Tempest Rising Environment Art Guide

This document is written on the assumption that you've used Unreal Engine before, or that you will read it while referring to the official Unreal Engine documentation. Anything the official Unreal Engine documentation already covers is left out here.

This document only explains how to use the assets and tools that ship with the Tempest Rising Map Editor project. We strongly recommend learning how to use Unreal Engine first, and then reading this document.

Our aim is to walk you through how to use the assets we actually used in Tempest Rising, so you can raise your level's visual quality a little more easily. This guide collects the techniques the Setdressers on the Tempest Rising team used across every level built for the game, and once you've got a solid grasp of it, you'll be able to build levels that look a lot like the ones in Tempest Rising, as long as you've got the right 3D assets on hand.

This guide will introduce you to the following Tempest Rising Map Editor concepts

1) How to create and use **Landscape Materials**, and the basics of landscape sculpting
2) How to create and use materials for **Environment Assets**
3) How to create and use materials for **Prop Assets**
4) How to create and use materials for **Decal Actors**
5) How to create and use materials for **Foliage Assets**, and the static mesh setup they require
6) How to set up and use **Collision**

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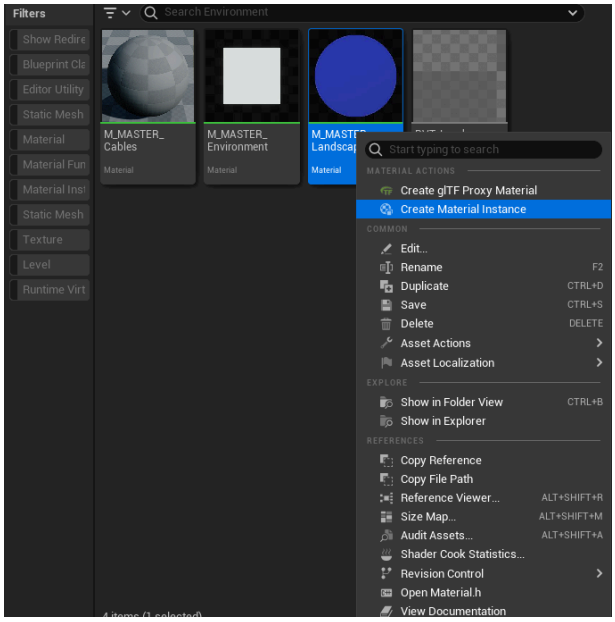
Landscape

Creating a Material for the Landscape

Once your map is in place, the next step is to set up the Landscape for texture painting. Start by creating a material instance for it in the Content Browser:

1. Go to `/All/Game/Tempest/MaterialLibrary/Environment/` and select `M_Master_Landscape_RVT`.
2. Right-click the asset and choose 'Create Material Instance'.

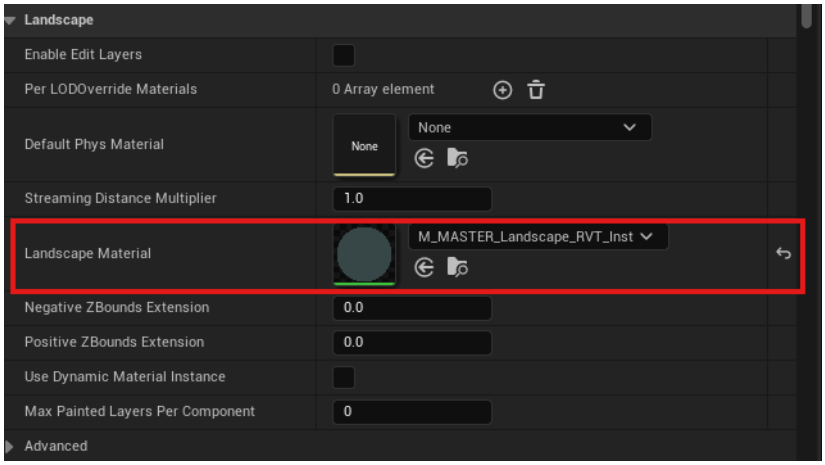


3. Move the new material instance into your own folder.

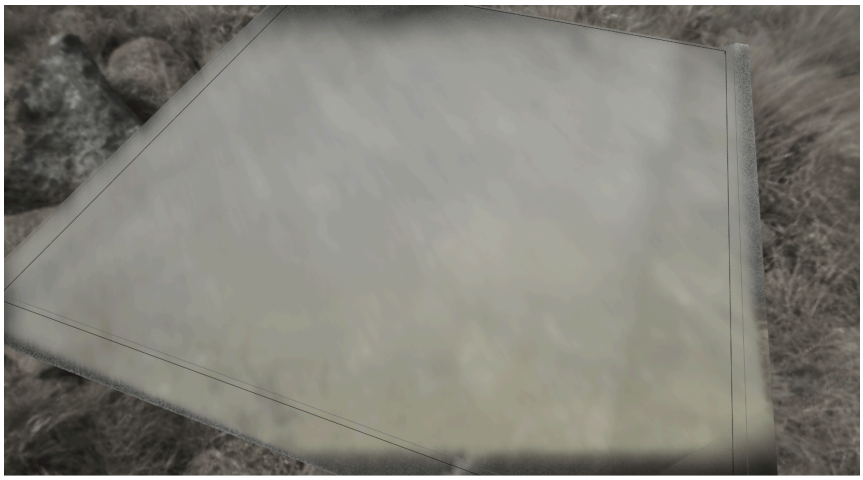
To apply this material to the current level's landscape, select the 'Landscape' actor in the viewport or in the 'Outliner'. When it's selected correctly, the 'Detail' panel shows 'Landscape' and its parameters appear at the bottom. To assign your new material instance to the Landscape:

1. Select the 'Landscape' actor, then find the 'Landscape' category in the 'Detail' panel.

2. Apply the landscape material instance you created earlier to the 'Landscape Material' parameter inside the 'Landscape' category.



3. Once the material is applied, a brand-new landscape may look colorless and simply reflect the sky. That's expected.



Applying Textures to the Landscape Material Instance

Opening the material instance reveals ten Layer categories along with the Rain, Snow, and Virtual Texturing categories. Each Layer category can take its own landscape texture set, and every layer category shares the parameters below.

This material instance has ten adjustable Layer parameter groups, Layer A through Layer J, and they all share the same parameter names. In the table below, these are written as Layer 'X', so any Layer 'X' in the table applies to all of them, from Layer 'A' through Layer 'J'.

Layer 'X'	
Albedo Layer 'X'	Base Color texture.

Albedo Desaturation Layer 'X'	Controls the desaturation of the Base Color texture. At 0 it's unchanged, at 1 it's fully grayscale, and the lower the value, the more saturated it gets.
Albedo Brightness Layer 'X'	Controls the brightness of the Base Color texture. 0 is black, 1 leaves it unchanged, and higher values make it brighter.
Albedo Tint Layer 'X'	Multiplies a tint color over the Base Color texture.
Use Global Snow Color as Tint Layer 'X'	When the level's weather is 'Snow' and a color is set for 'Snow Dynamic Tint' in the level's `BP_DayAndNight`, this swaps the tint of every Snow texture for that 'Snow Dynamic Tint' color.
Albedo AO Blend Layer 'X'	Multiplies the Ambient Occlusion from the Mask map's B channel over the Base Color texture.
RHO Mask Layer 'X'	The RHO mask packs the roughness map into the R channel, the height map into G, and the Ambient Occlusion map into B. The name 'RHO' just spells out which map sits in which channel, and in what order.
Roughness Min Layer 'X'	Sets the minimum for the Mask map's Roughness channel. The closer to 1, the rougher the surface (less light reflection). Keep this lower than Roughness Max Layer 'X', the row below.
Roughness Max Layer 'X'	Sets the maximum for the Mask map's Roughness channel. The closer to 0, the smoother the surface (more light reflection). Keep this higher than Roughness Min Layer 'X', the row above.

AO Power Layer 'X'	Controls the contrast of the Mask map's Ambient Occlusion channel. 1 leaves it unchanged; the higher above 1, the more the baked-in shadows show through.
AO Multiplier Layer 'X'	Controls the intensity of the Mask map's Ambient Occlusion channel. 0 is black, 1 leaves it unchanged, and the higher above 1, the more the baked-in shadows show through.
Normal Map Layer 'X'	Normal texture.
Normal Map Intensity Layer 'X'	Controls the intensity of the Normal texture. 0 is flat, 1 leaves it unchanged, and higher values make the surface relief more pronounced.
UV Size Layer 'X'	Sets the texture's size. Higher values make the texture appear larger on the landscape.
Use Dynamic Snow Layer 'X'	With Dynamic Snow enabled in both `BP_DayAndNight` and the landscape material, snow builds up in real time wherever this texture is painted.
Mask Snow with Heightmap Layer 'X'	As snow accumulates, this uses the Height channel of the Mask map to work out elevation and mask where snow settles and where it doesn't.

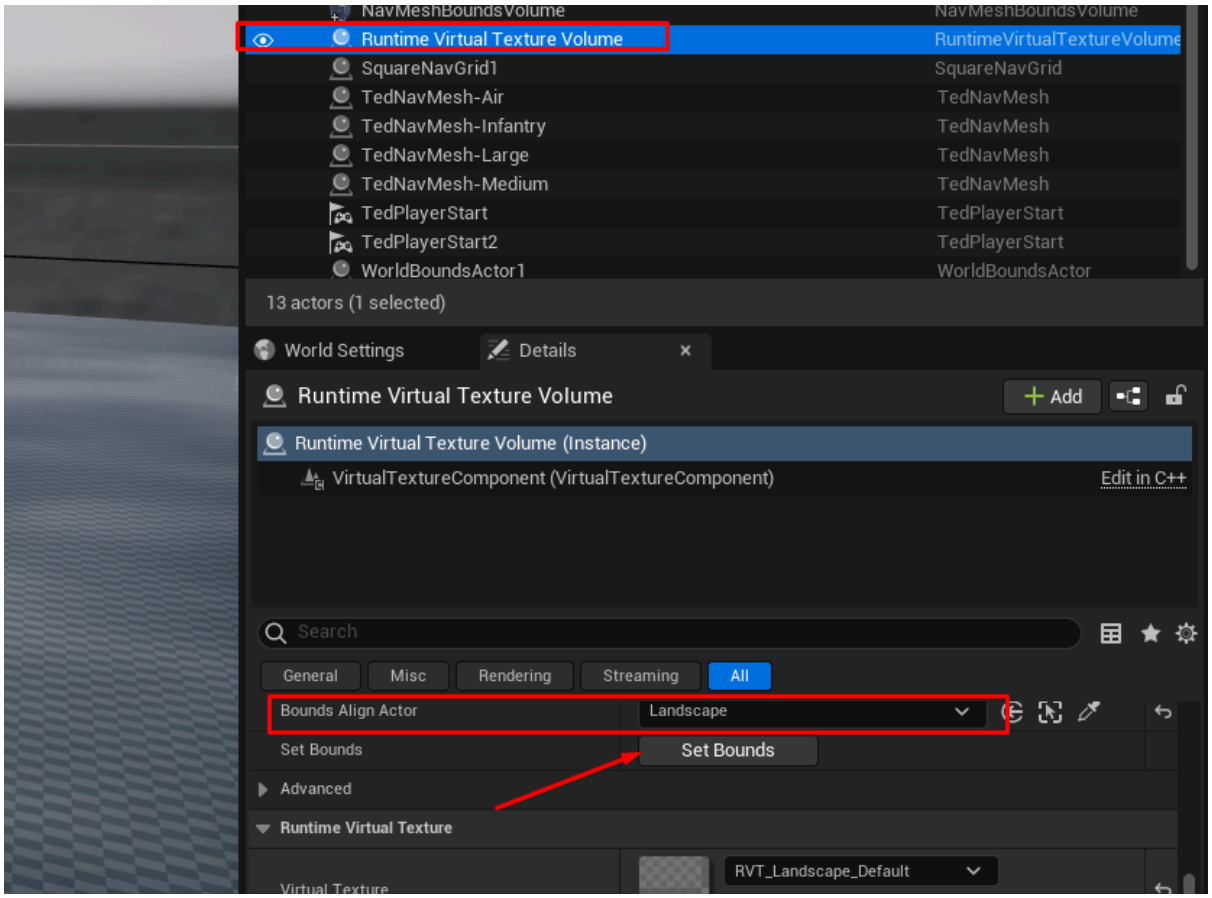
You normally won't need to touch the Rain and Snow values. If you do want snow to build up in real time when the weather is set to Snow in `BP_DayAndNight`, enable Dynamic Snow in the Snow category.

Runtime Virtual Texture and Runtime Virtual Texture Volume

For the basics of Runtime Virtual Texture and its Volume, it is recommended to read Epic's Official Unreal Engine Documentation.

The Runtime Virtual Texture Volume must always cover the entire landscape. If the landscape extends outside the volume, or you sculpt it out past the volume, that area won't render and shows up black.

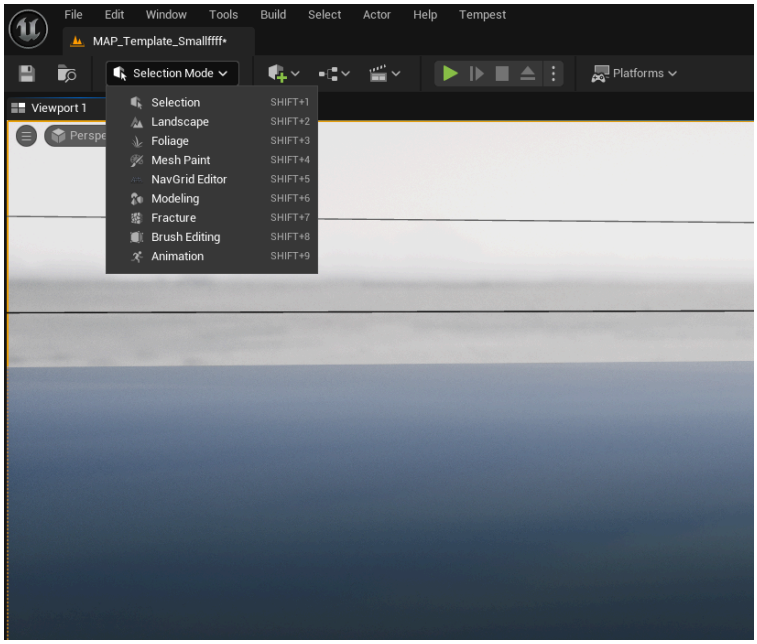
If you run into small issues like black patches on the landscape or textures not updating properly, select the Runtime Virtual Texture Volume actor and press the Set Bounds button under 'Bounds Align Actor' to update it.



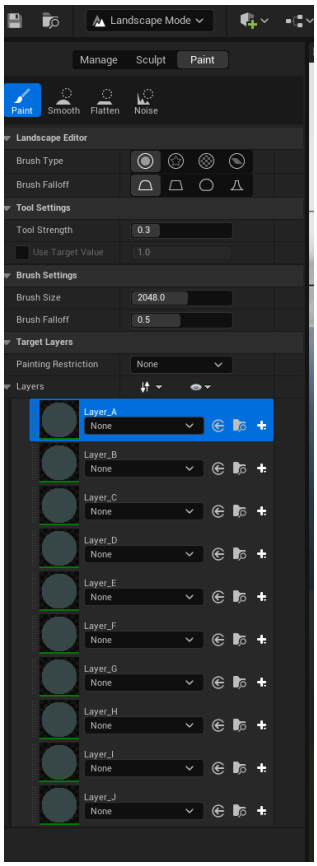
Landscape Texture Painting

Before you can paint the Landscape material's textures onto the terrain, you need to register Layer Info for each layer.

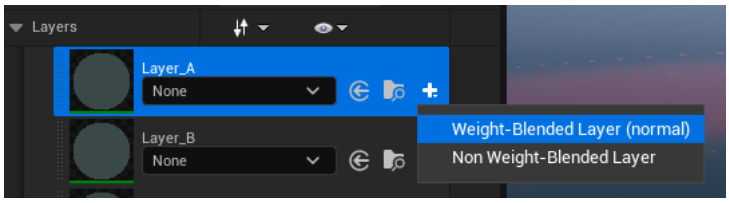
1. As shown below, select the Landscape with Selection Mode, or with the viewport focused, press **SHIFT + 2** to switch the editor into Landscape mode.



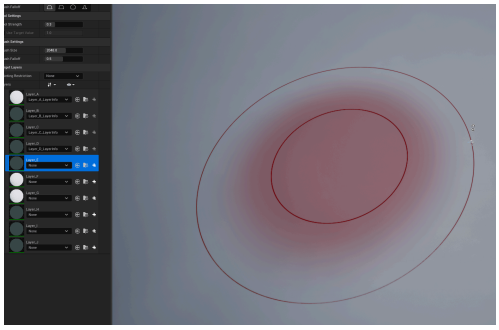
2. Once in Landscape mode, click the Paint button below to switch to Landscape Paint mode.

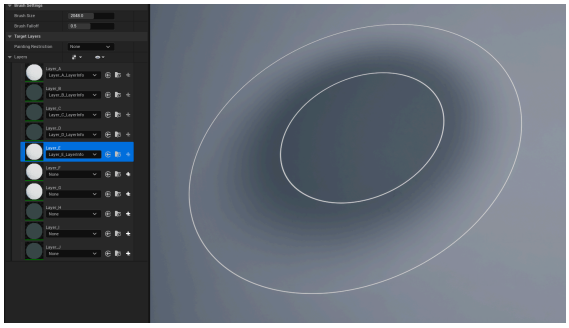


3. Click the ‘+’ button on the far right of each layer, choose 'Weight-Blended Layer (normal)', and save it into the folder that holds your level. (Unless you have a reason not to, saving to the folder the engine suggests is the safest bet.)

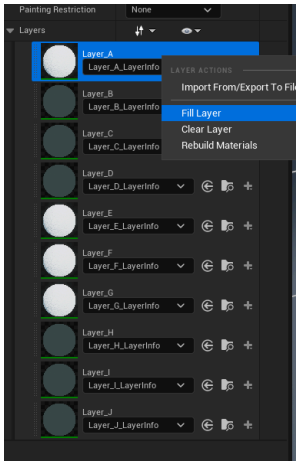


4. If Layer Info isn't registered, the brush shows up red and won't paint. Once it's registered properly, the brush turns white (as in the image on the right), meaning that layer is ready to paint.

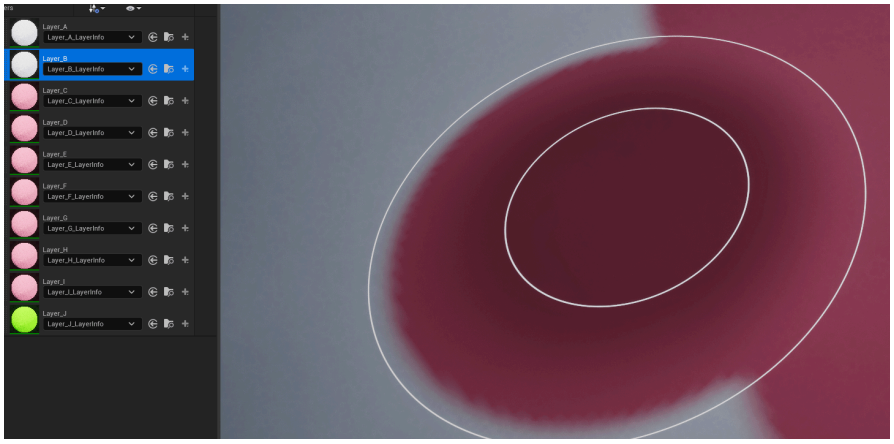




5. After every layer has its 'Layer Info', pick the layer that will act as the base, right-click it, and choose Fill Layer. It doesn't have to be Layer A. For instance, if dirt covers most of your level and sits on Layer E, select Layer E and choose Fill Layer.



6. With all layers set up in this order, you can paint each one onto the landscape using the landscape paint brush.

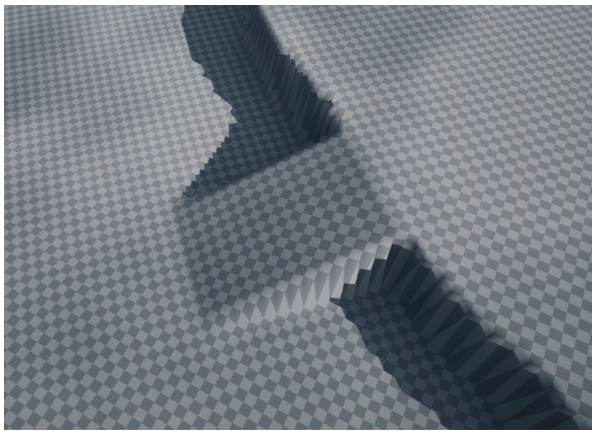


Landscape Sculpting

For the basics of Landscape Sculpt mode, it is recommended to read Epic's official Unreal Engine documentation:

- Sculpt Mode
- Landscape Brush

Slope Flatten lets you flatten along the angle of a slope. It comes in handy when you've placed a ramp between two height levels and want to tidy up the surface.



Just remember to turn off Flatten Target while using it. Otherwise the Flatten Target value overrides Slope Flatten and forces the ground flat.

Landscape Editor	
Brush Type	See Epic's Documentation
Brush Falloff	

Tool Settings	
Flatten Target	With Flatten Target on, you can force the height of the area you're sculpting to a set value. Turn on the Eye Dropper and click the landscape where you want, and it grabs the height at that spot.
Tool Strength	Strength of the Sculpt tool.
Flatten Mode	Sets whether flattening lowers, raises, does both, or terraces. ● Both: flattening can raise and lower. ● Raise: flattening only raises; anything above the clicked point stays put. ● Lower: flattening only lowers; anything below the clicked point stays put. ● Interval: flattens to the nearest terrace interval at the clicked point. ● Terrace: flattens to set terrace height intervals.
Use Slope Flatten	Flattens to the angle of the clicked point instead of to horizontal. Handy for cleaning up the surface after placing a ramp between two height levels. Turn off Flatten Target while using it, or the Flatten Target value will override Slope Flatten and force the ground flat.
Pick Value Per apply	Keeps picking new target values as you drag, instead of sticking with the first point you clicked.
Tool Settings - Advanced	
Show Preview Grid	Sets whether the preview grid for the flatten target height is shown.
Terrace interval	Height of each terrace interval, in Unreal units, for Terrace flatten mode.
Terrace Smoothing	Smoothing amount for Terrace flatten mode.
Brush settings	
Brush Size	Radius of the sculpt brush.

Brush Falloff	Falloff at the edge of the sculpt brush, as a fraction of its size. 0 = no falloff, 1 = all falloff.

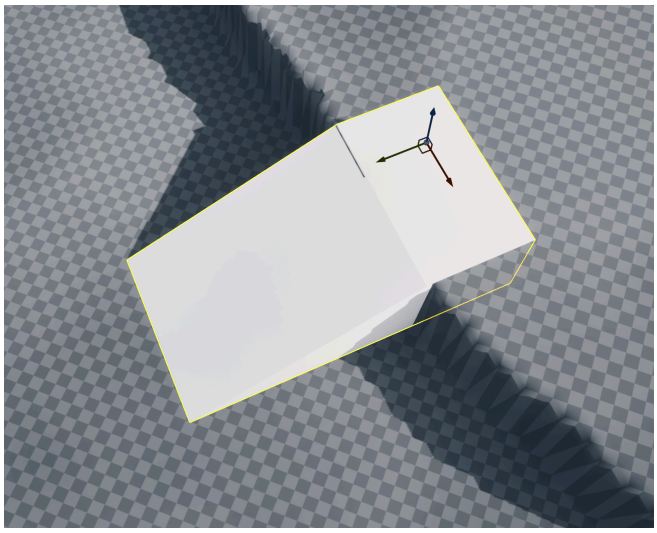
Ramps

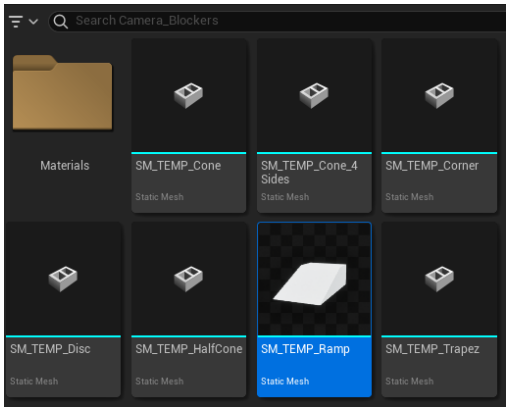
Tempest Rising uses ramps of a set size to connect terrain at different heights. You can make a ramp wider or longer than the suggested size, but avoid making it steeper or using a height below or above the suggested one. Here's how to use the Ramp tool:

1. The placeholder ramp lives in `/All/Game/Tempest/Props/Camera_Blockers`. Select `SM_TEMP_Ramp` and drag it into the level.

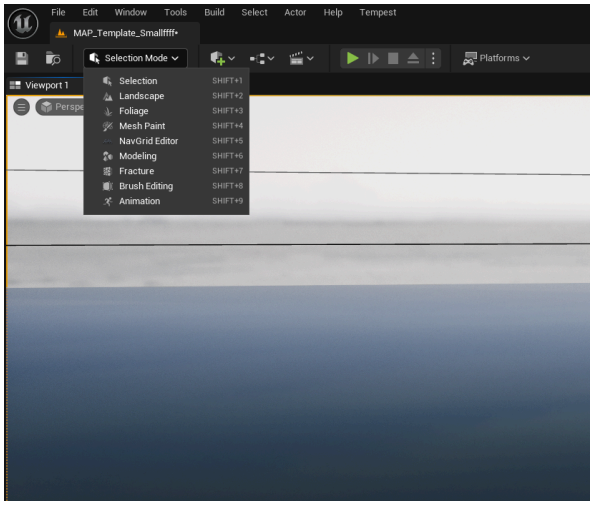
2. Use the landscape brush to sculpt terrain at different heights across the landscape. (A Height of 800 is recommended.)

3. Push the flat end of the ramp mesh into the higher landscape level.

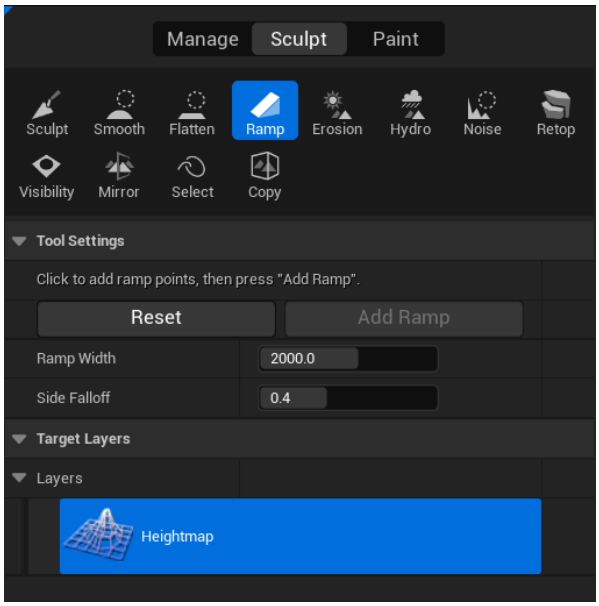




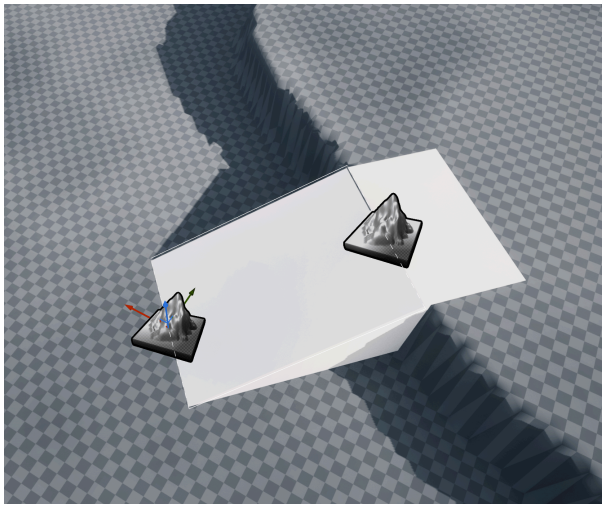
4. As shown below, select the Landscape with Selection Mode, or with the viewport focused, press **SHIFT + 2** to switch the editor into Landscape mode.



5. From the three menus at the top, pick Sculpt, then choose Ramp from the options below.

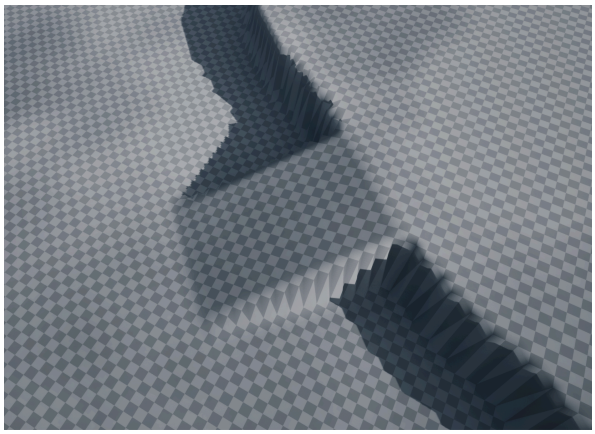


6. In Ramp mode, click anywhere in the level to drop up to two ramp points. You can still reposition them afterward.



7. To match the placeholder ramp's default size exactly, set Ramp Width to 1600 and Side Falloff to 0.

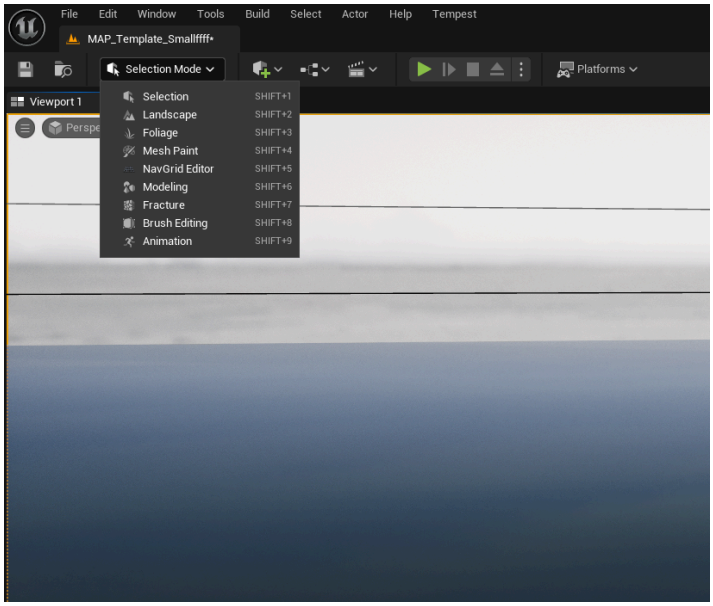
8. When everything's set, click Add Ramp in the menu, delete the placeholder ramp, and check that the ramp came out right.



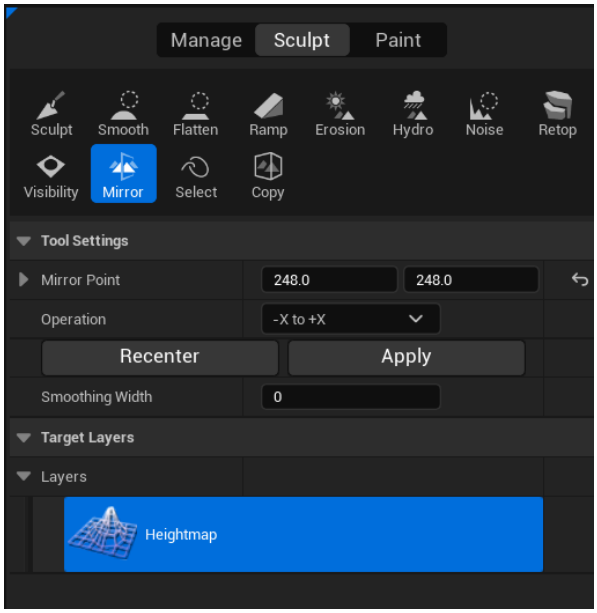
Landscape Mirror

If you're building a symmetrical level (a multiplayer map especially), making it perfectly symmetrical pays off both for your workflow and for balance. Here's how to use the landscape's mirror feature:

1. As shown below, select the Landscape with Selection Mode, or with the viewport focused, press **SHIFT + 2** to switch the editor into Landscape mode.

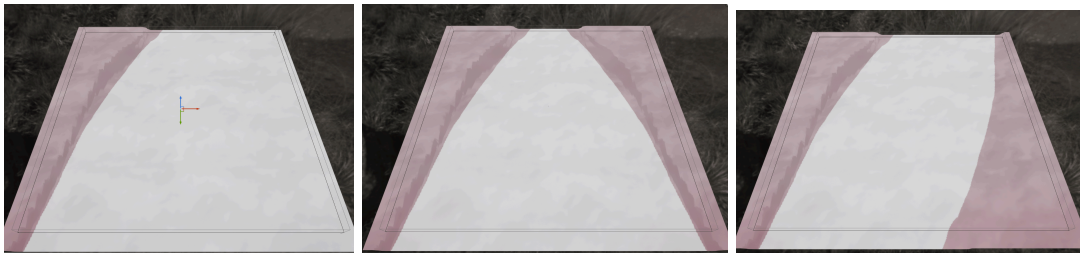


2. From the three menus at the top, pick Sculpt, then choose Mirror from the options below.



3. The Mirror Point is the axis of symmetry. You can set it by hand, but it usually works out the center of your landscape on its own, so the suggested value is fine to keep.
4. Operation sets the direction the mirror runs. You can mirror Top-to-Bottom, Left-to-Right, or use Rotational Symmetry.

The two images below show a Left-to-Right mirror before and after, plus the result of a rotation mirror.



Landscape Spline

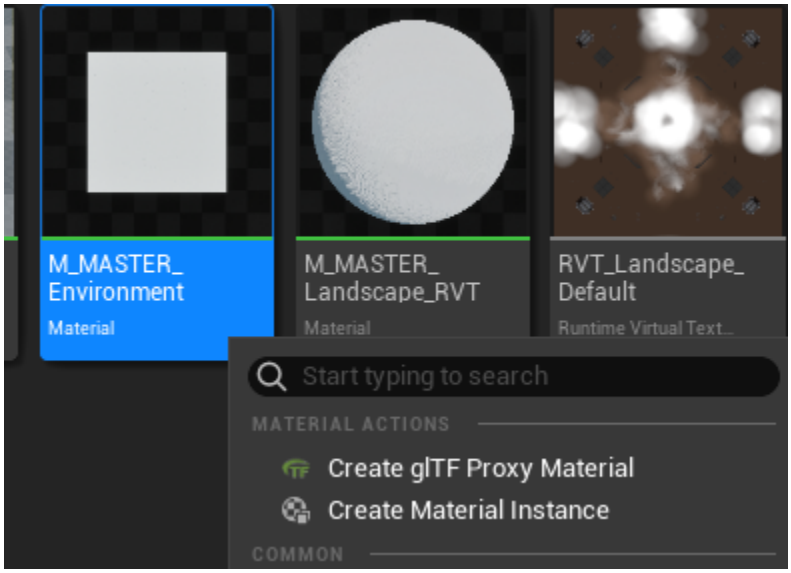
Landscape splines let you lay details like tire tracks and roads onto the landscape as splines. For the full rundown, see Epic's Official Unreal Engine Documentation.

Environment

Creating a Material for Environment Assets

The Environment material is meant for environmental assets like cliffs and rocks. It mostly covers the larger natural objects that aren't foliage and that mainly react to the in-game weather.

1. Go to `/All/Game/Tempest/MaterialLibrary/Environment` and select `M_MASTER_Environment`.
2. Right-click the asset and choose 'Create Material Instance'.



3. Move the new material instance into your own folder.

Applying Textures to the Environment Material Instance

Opening the material instance shows the environment asset's colors along with the Rain and Snow categories. Each category holds the parameters below.

Additional Texture VP Red	
Vertex Paint Red Additional Texture	**[Enable this to reveal the related parameters below in this category]** Toggles Vertex Color Red channel blending.
Use World Space Mapping	**[Enable this to reveal the related parameters below in this category]** (Enable Vertex Paint Red Additional Texture) Maps the texture assigned to Vertex Color Red in World Space instead of by UV.
VP Red Texture Size	(Enable Vertex Paint Red Additional Texture) (Enable Use World Space Mapping) The texture size when mapping in World Space.
VP Red Rotation Angle	(Enable Vertex Paint Red Additional Texture) (Enable Use World Space Mapping) The texture's rotation when mapping in World Space.
VP Red Triplanar Blend Contrast	(Enable Vertex Paint Red Additional Texture) (Enable Use World Space Mapping) Adjusts how sharply the projected X, Y, and Z textures blend together in World Space.
VP Red Texture Tile	(Enable Vertex Paint Red Additional Texture)

	(Disable Use World Space Mapping) The horizontal tiling of the Vertex Color Red texture when mapping by UV.
VP Red Albedo	(Enable Vertex Paint Red Additional Texture) The Vertex Color Red Base Color texture.
VP Red Use Height Map instead of Metalness	**[Enable this to reveal the related parameters below in this category]** (Enable Vertex Paint Red Additional Texture) Uses the green channel of the Vertex Color Red texture as a height map rather than as metallic.
VP Red Albedo Brightness	(Enable Vertex Paint Red Additional Texture) (Disable VP Red Use Height Map instead of Metalness) Controls the brightness of the Vertex Color Red Base Color texture. 0 is black, 1 leaves it unchanged, and higher values make it brighter.
VP Red Albedo Brightness Low	(Enable Vertex Paint Red Additional Texture) (Enable VP Red Use Height Map instead of Metalness) Sets how dark the dark areas of the Vertex Color Red Base Color texture come out.
VP Red Albedo Brightness High	(Enable Vertex Paint Red Additional Texture) (Enable VP Red Use Height Map instead of Metalness)

	Sets how bright the bright areas of the Vertex Color Red Base Color texture come out.
VP Red HeightMap Contrast	(Enable Vertex Paint Red Additional Texture) (Enable VP Red Use Height Map instead of Metalness) Adjusts the height-map contrast of the Vertex Color Red RHO texture.
VP Red Albedo Desaturation	(Enable Vertex Paint Red Additional Texture) Controls the desaturation of the Vertex Color Red Base Color texture. At 0 it's unchanged, at 1 it's fully grayscale, and the lower the value the more saturated it gets.
VP Red Albedo Tint	(Enable Vertex Paint Red Additional Texture) Multiplies a tint color over the Vertex Color Red Base Color texture.
VP Red RMO/RHO Mask	(Enable Vertex Paint Red Additional Texture) The Vertex Color Red RMO/RHO mask packs roughness into R, Metallic or Height into G, Ambient Occlusion into B, and Emissive into A. 'RMO' or 'RHO' just spells out which map sits in which channel, and in what order.
VP Red Roughness Min	(Enable Vertex Paint Red Additional Texture) Sets the minimum for the Mask map's Roughness channel.

	The closer to 1, the rougher the surface (less light reflection). Keep this lower than Roughness Max, the row below.
VP Red Roughness Max	(Enable Vertex Paint Red Additional Texture) Sets the maximum for the Mask map's Roughness channel. The closer to 0, the smoother the surface (more light reflection). Keep this higher than Roughness Min, the row above.
VP Red AO Power	(Enable Vertex Paint Red Additional Texture) Controls the contrast of the Mask map's Ambient Occlusion channel. 1 leaves it unchanged; the higher above 1, the more the baked-in shadows show through.
VP Red AO Multiplier	(Enable Vertex Paint Red Additional Texture) Controls the intensity of the Mask map's Ambient Occlusion channel. 0 is black, 1 leaves it unchanged, and the higher above 1, the more the baked-in shadows show through.
VP Red Normal Map	(Enable Vertex Paint Red Additional Texture) The Vertex Color Red Normal texture.
VP Red Normal Map Intensity	(Enable Vertex Paint Red Additional Texture)

	Controls the intensity of the Vertex Color Red Normal texture. 0 is flat, 1 leaves it unchanged, and higher values make the surface relief more pronounced.
VP Red Normal Map Override(0-1)	(Enable Vertex Paint Red Additional Texture) Sets how strongly the Vertex Color Red Normal texture overrides.
Base Parameters	
UV Tile	Texture tiling for the Base Parameters.
Albedo	Base Color texture.
Albedo Brightness	Controls the brightness of the Base Color texture. 0 is black, 1 leaves it unchanged, and higher values make it brighter.
Albedo Desaturation	Controls the desaturation of the Base Color texture. At 0 it's unchanged, at 1 it's fully grayscale, and the higher the value the more saturated it gets.
Albedo Tint	Multiplies a tint color over the Base Color texture.
Albedo AO	Controls the intensity of the Mask map's Ambient Occlusion channel. 0 is black, 1 leaves it unchanged, and the higher above 1, the more the baked-in shadows show through.
RMO(E) Mask	The RMO(E) mask packs roughness into R, Metallic into G, Ambient Occlusion into B, and Emissive into A. The name

	'RMO(E)' just spells out which map sits in which channel, and in what order.
AO Power	Controls the contrast of the Mask map's Ambient Occlusion channel. 1 leaves it unchanged; the higher above 1, the more the baked-in shadows show through.
Normal Map	Normal texture.
Normal Map Intensity	Controls the intensity of the Normal texture. 0 is flat, 1 leaves it unchanged, and higher values make the surface relief more pronounced.
Embers (Emissive)	
Embers (Emissive)	**[Enable this to reveal the related parameters below in this category]** Enable to use the Embers effect.
Use RMOE Mask Alpha Channel as Burning Mask	(Enable Embers (Emissive)) Uses the RMOE Mask's Alpha channel as the mask for the Embers (Emissive) effect.
Burning Mask	(Enable Embers (Emissive)) (Disable Use RMOE Mask Alpha Channel as Burning Mask) The Embers effect mask texture.
Embers Emissive Multiplier	(Enable Embers (Emissive)) Sets the emissive intensity of the Embers.

Burning Mask Tile	(Enable Embers (Emissive)) Tiling for the Embers effect mask texture.
Embers Temperature	(Enable Embers (Emissive)) The Embers color temperature.
Burning Mask Power	(Enable Embers (Emissive)) Adjusts the contrast of the Embers effect mask texture.
Burning Mask Multiplier	(Enable Embers (Emissive)) Adjusts the intensity of the Embers effect mask texture.
Embers Mask Power	(Enable Embers (Emissive)) Controls the contrast of the Mask map. 1 leaves it unchanged; the higher above 1, the more the baked-in shadows show through.
Embers Mask Multiplier	(Enable Embers (Emissive)) Controls the intensity of the Mask map. 0 is black, 1 leaves it unchanged, and the higher above 1, the more the baked-in shadows show through.
Embers Mask 1 Tile	(Enable Embers (Emissive)) Tiling for Embers mask texture 1.

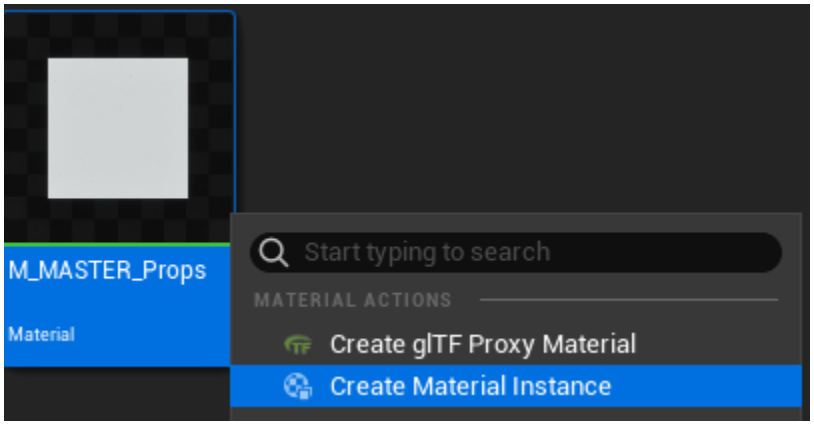
Embers Mask 1 Speed X	(Enable Embers (Emissive)) Sets the direction and speed of Embers mask texture 1 along the X axis.
Embers Mask 1 Speed Y	(Enable Embers (Emissive)) Sets the direction and speed of Embers mask texture 1 along the Y axis.
Embers Mask 2 Tile	(Enable Embers (Emissive)) Tiling for Embers mask texture 2.
Embers Mask 2 Speed X	(Enable Embers (Emissive)) Sets the direction and speed of Embers mask texture 2 along the X axis.
Embers Mask 2 Speed Y	(Enable Embers (Emissive)) Sets the direction and speed of Embers mask texture 2 along the Y axis.

Props

Creating a Material for Prop Assets

This material is for general props and buildings. Most of the time these are just background pieces, and it's widely used for anything that isn't a natural object.

1. Go to `/All/Game/Tempest/MaterialLibrary/Props` and select `M_MASTER_Props`.
2. Right-click the asset and choose 'Create Material Instance'.



3. Move the new material instance into your own folder.

Applying Textures to the Prop Material Instance

Opening the material instance shows the prop's colors, the Rain and Snow categories, and the Virtual Texturing category. The Prop material exposes a lot of parameters you may never touch, so assume that anything not described below is one you won't use. Each category holds the parameters below.

Parameter Groups	
Use WS UV instead	**[Enable this to reveal the related parameters below in this category]** Uses World Space coordinates instead of the object's own UV coordinates.
Texture Size	(Enable Use WS UV instead) The texture size when using World Space coordinates.

UV_U	(Disable Use WS UV instead) Horizontal tiling when using UV coordinates.
UV_Y	(Disable Use WS UV instead) Vertical tiling when using UV coordinates.
Albedo	Base Color texture.
Albedo Brightness	Controls the brightness of the Base Color texture. 0 is black, 1 leaves it unchanged, and higher values make it brighter.
Albedo Desaturation	Controls the desaturation of the Base Color texture. At 0 it's unchanged, at 1 it's fully grayscale, and the lower the value the more saturated it gets.
Albedo Tint	Multiplies a tint color over the Base Color texture.
RMO(E) Mask	The RMO(E) mask packs roughness into R, Metallic into G, Ambient Occlusion into B, and Emissive into A. The name 'RMO(E)' just spells out which map sits in which channel, and in what order.
Roughness Min	Sets the minimum for the Mask map's Roughness channel. The closer to 1, the rougher the surface (less light reflection). Keep this lower than Roughness Max, the row below.
Roughness Max	Sets the maximum for the Mask map's Roughness channel.

	The closer to 0, the smoother the surface (more light reflection). Keep this higher than Roughness Min, the row above.
Albedo AO	Multiplies the Ambient Occlusion from the Mask map's B channel over the Base Color texture.
Normal Map	Normal texture.
Normal Map Intensity	Controls the intensity of the Normal texture. 0 is flat, 1 leaves it unchanged, and higher values make the surface relief more pronounced.
Use Detail Normal Map	**[Enable this to reveal the related parameters below in this category]** Toggles a detail Normal map.
Detail Normal Map Tile	(Enable Use Detail Normal Map) Tiling for the Detail Normal Map.
Detail Normal Map	(Enable Use Detail Normal Map) The Detail Normal texture.
Use Emissive	**[Enable this to reveal the related parameters below in this category]** Toggles emissive.
Override Emissive Color	**[Enable this to reveal the related parameters below in this category]** (Enable Use Emissive)

	Toggles overriding the emissive color with a set color.
Albedo Desaturation for Emissive	(Enable Use Emissive) (Disable Override Emissive Color) Uses the Base Color in place of an emissive texture. At 0 it's unchanged; at 1 it's grayscale; positive values invert it and push saturation up; negative values push saturation up in the original color.
Emissive Color	(Enable Use Emissive) (Enable Override Emissive Color) Sets a single Emissive Color.
Use Emissive Map	**[Enable this to reveal the related parameters below in this category]** (Enable Use Emissive) Toggles a custom Emissive texture.
Emissive Map	(Enable Use Emissive) (Enable Use Emissive Map) The Emissive texture.
Emissive Power	(Enable Use Emissive) Emissive intensity.

Emissive Map Channel	(Enable Use Emissive) (Enable Use Emissive Map) When the Emissive texture carries a different mask in each channel, pick the one you want from R, G, B, or A.
Dither Opacity	Handles transparency with dithering when the Base Color map's Alpha channel holds an alpha image. (Opacity only kicks in after you switch the material instance's blend mode to Opacity or Opacity mask under the General category at the bottom of the Details panel.)
Dither Opacity Power	Adjusts the contrast of the Dither Opacity mask.
Dither Opacity Multiply	
RVT Multiply AO to Albedo	**[Enable this to reveal the related parameters below in this category]** Sets whether Ambient Occlusion bleeds into the Base Color when this mesh uses RVT.
RVT AO Multiplier	(Enable RVT Multiply AO to Albedo) Intensity of the RVT Ambient Occlusion.
Blend Texture (Red Verts / Mask)	
Blend Texture (Red Verts/Mask)	**[Enable this to reveal the related parameters below in this category]** Toggles Vertex Color Red channel blending.
Blend Textures Tile	(Enable Blend Texture (Red Verts/Mask)) UV tiling for the Vertex Color Red.

Albedo Blend	(Enable Blend Texture (Red Verts/Mask)) The Vertex Color Red Base Color texture.
Albedo Blend Desaturation	(Enable Blend Texture (Red Verts/Mask)) Controls the desaturation of the Vertex Color Red Base Color texture. At 0 it's unchanged, at 1 it's fully grayscale, and the higher the value the more saturated it gets.
Albedo Blend Brightness	(Enable Blend Texture (Red Verts/Mask)) Controls the brightness of the Vertex Color Red Base Color texture. 0 is black, 1 leaves it unchanged, and higher values make it brighter.
Albedo Blend Tint	(Enable Blend Texture (Red Verts/Mask)) Multiplies a tint color over the Vertex Color Red Base Color texture.
Albedo Blend Tint Amount	(Enable Blend Texture (Red Verts/Mask)) How strongly the tint color is multiplied over the Vertex Color Red Base Color.
RMO Mask Blend	(Enable Blend Texture (Red Verts/Mask)) The Vertex Color Red RMO mask packs roughness into R, Metallic into G, Ambient Occlusion into B, and Emissive into

	A. The name 'RMO' just spells out which map sits in which channel, and in what order.
Use Metalness	(Enable Blend Texture (Red Verts/Mask)) Sets whether the Green channel of the Vertex Color Red RMO mask is used as Metallic.
Normal Map Blend	(Enable Blend Texture (Red Verts/Mask)) The Vertex Color Red Normal texture.
Normal Map Blend Intensity	(Enable Blend Texture (Red Verts/Mask)) Controls the intensity of the Vertex Color Red Normal texture. 0 is flat, 1 leaves it unchanged, and higher values make the surface relief more pronounced.
Normal Map Blend Amount	(Enable Blend Texture (Red Verts/Mask)) Blends the Normal texture between the original and the Vertex Color Red version. 0 = no blend, 1 = fully blended.
Boat	
Boat Sway	**[Enable this to reveal the related parameters below in this category]** Animates a mesh like a boat so it rocks side to side.
Frequency X	(Enable Boat)

	Sets the frequency of the motion along the X axis.
Frequency Y	(Enable Boat) Sets the frequency of the motion along the Y axis.
Amplitude X	(Enable Boat) Sets the amplitude of the motion along the X axis.
Amplitude Y	(Enable Boat) Sets the amplitude of the motion along the Y axis.
Amplitude Z Multiplier	(Enable Boat) Sets how much the motion travels along the Z axis.
Color Mask	
Use Color Mask	**[Enable this to reveal the related parameters below in this category]** Toggles a custom color mask.
Use Separate RGB Channels for Color Mask	**[Enable this to reveal the related parameters below in this category]** (Use Color Mask) Toggles a mask that spreads three masks across the RGB channels.
Color Mask	(Use Color Mask)

	The Color Mask texture.
Base Albedo Brightness for Color Mask	(Use Color Mask) Sets the brightness of the colors used in the Color Mask. 0 is black, 1 leaves it unchanged, and higher values make it brighter.
Use Color Picker	**[Enable this to reveal the related parameters below in this category]** (Use Color Mask) (Disable Use Separate RGB Channels for Color Mask) Uses a predefined Color Picker texture instead of setting colors by hand each time.
Color Picker Texture	(Enable Use Color Mask) (Disable Use Separate RGB Channels for Color Mask) (Enable Use Color Picker) (Disable Automatic Color Pick) The Color Picker texture.
No of Columns	(Enable Use Color Mask) (Disable Use Separate RGB Channels for Color Mask) (Enable Use Color Picker) The number of columns in the Color Picker texture.
No of Rows	(Enable Use Color Mask)

	(Disable Use Separate RGB Channels for Color Mask) (Enable Use Color Picker) The number of rows in the Color Picker texture.
Column Index	(Enable Use Color Mask) (Disable Use Separate RGB Channels for Color Mask) (Enable Use Color Picker) (Disable Automatic Color Pick) Picks which column to use in the Color Picker texture.
Row Index	(Enable Use Color Mask) (Disable Use Separate RGB Channels for Color Mask) (Enable Use Color Picker) (Disable Automatic Color Pick) Picks which row to use in the Color Picker texture.
Automatic Color Pick	**[Enable this to reveal the related parameters below in this category]** (Enable Use Color Mask) (Disable Use Separate RGB Channels for Color Mask) (Enable Use Color Picker) Picks the Column and Row Index at random automatically.
Color Mask R Color	(Enable Use Color Mask) (Enable Use Separate RGB Channels for Color Mask)

	Sets the color of the R channel when using an RGB Color Mask.
Color Mask G Color	(Enable Use Color Mask) (Enable Use Separate RGB Channels for Color Mask) Sets the color of the G channel when using an RGB Color Mask.
Color Mask B Color	(Enable Use Color Mask) (Enable Use Separate RGB Channels for Color Mask) Sets the color of the B channel when using an RGB Color Mask.
Color Mask Color	(Enable Use Color Mask) (Disable Use Separate RGB Channels for Color Mask) Sets a single color for every emissive masking area when you're not using an RGB Color Mask.
Add Custom Normal Map	**[Enable this to reveal the related parameters below in this category]** (Enable Use Color Mask) Toggles a custom Normal texture that applies only to the Color Mask.
Normal Map for Color Mask	(Enable Use Color Mask) (Enable Add Custom Normal Map) The custom Normal texture for the Color Mask only.

Grunge UV	
Add Grunge (UV)	**[Enable this to reveal the related parameters below in this category]** Toggles a UV-based custom Grunge Map.
Grunge Triplanar Mapping	(Enable Add Grunge (UV)) Maps the custom Grunge Map in World Space instead of by UV.
Grunge Mask	(Enable Add Grunge (UV)) The custom Grunge texture.
Grunge Tex Power	(Enable Add Grunge (UV)) Adjusts the contrast of the custom Grunge texture.
Grunge Tile	(Enable Add Grunge (UV)) Tiling for the custom Grunge texture.
Grunge Amount	(Enable Add Grunge (UV)) Sets how much grunge the custom Grunge texture adds.
Add Position to UV	(Enable Add Grunge (UV)) (Disable Grunge Triplanar Mapping) Toggles shifting the Grunge texture's UV coordinates.
Position Threshold	(Enable Add Grunge (UV)) (Disable Grunge Triplanar Mapping)

	(Enable Add Position to UV) How far the Grunge texture's UVs shift.
Grunge Tex Multiplier	(Enable Add Grunge (UV)) Adjusts the grunge intensity of the custom Grunge texture.

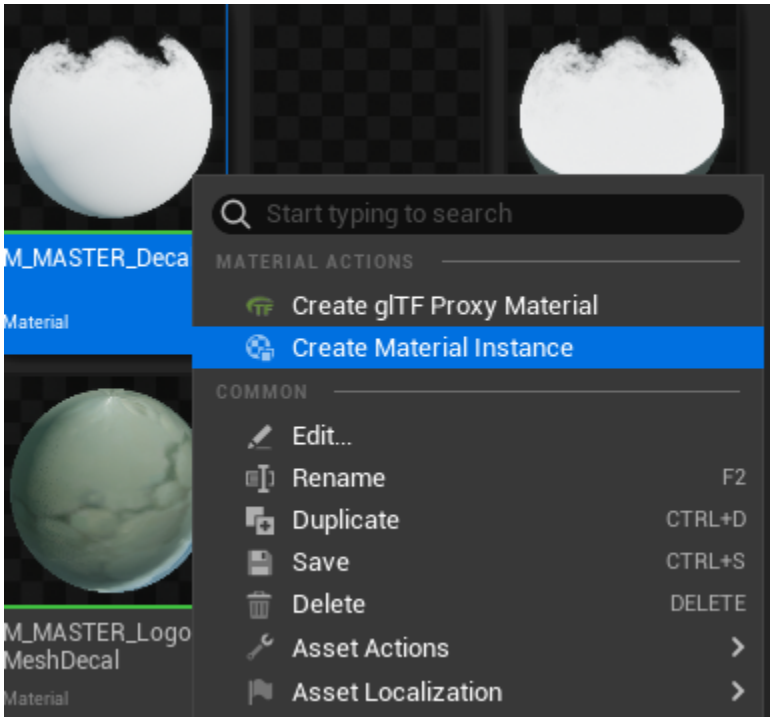
You normally won't need to touch Global Static Switch Parameter Values, Pickup Effect, Wetness (Alpha Verts), Windmill, Rain, or Snow. If you do want snow to build up in real time when the weather is set to Snow in `BP_DayAndNight`, enable Dynamic Snow in the Snow category.

Decal

Creating a Material for Decal Assets

For how the decal actor works and how to use it, it is recommended to read [Epic's Official Unreal Engine Documentation](#).

1. Go to `/All/Game/Tempest/MaterialLibrary/Decals` and select `M_MASTER_Decal`.
2. Right-click the asset and choose 'Create Material Instance'.



3. Move the new material instance into your own folder.

Applying Textures to the Decal Material Instance

When you open the material instance created above, you can see the colors of the Decal and the Rain and Snow categories. Each category consists of the following parameters.

Parameter Groups	
Texture Tile	Texture tiling for the Base Parameters, not counting the Opacity Mask map.
Albedo / Opacity	Base Color texture. (With Use Opacity Mask off, the Alpha channel of this Base Color is used as the alpha instead.)

Albedo Desaturation	Controls the desaturation of the Base Color texture. At 0 it's unchanged, at 1 it's fully grayscale, and the higher the value the more saturated it gets.
Albedo Tint Color / Tint Amount	Multiplies a tint color over the Base Color texture.
HeightMap for Albedo Brightness	**[Enable this to reveal the related parameters below in this category]** (Enable Metalness instead of height) Uses the HeightMap to drive the Albedo's Brightness. Instead of the whole texture brightening or darkening evenly, brightness can be tuned in more detail by the HeightMap.
Albedo Brightness Low	(Enable HeightMap for Albedo Brightness) Sets how dark the dark areas of the HeightMap come out.
Albedo Brightness High	(Enable HeightMap for Albedo Brightness) Sets how bright the bright areas of the HeightMap come out.
HeightMap Contrast	(Enable HeightMap for Albedo Brightness) Adjusts the HeightMap contrast.
Albedo Brightness	(Disable HeightMap for Albedo Brightness) Controls the brightness of the Base Color texture.

	0 is black, 1 leaves it unchanged, and higher values make it brighter.
Albedo AO Blend	Multiplies the Ambient Occlusion from the Mask map's B channel over the Base Color texture.
RHO / RMO(E) Mask	The RHO/RMO(E) mask packs roughness into R, height or Metallic into G, Ambient Occlusion into B, and Emissive into A. 'RHO' or 'RMO(E)' just spells out which map sits in which channel, and in what order.
Metalness instead of height	**[Enable this to reveal the related parameters below in this category]** Enable to use RHO instead of the RMO texture.
Roughness Min	Sets the minimum for the Mask map's Roughness channel. The closer to 1, the rougher the surface (less light reflection). Keep this lower than Roughness Max, the row below.
Roughness Max	Sets the maximum for the Mask map's Roughness channel. The closer to 0, the smoother the surface (more light reflection). Keep this higher than Roughness Min, the row above.
AO Power	Controls the contrast of the Mask map's Ambient Occlusion channel. 1 leaves it unchanged; the higher above 1, the more the baked-in shadows show through.
AO Multiplier	Controls the intensity of the Mask map's Ambient Occlusion channel. 0 is black, 1 leaves it unchanged, and the higher above 1, the more the baked-in shadows show through.

Normal Map	Normal texture.
NormalMap Intensity	Controls the intensity of the Normal texture. 0 is flat, 1 leaves it unchanged, and higher values make the surface relief more pronounced.
Use Opacity Mask	**[Enable this to reveal the related parameters below in this category]** Enable to use an Opacity Mask map.
Opacity Mask	(Enable Opacity Mask) The texture to use as the Opacity Mask.
Opacity Mask Channel	(Enable Opacity Mask) Pick the Red, Blue, Green, or Alpha channel of the texture above to use as the mask.
Use Radial Mask	Enable to use a Radial Mask.
Radial Mask Radius	(Enable Use Radial Mask) Sets the Radial Mask's radius. At 0 it's fully masked; larger values widen the mask.
Radial Mask Hardness	(Enable Use Radial Mask) Sets how hard the Radial Mask edge is. 0 is blurred, 1 is fully hard.
Use Decal Lifetime Opacity	For VFX use.
Decal Opacity	Sets the Decal's overall opacity.

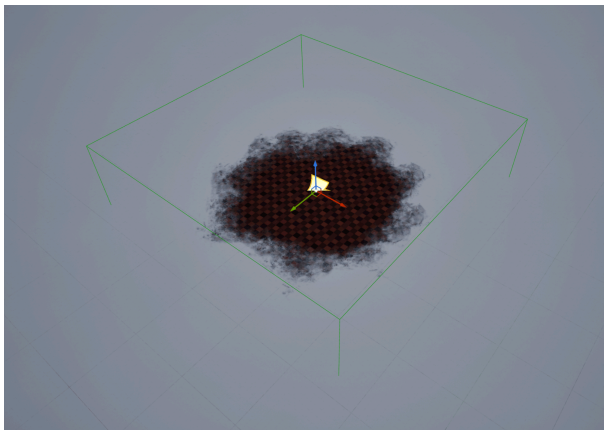
Embers (Emissive)	
Embers (Emissive)	**[Enable this to reveal the related parameters below in this category]** Enable to use the Embers effect.
Embers Emissive Multiplier	(Enable Embers (Emissive)) Sets the emissive intensity of the Embers.
Embers Temperature/Color	(Enable Embers (Emissive)) Sets whether the Embers color is driven by temperature or by color.
Embers Temperature	(Enable Embers (Emissive)) (Enable Embers Temperature/Color) The Embers color temperature.
Embers Color	(Enable Embers (Emissive)) (Disable Embers Temperature/Color) Sets the Embers color by hand.
Embers Mask Power	(Enable Embers (Emissive)) Controls the contrast of the Mask map. 1 leaves it unchanged; the higher above 1, the more the baked-in shadows show through.
Embers Mask Multiplier	(Enable Embers (Emissive)) Controls the intensity of the Mask map.

	0 is black, 1 leaves it unchanged, and the higher above 1, the more the baked-in shadows show through.
Embers Mask 1 Tile	(Enable Embers (Emissive)) Tiling for Embers mask texture 1.
Embers Mask 1 Speed X/Y	(Enable Embers (Emissive)) Sets the direction and speed of Embers mask texture 1.
Embers Mask 2 Tile	(Enable Embers (Emissive)) Tiling for Embers mask texture 2.
Embers Mask 2 Speed X/Y	(Enable Embers (Emissive)) Sets the direction and speed of Embers mask texture 2.
Embers Blinking	(Enable Embers (Emissive)) Enable to use the Embers Blinking effect.
Embers Blinking Mask Tile	(Enable Embers (Emissive)) (Enable Embers Blinking) Tiling for the Embers Blinking effect mask texture.
Embers Blinking Speed	(Enable Embers (Emissive)) (Enable Embers Blinking) The repeat speed of the Embers Blinking effect.
Embers Blinking Mask Contrast	(Enable Embers (Emissive))

	(Enable Embers Blinking) Adjusts the contrast of the Embers Blinking effect mask texture.
Embers Fade InOut Power	(Enable Embers (Emissive)) Sets how strong the Embers Blinking fade in/out is.

You normally won't need to touch the Rain and Snow values. If you do want snow to build up in real time when the weather is set to Snow in `BP_DayAndNight`, enable Dynamic Snow in the Snow category.

Using the Decal Material Instance



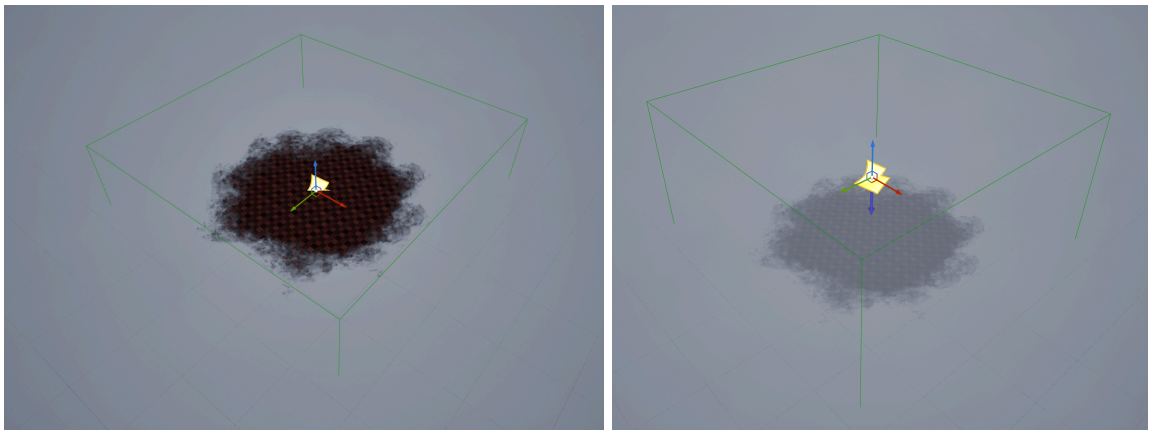
Drag the configured Decal material from the Content Browser onto the open level and the decal appears along with its projection box. Decals are a great way to add detail to a level fast, but they need a careful hand. See the table and warnings below:

Decal	
Decal Material	The Decal Material the selected Decal Actor is currently using.
Sort Order	Draw order of the Decal actor. Higher values draw on top.
Rendering	

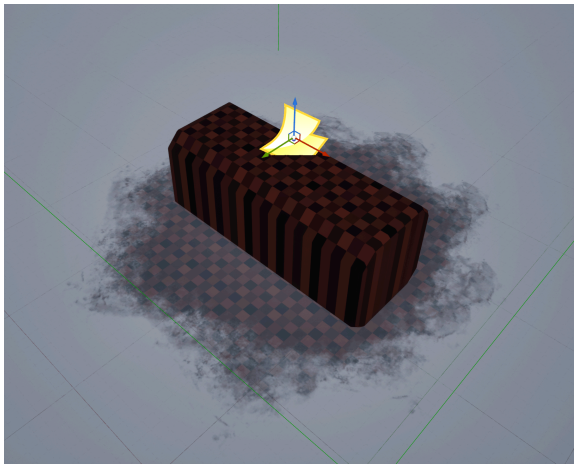
Visible	Sets whether the selected Decal Actor is hidden in the level.
Actor Hidden In Game	Shows the selected Decal Actor in the editor only and hides it in-game.
Editor Bilboard Scale	Sets the size of the icon that marks the selected Decal Actor in the level.

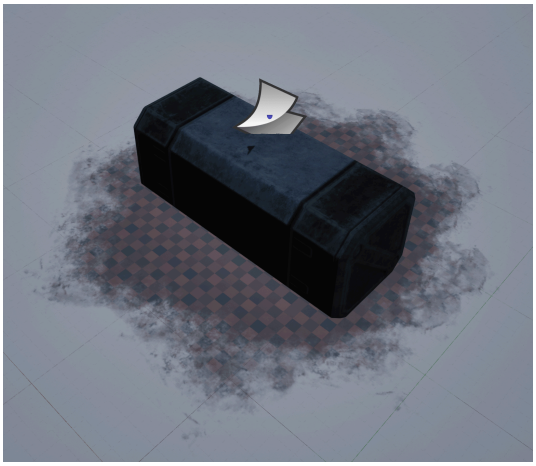
- Projecting a decal over too large an area can hurt performance.
- Too many decal actors on screen at once can hurt performance.
- Decal actors that overlap too heavily can hurt performance.

The Decal material has a parameter for transparency, but since it's built for permanent transparency, it's better to leave it alone and instead select the actor and adjust its distance from the landscape to control transparency.



To keep a specific object out of decal projection, select it, find Rendering - Advanced - Receives Decals in the Details panel, and turn it off.



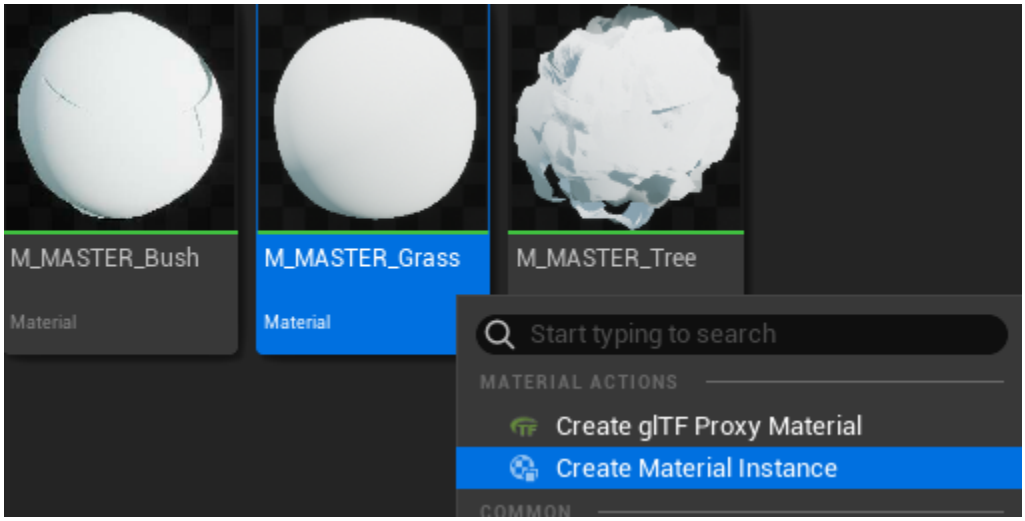


Foliage

Creating a Material for Foliage Assets

Tempest Rising ships three different Foliage master materials.

1. Go to `/All/Game/Tempest/MaterialLibrary/Foliage` and pick one of `M_MASTER_Bush`, `M_Master_Grass`, or `M_Master_Tree`. Their parameters are nearly identical; what sets them apart is how they handle collision with vehicle units.
2. Right-click the asset and choose 'Create Material Instance'.



3. Move the new material instance into your own folder.

Applying Textures to the Bush and Grass Material Instance

Opening the material instance shows the Bush and Grass colors, the Snow category, and the Wind category. Each category holds the parameters below.

Parameter Groups	
Albedo / Opacity Mask	Base Color texture. (With Use Opacity Mask off, the Alpha channel of this Base Color is used as the alpha instead.)
Color Variation	Sets how strongly the Base Color varies at random.
Override Albedo Colors (by red verts)	(Grass material instances only) Builds a gradient between two colors from the Vertex Color Red channel and multiplies it over the texture.

Color Bottom / Brightness in A	(Grass material instances only) (Enable Override Albedo Colors (by red verts)) Handles the bottom (the dark part) of the gradient.
ColorTop / Brightness in A	(Grass material instances only) (Enable Override Albedo Colors (by red verts)) Handles the top (the bright part) of the gradient.
Albedo Brightness	Controls the brightness of the Base Color texture. 0 is black, 1 leaves it unchanged, and higher values make it brighter.
Albedo Desaturation	Controls the desaturation of the Base Color texture. At 0 it's unchanged, at 1 it's fully grayscale, and the higher the value the more saturated it gets.
Albedo Tint Color	Multiplies a tint color over the Base Color texture.
RSO Mask	The RSO mask packs roughness into R, SSS (Sub Surface Scattering) into G, and Ambient Occlusion into B. The name 'RSO' just spells out which map sits in which channel, and in what order.
Roughness Min	Sets the minimum for the Mask map's Roughness channel. The closer to 1, the rougher the surface (less light reflection). Keep this lower than Roughness Max, the row below.
Roughness Max	Sets the maximum for the Mask map's Roughness channel.

	The closer to 0, the smoother the surface (more light reflection).
SSS	Sets the intensity of the Mask map's SSS channel. Higher values let more light through, brightening it.
Albedo AO	Multiplies the Ambient Occlusion from the Mask map's B channel over the Base Color texture.
Vertex Paint AO	**[Enable this to reveal the related parameters below in this category]** Enable to add Ambient Occlusion through Vertex Paint.
Vertex Color Switch	(Enable Vertex Paint AO) Best left on the default Blue, and you should paint on the Blue channel when using this. Other channels can give unexpected results.
Vertex AO Power	(Enable Vertex Paint AO) Adjusts the contrast of the area you vertex-painted for the Vertex AO feature. 1 leaves it unchanged; the higher above 1, the more the baked-in shadows show through.
Vertex AO Multiplier	(Enable Vertex Paint AO) Adjusts the intensity of the area you vertex-painted for the Vertex AO feature. 0 is black, 1 leaves it unchanged, and the higher above 1, the more the baked-in shadows show through.

Normal Map	Normal texture.
Normal Intensity	Controls the intensity of the Normal texture. 0 is flat, 1 leaves it unchanged, and higher values make the surface relief more pronounced.
Wind	
Wind	**[Enable this to reveal the related parameters below in this category]** Enable this to let `BP_DayAndNight`'s wind affect the asset (best left on by default).
Wind Leaves Tile	(Enable Wind) Adjusts the tiling of the Wind texture.
Wind Leaves Speed	(Enable Wind) Adjusts how fast the Wind texture moves.
Wind Intensity	(Enable Wind) Adjusts the strength of the Wind texture.
Bush Flexibility	(Enable Wind) Sets how flexible the Bush is.
Bush Elasticity	(Enable Wind) Sets how elastic the Bush is.

You normally won't need to touch Snow. If you do want snow to build up in real time when the weather is set to Snow in `BP_DayAndNight`, enable Dynamic Snow in the Snow category.

Applying Textures to the Tree Material Instance

The Tree material's parameters differ from the bush and grass ones, so it gets its own section. Anything it shares with bush or grass is left out here, so for those parameters, see 'Applying textures to the Bush and grass material instance'. Opening the material instance shows the tree's colors, the Snow category, and the Wind category. Each category holds the parameters below.

Wind	
Wind	**[Enable this to reveal the related parameters below in this category]** Enable this to let `BP_DayAndNight`'s wind affect the asset (best left on by default).
Is Palm	(Enable Wind) Marks whether the tree this material is on is a palm-type tree.
Tree Flexibility	(Enable Wind) Sets how flexible the Tree is.
Branches Flexibility	(Enable Wind) Sets how flexible the Branches are.
Tree Elasticity	(Enable Wind) Sets how elastic the Tree is.
Branches Flexibility (Additional nonPalm)	(Enable Wind) (Disable Is Palm)

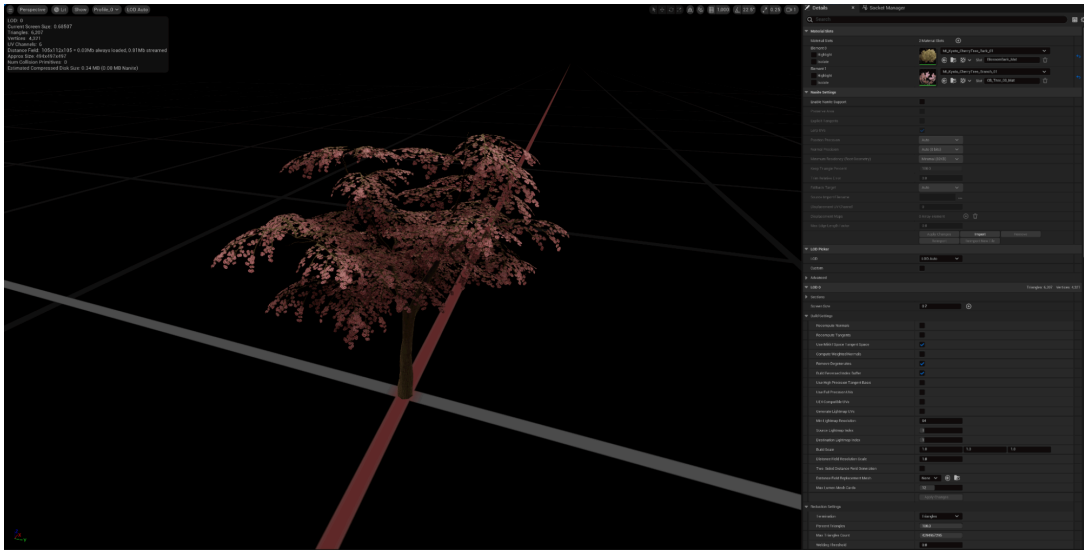
	An extra flexibility adjustment applied to each branch when this material is on a non-palm tree.
Leaves Flexibility	(Enable Wind) Sets how flexible the Leaves are.
Can Be Run Over	(Enable Wind) Sets whether the foliage actor this material is on can be run over by vehicles or buildings.
Run Over Max Angle	(Enable Wind) (Enable Can Be Run Over) The maximum angle when run over.

Dissolve and Snow normally do not need their values modified. In addition, Parachute On Tree is not a set of parameters used for trees, so it is best to ignore it entirely. However, if you want snow to accumulate in real time when the weather is set to Snow in `BP_DayAndNight`, enable the Dynamic Snow parameter in the Snow category.

Static Mesh Setup for Custom Foliage

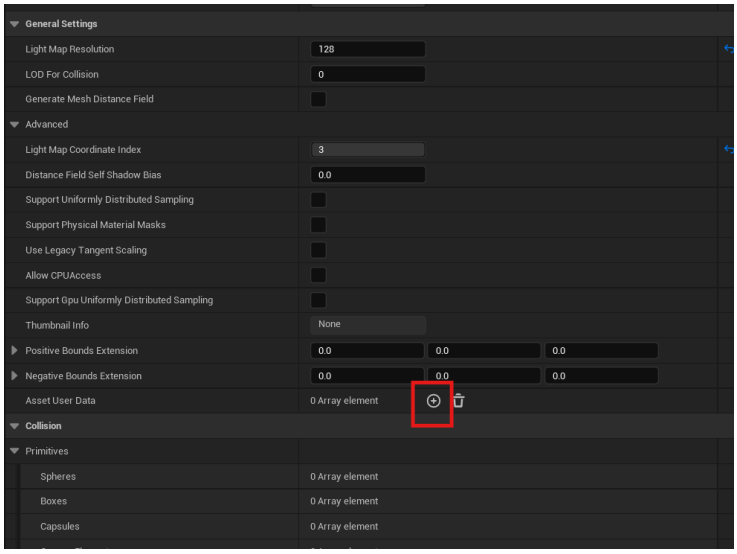
If you've decided to import your own foliage, follow the steps below. They're required so that freshly imported foliage can collide with vehicles and buildings. Skip them and you'll get gameplay bugs.

1. In the Content Browser, double-click the static mesh you just imported to open the Static Mesh Editor.

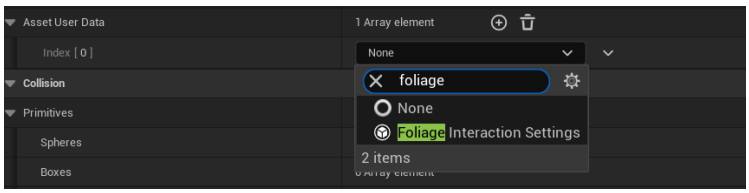


2. In the Details panel on the right, find Asset User Data under General Settings.

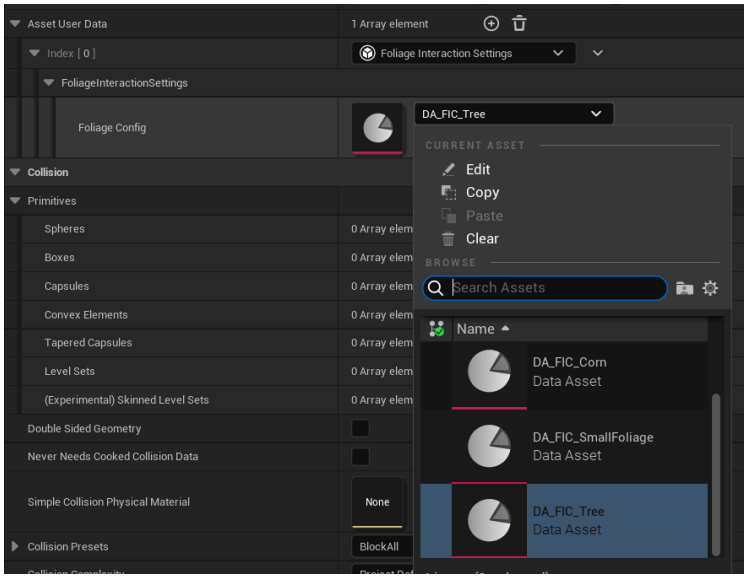
3. Click the plus icon to add user data.



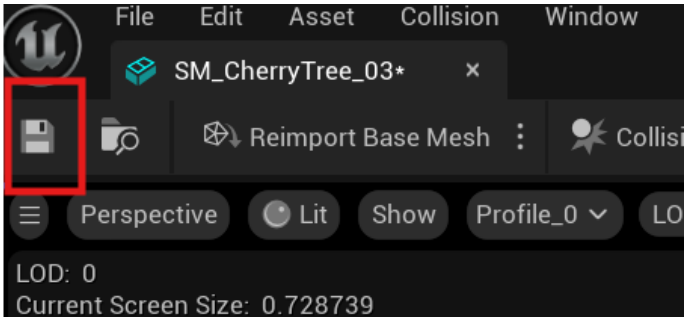
4. Add Foliage Interaction Settings to the Index[0] that appears at the bottom.



5. Expand the FoliageInteractionSettings tab that appears, then under Foliage Config pick the entry that fits your foliage best: DA_FIC_Bush, DA_FIC_SmallFoliage, or DA_FIC_Tree.

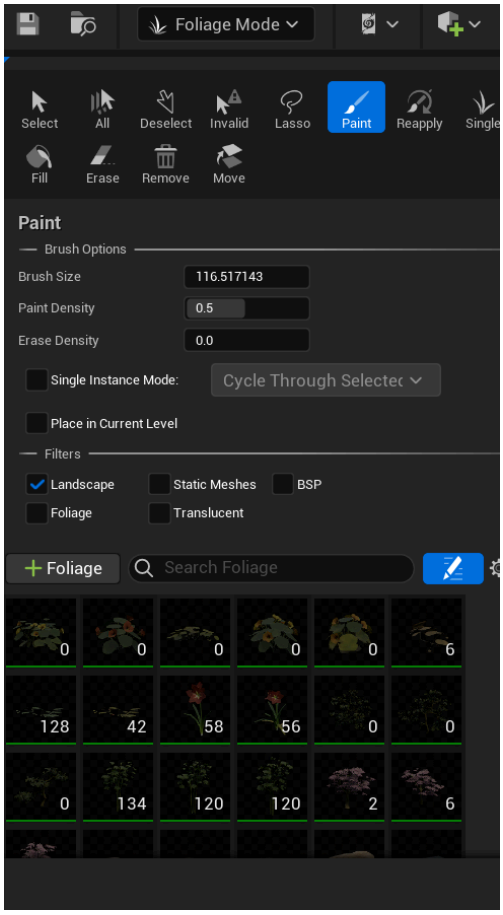


6. Click the save button at the top left of the Static Mesh Editor.



How to Plant Foliage

For the basics of Foliage mode ,it is recommended to read [Epic's official Unreal Engine documentation].



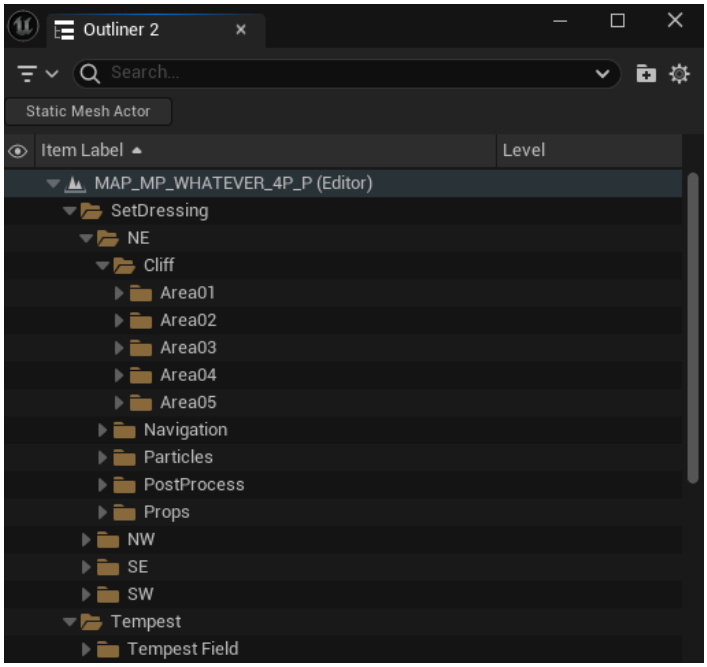
If you want to place several foliage types at once while keeping them from overlapping, enable Single Instance Mode and then select Cycle Through Selected. When using Single Instance Mode, we recommend clicking Single rather than Paint to place your foliage. This gives you a much more natural placement that's also a little easier on performance. Using the brush is much easier, but you're likely to end up placing a bit more foliage than you actually need.

The official documentation covers this too, but Reapply is incredibly handy when you need to tweak a large batch of foliage you've already placed. Getting comfortable with how it works will save you a lot of time.

Setdressing

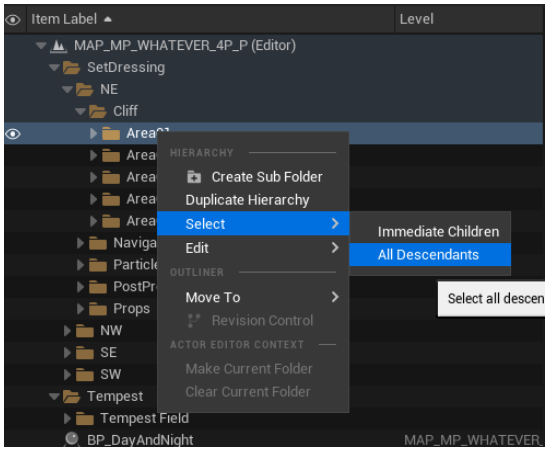
Folder

If you're planning for multiplayer, splitting things into folders in the 'Outliner' helps. It's especially handy on symmetrical levels, where you'll copy and paste a lot, since organizing assets into folders makes them easier to select.



Selecting Actors in the Outliner

It's easy to assume that selecting a parent folder also selects everything inside it, but it doesn't. Select 'folder1', copy, and paste, and all you get is the single 'folder 1', not the actors within it. To grab everything inside a folder at once, right-click it and choose 'All Descendants'.



Collision

For collision to work across the whole level, the `TedNavPylon` setup is a must. See the **Map Editor Manual** under “Navigation” and “Navmesh Islands” for more information.

Modifying the collider shape

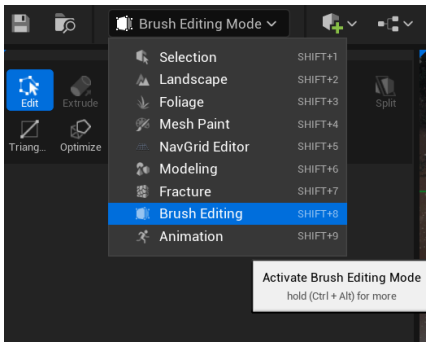
Each collider should be shaped to block collisions well while staying as simple as possible, so it doesn't tax performance. They also need enough clearance that collision bodies don't clip into one another, so avoid snapping colliders flush against objects.

NavModifierVolume comes with its own basic Primitive shapes. To switch the shape:

1. Select the NavModifierVolume you want to change.
2. In the Details panel, find the Brush settings category and adjust the Brush Shape parameter.
3. CubeBuilder (Box) or Cylinder Builder is the way to go. Every collision in Tempest Rising was built from these two shapes.

If you need something more complex than NavModifierVolume's basic shapes, or you want to move vertices, you'll have to enter Brush Editing Mode and shape it yourself. To reshape it:

1. Switch the editor mode at the top left to Brush Editing, or press **SHIFT + 8** to enter Brush Editing Mode.



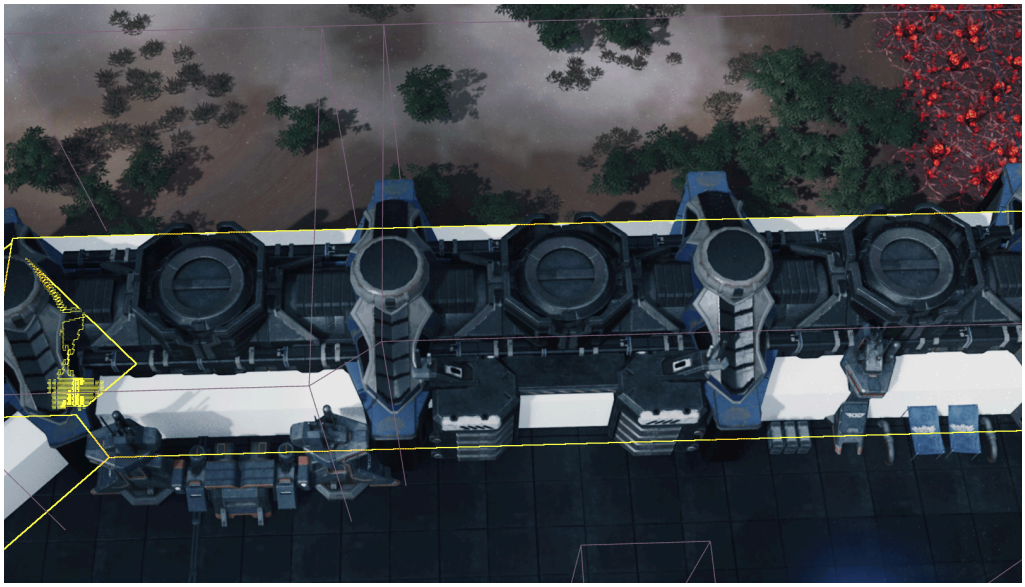
2. Select the NavModifierVolume you want to reshape, then click Edit to start.
3. Selecting a polygon instead of a vertex activates the Extrude button, which lets you build a bit more detail.

Caution:

- Before building the navmesh, double-check that the collider actually intersects the Landscape. Build it while the collider isn't touching the landscape and it may not register.
- Set every set-dressing static mesh's collision to 'No Collision'. To change a static mesh's collision:
    - Select the mesh and find the 'Collision' category in the Details panel.
    - Find 'Collision Presets' and switch it to 'NoCollision'.

- Now and then, objects tucked below the landscape cause unexpected collision bugs. To cut down on collision errors, turn off the 'Can ever affect navigation' parameter. To do that:
    - Select the mesh and find the 'Navigation' category in the Details panel.
    - Open the Advanced tab, and if 'Can ever affect navigation' is on, turn it off.

Static Mesh as a Collider



In Tempest Rising, static meshes are used as colliders near some high walls. When you set a static mesh as a Landscape-type collider, it counts as part of the landscape during collision calculation, which helps build navigation so air units glide over high walls without clipping. To set this up:

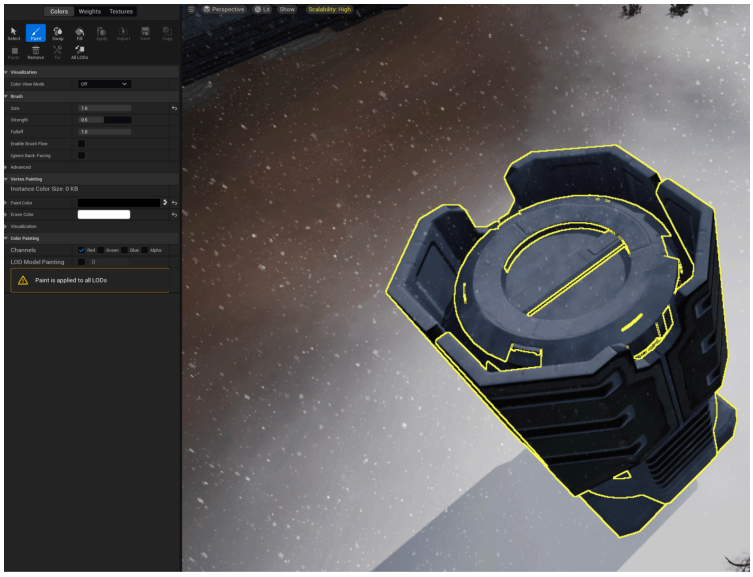
1. Place the static mesh in the level.
2. Select it and find the Collision category in the Details panel.
3. Set the Collision Presets parameter in the Collision category to Landscape.
4. Once all your colliders are set, rebuild the navigation.

Vertex Color

You can tweak the Red, Green, and Blue channel values on each of a static mesh's vertices to add a bit more variety to its detail. Vertex paint is done by hand: click Mesh Paint in the mode menu at the top left, or press **SHIFT + 4** in the viewport to enter Mesh Paint Mode.

Each channel controls the following. For more on vertex color, see Epic's Official Unreal Engine Documentation.

- Red: blends with the Red-channel texture set assigned to the material.
- Green: blends the landscape with the RVT texture.
- Blue: snow mask.



Red

- The red channel lets you blend with the texture in that material's Vertex Red channel. Some materials don't allow a texture set in Vertex Red, and on those the Red channel makes no visible difference.
- It's typically used with the Prop or Environment master material, for adding things like moss or dirt on top of a rock.

Green

- The green channel helps that static mesh blend with the landscape, and can adjust the transparency of static meshes projected onto the landscape.

Blue

- The blue channel erases Snow on that static mesh. Note that it erases what's already painted rather than painting it on by hand.

Press the x key to swap quickly between the paint color and the eraser color. And for cleaner results, rather than turning on every channel's checkbox at once, enable only the channel you want before painting.

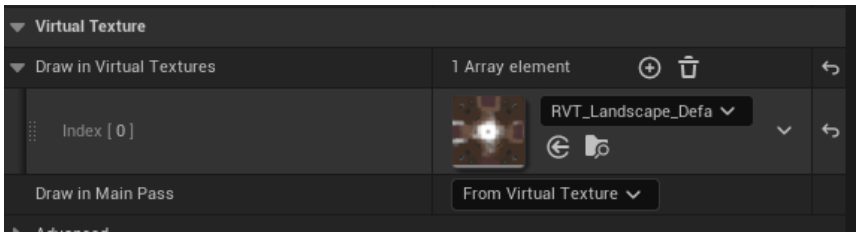
Runtime Virtual Texture (RVT)

Runtime Virtual Texture (RVT) helps static mesh actors blend naturally into the landscape. As covered in the Vertex Color section above, the blending is done through the Green channel, and there's some setup you have to get through before you can use it.

1. Select the static mesh actor you want to blend.

2. In the Details panel, find Draw in Virtual Textures under the Virtual Texture category.

3. Click the plus icon to add an array element, then assign the `RVT_Landscape_Default texture` from `/All/Game/Tempest/MaterialLibrary/Environment` to the index[0] that appears.



4. Place the static mesh below the landscape, then with it still selected, enter Mesh Paint Mode, enable only the Green channel, and paint on the static mesh actor.

It helps to think of RVT as 'stamping' a particular detail onto the ground. Because of that, faces perpendicular to the landscape have very little area to print onto, so a lot of detail can come out looking awkward there. You're better off using the broad, flat faces of the mesh.

Also, painting the back faces of an object can sometimes print the mesh's back side onto the landscape, so when you're RVT painting, it's best to paint only the parts of the mesh you actually want to show.