

UNREAL ENGINE TUTORIAL :

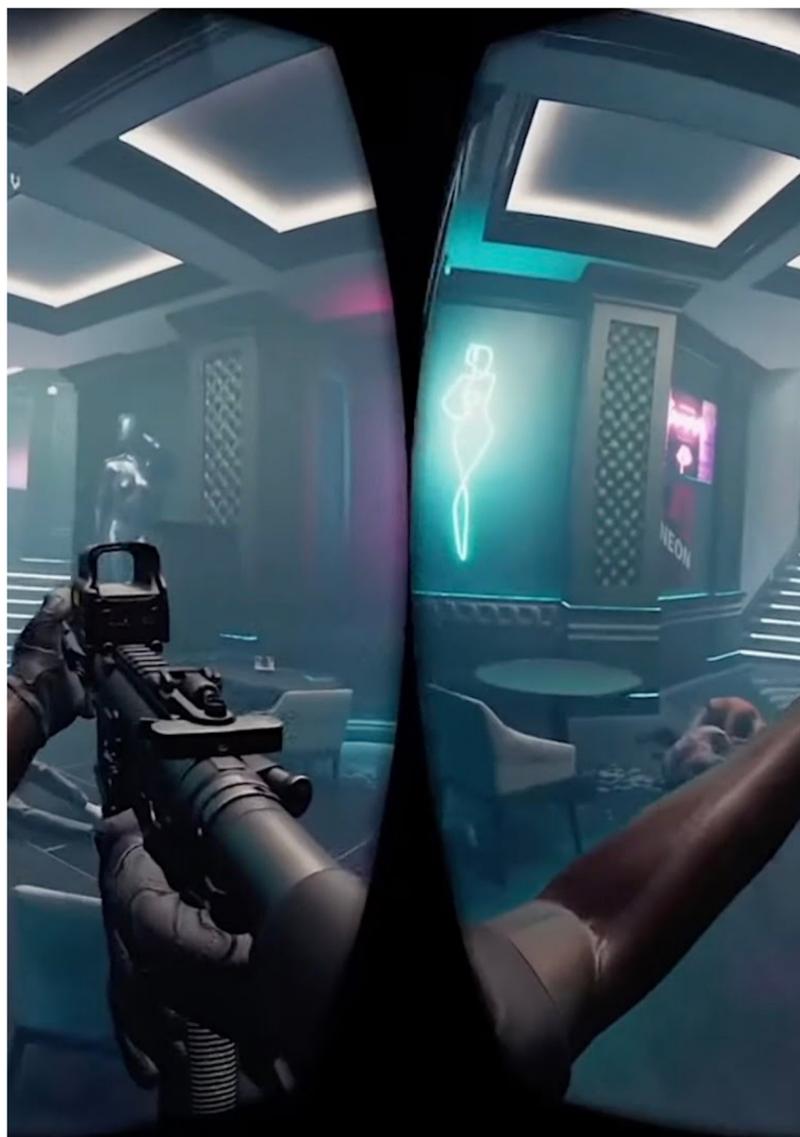
INTRODUCTION



UNREAL ENGINE

USES

VR



AR



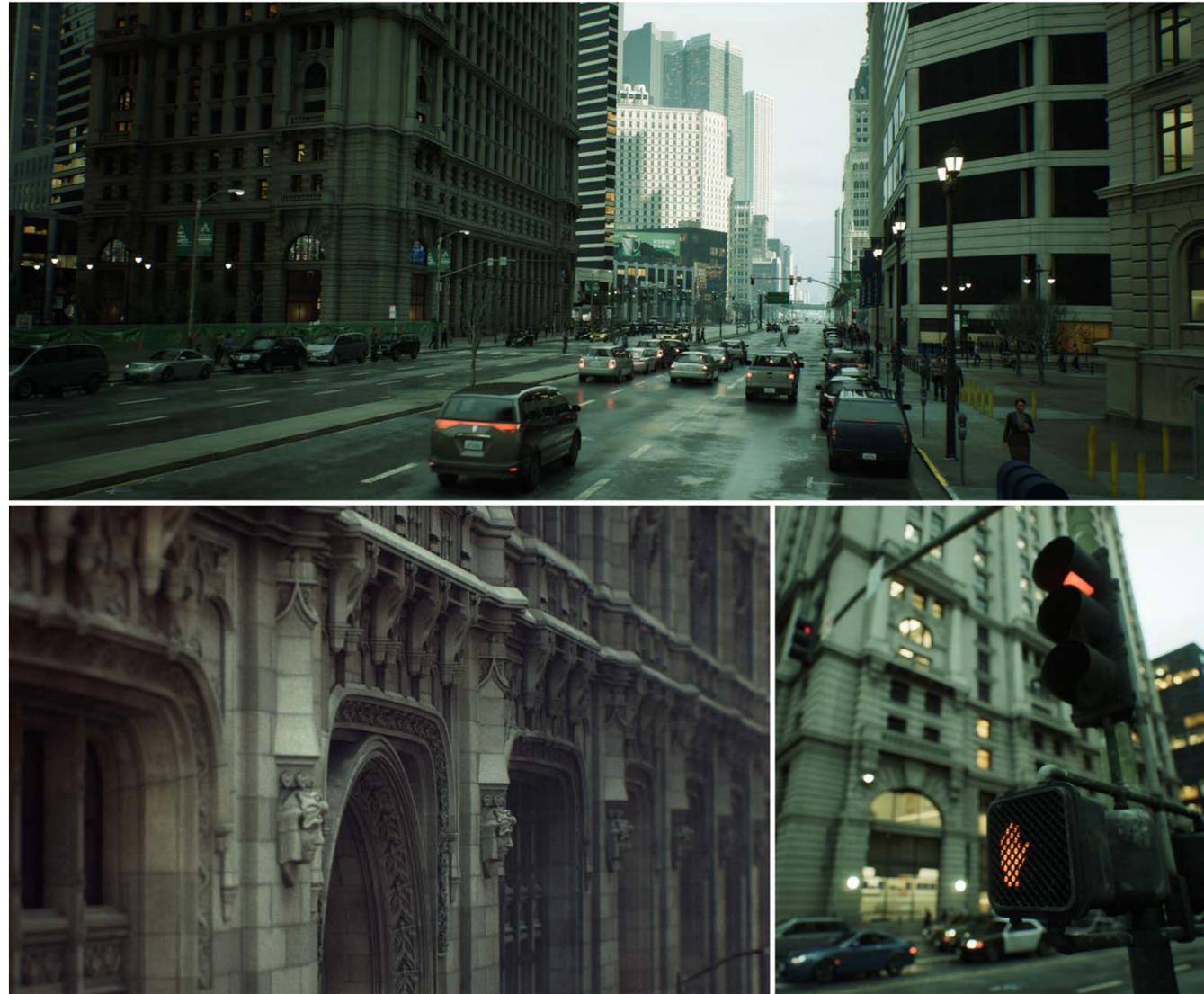
ARCHVIS



NOT FOR MODELING!



NANITE



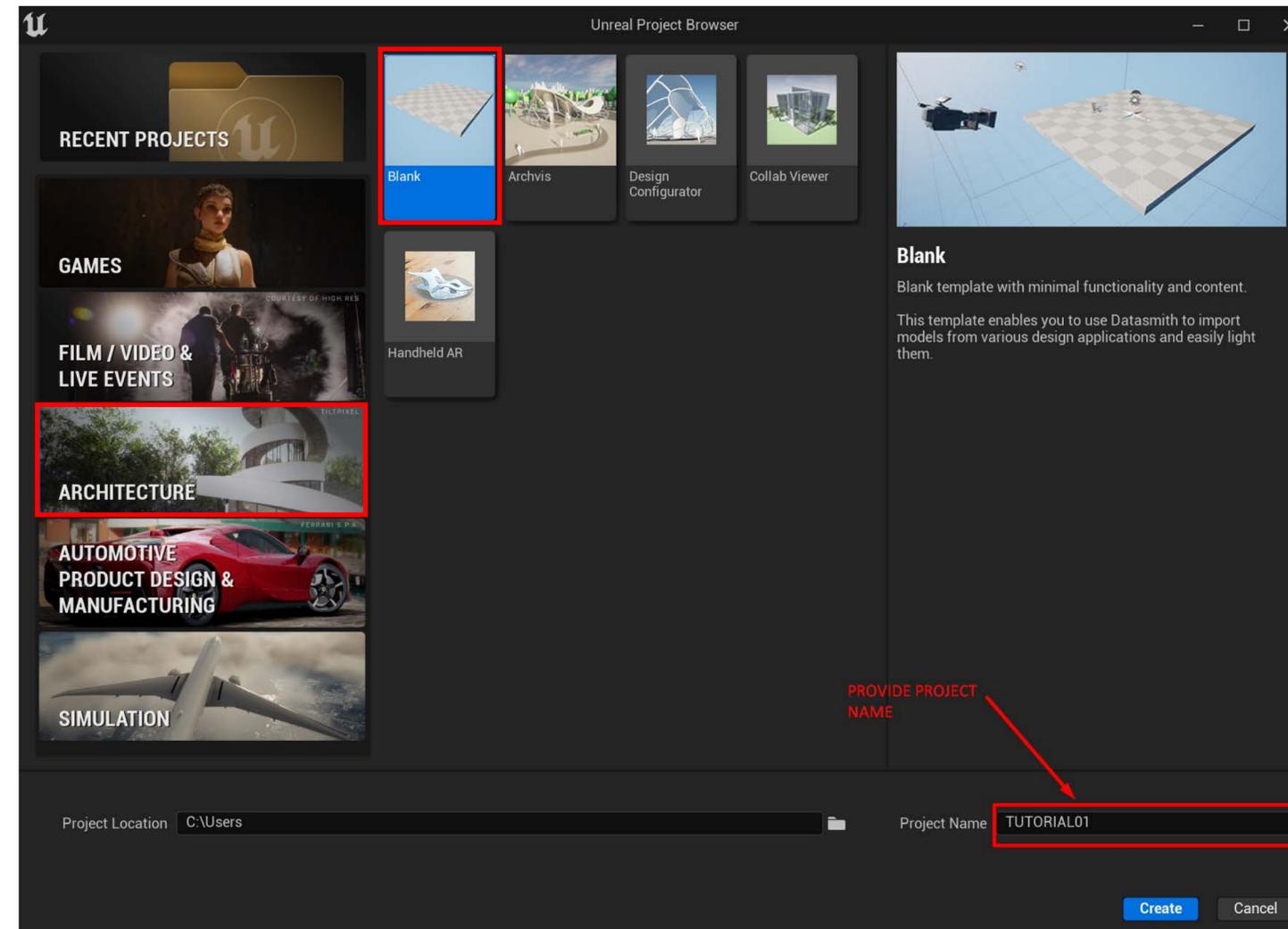
<https://docs.unrealengine.com/5.0/en-US/nanite-virtualized-geometry-in-unreal-engine/>

LUMENS

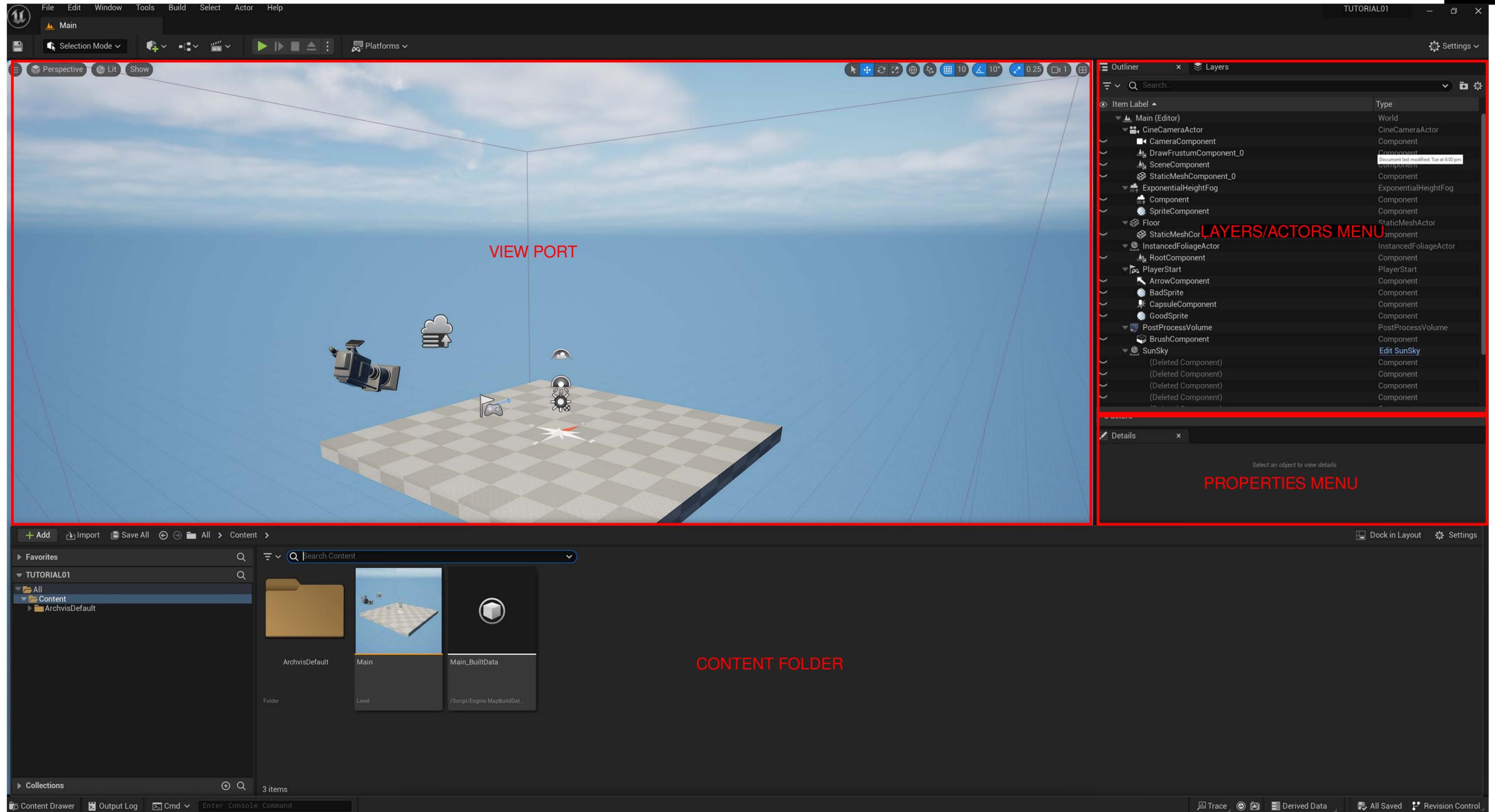


<https://docs.unrealengine.com/5.0/en-US/lumen-global-illumination-and-reflections-in-unreal-engine/#:~:text=Lumen%20is%20Unreal%20Engine%20s,global%20illumination%20and%20reflections%20system.>

START UP UNREAL ENGINE



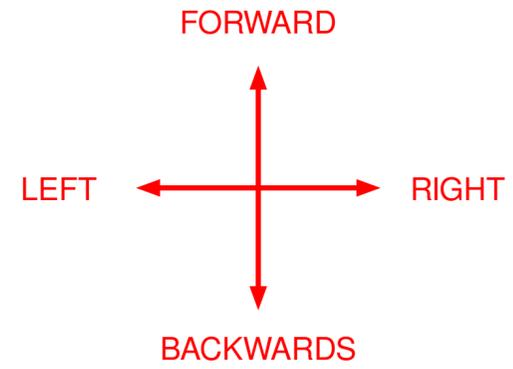
INTERFACE



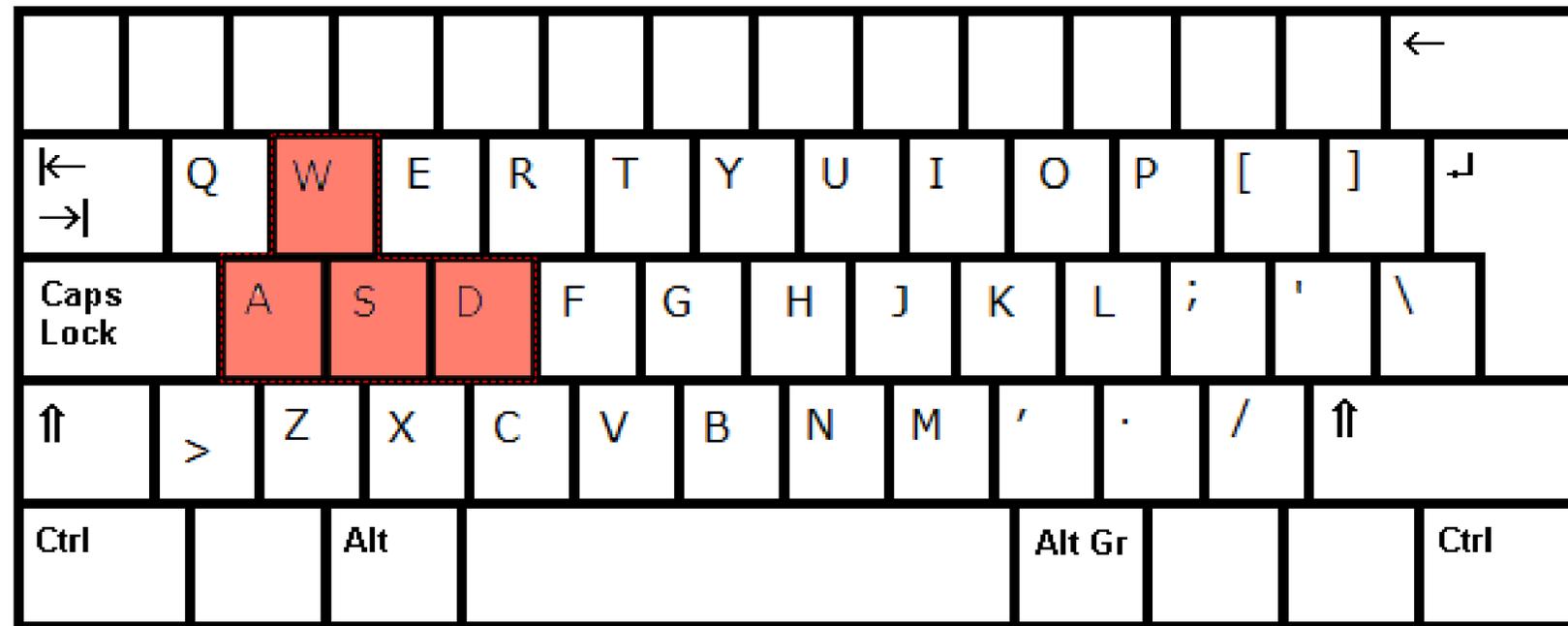
The screenshot displays the Unreal Engine interface with several key components highlighted:

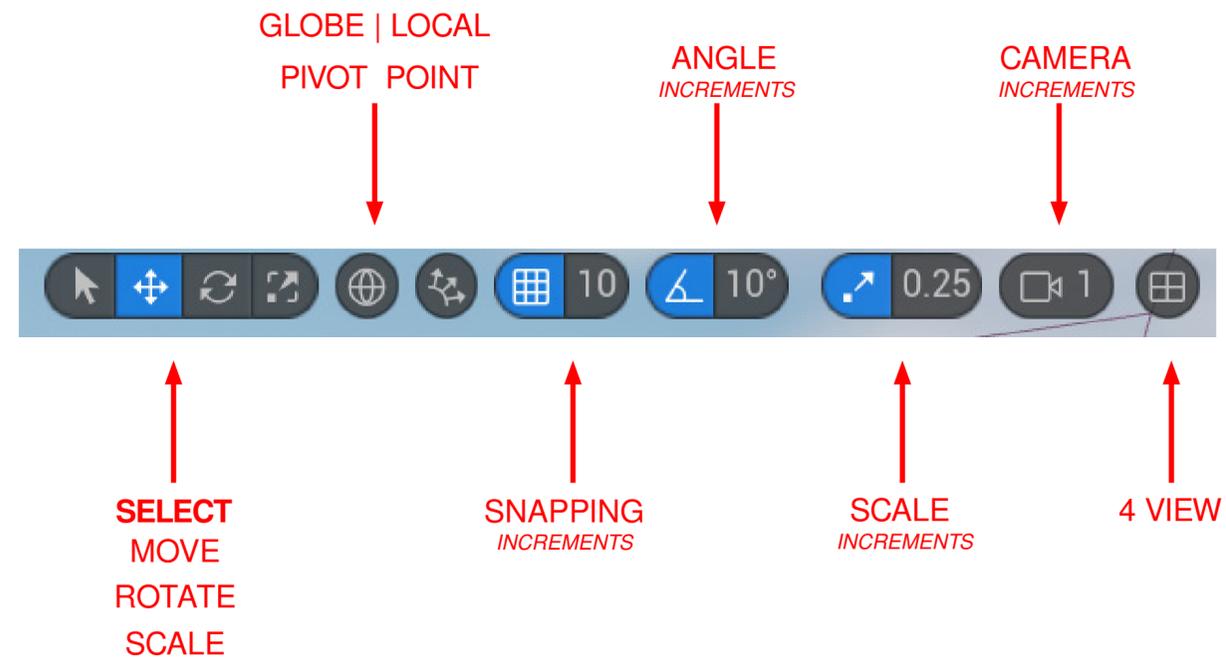
- VIEW PORT:** The central 3D view area showing a perspective view of a simple level with a blue sky, a blue floor, and a grey and white checkered floor. A camera actor is visible in the scene.
- LAYERS/ACTORS MENU:** The Outliner panel on the right side of the interface, which lists the hierarchy of objects in the scene. It includes a search bar and a list of items with their respective types.
- PROPERTIES MENU:** The Details panel at the bottom right, which is currently empty and prompts the user to "Select an object to view details."
- CONTENT FOLDER:** The Content Browser at the bottom left, showing a folder structure for "TUTORIAL01" with sub-folders like "Content" and "ArchvisDefault". It displays three items: "ArchvisDefault" (Folder), "Main" (Level), and "Main_BuiltData" (Script/Engine MapBuildDat...).

Item Label	Type
Main (Editor)	World
CineCameraActor	CineCameraActor
CameraComponent	Component
DrawFrustumComponent_0	Component
SceneComponent	Component
StaticMeshComponent_0	Component
ExponentialHeightFog	ExponentialHeightFog
Component	Component
SpriteComponent	Component
Floor	StaticMeshActor
StaticMeshCor	Component
InstancedFoliageActor	InstancedFoliageActor
RootComponent	Component
PlayerStart	PlayerStart
ArrowComponent	Component
BadSprite	Component
CapsuleComponent	Component
GoodSprite	Component
PostProcessVolume	PostProcessVolume
BrushComponent	Component
SunSky	Edit SunSky
(Deleted Component)	Component

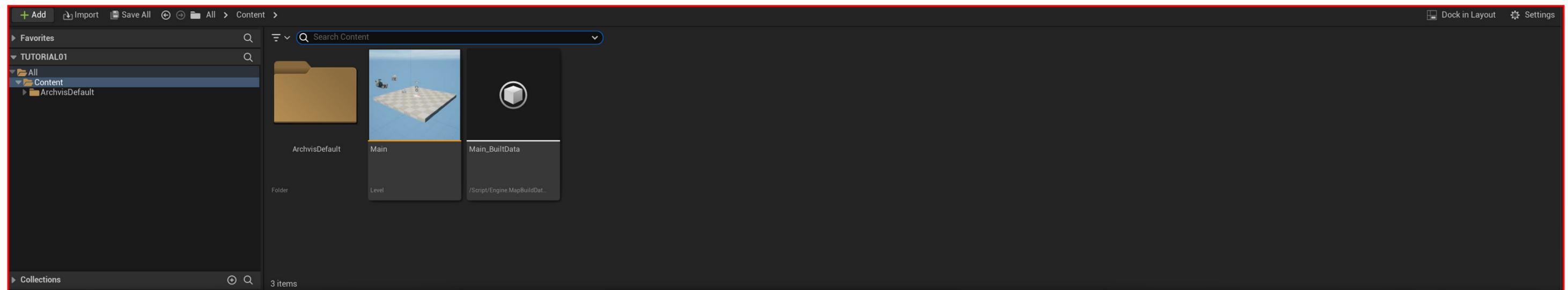


RIGHT-CLICK



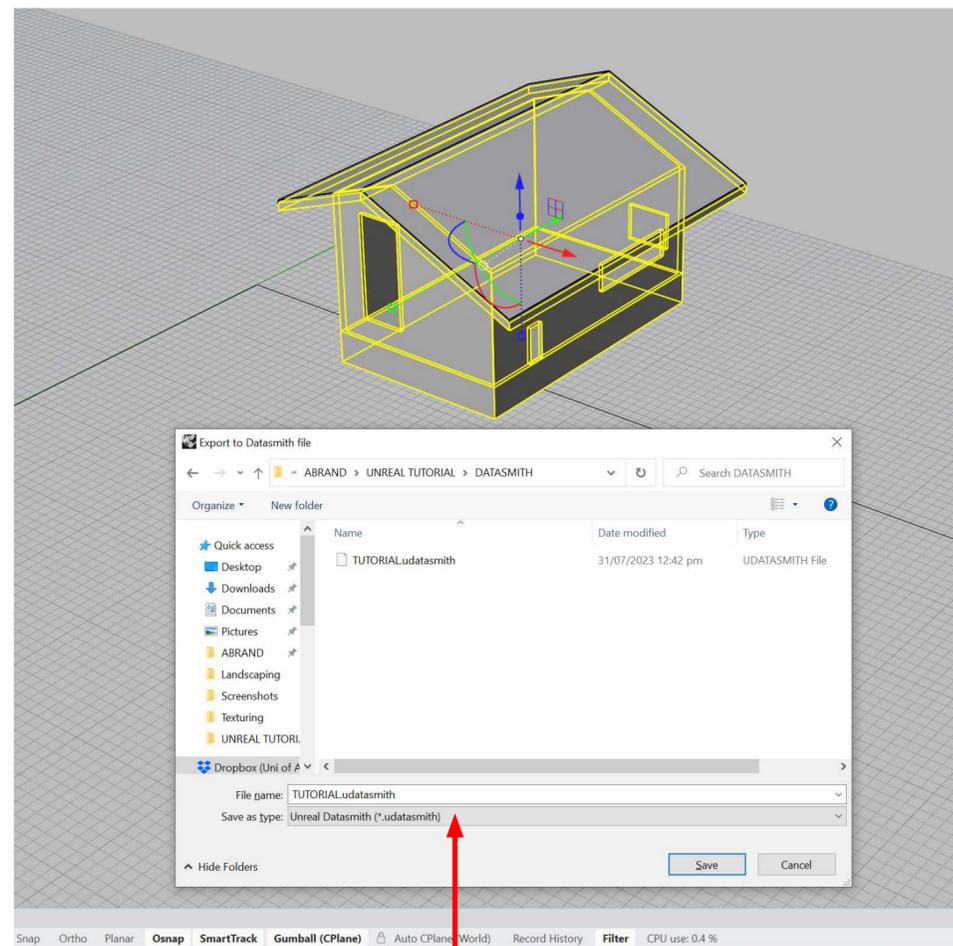
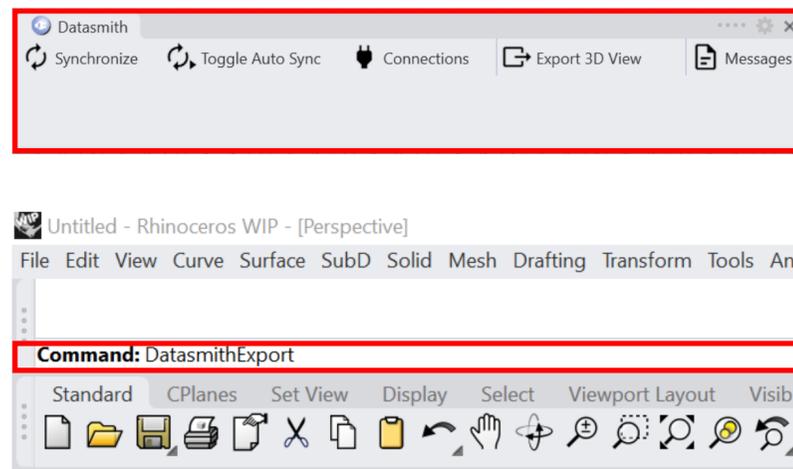
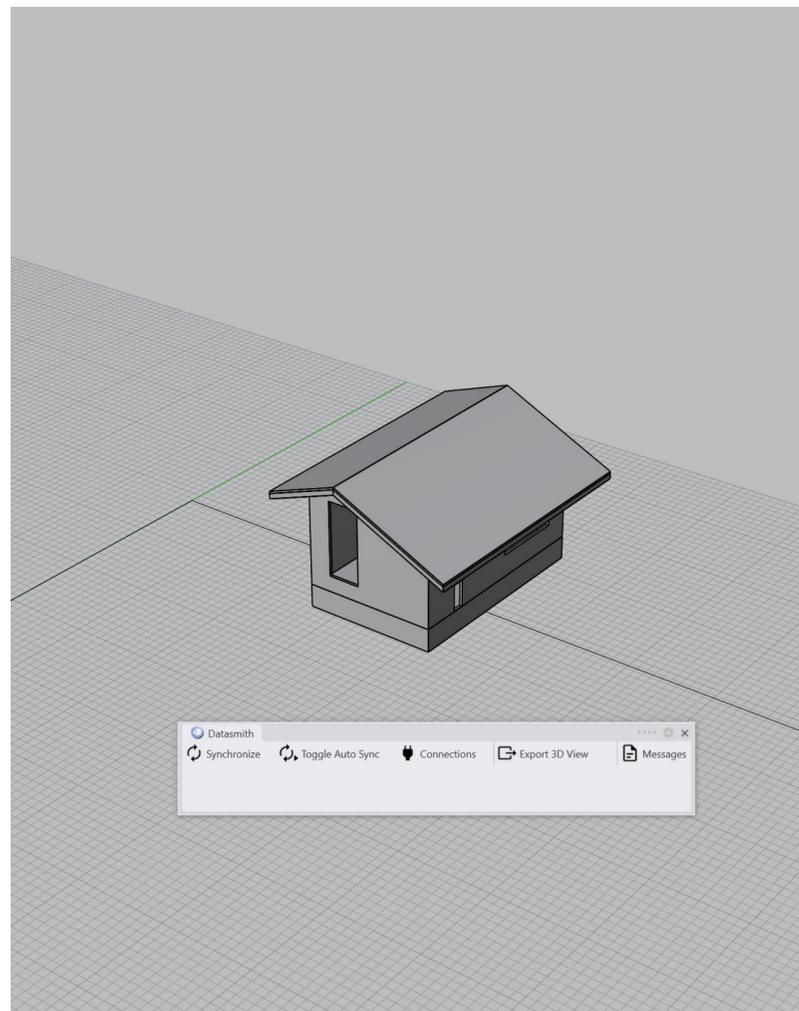


CONTENT DRAWER



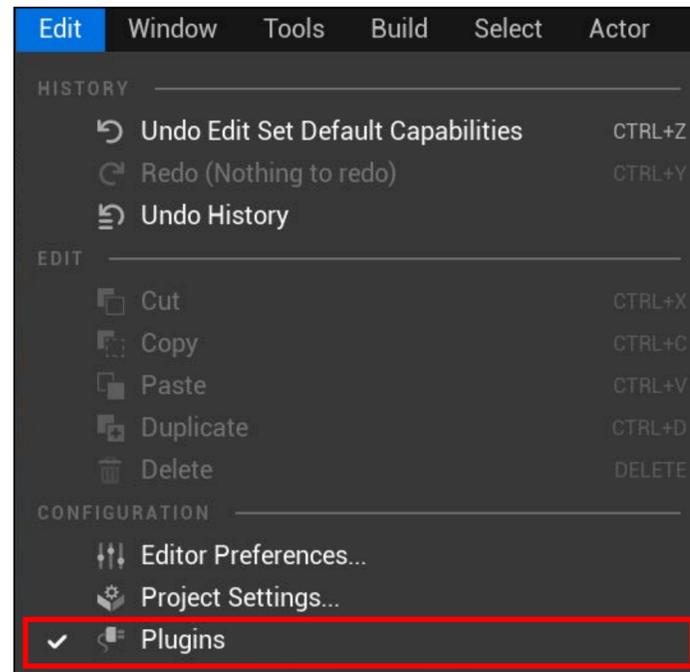
FOLDER SYSTEM FOR ALL ASSETS CONTAINED IN THE PROJECT

EXPORT FROM DATA SMITH IN RHINO

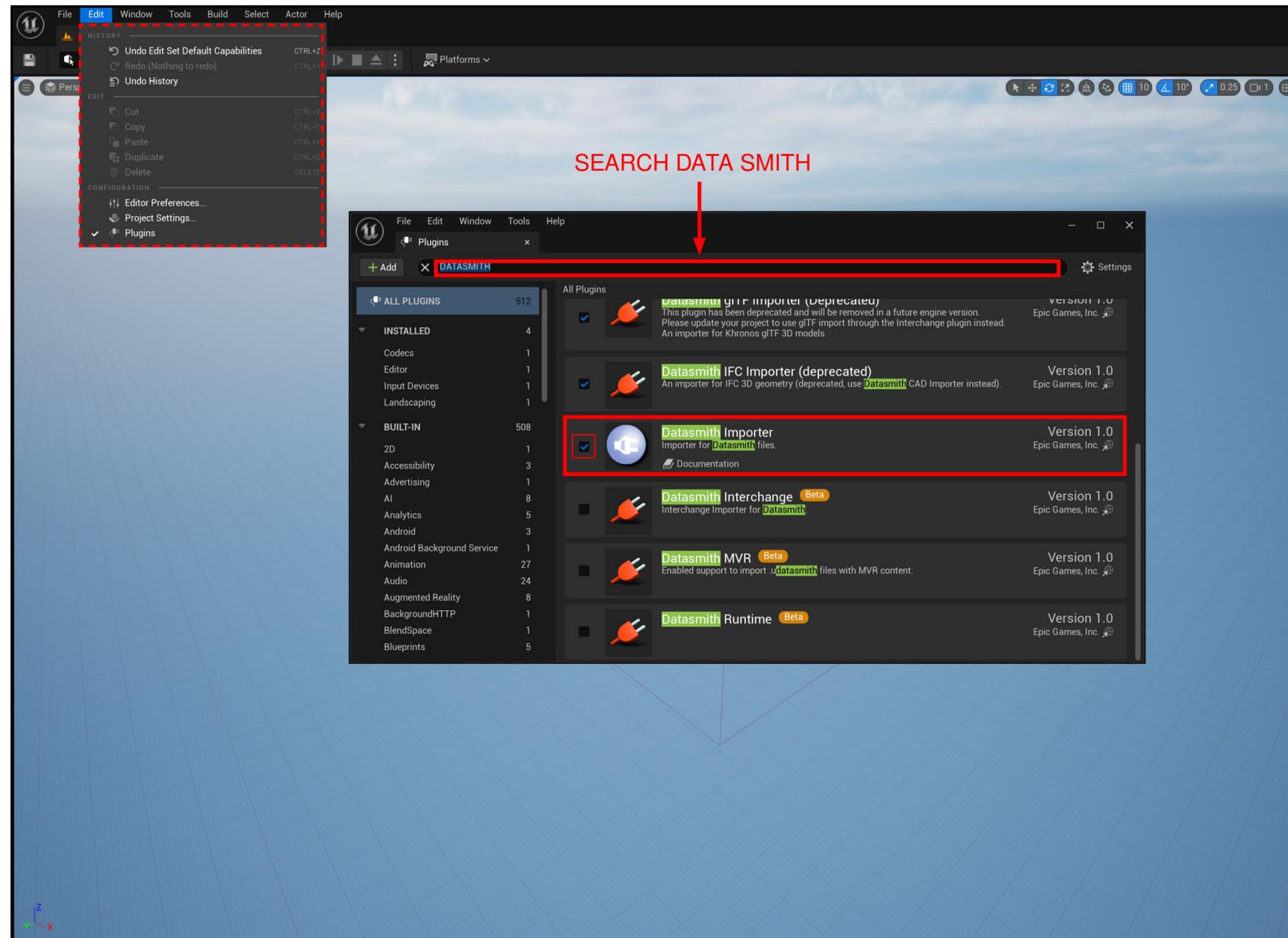


Save Data smith file (.udatasmith)

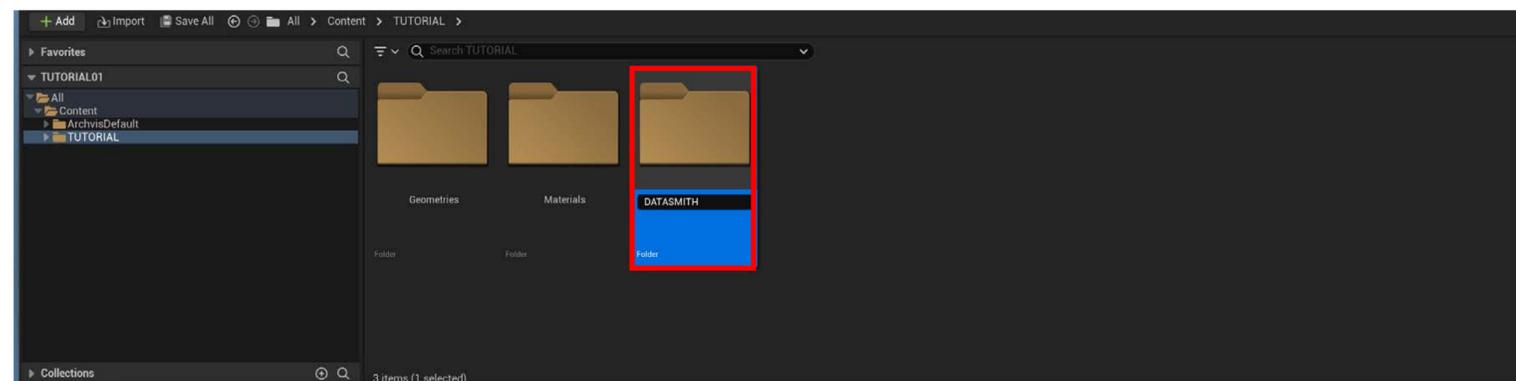
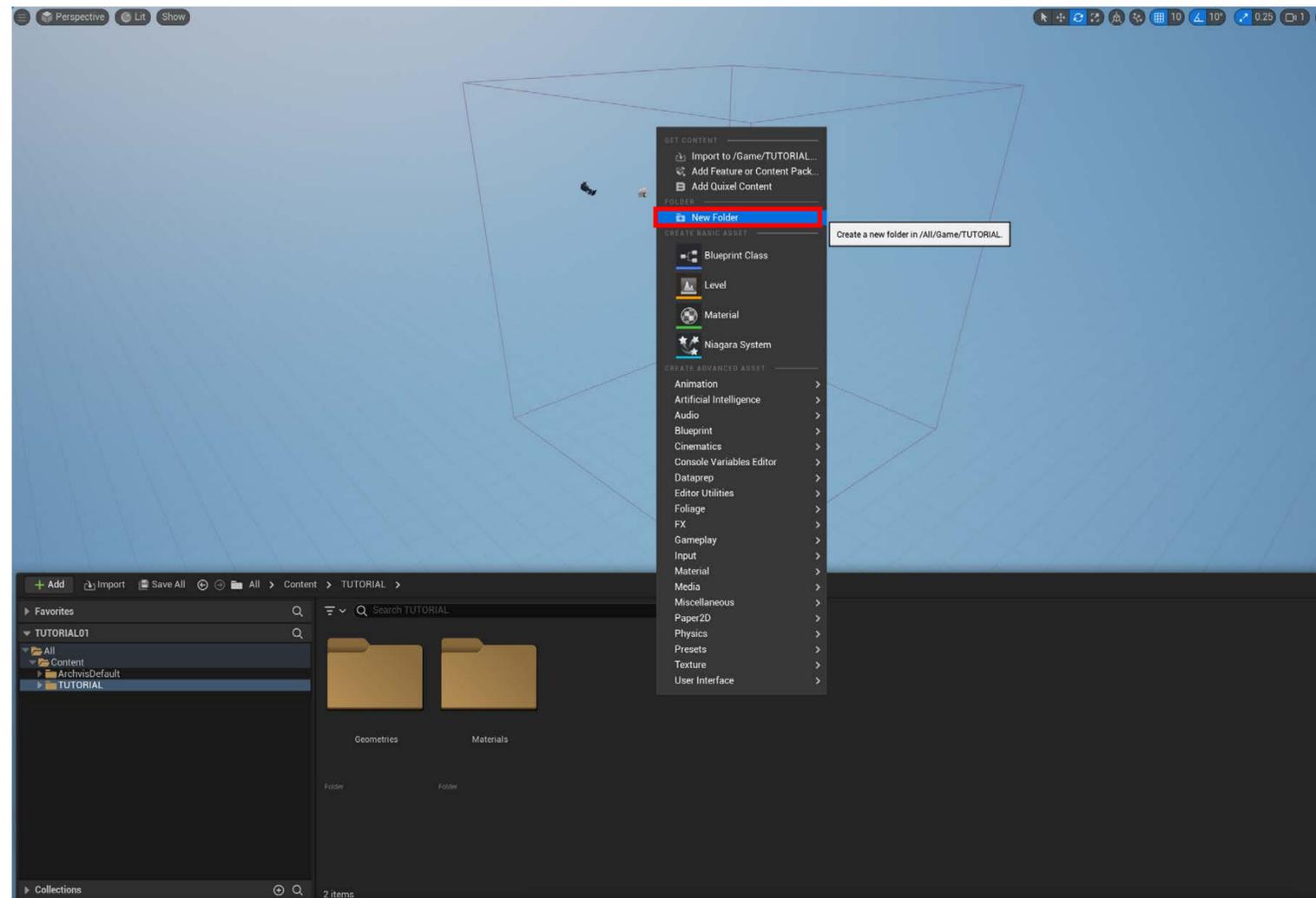
ENABLE DATA SMITH PLUG-IN IN UNREAL



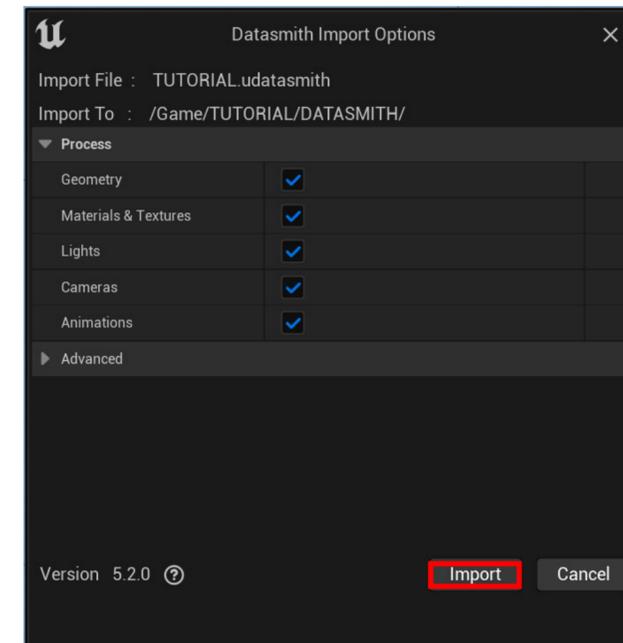
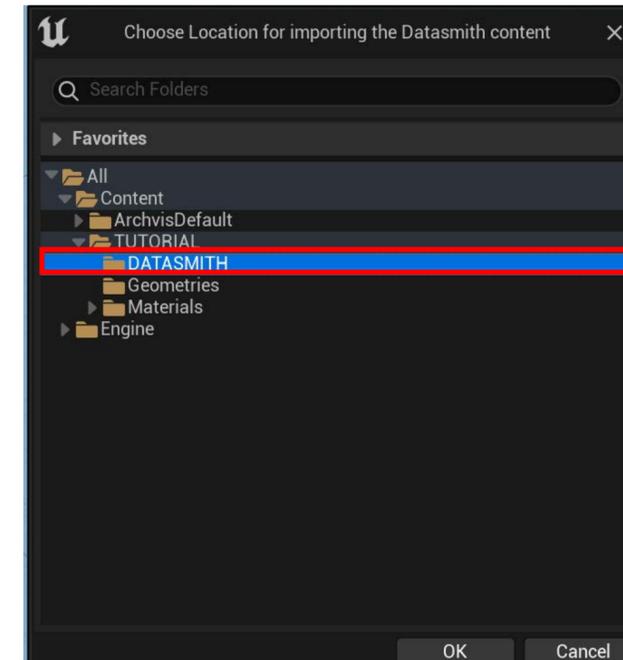
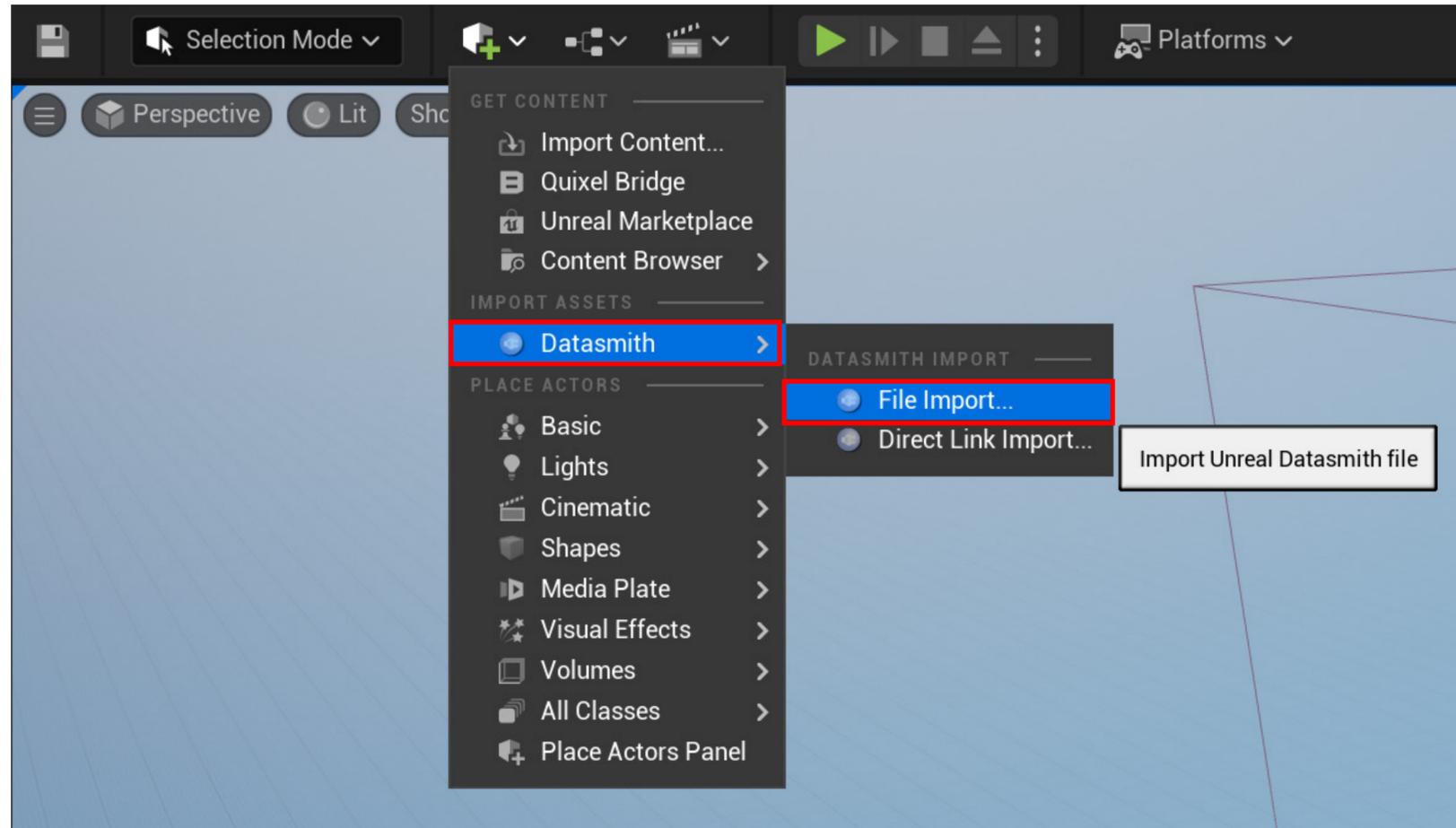
FILES>PLUG INS



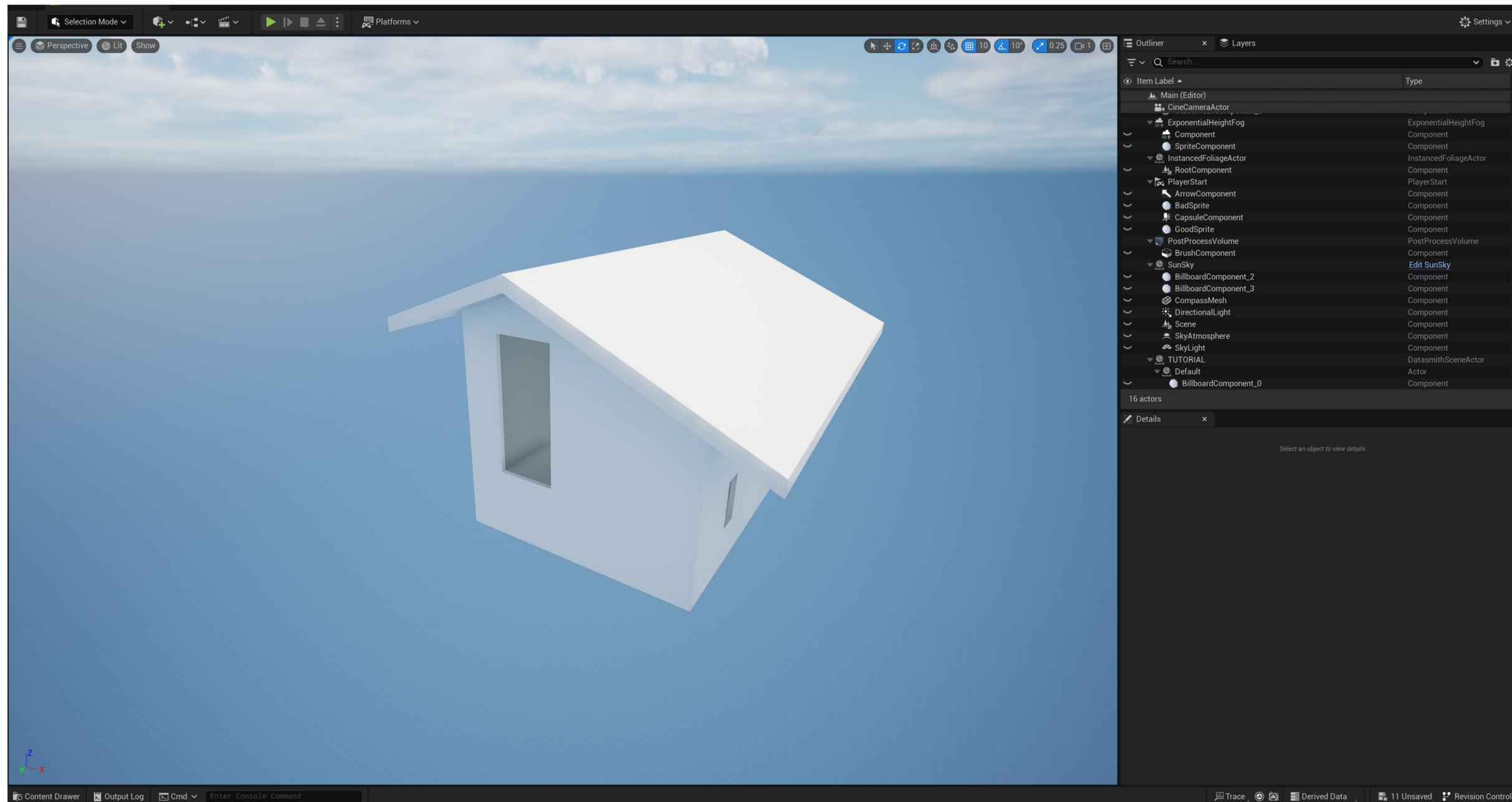
CREATE NEW FOLDER FOR DATASMITH



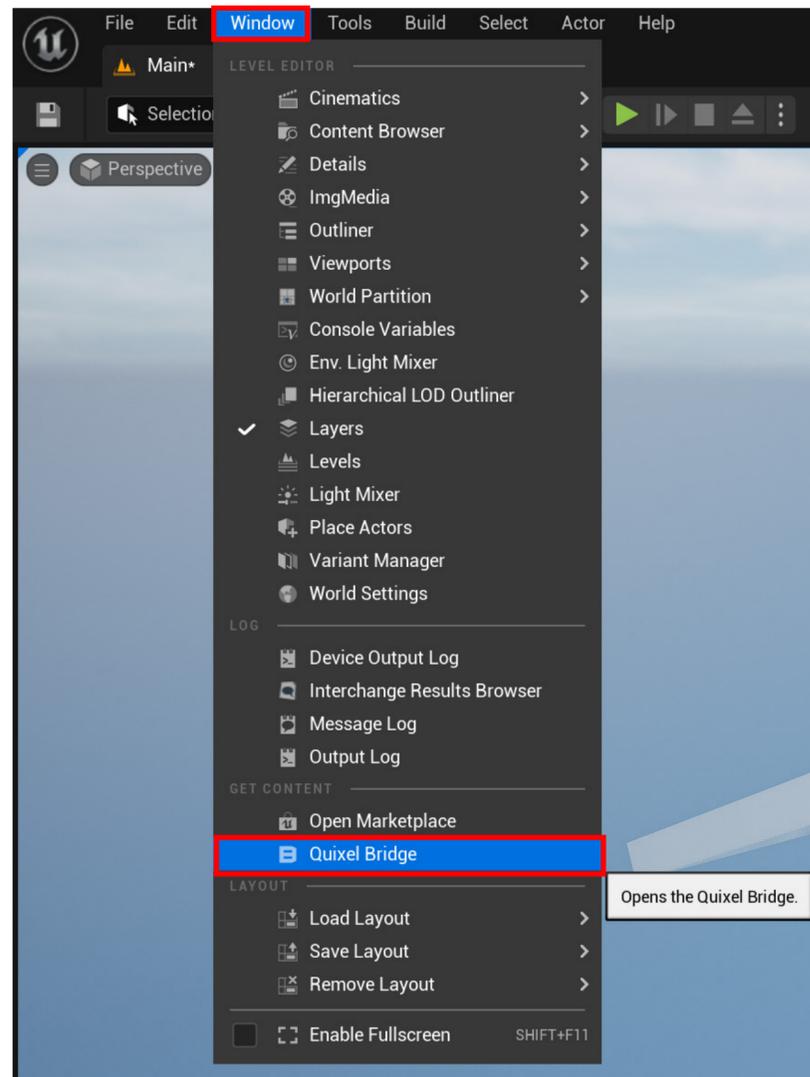
IMPORT DATASMITH FILE



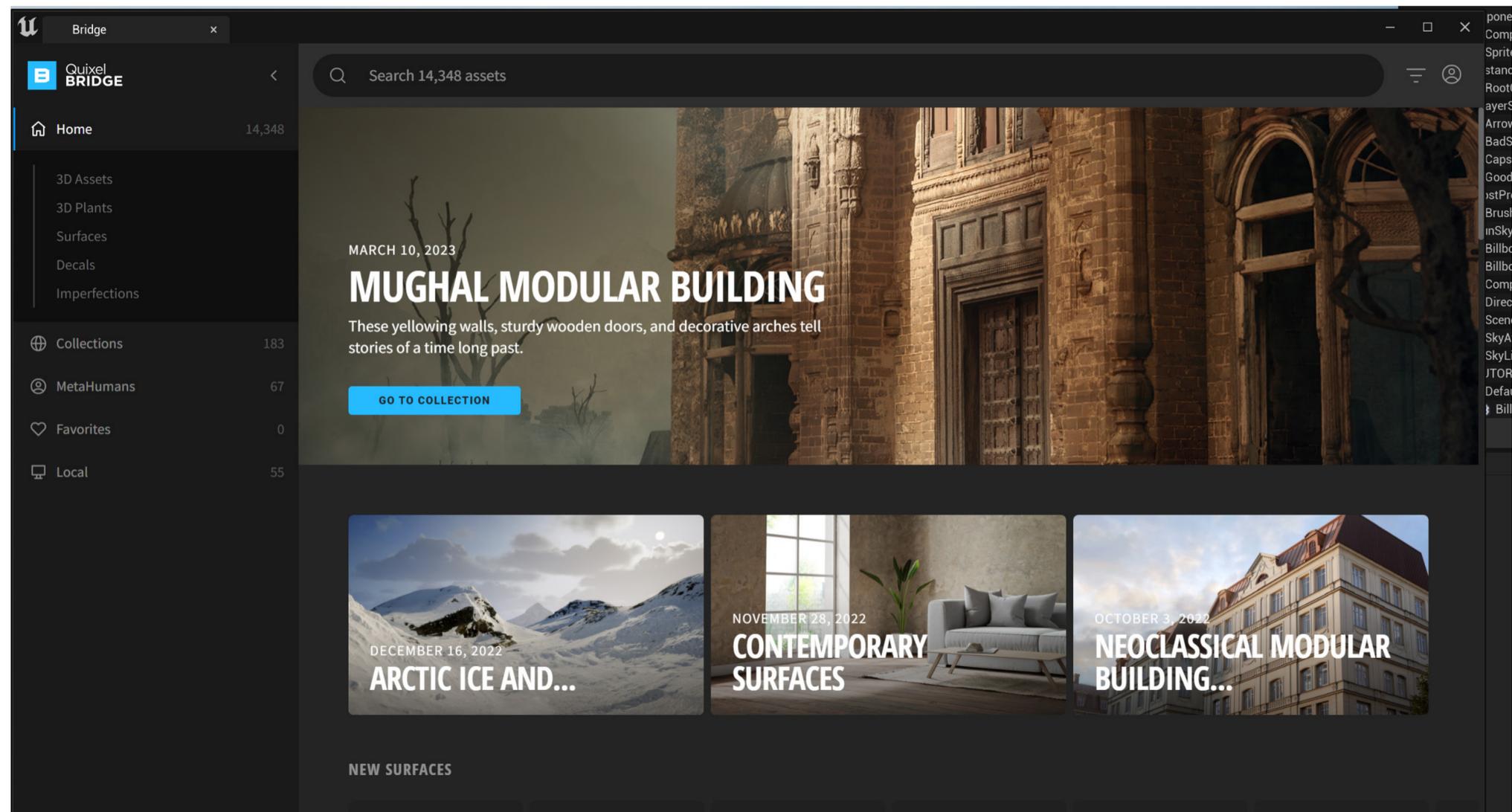
DATASMITH IMPORTED THE MODEL INTO THE SCENE



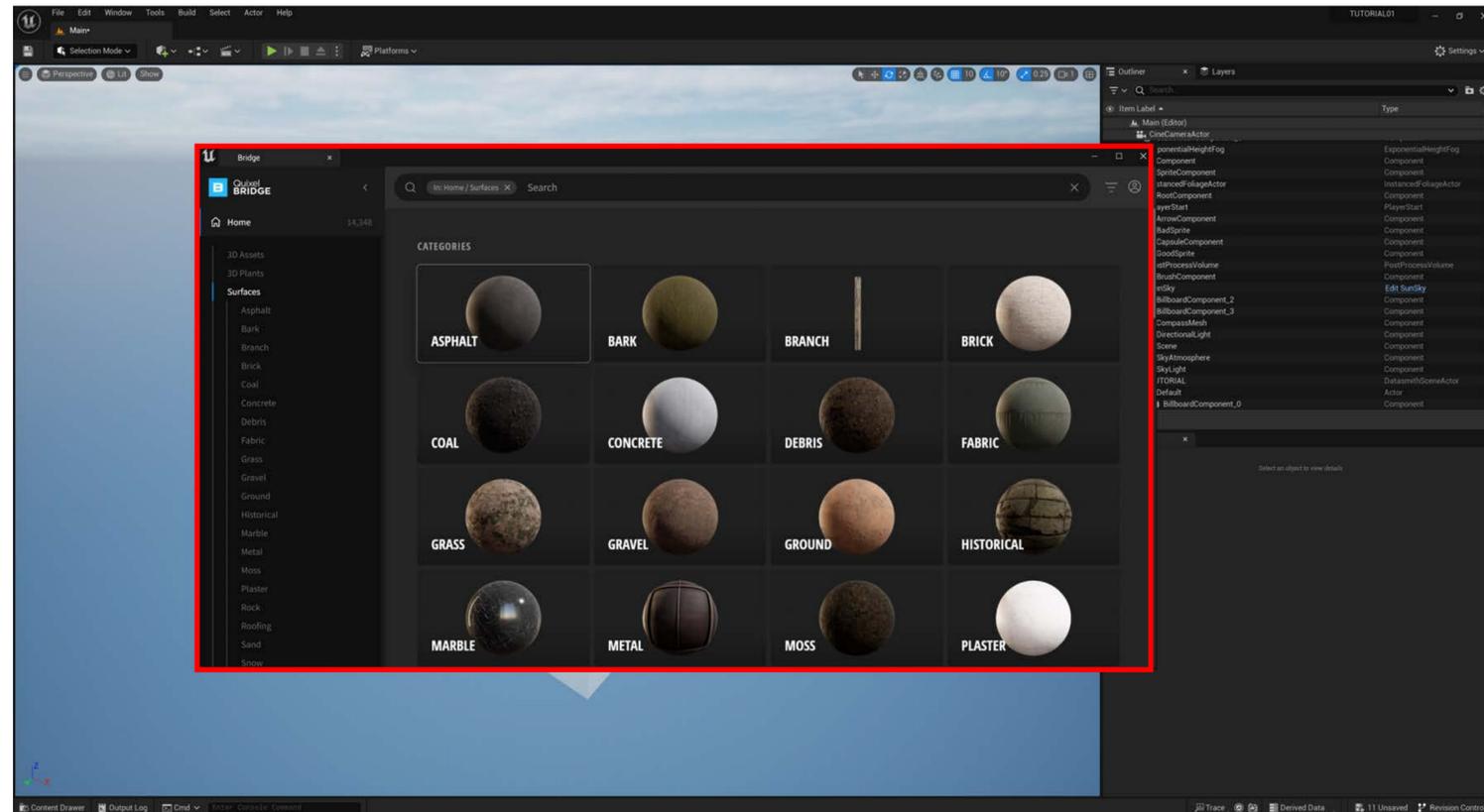
MATERIALS



QUIXEL



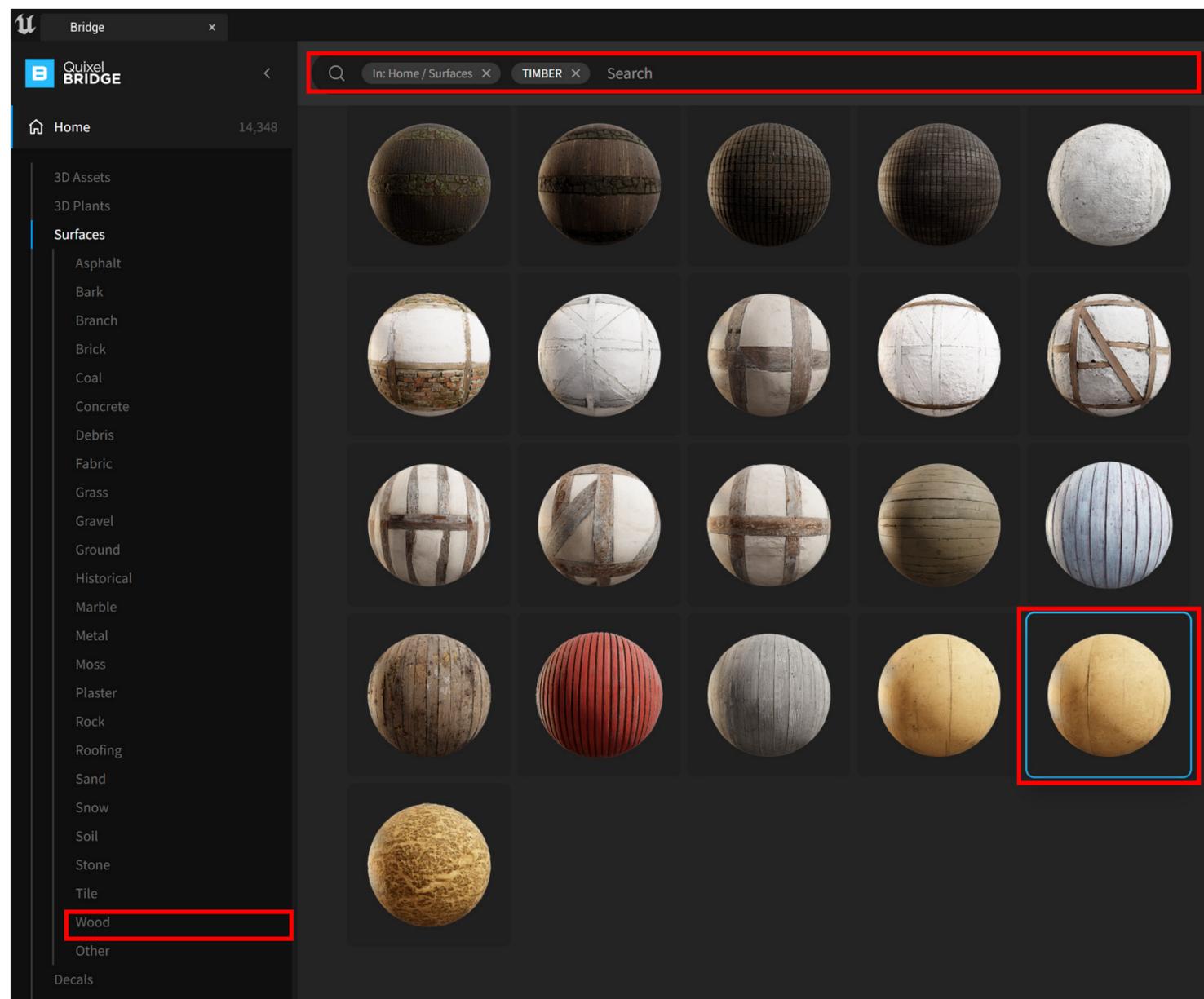
ALL ASSETS IN QUIXEL ARE FREE TO USE IN UNREAL



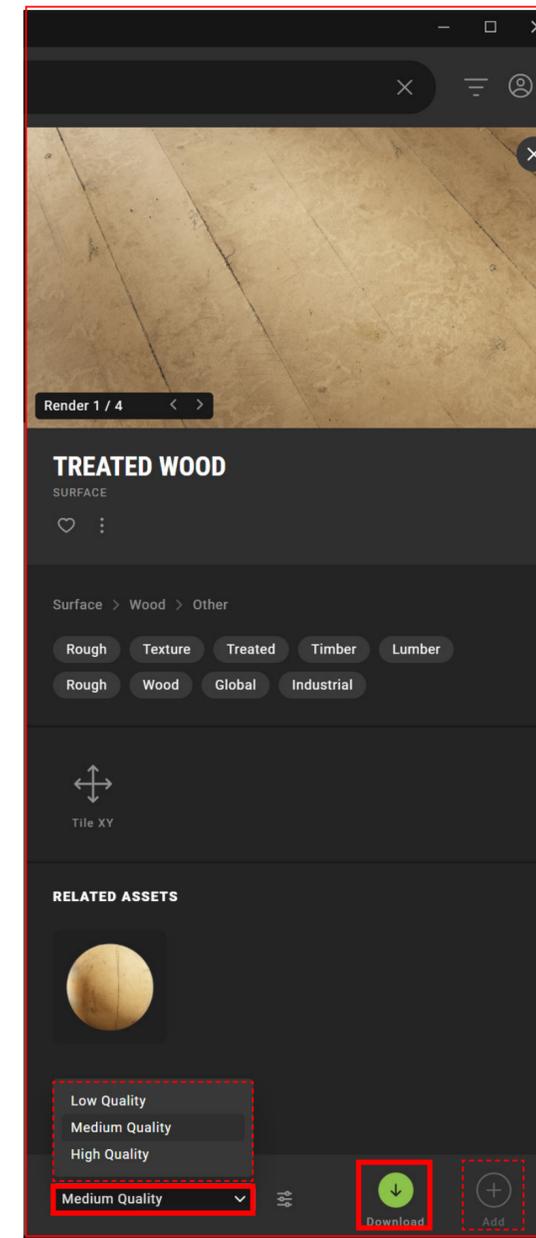
**FIND MATERIALS THROUGH THE MENU.
CATEGORIES ARE LISTED UNDER SUB MENUS**



PICK A MATERIAL

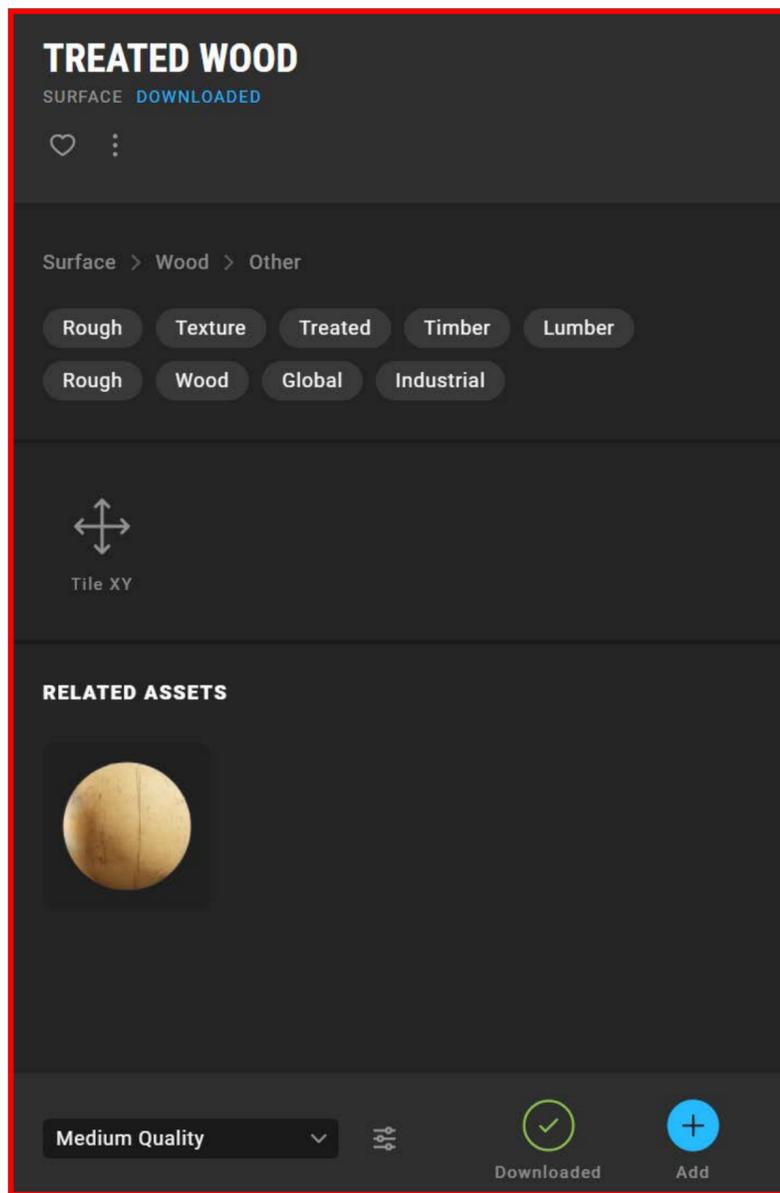


SELECT THE MATERIAL

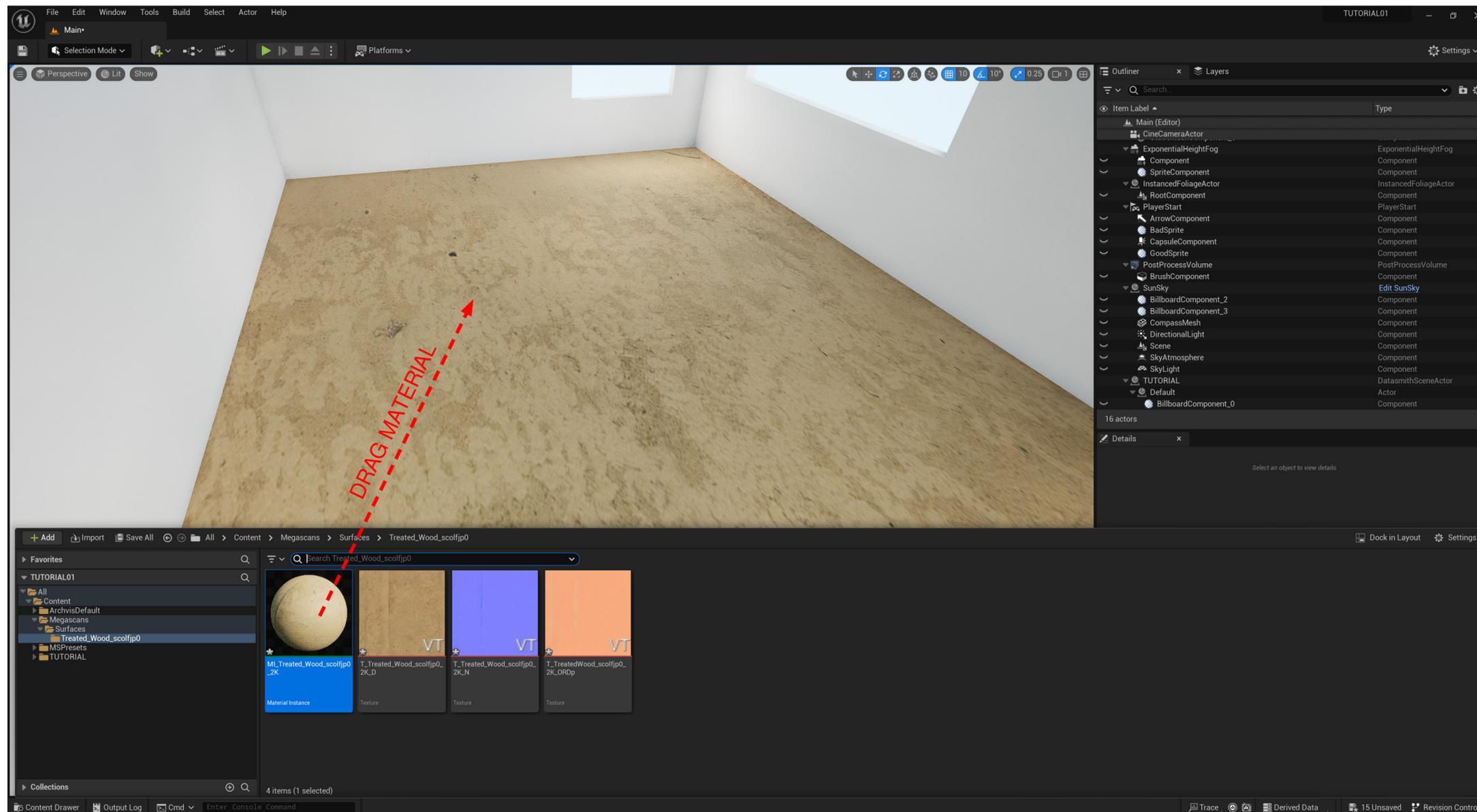


**CHOOSE THE
QUALITY AND DOWNLOAD**

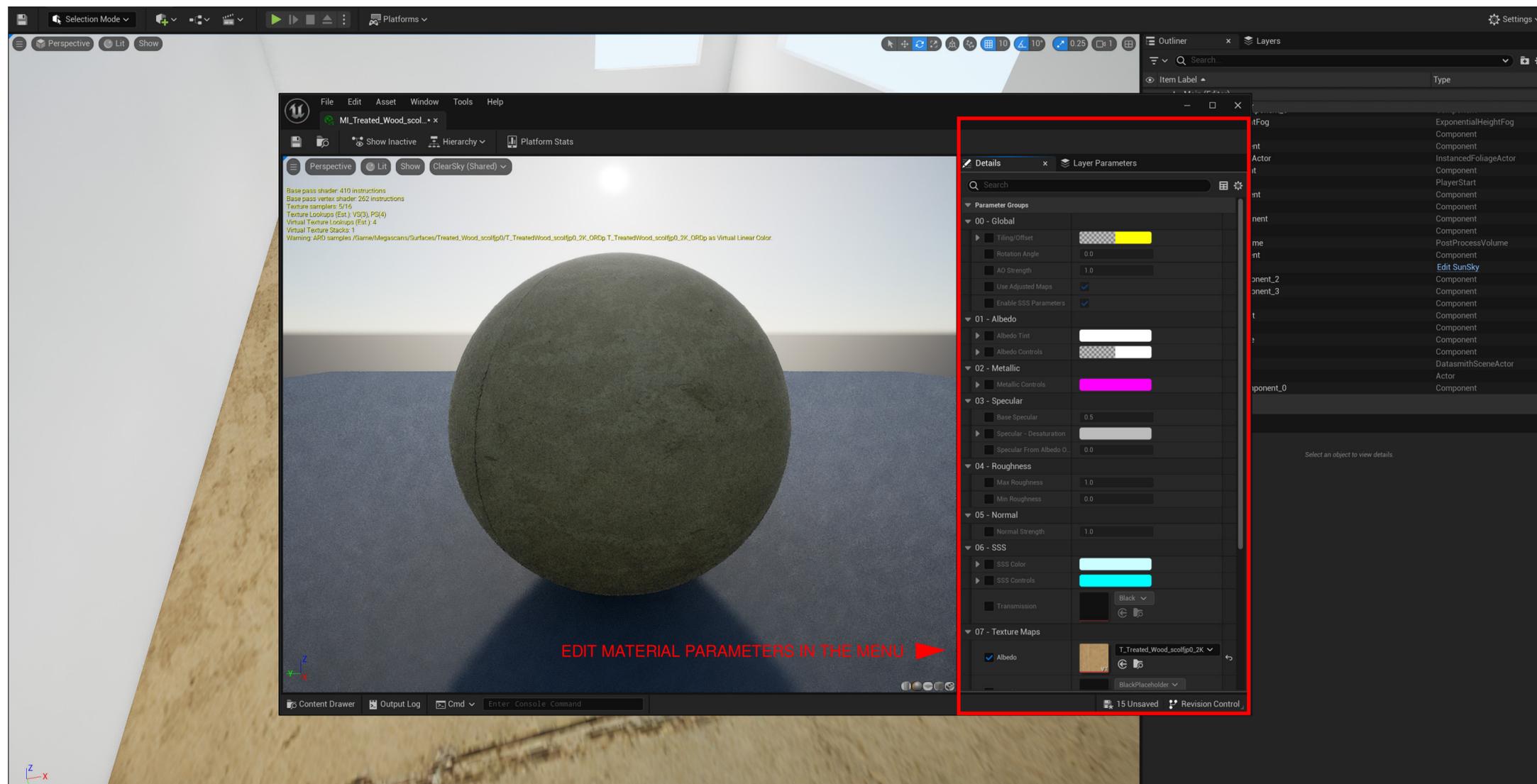
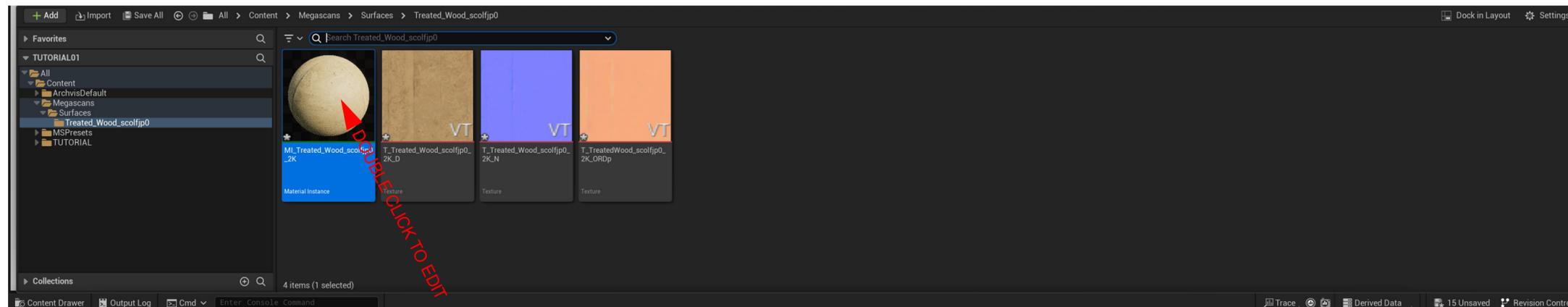
ADD MATERIAL TO MODEL



CLICK "ADD" TO ADD THE MATERIAL TO THE PROJECT

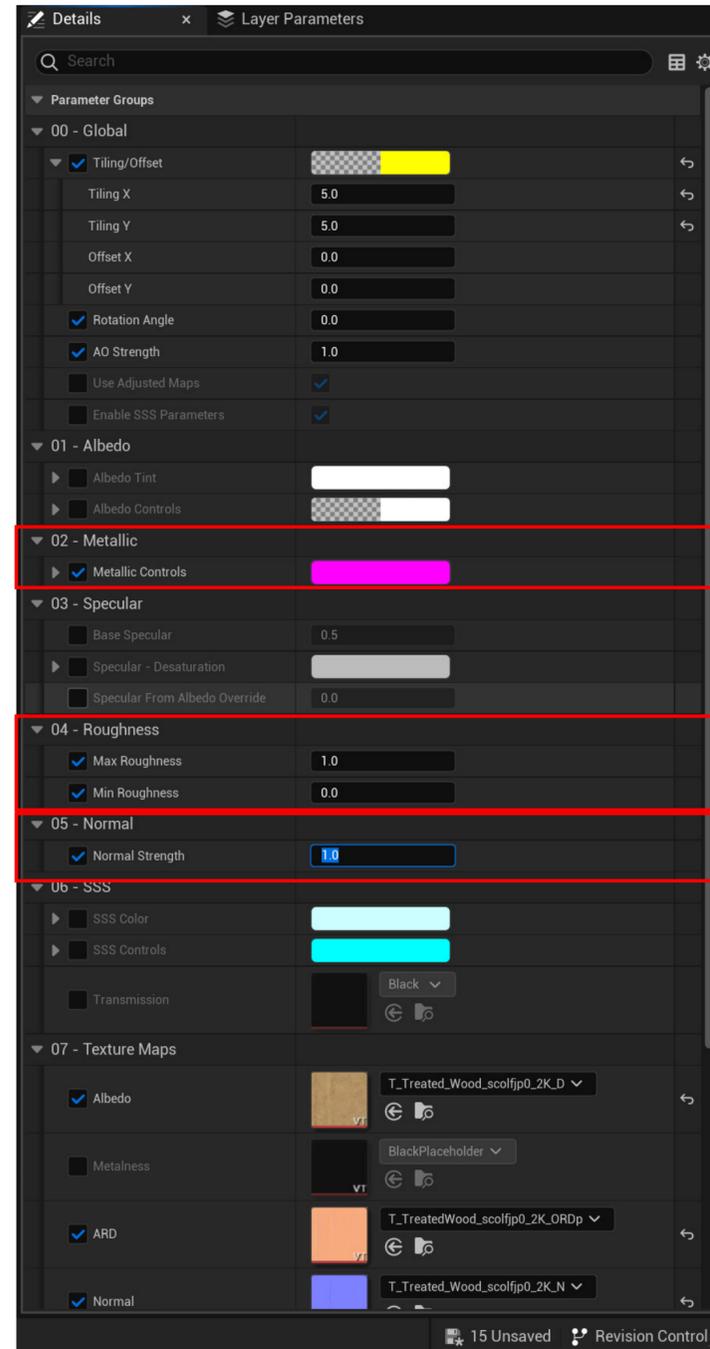
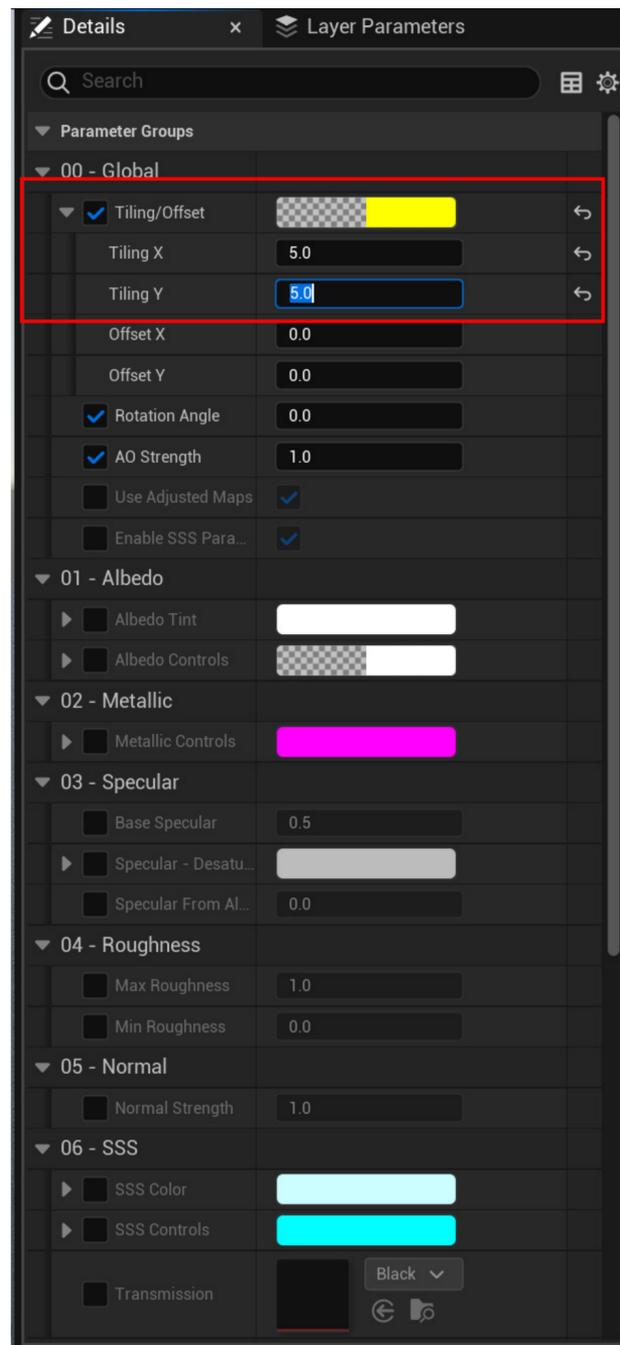


A MEGA-SCANS FOLDER IS CREATED. LOCATE THE MATERIAL WITHIN



SCALING TEXTURE

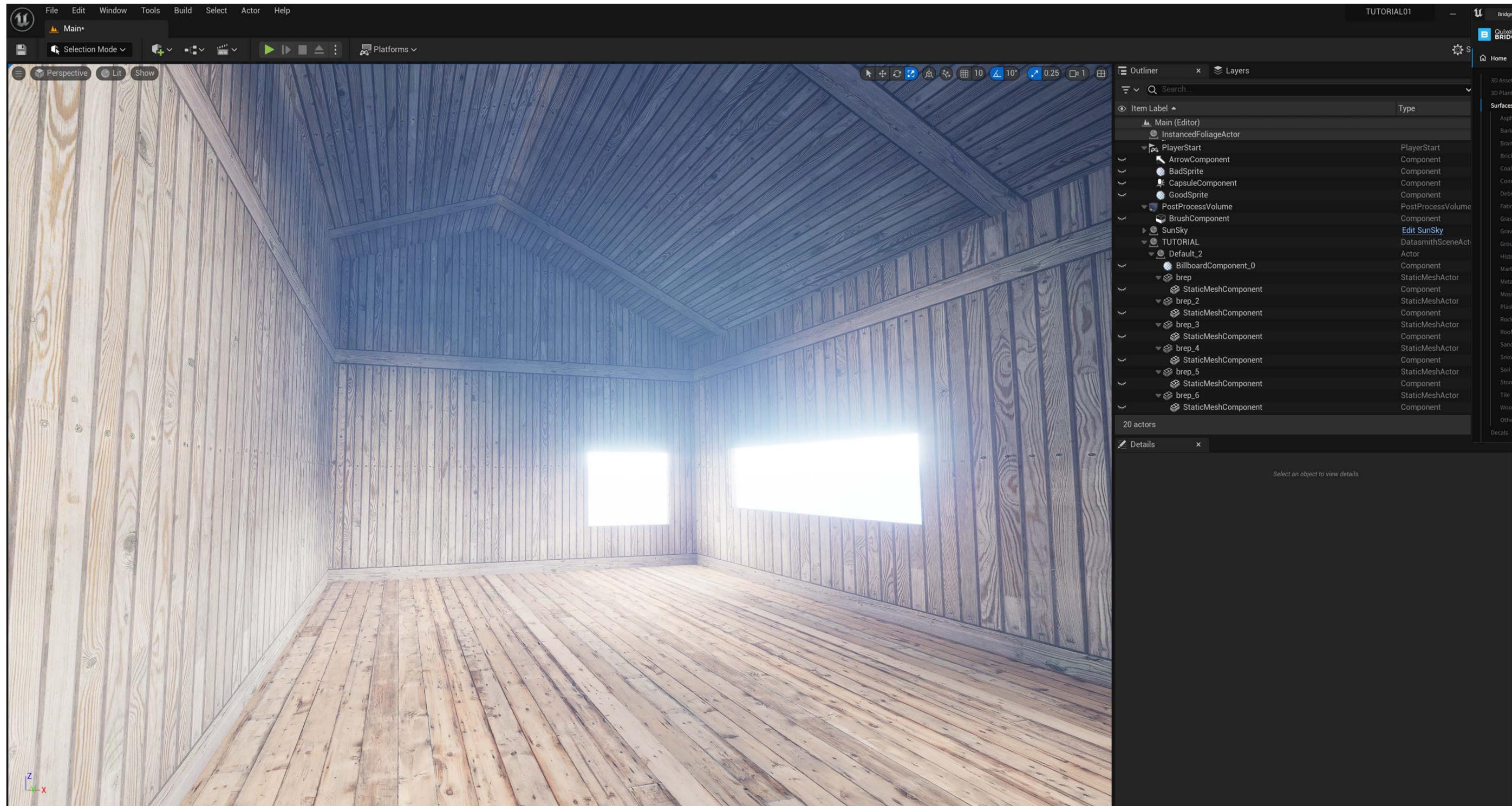
SCALES THE MATERIAL →



← ADJUSTS THE METALLIC

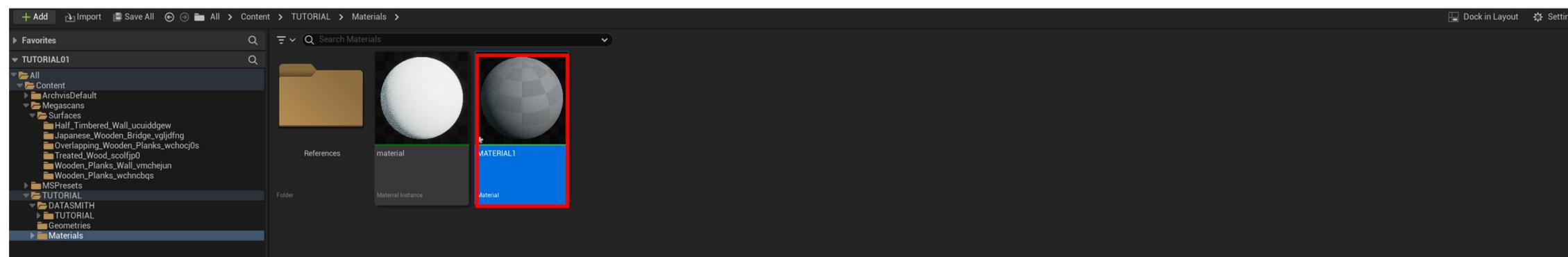
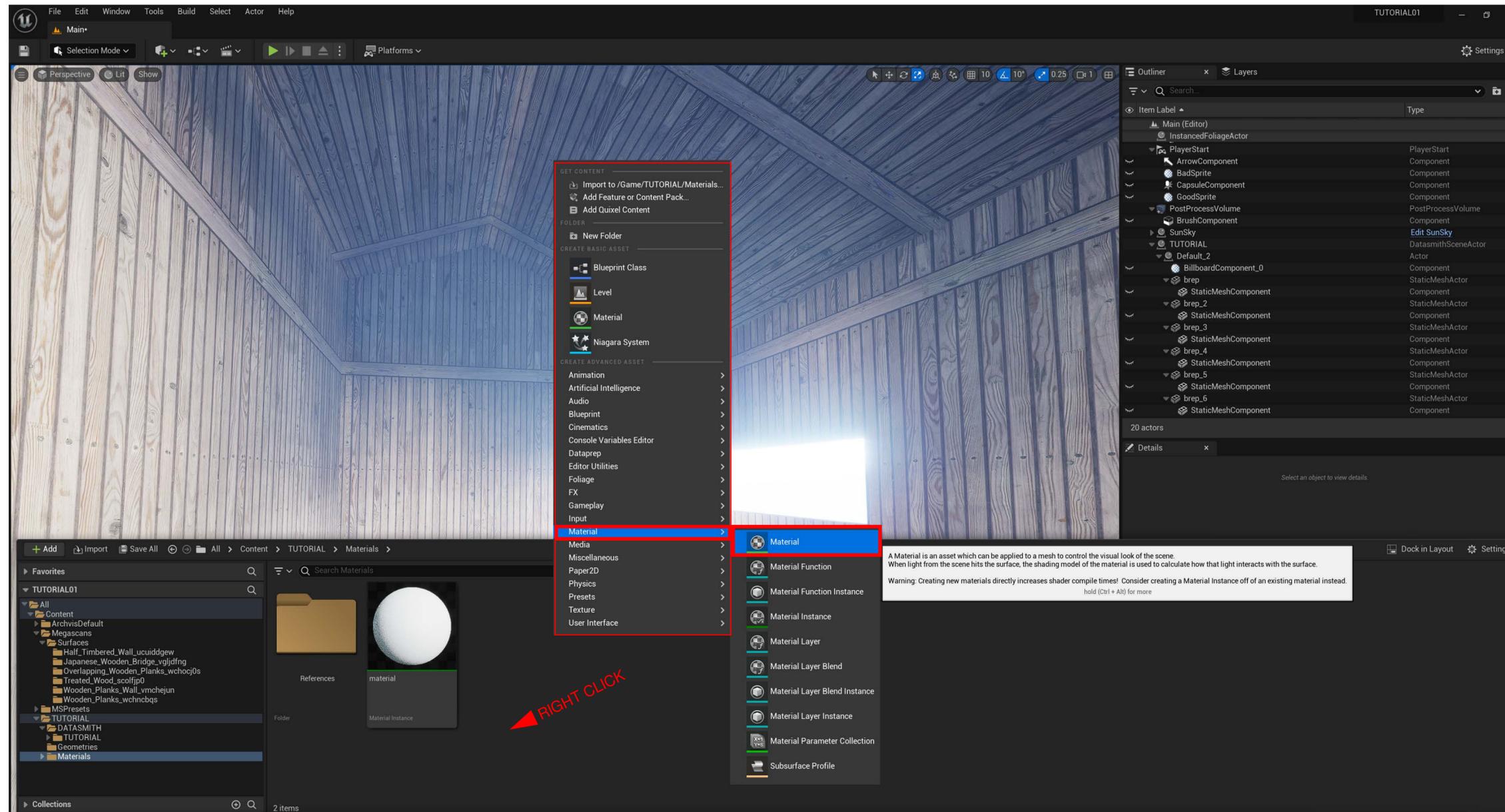
← ADJUSTS THE ROUGHNESS

← ADJUSTS THE NORMAL

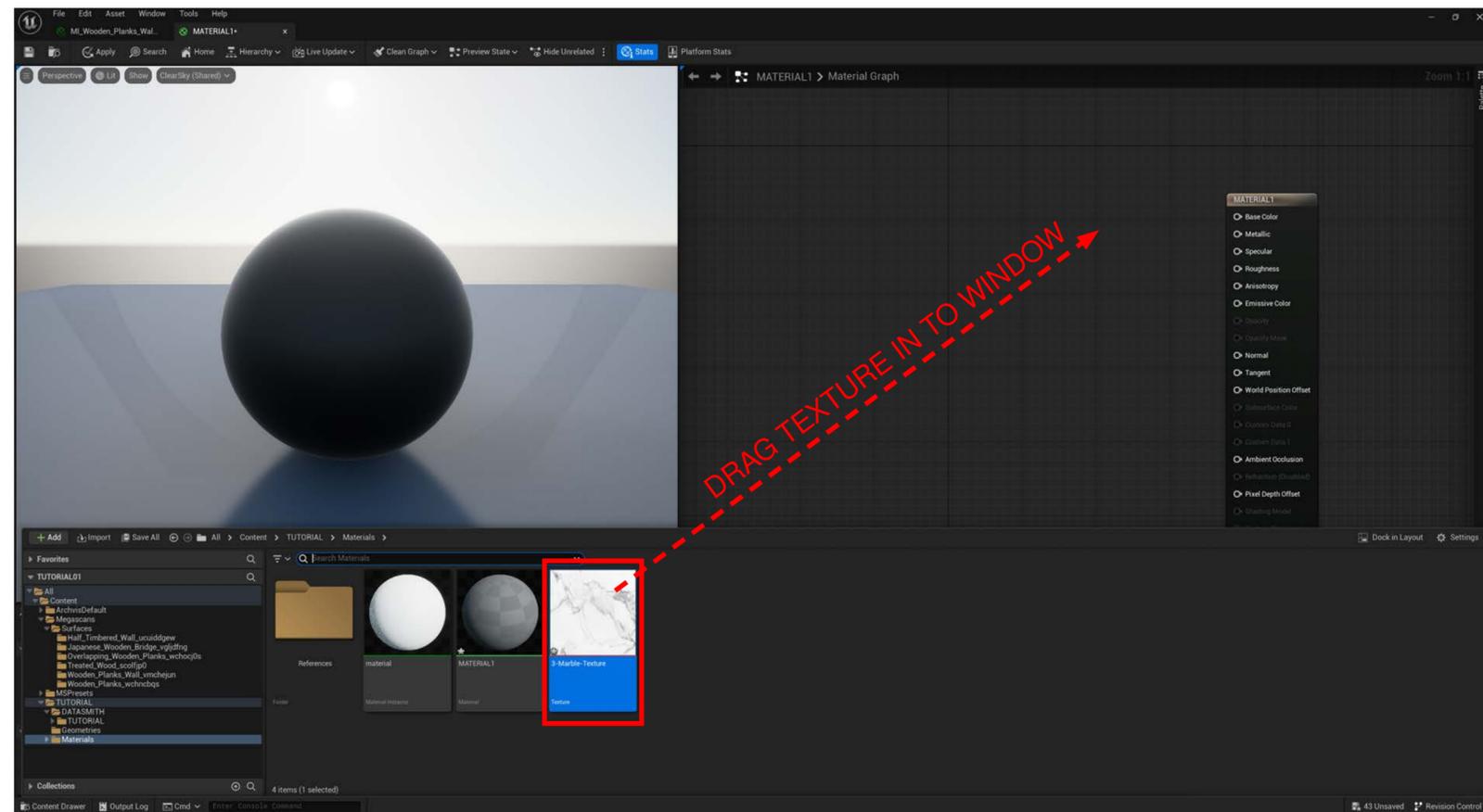


APPLY YOUR MATERIALS ON YOUR GEOMETRY

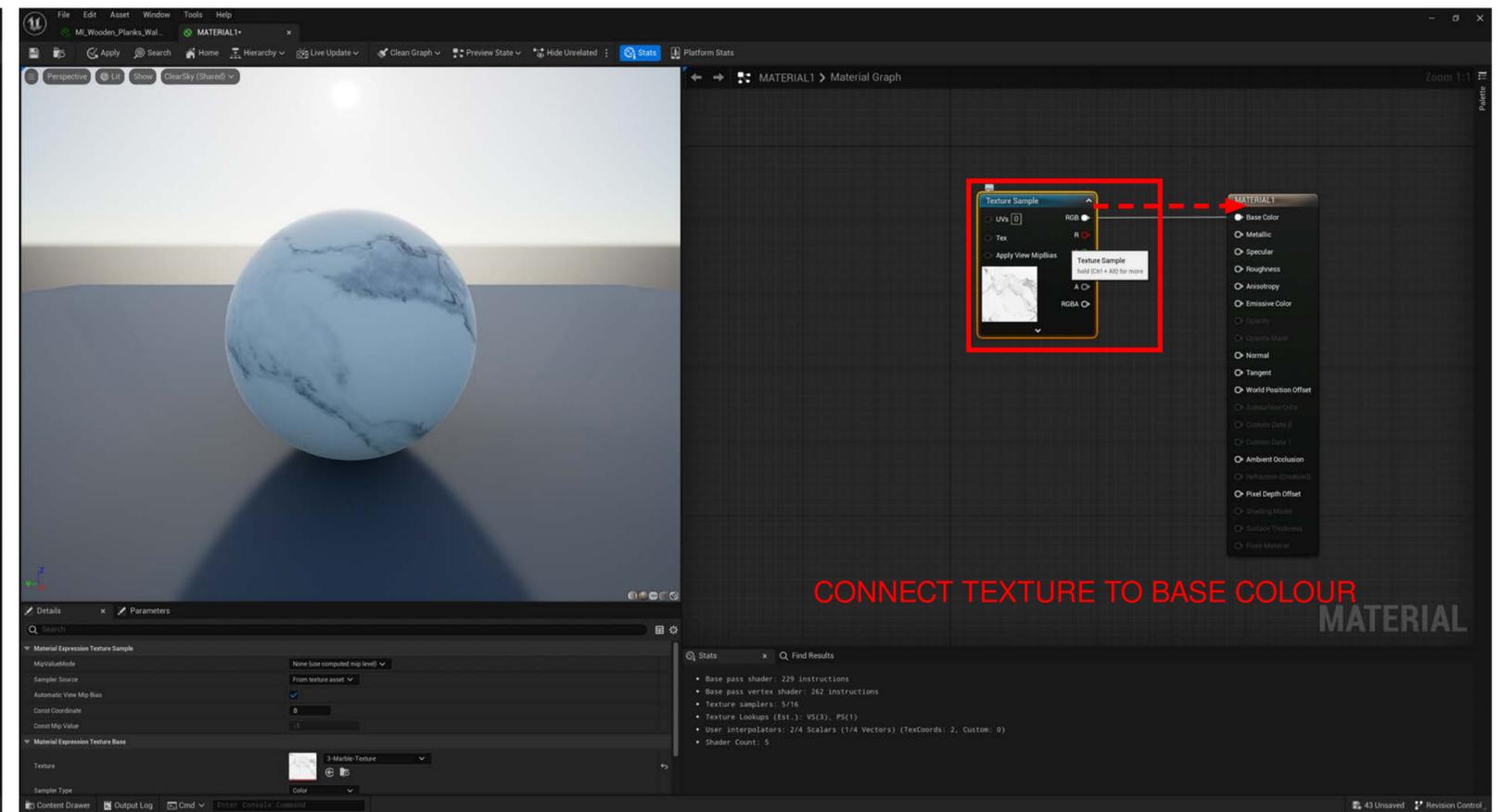
CREATE CUSTOM MATERIAL



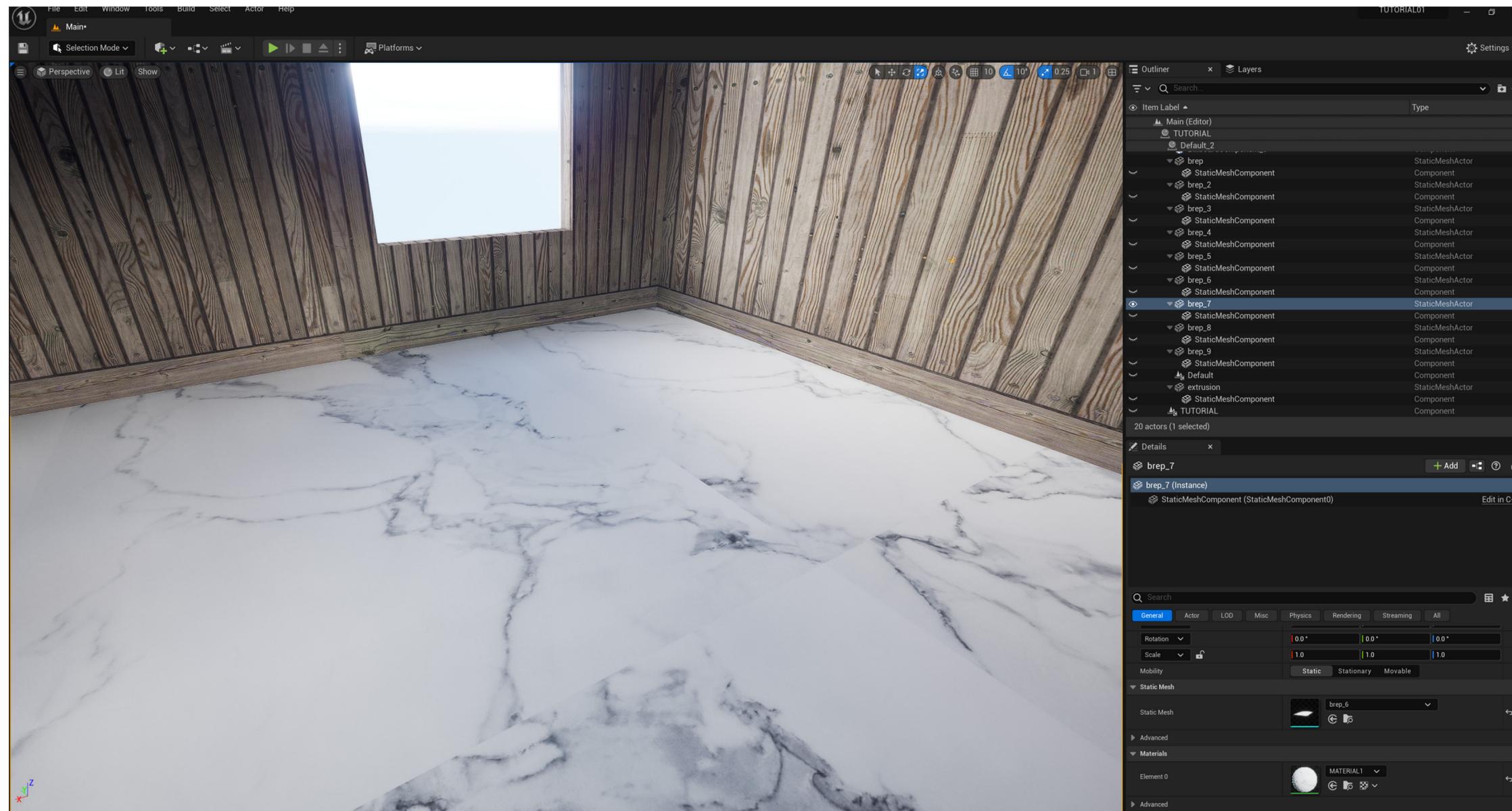
MATERIAL MENU



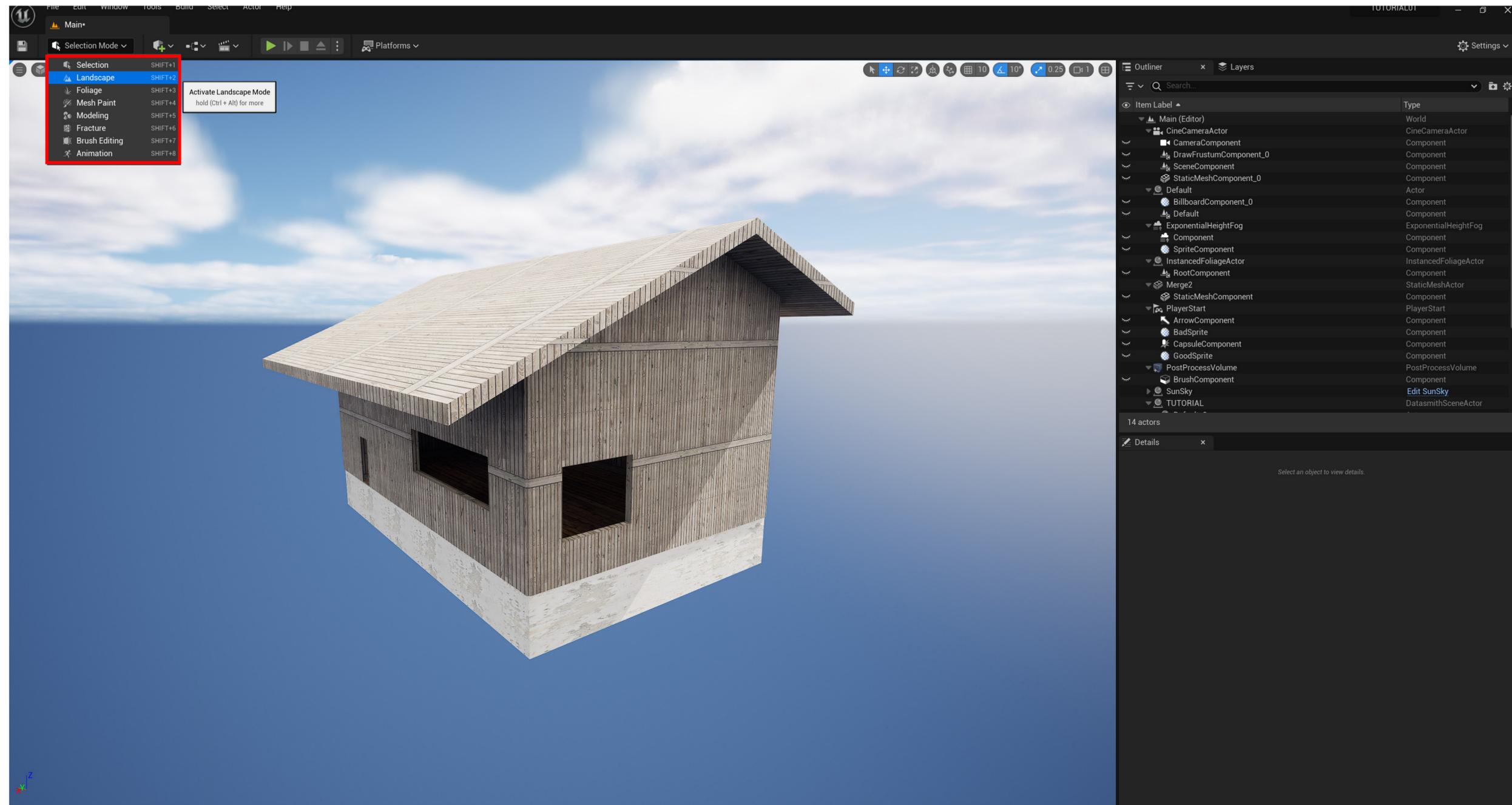
MATERIAL EDIT

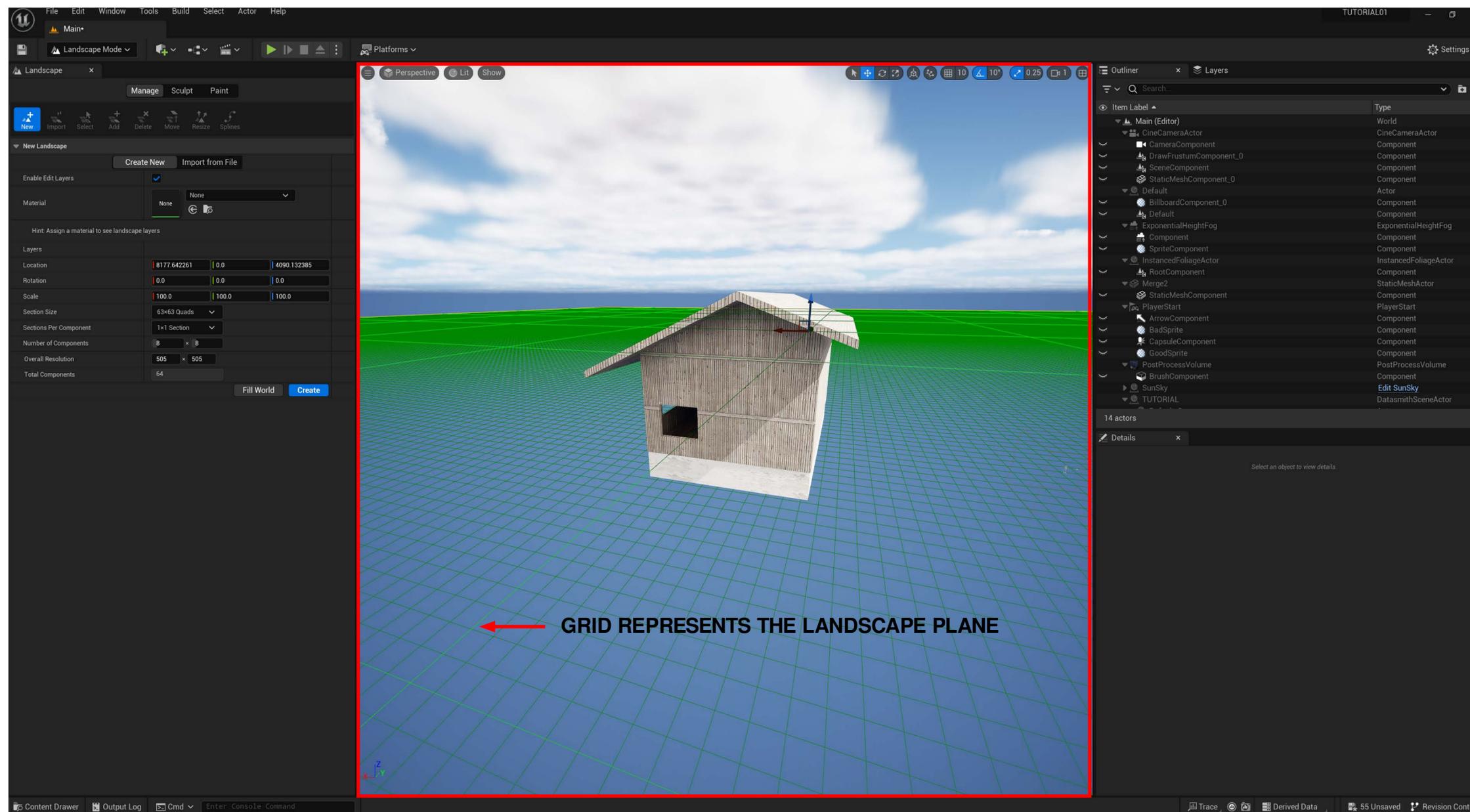


APPLYING CUSTOM MATERIALS



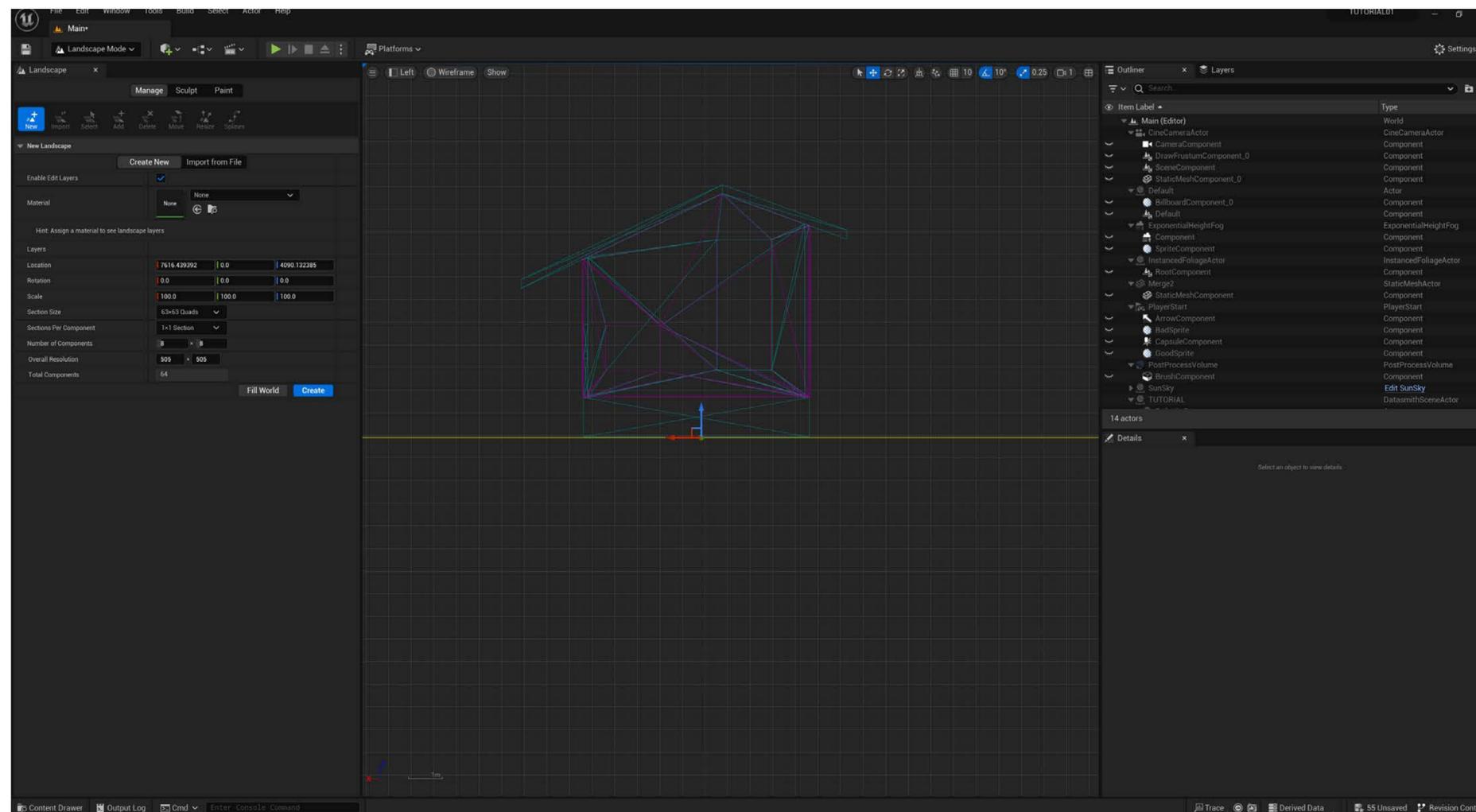
LANDSCAPING





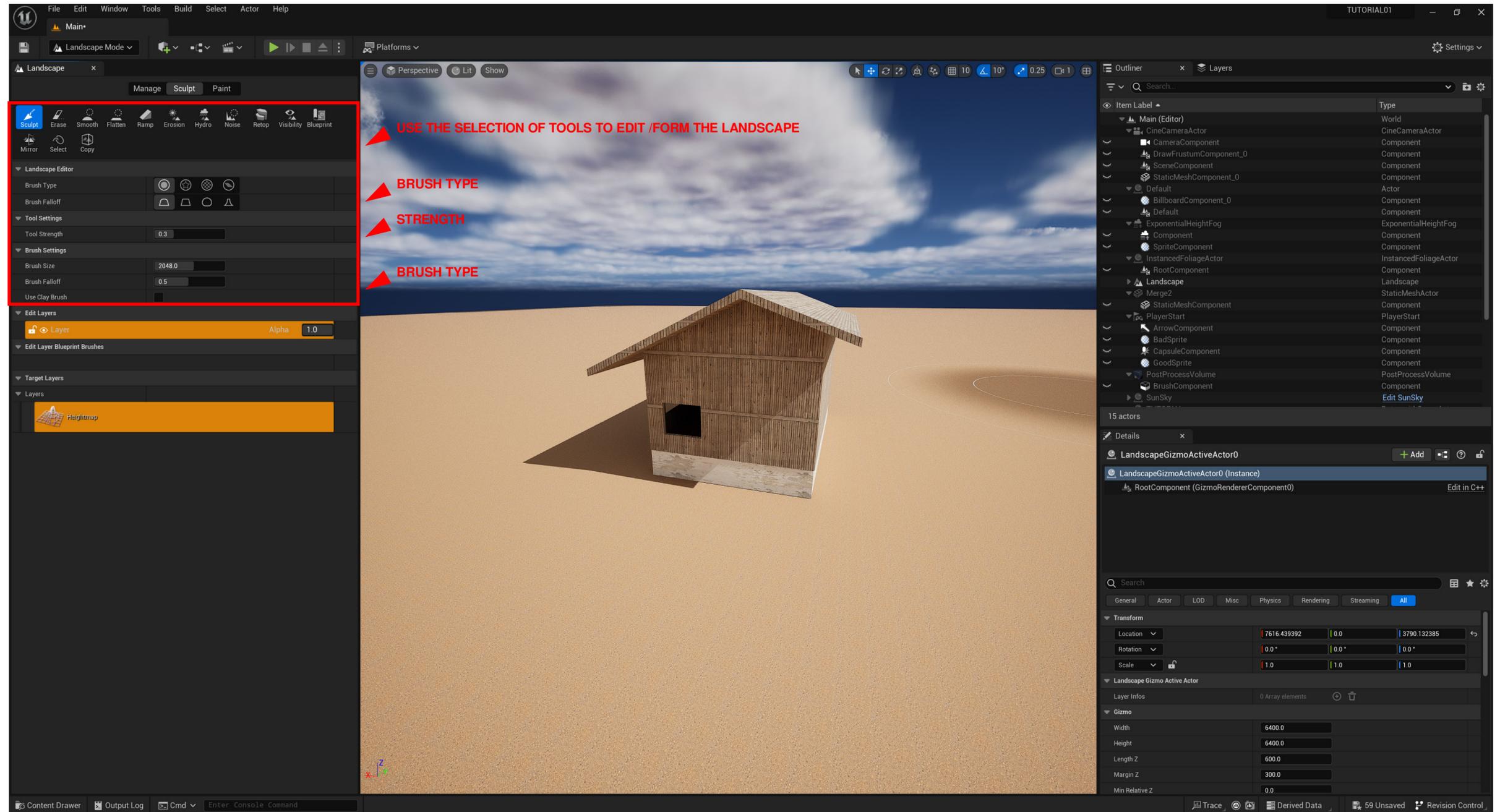
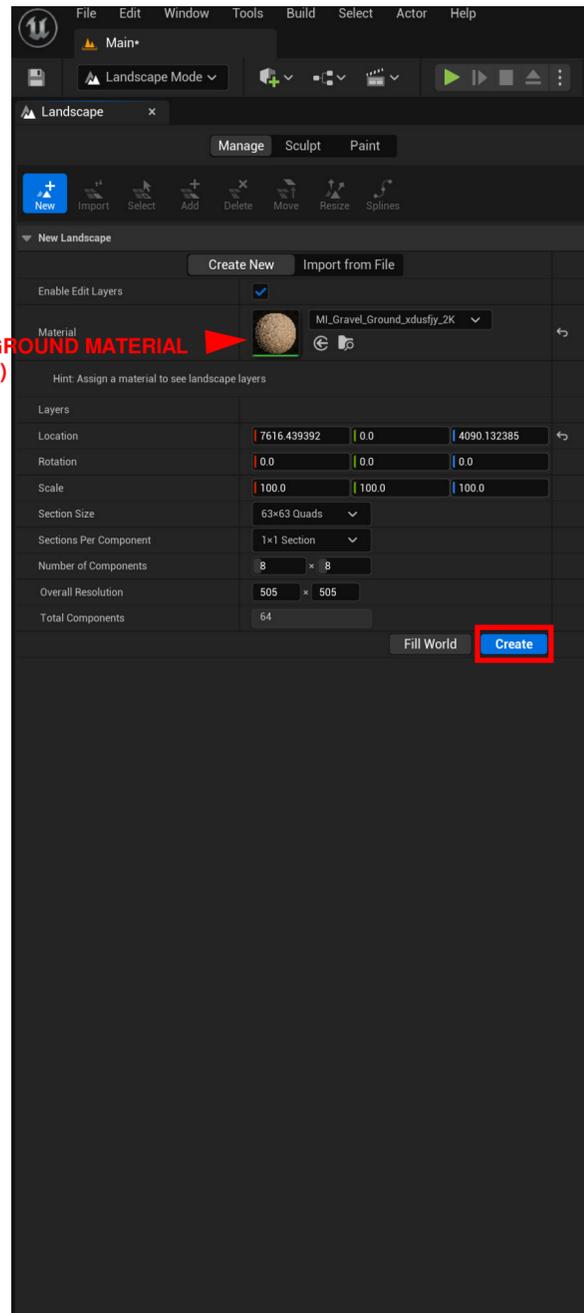


CHANGE TO ELEVATION “LEFT, RIGHT, BACK, TOP, FRONT” TO ALIGN THE LANDSCAPE ACCURATELY

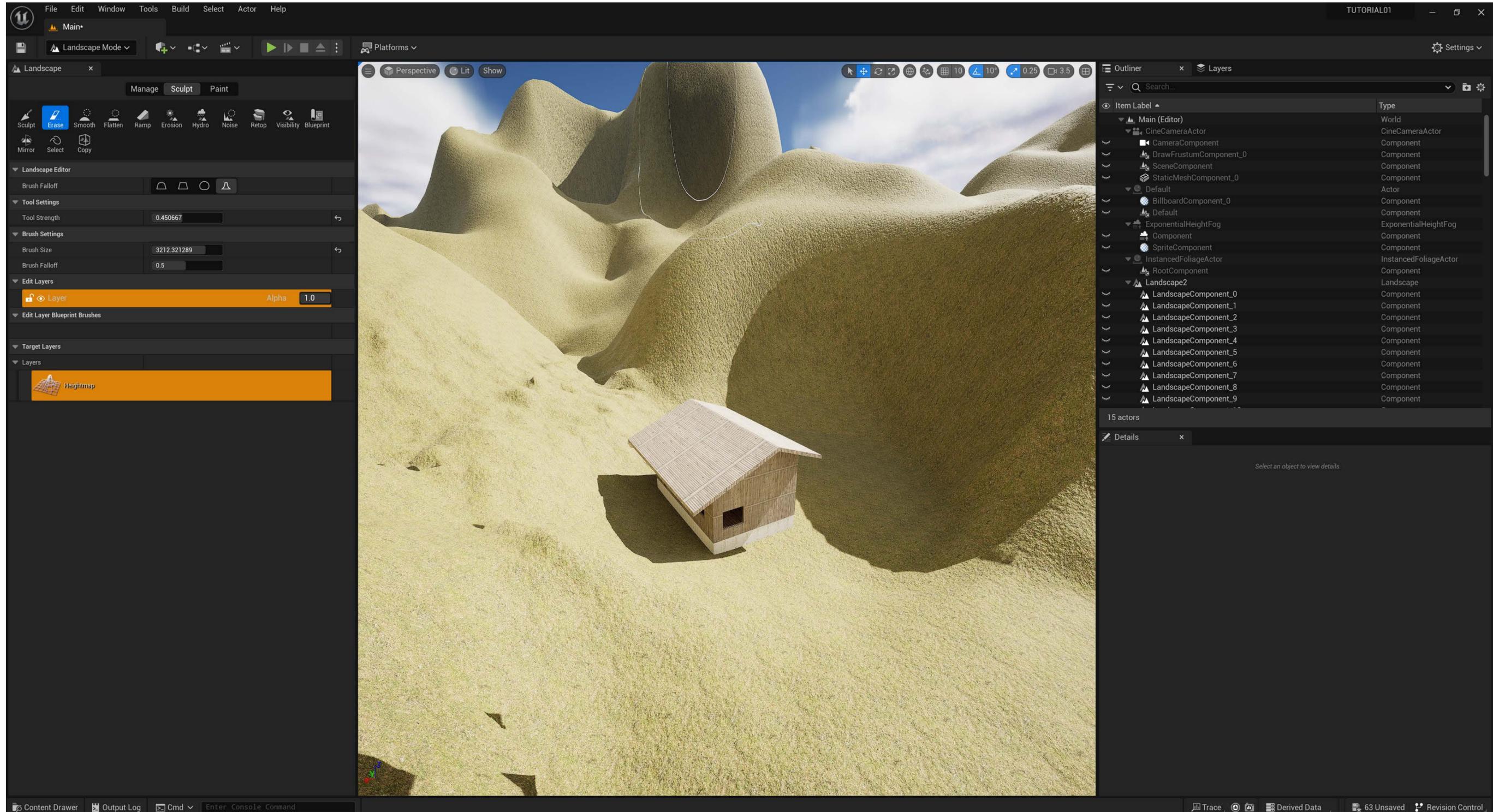


GROUND PLANE SETTINGS

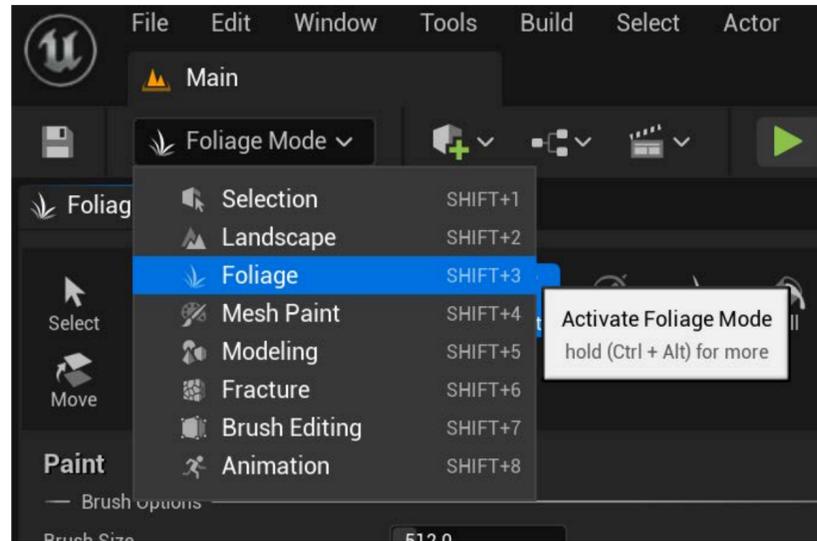
PROVIDE GROUND MATERIAL
(OPTIONAL)



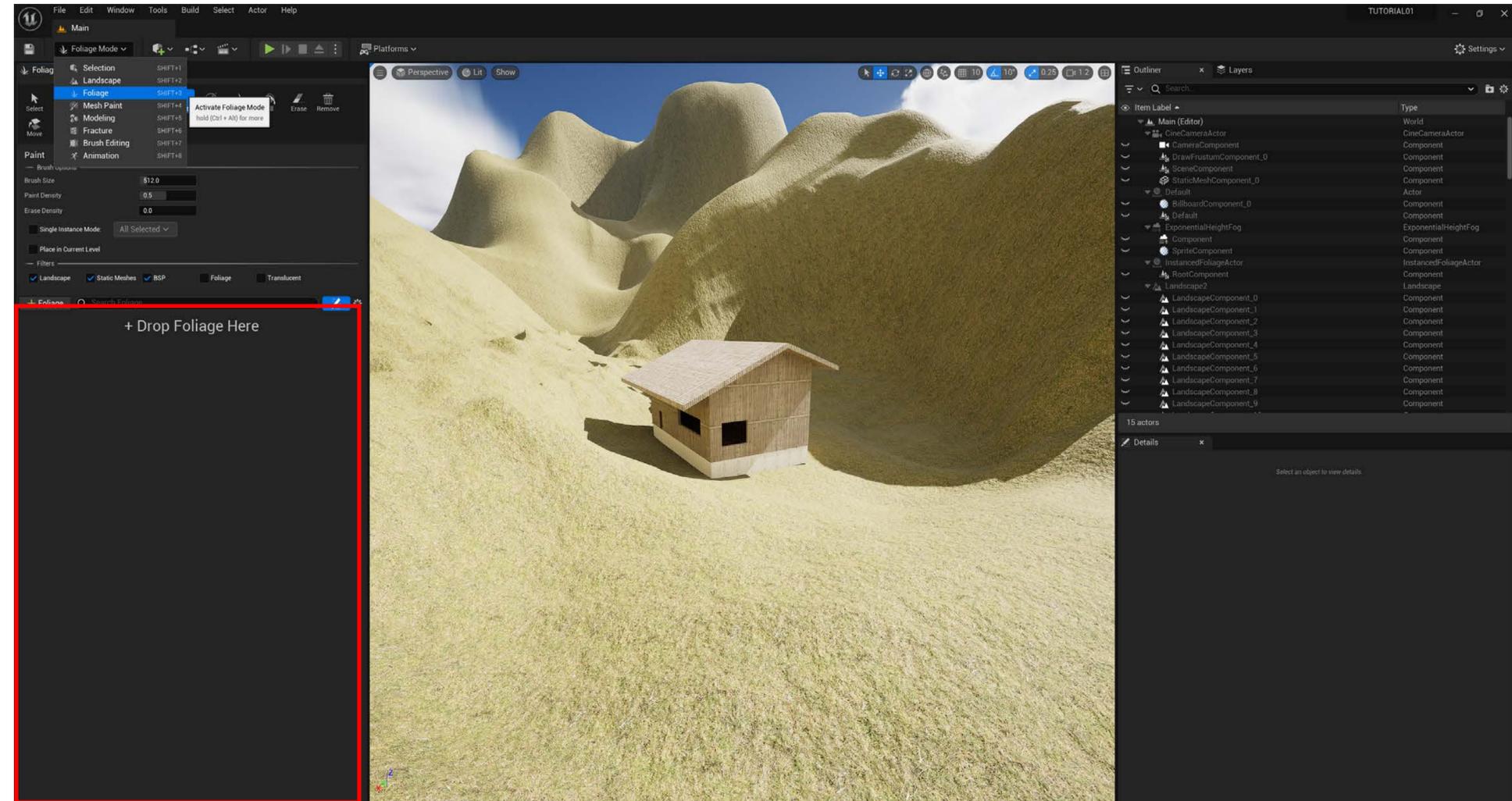
SCULPT THE LANDSCAPE



FOLIAGE PAINTING



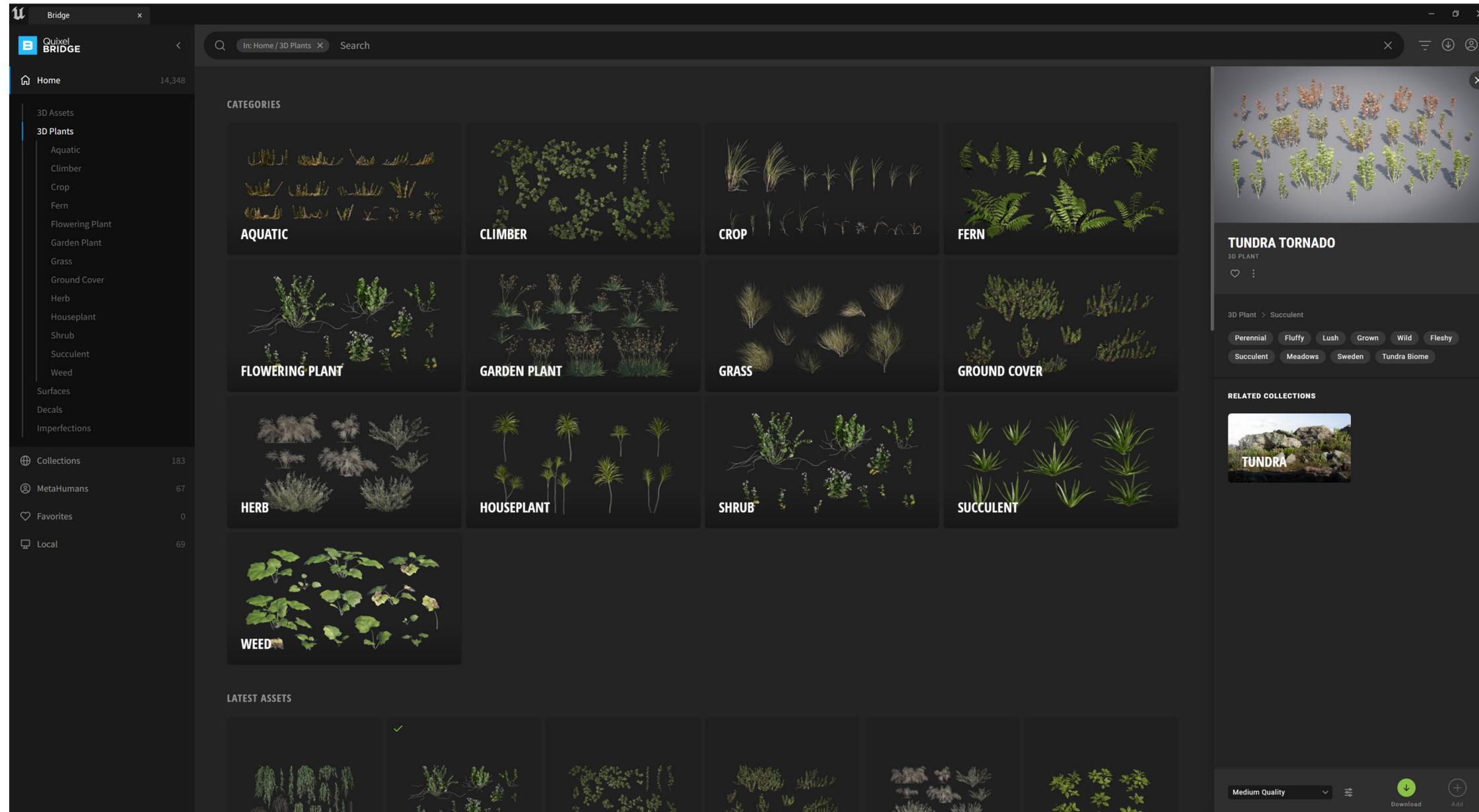
SELECT FOLIAGE MODE TO ADD FOLIAGE



DRAG FOLIAGE INTO WINDOW

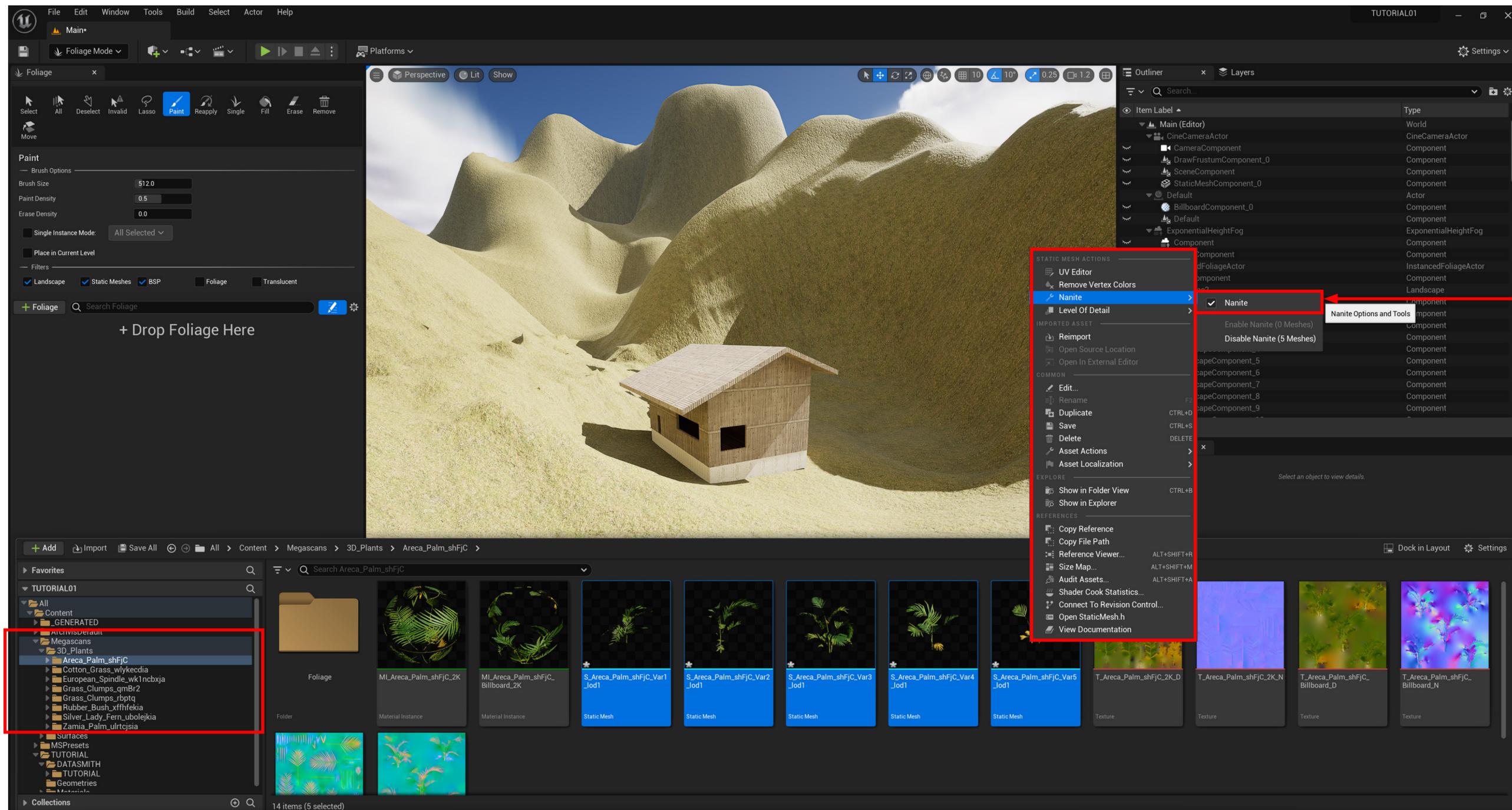
GOOD PRACTICE TIP: INCREASE FOLIAGE ASSETS GRADUALLY. THIS PROVIDE CONTROL ON EACH INDIVIDUAL ASSET, E.G. SCALE & DENSITY.

PICK FOLIAGE



SELECT FOLIAGE FROM QUIXEL

GENERALLY LOW QUALITY IS SUFFICIENT FOR GROUND FOLIAGE



ENABLE NANITE BEFORE ADDING TO THE SCENES

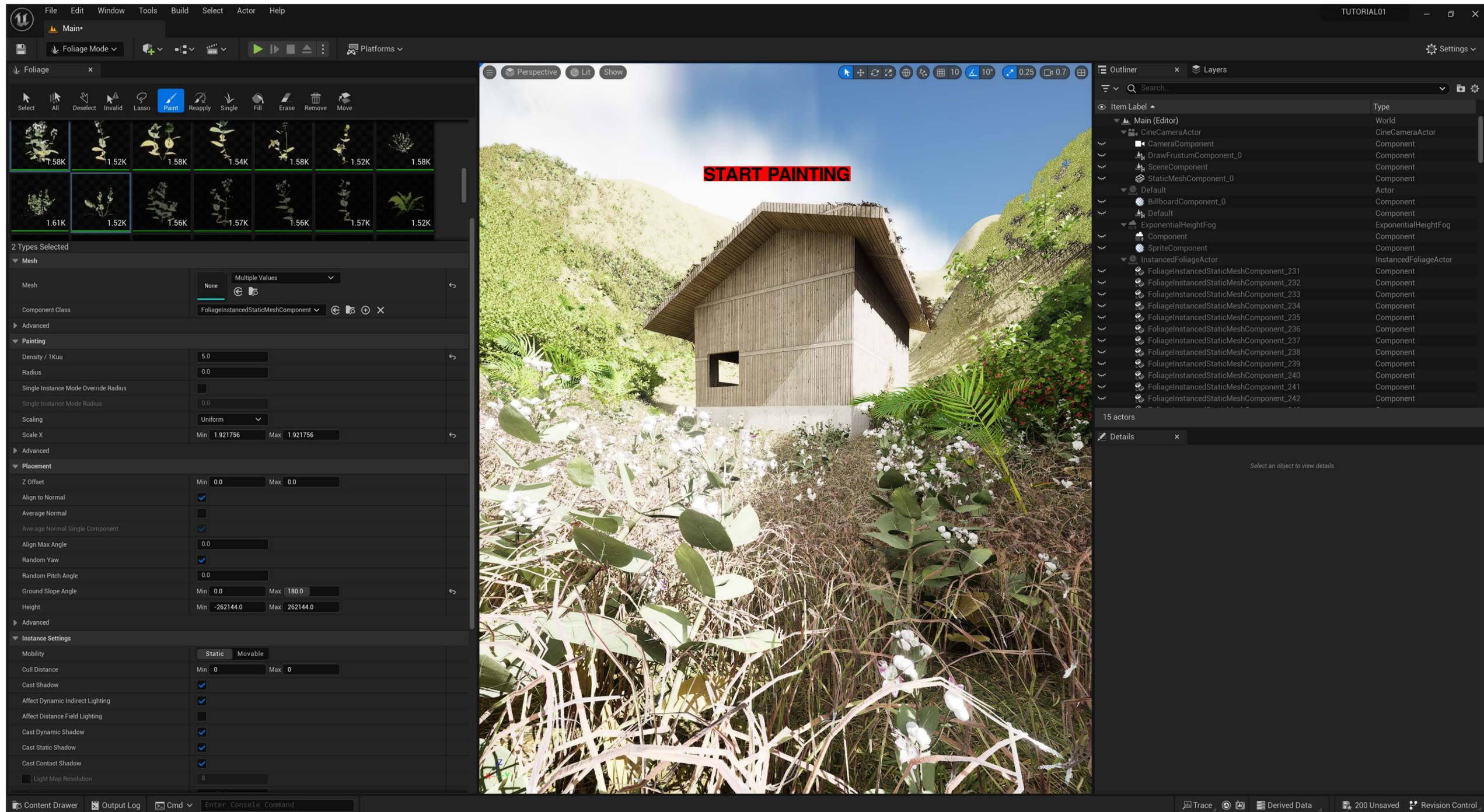
LOCATE IN MEGASCANS FOLDER

The screenshot displays the Unreal Engine 4 interface in Foliage Mode. The main viewport shows a grassy landscape with a purple circular brush stroke on the ground. The left sidebar contains the Foliage tool palette and various settings panels. The top toolbar includes standard navigation and editing tools. The bottom of the interface shows the Hierarchy and Outliner panels.

CHANGE BRUSH SIZE & DENSITY

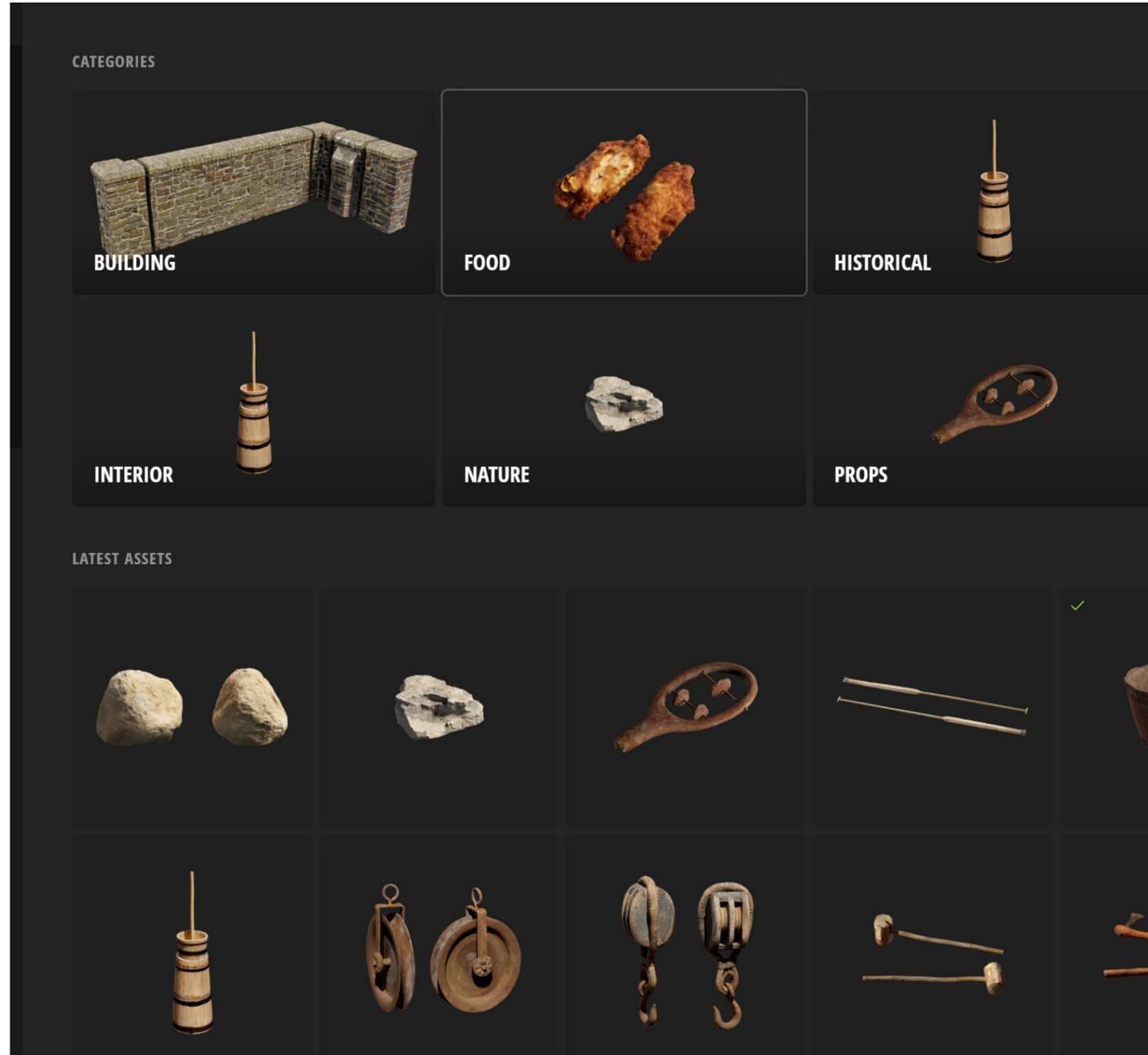
SELECT & ENABLE THE FOLIAGE

CHANGE SCALE AND DENSITY OF FOLIAGE

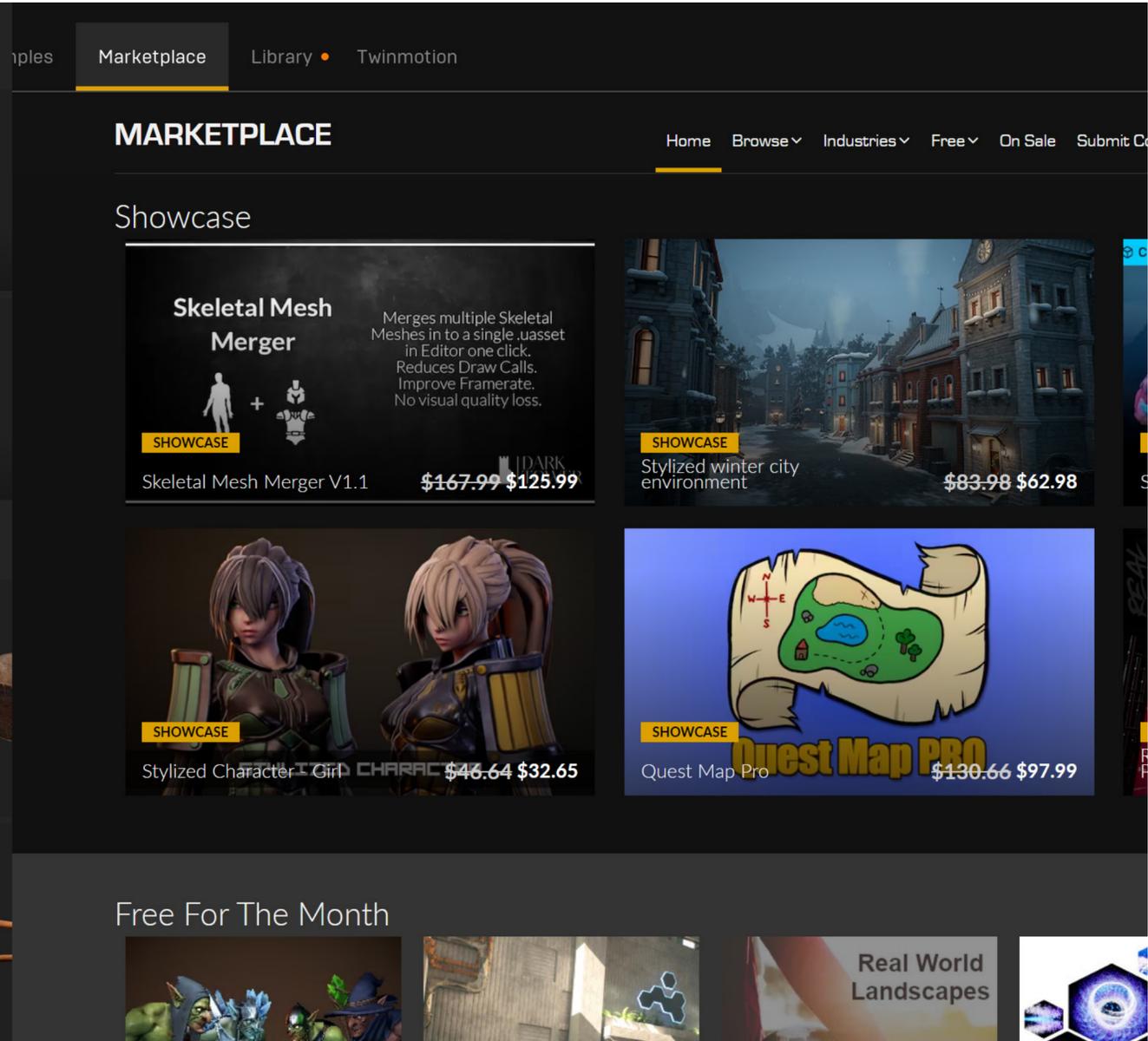


POPULATE THE SCENE WITH ASSETS

QUIXEL

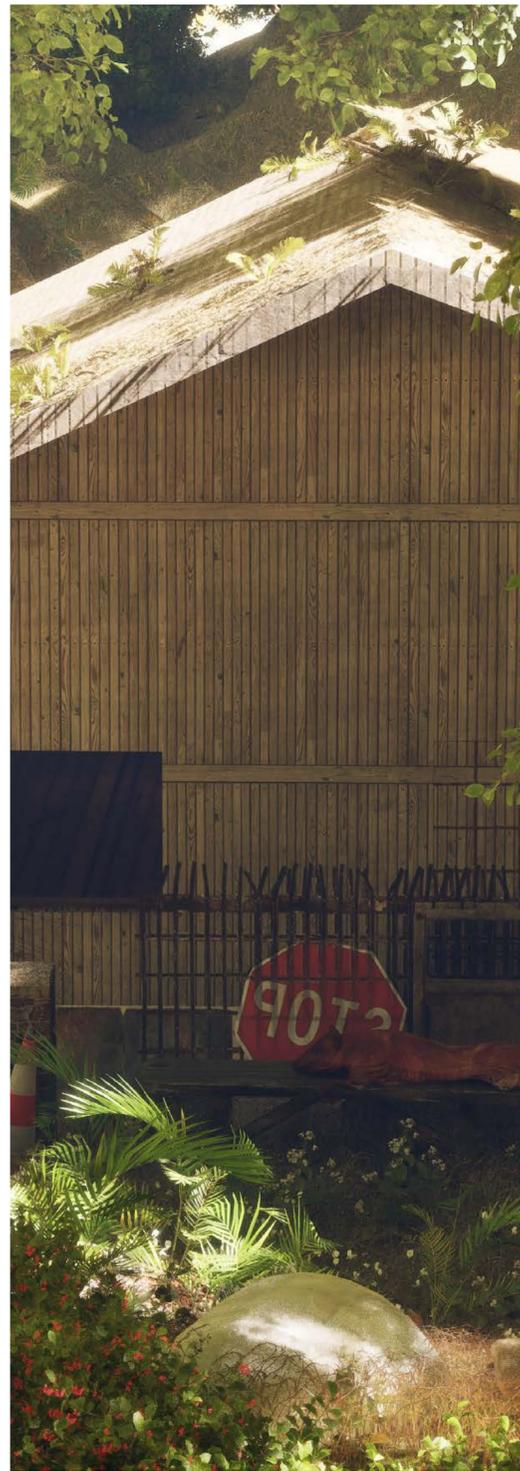


MARKETPLACE



CHOOSE FROM THE WIDE RANGE OF ASSETS TO ADD INTO THE SCENE

MARKET PLACE OFFERS FREE MONTHLY ASSETS



ADD ASSETS !

