

Week_21_Animation

Welcome Computer Animation Students

02/21/2024

<<Remember to remove the "1" in the below URL>>

We will continue learning Blender (Animation Software)

Today we will begin with a brief review,
They we will have a Demo from a video,
"Blender Workspace" ...

You remember the 12 Principals of Animation:

<< Everyone should know all of these>>

#1. Squash & Stretch

#2. Anticipation

#3 Staging

#4. Straight Ahead vs. Pose-To-Pose

#5 Follow-Through & Overlapping Action

#6 Slow-In & Slow-Out

#7 ARCS

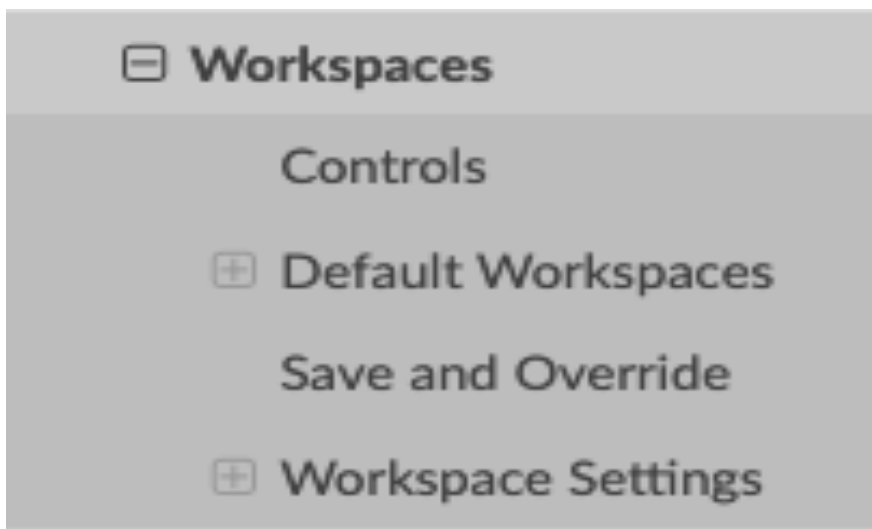
#8 Secondary Actions

#9 Timing

#10 Exaggeration

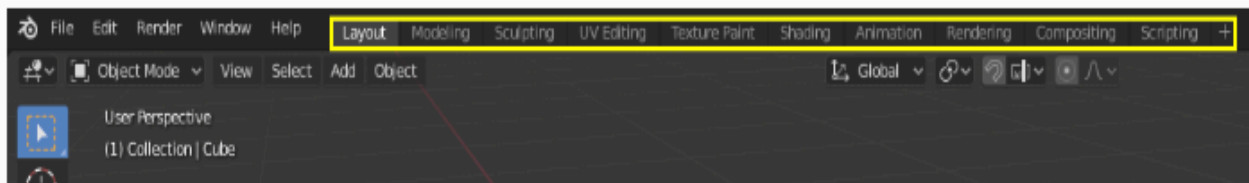
#11 Solid Drawing

#12 Appeal



Workspaces

Workspaces are essentially predefined window layouts. Each Workspace consists of a set of [Areas](#) containing [Editors](#), and is geared towards a specific task such as modeling, animating, or scripting. You'll typically switch between multiple Workspaces while working on a project.

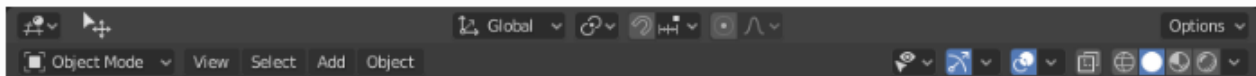




Workspaces are located at the Topbar.

The 3D Viewport is used to interact with the 3D scene for a variety of purposes, such as modeling, animating, texture painting, etc.

Header Region



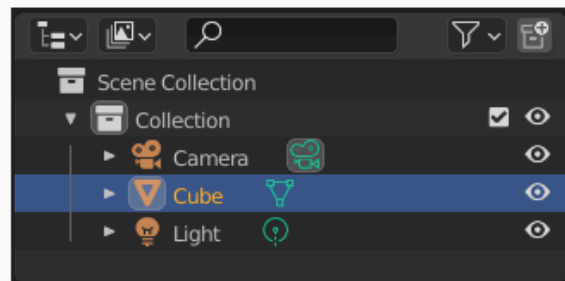
Object Mode header.

The header contains various menus and controls based on the current **mode**. Its items are split into three groups:

Introduction

The *Outliner* is a list that organizes data in the blend-file, i.e. the scene data, Video Sequencer data, or anything that gets stored in a blend-file. The *Outliner* can be used to:

- View the data in the scene.
- Select and deselect objects in the scene.
- Hide or show an object in the scene.
- Enable or disable selection (to make an object "unselectable" in the 3D Viewport).
- Enable or disable the rendering of an object.
- Delete objects from the scene.
- Unlink data (equivalent to pressing the X button next to the name of a data-block).
- Manage collections in the scene.



The Outliner editor.

Each row in the *Outliner* shows a data-block. You can **LMB** click the disclosure triangle to the left of a name to expand the current data-block and see what other data-blocks it contains. Holding **Shift** when clicking on the disclosure triangle will expand child data-blocks recursively. **LMB** Clicking and dragging along disclosure triangles will expand or collapse multiple data-blocks.

https://docs.blender.org/manual/en/latest/interface/window_system/workspaces.html

Properties

The Properties shows and allows editing of many active data, including the active scene and object.

Tabs

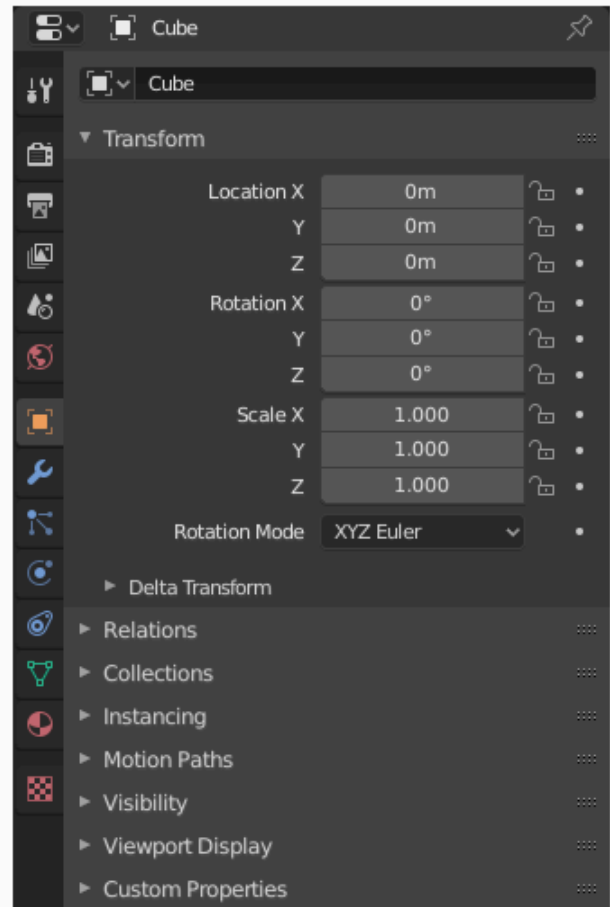
The Properties has several categories, which can be chosen via tabs (the icons column to its left). Each tab regroups properties and settings of a data type, and is documented in its own manual sections, linked below.

Active Tool and Workspace Settings

This first tab contains settings for the active **tool** (in the 3D Viewport) and the current **workspace**.

Scene

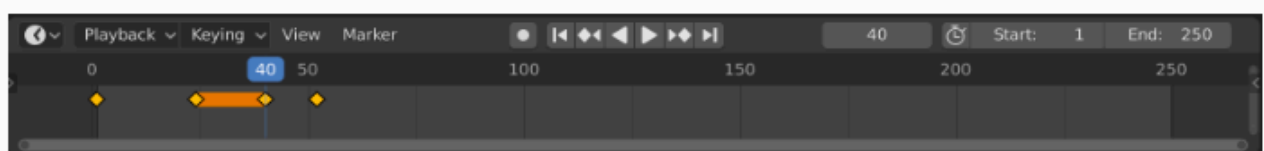
These tabs contain settings for the active scene.



The Properties, with Object properties shown.

Timeline

The *Timeline* editor, identified by a clock icon, is used for manipulating keyframes and scrubbing the Playhead.



The Timeline.

ml

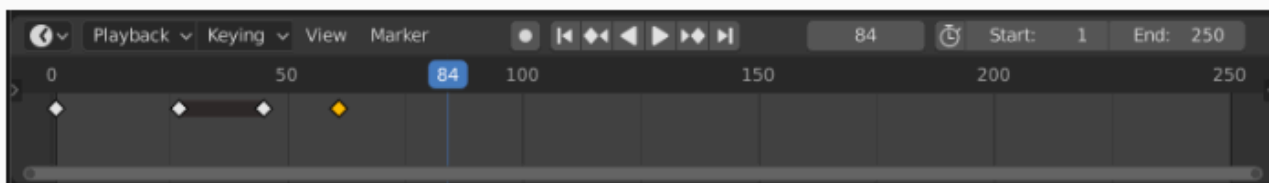
The *Timeline* gives the user a broad overview of a scene's animation, by showing the current frame, the keyframes of the active object, the start and end frames of your animation sequence, as well as markers set by the user.

The *Timeline* includes *Transport Controls*, to play, pause, and skip through an animation sequence.

It also includes tools for manipulating *Keyframes*, *Keying Sets*, and *Markers*.

Main View

The main *Timeline* region displays the animation frames over time.



Here you can see the *Keyframes* (diamond shapes), *Playhead* (blue handle), *Scrollbar* (along the bottom).

Adjusting the View

The *Timeline* can be panned by holding `MMB`, then dragging the area left or right.

You can zoom the *Timeline* by using `Ctrl+MMB`, the mouse `Wheel`, or pressing `NumpadMinus` and `NumpadPlus`.

You can also use the scrollbars, located at the bottom or the right of the editor, to pan and zoom the view.

<https://docs.blender.org/manual/en/latest/editors/timeline.html>

<https://www.youtube.com/watch?v=7DNmaR7TKwU>

Homework:

Review this URL (Blender Demo)

"Shark" Character Rig

<https://youtu.be/r7NotEjxrPk>