

Rock Throw Handover

Rock Throw Niagara System and Rock Throw Animations

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Client: Cameron Gildea Project: "Name still to be decided"

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Version: 1.0

Asset Overview

When the right mouse button is held, a charge up animation will play and then change to a charging animation which continues to loop till the button is released. While the attack is being charged, a crack decal spawns behind the player and debris will start being thrown in the air from the crack while the camera also starts shaking. When the player releases the right mouse button, the debris stops spawning, the camera stops shaking, and the throw animation plays while a niagara system is spawned and shot forward in front of the player.

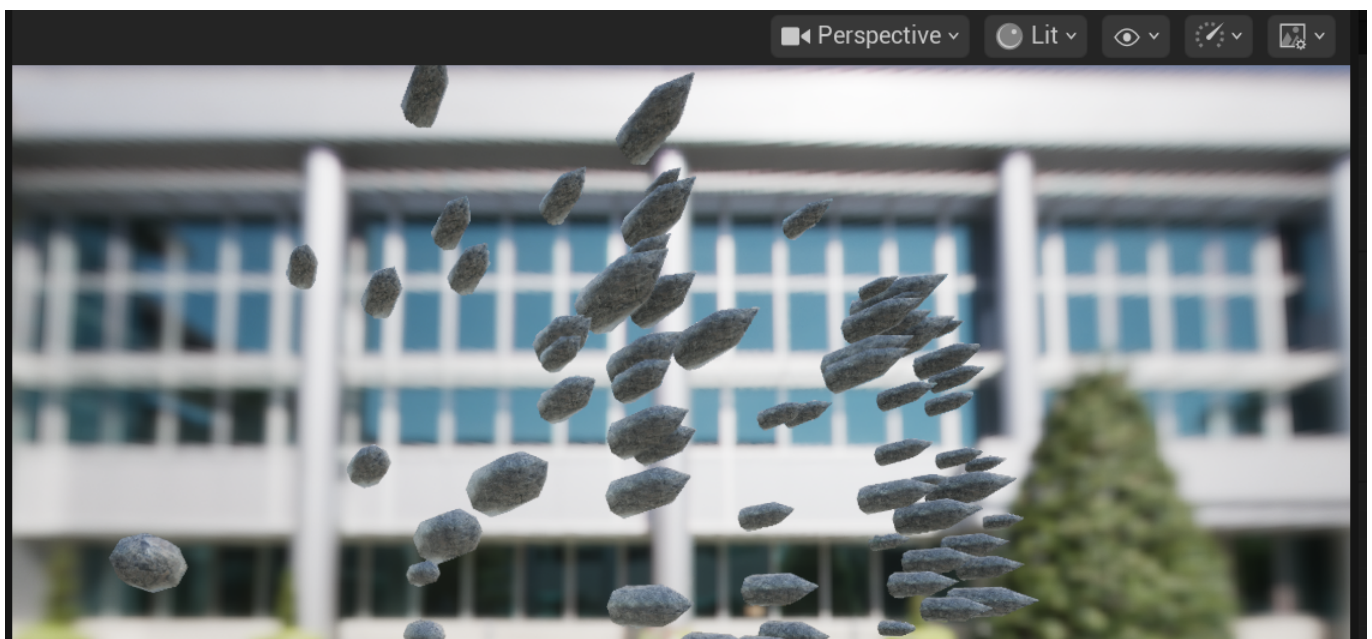
Integration Guide

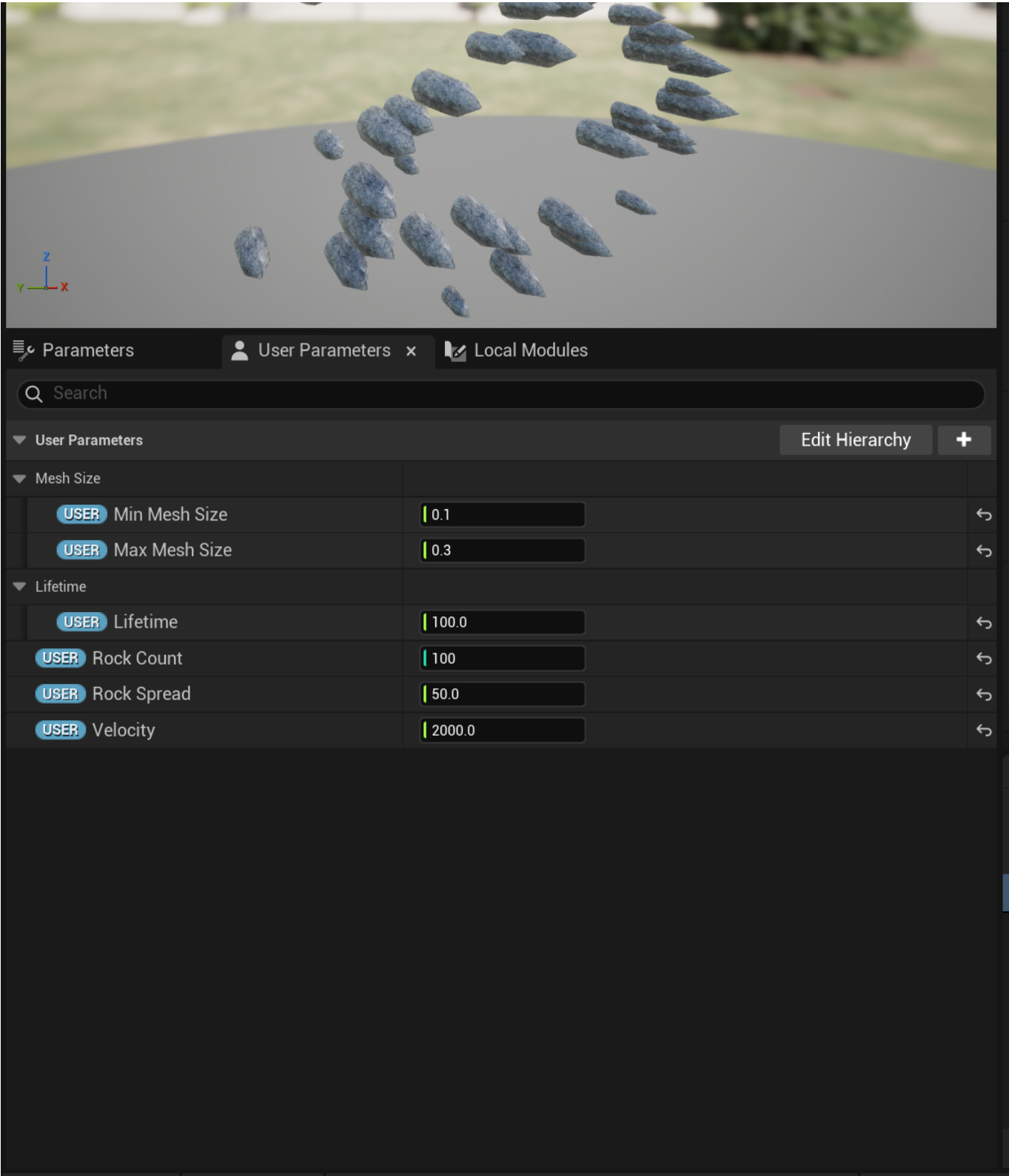
To add this to your project, you can either copy or use the blueprint logic displayed below as reference to be added to your player blueprint. You may also need to change the button enhanced input action to another input node if you aren't using the unreal engine combat variant with your project.

Customization Guide

Rock Throw Niagara System

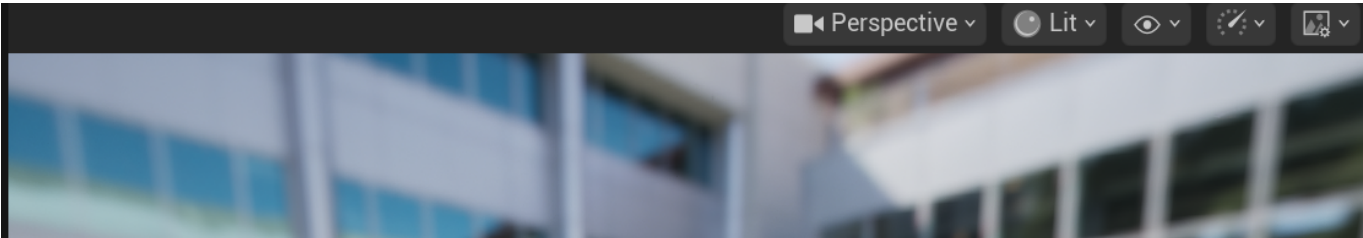
The exposed parameters on the rock throw niagara system allows easy control over the size of the mesh rendered, the lifetime, amount of rocks spawned, the rock spread and the velocity of the rocks fired.





Crack Debris

Within the crack debris, the exposed parameters allows easy adjustments to the lifetime, size and spawn rate of both the ground debris and the air debris as well as the spawn radius of both types.





A 3D rendered scene showing a grey ledge in the foreground with a small grey rock on it. In the background, a modern building with large windows is visible. Another grey rock is shown in mid-air, having just been thrown. A small 3D coordinate system (x, y, z) is visible in the bottom left corner of the scene.

ParametersUser Parameters xLocal Modules

Search

User Parameters

Air Debris

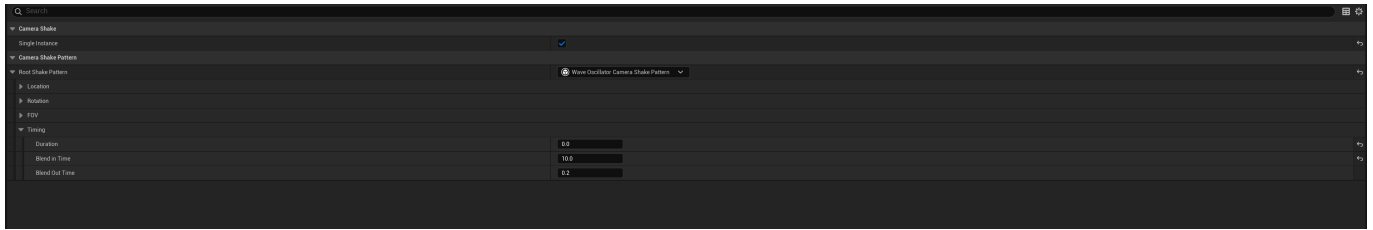
USER	AD Lifetime Min	1.5	←
USER	AD Lifetime Max	2.0	←
USER	AD Sprite Size Min	0.1	←
USER	AD Sprite Size Max	0.5	←
USER	AD Spawn Rate	20.0	←

Ground Debris

USER	GD Lifetime Min	1.5	←
USER	GD Lifetime Max	2.0	←
USER	GD Sprite Size Min	0.1	←
USER	GD Sprite Size Max	0.5	←
USER	GD Spawn Rate	20.0	←
USER	SpawnRadius	300.0	←

Camera Shake

The camera shake can be adjusted in the camera shake blueprint. The blend in time can be changed to increase/decrease how fast the shaking intensifies.



Technical Documentation

Rock Throw Niagara System

The rock throw niagara system uses a mesh renderer to spawn rock models that spawn and fire in a cone shape using add velocity (In Cone). Spawn burst instantaneous is used to spawn all the particles in one go so that it acts like pellets being shot and initialize particle is used to control the lifetime and size of the rocks fired.

Blueprint Logic

An input action is used for when the right mouse button is pressed to get when the button is pressed, whilst it is being held and when it is let go. When the button is pressed, the player movement is deactivated. Then, whilst it is being held, the charge start animation is played. When that is completed, the right click held boolean becomes true, which activates the charge loop animation in the animation blueprint, and the camera shake activates. Next, the rock throw spawn decal and system function is called which uses a line trace to get a location on the ground and behind the player, which is where the crack decal and debris is then spawned. Once the right click button is released, reset is called which allows the rock throw to be activated again. The right click held boolean is then deactivated so that the player stops playing the charge animation. The camera shake then stops and the shoot animation plays with the rock throw niagara system spawning afterwards. When the system has spawned, the debris is destroyed so that debris stops spawning and then the player's movement is reactivated.

