other objects that also use the same function. Thus, by using the Fade property, these objects will be visible in transparency as well.

Any transparent object located behind can only be visible by using the fade property. Transparent objects cannot be refracted.

Fresnel Intensity – Controls the intensity of the Fresnel transparency.

Fresnel Power – Controls the spread amount of the Fresnel. The higher this value is, the more contrasted the Fresnel will be.

Bias – Specifies the Bias of the Fresnel.

XRay Properties | These properties control the XRay effect seen through objects.

For the Built-In advanced XRay shader, the effect will be also visible through the model himself depending on the opacity value. To dissimulate that, we recommend picking the same RGB value for the Fresnel color and the XRay color.

Color -->(Transparency A) – Specifies the RGB color of the XRay effect. The alpha vector controls the transparency.

Intensity– Controls the intensity of the Fresnel.

Power – Controls the spread amount of the Fresnel. The higher this value is, the more contrasted the Fresnel will be.

Bias– Specifies the Bias of the Fresnel.