Foliage Assistant PRO

Imagine you have a forest of 2 million trees and you want mushrooms or cones to spawn next to each tree with a certain chance - Foliage Assistant can easily do this. And if you have other trees in the forest and even bushes with berries and also want berries or fruits to spawn nearby.

Or if you have a game about survival in an urban environment and you want a bottle of water or food to appear near a pile of garbage or on a table with a certain chance. All this will help to do Foliage Assistant. With Foliage Assistant, you have full control over the appearance of such objects.

Foliage Assistant is a great tool for creating support for your static meshes. It can work with Foliage Instance, Procedural Foliage Volume, and any static mesh placed in your world. The system keeps track of all static meshes around your character or any actor and spawns next to the static mesh of the actors you need. You can create lists of what you need to spawn, set the spawn chance.

The system also transmits the spawn time for your actor, so you can easily do things like rotting food. Respawn, Save and Load the whole state is supported. Lists with settings for each actor you want to spawn.

Foliage Assistant uses a powerful optimization algorithm - there is no difference between 100 items or 100 million.

Foliage Assistant divides the whole world into sectors and works only with those sectors that are currently active. Multiplayer supported. All calculations are done on the server side. Foliage Assistant is great for games with large maps.

Basic features:

1. Foliage Assistant uses a powerful optimization algorithm - there is no difference between 100 items or 100 million.
2. Work with World Composition with World Origin Rebasing
3. Multiplayer support.
4. All calculations take place on the server-side.
5. The system for saving and loading the state of the Foliage Assistant.
6. For example, if you decide to add a new fruit or a bottle of water to the spawn for your world, now you can do it in 2 clicks.
7. The code is written in C++ to improve performance. Using the plugin does not require knowledge of C++.
8. Easy to use and easy to integrate into your project.
9. Free support for our products in discord.

System features:

1. Loot lists (You can create any number of loot lists from which loot will spawn).
2. The ability to set the chance of spawn.
3. You can specify any static mesh (Foliage Instance, Procedural Foliage Volume, and any static mesh placed) in your world for tracking, so that the desired loot can be placed next to it.
4. The system also saves spawn time for your loot. You can make sure that the products deteriorate over time.
5. Ability to set the respawn time, random quantity for spawn, radius for spawn. And many more different settings for effectively configuring your project.
6. You can prohibit spawn in front of your nose.
7. Adjust the distance for spawn and optimization for each item.
8. The system tracks whether the loot has been taken (destroyed). If the loot is taken (destroyed), the countdown to respawn will begin.
9. The ability to set the random size of the actor during spawn.
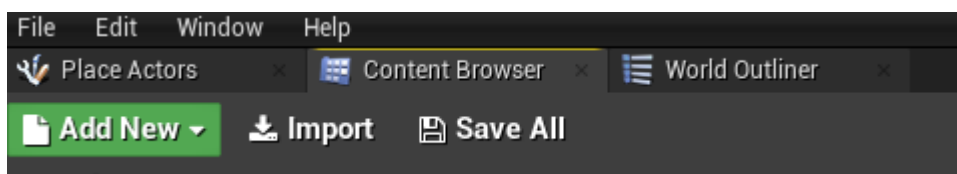
Setup

1. Install plugin from Epic Store Launcher
2. Open your project
3. In the Edit menu, select Plugins.
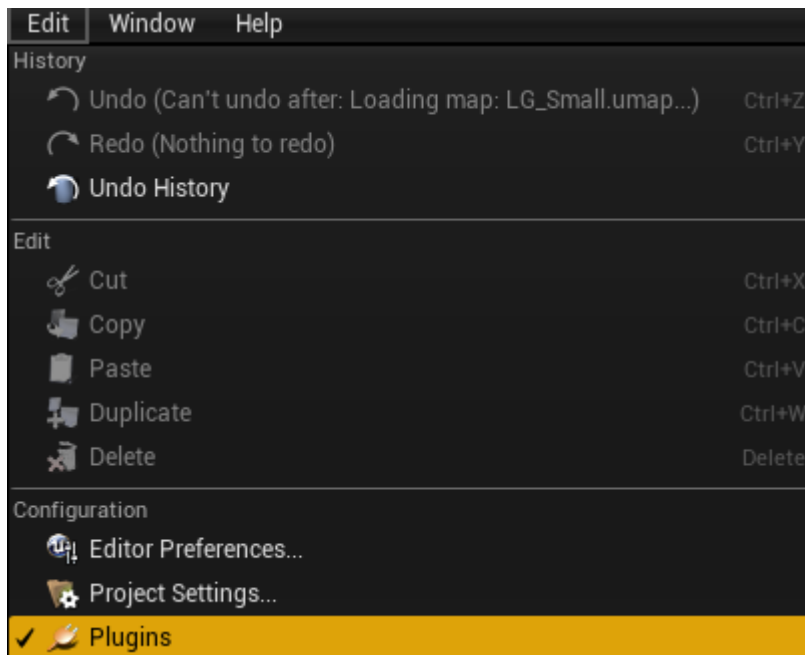
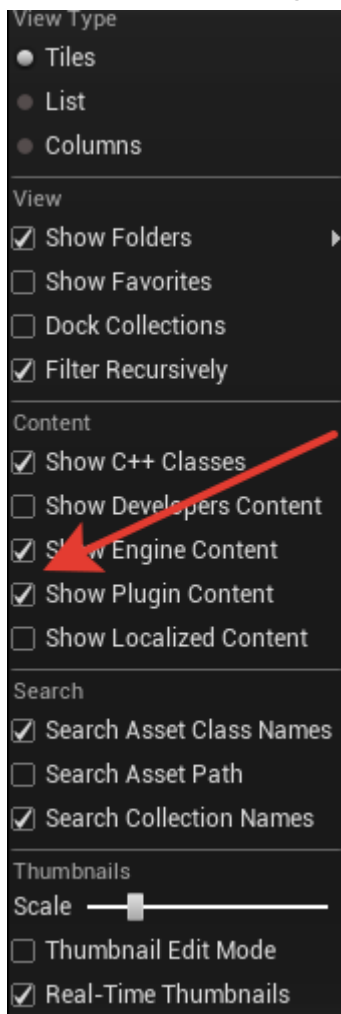4. Find and enable the Plugin FoliageAssistant
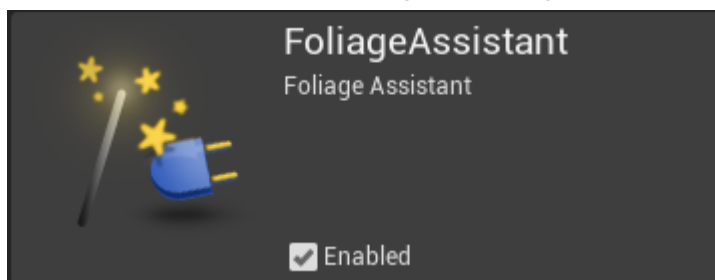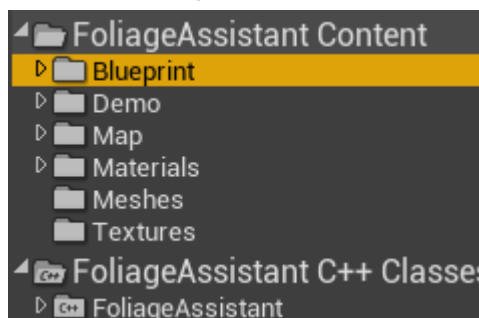

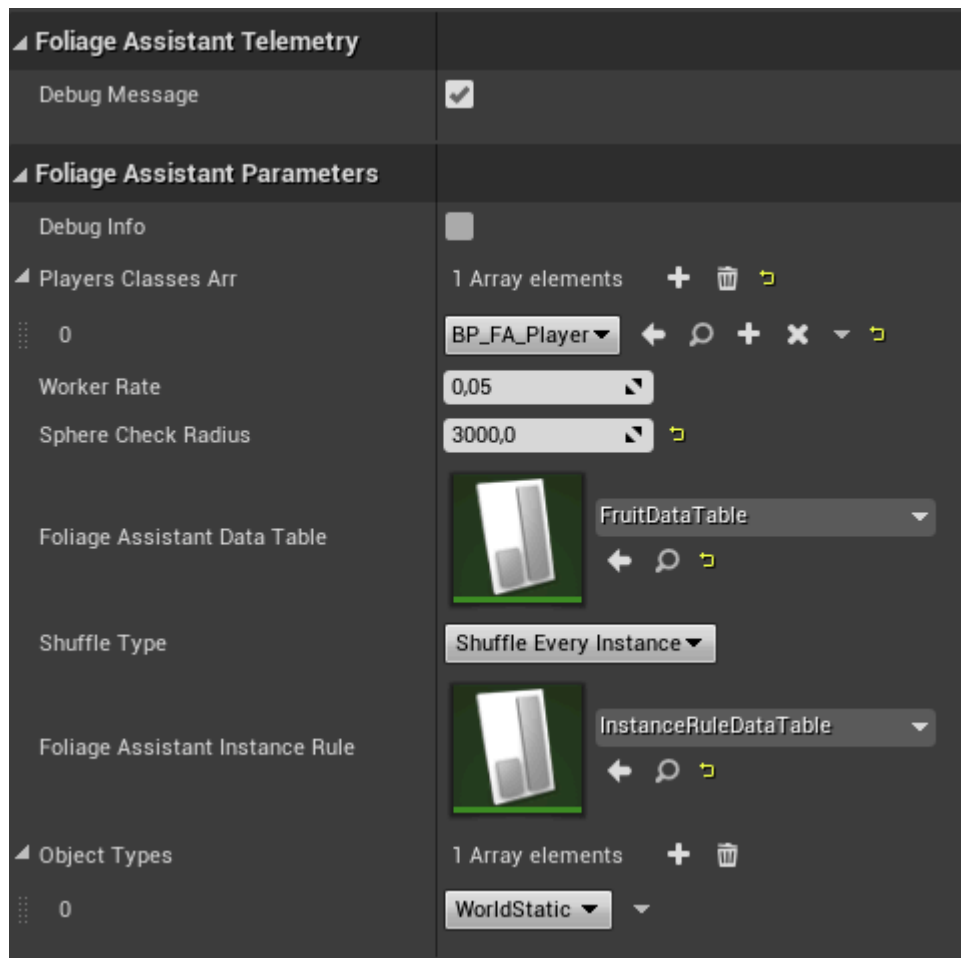5. Select "Content Browser"

6. Select "View Options"

7. Select "Show Plugin Content" and "Show Engine Content"

8. Go to "FoliageAssistant Content\Blueprint"

9. The **BP_FoliageAssistantDirector** must be present in the scene. Drag and Drop **BP_FoliageAssistantDirector** in your scene.

10. Select **BP_FoliageAssistantDirector** in the scene and choose the parameters you need.

Foliage Assistant Telemetry:

bDebugMessage - Shows information about the current state of the Foliage Assistant system

Foliage Assistant Parameters:

bDebugInfo - Enables the display of some information for debugging.

PlayersClassesArr - Add your players ' classes so that the system tracks when and where to spawn loot for them.

Worker Rate - The frequency of data updates around the character.

Sphere Check Radius - The radius around the character in which static meshes will be checked and compared with the spawn table.

Foliage Assistant Data Table - A table with a list of loot and settings.

Shuffle Type - Here you can choose the type of shuffling of the list in the table. The deeper the mixing, the more random variants will be obtained.
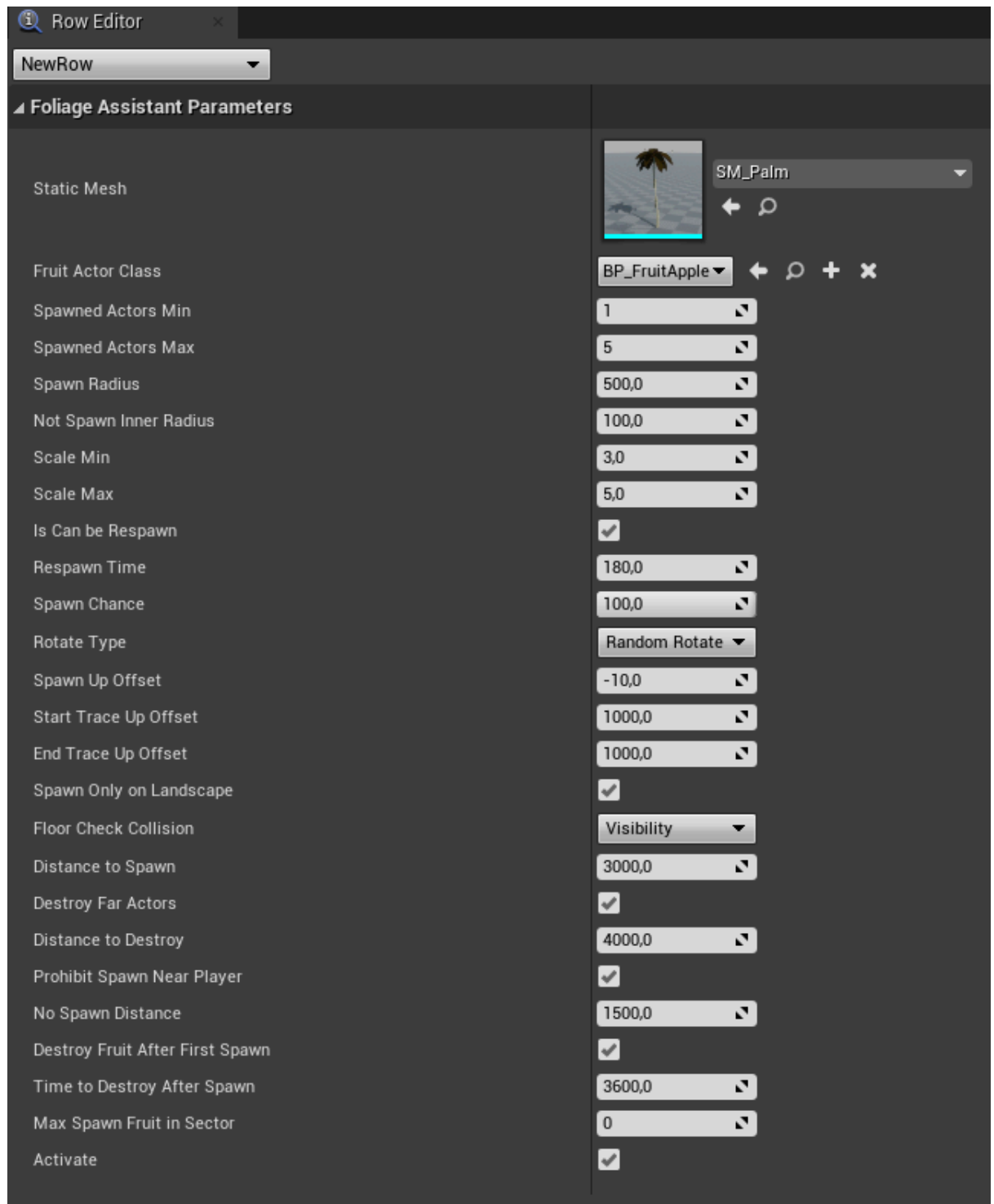
Foliage Assistant Instance Rule - A table with lists of rules for static meshes.

Object Types - A list of collision types for checking static meshes.

11. Create your loot list. To do this, create a DataTable and select FruitStructData.
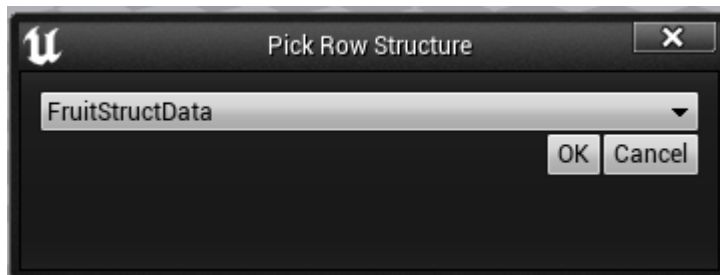
12. Add a new line for your loot. Specify the parameters for your loot.

Fruits Actor Class - An actor class for your loot.
Spawned Actors Min/Max - A random number of spawn actors will be selected for a specific instance
Spawn Radius - The spawn radius of the actors from the instance.

Not Spawn Inner Radius - The inner radius in which the actors will not spawn. For example, so as not to spawn fruit inside the tree.

Scale Min/Max - Sets the random size of the actor when spawning.

bIsCanBeRespawn - Enabled respawn opportunity for actors who were destroyed or used their chance to spawn.

Respawn Time - The time after which the actor will get a chance to respawn (if he was destroyed or could not spawn)

Spawn Chance - The chance to spawn as a percentage of 0 to 100.

Rotate Type - The type of random turn after spawn.

Spawn Up Offset - The ability to change the offset for spawn.

Start/End Trace Up Offset - Offset for the line trace to check the possibility of spawn.

Spawn Only on Landscape - If you turn it on, then when the actor spawns, the line trace will check whether there is a Landscape under it.

Floor Check Collision - A channel for checking the floor to move the loot to it after spawn.

Distance to Spawn - The distance at which the loot can be seen.

Destroy Far Actors - Enables lot optimization, if the lot is too far away, the actor will be destroyed.

Distance to Destroy - The distance after which the loot is no longer visible.

Prohibit Spawn Near Player - Ban on spawn. For example, the loot has long been taken and it's time to respawn, but if the player is close, the loot will not spawn in front of his nose.

No Spawn Distance - The distance to the player at which spawn is prohibited.

Destroy Loot After First Spawn - If the loot was spawned, it will be destroyed after the time has elapsed and the random selection of the loot for this spawn point will start again.

Time to Destroy After Spawn - Time to destroy loot after the first spawn. (Remember, the loot itself will not be destroyed, but if you leave and come back again, it will no longer be spawned.)
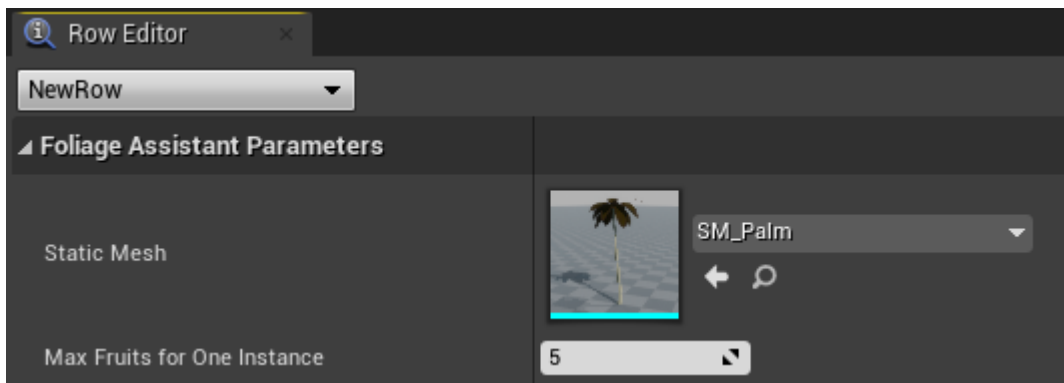
Max Spawn Fruits in Sector - Sets a limit on spawn of actors in one sector.

Activate - Activates this list.

13. Create your Foliage Assistant Instance Rule. To do this, create a DataTable and select FoliageAssistantInstanceRule.

14. Add a new line for your loot. Specify the parameters for your loot.

Static Mesh - Specify the static mesh for which the rule will be applied.

Max Fruits for One Instance - Specify the maximum number of actors that can be spawned.

15. Drag and Drop **BP_FoliageAssistantSectors** in your scene.

16. Adjust the scale to the area where you want to place the loot.

17. Remember BP_FoliageAssistantSectors should cover the entire area where the loot may be. You can use multiple BP_FoliageAssistantSectors actors in a scene.

18. Select **BP_FoliageAssistantSectors** in the scene and choose the parameters you need.

Sector Telemetry:

Sector Status - Before using, make sure that you have saved the data.

All Box Count - The number of total sectors.

Sector Radius - Radius of the sector. **Remember that the radius of 2-x sectors must be greater than the loot destruction distance. This directly affects the optimization.**

Sector Parameters:

Lock Parameters - After you finish configuring, be sure to turn on the Save Parameters. You can click on the Lock Parameters button.

IsDebug - for debug information.

Build Matrix Rate - The speed of building points for spawning loot in the editor.

Combine Matrix Rate - The speed of sector initialization. Triggered on begin play.

Sector Scale - By changing this parameter, you increase the radius of the sector. The radius of 2-x sectors must be greater than the loot destruction distance.

Sector Worker Rate - The speed of processing loot in sectors. This affects the responsiveness of spawn and respawn loot for the character
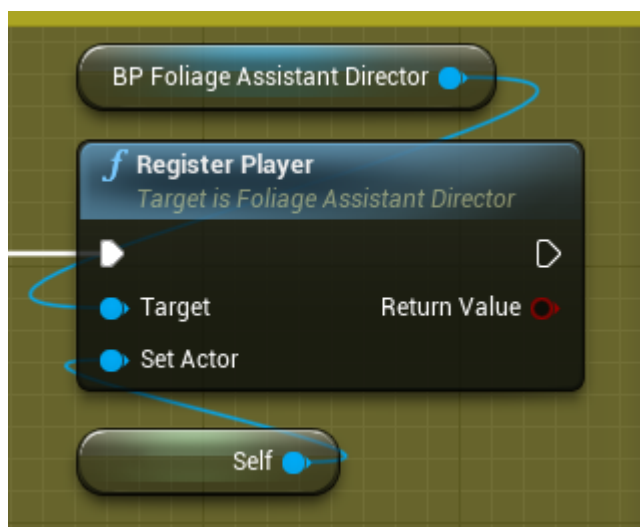
19. Use **BP_FoliageAssistantBlockingZone** to exclude zones from spawning. Just place the blocking zone where you need.

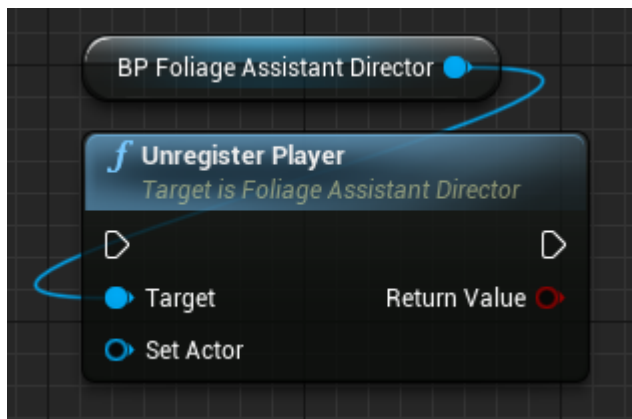**20.** To register blocking zones, use the node
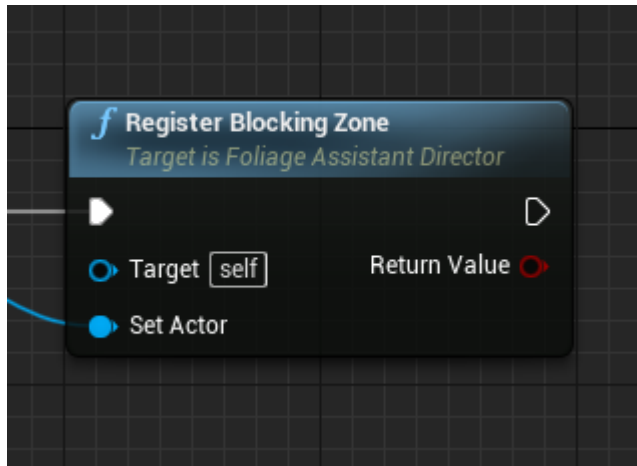
21. To remove blocking zones from the system, use the node.

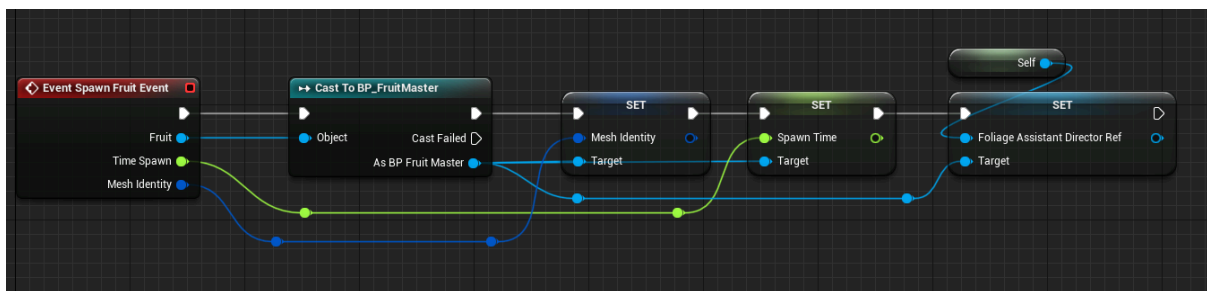**22.** To register game characters, use the node.

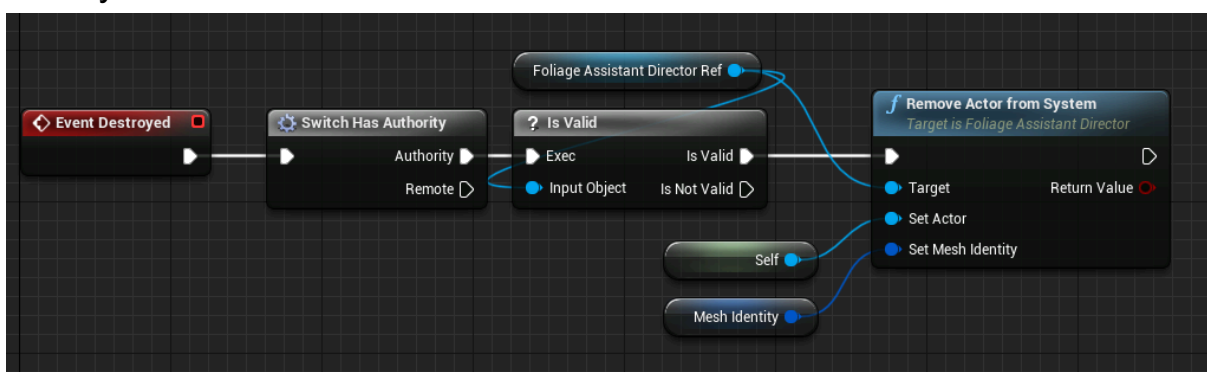**23.** To remove game characters from the system, use the node.

24. To transfer information to your loot (the time of the first spawn), for example, to create a food rotting system, use the following event in **BP_FoliageAssistantDirector.**
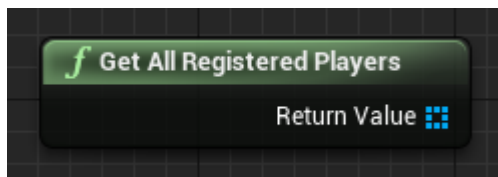**Spawn Fruit Event**

25. Then when destroying your loot, you need to use the following years.

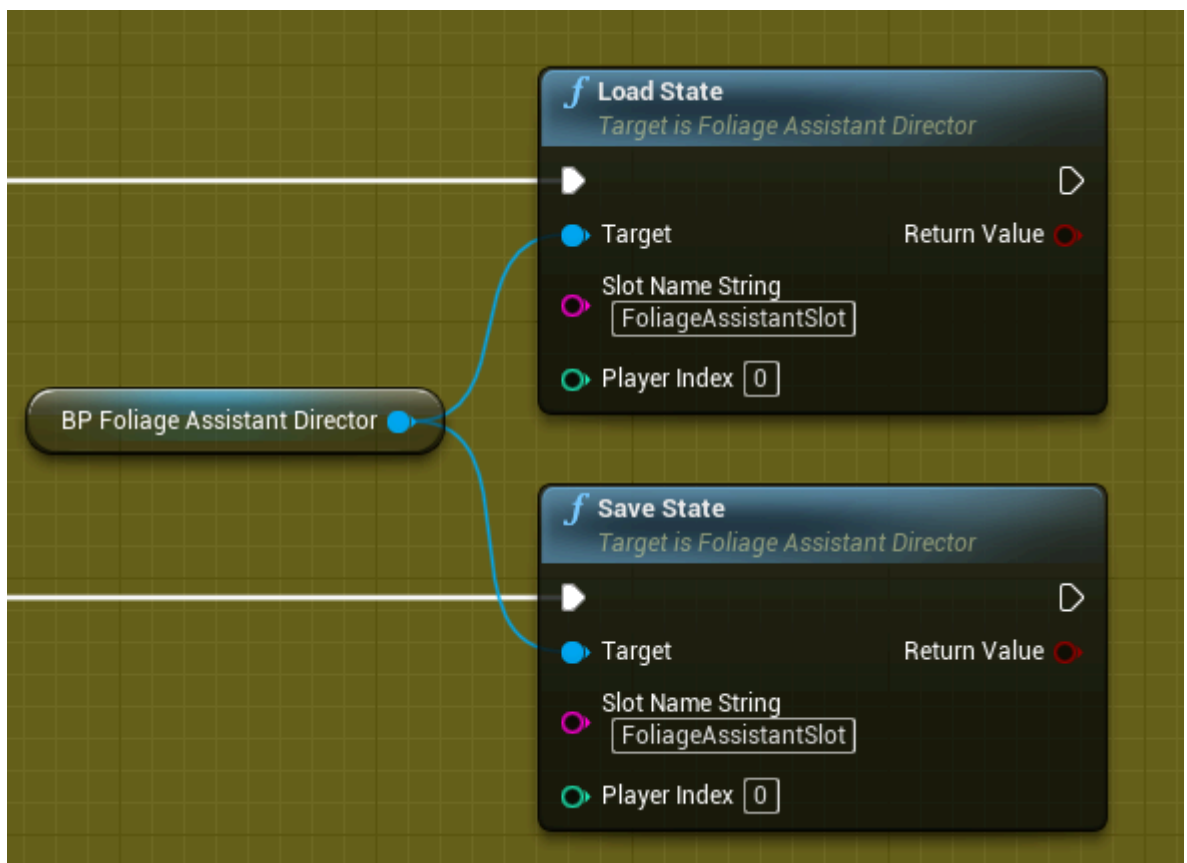Create a Mesh Identity variable with the MeshIdentity structure

26. To get all the registered characters, use the GetAllRegisteredPlayers node in **BP_FoliageAssistantDirector.**

27. To get all registered blocking zones, use the GetAllBlockingZones node in **BP_FoliageAssistantDirector.**

28. Use these nodes to save and load state Foliage Assistant.

All examples of the plugin are included in the plugin itself. You can contact our discord channel for support.

Everything is ready!

To play on the demo map, you must configure the character control buttons. These are the standard buttons for the Third Person Template. You can download file **DefaultInput.ini** and put to **"Your_Project\Config\"**