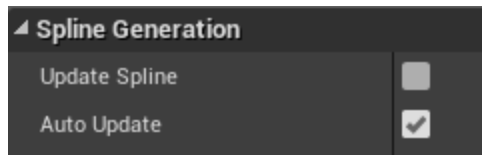


Documentation of the UE4 Procedural Ivy Generator

- 8i

Simply drag and drop the blueprint in to get started



Press **Update Spline** to manually update the generation.

Auto Update will regenerate the ivy whenever you change a value or the transform of the blueprint



Allow Climbing on Ceiling:
(Left True, Right false)

Whether the Ivy is allowed to cling onto ceilings or whether it should trigger a falling state.



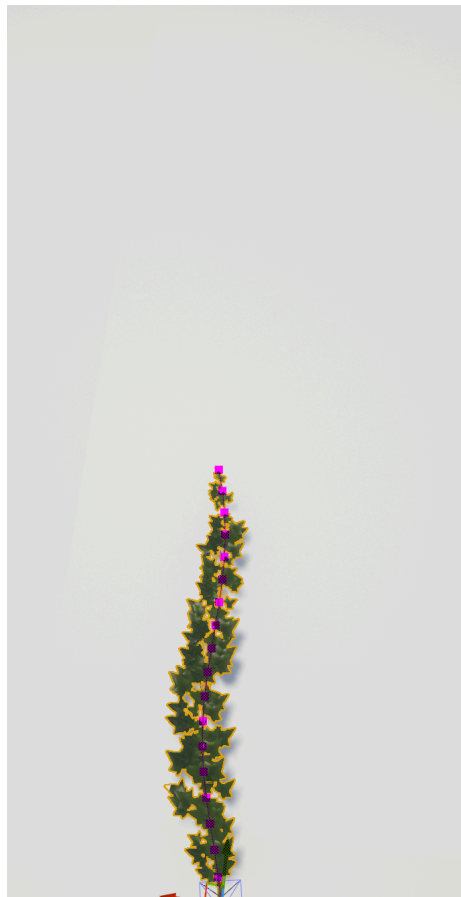
Randomize After

Falling

(Left True, Right false)

Falling Mode

Whether or not to automatically generate as if in falling state (True in those images)







Number Of Points (Distance)

Left 50, Right 20

The number of points of the main spline. All branching calculations will be based off this spline

Branching

Number Of Branches	<input type="text" value="6"/>		
Branch Separation Degree	<input type="text" value="45.0"/>		
Branch Distance	<input type="text" value="40.0"/>		

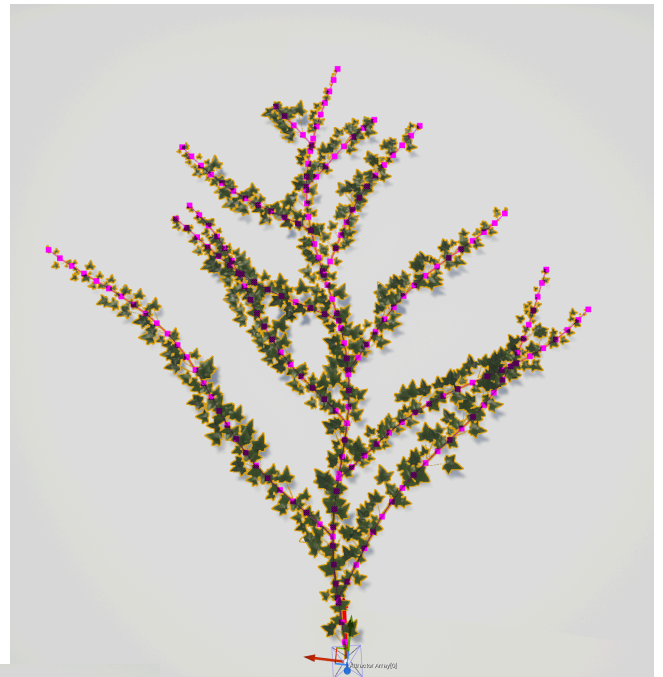
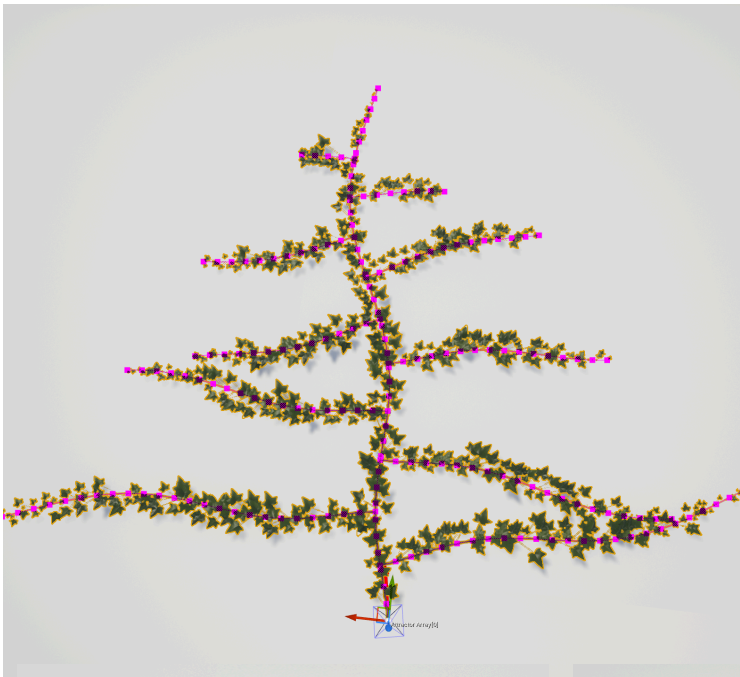


Number Of Branches Is the total number of branches that will be generated from the main spline

Branch Separation degree Is the angle at which the branch would separate from the main spline

Branch Distance: this value affects the distance of the branches.

Note: it is affected by randomness and its length will be shorter as it progresses along the spline



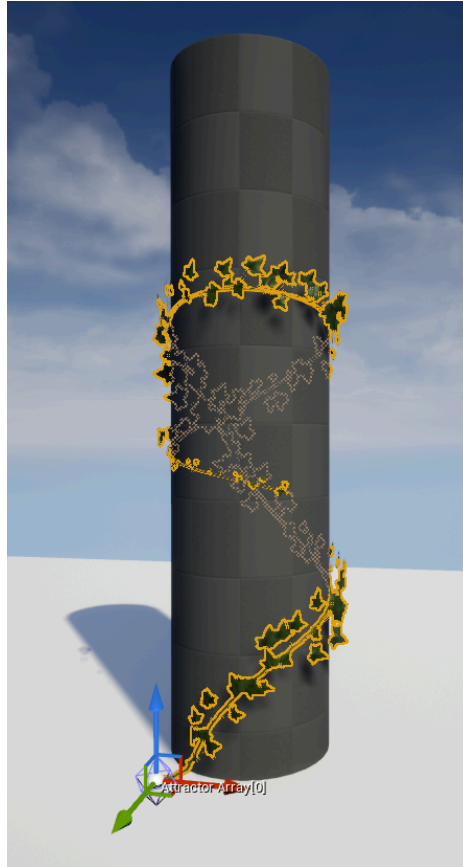
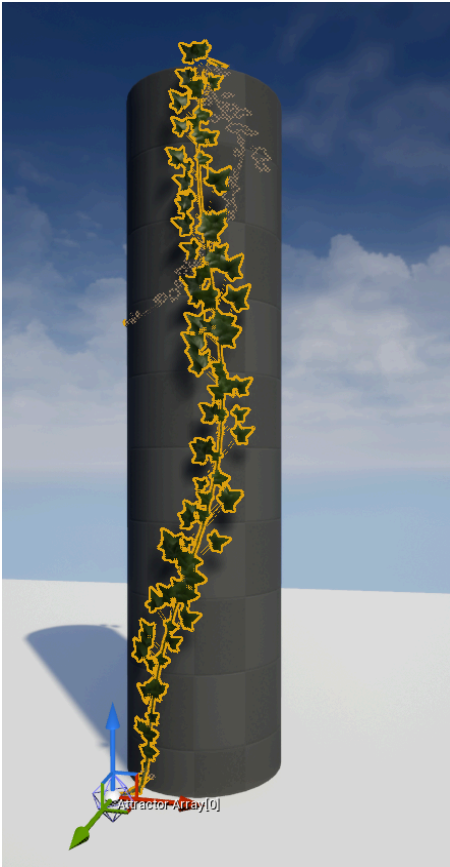
Curliness:

This is the amplitude of the sine equation

A value of 0 will result in a perfectly straight spline

Left: 90

Right: 60

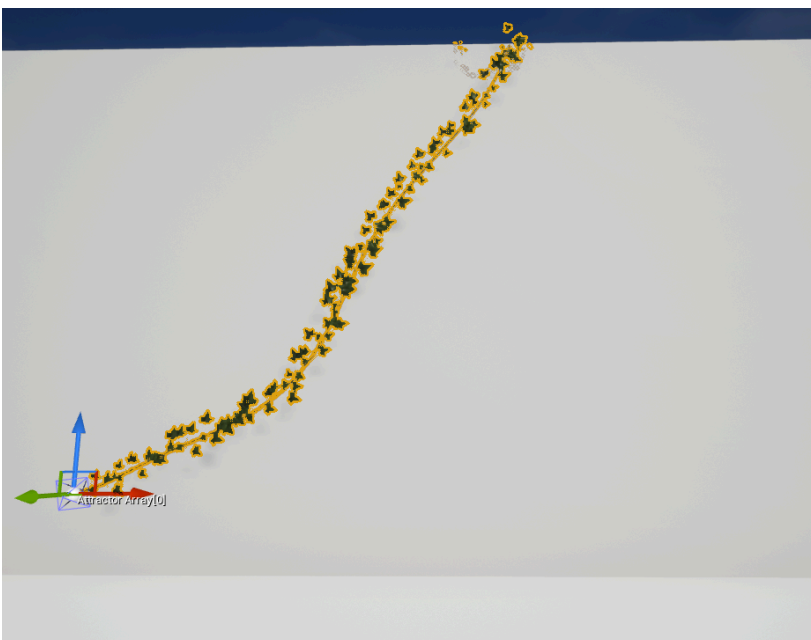


Willingness to Twirl:

Higher values will cause the spline to veer to the right making it spin around objects. Negative values will steer it to the left.

Left: 0

Right: 41



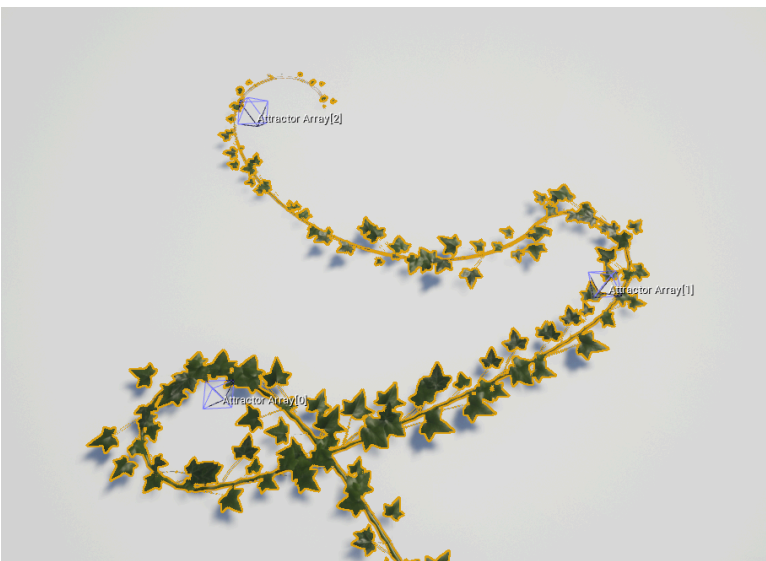
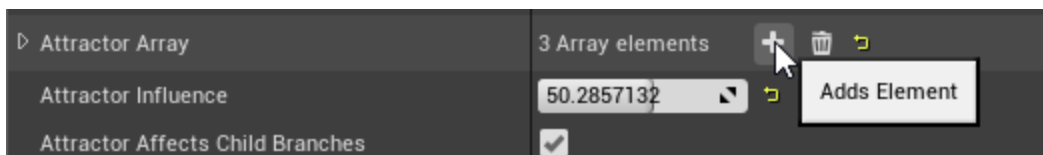
Willingness to Climb:

A flat value of world space up that is applied to the generation of all splines

Up: 22

Down: 0

Attractors



Attractors

Use these to guide the grown of the Ivy. You can use an infinite number of them to create your desired path.

Attractor influence is how much will the attractors influence the generation of the spline.

Attractor affects Child Branches

Whether or not the branch should be affected by the attractors.

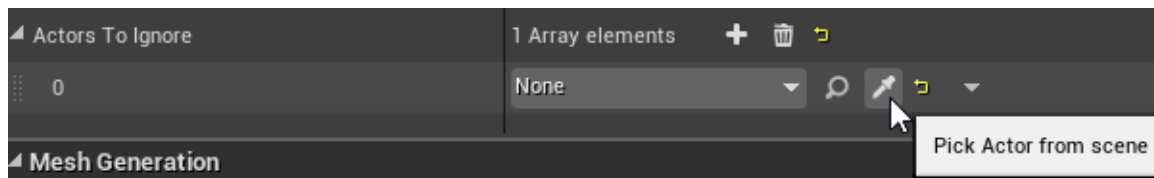
Note: 1 is required for the tool to work even if it has 0 influence.



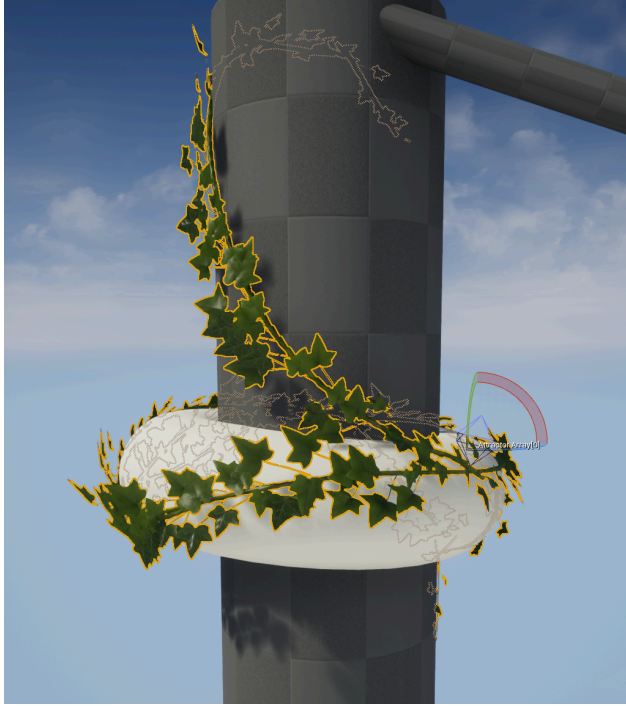
Randomize will randomize everything that uses randomization, that includes mesh generation.

Randomness is how random the generation goes.

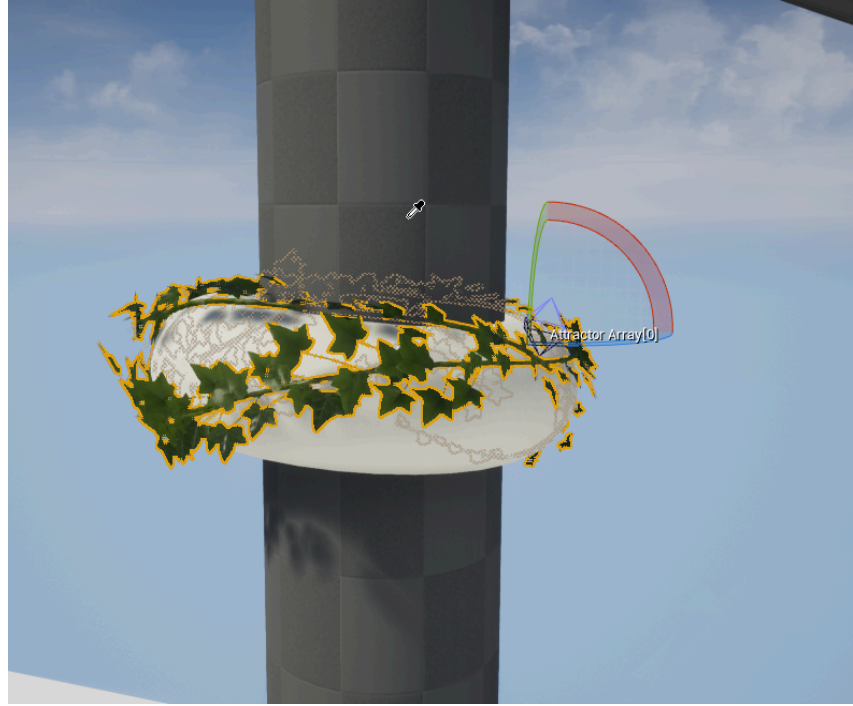
All randomness is **seeded** so you can reproduce results.



Press the Plus icon then use the eyedropper to select anything in your scene that the tool should **ignore** when generating

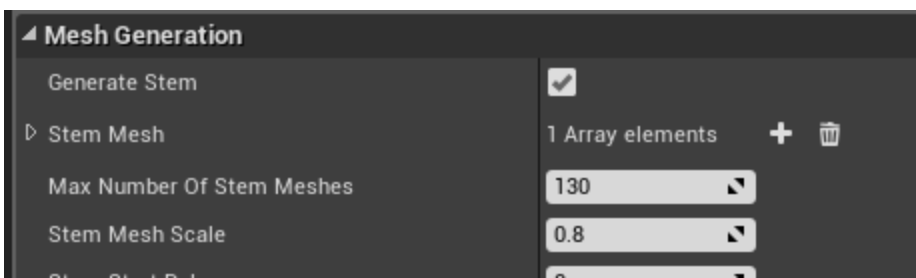


Ivy Affected by everything



Ivy Ignoring the pillar

Mesh Generation: Most of theses are self explanatory



Max number of stem meshes
is a cap on how many

replications of the stem mesh can be used on the main spline.

Stem start delay is to let the spline generate around something before the mesh is applied.

Uniform leaf distribution

If true it uses the number of leaves generated on the main spline and works out its distribution on branches. If false, it will be purely random.

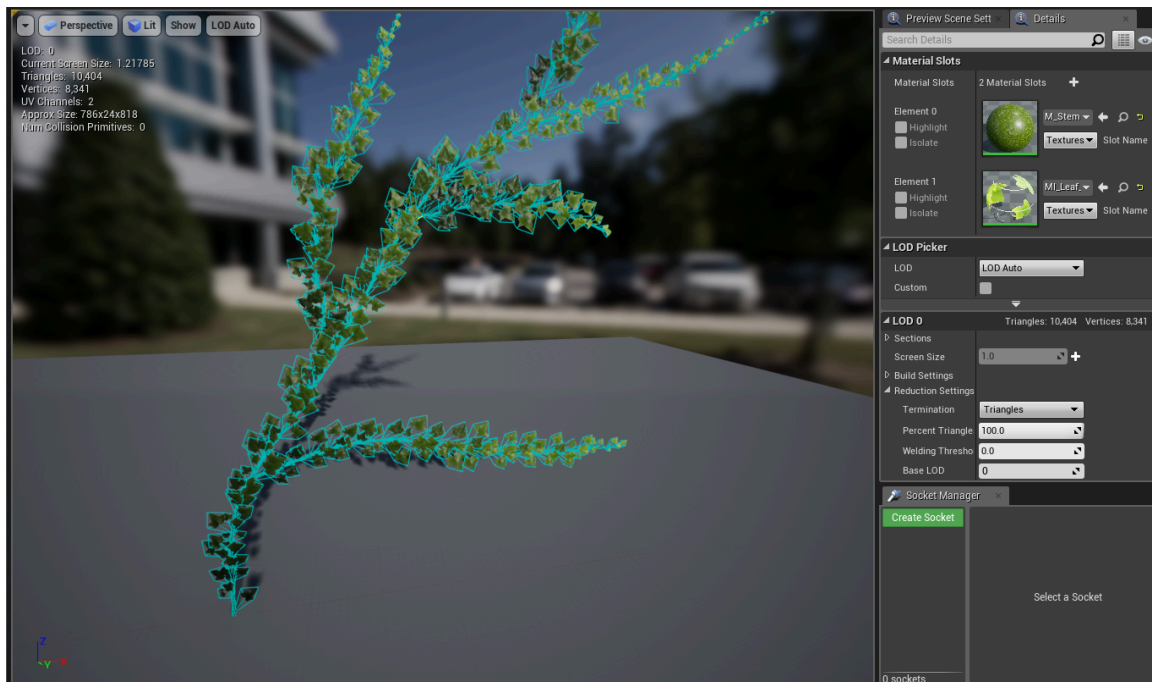
Separated Stem?

The separated stem is to save on performance in a sort of 'preview mode'. To properly connect the stem simply untick 'use instanced stem' under advanced.

Export To SM

This Function converts all instances into individual static meshes and automatically disables instanced Stem. This will be incredibly laggy as it is, but the purpose of it is to allow you to use Unreal's 'Merge Actor' function (Found by right clicking the blueprint) to convert the whole blueprint into a single static mesh.

Make sure to untick the sphere and to **tick bake vertex colours** so that the material can still emulate instances for wind and colour offsets.



Remember to switch the material to the static mesh version.



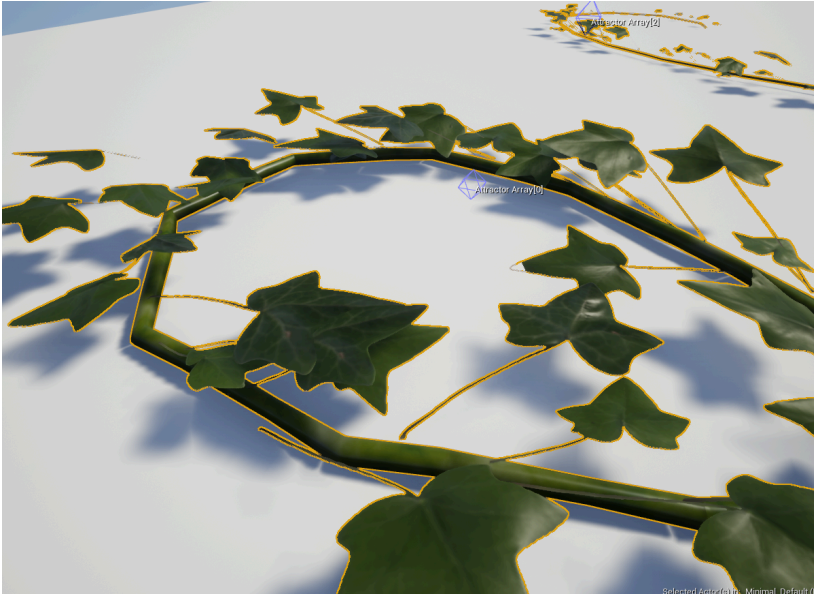
Stem Mesh Spacing

This is the distance for when a new splinemsh should be placed.
Higher values will mean a lower resolution.

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Up: 15

Down: 40



[Artstation](#)

Thank you for taking your time to look through this <3