Editing Physics Asset Constraints

This tutorial covers the procedures for editing the Physics Constraints of a Physics Asset.

Below are several common procedures, and steps, associated with editing **Physics Constraints** in the **Physics Asset Editor**.

Editing Physics Constraints

> The use of Physics Constraints is covered in the Physics Constraints User Guide and their properties are covered in the Physics Constraint Reference. This section will only cover workflows that are specific to the Physics Asset Tool or ones that have deviated substantially from the norm.

1. Double-click your **Physics Asset** to open it in the Physics Asset Editor.
2. Select a **Physics Constraint** in the **Viewport** or in the **Skeleton Tree** panel.
3. **Move and rotate** the Physics Constraint using the **Translation** and **Rotation** tools to create the rotational point of the "joint" the Physics Constraint will form.
4. Edit the Physics Constraint's properties in the **Details** panel.

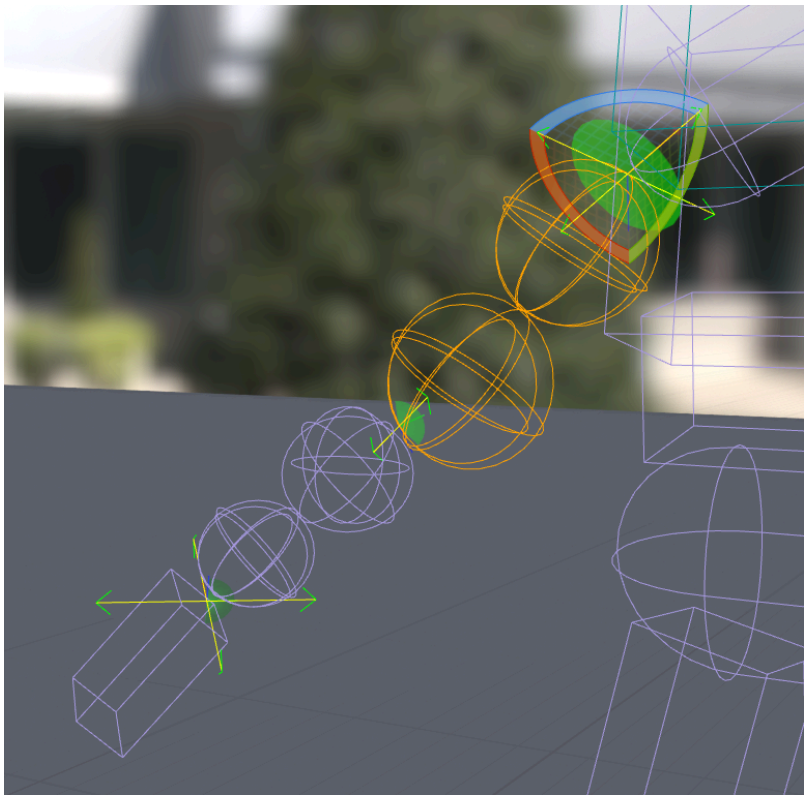
> You can switch Swing1, Swing2, and Twist from Limited to Locked quickly by using the "**1**", "**2**", and "**3**" keys respectively. The "**4**" key can be used cycle through them setting one to limited and the other two to locked.

5. **Save** often.

See the Physics Constraint Reference for more information on the Physics Constraint properties in the Physics Asset Editor.

Aligning Physics Constraints

If you are using the Physics Constraint's **Linear** or **Angular** limits, you will be able to see their alignment:



By then translating and rotating the Physics Constraint, you can align the limits to give the desired results. In the most basic of terms, when a Physics Constraint is limited, you can see a yellow line suspended in a green arc or cone structure. The line will be "constrained" within this arc or cone.

For more information on Physics Constraints and their properties, see the Physics Constraints User Guide.

Copying Physics Constraints

While in either mode, properties from one Constraint can be copied to other Constraints:

1. Select the **Physics Constraint** you wish to copy data from.
2. **Press Ctrl + C**.
3. Select **Physics Constraints** you wish to apply data to.
4. **Press Ctrl + V**.

Deleting Physics Constraints

> There is no easy way to recreate a Physics Constraint, be mindful of this when deleting them.

1. Double-click your **Physics Asset** to open it in the Physics Asset Editor.
2. Select the **Physics Constraint** you want to delete in the **Viewport** or in the **Skeleton Tree** panel.
3. Press the **Delete** key.

Recreating a Physics Constraint

> There is no easy way to recreate a Physics Constraint, be mindful of this when deleting them.

Physics Constraints are only created on the generation of a Physics Body and are only generated upstream. So, if you remove a Physics Constraint from the shoulder, you would have to remove the upper arm Physics Body (which will remove the elbow Physics Constraint), then re-create the upper arm Physics Body. This would create the shoulder Physics Constraint, but not the elbow Physics Constraint, so you would have to continue this process down the arm.