

UE Foliage

This is a multi-part tutorial on creating virtual worlds in Unreal Engine. This tutorial assumes you have a basic understanding of 3D work but no prior experience is necessary.

Please contact the Creative Technology Lab for questions or assistance.

Foliage Tool

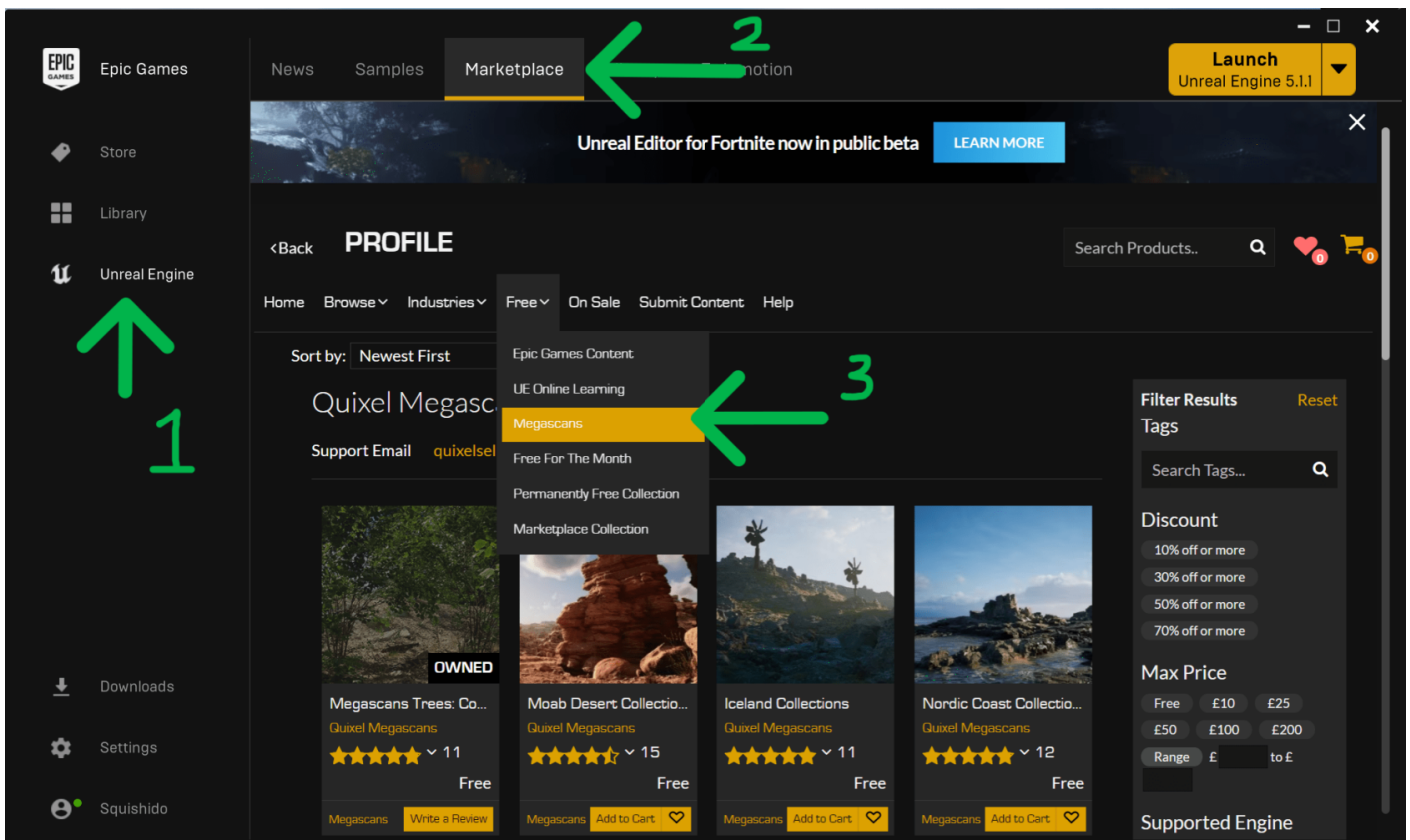
The foliage tool in Unreal Engine allows you to quickly paint sets of assets on a landscape. Like the name suggests, this tool is primarily used for trees and plants, to create scenes which might contain thousands of trees or vast grasslands. This tool saves us the effort of individually placing many assets and automates it for us.

But first we need a pack of foliage assets to use...

Megascans Foliage Packs

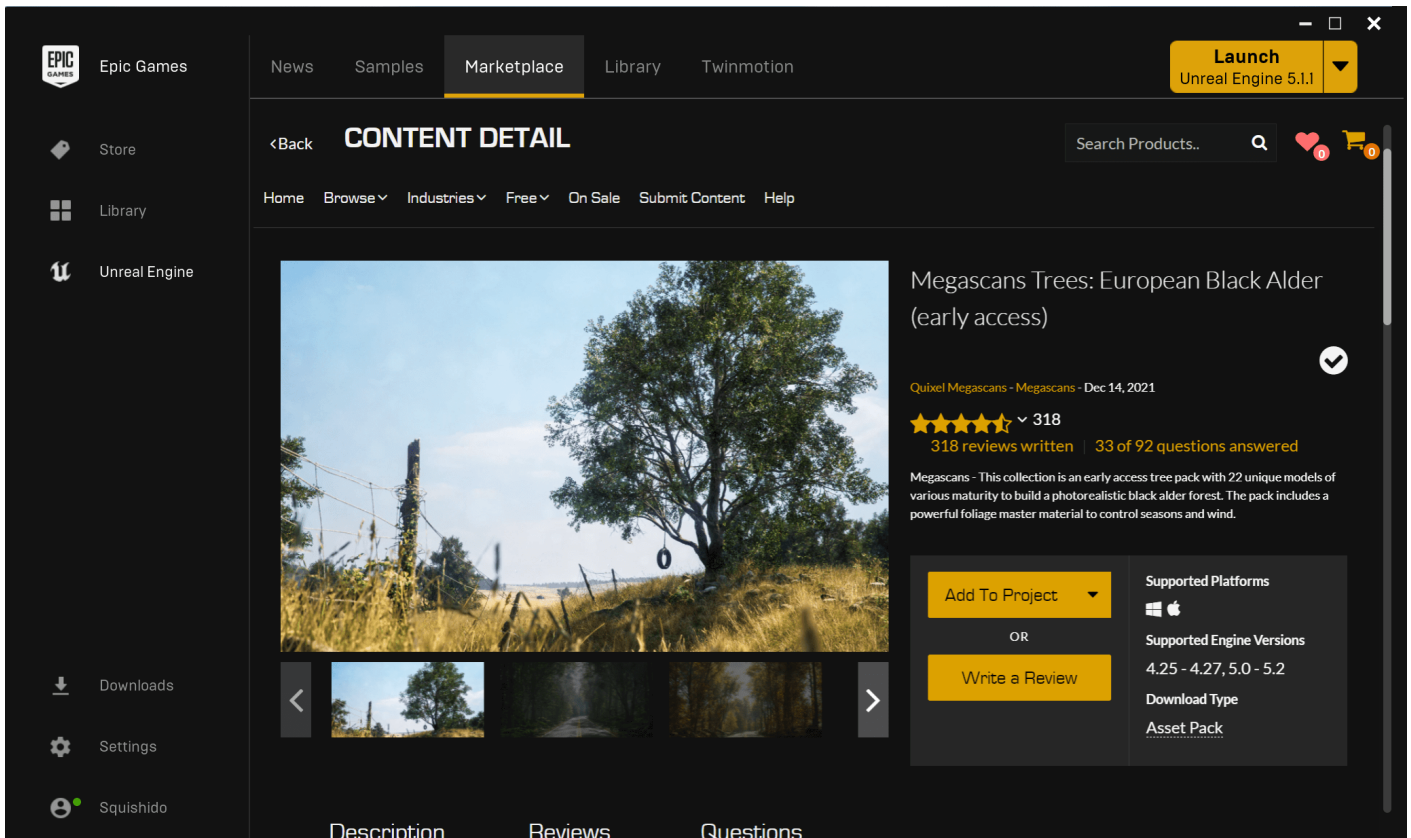
Apart from small assets and materials, Quixel also releases megascans, which are large scans of created assets for us to use in Unreal Engine. We will be using one of these packs for our scene.

Open the Epic Games Launcher and to the Unreal Engine window. There, we will go to the Marketplace tab and search the categories for the Megascans.



The pack we want to import is called the **Megascans Trees: European Black Alder**.

Find this pack, download it, and add it to your project.



Foliage Painting

We will now go over the steps needed to start adding instanced foliage.

1. To access the foliage tool, first change the editor mode to **Foliage** on the top left of your screen.



File

Edit

Window

Tools

Build

Select

Actor



ScreenshotMaterial



Foliage Mode ▾



Foliage



Selection

SHIFT+1



Landscape

SHIFT+2



Foliage

SHIFT+3



Mesh Paint

SHIFT+4



Modeling

SHIFT+5



Fracture

SHIFT+6



Brush Editing

SHIFT+7



Animation

SHIFT+8

Activate Foliage Mode
hold (Ctrl + Alt) for more



Select



Fill

Paint

— Brush Options —

Brush Size

20000.0

Paint Density

0.1

Erase Density

0.0



Single Instance Mode:

All Selected ▾



Place in Current Level

— Filters —



Landscape



Static Meshes



BSP



Foliage



Translucent



Foliage



Search Foliage



+ Drop Foliage Here

-
2. You have to then specify which trees/bushes/grasses you want to use by clicking the **+Foliage** button.

Filters



Landscape



Static Meshes



BSP



Foliage



Translucent



Foliage



Search Foliage



CREATE NEW ASSET



Static Mesh Foliage

CURRENT ASSET



Copy



Paste

BROWSE



Search Assets



FT_BlackAlder_Field_01
Static Mesh Foliage



FT_BlackAlder_Field_02
Static Mesh Foliage



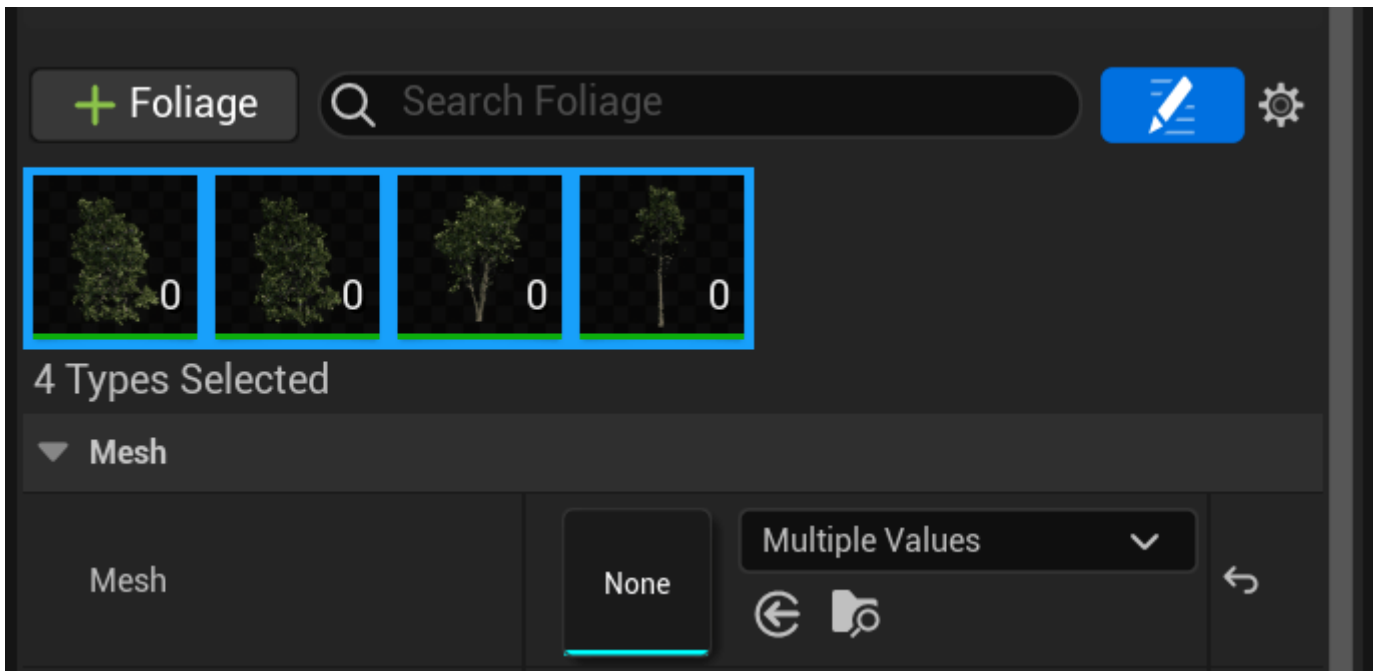
FT_BlackAlder_Field_03
Static Mesh Foliage



FT_BlackAlder_Field_04

66 items

As you can see, I have added 4 types of trees to my selection and ticked all the boxes.



3. You can then change your **Brush size** and **Paint Density**.

- **Brush Size** will affect the size of your painting area.
- **Paint Density** will affect how densely your foliage is placed. A lower density will place foliage more sparsely and vice versa.



Foliage



Select



All



Deselect



Invalid



Lasso



Paint



Reapply



Single



Fill



Erase



Remove



Move

Paint

Brush Options

Brush Size

20000.0

Paint Density

0.001

Erase Density

0.0



Single Instance Mode:

All Selected ▾



Place in Current Level

Filters



Landscape



Static Meshes



BSP



Foliage



Translucent



Foliage



Search Foliage



63



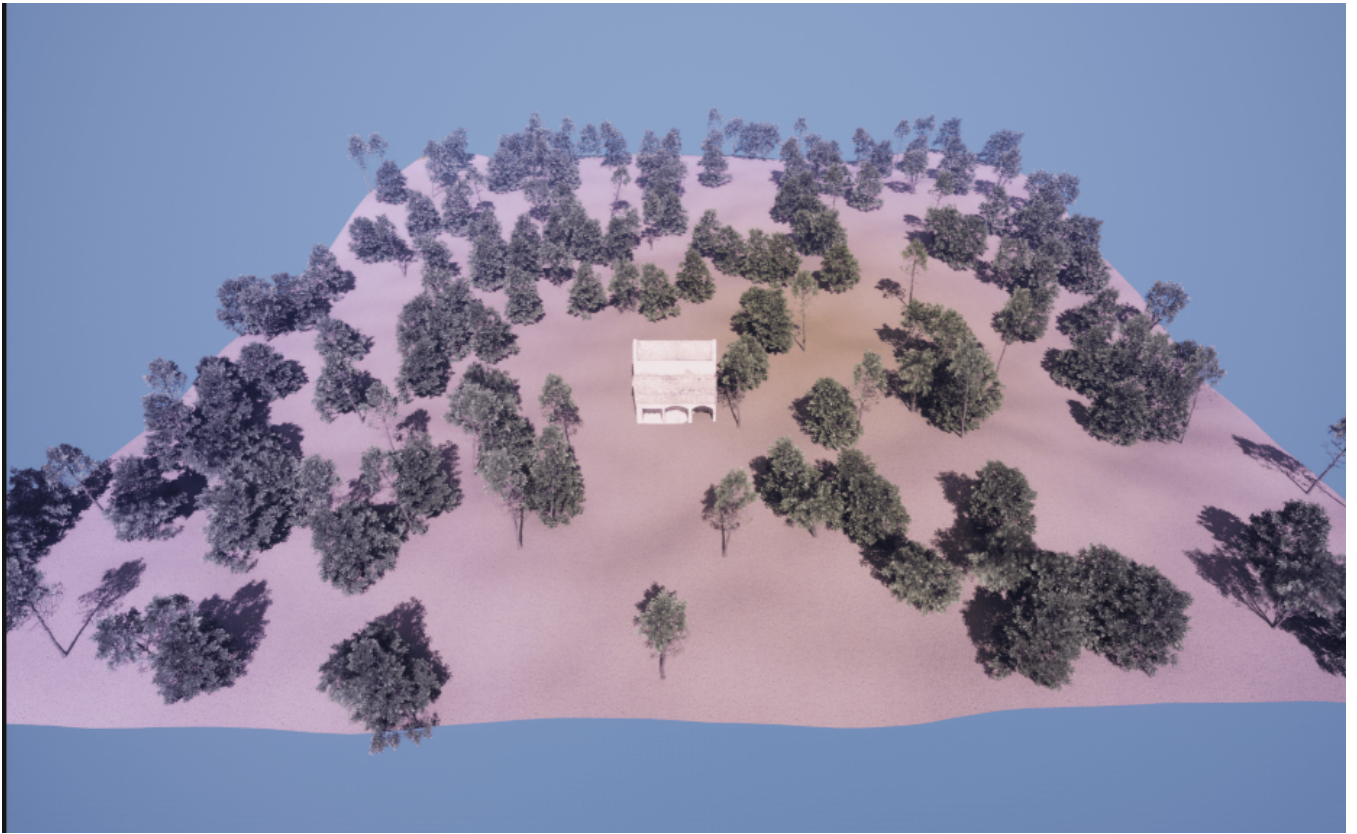
66



51



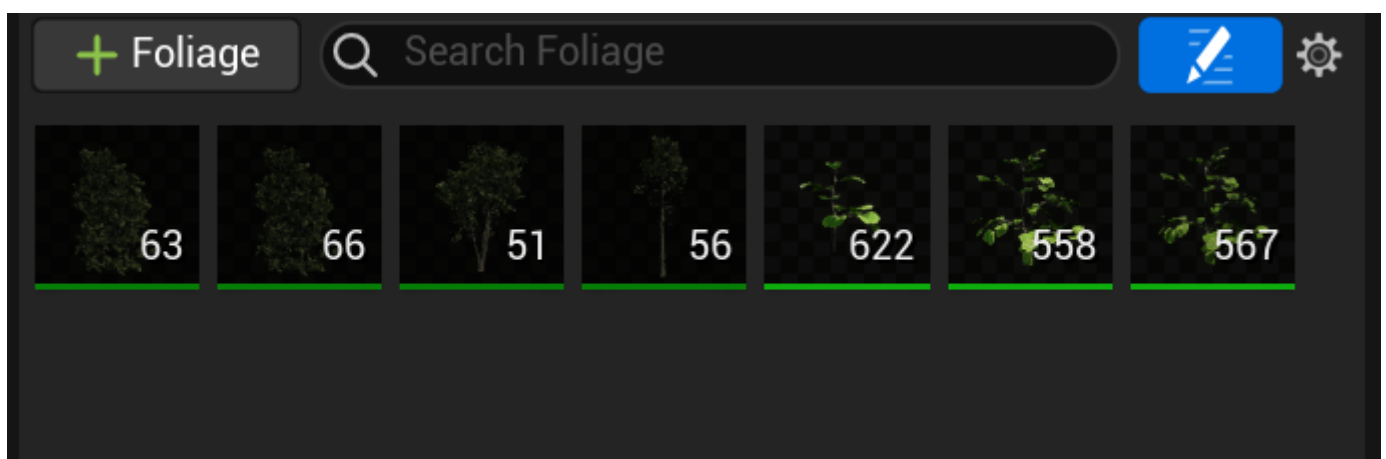
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Filling your landscape (optional)

Adding large tree assets is usually enough to make a landscape look realistic. However, if you feel like you want to add more assets to fill out your scene, the foliage packs also contain smaller plants that you can add to your scene.

As shown below, it is possible to add these in and paint your landscape with them to make it look more realistic.



I have added smaller plants and painted them at a **higher density**, which is why there is more of them (500-600) in my scene.



To continue with this tutorial, please follow the next article in this series.

Revision #7

Created 5 June 2023 09:51:21 by Darsh Kadam

Updated 7 July 2023 13:47:16 by Darsh Kadam