



Simple Bones Documentation

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Scripts

Main Scripts

SimpleBones	Visualizes bones and new animation functionality.
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Secondary Scripts

Demo/SBCrossfadeAnimations	Randomly crossfades all animations in the Animation component.
Demo/SBDemoRotate	Simple transform rotation.
Demo/VertexColorToonLight	Sets shader light position.

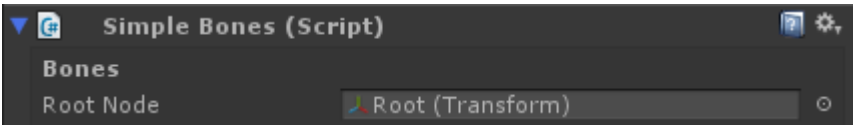
External Resources

Demos

Properties

Bones

Root Node



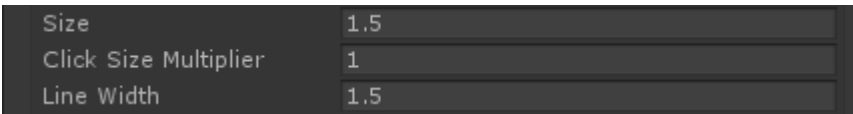
Required property. Add the root bone Transform of the skeleton.

Colors



Customize colors of the skeleton.

Sizes



- Size of the nodes.
- Size of the clickable area of the nodes.
- Thickness of the line between nodes.

Hide Ends



Hides the last child nodes of the skeleton. Some skeletons end nodes does not have any effect on the skin, this option makes it possible to not show these in Unity.

Labels



Show the names of all the visible bones as labels.

Show



Enable or disable visibility of the skeleton.

Shortcuts



Toggle visibility of the skeleton with a key shortcut.

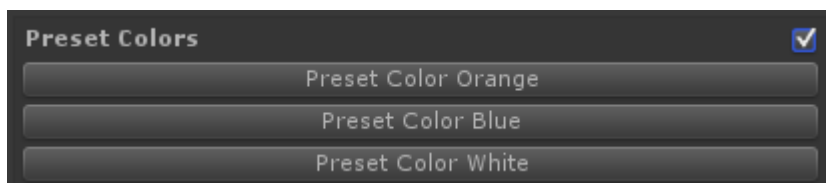
Only When Selected



Only show the skeleton when it or its children is selected.

Preset Colors

Presets



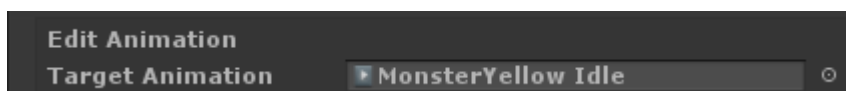
A selection of colors for the skeleton.

Edit Animation

A set of functions that adds or removes keyframes from the animation.

Always **back up** your animation before adding or removing new keys through these functions.

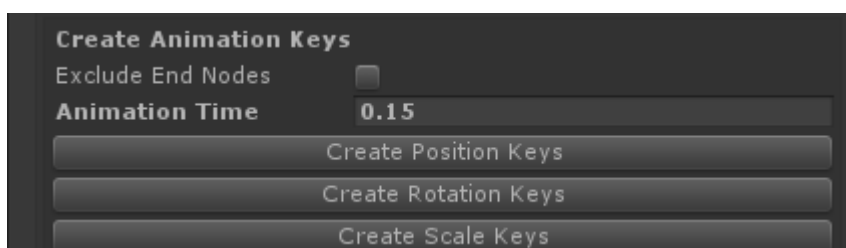
Target Animation



The animation that should be edited.

Create Animation Keys

Creating the first key for all the bones is important so that animations can properly blend and crossfade together. If one animation rotates a transform while one doesn't have any reference to it, that transform will be frozen if the key doesn't exist.



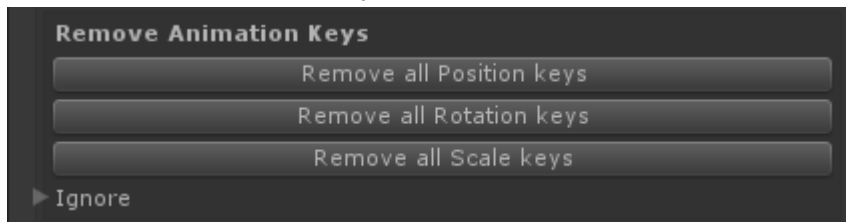
Exclude end nodes, ignore the last bone of the skeleton when creating animation keys.

Animation Time, time in the timeline keys will be created.

Buttons creates position, rotation and scale keys for all the bones in the current state of the skeleton.

Remove Animations Keys

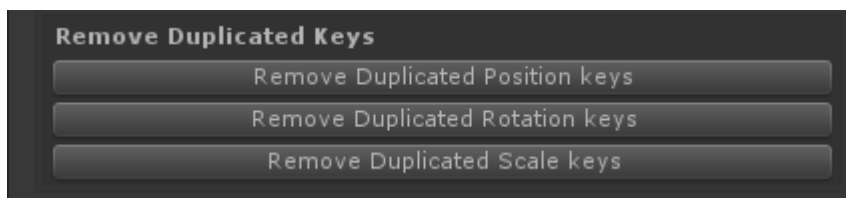
If none of the animations use a specific transform, for example scale. These functions can remove all scale, rotation or position keys from an animation.



In some cases the root bone position is changed for example, but none of the other bones are, you can add bones to the Ignore list and the keys for those bones will not be removed.

Remove Duplicated Keys

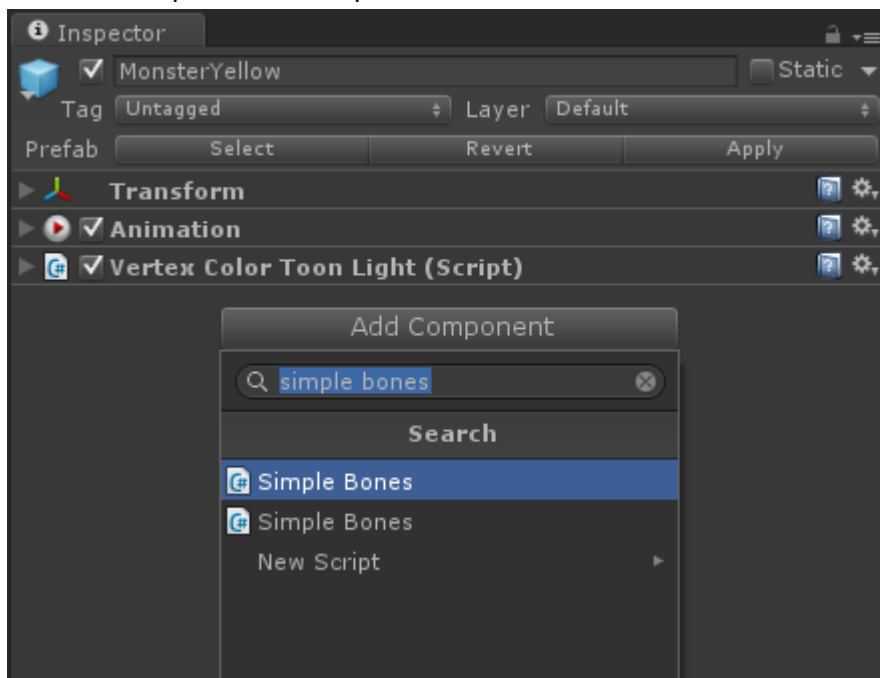
Removes unnecessary keys. If keys in a timeline, key 1 > key 2 > key 3, are all the same, key 2 will be removed.



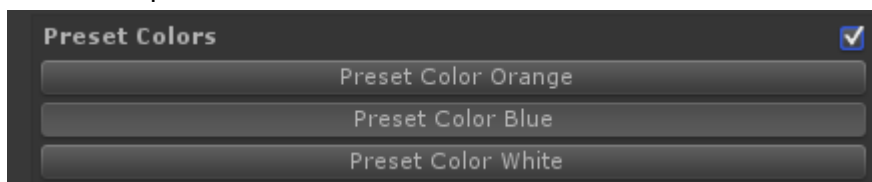
Getting Started

Creating a new animation

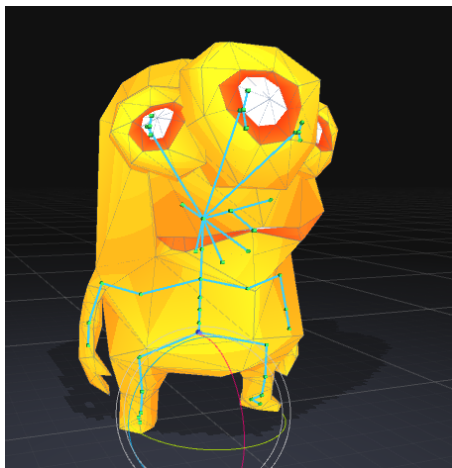
1. First open the “SB Getting Started” scene in the “Simple Bones/Demo/Scenes” folder.
 - a. Here you will find a character, he will be your test subject.
 - b. As you can see he has a animation component already attached, this is set to legacy for this example. So any animations will also have to be set to legacy.
2. Add the “SimpleBones” script to the character.



3. The character now has a representation of its skeleton. But it is hard to see because of the colors. Enable the preset colors tab then click on the “Preset Color Blue”.

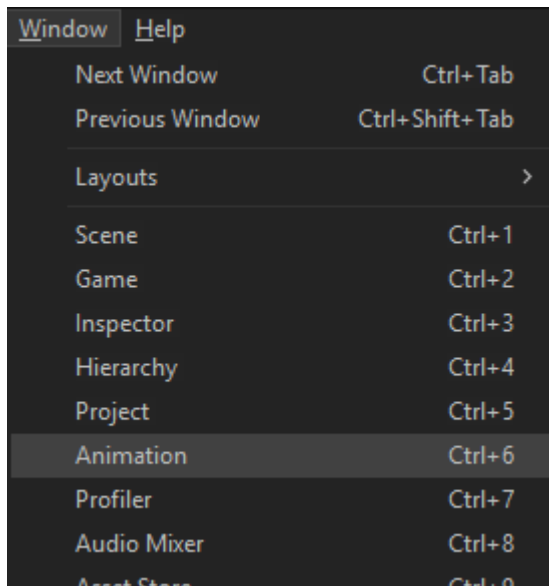


The skeleton will now be much more visible on the character.



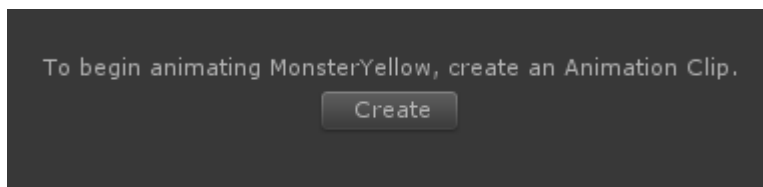
Tip. It's possible to tweak the colors in the inspector.

- Now that the script is added and the skeleton is visible, open up the animation window.

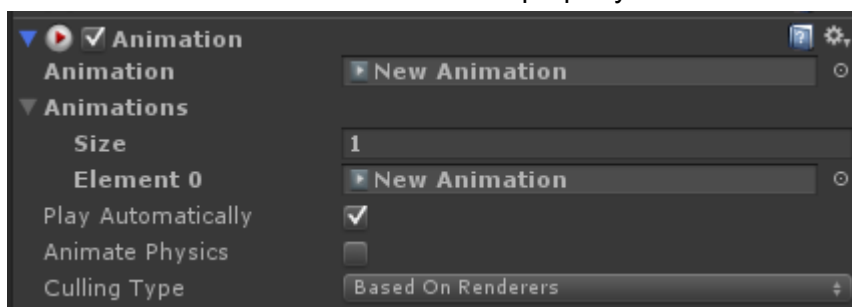


It is beneficial to use the whole bottom of the Unity editor for the animation window to get a better view of the animation keys.

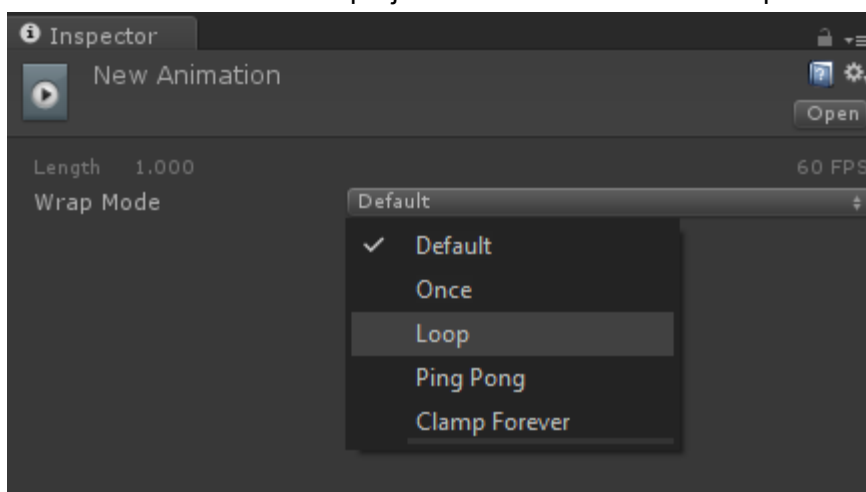
- Now click the “Create Animation” button in the animation window.



- Save your new animation.
- Add the new animation to the Animation property of the Animation component.

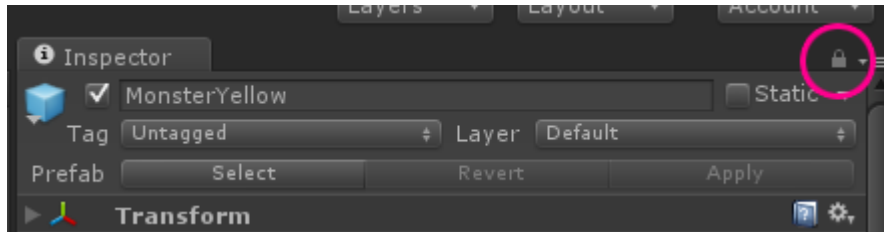


- Select the animation in the project window and set the “Wrap Mode” to “Loop”.



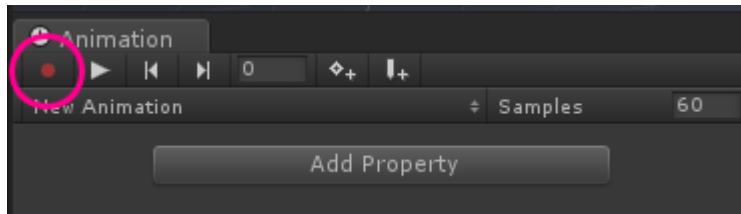
9. Select the “MonsterYellow” object in the hierarchy window.

This will be the object you will be working on, so it is good to lock the inspector to this object.



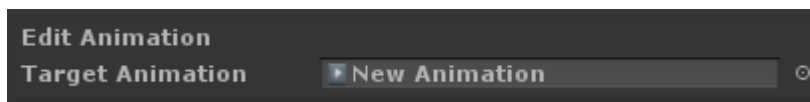
Also lock the Animation window to avoid that to change to another object.

10. Disable the record animation in the Animation window.



This is so that the next operation is not recorded in the animation, this is something that happens a lot in Unity.

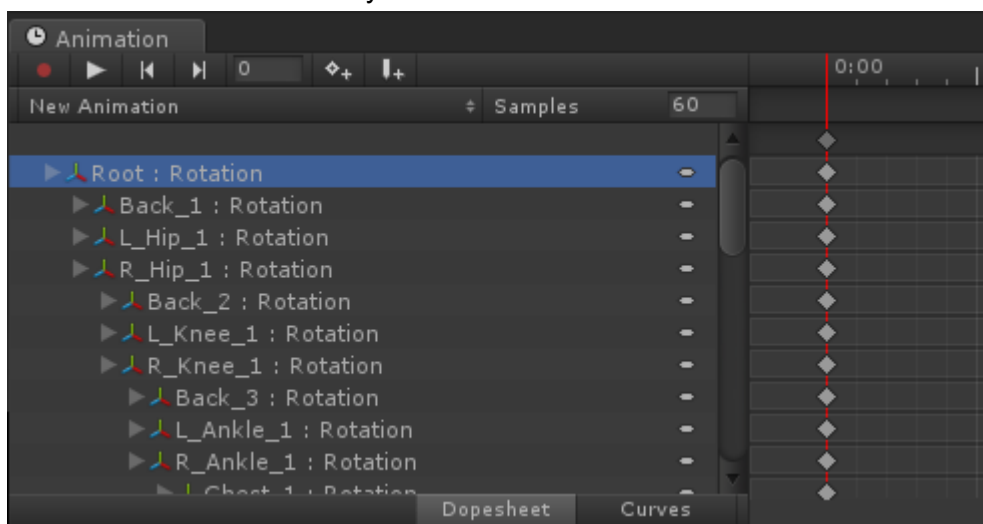
11. Now to prepare the animation. Add the new animation to the “Target Animation” property of Simple Bones.



12. Click the “Create Rotation Keys” button.



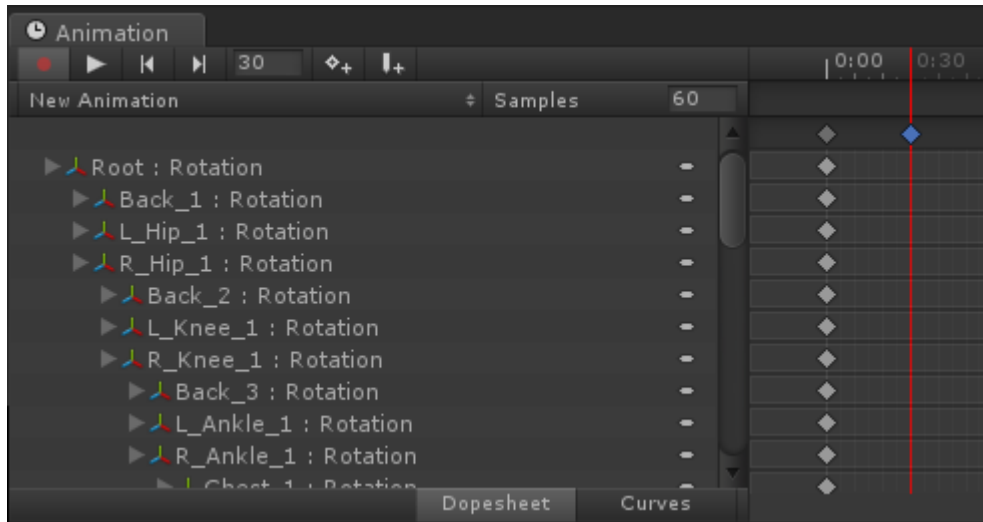
You will now see the new keys in the “Animation Window”



Creating the first key for all the bones is important so that animations can properly blend and crossfade together. If one animation rotates a transform while one doesn't have any reference to it, that transform will be frozen if the key doesn't exist.

13. Now you are ready to animate the character.

Click on the timeline in the Animation window at 0:30 and start rotating some of the bones.



Keep working on the animation a while, try out the functions of the Simple Bones component and get used to it by tweaking properties.

You can find more information about each property in Properties section of the documentation.

Remember to backup your animations before using the edit animations buttons.

Have fun animating :)