

## Learning Guide

# Environmental Features and Visual Effects in Unreal Editor for Fortnite

## Introduction

The tools in Unreal Editor for Fortnite (UEFN) can help you create a visually interesting environment on your Fortnite island. This Guide will show you how to enhance your island by adding different lights, sounds, and visual effects. You can explore and use the effects described in this Guide in any order you wish - there is no sequential order you need to follow. This Guide begins to introduce some effects to help you get started with building your environment, but there are many more you can add – experiment in UEFN to learn more about them.

**Video Learning Guide for this Lesson**  
[https://www.youtube.com/watch?v=dKYk1t\\_wpDI](https://www.youtube.com/watch?v=dKYk1t_wpDI)

## Contents

[Step 1: Add lights](#)

[Step 2: Add audio](#)

[Step 3: Create visual effects](#)

[Step 4: Use post process effects](#)

[Lesson Closure](#)



## Prior Knowledge Check

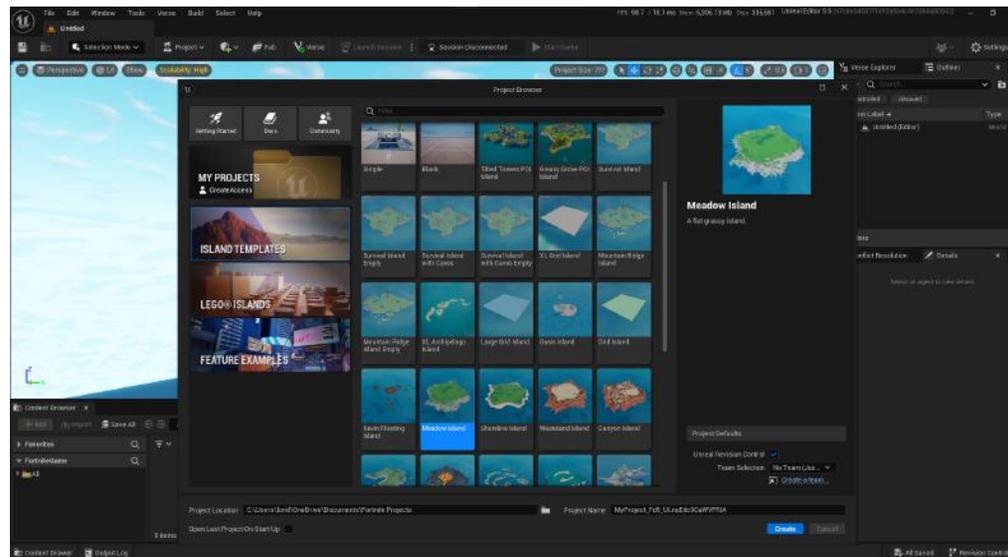
To successfully complete this lesson, you should be familiar with the basics of the UEFN User Interface and be comfortable navigating in UEFN. Take a look at the [Unreal Editor for Fortnite User Interface Basics](#) to familiarize yourself with the interface.

You can also use the [Epic Games Documentation](#) for more detailed information on the UEFN User Interface.

---

## Getting Started

Launch UEFN from the Epic Games Launcher and create a new project or access an existing project. You can start with a blank island or choose from any of the provided templates.



## Step 1: Add lights

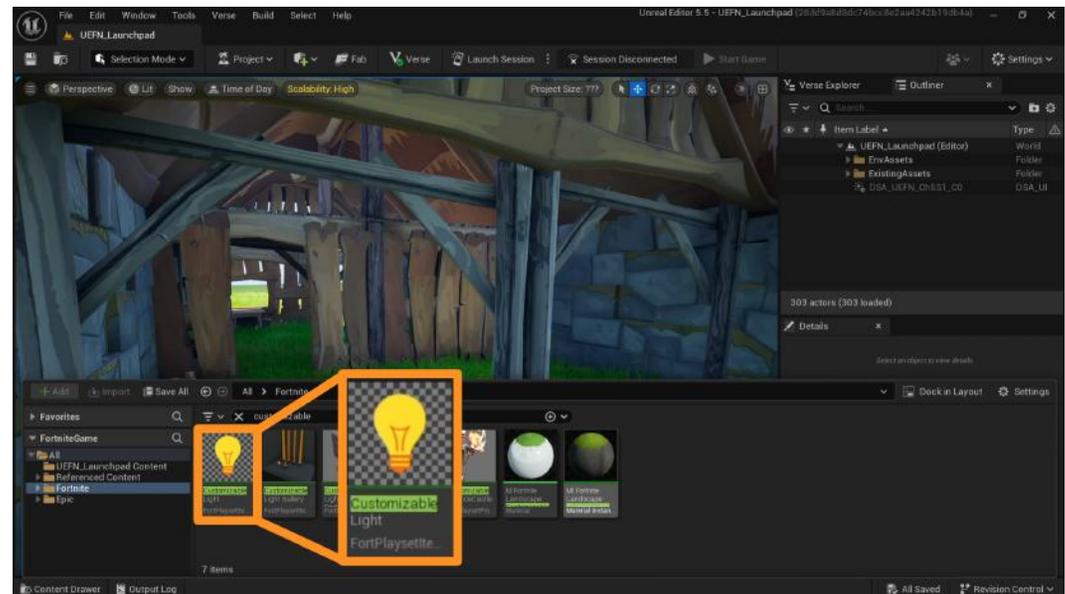
### Preview

Lighting a 3D scene plays a large role in the look and feel of the environment. In this section, you will learn multiple ways to add and customize lights and change the sky on your Fortnite island to achieve the effect you want. In addition to the general lighting options, keep in mind that UEFN also includes many Fortnite assets that have built-in light properties that you can edit, such as campfires, stage lights, and more. Feel free to search for these assets in the Fortnite folder in the Content Drawer and add them to your island as you wish.

### Experiment

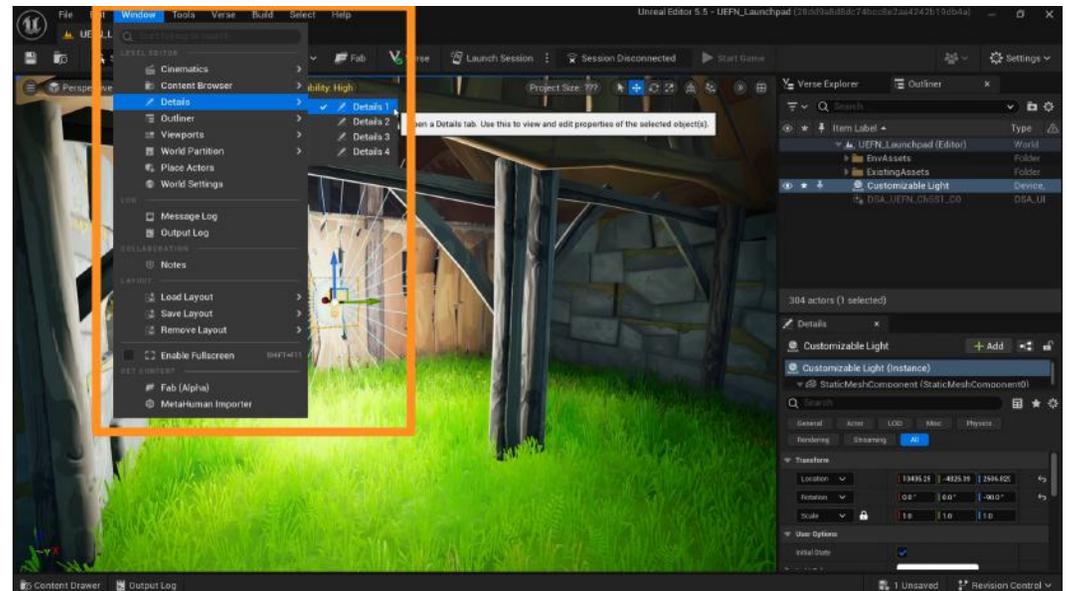
#### ADD LIGHTS

Using the “Search” bar in the Content Drawer, add a **Customizable Light Device** to your island.

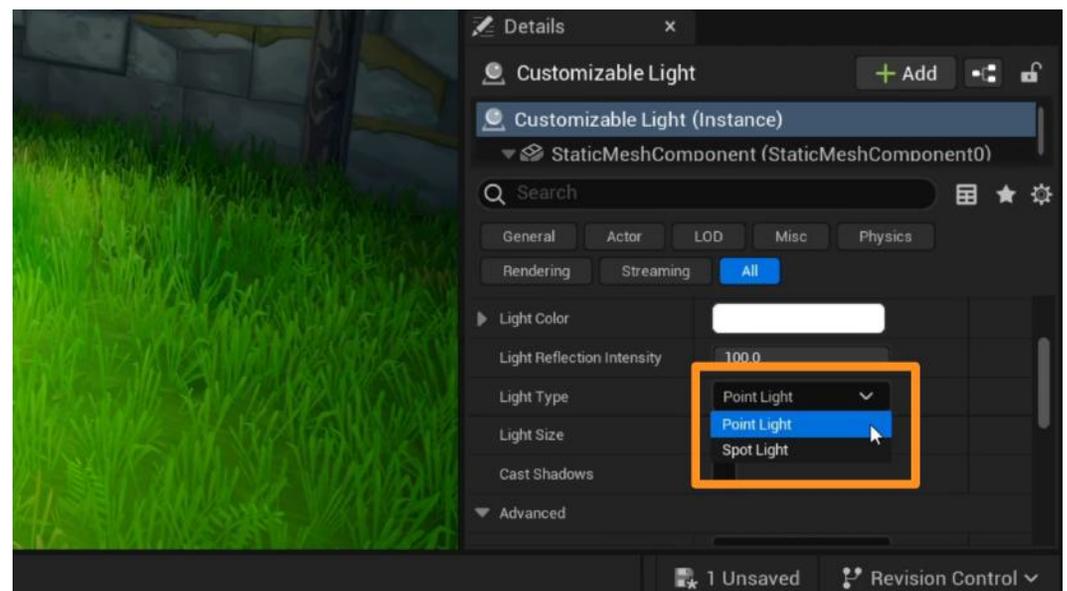


In UEFN, you can change different settings of the light and other assets in the **Details Panel** on the right side of your screen. If you don't see this window, open it from **Window > Details**.

Make sure the asset you want to change is selected in the **Outliner** above the Details Panel.



From the **Light Type** dropdown, you can change your light type between “Point Light” and “Spot Light”.



Point lights (left image) are omnidirectional - they shine light in all directions.

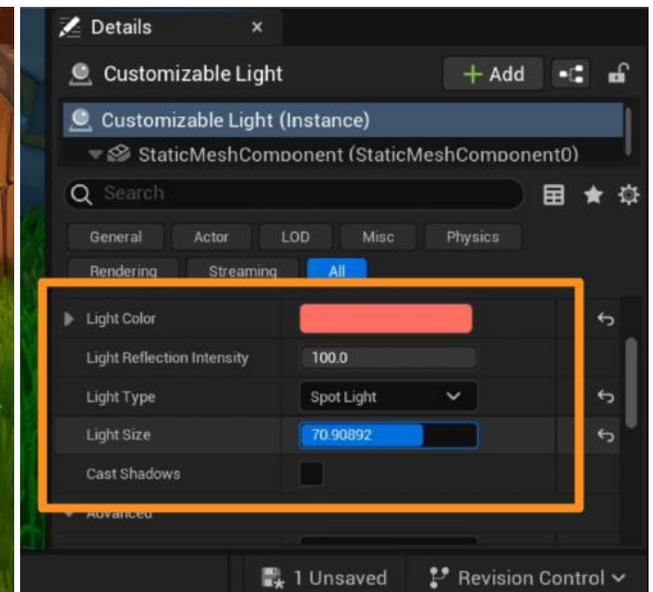


Spot lights (right image) shine light in a single direction.

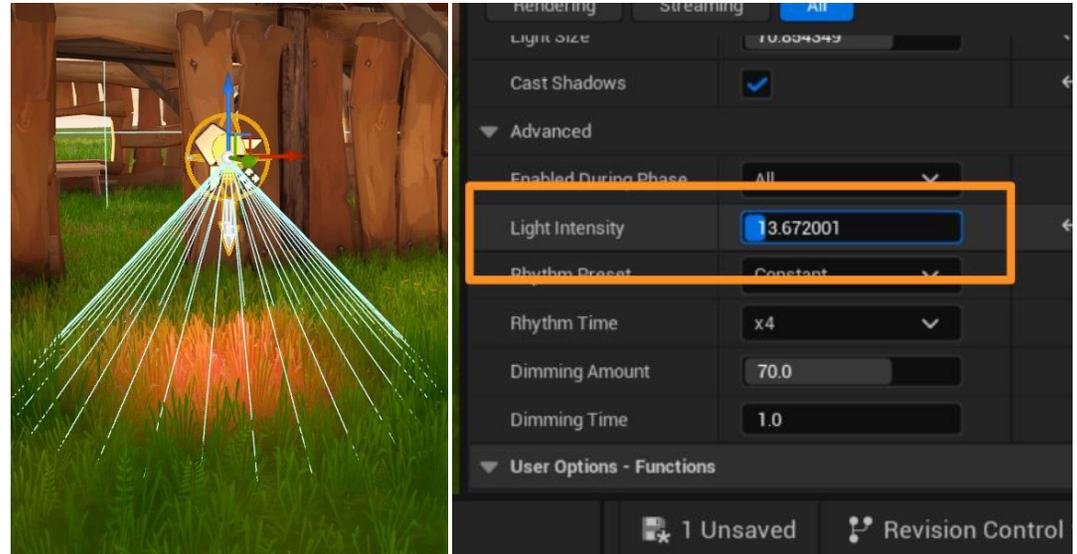


In the Details Panel under “User Options,” you can also change the **Color** and **Size** of your light.

If you want your light to cast shadows on objects in your scene, check the **Cast Shadows** option.

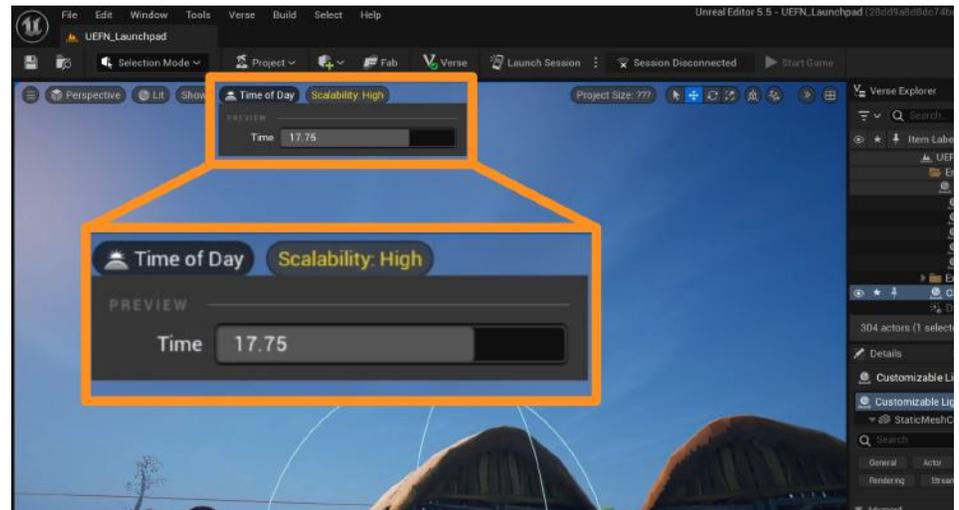


Use the Advanced Settings to change the **Intensity** of your light to make it brighter or dimmer.

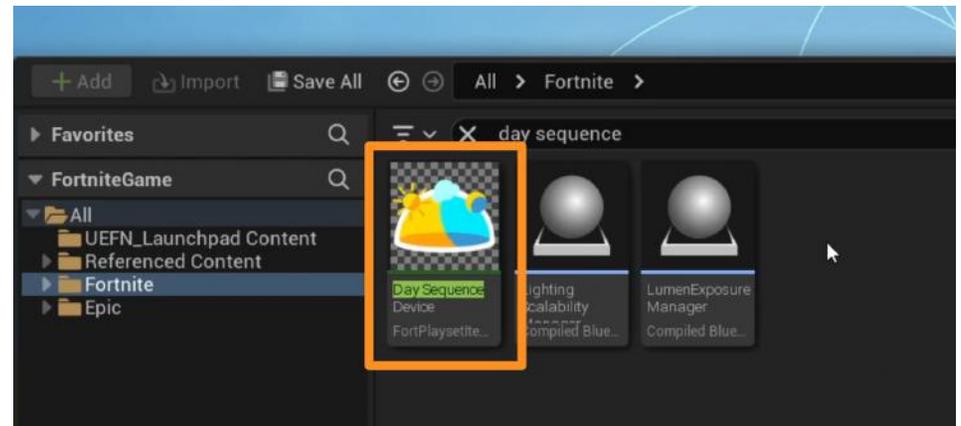


## CHANGE TIME OF DAY

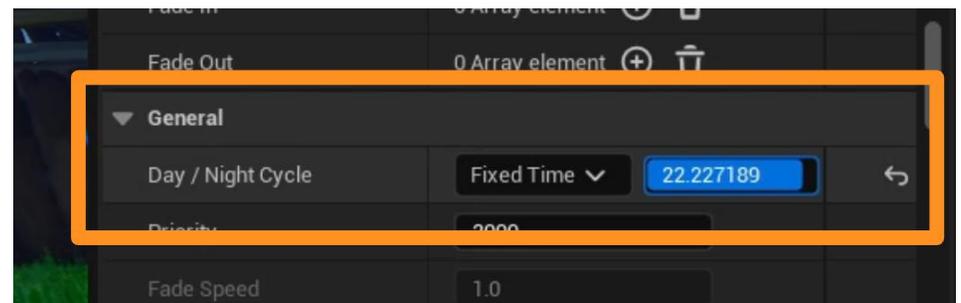
By default, the sky in Fortnite islands cycles continuously between day and night. The **Time of Day** slider on top of the Viewport can help you preview different times of day. However, this slider is only a *preview* for the Viewport and your changes are *temporary*.



To change the time of day on your island *permanently*, use the **Day Sequence Device** from the Content Drawer. Drag it onto your island.

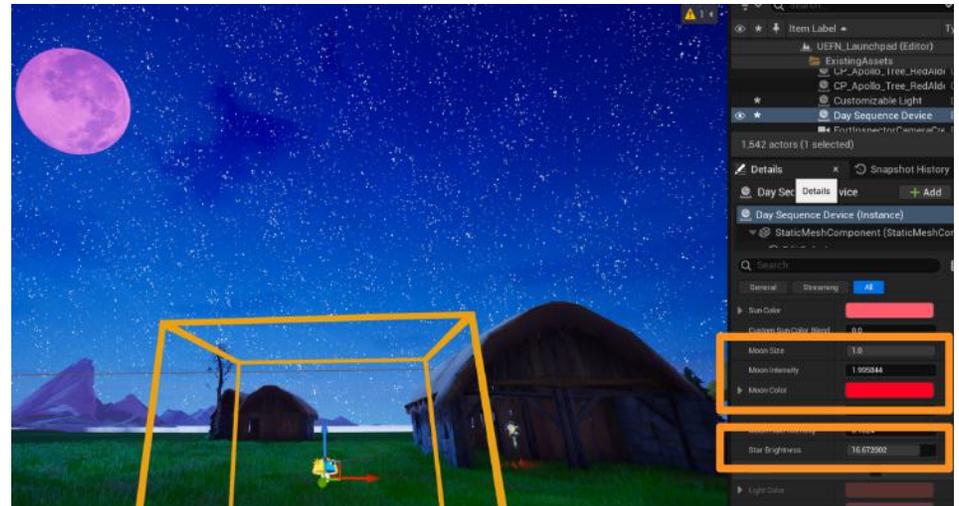


In the Details Panel under General settings, change the **Day/Night Cycle** to “Fixed Time” and set the hour to your desired time.



The Day Sequence Device also allows the creator to have full control over the sun, moon, and sky settings. Feel free to explore these settings under the Details Panel for the Device.

For example, under the **Sky** section in the Details Panel, you can make the moon larger and red in color, and increase the brightness of the stars in the sky.



## Self Check

Were you able to add a light onto your island and customize it? Could you change the settings in the Day Sequence Device to get the look you want for the sky?

## Step 2: Add audio

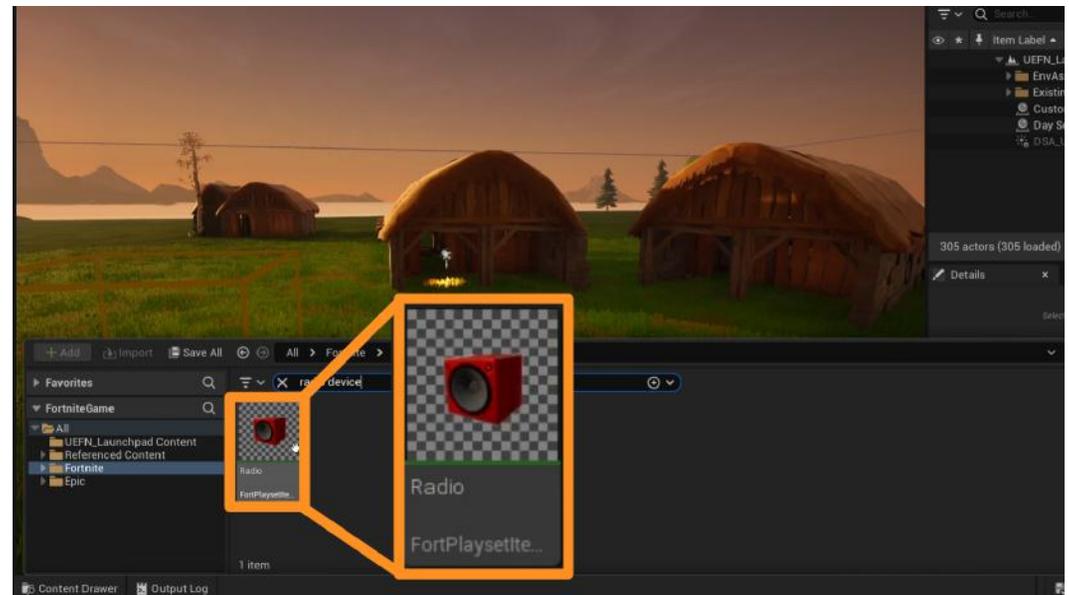
### Preview

Audio is an important part of building a 3D environment. You can use different audio devices in UEFN to add ambient sounds, music, or voiceovers to your island. As with any other device, these audios can be triggered to start or stop at certain times or with certain player actions.

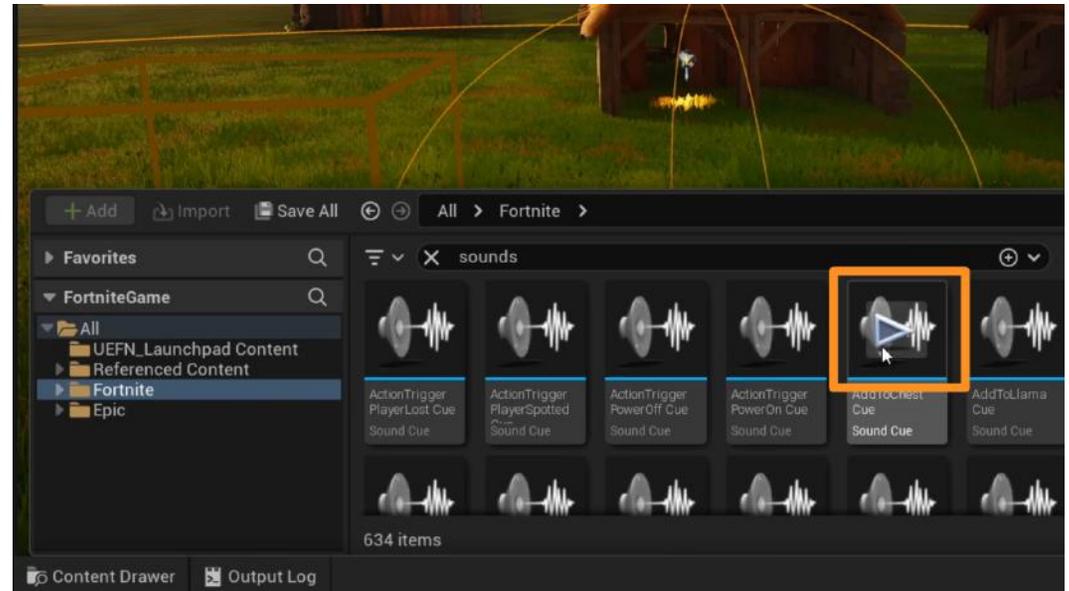
### Experiment

#### ADD AMBIENT SOUNDS

Add a **Radio Device** to your island from the Content Drawer.



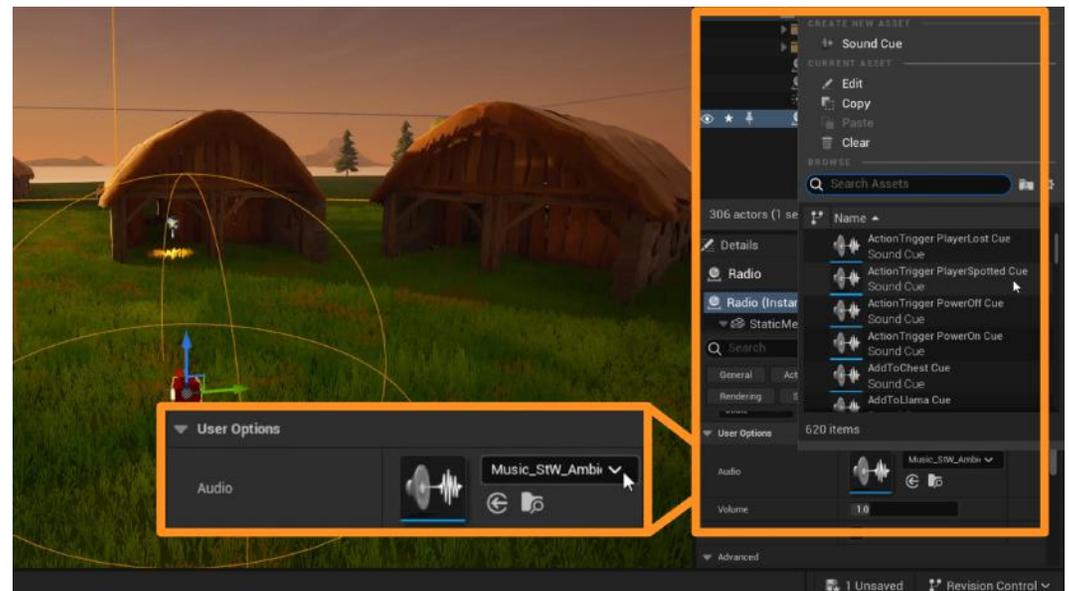
To preview sounds from the Fortnite Library, you can search for “Sounds” in the Content Drawer and click on any of the Sound Cue assets. A short preview of the sound will play.



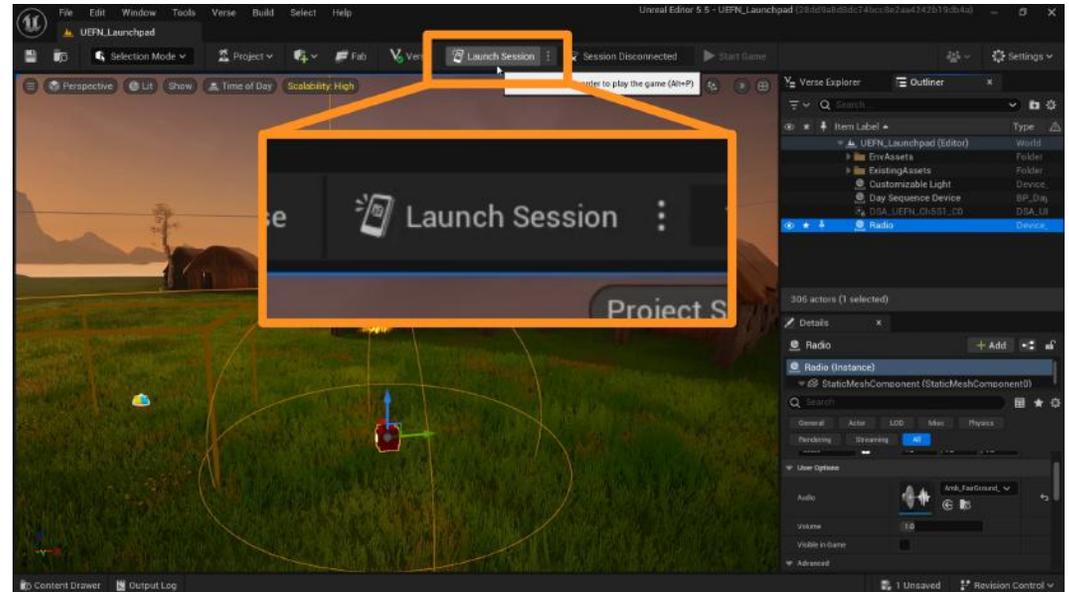
When you pick a sound you like, open the Details Panel of the **Radio Device** and select the sound from the **Audio** dropdown.

You can also import your own audio file into the Content Drawer and it will appear in the dropdown selection. To add your own audio file, make sure it's in **.wav** file format, access your project folder in the Content Drawer, and select **Import**. Locate the file on your computer and import it with default settings.

You can then select your imported sound file as you would any of the Sounds from the Fortnite library.

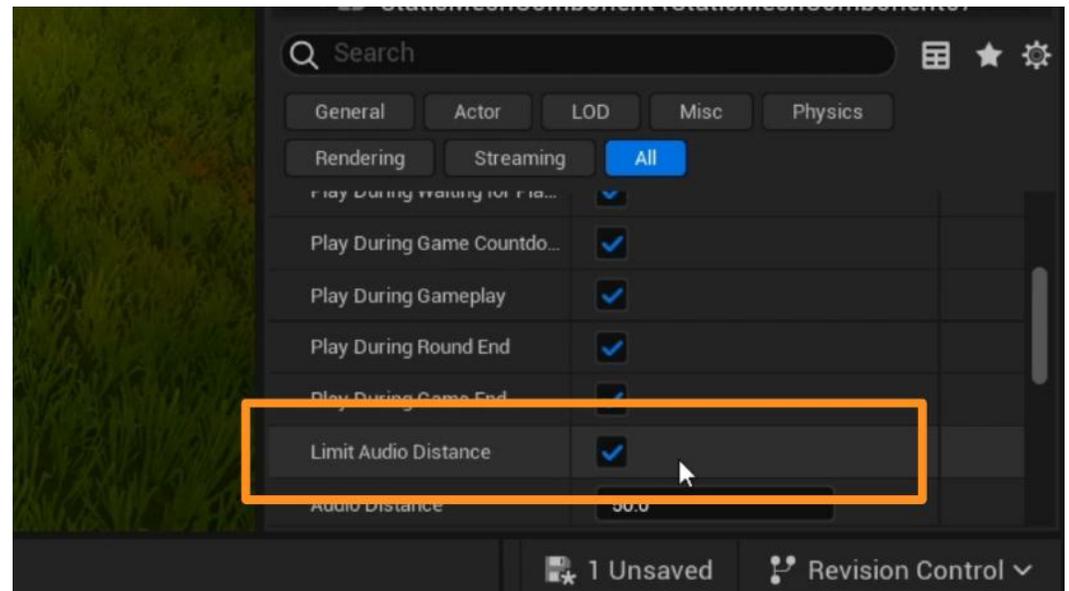


The sounds from Audio Devices do not play in the Viewport of UEFN. To hear sounds and music in game, you need to **Launch Session** and open your island in Fortnite.



By default, the sounds will get quieter when a player moves away from the Radio Device. This could be beneficial if you want different ambient sounds to play in different locations of your island.

However, if you want to make a sound universal, head to the Advanced Settings, and uncheck **Limit Audio Distance**. Now, your sound will play no matter where the player is.



## Self Check

What kind of sound did you add to your island? Did you choose to use something from Fortnite's audio library or add your own files? You can always mix and match existing sounds with your own!

## Step 3: Create visual effects

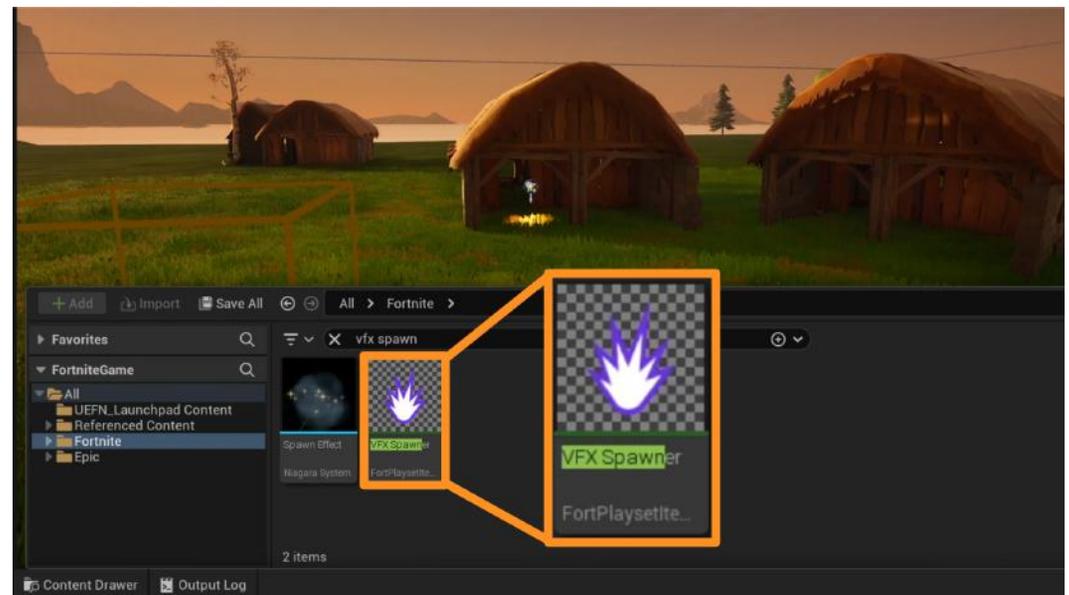
### Preview

Visual effects (VFX) can range anywhere from rain and snow to explosions and floating balloons. VFX devices in UEFN can help you add an extra layer of interest to your island and help you build a more cohesive experience.

### Experiment

#### ADD VISUAL EFFECTS

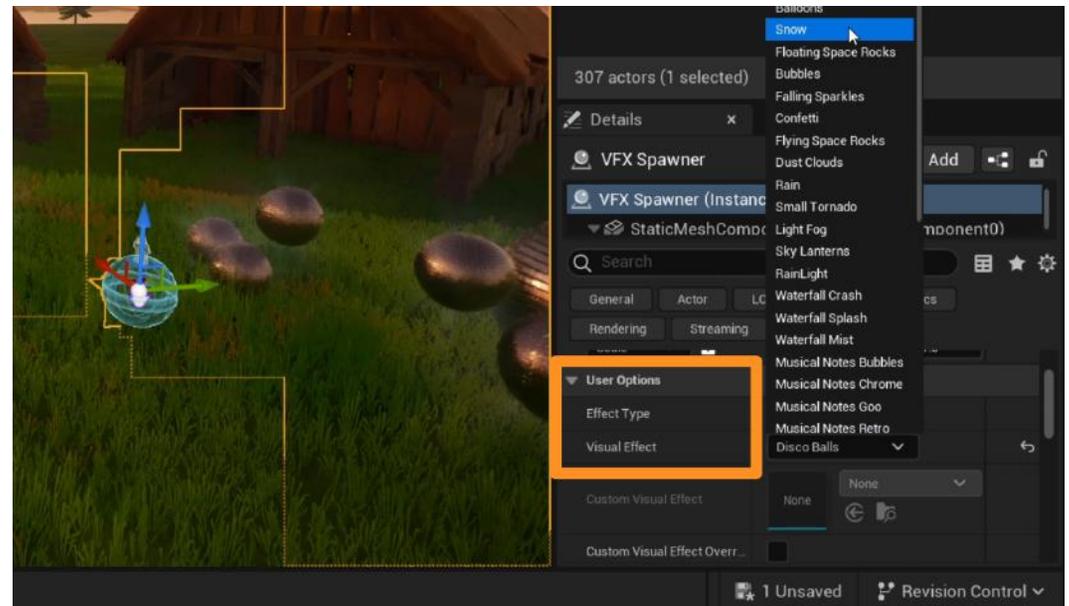
To use pre-built Fortnite visual effects, use the **VFX Spawner** Device from the Content Drawer.



With your VFX Spawner selected, head to the **Details Panel** on the right. From the **Visual Effect** dropdown, select an effect you like. You will see your selected effect play in the Viewport. You can always go back to change your visual effect and try different options.

Changing the **Effect Type** to “Burst” will give you new VFX options such as explosions.

Some, not all, effects can be scaled larger or smaller with the scale gizmo (“**R**” key) in the Viewport.



All VFX can be triggered by different devices in UEFN under **User Options**.

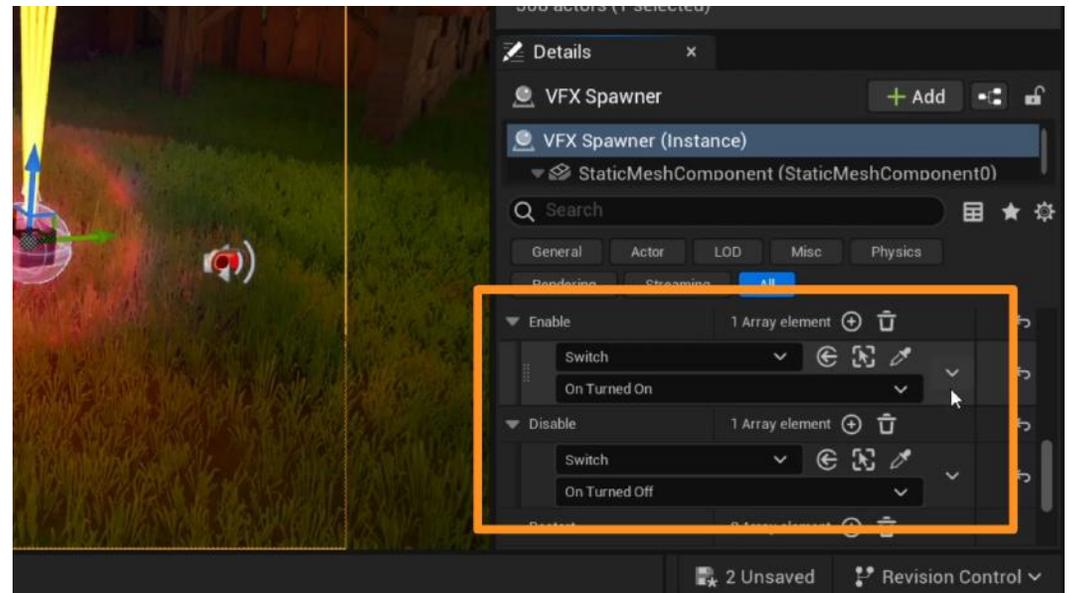
As an example, add a **Switch** Device to your island from the Content Drawer.



Select the **VFX Spawner** and scroll down to **User Options - Functions** in the Details Panel.

Click the **+** icon next to **Enable** and select the “Switch” from the dropdown. For the second dropdown, select “On Turned On.”

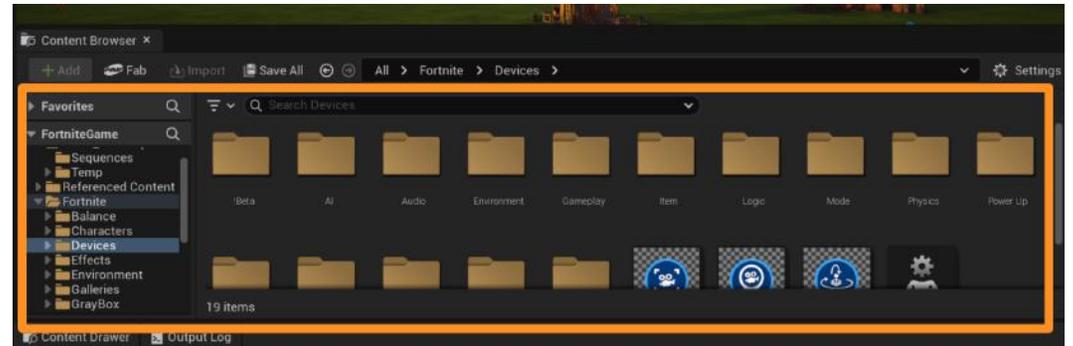
Repeat the process for the **Disable** option. Select “Switch” and “On Turned Off”.



Now, the player will be able to turn the visual effect on and off by interacting with the Switch.

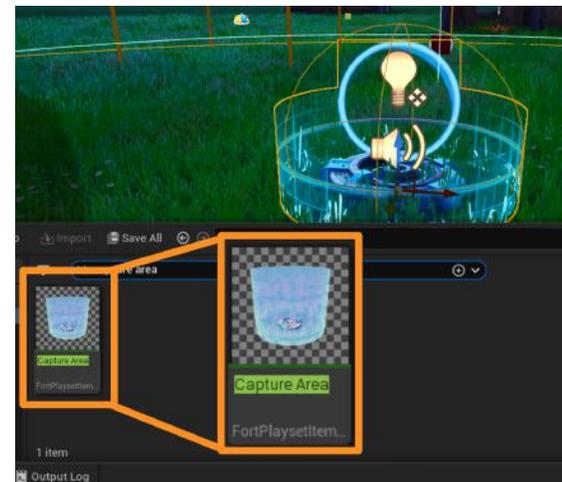


You can use other devices available from the “**Devices**” folder in the Content Drawer to trigger your visual effects. Explore different options and find which device might work best for the setup you have in mind.

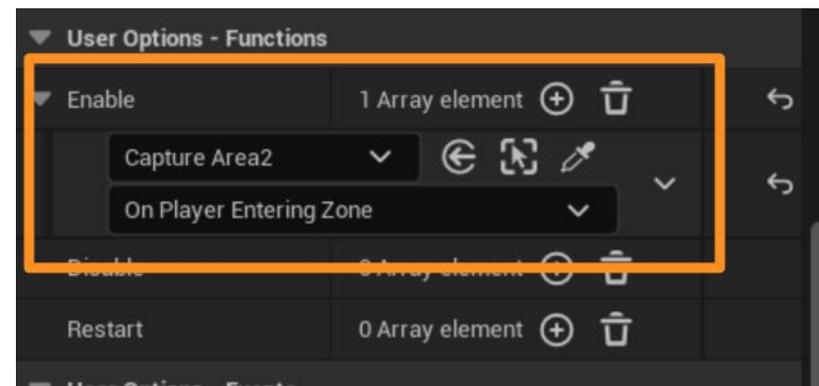


For example, you can use the **Capture Area Device** to trigger your visual effect when a player walks into a specific area.

Add a **Capture Area Device** to your island. Configure your VFX Spawner in the details panel to **Enable** with the “Capture Area” for “On Player Entering Zone”.



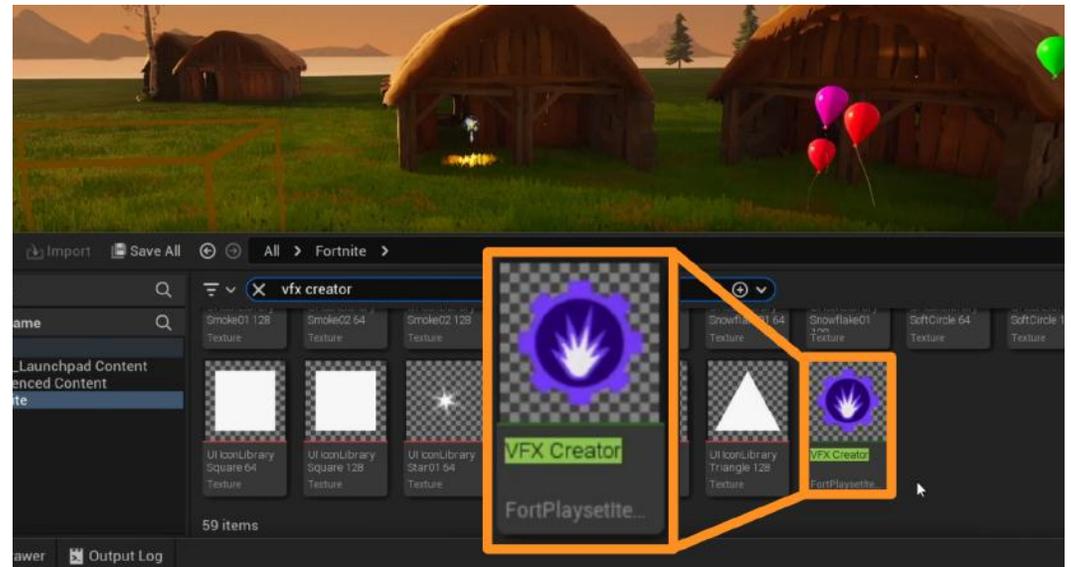
Now, your VFX Spawner will become visible and the effects will start when a player enters the zone of the Capture Area Device.



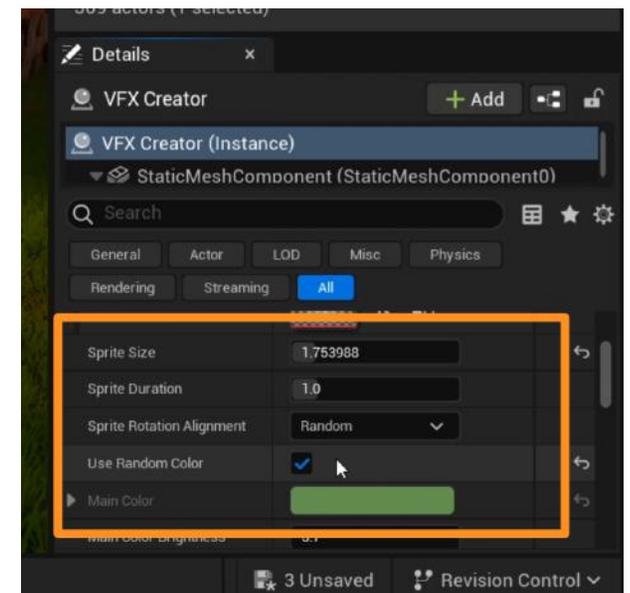
## ADD CUSTOMIZABLE VFX

To create visual effects with more customization options, use the **VFX Creator Device**.

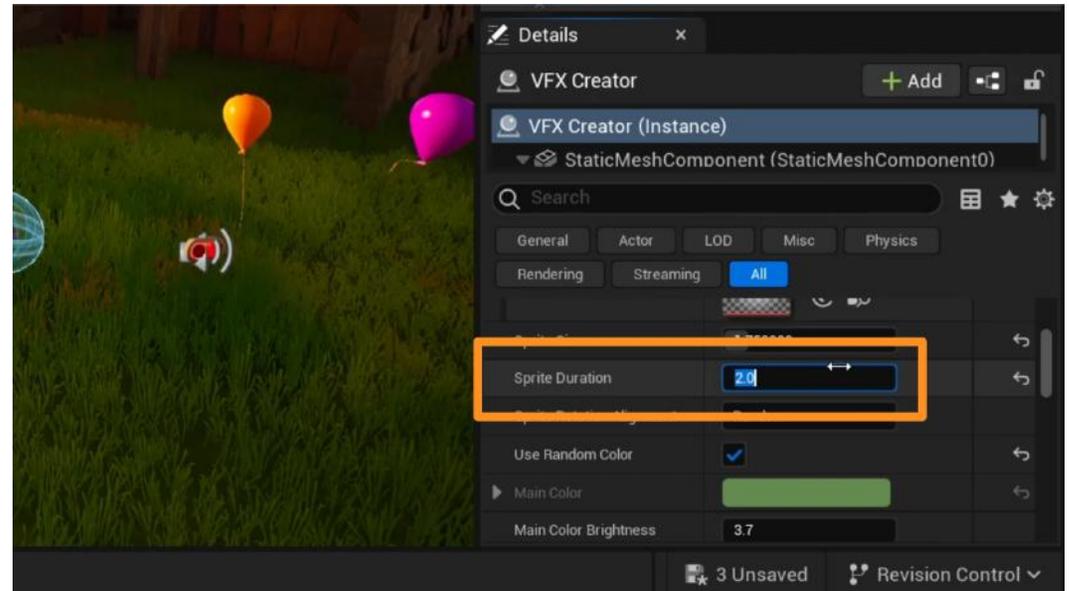
This Device will give more freedom to the user, however, you will still be limited to the settings within the Details Panel.



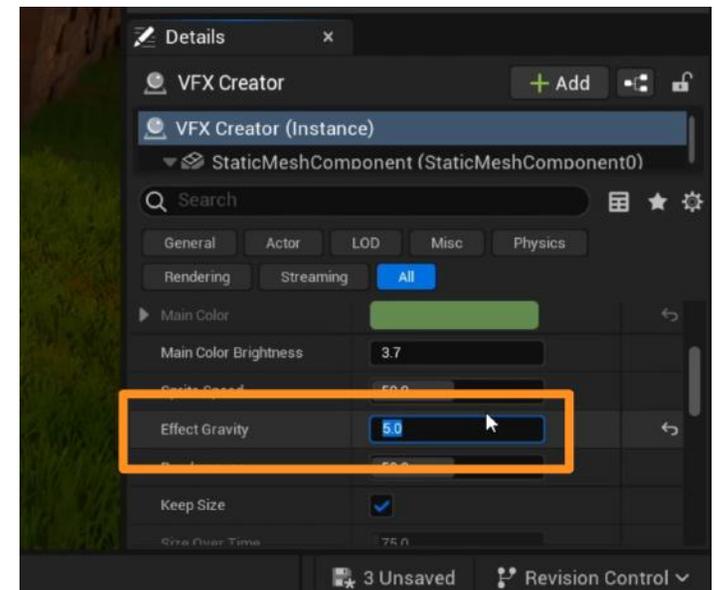
Use the Details Panel to change the **Size** and **Color** of your effect.



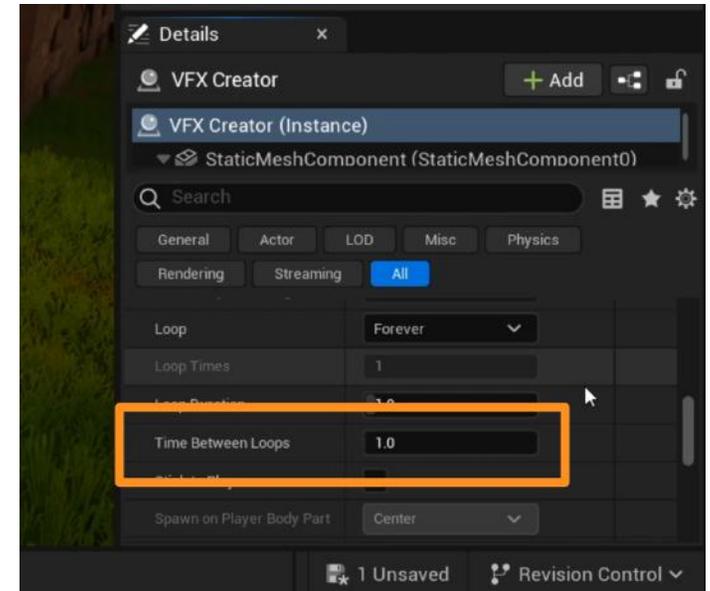
The **Sprite Duration** setting will affect how long your effect lasts in seconds.



**Effect Gravity** will change how much your effect floats.



In Advanced Settings, change **Time Between Loops** to 0 (zero) if you want your VFX to be continuous/non-stop.



## Self Check

What kind of visual effect did you choose to use on your island? Were you able to customize it to your liking and configure a device to activate the effect?

## Step 4: Use post process effects

### Preview

Post process effects are visual effects, such as color or genre-specific filters, that are added to the entire island when Fortnite is being played. While these effects will be applied to your entire island, as with all other devices, post process effects can be triggered at certain times or actions.

Keep in mind that, even after adding the Post Process Device to your island, you need to **Launch Session** in Fortnite to be able to see the effects work in real time.

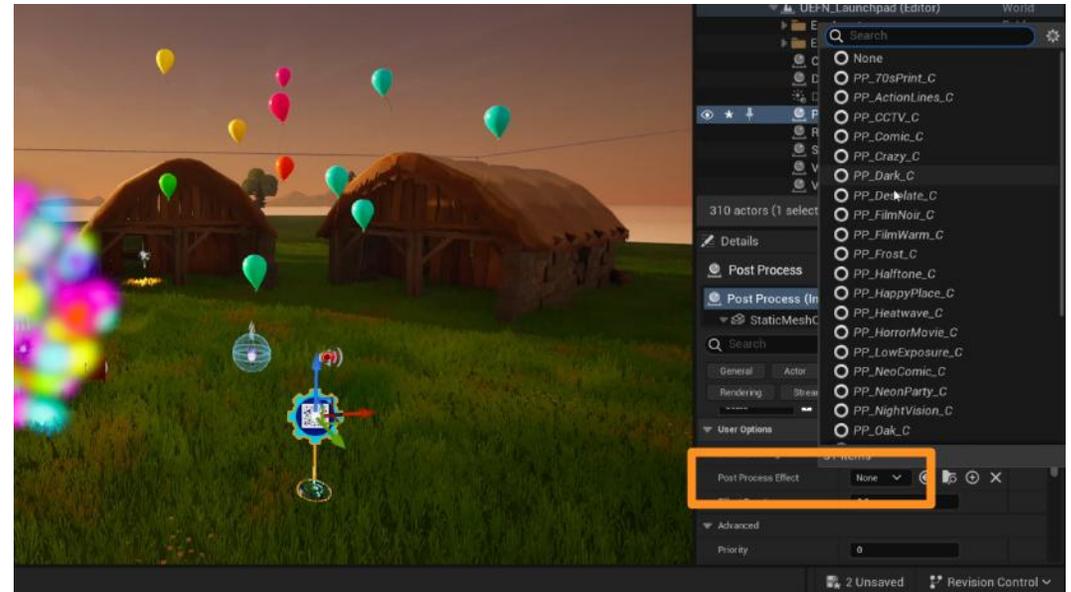
### Experiment

#### ADD POST PROCESS EFFECTS

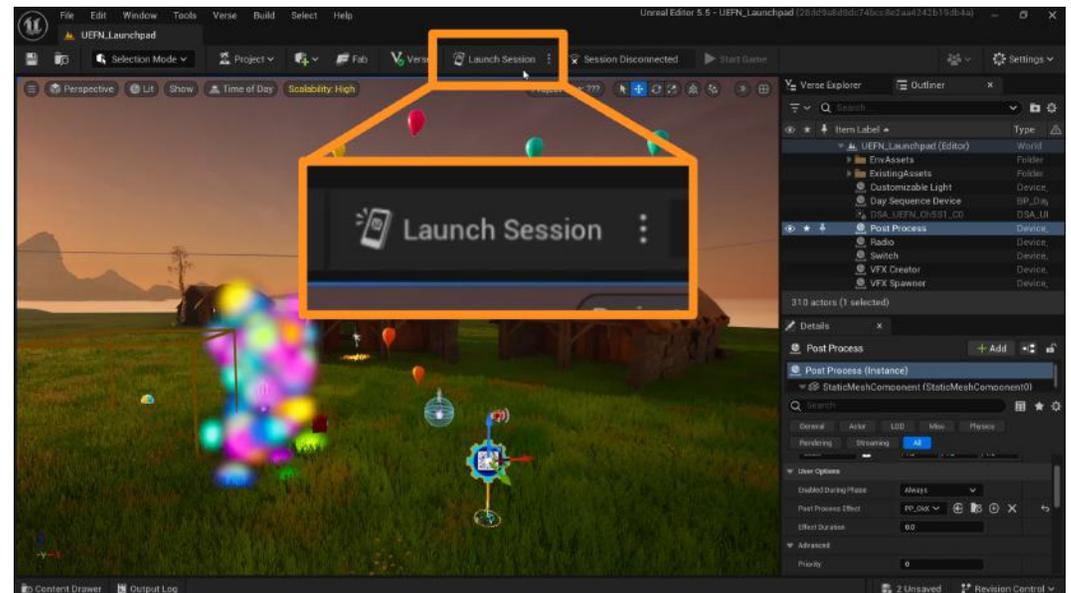
You can use the **Post Process Device** to make universal visual changes to your island, such as turning it black and white or cartoon-esque.



Change the **Post Process Effect** in the dropdown menu in the Details Panel to pick something you like.



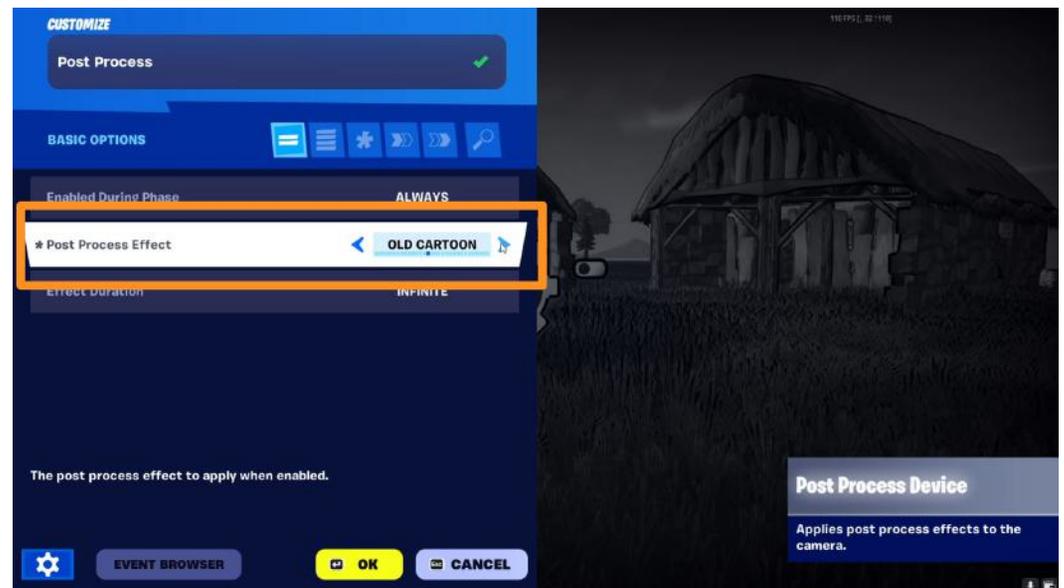
The effects won't show up in your Viewport. You need to launch your island in Fortnite to be able to see the visual change.



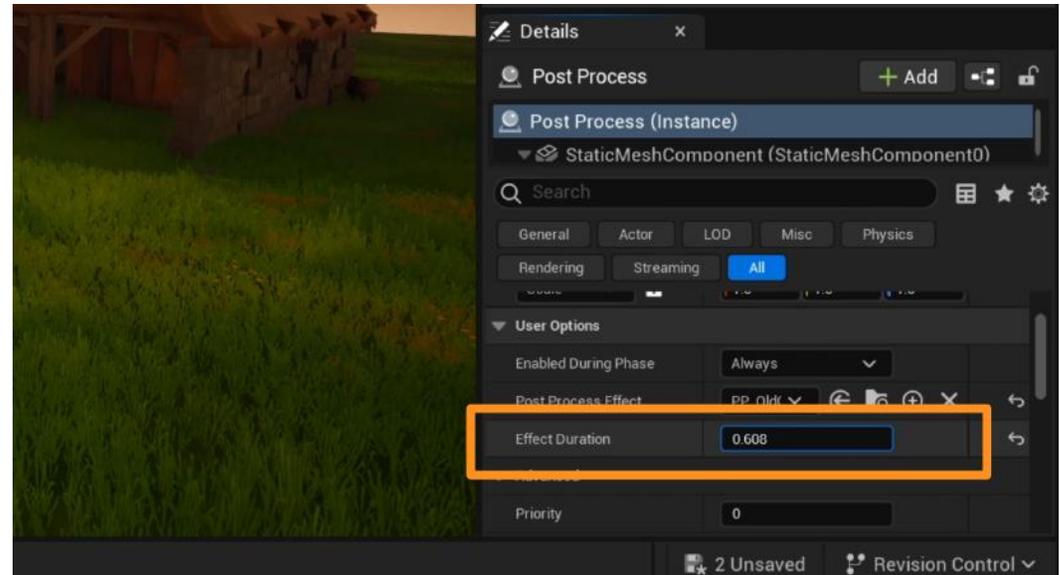
When you **Launch Session**, you will start in **Fortnite Creative's Edit Mode**. Find the Post Process Device on your island and press **E** to open **Customize Settings**.



Here, you can scroll through the Post Process Effects and see what they look like quickly. Press **OK** to view your selected effect on your screen. You can repeat the selection process until you're happy with the effect you've chosen.



In the Details Panel of the Post Process Device, you can change **Effect Duration** settings if you want your Post Process Effect to stop after a certain number of seconds.



## Self Check

Did you find a post process effect that became your favorite? Were you able to apply it to your island? How do you think adding a Post Process Effect might change the way the player feels while exploring your island?

## Lesson Closure

### Demonstration of Learning

You've learned about many different environmental features and visual effects in UEFN that will help you build the Fortnite island of your dreams: adding lights to your scenes, building audio into your experiences, using and creating visual effects of all different kinds, and layering post process effects over your island for visual interest.

### Exploration Opportunities

All of the environmental effects and features shown in this Guide are devices, which can be linked to or triggered by other devices. This gives the creator the ability to start, stop, or change any of the properties of the effects based on gameplay time or player actions. Many features of UEFN are built to go hand-in-hand with each other.

Check out the following Learning Guides if you're interested in learning more about how to create the landscape of your island, or how to use other devices to trigger the different effects you've learned about in this Guide:

[Landscaping and Water Features in UEFN Learning Guide](#)

[Devices and Trigger Events in UEFN Learning Guide](#)