

Learning Guide

Import 3D Models into a Fortnite Island Using Unreal Editor for Fortnite

Introduction

Using this Guide, you will learn how to import 3D models into Unreal Editor for Fortnite (UEFN), including models created using photogrammetry. You will also learn how to change the location, orientation, and relative size (scale) of a model within a Fortnite island. You can learn more about UEFN here:

<https://dev.epicgames.com/documentation/en-us/uefn/unreal-editor-for-fortnite-documentation>.

A video Learning Guide for this lesson is available here: <https://youtu.be/RkEEHn253yg>.

Prior Knowledge Check

In order to successfully complete this lesson, you should already have UEFN installed on your computer and have a 3D model (such as a scanned photogrammetry model) saved on your computer. If you need assistance with creating a photogrammetry model, you can follow the “Create a 3D Model Using Polycam” lesson on CreateAccess.org’s Microcourses Hub.

Step 1: Create an island and import a model

Preview

To import a model into UEFN, you will first need to create an island. Islands are 3D environments that can be edited by the user to create a custom experience in Fortnite.

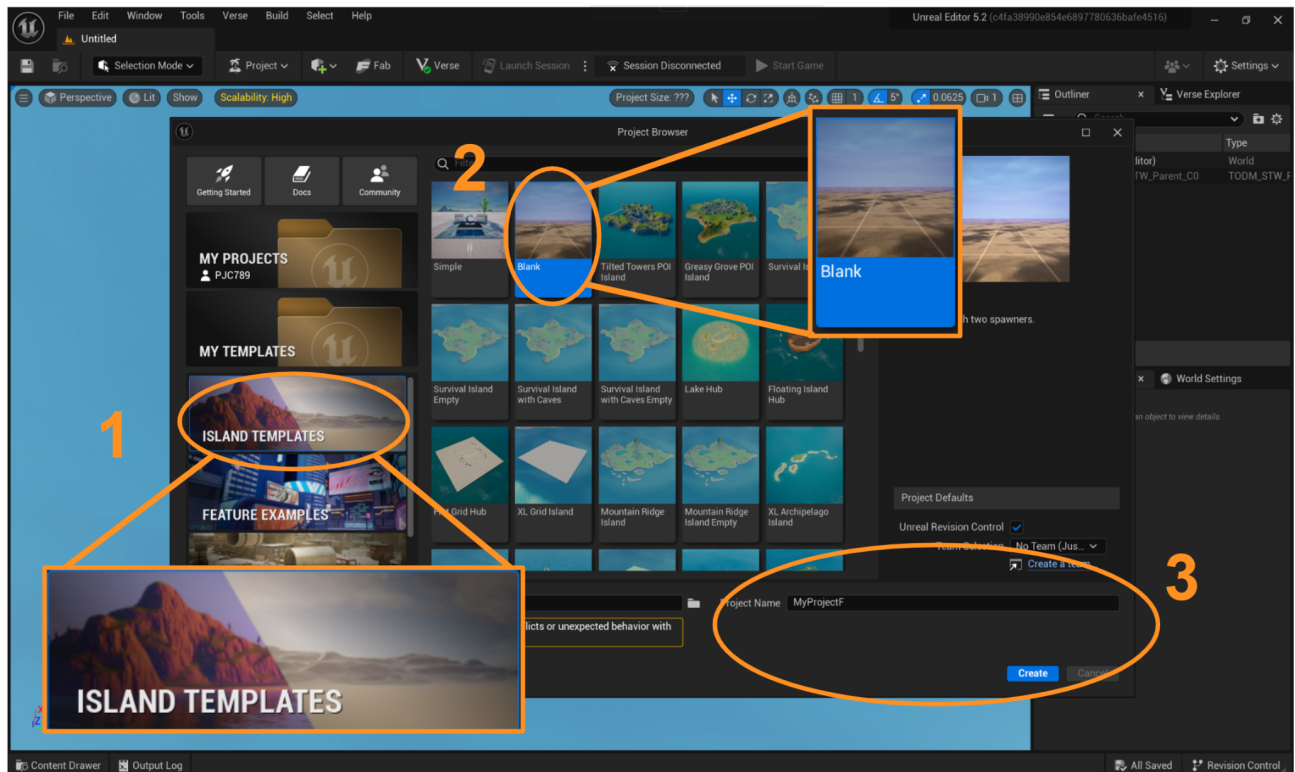
Explore

Follow these steps to import your first model into UEFN:

SELECT AN ISLAND TEMPLATE

When you launch UEFN from the Epic Games Launcher, you will see a screen that looks like the example below. Select **“Island Templates”** (1) and then select a **“Blank”** (2) template. Rename your island if you wish, and then click the blue **“Create”** (3) button.

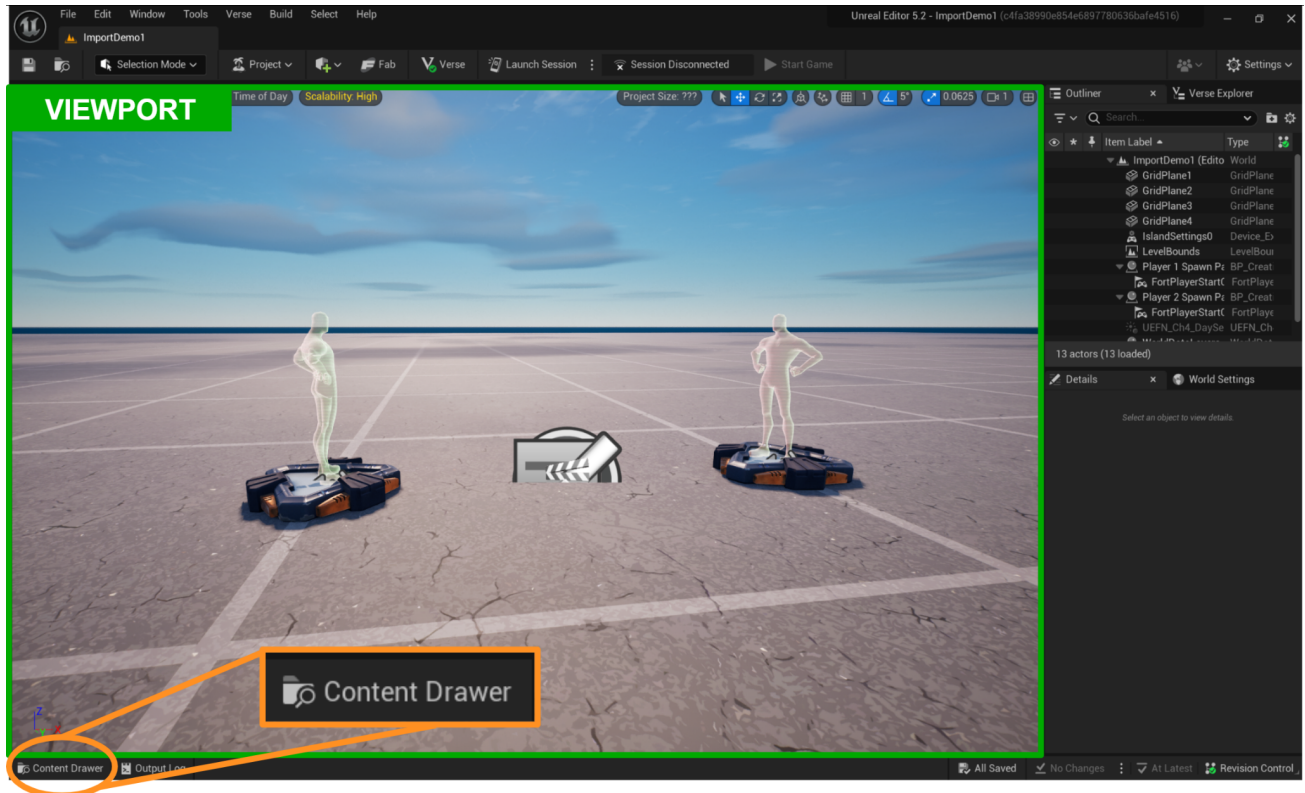
You can use any Island Template for importing a model, but the **“Blank”** template is the least complex, so it’s the easiest to use when you’re getting started.



OPEN THE CONTENT DRAWER

When your island loads, you will be able to see a rendered preview in the “**Viewport**”. As you can see, the Blank template only has a gray ground, sky, and two player spawners.

In order to bring new models into the island, you will need to access the “**Content Drawer**,” located in the lower left hand corner of the screen below the “**Viewport**”. Click on the “**Content Drawer**” icon to open it.

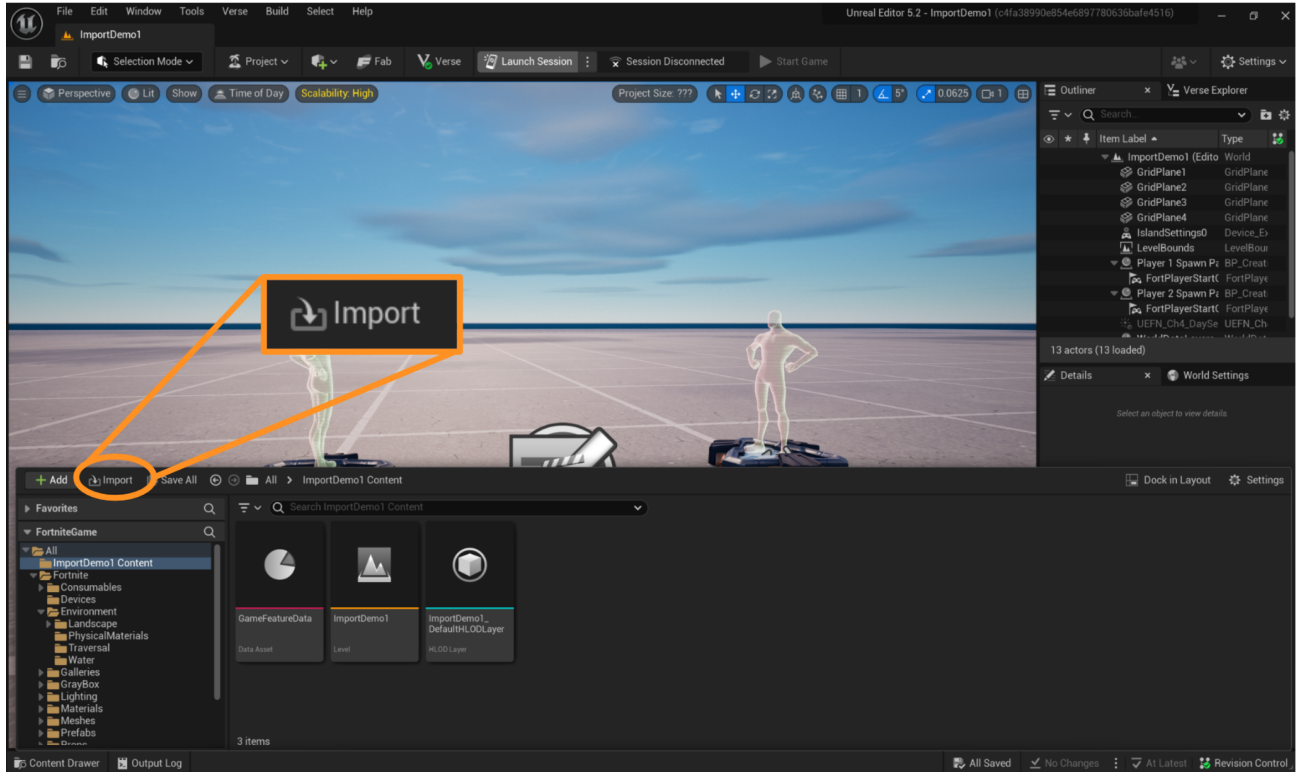


Creator Tip

The Content Drawer is the default place to go whenever you want to add something to your island. This is where you can import models you've created, and where you can access the Epic Games and Fortnite content libraries.

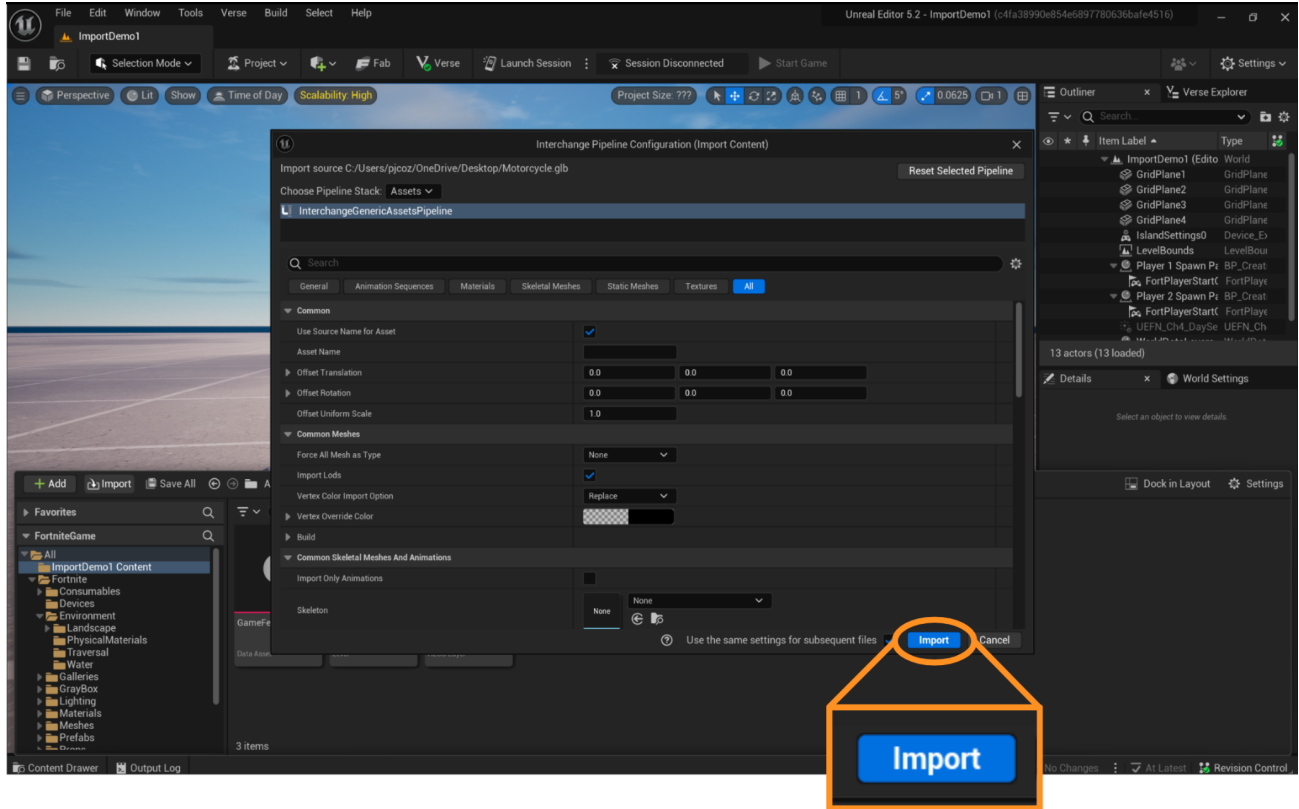
SELECT A MODEL TO IMPORT

After you open the Content Drawer, click on the folder that has the name of your project. Next, click on the “**Import**” button to import your model. Navigate to the location on your computer where your model was saved to import it.



IMPORT YOUR MODEL INTO THE CONTENT DRAWER

Once your model has been located, press “Open” in the file explorer to open it in UEFN. UEFN will then load a popup window like the one you see in the screen below. Click on the blue “Import” button to import the model into the Content Drawer.



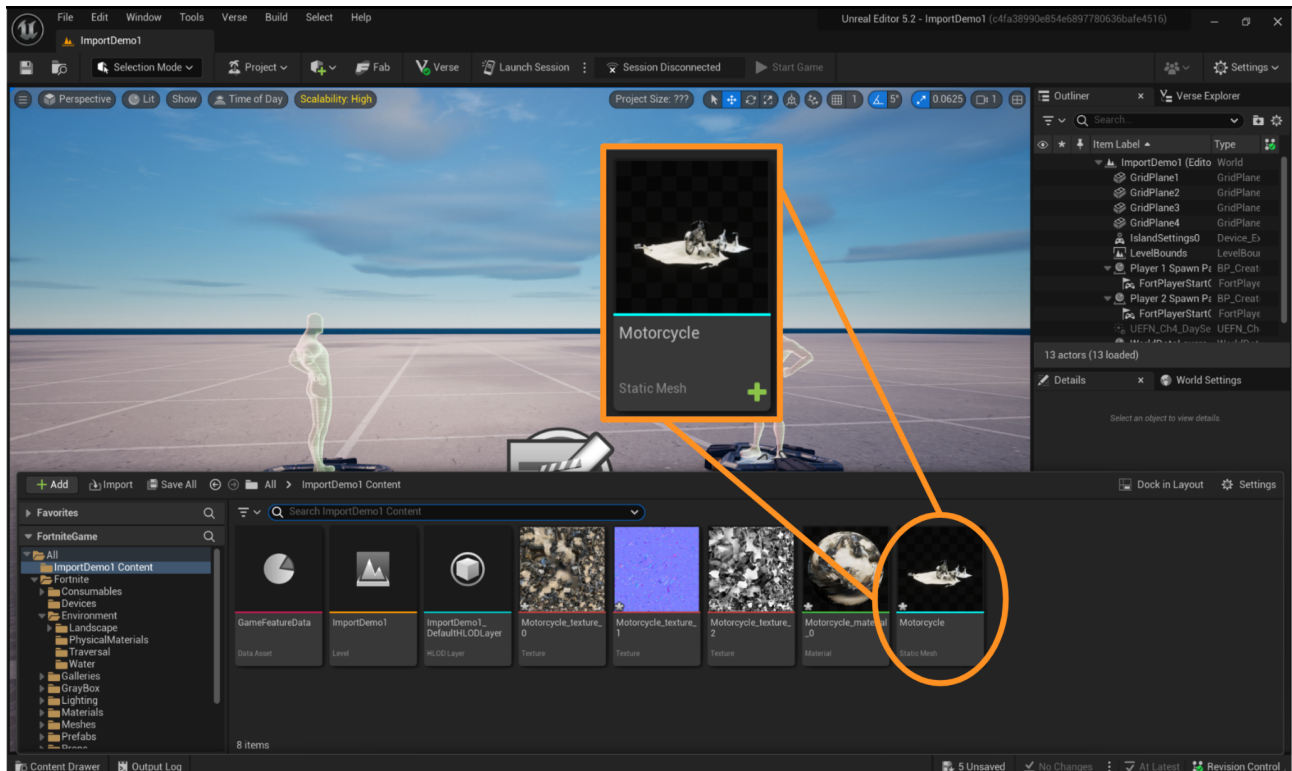
Creator Tip

There are lots of file types that UEFN can work with. For this particular example, the file is a .GLB file that was exported from the Polycam photogrammetry application. Experiment with different file types to see how they work.

BRING YOUR MODEL ONTO THE ISLAND

Your Content Drawer should now have additional files in it. Locate the file labeled “**Static Mesh**” and select it. You should see a thumbnail of your complete model.

Move the model onto your island by first clicking on the “**Static Mesh**” file icon, then dragging the file into your island. You should see your model appear on the terrain in the Viewport. Note that your model may not appear as you wish at this stage. The next steps in this lesson will help you move, rotate, and resize your model, and another lesson will help you edit your model to remove any areas on the model that you don’t want.



Self Check

Can you find your model’s static mesh located in the Content Drawer?

Is your model imported into UEFN and visible on your island?

Step 2: Move, rotate, and resize your model

Preview

When a model is imported into UEFN, it may not appear as you wish. UEFN has simple tools that will allow you to change the model's location, orientation, and relative size (scale).

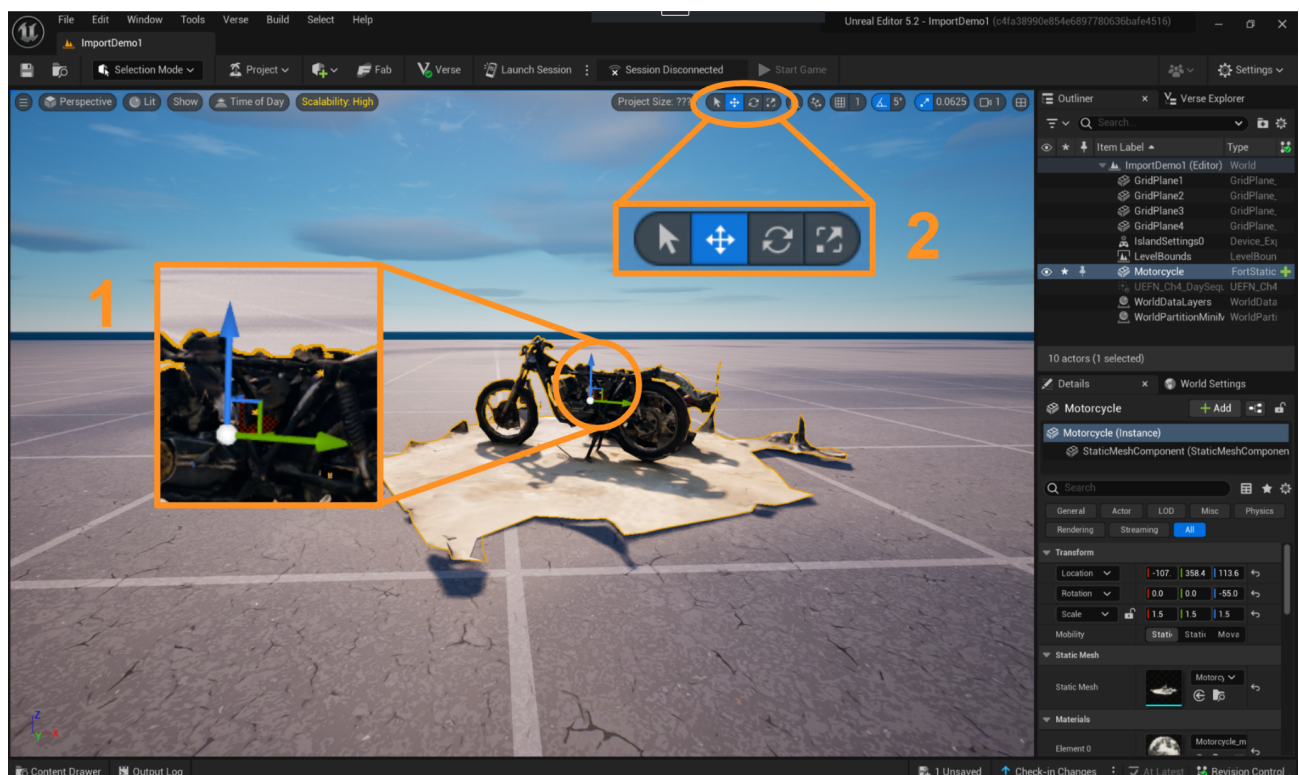
Explore

Follow these steps to learn how to reposition your model in UEFN:

LOCATE THE GIZMO SELECTION TOOLBAR

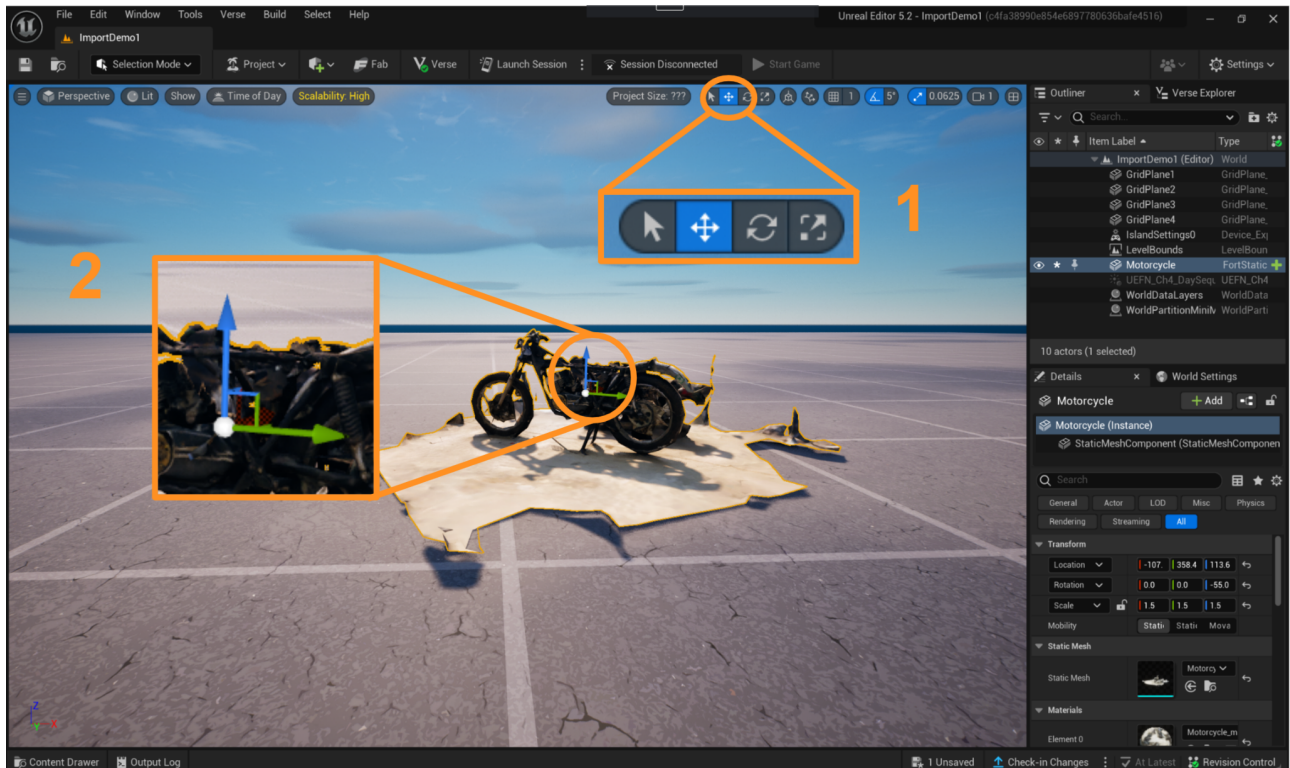
Click on your model in the Viewport window. When your model is selected, it will become outlined in yellow and the gizmo **(1)** will appear at the center of your model.

You can use the gizmo to adjust the location, orientation, and relative size (scale) of your model. You can switch between these functions of the gizmo by clicking on the different buttons in the menu bar **(2)** at the top right of the screen.



MOVE YOUR MODEL WITH THE TRANSLATE GIZMO

Use the Translate gizmo to change the position of your model in space. Make sure your model is selected. Then, select the Translate gizmo from the menu bar (1), click on the gizmo (2), and drag the model in different directions by clicking and pulling any of the arrows on the gizmo with your mouse. You should see your model move. Experiment with clicking and pulling all of the arrows to move your model in different directions.

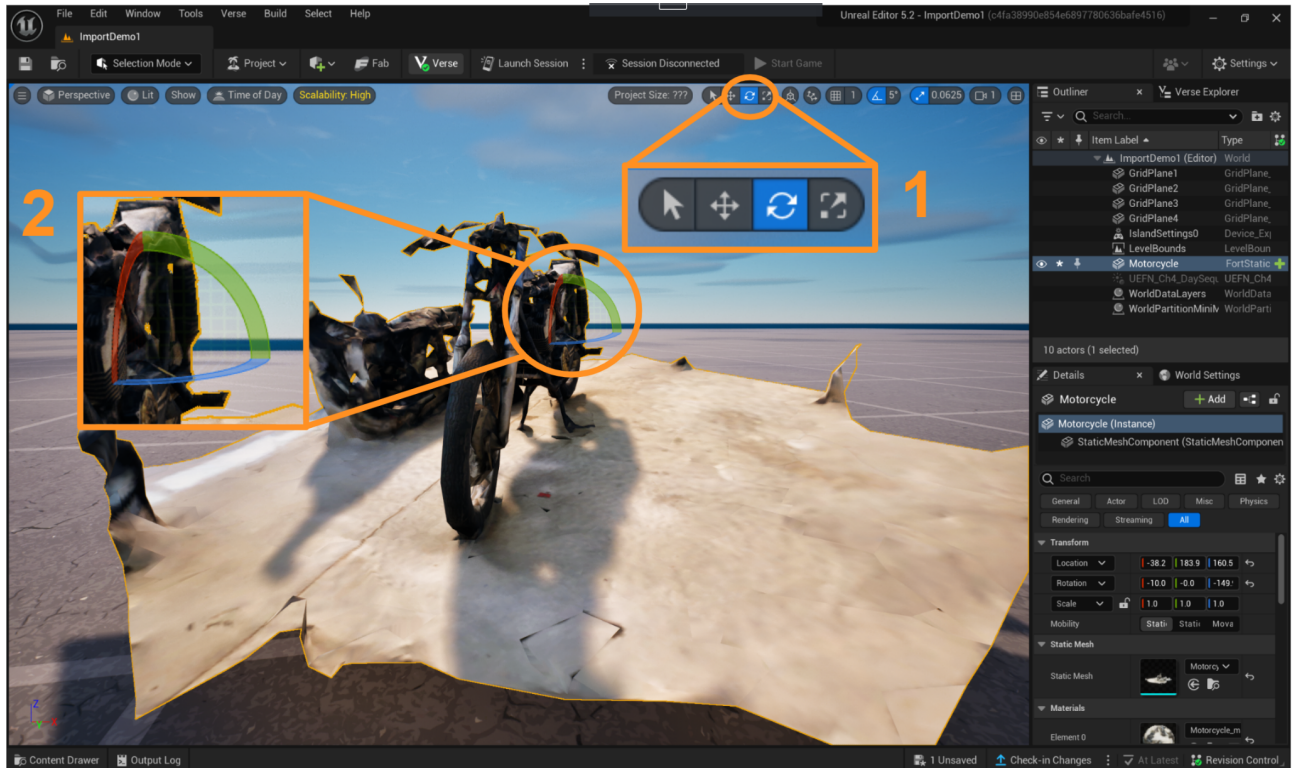


Creator Tip

Whenever you are using a gizmo, the active portion will change color to yellow.

ROTATE YOUR MODEL WITH THE ROTATE GIZMO

Use the Rotate gizmo to change the orientation of your model. Make sure your model is selected. Then, select the Rotate gizmo from the menu bar (1), click on the gizmo (2), and rotate the model along any of its three axes by clicking and pulling the red, green, or blue gizmo handles. Models can be rotated around the X, Y, or Z planes.

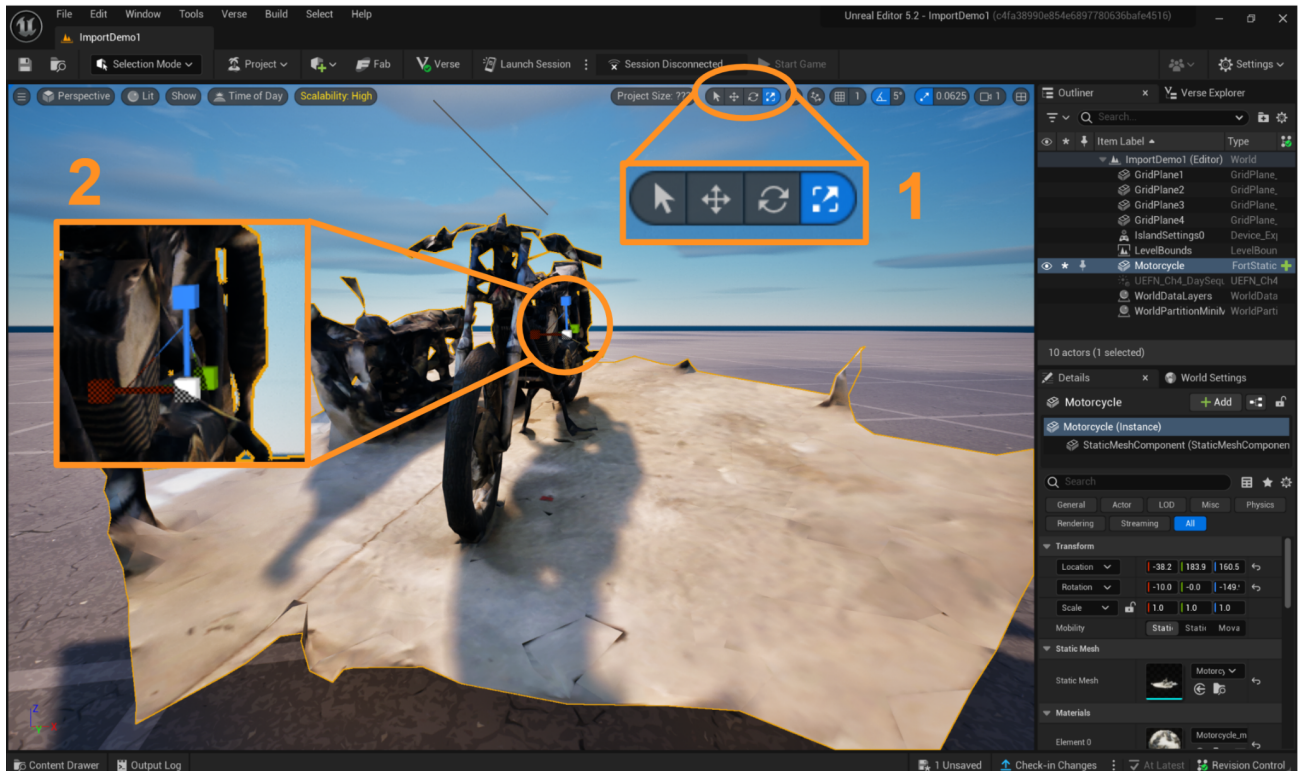


Creator Tip

The Rotate gizmo always rotates items relative to the island's X, Y, and Z planes. These three axes are constant on the island.

RESIZE YOUR MODEL WITH THE SCALE GIZMO

To change the relative size of a model, you can use the Scale gizmo. Make sure your model is selected. Then select the Scale gizmo from the menu bar (1), click on the gizmo (2), and click and pull the handles of the gizmo to change the scale. As with Translate and Rotate, you can scale an object along each of the three axes (to make it wider or taller, for example), but this will likely cause your model to become distorted. If you wish to scale and retain the height, width, and length proportions of your model, click on the white cube in the center of the gizmo, then drag the mouse to resize it. To change the scale while maintaining the model's proportions, make sure all three parts of the gizmo turn yellow before you click and drag.



KEEP EXPERIMENTING

Continue to experiment with the Translate, Rotate, and Scale gizmos until you get the position, orientation, and relative size of the model to be what you wish.

Self Check

Were you able to place a model on your island and position it just the way that you wanted?

Can you load an island template with more complex landscaping and add a model that fits the terrain?

Lesson Closure

Demonstration of Learning

You were able to open UEFN, create a new island, import a model into the Content Drawer, add it to your island, and position where you would like using the Translate, Rotate, and Scale gizmos.

Exploration Opportunities

Now that you have imported a model, you may want to consider cleaning up its geometry to achieve a more refined appearance. For example, the motorcycle model used in this Guide was created using photogrammetry, and you can see that the ground around the model was captured when the model was created. You can learn how to remove unwanted areas of your model in CreateAccess.org's lesson "Edit a Photogrammetry Model's Geometry Using Unreal Editor for Fortnite," available on CreateAccess.org's Microcourses Hub.