

Blender

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Blender Tutorials

Here are a list of various tutorials and a brief description on what you can learn. Blender (or any other application) requires some devotion and mastery of skills that build off each other. You can expect to become a great modeller for furniture fairly quickly, but animation-ready characters will consume more time (but totally worth it!!!)

Quick-start modelling

<https://www.youtube.com/watch?v=ICBP-7x7Chc&t=1613s>

This video is a few years old and uses a version prior to 2.80. Newer versions, such as 4.0 work pretty much the same but you will notice a difference in the UI. The newer versions use icons and a modern UI where this older version has text on buttons instead. Nevertheless, this is my ABSOLUTE favorite first dive into Blender because the instructor goes through core modelling features, with shortcuts, and preps you to be ready to model.

Quick-start materials

<https://www.youtube.com/watch?v=Oko7kas-fu4>

The sequel to the above video, but now focuses on getting started with materials and basic texturing. This is a great guide too because after finishing, your next learning task would be to dive into a texturing tool such as Substance Painter to bring your models to a professional level.

Full beginner course (*the infamous donut*)

<https://www.youtube.com/playlist?list=PLjEaoINr3zgEPv5y--4MKpciLaoQYZB1Z>

A complete beginners course that breaks down just about everything at a decent pace. This is a FULL course/playlist! When you finish Part 6 or Part 7, to me the rest of the parts are kinda optional (they are dives into rendering, lighting etc. where typically you would move your models into a game engine that supplies its own rendering).

Full intermediate course (requires finishing the donut tutorial)

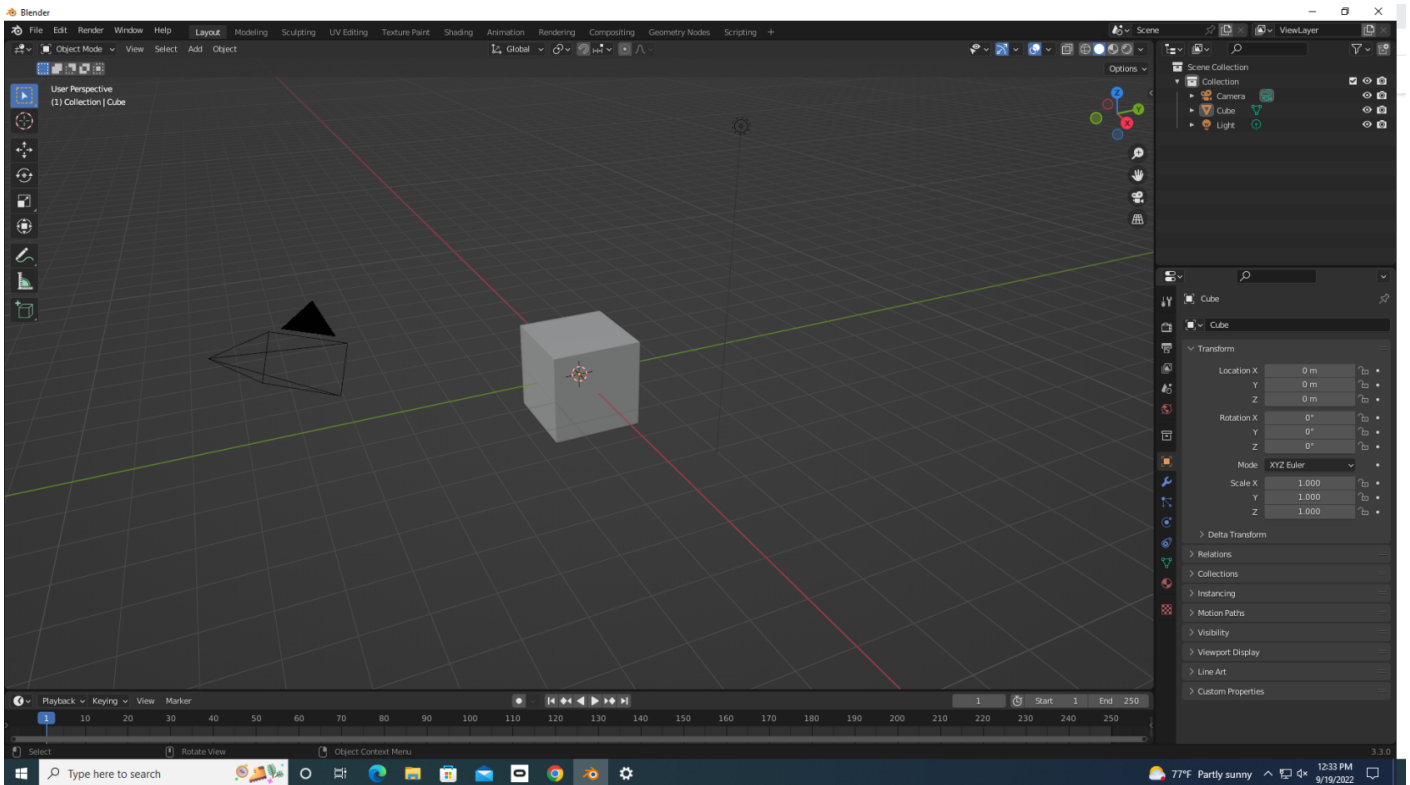
<https://www.youtube.com/playlist?list=PLjEaoINr3zgHJVJF3T3CFUAZ6z11jKg6a>

This is considered an intermediate tutorial and requires either the quick-start tutorials completed above or the beginner playlist featuring the donut. This tutorial series uses references images and a pretty professional work-flow that you could expect in a professional environment. After you finish here, practice some additional modelling work and move on to texturing with something like

Substance Painter.

Blender Basics

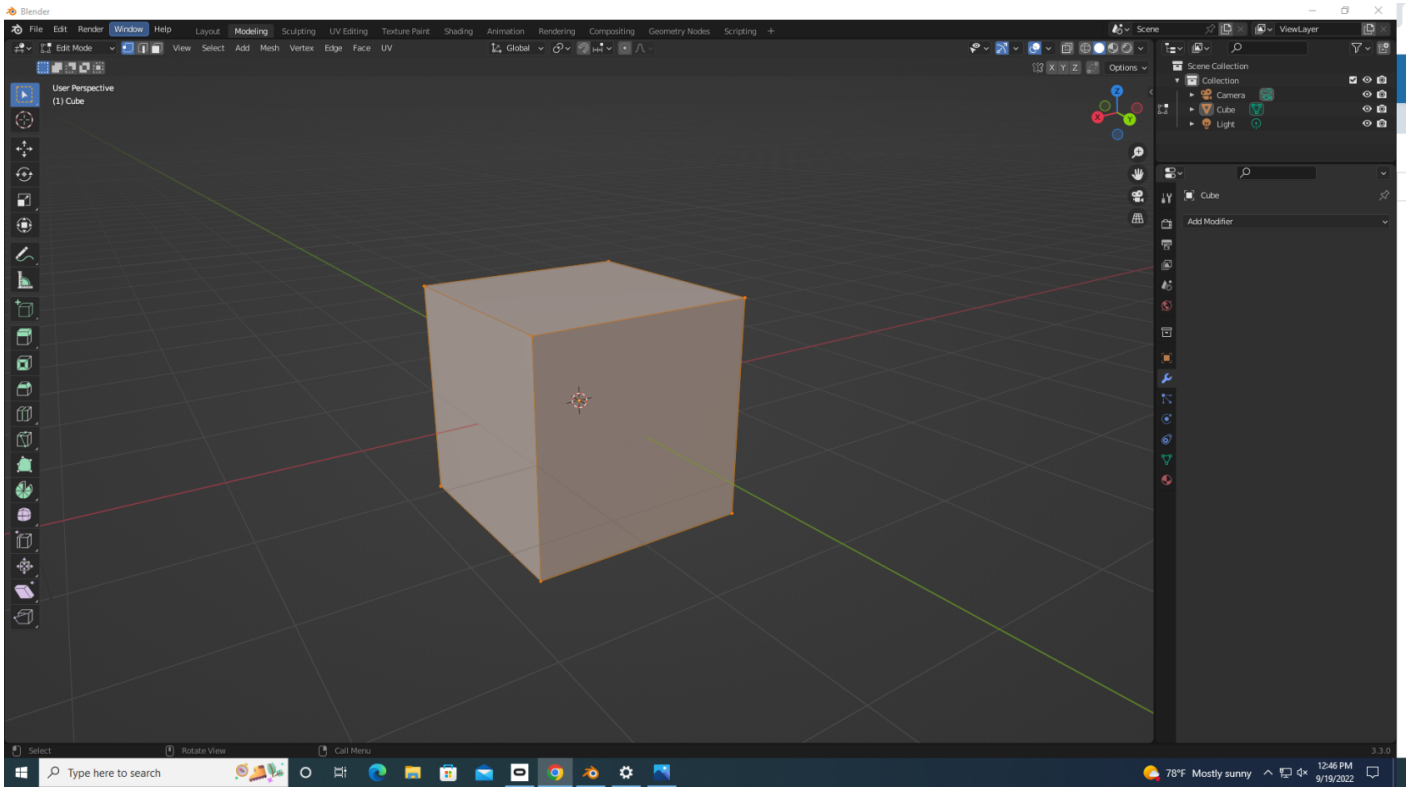
Blender is simple to learn, hard to master. I am a beginner in the engine, so here's the basics as I understand them:



The Layout Screen (A.K.A. The default screen)

This is the place where it all begins. here, you can spawn simple objects via the Add menu in the top-left corner. You can also translate, rotate, and scale your newly spawned objects with the toolbar on the left. It's the simplest of the menu's, and the beginning of any project.

by the way, to navigate, hold the middle mouse button to rotate, and hold shift+ middle mouse to pan. scrolling zooms your perspective



The Modeling Menu

The Modeling Menu is more complicated than the Layout Menu, and deserves a more in-depth description. first off, look back to the top-left corner. you should notice a set of three boxes, with one highlighted. these boxes determine if you are interacting with the vertexes (point), edges (line), or faces (square). when you select one of these, it will turn orange. shift click if you want to add to a grouping

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The Sculpting Menu

The sculpting menu is a much more finicky way of creating models. you need a high polygon count to make it work well, to the level where the modeling view is bright orange. it's very hard to get what you want out of your models, so I would suggest looking at a professional's description. I mostly use this for its smoothing and flattening tool.

Blender Shortcuts

[Blender Shortcuts Link](#)

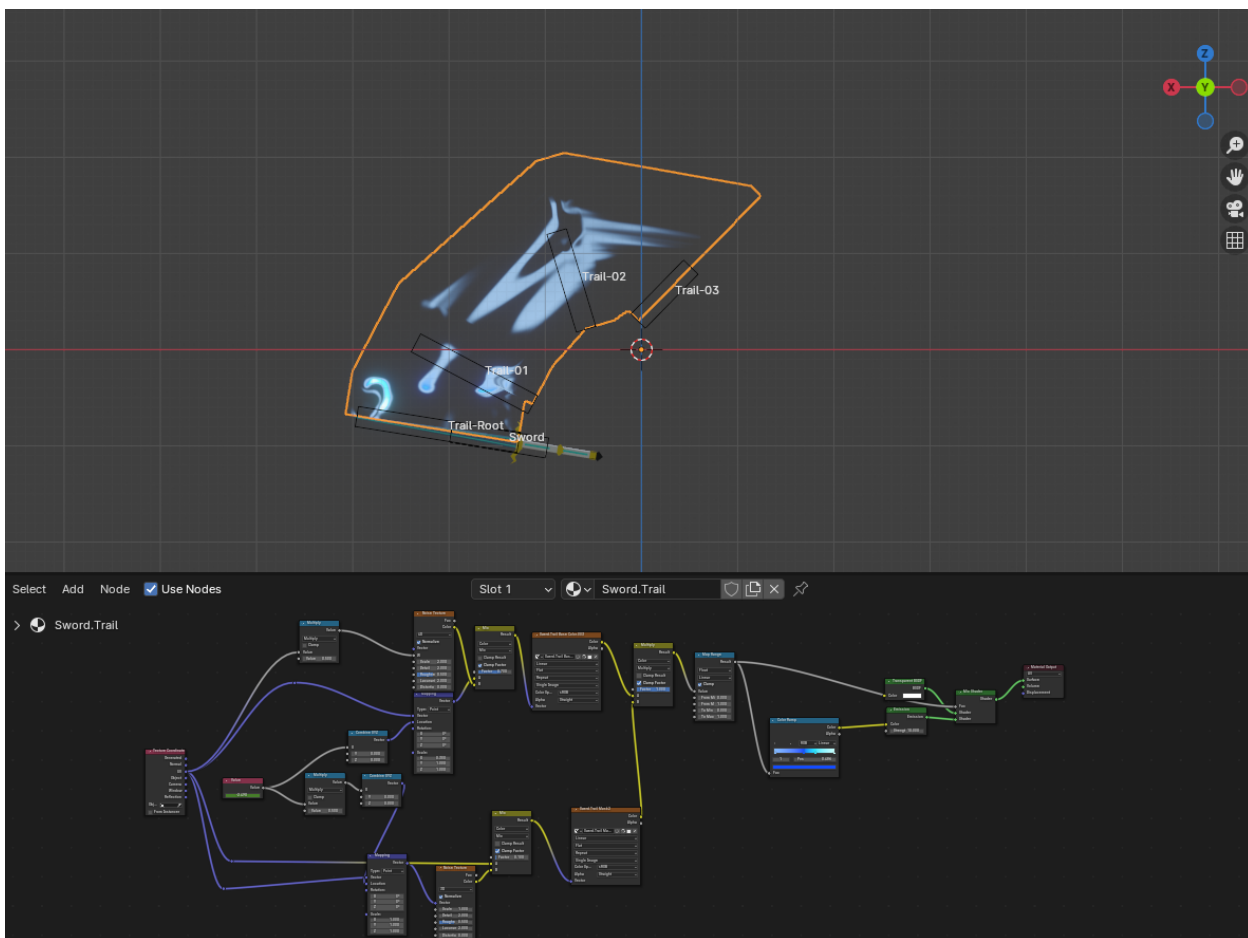
Print this PDF or store on something like an iPad. This is a comprehensive list of shortcuts used for Blender.

Shortcuts, although not required, dramatically improve the speed when modelling with Blender and every user should at least know the basics.

Importing Armatures, Animations, and Shaders

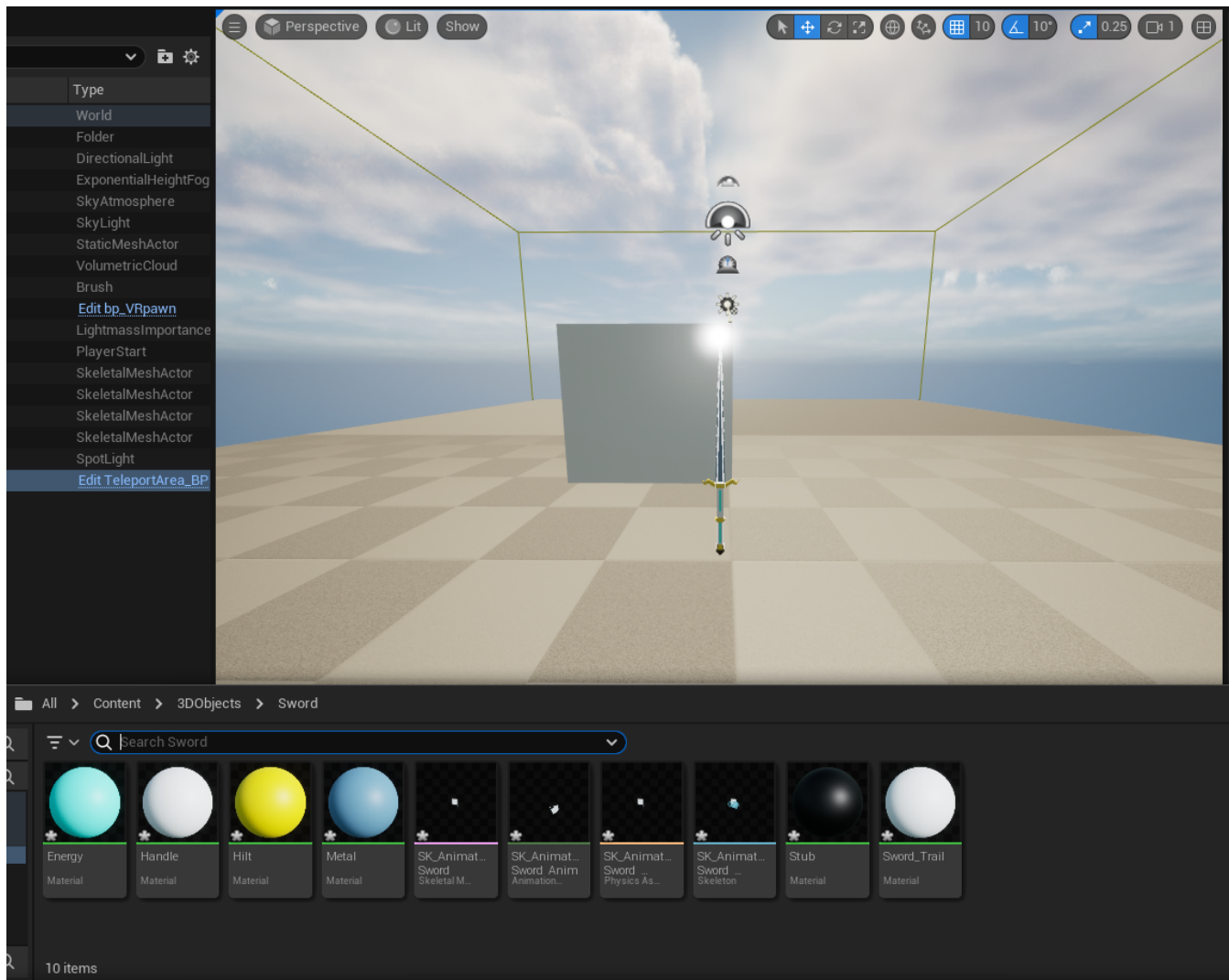
This tutorial focuses on settings that should be configured in Blender before importing into a game engine. The import process will not be covered on this page and can be found on the pages of the game engine you wish to learn the import process for, as each one is different.

>>GAME ENGINES PAGE<<



If you've configured animations, effects, or armatures in Blender, then you should bear in mind that the export process from a 3D Modeling software to a Game Engine (i.e. Unreal, Unity, Godot) will

change, to accommodate additional features that your 3D Model possesses.



Each setting or property that accommodates a feature of your 3D object will be addressed in separate sections of this paper, rather than all at once. You can use the table of contents to jump around. **Some parts of this tutorial reference guides on separate web pages that will be referenced and linked throughout the page. Below is a list of all references you can choose to explore:**

- [Export Animations from Blender to Unreal Engine 5](#)