

Developer

/ Documentation

/ Unreal Engine ▾

/ Unreal Engine 5.4 Documentation

/ Animating Characters and Objects

/ Skeletal Mesh Animation System

/ Animation Blueprints

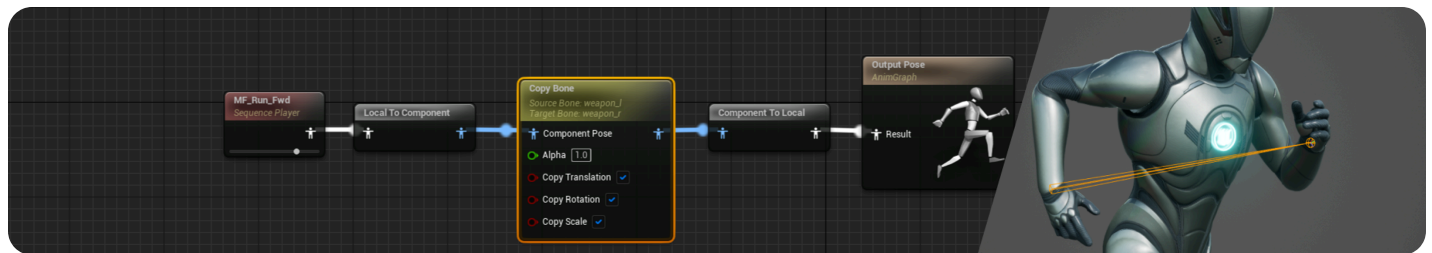
/ Animation Node Reference

/ Skeletal Controls

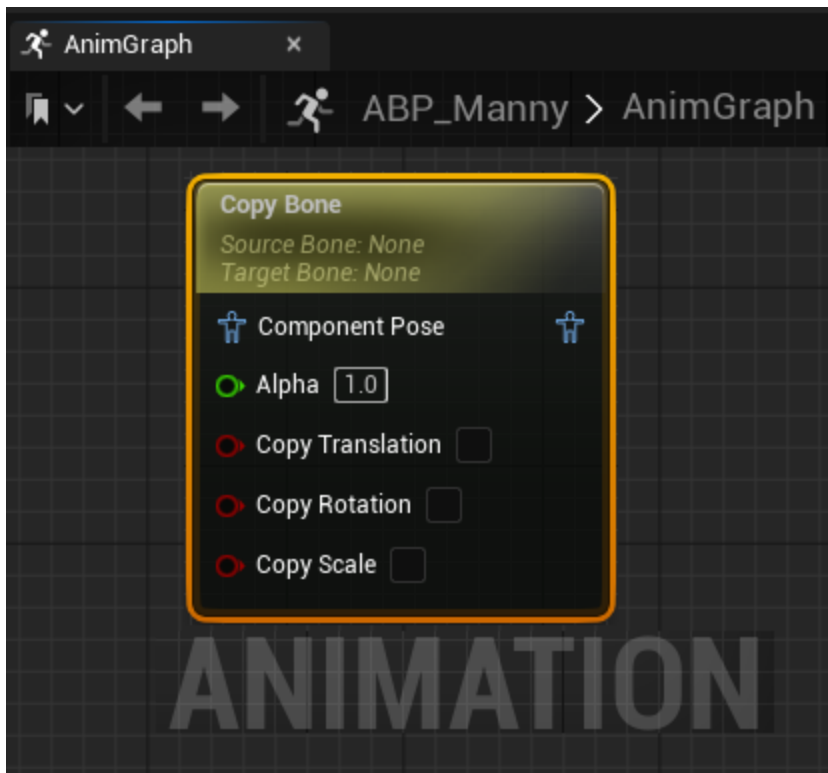
/ Copy Bone

Copy Bone

Describes the Copy Bone node which copies the Transform data or any component of it from one bone to another.



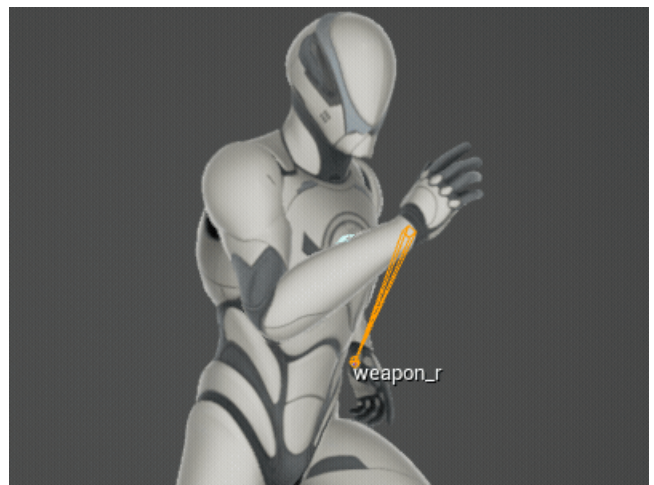
With the **Copy Bone** [Animation Blueprint](#) node, you can copy transform data such as **Translation**, **Rotation**, and **Scale**, from a **Source Bone** to a **Target Bone**.



Using a simple implementation, you can use the Copy Bone node to copy the position and motion of the **Source Bone** to the **Target Bone**. Here the character's right-hand auxiliary weapon bone (`weapon_r`), is selected as the **Target Bone**, copying the **Source Bone**'s, the character's left hand (`hand_l`), position and motion. Here the effect of the Copy Bone node can be seen as it moves the weapon bone at runtime from the character's right hand to their left hand.



Copy Bone Disabled



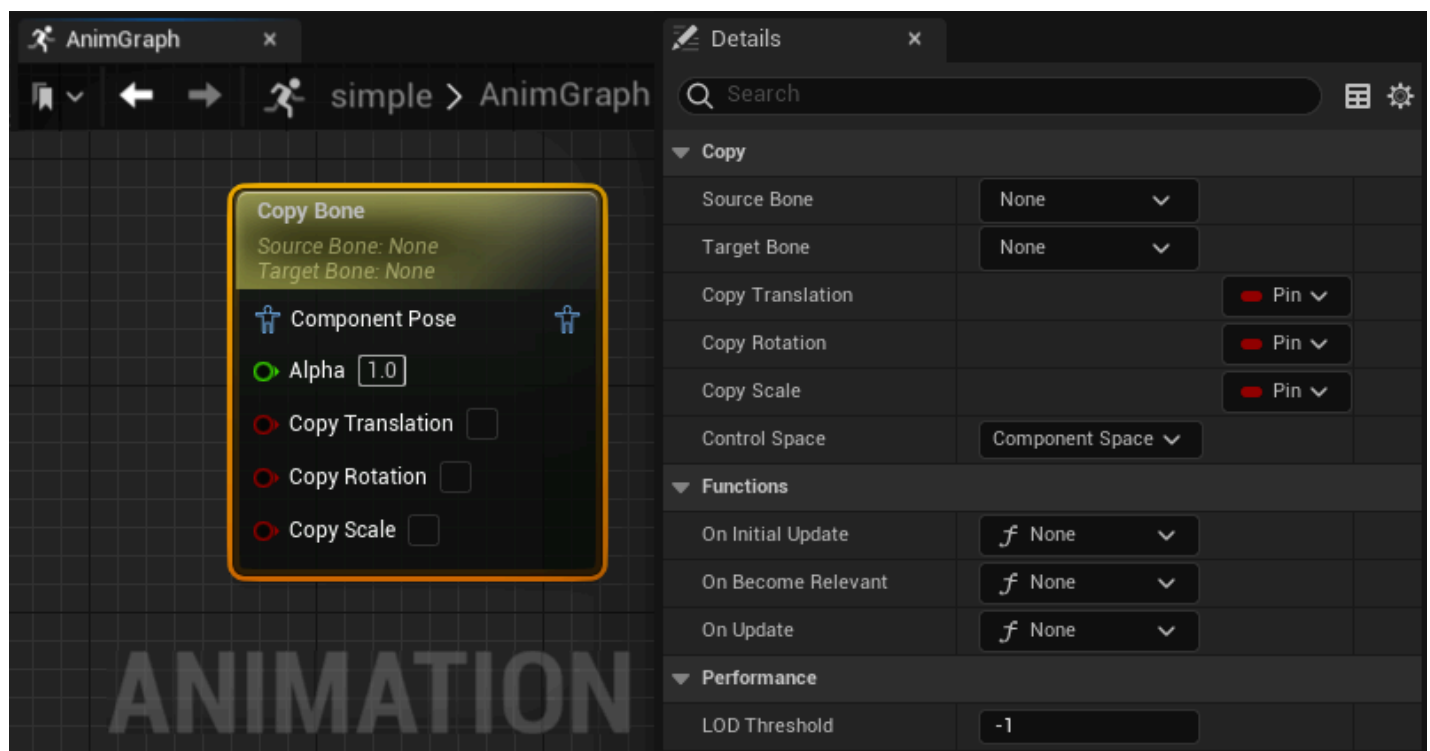
Copy Bone Enabled

You can use this implementation of the Copy Bone node to pass an object from one of the [Skeletal Mesh](#)'s hands to the other during animation playback.

In the **AnimGraph**, you can toggle the different components of motion, including **Translation**, **Rotation**, and **Scale**, to apply the **Source Bone** motion to the **Target Bone**.

With the **Alpha** value or pin, you can control the degree of the blend on the generated output pose. A value of **1** will fully use the generated output pose, while a value of **0** will output the source pose.

Property Reference



Here you can reference the Copy Bone node's properties.

Property	Description
Source Bone	Select a bone from the character's skeleton as the source of the motion data applied to the Target Bone .
Target Bone	Select a bone from the character's skeleton as the destination for the motion data.

Property	Description
Copy Translation	Applies the Translation motion from the Source Bone to the Target Bone . By default this property appears as a Boolean on the node in the AnimGraph .
Copy Rotation	Applies the Rotation motion from the Source Bone to the Target Bone . By default this property appears as a Boolean on the node in the AnimGraph .
Copy Scale	Applies the Scale motion from the Source Bone to the Target Bone . By default this property appears as a Boolean on the node in the AnimGraph .
Control Space	<p>Select in which space the Source Bone motion is calculated and applied to the Target Bone.</p> <ul style="list-style-type: none"> • World Space: copies the absolute position of the Source Bone in world space. • Component Space: copies the position and motion data of the Source Bone within the Skeletal Mesh's reference frame. • Parent Bone Space: copies the position and motion data of the Source Bone relative to the parent bone. • Bone Space: copies the position and motion data of the Source Bone within its own reference frame.