# Blood Effects Pack

Description

Enhance your game with the *BloodEffectsPack*! This versatile asset pack includes blood splashes, decals, and gut 3D meshes, offering both realistic and stylized effects. Customize colors and details to fit your unique style and bring a dynamic edge to your scenes. Perfect for adding depth and impact to your projects!
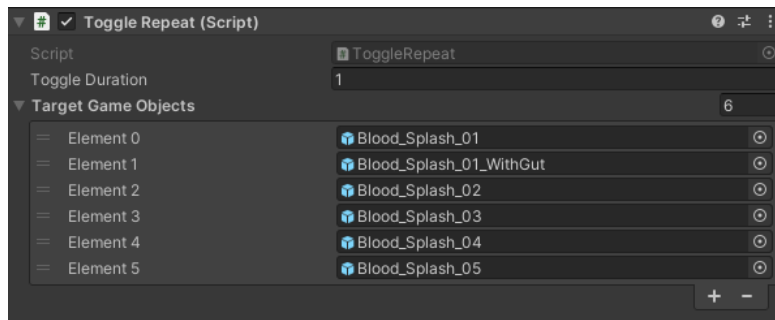
Scripts (Common)

KillEffect.cs
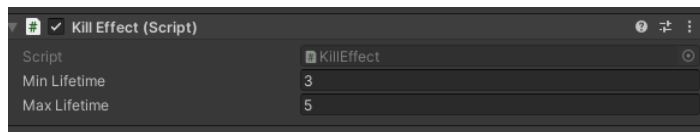
Kills the game object after a random duration between the minimum and maximum lifetime values.
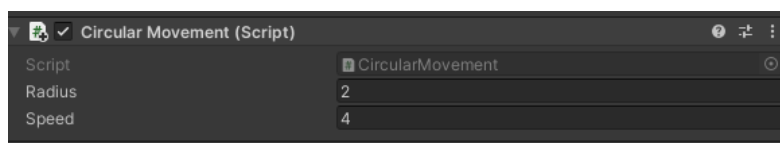
KillEffect_Trail_Projector.cs

Used to destroy trail projectors within the trail projector group.
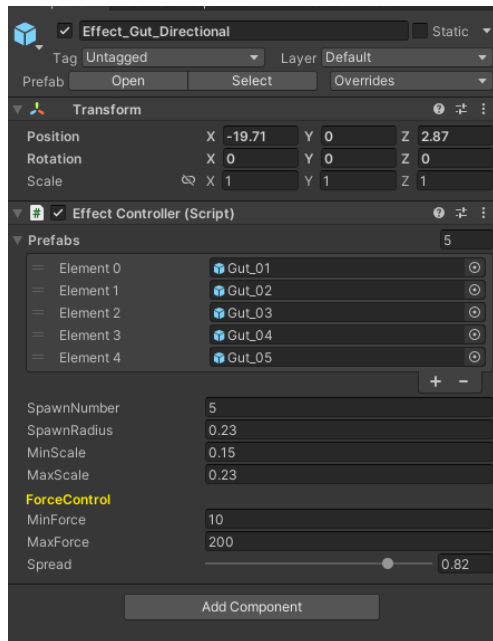
ToggleRepeat.cs

Toggles the active states of target game objects for the duration specified by the ToggleDuration property. Used for demonstration purposes.

CircularMovement.cs

Moves the game object in a circular path. Used for demonstration purposes.
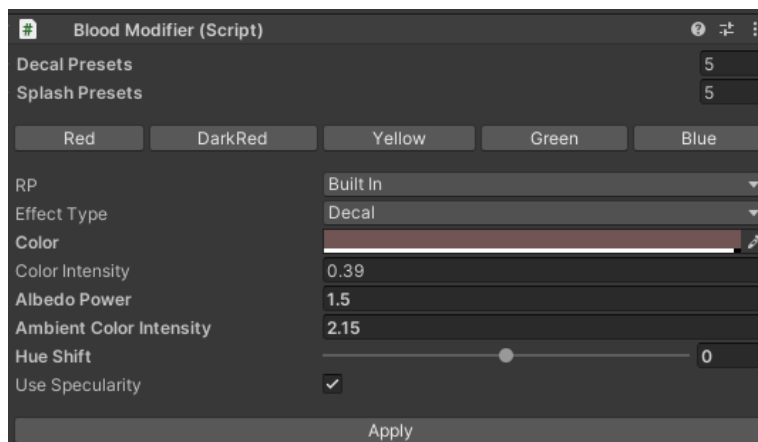
EffectController.cs

Used for spawning gut meshes and applying forces.
Prefabs:
List of prefabs that will be used for random spawning:

Scripts (Built-In)

BloodModifier.cs

An editor script for detecting shared materials in the hierarchy and applying material preset parameters for different blood color configurations.

DecalPresets:

An array of ScriptableObjects containing material preset parameters for various blood color configurations used in blood decals.

SplashPresets:

An array of ScriptableObjects containing material preset parameters for various blood color configurations used in blood splashes.

RP:

Current Render Pipeline.

EffectType:

Defines whether the game object is a decal or a splash.

PresetButtons:

Loads the material preset when clicking the buttons.

Color:

Color material property value applied when the Apply button is clicked.

ColorIntensity:

ColorIntensity material property value applied when the Apply button is clicked.

AlbedoPower:

AlbedoPower material property value applied when the Apply button is clicked.

AmbientColorIntensity:

AmbientColorIntensity material property value applied when the Apply button is clicked.
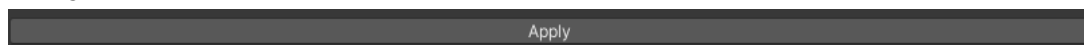
HueShift:

HueShift property material value applied when the Apply button is clicked.

UseSpecularity:

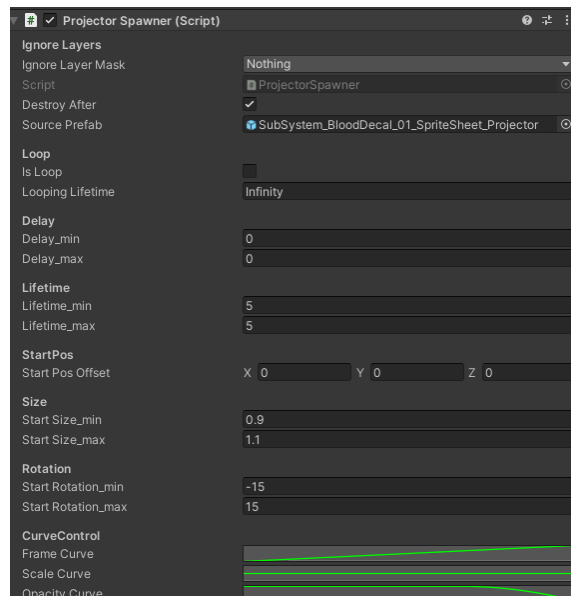UserSpecularity material property value applied when the Apply button is clicked.

GravityScale:

Particle gravity scale value applied when the Apply button is clicked.

ApplyButton:

Applies material property configurations to all detected shared materials in the hierarchy.

ProjectorSpawner.cs

Projector spawner and controller script.

IgnoreLayerMask:
Sets the ignore layer mask for the projector.

DestroyAfter:
Destroys the projector after the loop's lifetime has been reached, or after the lifetime is reached if not set to loop.

IsLoop:
Sets the projector to loop.
LoopingLifetime:
The lifetime duration for looping.

Delay_min:
The minimum delay for projector spawning. The delay is chosen randomly between the minimum and maximum values.
Delay_max:
The maximum delay for projector spawning. The delay is chosen randomly between the minimum and maximum values.

Lifetime_min:
The minimum lifetime of the projector. Lifetime is chosen randomly between the minimum and maximum values.
Lifetime_max:
The maximum lifetime of the projector. Lifetime is chosen randomly between the minimum and maximum values.

StartPosOffset:
The offset for the start position of the spawned projector.

StartSize_min:
The minimum size of the spawned projector. Size is chosen randomly between the minimum and maximum values.
StartSize_max:
The maximum size of the spawned projector. Size is chosen randomly between the minimum and maximum values.

StartRotation_min:
The minimum starting rotation of the spawned projector. Rotation is chosen randomly between the minimum and maximum values.
StartRotation_max:
The maximum starting rotation of the spawned projector. Rotation is chosen randomly between the minimum and maximum values.

FrameCurve:
A curve that controls the sprite sheet's frame over time. It determines how the frames of the sprite sheet are changed or animated throughout the projector's lifetime.
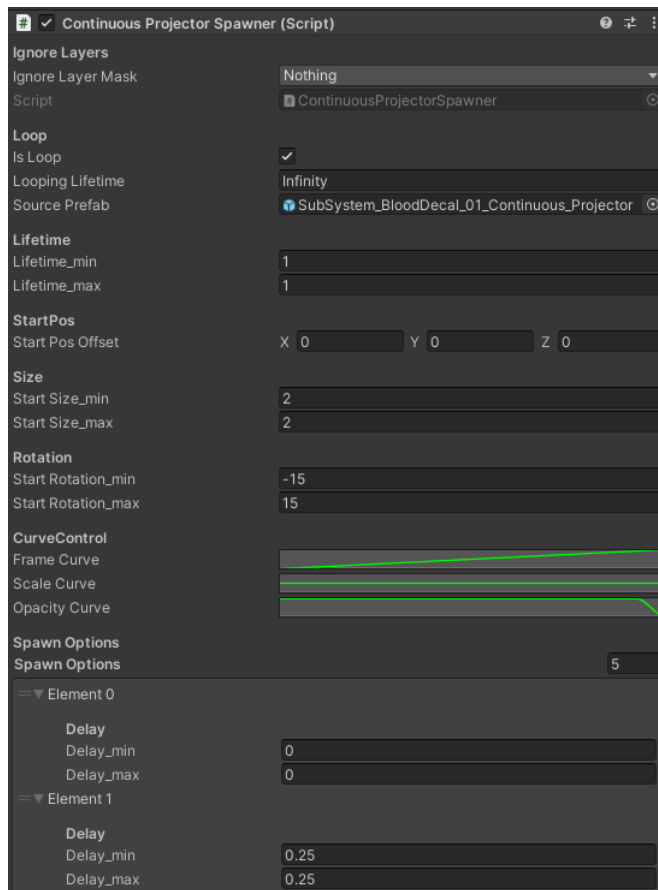**ScaleCurve:**
A curve that defines the scaling behavior of the projector over time. It controls how the projector's size changes throughout its lifetime.
OpacityCurve:
A curve that defines the opacity (visibility) of the projector over time. It controls how the projector fades in or out during its lifetime.

ContinuousProjectorSpawner.cs

Multiple projector spawner and controller script.

IgnoreLayerMask:
Sets the ignore layer mask for the projector.

DestroyAfter:
Destroys the projector after the loop's lifetime has been reached, or after the lifetime is reached
if not set to loop.

IsLoop:
Sets the projector to loop.

LoopingLifetime:
The lifetime duration for looping.

SourcePrefab:
The sub-projector spawner prefab.

Lifetime_min:
The minimum lifetime of the projector. Lifetime is chosen randomly between the minimum and
maximum values.

Lifetime_max:
The maximum lifetime of the projector. Lifetime is chosen randomly between the minimum and maximum values.

StartPosOffset:
The offset for the start position of the spawned projector.

StartSize_min:
The minimum size of the spawned projector. Size is chosen randomly between the minimum and maximum values.
StartSize_max:
The maximum size of the spawned projector. Size is chosen randomly between the minimum and maximum values.

StartRotation_min:
The minimum starting rotation of the spawned projector. Rotation is chosen randomly between the minimum and maximum values.
StartRotation_max:
The maximum starting rotation of the spawned projector. Rotation is chosen randomly between the minimum and maximum values.

FrameCurve:
A curve that controls the sprite sheet's frame over time. It determines how the frames of the sprite sheet are changed or animated throughout the projector's lifetime.
ScaleCurve:
A curve that defines the scaling behavior of the projector over time. It controls how the projector's size changes throughout its lifetime.
OpacityCurve:
A curve that defines the opacity (visibility) of the projector over time. It controls how the projector fades in or out during its lifetime.
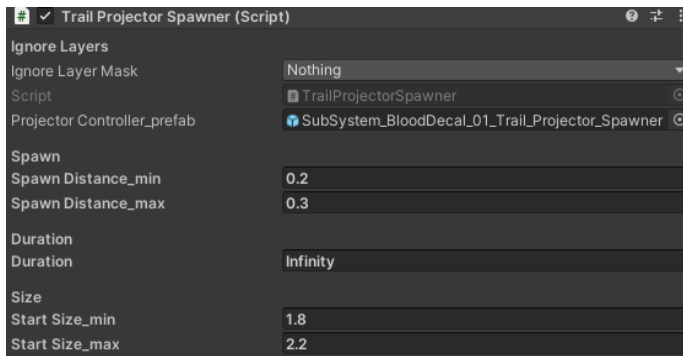
SpawnOptions.Delay_min:
The minimum delay for the sub-projector spawner. Chosen randomly between the minimum and maximum values.
SpawnOptions.Delay_max:
The maximum delay for the sub-projector spawner. Chosen randomly between the minimum and maximum values.

TrailProjectorSpawner.cs

# ✓ Trail Projector Spawner (Script)	❷ ⇄ ⋮
Ignore Layers	
Ignore Layer Mask	Nothing ▾
Script	▣ TrailProjectorSpawner ⊙
Projector Controller_prefab	✪ SubSystem_BloodDecal_01_Trail_Projector_Spawner ⊙
Spawn	
Spawn Distance_min	0.2
Spawn Distance_max	0.3
Duration	
Duration	Infinity
Size	
Start Size_min	1.8
Start Size_max	2.2

Trail projector spawner.

IgnoreLayerMask:
Sets the ignore layer mask for the projector.

ProjectorController_Prefab:
The sub-projector spawner prefab.

SpawnDistance_Min:
The minimum distance that must be passed before the projector spawns. The spawn distance is chosen randomly between the minimum and maximum values.

SpawnDistance_Max:
The maximum distance that must be passed before the projector spawns. The spawn distance is chosen randomly between the minimum and maximum values.

ProjectorController_Prefab:
The sub-projector spawner prefab.

StartSize_min:
The minimum size of the spawned projector. Size is chosen randomly between the minimum and maximum values.

StartSize_max:
The maximum size of the spawned projector. Size is chosen randomly between the minimum and maximum values.
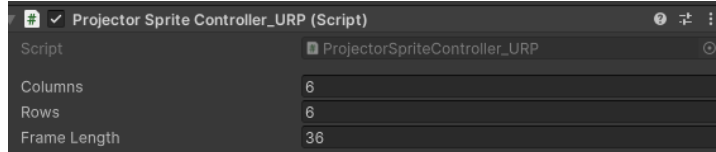
Scripts (URP)

BloodModifier_URP.cs

Same as the `BloodModifier.cs` script in the built-in version.

ProjectorPrioritySetter_URP.cs

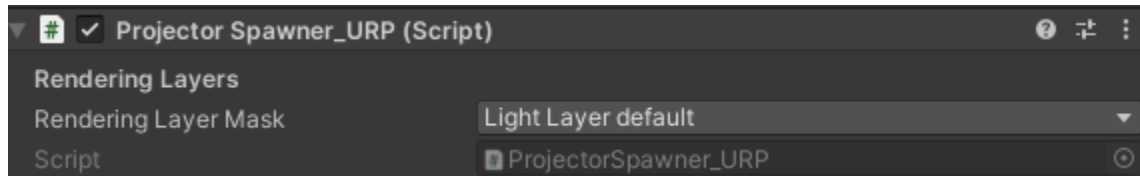Controls the sorting order for the projector. Newer projectors will have higher priority in the sorting order.

ProjectorSpriteController_URP

Controls the tiling and offset of the projector to display the sprite sequence correctly.
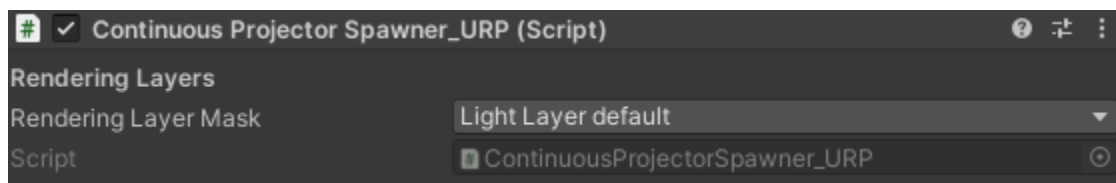
ProjectorSpawner_URP.cs

RenderingLayerMask:
Sets the rendering layer mask for the projector.
Others:
Same as the `ProjectorSpawner.cs` script in the built-in version.
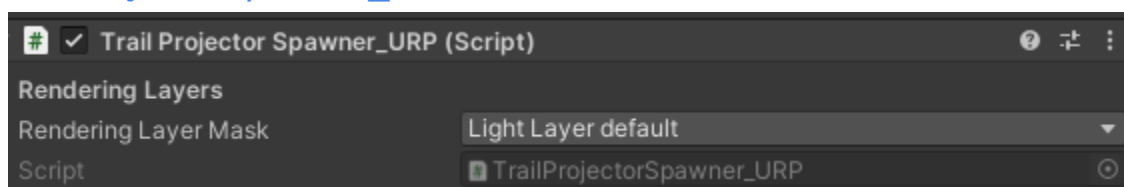
ContinuousProjectorSpawner_URP.cs

RenderingLayerMask:
Sets the rendering layer mask for the projector.
Others:
Same as the `ContinuousProjectorSpawner.cs` script in the built-in version.

TrailProjectorSpawner_URP.cs

RenderingLayerMask:
Sets the rendering layer mask for the projector.
Others:
Same as the `TrailProjectorSpawner.cs` script in the built-in version.

Scripts (HDRP)

BloodModifier_HDRP.cs

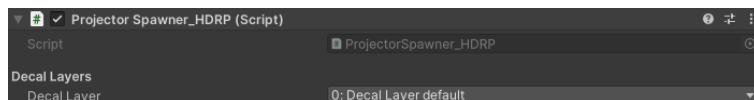Same as the `BloodModifier.cs` script in the built-in version.

ProjectorPrioritySetter_HDRP.cs

Same as the `ProjectorPrioritySetter_URP.cs` script in the URP version.

ProjectorSpriteController_HDRP.cs

Same as the `ProjectorSpriteController_URP.cs` script in the URP version.
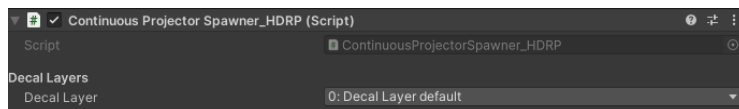
ProjectorSpawner_HDRP.cs

Decal Layer:
Sets the decal layer for the projector.
Others:
Same as the `ProjectorSpawner.cs` script in the built-in version.
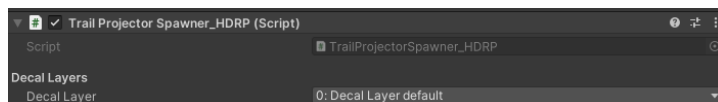
ContinuousProjectorSpawner_HDRP.cs

Decal Layer:
Sets the decal layer for the projector.
Others:
Same as the `ContinuousProjectorSpawner.cs` script in the built-in version.

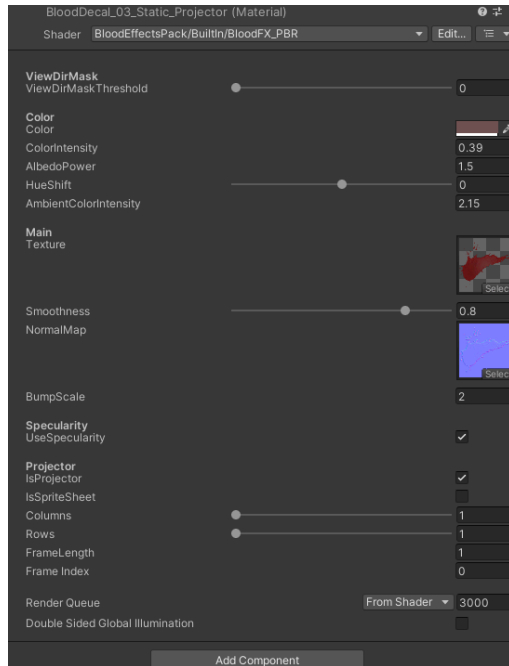## *TrailProjectorSpawner_HDRP.cs*

Decal Layer:
Sets the decal layer for the projector.
Others:
Same as the `TrailProjectorSpawner.cs` script in the built-in version.

Shaders(Built-In)

BloodEffectsPack/BuiltIn/BloodFX_PBR

ViewDirMaskThreshold:
Threshold to control masking of faces that are close to perpendicular to the view direction.
Color:
Tint color applied to the main texture.
ColorIntensity:
Adjusts the intensity of the Color parameter.
AlbedoPower:
Applies the power operation to the albedo, defined as
pow(albedo, AlbedoPower)
HueShift:
Adjusts the HueShift.
AmbientColorIntensity:
Adjusts the intensity of the ambient color.
Texture:
Assigns the main texture.
Smoothness:
Controls the smoothness of the surface.
NormalMap:
Assigns a tangent space normal map.
BumpScale:
Adjusts the intensity of the normal map.

IsProjector:
Toggled on when the material is used for the projector.
UseSpecularity:
Toggles the material's specularity.

IsSpriteSheet:
Indicates whether the projector uses a sprite sheet for animation.
Columns:
The number of columns in the sprite sheet.
Rows:
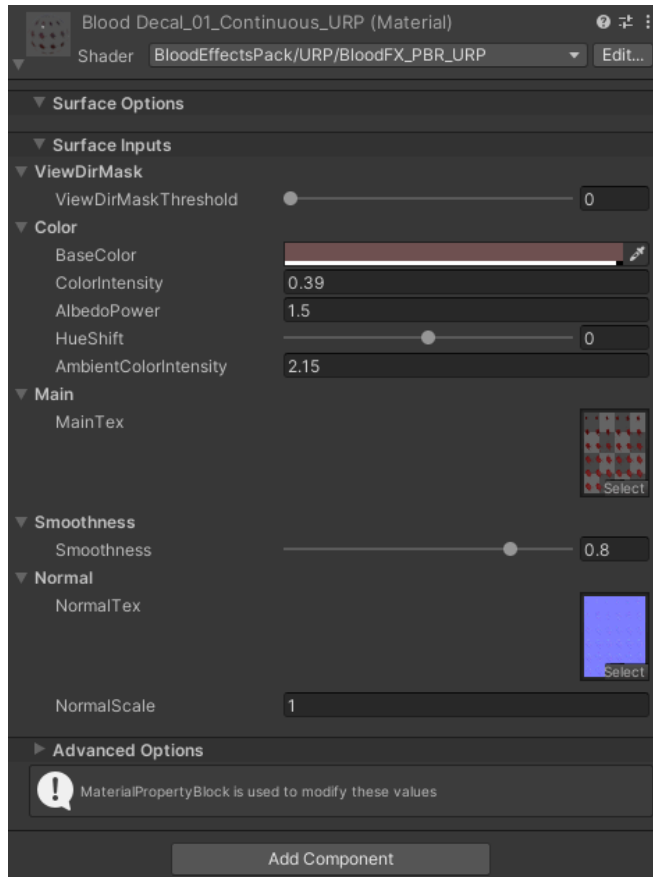The number of rows in the sprite sheet.
FrameLength:
The duration of each frame in the sprite sheet animation.
FrameIndex:
The current frame index in the sprite sheet.

Shaders(URP)

BloodEffectsPack/URP/BloodFX_PBR

ViewDirMaskThreshold: Threshold to control masking of faces that are close to perpendicular to the view direction.

BaseColor:

Tint color applied to the main texture.

ColorIntensity:

Adjusts the intensity of the Color parameter.

AlbedoPower:

Applies the power operation to the albedo, defined as

pow(albedo, AlbedoPower)

HueShift:

Adjusts the HueShift.

AmbientColorIntensity:

Adjusts the intensity of the ambient color.

MainTexture:

Assigns the main texture.

Smoothness:
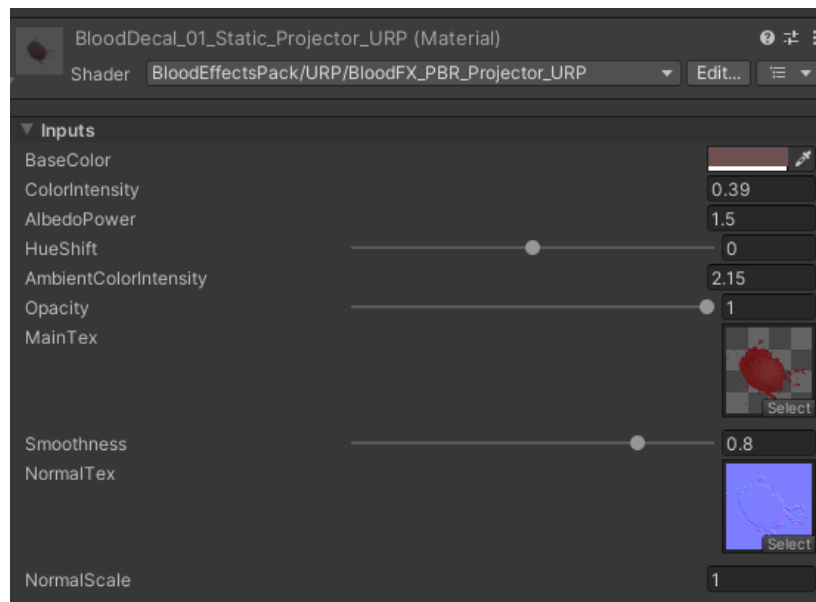
Controls the smoothness of the surface.
NormalTex:
Assigns a tangent space normal map.
NormalScale:
Adjusts the intensity of the normal map.

BloodEffectsPack/URP/BloodFX_PBR_URP

BaseColor:
Tint color applied to the main texture.
ColorIntensity:
Adjusts the intensity of the Color parameter.
AlbedoPower:
Applies the power operation to the albedo, defined as
pow(albedo, AlbedoPower)
HueShift:
Adjusts the HueShift.
AmbientColorIntensity:
Adjusts the intensity of the ambient color.
Opacity:
Controls opacity.
MainTexture:
Assigns the main texture.
Smoothness:
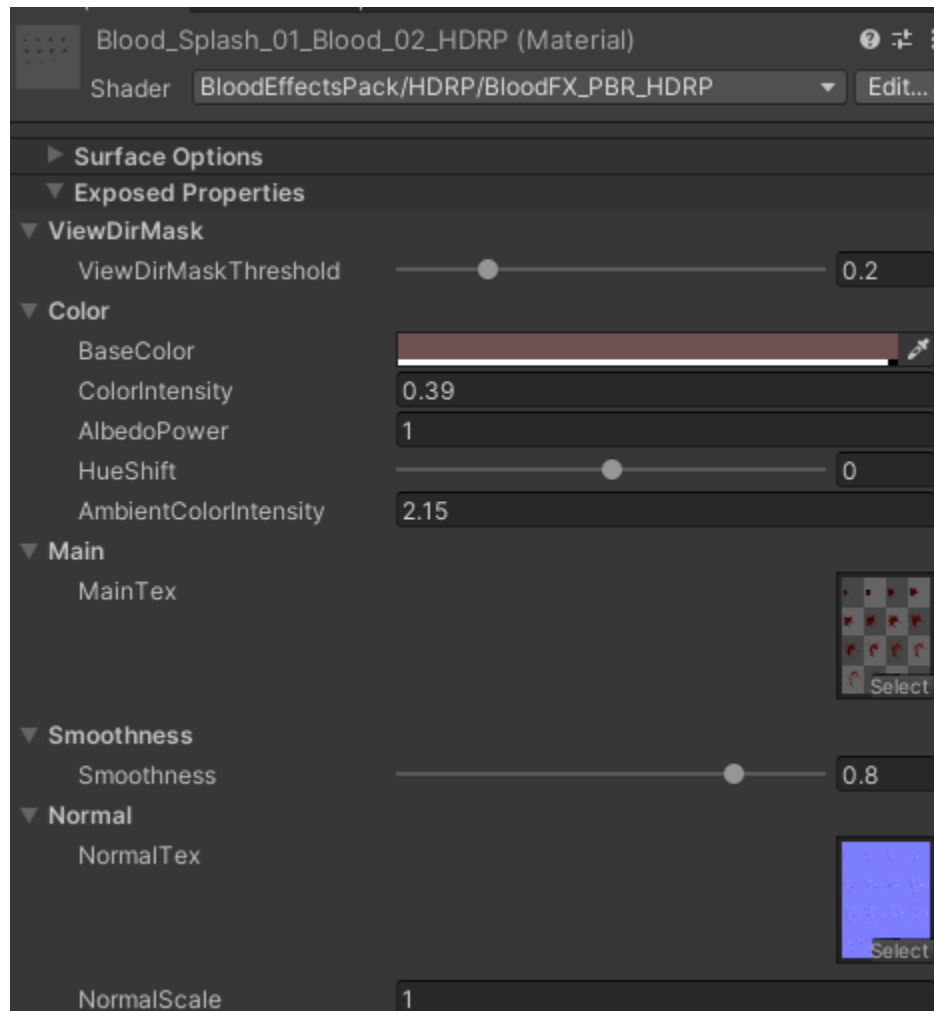Controls the smoothness of the surface.
NormalTex:
Assigns a tangent space normal map.
NormalScale:
Adjusts the intensity of the normal map.

Shaders(HDRP)

BloodEffectsPack/HDRP/BloodFX_PBR

ViewDirMaskThreshold: Threshold to control masking of faces that are close to perpendicular to the view direction.

BaseColor:

Tint color applied to the main texture.

ColorIntensity:

Adjusts the intensity of the Color parameter.

AlbedoPower:

Applies the power operation to the albedo, defined as

pow(albedo, AlbedoPower)

HueShift:

Adjusts the HueShift.

AmbientColorIntensity:

Adjusts the intensity of the ambient color.

MainTexture:

Assigns the main texture.

Smoothness:
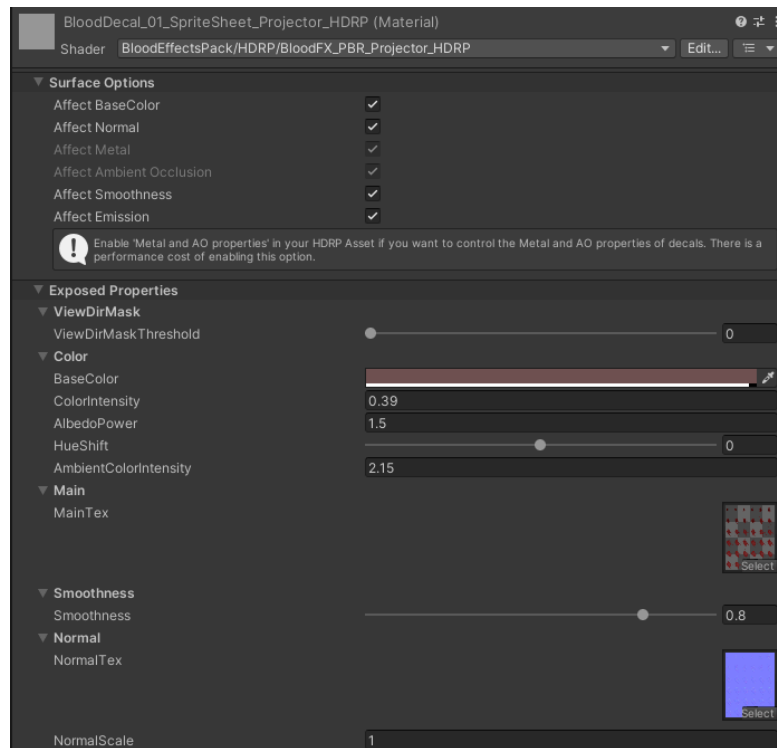Controls the smoothness of the surface.
NormalTex:
Assigns a tangent space normal map.
NormalScale:
Adjusts the intensity of the normal map.

BloodEffectsPack/HDRP/BloodFX_PBR_Projector_HDRP

ViewDirMaskThreshold: Threshold to control masking of faces that are close to perpendicular to the view direction.
BaseColor:
Tint color applied to the main texture.
ColorIntensity:
Adjusts the intensity of the Color parameter.
AlbedoPower:
Applies the power operation to the albedo, defined as
pow(albedo, AlbedoPower)
HueShift:
Adjusts the HueShift.
AmbientColorIntensity:
Adjusts the intensity of the ambient color.
MainTexture:
Assigns the main texture.
Smoothness:

Controls the smoothness of the surface.
NormalTex:
Assigns a tangent space normal map.
NormalScale:
Adjusts the intensity of the normal map.