

Anima Toon is a unique 3D modelling and animation program which allows artists to create and animate beautiful voxel characters easily.

Model and animate a 3D character with keyframes using onion skin guides in order to pose characters. Create and save clips of animations to resuse and modify on other characters.

The built-in Voxel modeller lets users modify the character to get a desired look and then seamlessly switch back and forth with the animation scene without losing any data.

Create infinite varieties of characters (including four legged animals) based on the character templates included along with access to a library of animations and models such as walks, runs, idles, fights etc.

Export the 3D animations as .GLTF and .FBX files which can then be imported in popular packages such as Blender, Maya, Unreal Engine and Unity 3D.

- Non-linear character animation and 3D modelling workflow.
- Infinite variations based on inbuilt rigs and library animations.
- Export as .GLTF and .FBX runtime animations to use in Blender, Maya, 3ds Max, Unity 3D etc.
- Save animations as clips to resuse and share animations.
- MP4 export for quick renders and sharing.
- Import and export scenes for collaborative workflow.
- Demos and tutorials for learning are bundled inside the app.

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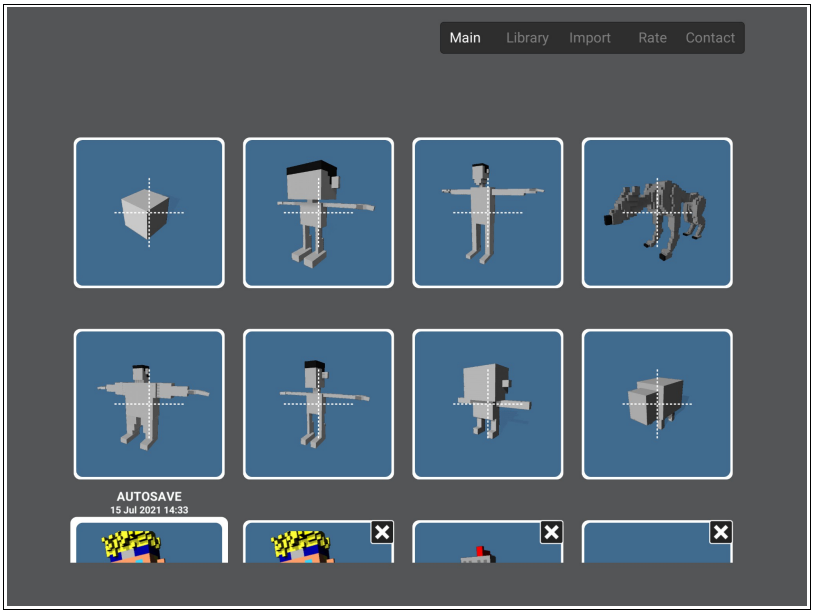
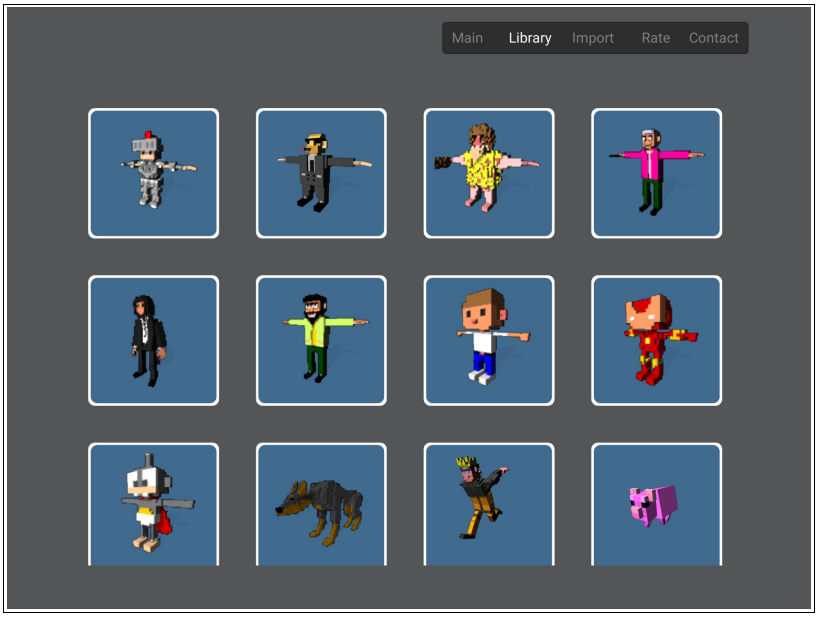
General Overview

Main Menu



Main Menu contains the template models, and the user's saved data. The user can select any of these and start working on them immediately.

Main Menu also contains the library models, which are a set of custom made models that the user can start working on.



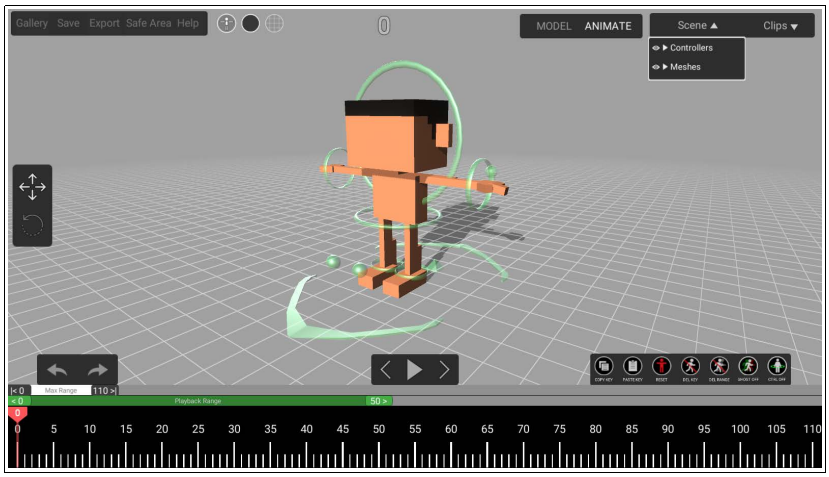
Import button allows the user to import .scn (the custom format for Anima Toon scenes) files and then add them to the main menu so that they can collaborate with other users of the app. For example, one user can make a model on one device that another user can then import and add animation data onto that model on their own device.



Main Menu also contains an **Autosave** slot that saves the current working scene frequently, so that the user does not lose a lot of progress in case of unforseen circumstances.



In-Scene

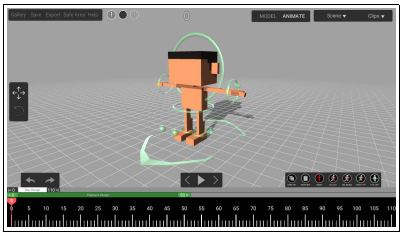


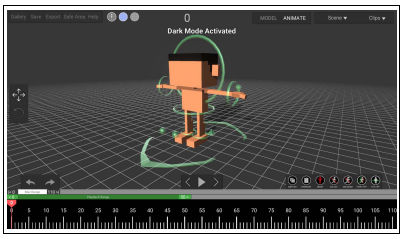
When a save or a template model is loaded, the user is taken into the **Scene view** which contains only the model that the user selected.

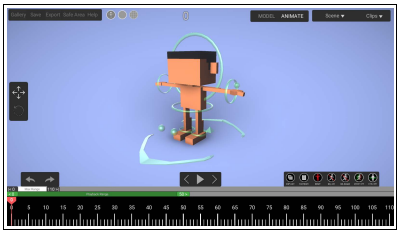
The **Scene view** is where the user creates their animations and updates the models.

Users can move around the model freely and view their creations from all angles.

Display Modes





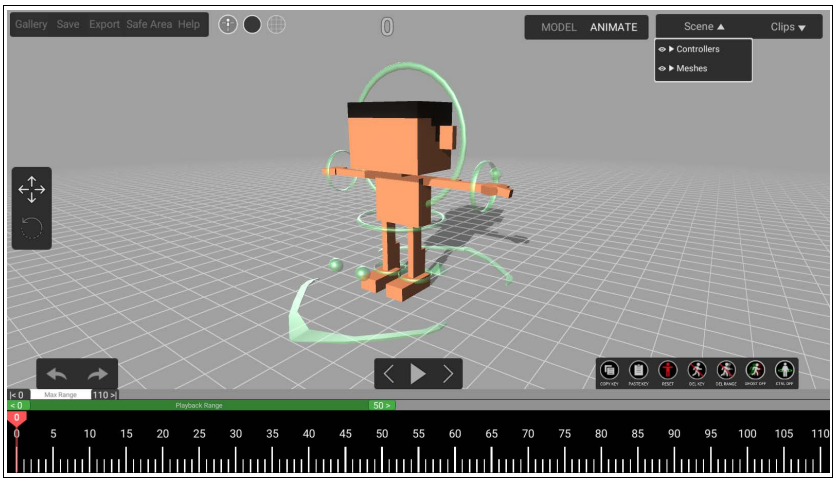


Users can switch the **Display mode** to their liking by changing the background color and turning the grid on or off.

The **Display mode** can be switched between a **light mode**, a **dark mode**, or a **quality mode**(with Enhanced Lighting and Ambient Occlusion) depending on the user's preference.

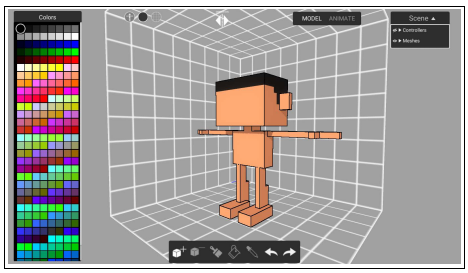
The **Grid** that acts as a reference can be switched on or off as well.

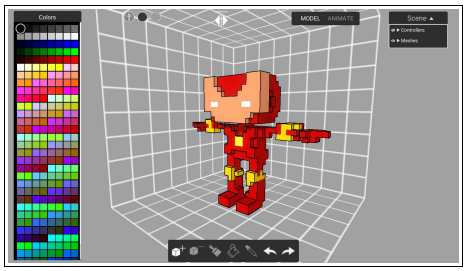
Animation Mode



Animation Mode allows the user to create animations using the model. Each model comes with its own set of **controllers** that can be positioned in various poses to create interesting animations.

Model Mode

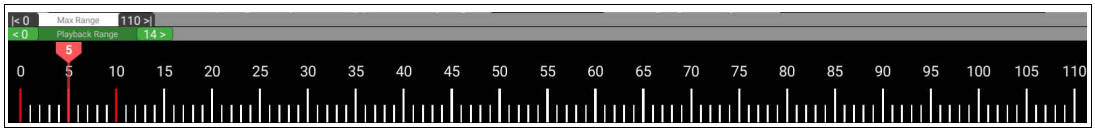




Model Mode allows the user to modify the current model to their liking.

The model can be modifed by adding or removing blocks, or painting them.

Timeline



Timeline is a representation of the animation data over time. As a user moves along the timeline from left to right, it shows the model in different poses for that point in time.

This is how a user creates **animations**. By sequentially arranging their poses along the timeline, and by going through it at a fixed rate, the poses come to life.

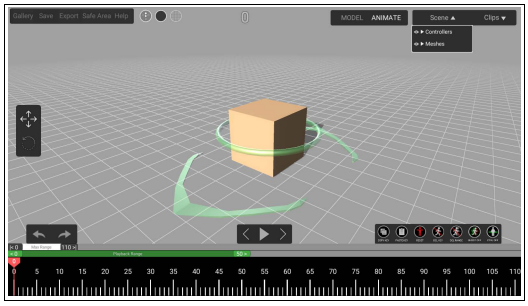
Animation Overview

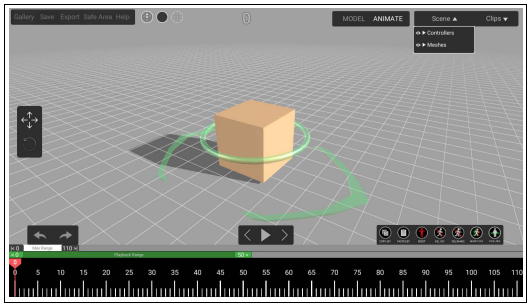
Animation mode is where the user creates their animations. This section will cover how the animation mode works in Anima Toon.

Controls

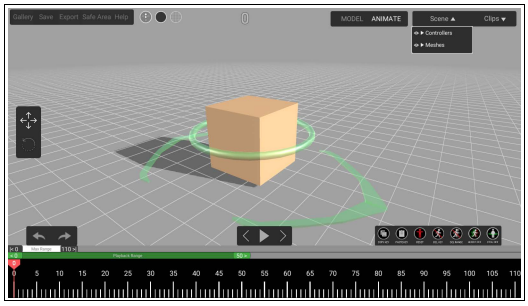
The camera is controlled in the following way:

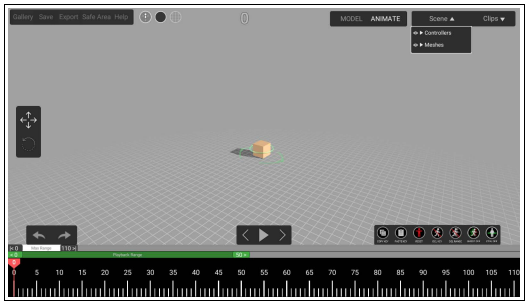
- **Orbit:** Right click and drag
  - Touch and drag with one finger for iOS



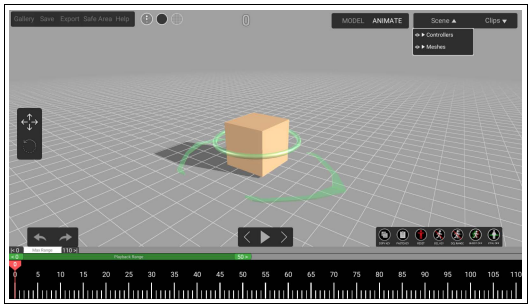


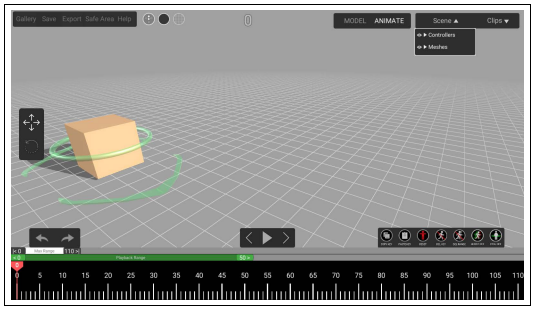
- **Zoom:** Mouse Scroll wheel
  - Pinch with two fingers for iOS





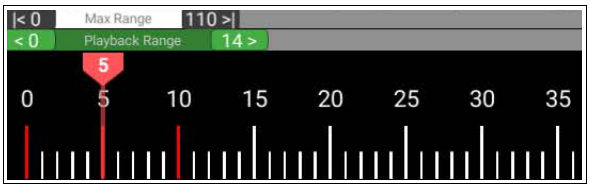
- **Pan:** Middle mouse click and drag
  - Touch and drag with three fingers for iOS



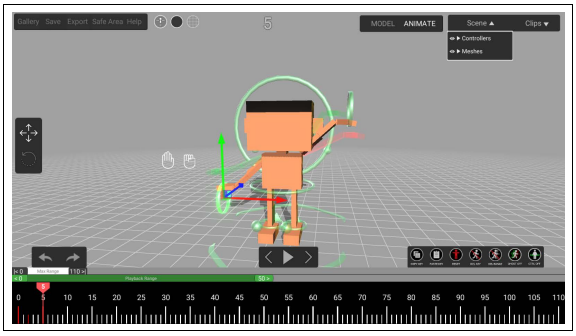


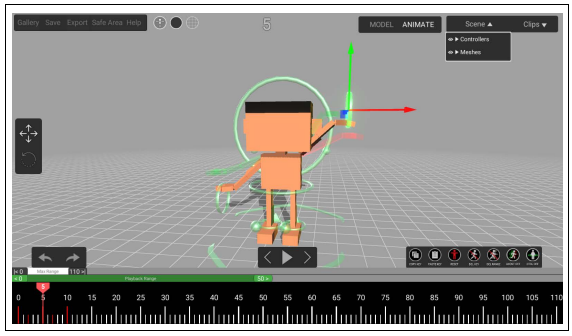
Keyframes

When a **Controller** on the model is updated, the current position of the controller is saved as a pose in the timeline. This is called a **keyframe**. It is denoted on the timeline with a red mark. The keyframes are set automatically any time a controller is updated, hence there is no need for the user to press a button to save a keyframe. If the controller is modified on the same timeline position, the keyframe data will be overwritten.



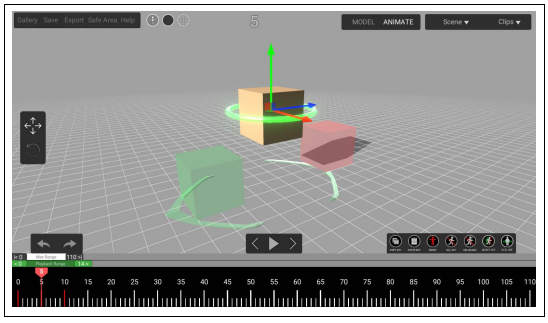
The keyframes are shown only for the **selected controllers**. For example, if the left hand has keyframes on frames 0 and 10, while the right hand has keyframes on frames 5 and 15, if the controller for the left hand is selected, the timeline will show the keyframes only on 0 and 10.





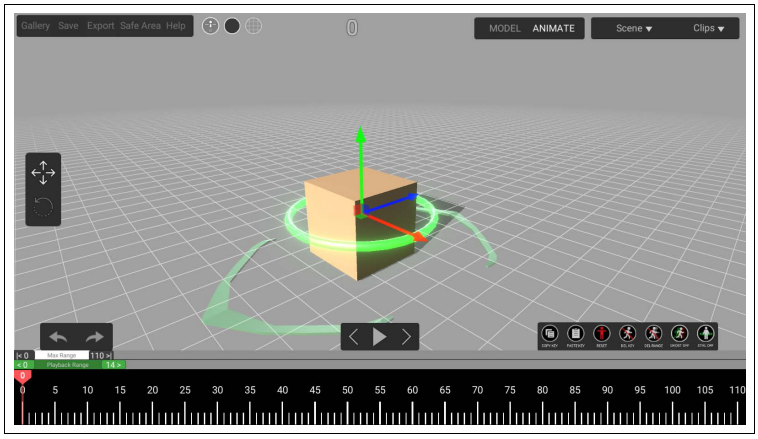
If there are unused frames in between two keyframes, the animation will be **interpolated linearly** between the keyframes. It will update the unused frames and make a smooth linear transition between the two saved keyframes.

A **ghost model** of the previous keyframe and next keyframe will be visible on screen. The red ghost model is used to represent the next keyframe, and the green ghost model is used to represent the previous keyframe.



Manipulators

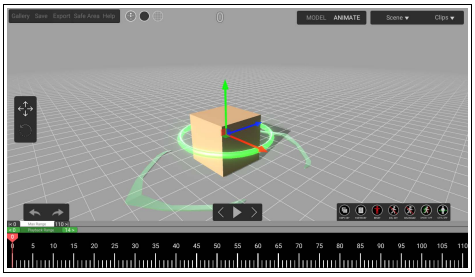
When a controller is selected, a **manipulator** is shown that allows the user to move or rotate the controller in 3D space with ease.

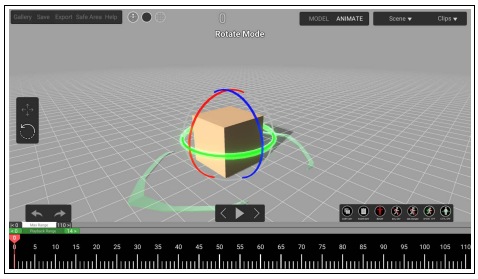


Anima Toon uses axes in the following manner:

- **X-axis,** denoted by red, going along the left-right direction
- **Y-axis,** denoted by green, going along the up-down direction
- **Z-axis,** denoted by blue, going in-out of screen

The manipulator can be switched between **translate mode** and **rotate mode**. Translate mode allows the user to **move** the model in all three axes, and rotate mode allows the user to **rotate** the model in all three axes.



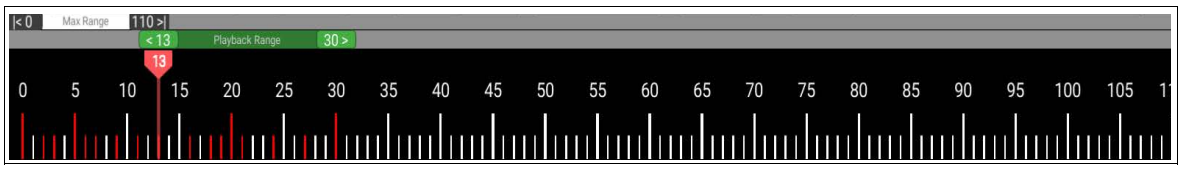


This can be done in multiple ways:

- Pressing the corresponding icon on the left.
- Double clicking the selected controller.
  - Double tap for iOS.
- Pressing the shortcut keys. *'W'* for translate mode, *'E'* for rotate mode.

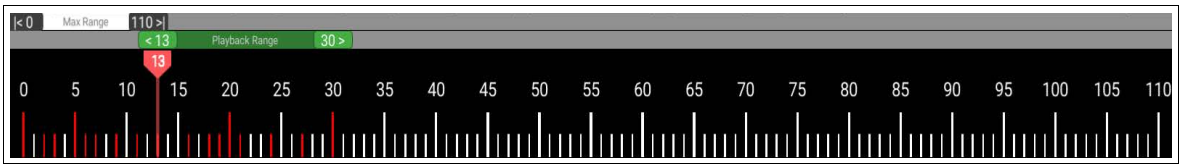
Timeline

The timeline shows the **animation poses** across time. Each white mark is a **frame** in the animation. When a controller has a position updated, the white mark turns red denoting a saved **keyframe**.

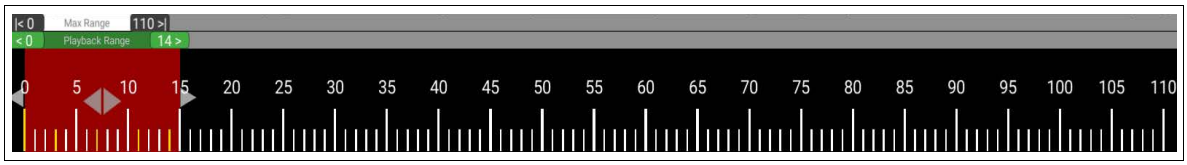


The current frame is shown by the **Red cursor**, which can be moved around the timeline to show the pose that is saved on that frame.

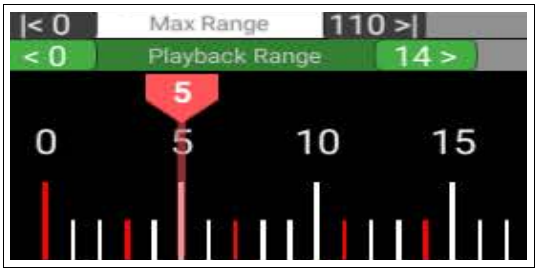
The Green bar is the **Playback Range**. This is the range that will be looped when the play button is pressed. This can be moved by dragging the green handles on either side of the **Playback Range** slider.

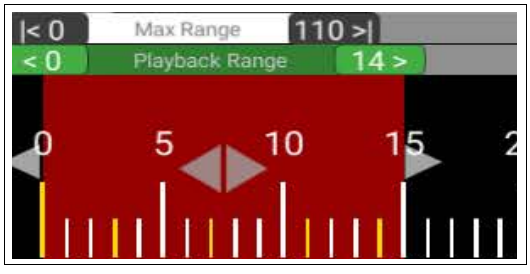


Hold **Shift + Left** click drag to select multiple keyframes.

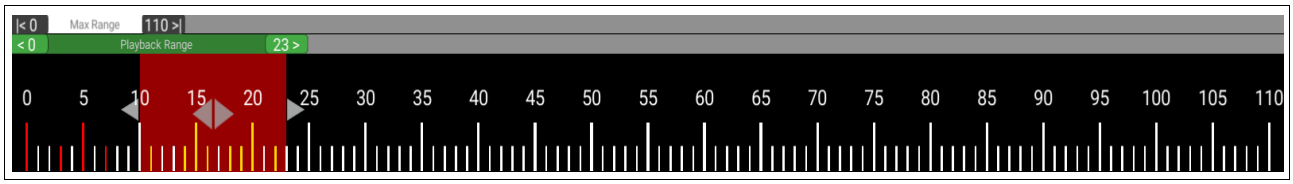


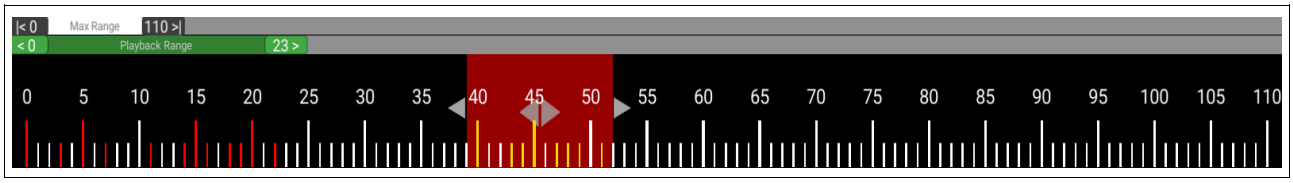
While the selection is being made, the **Highlight** is shown as red color, and the selected keyframes are shown in **yellow** instead of **red**.

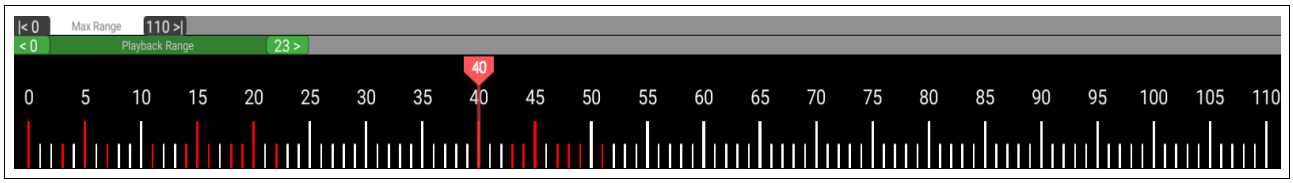




Left click and drag to **Move** or Middle mouse click and drag to **Copy** the selected key frames. Click on timeline to commit the keyframe movement.

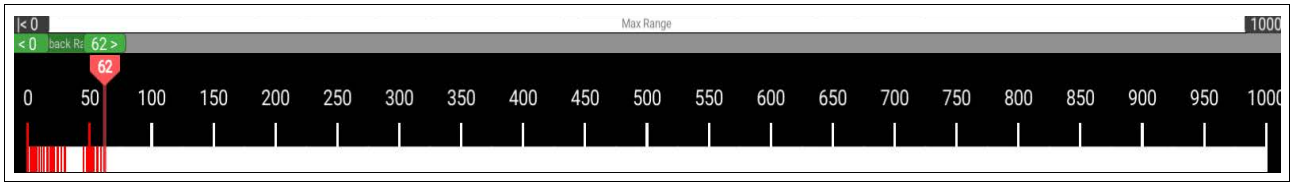


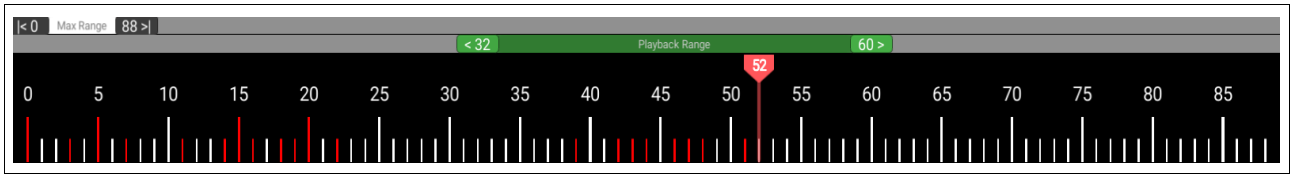




The **Max Range** handle shows the visible frames. It can be expanded to up to 1000 frames.

A wide range can be used to block out the animation across a large time period, and a short range can be used for fine control over the animation across a small period of time.





Frame Operations

Frame Operations are above the timeline on the right side.





Copy: Copy the single pose of the selected controller at the frame the location the handle is at.



Paste: Paste the copied data from above into the frame that the handle is at.



Reset: Reset the entire animation back to t-pose. This will remove all the keyframes from all the controllers. A confirmation panel will pop up when this button is pressed to prevent accidental reset.



Delete: Delete the keyframe data for the selected controller on the frame that the handle is at. It will then try to interpolate between the keyframes on either side of the deleted keyframe and store that data in its place.



Delete Range: Delete the all the keyframes in the Playback Range for the selected controller. It will then try to interpolate between the keyframes on either side of the deleted keyframe and store that data in its place.



Ghost: Toggle the ghost models on or off.

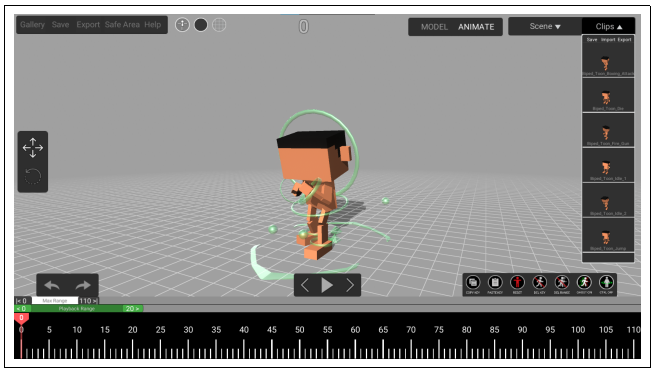


Controllers: Toggle the controllers on or off. If a controller is selected before pressing this button, all the other controllers will be toggled on or off leaving the selected one untouched.

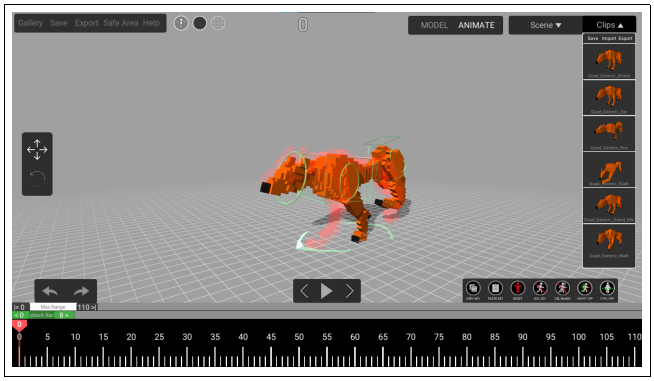
Clips

Clips are saved animation data that can be **reused** on the current model type.

When a clip is loaded, it will **replace** the animation data that is present in the timeline with the clip that is loaded. It will only replace the animation data, the model and the changes made to it are not affected.

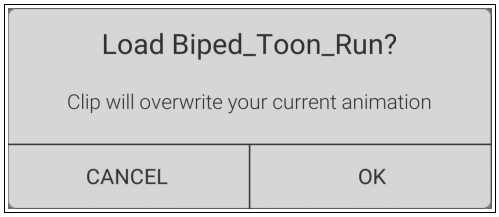


A clip can only work on the model that it was created in. For example, a clip created for the cube, will only work for the cube, it will not work for any biped characters. The clips panel will only show the clips that are compatible with the current model.

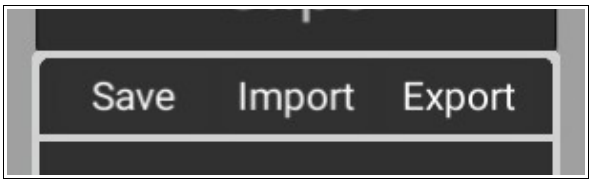


When the clips button is pressed, it opens a list of all the available clips that can be used on the model.

To **load** a clip, press on the chosen clip and a confirmation panel will pop up. If allowed, the selected clip will **overwrite** the timeline.



Clip Operations



To **save** a clip, press on the save button. This will save the **current animation** on the timeline as a new clip in the clips panel.



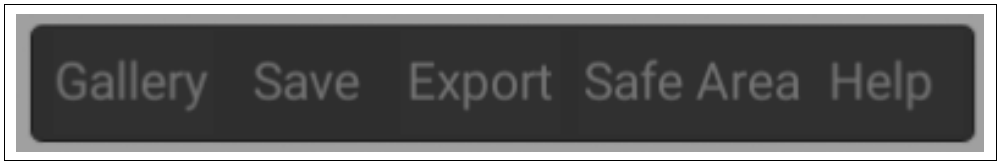
To **export** a clip, press on the export button. This will save the **current animation** on the timeline as a *'.clip'* file and allows the user to save it in the location that they desire.

To **import** a clip, press on the import button. This will allow the user to load in a *'.clip'* file. Once it is imported, it will be present in the clips panel for use. If the imported clip is not compatible with the current model, an error message will pop up.



File Operations

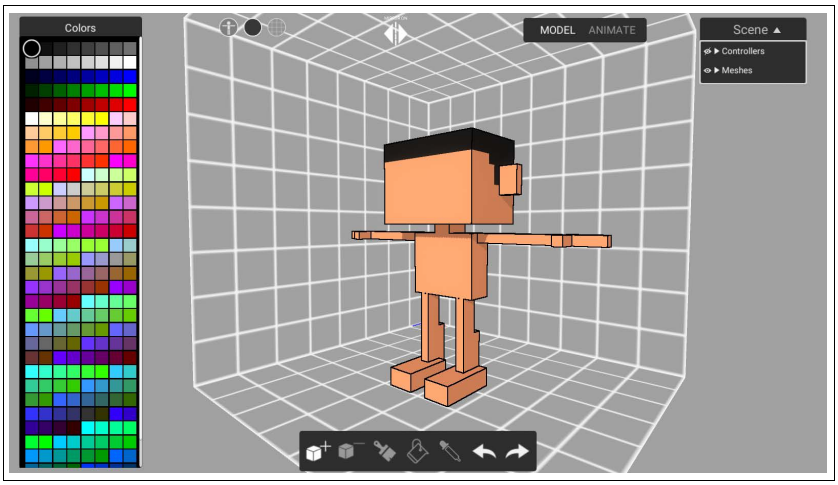
File operations are on the top left corner of the UI.



- **Gallery:** Saves the scene and returns back to gallery. This will save both the animation data and the model data.
- **Save:** Saves the scene and exports it out as '.scn' file. This file includes both the animation data and the model data.
- **Export:** Exports the animation as a '.mp4' file or a '.gltf' file.
- **Safe Area:** 16:9 frame which shows the recording area.
- **Help:** Shows the help Panel.

Model Overview

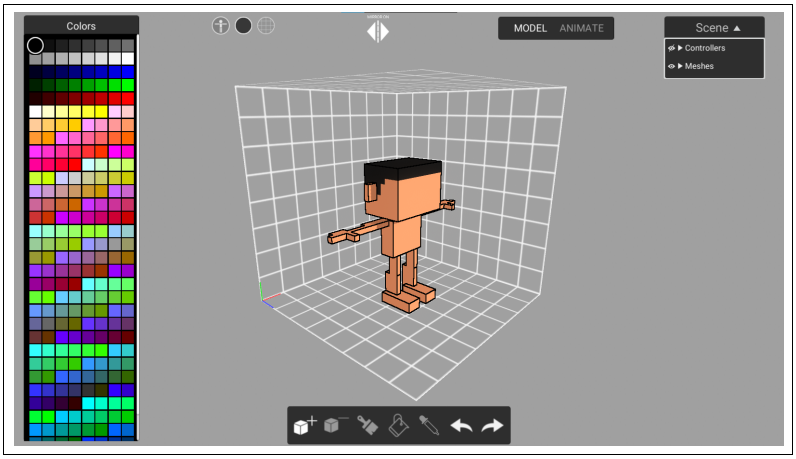
Model mode is used to **customize** the model. Users can use the model mode to customize any of the template models to their personal preferences.



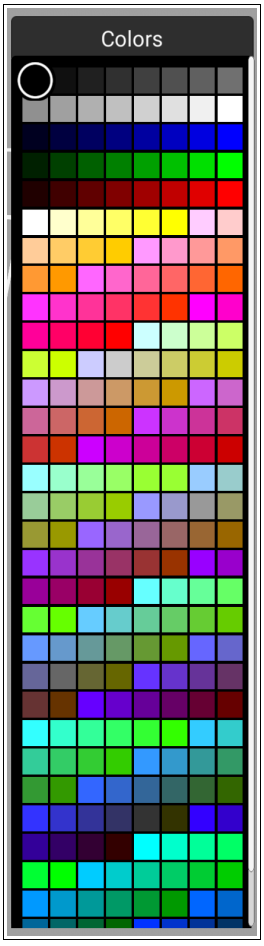
To switch to model mode, press the ***'MODEL'*** button. This will switch the UI into model mode. To switch back to animate mode, press the ***'ANIMATE'*** button.



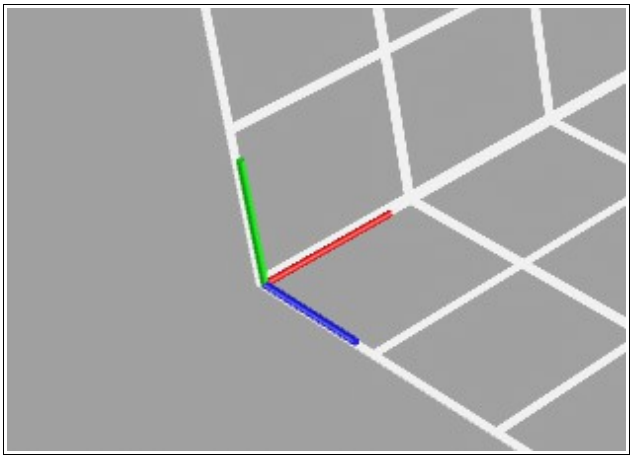
When in model mode, the model will be in a **t-pose** at the default position. The model will also be enclosed within a **cube grid**. This is the bounds of the model and the user cannot build beyond this grid.



A color panel is provided that allows the user to select a color from the list.



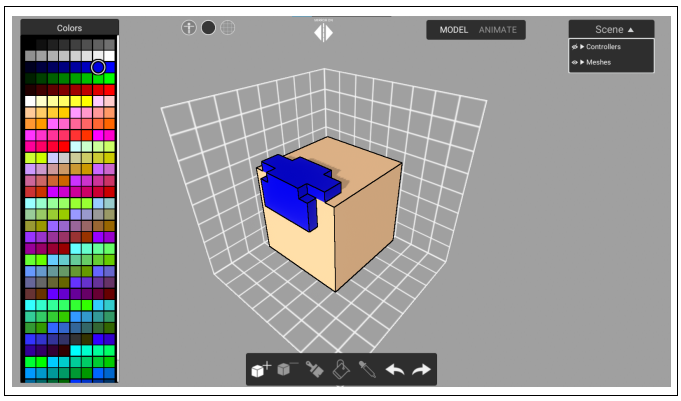
The cube grid also has an axis reference in the corner.



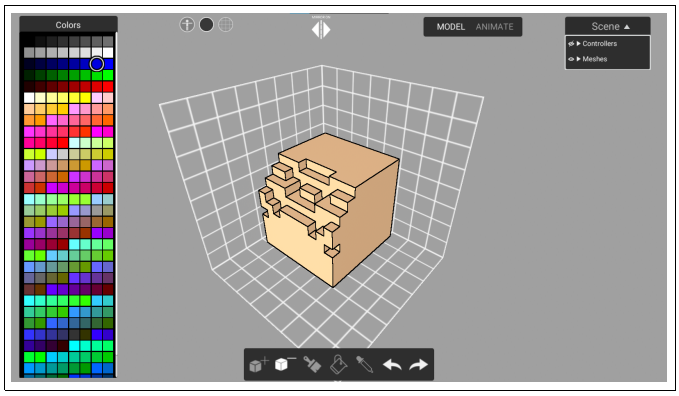
Modelling Operations

The operations that can be done in the modelling mode are

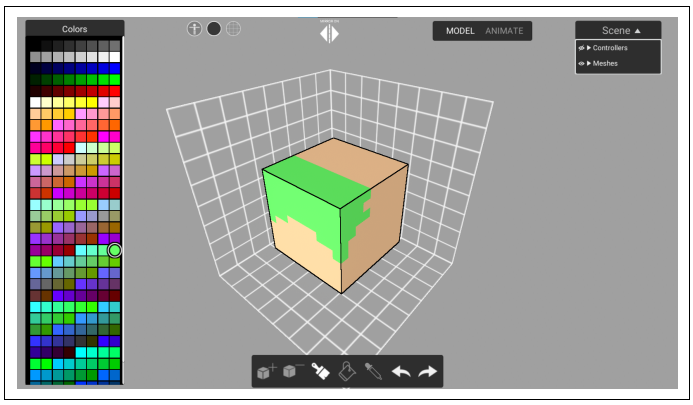
- **Add:** Add more blocks to the model.



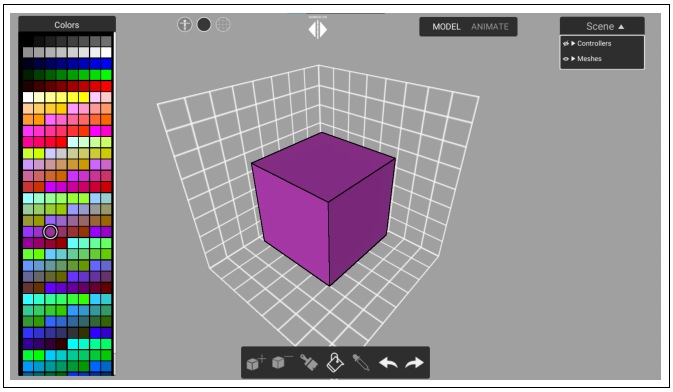
- **Subtract:** Remove blocks from the model.



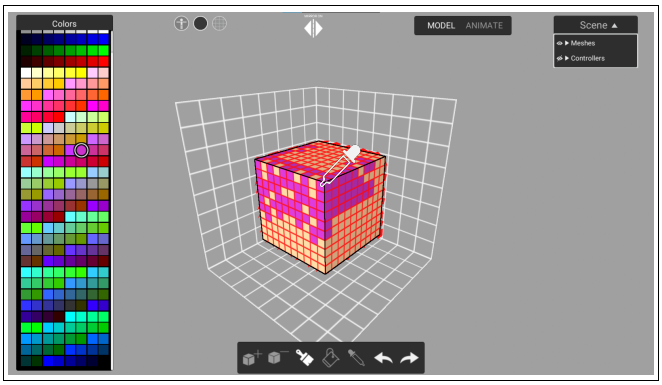
- **Paint:** Color the block with the active color.



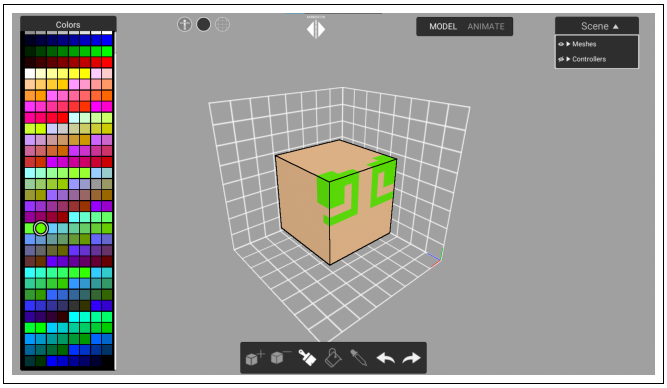
- **Fill:** Flood fills the whole model with the active color.



- **Eyedropper:** Changes the active color to the color selected on the model.



- **Mirror Mode:** Toggles the mirror option which will mirror the add, subtract and paint operations on the other side of the model. The mirror mode will only mirror the left side to the right and vice versa.

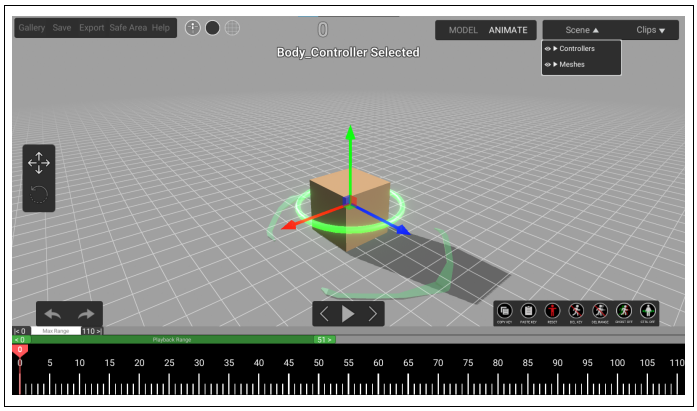


Rig Overview

The set of interconnected movable parts is called the rig. Each part of the rig can be individually controlled. This section explains the different types of controllers available on different rigs and their functions.

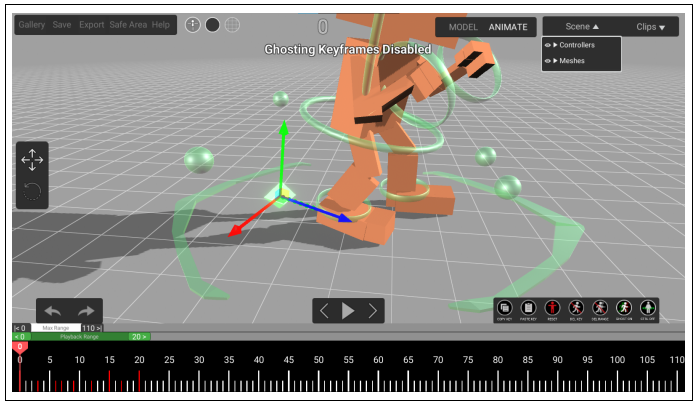
Main Controllers

These are the **circluar controllers** that are on the rig. They directly control a certain part of the rig. These controllers can be rotated and translated. Some controllers, like hands and feet controllers for the biped, are **Inverse Kinematics (IK)** controllers (which influence other parts of the body), while others, like the head controller for the biped, are not.



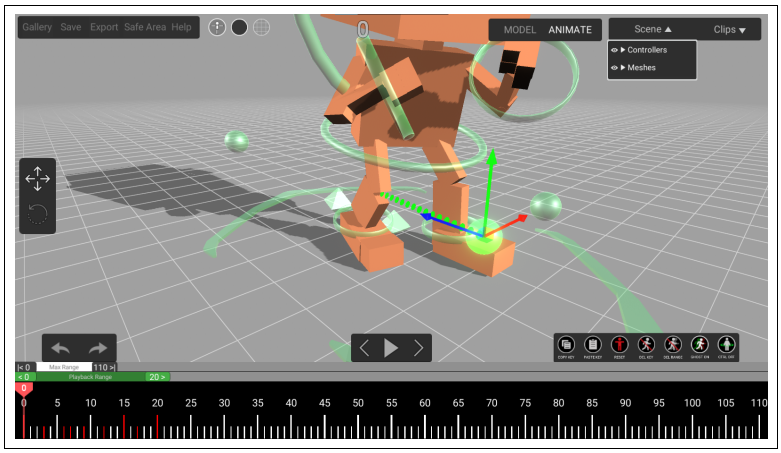
Heel Controller

The **Heel controller** is only available on the bipeds and is located at the heel of the feet. It is in the shape of a **tetrahedron**. The heel controller cannot be rotated, it can only be translated in the vertical direction. The heel controller controls the position of the heel with respect to the toes. When the heel controller is moved, it rotates the foot up so that the toes do not move, but the rest of the leg rotates around the toe.



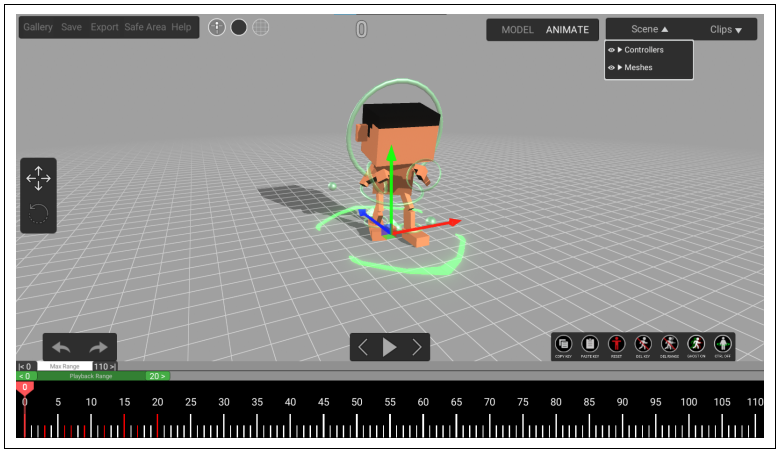
Pole Controllers

The **Pole controllers** are only available for the bipeds and is located behind the elbows and in front of the knees. It is in the shape of a **sphere**. The pole controllers cannot be rotated, they can only be translated. The pole controllers determine where the elbows and knees will point if the arm or leg is bent. When the hand or foot controller is moved, the elbow and knees get bent. These bent joints will then point to the pole controllers position. One pole controller will only influence one joint. For example, the left elbow pole controller will only influence the left elbow and not any other joints.



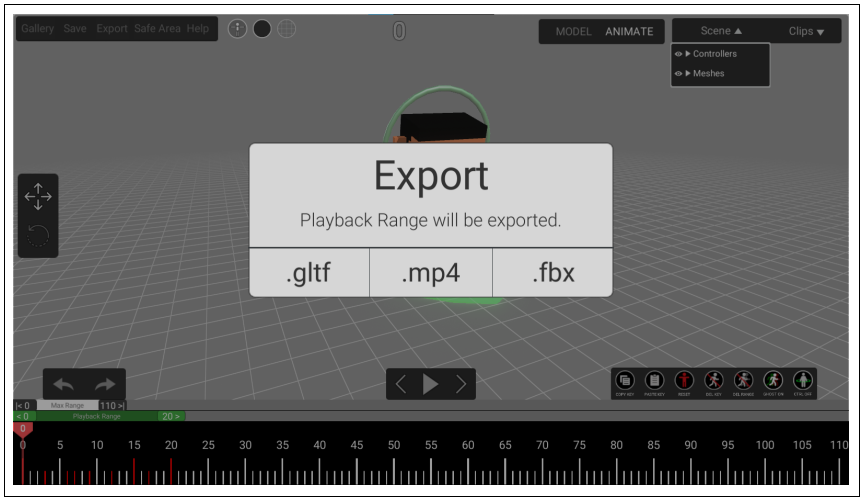
Full Body Controller

The full body controller is present on every rig and is the **arrow shaped** controller at the bottom of the model. This is used to position and rotate the whole model without affecting any other controller. All other controllers will rotate and translate along with the full body controller.



Export Overview

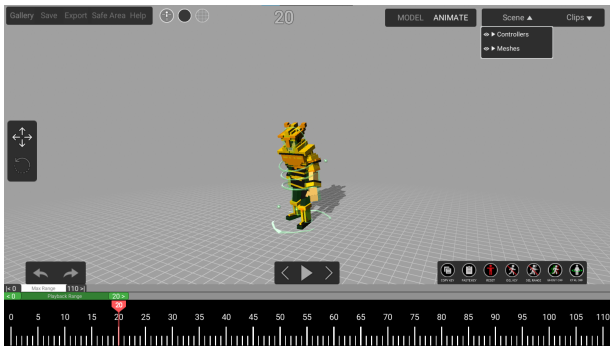
The export feature allows the user to export their creations out of Anima Toon for use in other applications. When the export button is pressed, the user is prompted to export the animation in one of three formats.



The length of the exported animation will be the **Playback Range** that the user has defined.

MP4 Export

Mp4 export will export the animation as a .mp4 video file. The current view of the animation scene will be played through and encoded into a .mp4 video file. The user is allowed to save this file at the location of their choosing.



In-Scene veiw



Mp4 video

GLTF Export

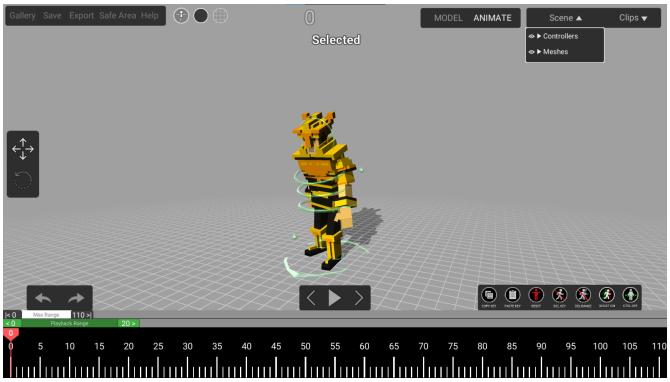
GlTF (GL Transmission Format) is a royalty-free specification for the efficient transmission and loading of 3D scenes and models by graphics engines and applications.

The glTF export will export the current scene as a .gltf file. The .gltf file will contain both the animation and the model data. This can then be used in other applications that support .gltf files (such as Blender, Maya, 3ds Max, Unity 3D etc).

FBX Export

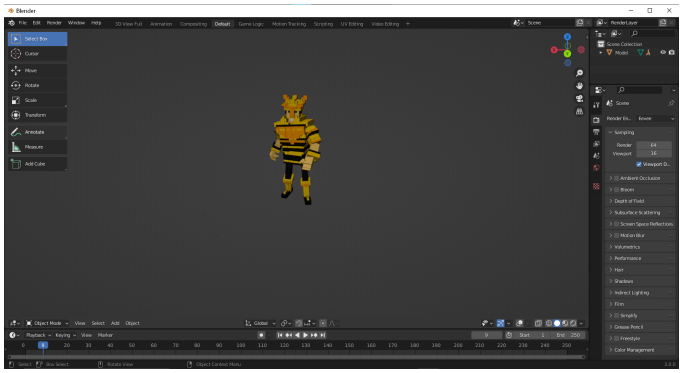
FBX (Filmbox) is a proprietary file format (.fbx) developed by Kaydara and owned by Autodesk since 2006. It is used to provide interoperability between digital content creation applications.

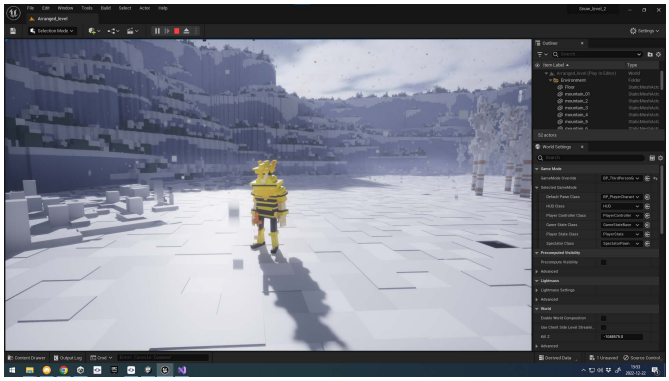
The FBX export will export the current scene as a .fbx file. The .fbx file will contain both the animation and the model data. This can then be used in other applications that support .fbx files (such as Blender, Maya, 3ds Max, Unity 3D etc).



In-Scene View

FBX in Blender





Fbx used in Unreal Engine

References

Anima Toon Demo Videos

Contact Us

Contact us Here