# Using animation trees to transition from one animation to another

A screenshot of a computer

Description automatically generatedTo use an animation tree, you first have to have animations. Once you have animations, you can add them to the animation tree, then you can connect them. This makes it so that they seamlessly transition from one animation to another, depending on a condition. For example, this character is able to transition from walking to attacking, but they can’t go from attacking to walking. This allows clean control over what the character is doing when.

# Controlling animation state in code via triggers and variables

A screenshot of a computer

Description automatically generatedHere is what controls whether or not the character can transition to the walking animation from the idle animation. In the code, if the velocity is > 0.01 (i.e., they’re moving) The walking animation is to be played. The condition “walk” is set to true, and the condition “idle” is set to false. When these conditions change, the animation that should be playing plays. This allows for dynamic animations to take place much simpler because different nodes in the tree can easily be added and removed.

A screen shot of a computer code

Description automatically generated

# Animating non-visual elements for game outcomes

A video game screen shot of a cartoon character

Description automatically generatedWhen the character attacks, there should be an area in the game world where the attack will land. This can be seen here with the big blue box. The problem with this, is that it’s always there, but we don’t want it to always be active. That would be overpowered. To remedy this, the attackRegion’s value is disabled by default. During the animation, however, the value is changed to inherit, which allows the area to detect when something is in it. The three key frames in the animation are the three states of the area. The first is disabled, the second is inherit, and the third sets it back to disabled.

A screenshot of a video game

Description automatically generated