



ABANDONED MANOR RUINS IN A DARK WOOD

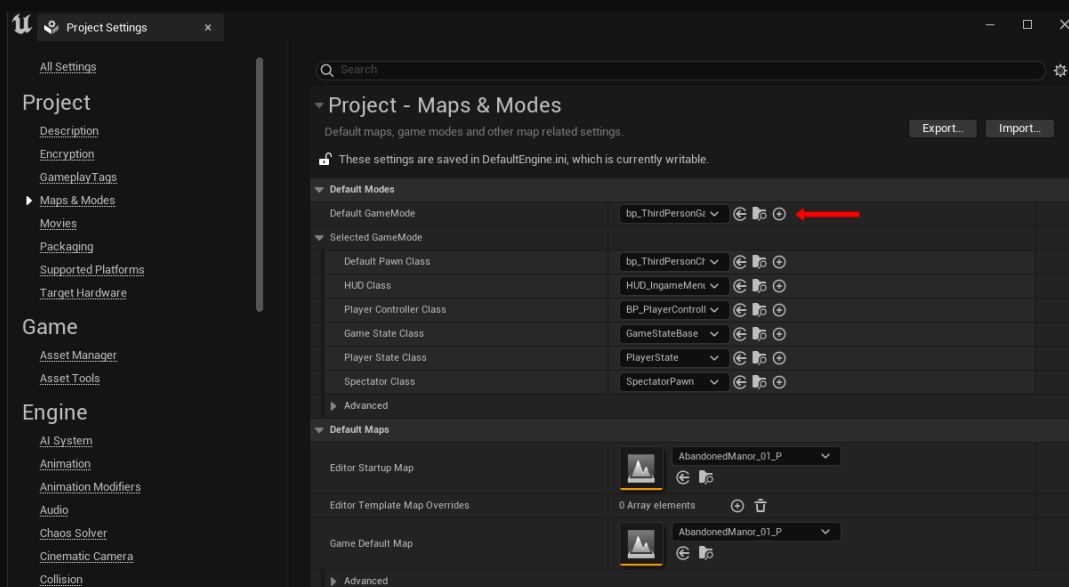
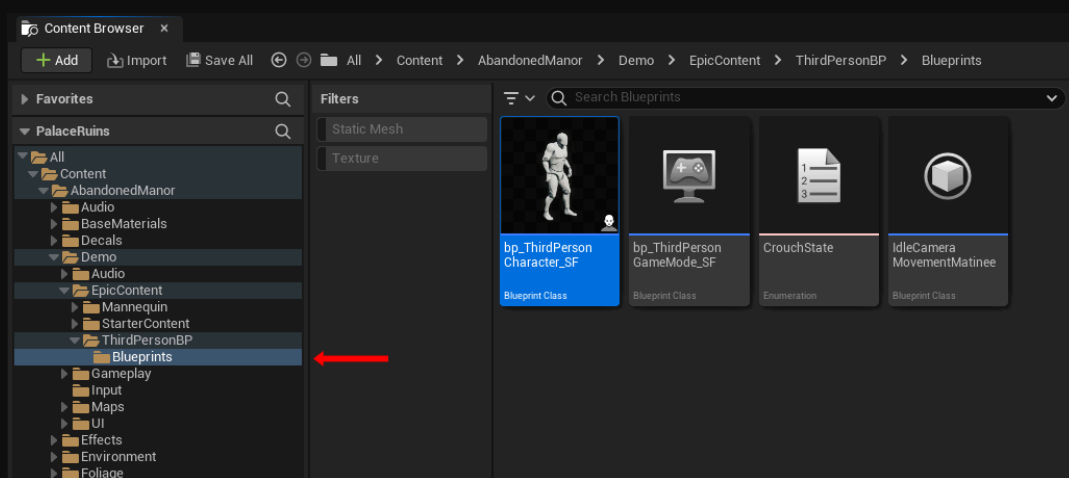
DOCUMENTATION



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First Steps - movement impossible

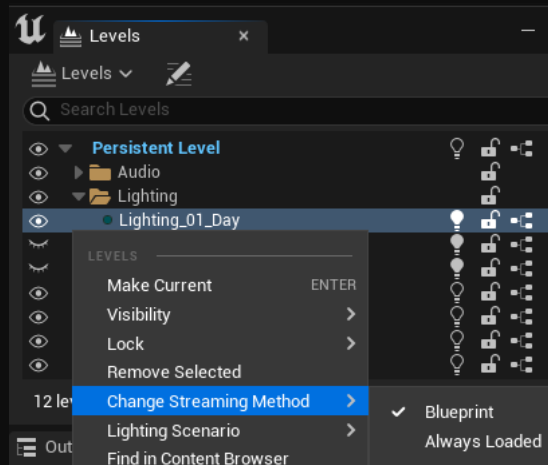
The pack is based on a modified **Third Person template**, after adding it to your project you need to change **Default GameMode** in **Project Settings** to our **bp_ThirdPersonGameMode_SF**



If you add a pack to **Blank project** you should definite Engine input or import it, simply download it from our drive - [Scans Factory input](#)

Switching between lighting scenarios

The package includes several lighting scenarios. You can load the one you want to work on from the **Levels window**. Remember to have only one lighting scenario active at a time. To enter Game Mode with the selected scenario loaded, ensure its streaming method is set to 'Always Loaded.' Set the streaming method of the remaining scenarios to 'Blueprint.'



First Steps - keys

Additional keys in Play mode:

C - FPP/TPP view

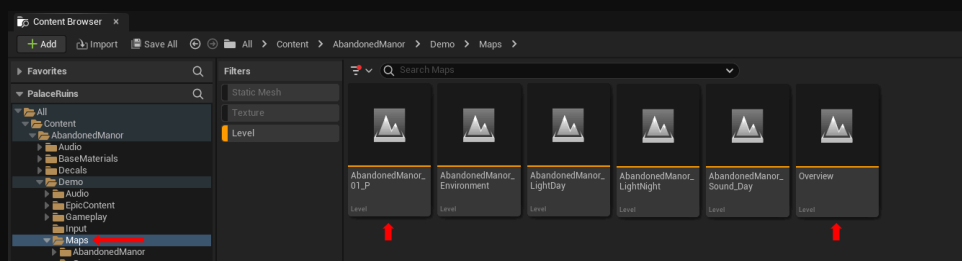
Mouse Scroll - zoom out in TPP view

F - flashlight in FPP

B - show FPS

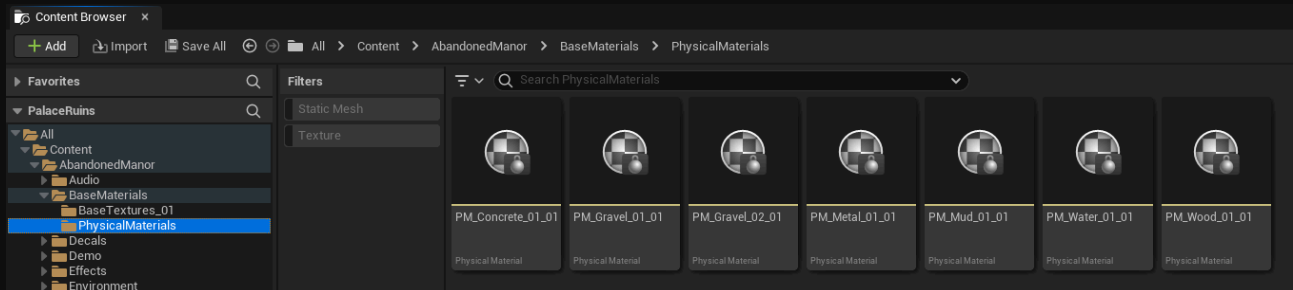
5 - LOW graphic settings

The name of the demo scene is **AbandonedManor_01_P** and all content is present on the overview map: **Overview**

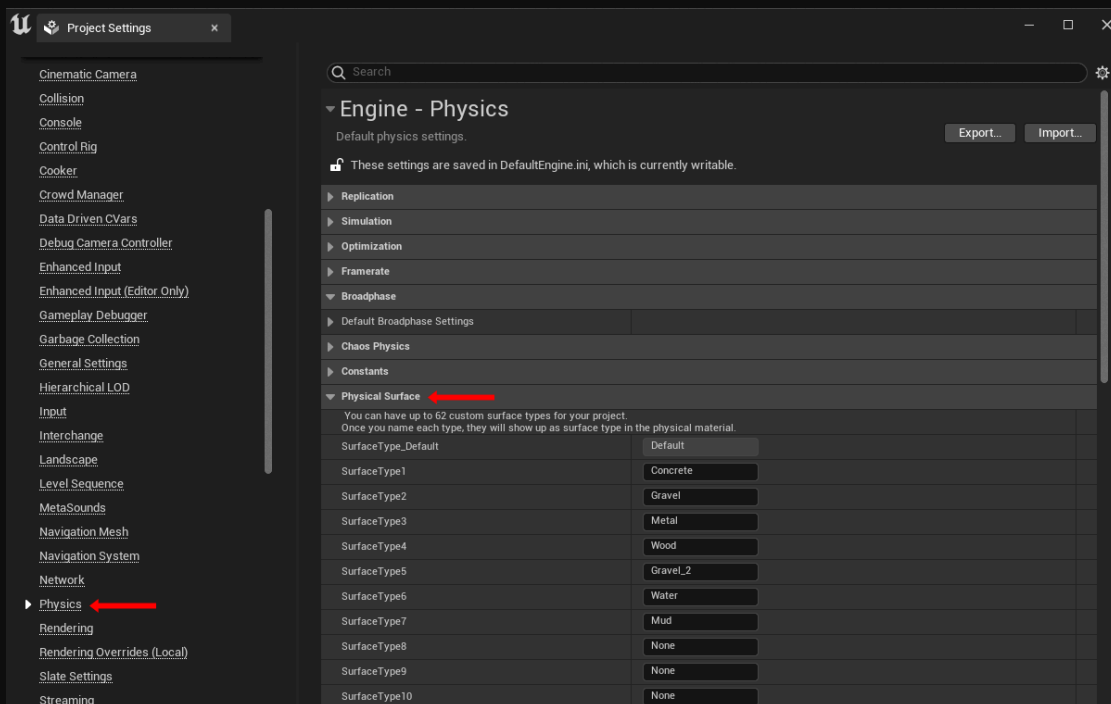


First Steps - footsteps warning

We defined four **Physical Surfaces**: Concrete, Gravels, Metal, Mud, Water and Wood.



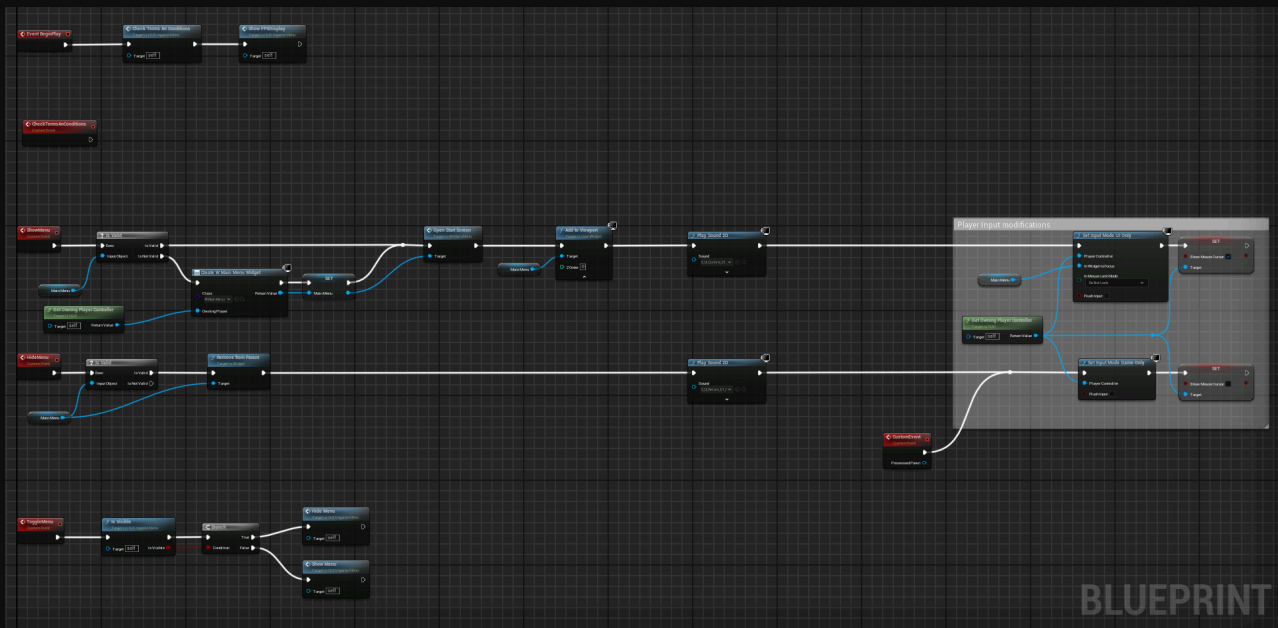
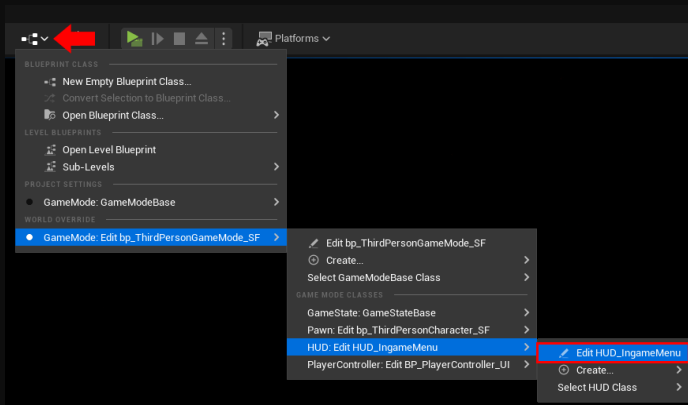
Our pawn has footstep sounds implemented for these surfaces. For proper operation and compilation, it must be defined in Project Settings, or simply download it and import it from our drive - [Scans Factory Physics](#)



Disable HUD Menu (startup fade & rendering problems)

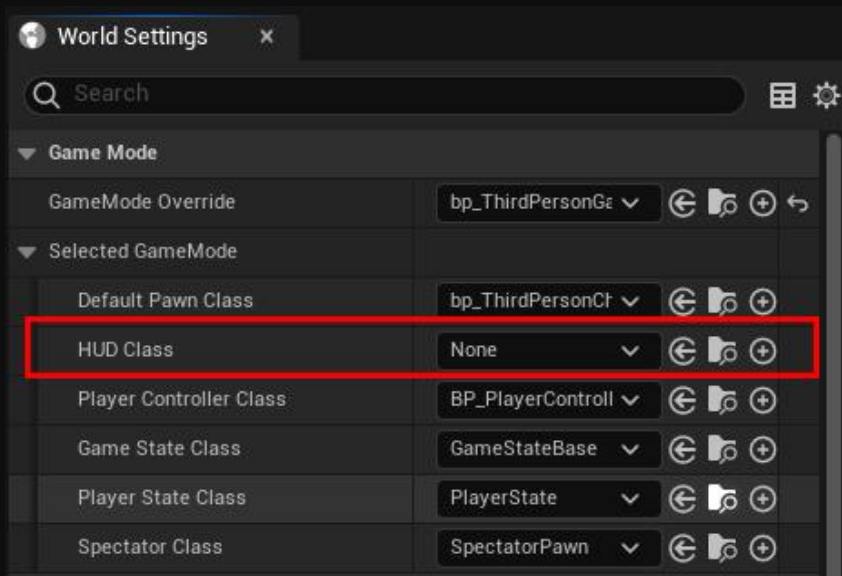
We have included a user interface menu & fade board when GameMode is launched. All files related to the menu are located in this directory: `\Content\ProjectName\Demo\UI`

If you want to edit default menu, go to *HUD_IngameMenu* settings:



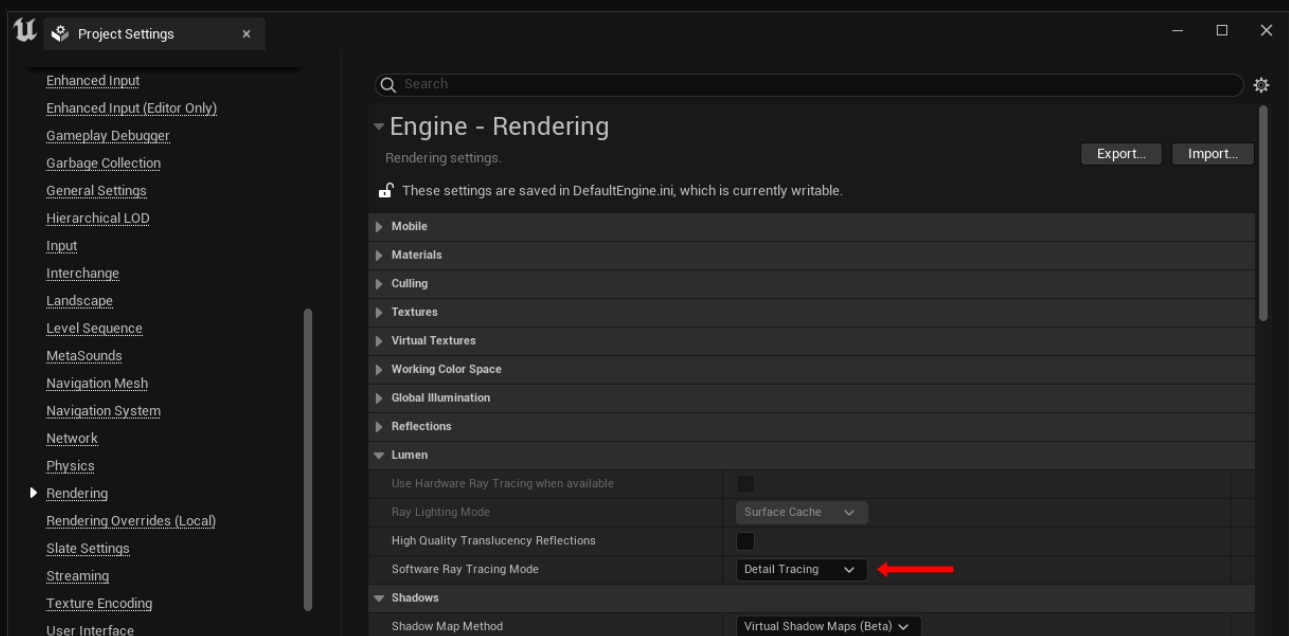
If you simply don't need our menu in your project and want to disable it, go to:

World Settings > Game Mode > Selected GameMode and set HUD Class to "none":



First Steps - shadows improvement

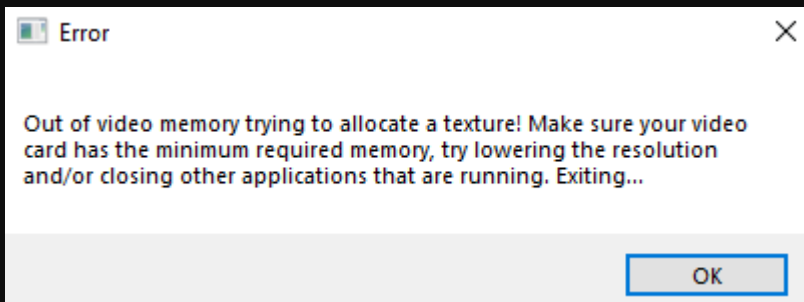
If your scene is having issues with the appearance of shadows, it may be related to your Software's Ray Tracing Mode setting. In this case, we recommend changing the settings from Global Tracing to Detail Tracing. We show the difference below.





Film template - out of memory problem

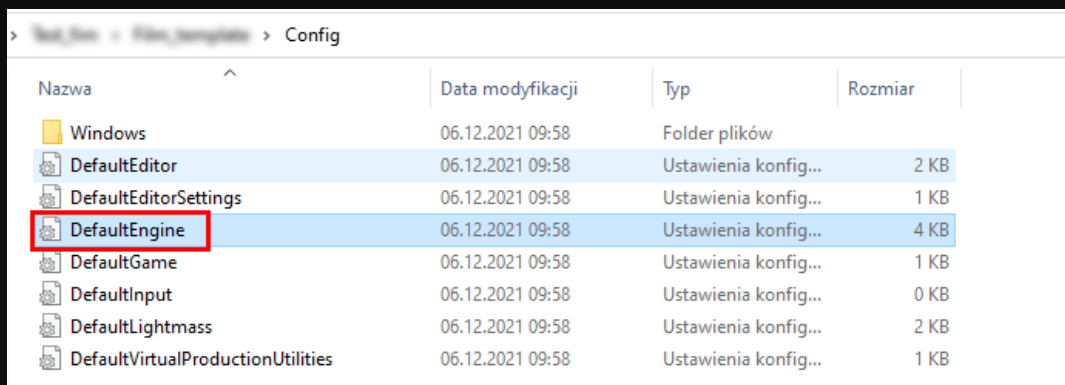
If you use Film, Television, and Live Events template you probably get the error "*Out of memory*"



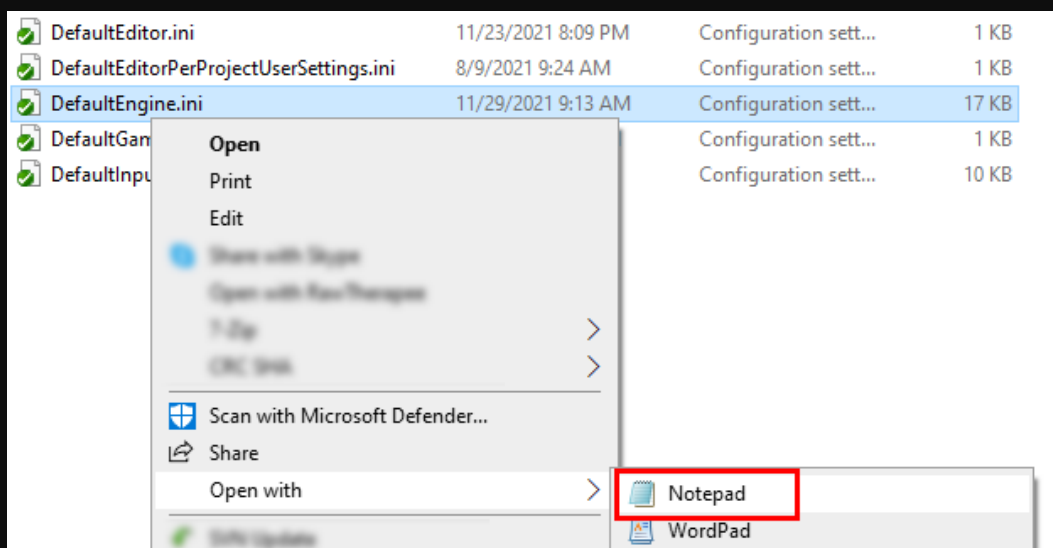
Resolution captures are set to 2048 by default with a *film template* which is the problem. We use many reflection captures by default because it's perfect for game-projects. You can change this resolution to something reasonable like 512 or 1024 in config files. After opening a scene you will probably delete all of the reflections capture actors and switch to ray-trace reflections which will do a great job in your movie/film.

To change resolution:

1. find the configuration file *DefaultEngine.ini* that is located - *Your_project's_name\Config*:



2. open with notepad for example:



3. find *r.ReflectionCaptureResolution=2048* and change 2048 to 1024 or 512



4. save and enjoy the scene in the movie template

Tree animation

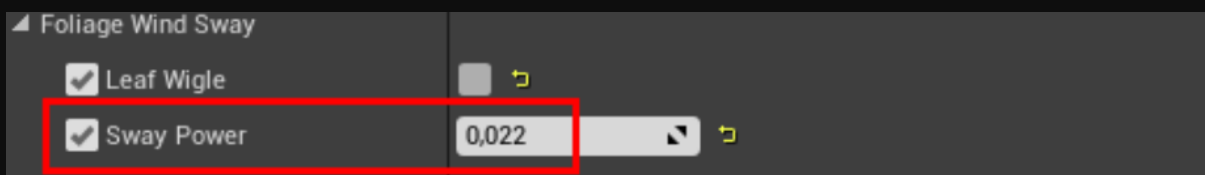
Material for foliage (*m_Foliage_01_01*) allows you to set up simple animation based on material - **Leaf Wiggle** and **Sway**.



1. In the material instance enable **Leaf Wiggle** and setup values.



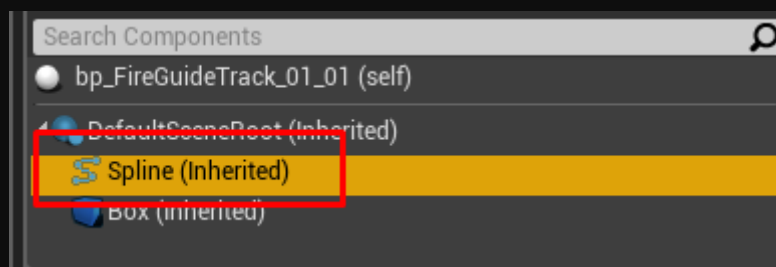
2. In the material instance enable **Sway Power** and setup value (*remember to setup the same value for trunk and branch)



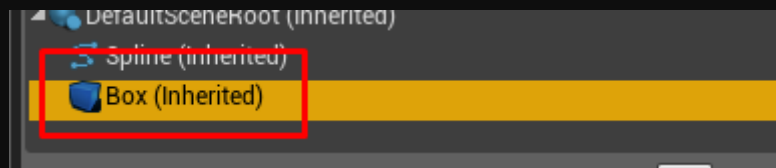
Fire Guide

The fire guide consists of two elements: the firefly particle and the path on which it is to move. Both elements work together and connecting them with each other is important.

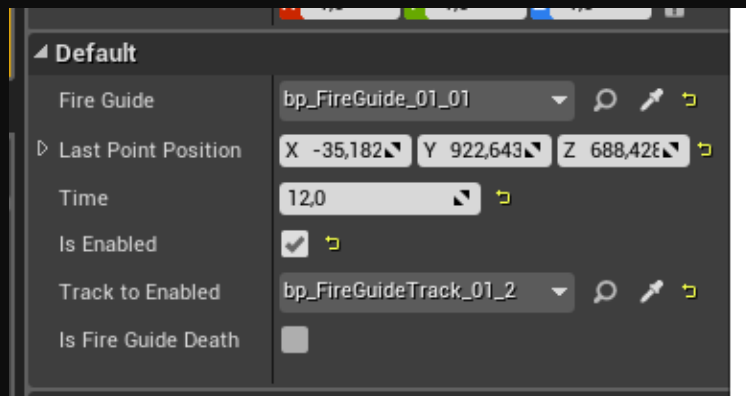
1. Place the **bp_FireGuide_01_01** blueprint on the level.
2. Place the **bp_FireGuideTrack_01_01** blueprint on the level at the same location as the fire guide effect.
3. Edit the **Spline** component in the fire guide track – add new points and move around the level.



4. Setup the **Box** collision component that will activate the fire guide travel.



5. Setup the fire guide track blueprint:
 - a. Assign the fire guide effect to the **Fire Guide**.
 - b. The properties **Last Point Position** can be used to place another track in the same position as the last spline point.
 - c. Set how long it will take to travel along the spline in the **Time** properties.
 - d. Enable **Is Enabled** if the track is to be unlocked by default and it is to work if the player enters the **Box** collision component. Otherwise, if this track is to be activated by another track, leave this box unchecked.
 - e. Assign the next track to the **Track to Enabled** if you want the next track to be unlocked after the fire guide effect travel completes.
 - f. Enable the **Is Fire Guide Death** if you want the fire guide effect to disappear at the end of the spline.

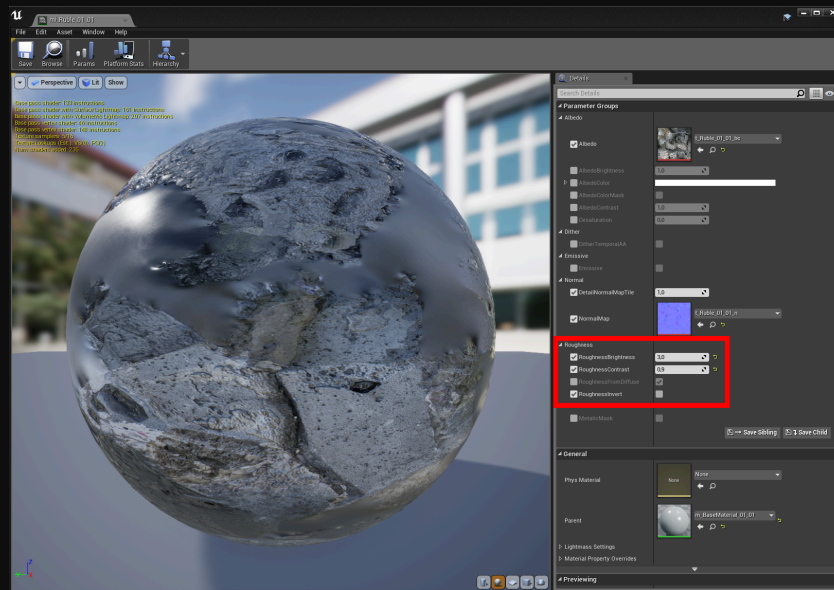


6. If you want more track repeat steps 2-5 for each track.
7. Start the game, go to the fire guide and trigger the travel of the fire guide effect.

You can create many tracks with many different fire guide effects to guide player around your level.

Base Material

m_BaseMaterial_01_01 is a special optimal material for models based on photogrammetry scans with many textures. We decide for optimization reasons, to resign from additional texture and generate roughness texture from base color. You can easily control a roughness by two parameters and easy invert it by switch:

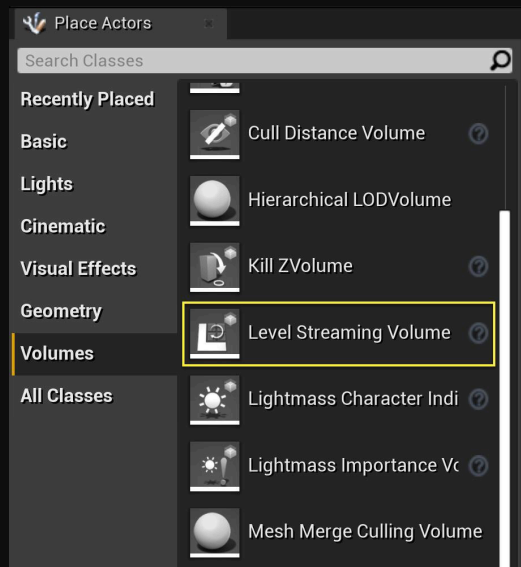


Optimization

We optimize our scenes to achieve the best performance and experiences. We use Level Streaming Volumes and Cull Distance Volumes for this purpose.

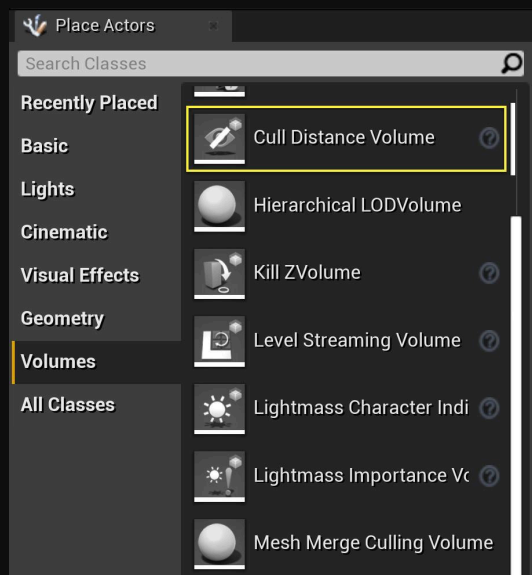
Level Streaming Volumes

are a feature in Unreal Engine that allow for the dynamic loading and unloading of map data during gameplay. This solution is especially useful for large environments where the entire map cannot be loaded into memory at once. By dividing the map into smaller areas, known as streaming volumes, only the portions of the map that are currently visible to the player are loaded into memory. This can greatly reduce system resource usage and improve performance by reducing the amount of data that needs to be processed at any given time.



Cull Distance Volumes

are a useful optimization tool that defines what distance to draw (or make visible) any Actor within the volume. These volumes store any number of size and distance combinations called Cull Distance Pairs. These are mapped to the bounds of an Actor (along its longest dimension) and then assigned to that Actor instance in the level.



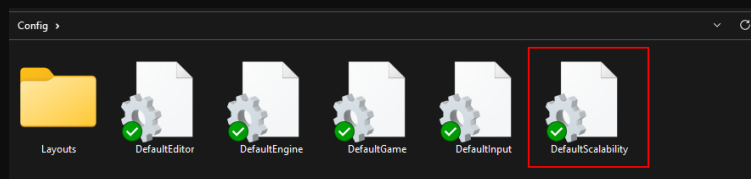
Check how to properly use these solutions in the official UE documentation:

[Level Streaming Volumes](#)

[Cull Distance Volumes](#)

Scalability Settings

The Scalability settings allow you to adjust the quality of various features, especially the visual appearance in order to maintain the best performance. We place our custom settings and modifications in the DefaultScalability.ini file that you can download from [this directory](#). Then just place this file in your project: *ProjectName > Config > DefaultScalability.ini* Same for DefaultEngine you can find here: [link](#).



You can read more about the Scalability Settings in the official [Unreal Engine Documentation](#)

Performance

SPECIFICATION	HIGH	ULTRA
Unreal Engine 5.4 RTX 4080 AMD Ryzen 9 7950X 64 GB RAM SSD STORAGE	Full HD 210 FPS 4K 120 FPS	Full HD 160 FPS 4K 75 FPS

If it does not work like above please check all “First Steps” and if that will not work for you please write to us at support@scansfactory.com