Exporting 3D Objects from Blender to Unreal Engine and Creating a Blueprint

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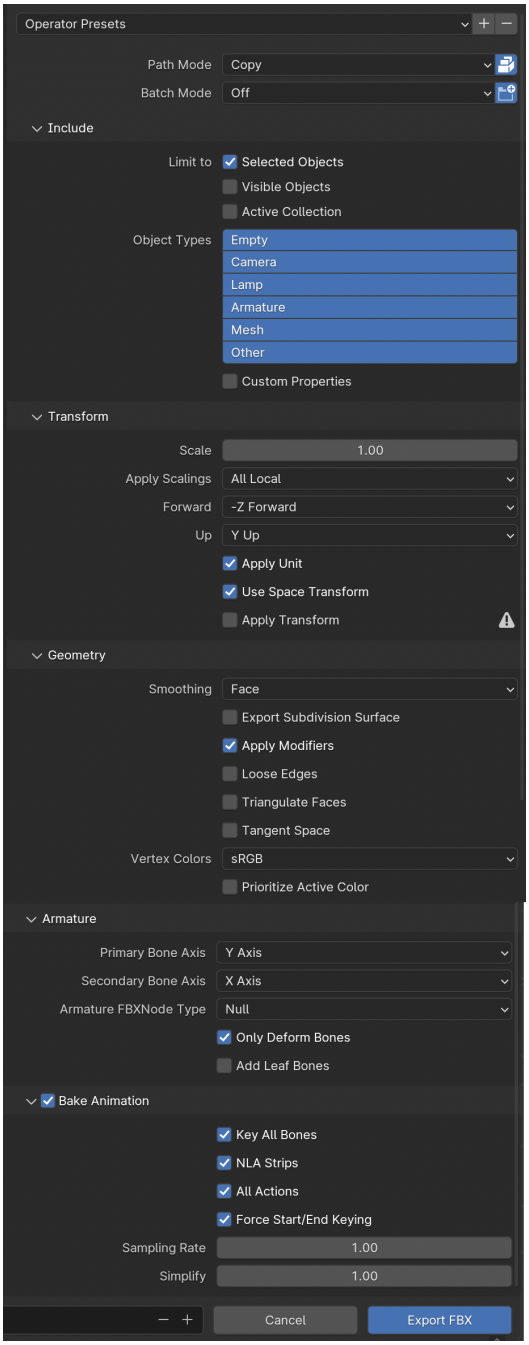
Part 1: Exporting .FBX Files from Blender

Step 1: Prepare Your 3D Object in Blender



1. Open **Blender** and select the object(s) you want to export.
2. Ensure that your object is properly **scaled, positioned, and textured** before exporting.
3. Apply all transformations by pressing **Ctrl + A** and selecting **Apply All Transforms**.

Step 2: Open the Export Menu

1. Click **File > Export > FBX (.fbx)**.
2. Choose a destination folder where you want to save the exported file.

Step 3: Adjust FBX Export Settings

Refer to the image to the right and use these exact settings:

Main Settings

- **Path Mode:** Copy
- **Batch Mode:** Off

Include

- ✅ **Limit to Selected Objects**
- ❌ Leave **Visible Objects** and **Active Collection unchecked**

Object Types

- ✅ Select **All**
- ❌ Leave **Custom Properties** unchecked

Transform

- **Scale:** 1.00
- **Apply Scalings:** All Local
- **Forward:** -Z Forward
- **Up:** Y Up
- ✅ **Apply Unit**
- ✅ **Use Space Transform**
- ❌ Leave **Apply Transform** unchecked

Geometry

- **Smoothing:** Face
- ✅ **Apply Modifiers** (only this, leave others unchecked)
- **Vertex Colors:** sRGB
- ❌ **Leave Prioritize Active Colors unchecked**

Armature (If exporting an animated object)

- **Primary Bone Axis:** Y Axis
- **Secondary Bone Axis:** X Axis
- **Armature FBX Node Type:** Null
- ✅ **Only Deform Bones**
- ❌ **Leave Add Leaf Bones unchecked**

Animation (If applicable)

- ✅ **Bake Animation**
- ✅ Check all boxes under Bake Animation
- **Sampling Rate:** 1.00
- **Simplify:** 1.00

Step 4: Save the Export Preset

VERY IMPORTANT: Click the **+** button next to the presets menu at the bottom of the export panel to save these settings for future exports.

Step 5: Export the File

- Click **Export FBX** and ensure the file is saved to your desired location.

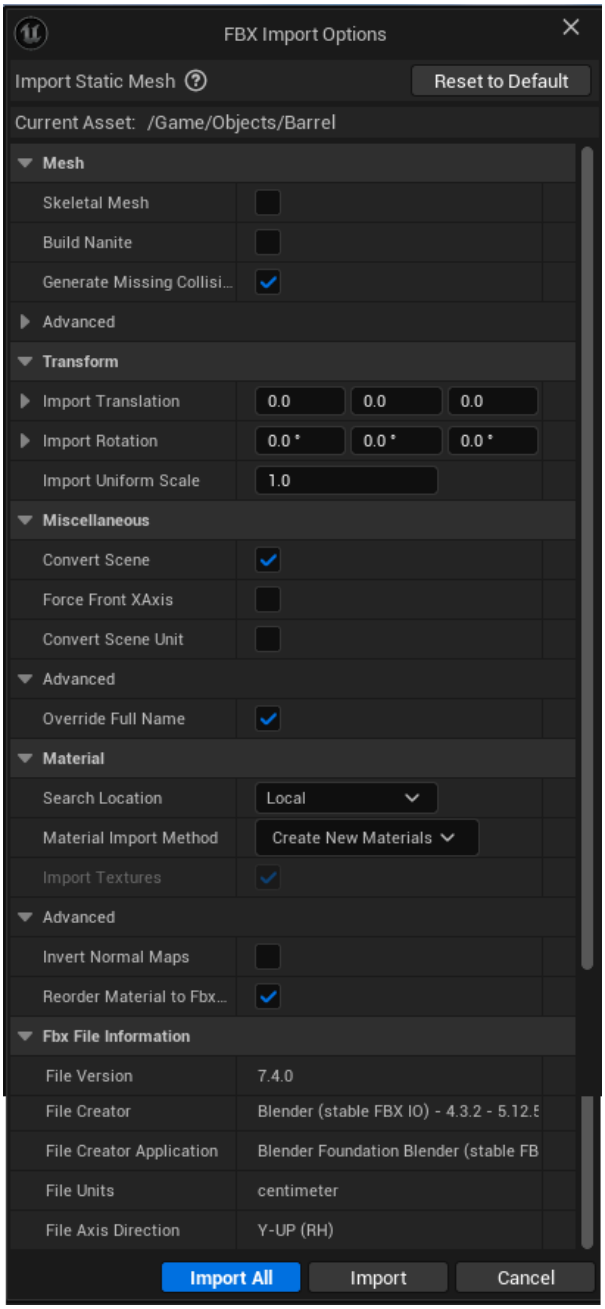
Part 2: Importing .FBX Files into Unreal Engine

Step 1: Open Unreal Engine & Set Up Your Project

1. Open **Unreal Engine** and load your game level or open the ThirdPersonBP Template if you haven't created your own level yet.
2. Open the **Content Browser** and create a new folder to store your imported 3D models.

Step 2: Import the FBX File

1. Drag and drop the newly exported **.fbx** file into your designated Unreal folder.
2. In the **FBX Import Options**, use the **default settings** (Refer to the image below for settings).
3. Click **Import All**.



Part 3: Creating a Blueprint Actor Class and Adding Your Mesh

Step 1: Create a New Blueprint Actor

1. In the **Content Browser**, right-click and select **Blueprint Class**.
2. Choose **Actor** as the parent class.
3. Name your new Blueprint: **BP_(objectname)** (e.g., BP_Table, BP_Chair).

Step 2: Add Static Meshes to the Blueprint

1. Open the newly created Blueprint.
2. Drag and drop all relevant meshes into the **Viewport**.
3. Arrange and scale them as needed.
4. Click **Compile**, then **Save**.

Step 3: Place Your Blueprint Actor in the Level

1. Drag the newly created Blueprint from the **Content Browser** into your level.
2. Adjust its placement and scale as needed.

Congratulations! 🎉 You have successfully imported and placed a 3D object into Unreal Engine.

Next Steps: Experimenting Further

Now that your object is in the game, you can:

- Duplicate and move objects around the level.
- Adjust **scale, rotation, and position**.
- Apply **materials and textures** to give your object a unique look.
- Modify Blueprint settings to add interactions and physics.

Happy game developing! 🚀