Sequence

Attach Sequence To

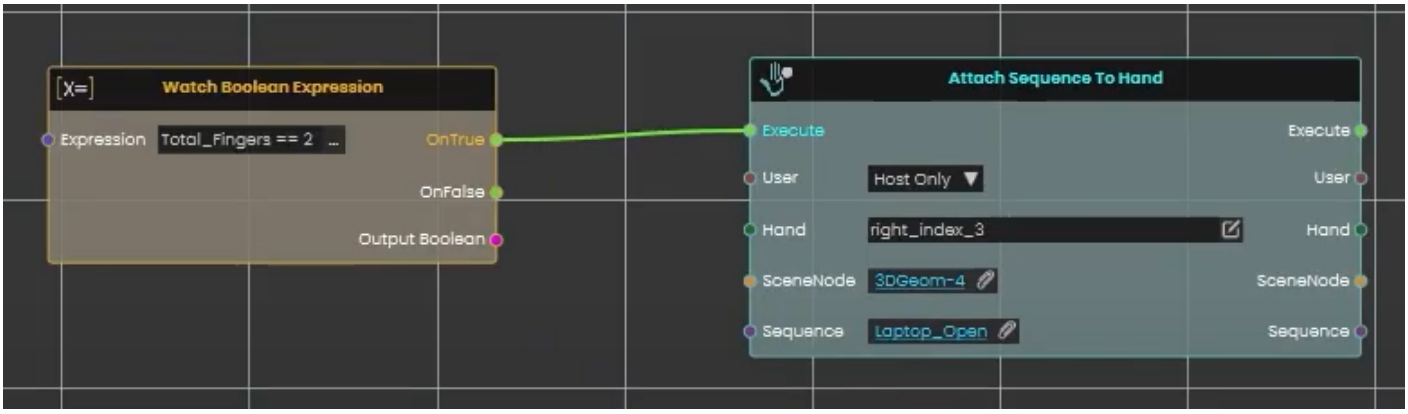
Creating sequences can be done from animating an object in the scene. This sequence can be attached to Hand or an Object in VR.

Hand

With sequences available in the Sequences Library, a sequence can be attached to the Hand in VR experience using this node in Dynamic Training Builder.

Example

Check this tutorial for the example below, where Boolean expressions were created and upon checking the Boolean Expression a sequence is attached to Hand.



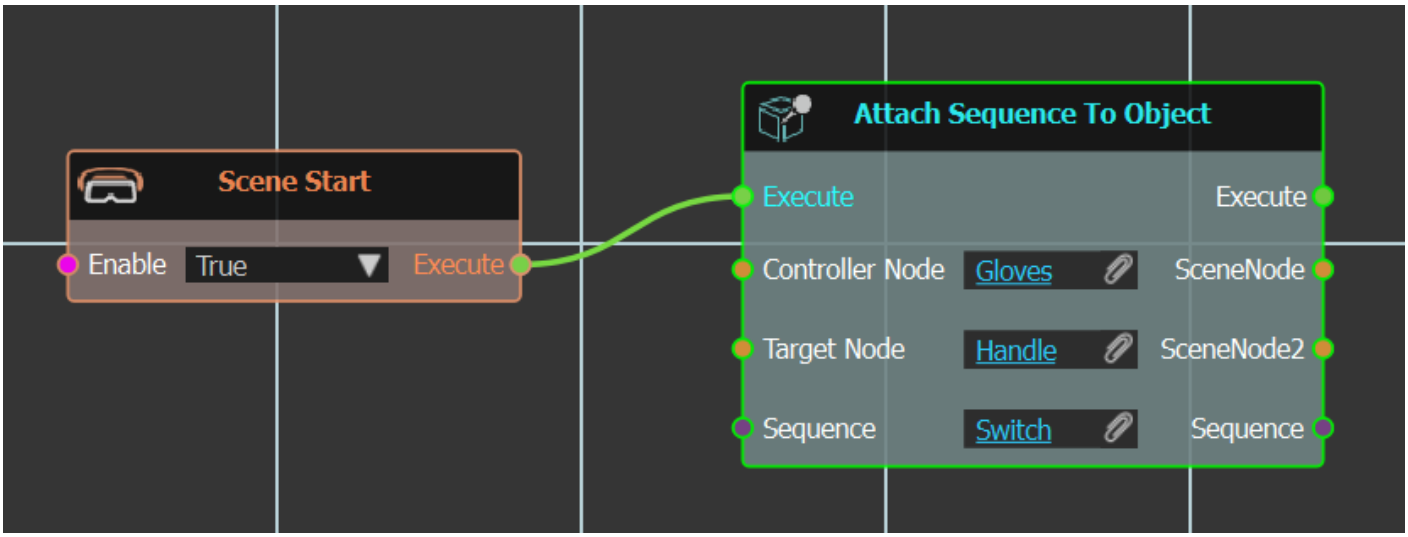
Object

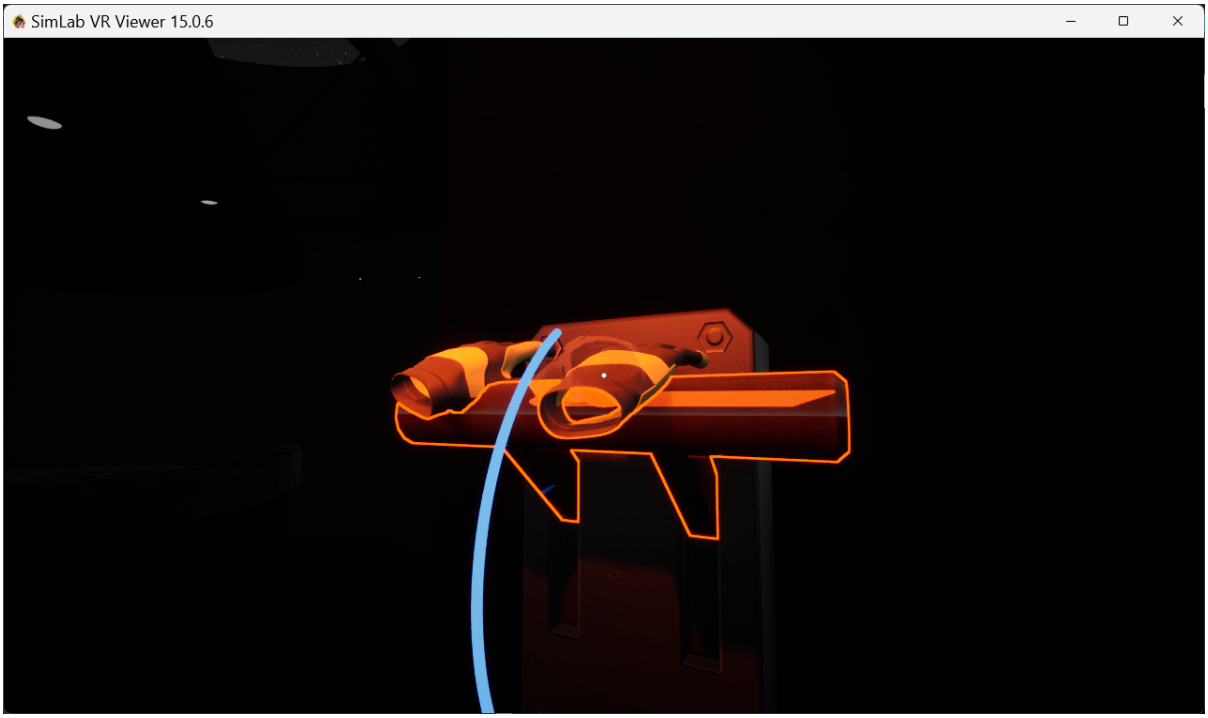
This node can be used to connect a controller grabbable object to a sequence in VR.

Example

In the example below the "Switch" sequence is attached to "Handle" object, when Controller "Gloves" geometry moves it. In this example a simple grabbable sequence can

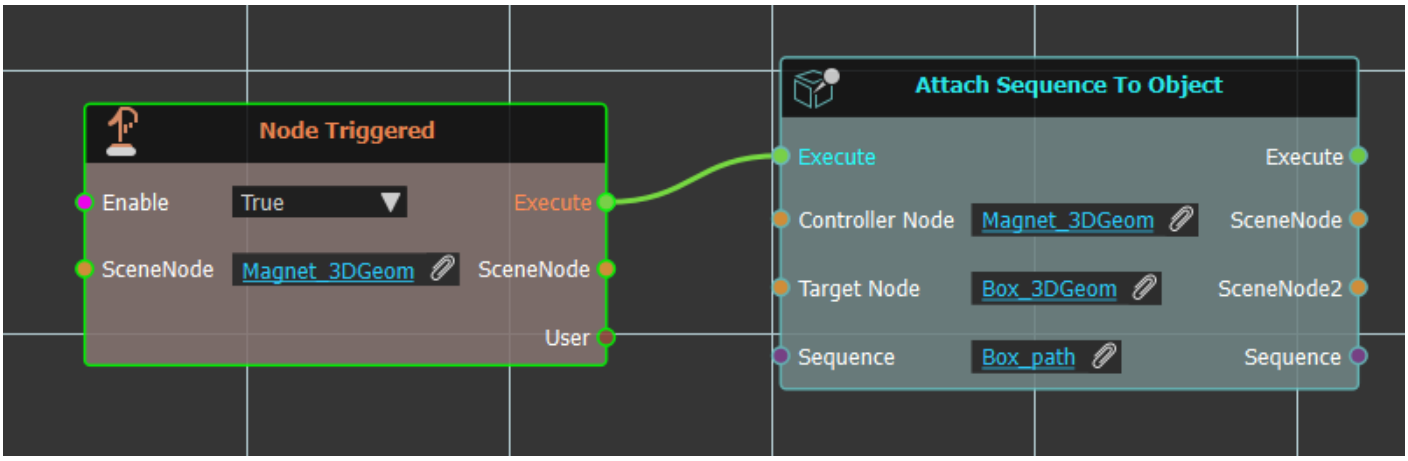
do the job, but this is just to demonstrate use of this node.

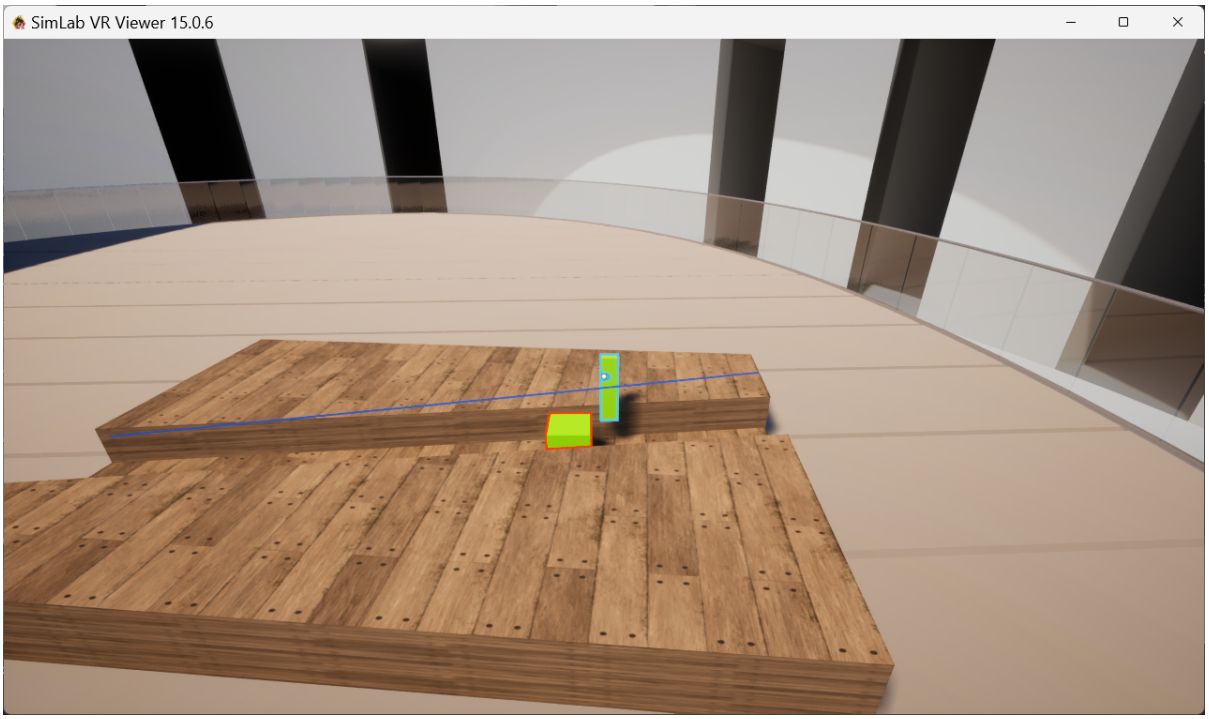




Example 2

In this example we have a path for a box to walk along being controlled by a magnet.





Detach Sequence

Releases a sequence that was attached to a scene object, so it is no longer linked to that object.

What it does

If you previously attached a sequence to an object in your scene, this node breaks that link. After it runs, the sequence stands on its own again and no longer follows the object it was attached to.

The sequence itself is not deleted or changed — only the attachment is removed. The same sequence comes back out of the node, so you can keep using it in the steps that

follow.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's Execute output.
Sequence	Sequence	The sequence you want to detach — the one that is currently attached to a scene object.

Outputs

Port	Type	What you get
Execute	Trigger	Fires once the node has finished.
Sequence	Sequence	The same sequence, now detached — ready to use in the next steps.

Example

Sequence input	The `Open Door` sequence that was attached to the door handle
Sequence output	The same `Open Door` sequence, no longer linked to the handle

Tips

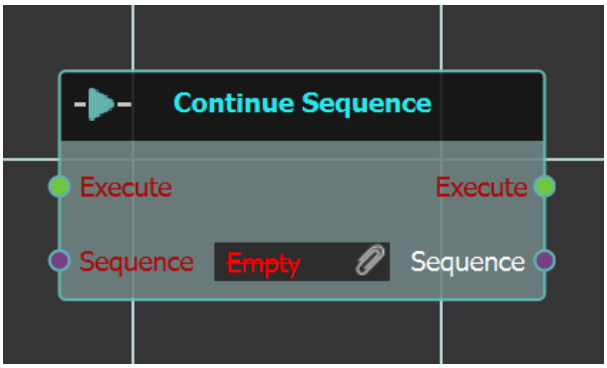
- Use this to undo an earlier "Attach Sequence To" step when you no longer want the sequence to stay tied to that object.

Playback Controls

Used to control sequence behavior.

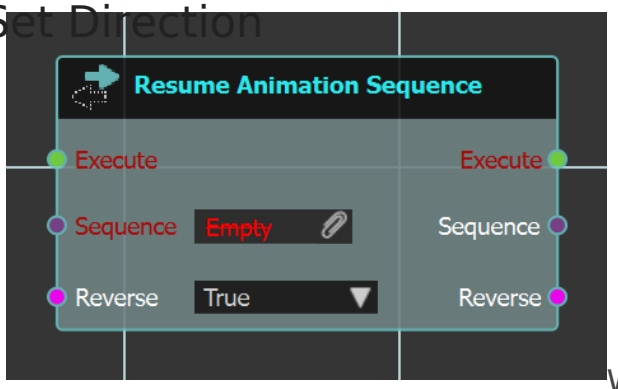
Continue

Same Direction



The selected sequence will continue to play in the same direction.

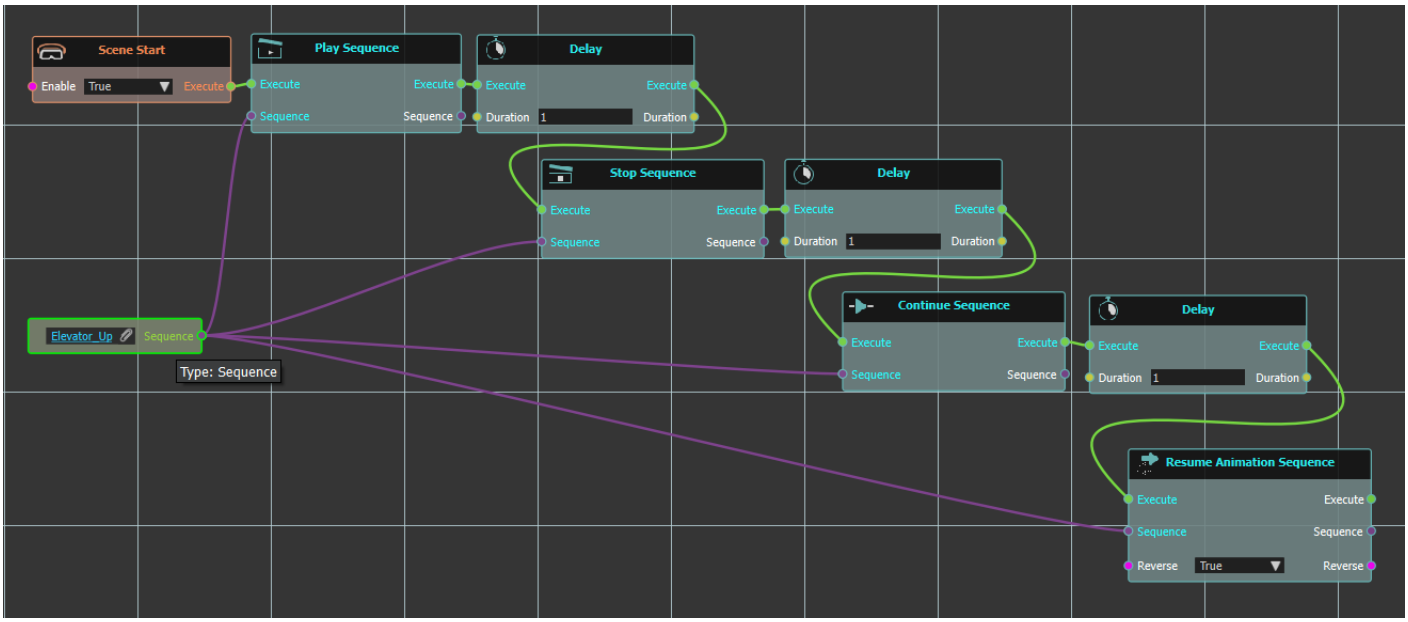
Set Direction



With this node the user can change the selected sequence direction, by selecting Reverse to True.

Example

In the below example a number of the above Playback Controls are used. Here on "**Scene Start**","**Play Sequence**" response is executed for "Elevator_Up" sequence. Followed by a 1 second "**Delay**", then "**Stop Sequence**" for another one second "**Delay**". Then the sequence is continued, followed by another "**Delay**" then "**Resume Animation Sequence**" from start.



Play

Play Sequence/Play Sequence From Start

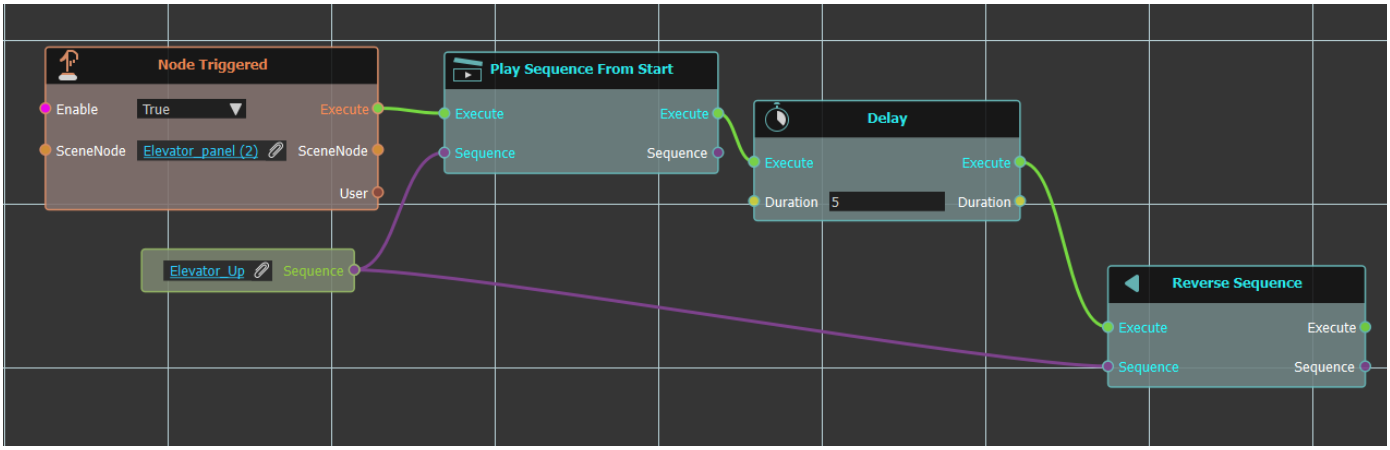
Both controls will play animation sequence, one from current position, and the other -as the name implies- will play it from start.

Reverse

Reverse

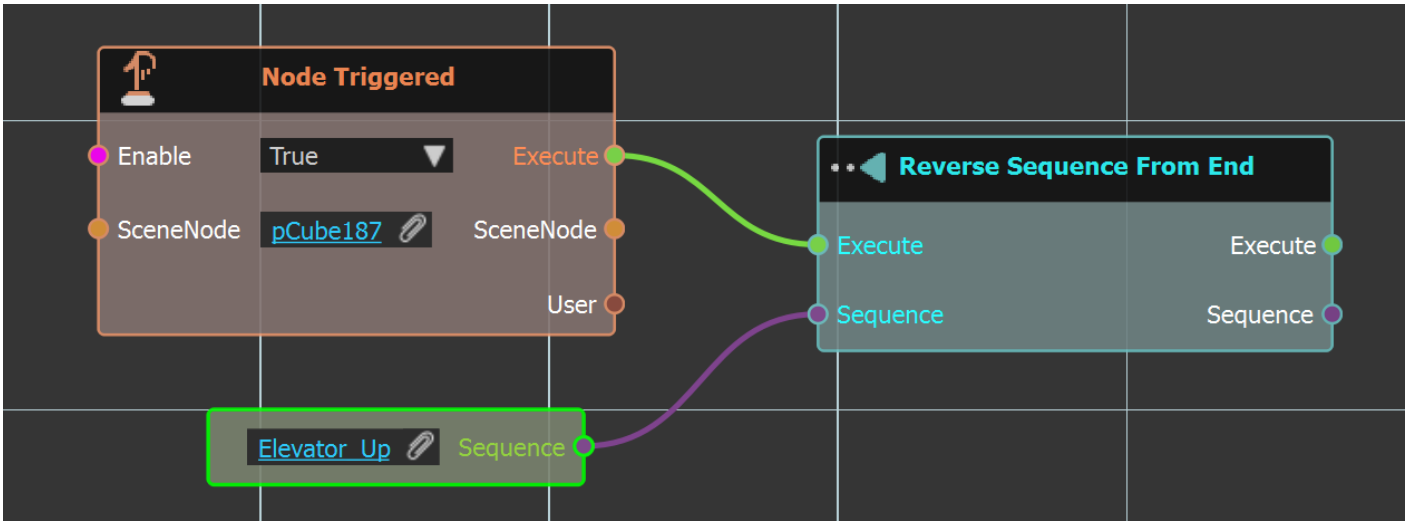
Reverse sequences starts the animation sequence in the reverse mode (from the last frame). The reverse control will start from the last frame not from the current (because it reverses the overall animation)

In the below example the "Elevator_Up" sequence upon clicking "Elevator_panel(2)" geometry will be played from start. So if the elevator at that time was at the top position, it would go down then -as the sequence implies- would go up, then wait for 5 seconds, then "Reverse Sequence" that is go down from last frame.



Reverse From End

This control will start the sequence from the end, even if it hasn’t been played yet.



Flip

Flip sequences flips current animation (that is, forward animation will be backward , backward animation will be forward). Think about it like we are opening a door and we

pause the animation in the middle, flip control will return the door back from the current frame to original start position.

Stop

Stopes the animation sequence, as shown in examples presented in this section.

Animate to Sequence Frame

Smoothly moves the objects in a sequence to where they sit on its first or last frame, over a time you choose.

What it does

This node takes every object the sequence moves and glides it from wherever it is right now to its pose on the sequence's first or last frame. The movement takes **Duration** seconds and eases in and out, so it starts and stops gently. Everyone in the session sees the same movement.

This is different from **Set Sequence Current Frame**, which jumps the sequence to a frame number instantly. It is also different from playing or reversing the sequence, because the objects travel straight to the target pose instead of replaying every step in between. For example, if the "Elevator_Up" sequence was stopped halfway, animating to its `Last` frame brings the elevator smoothly up to the top from where it stopped. With **Completion** you can also stop part of the way; `0.5` moves the objects halfway to the target pose. The sequence itself isn't changed.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's Execute output.
Sequence	Sequence	The sequence whose objects you want to move.
Duration	Number	How long the movement takes, in seconds. Defaults to `1`. Use `0` to move the objects there at once. Can't be negative.

Port	Type	What to connect
Completion	Number	How far to go toward the target pose, from `0` (don't move) to `1` (all the way, the default). For example, `0.5` stops halfway. A number above `1` counts as `1`.
Frame	Choice	Which end of the sequence to move to: **First** (the pose at the start) or **Last** (the pose at the end, the default).

Outputs

Port	Type	What you get
Execute	Trigger	Fires right away, as soon as the movement starts. It doesn't wait for the movement to finish.
Sequence	Sequence	The same sequence, passed along for the next steps.
Duration	Number	The same **Duration** you entered.
Completion	Number	The same **Completion** you entered.

Example

Sequence input	The `Elevator_Up` sequence
Duration input	`3`
Completion input	`1`
Frame input	`Last`
Sequence output	The same `Elevator_Up` sequence, with the elevator gliding up to its top position over 3 seconds
Duration output	`3`
Completion output	`1`

Tips

- To run a step only after the movement ends, follow this node with a **Delay** as long as the **Duration**.

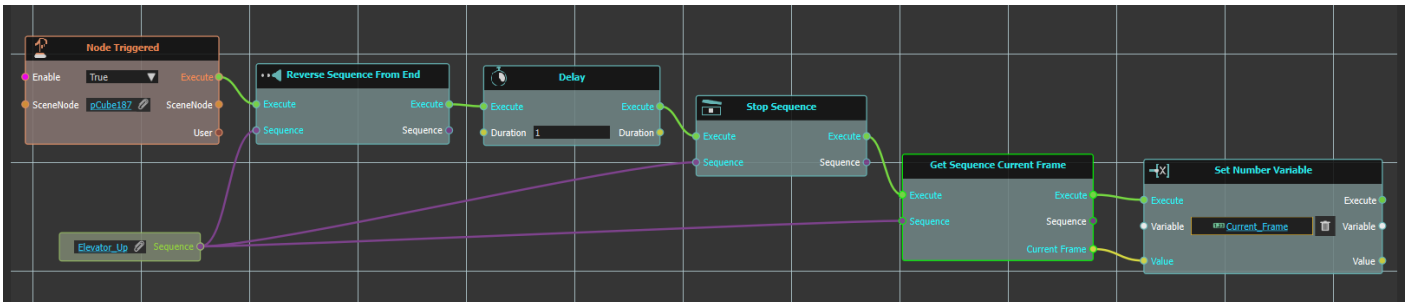
- Stop the sequence before you use this node. If the sequence is still playing, its playback keeps moving the same objects and wins over the glide.
- Only movement is animated (position, rotation and size). Color, light and show/hide changes in the sequence aren’t applied.
- The sequence’s current frame stays where it was, so **Get Sequence Current Frame** still reports the old frame after the glide.

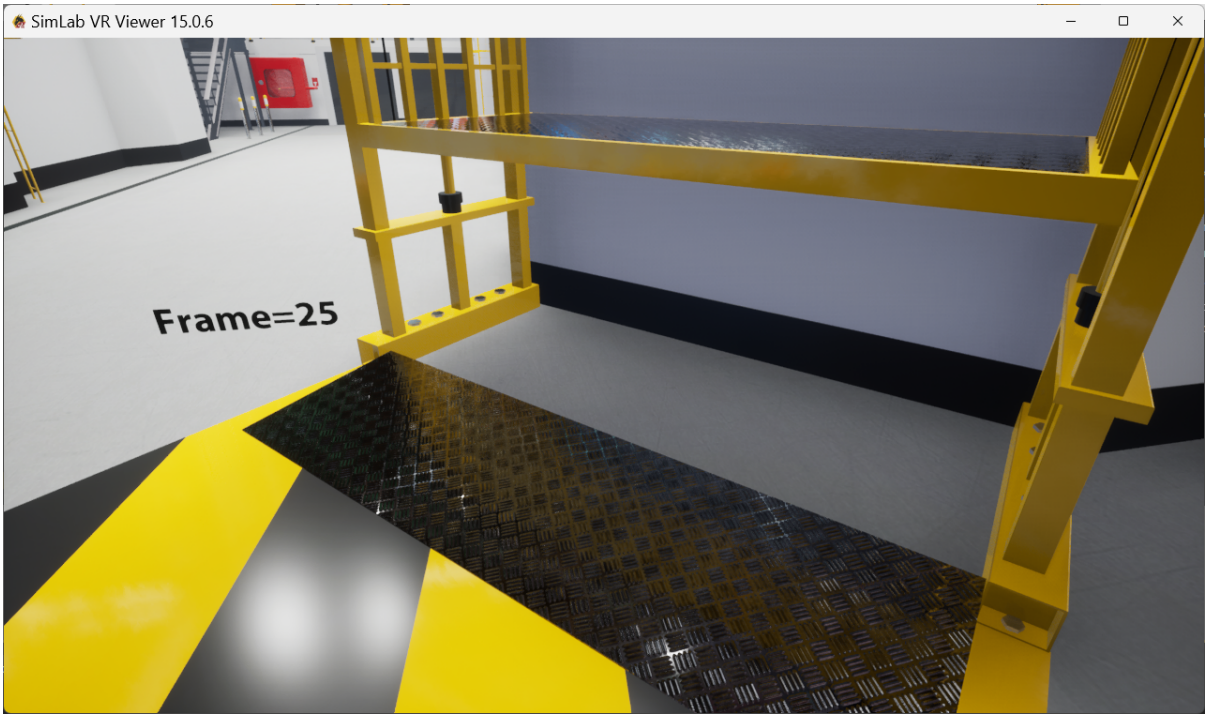
Playback Properties

Current Frame

Get Sequence Current Frame

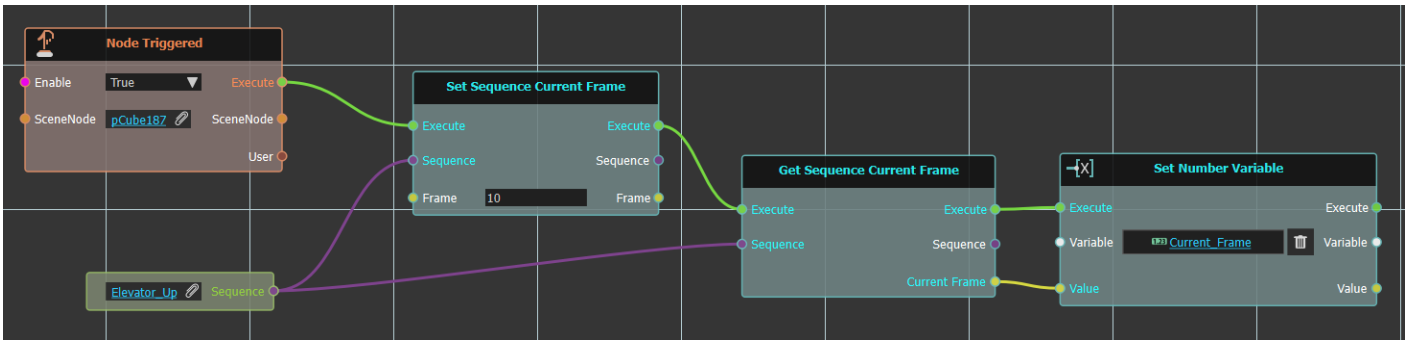
This node will get the value of the current sequence frame, the user can then use this value in any operation. In the example below the value of the current sequence frame is stored in "Current_Frame" variable, which is set to the "VR Variable Writer" in the scene to display its value.



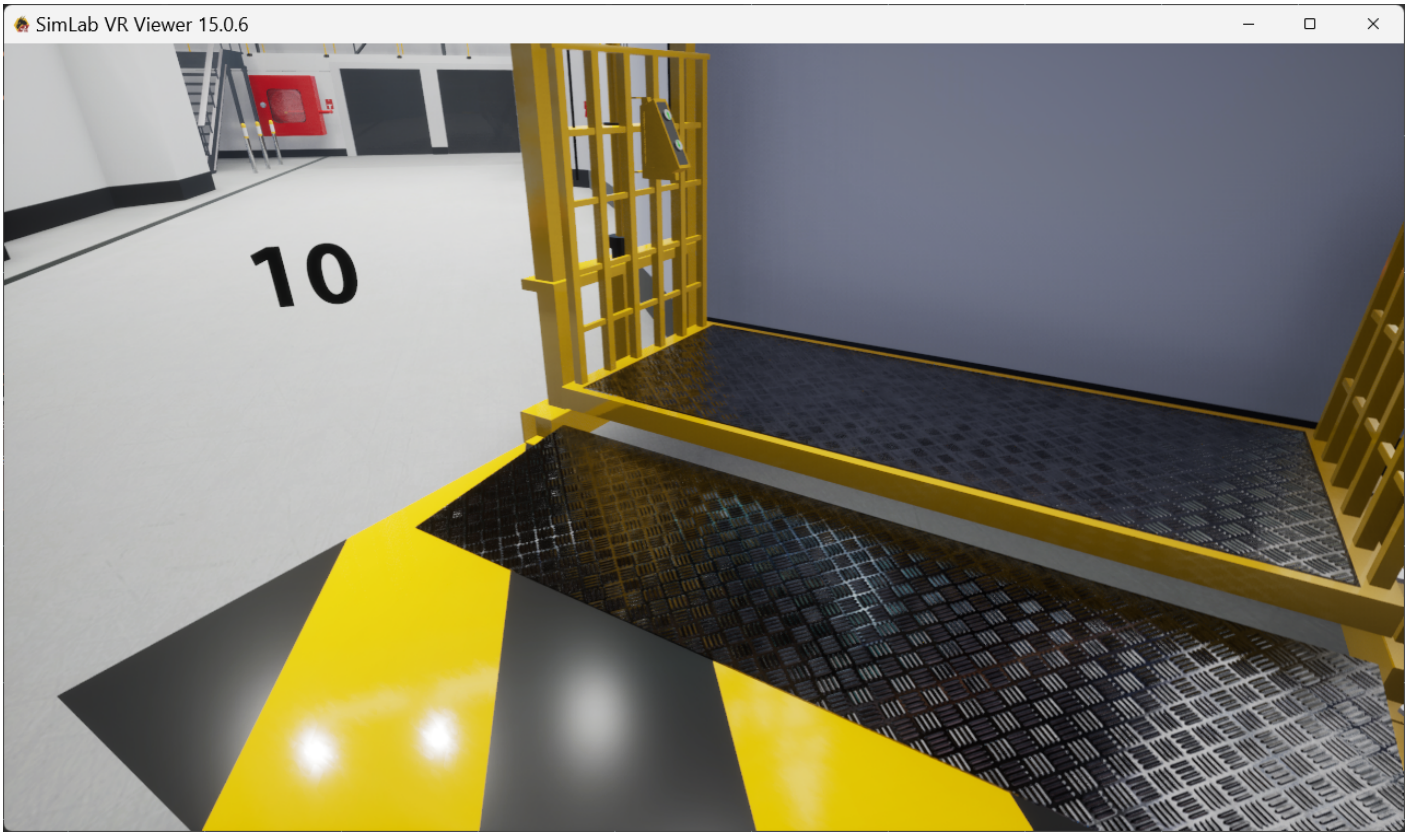


Set Sequence Current Frame

If the user wants to go to a specific frame in the sequence this is the function to use. In the below example upon clicking node the sequence current frame is set to 10.



To show the result we got the valued of the current frame and assign it to "Current_Frame" variable that is displayed in the variable writer as shown below.

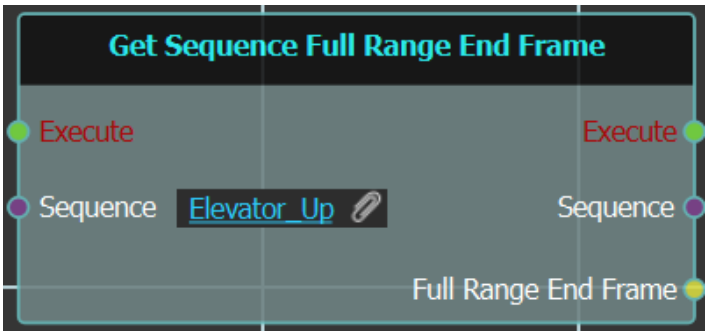


Full Range

This node can be used to calculate the full range of a sequence.

Get End

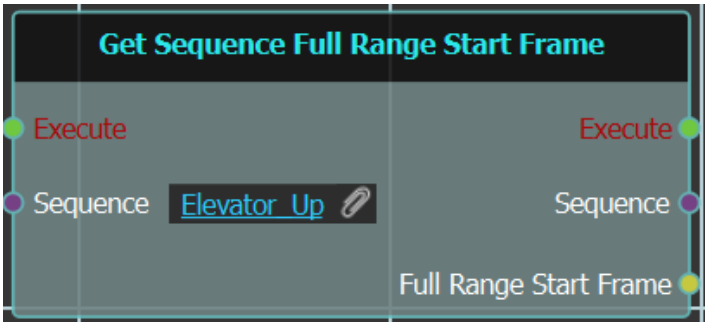
Gets and outputs the end frame of the selected



sequence, when triggered.

Get Start

Gets and outputs the start frame of the selected



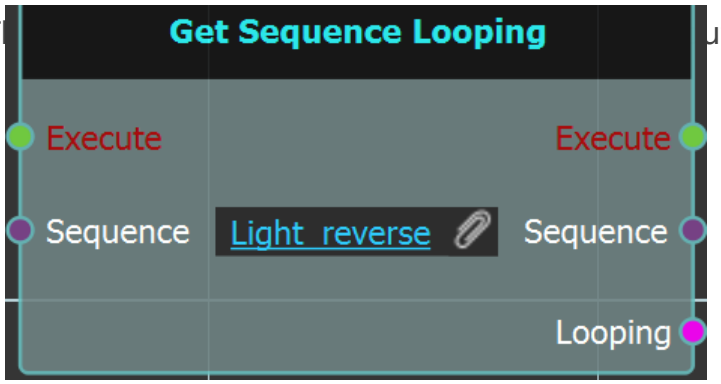
sequence, when triggered.

Looping

Sequences can be set to loop after finishing.

Get Sequence Looping

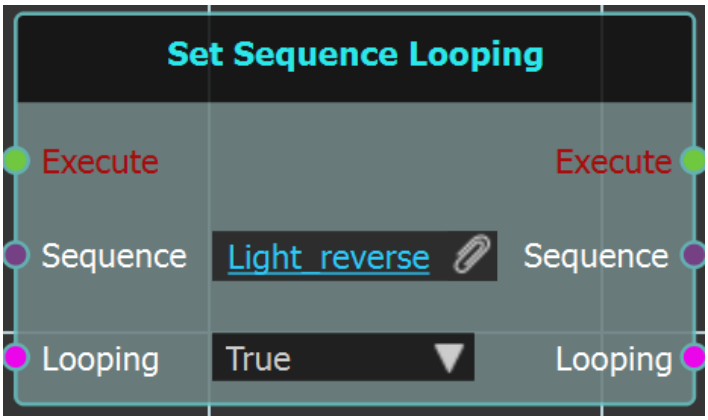
Th ut



sequence, whether true or false.

Set Sequence Looping

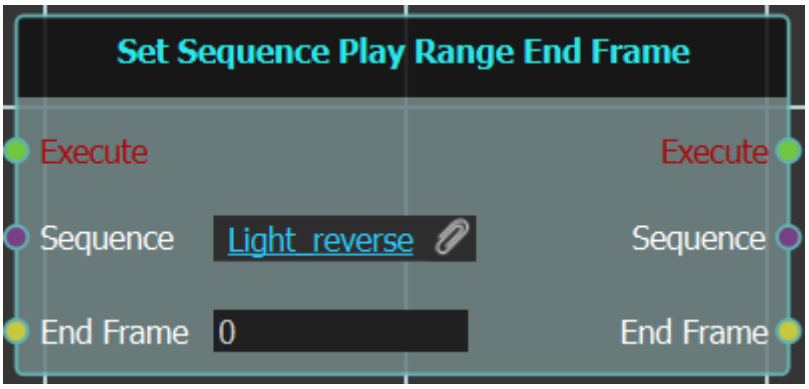
This node will set the looping status for the input

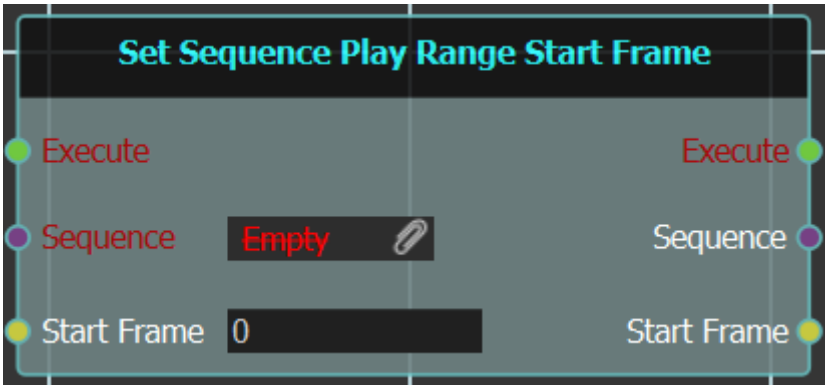


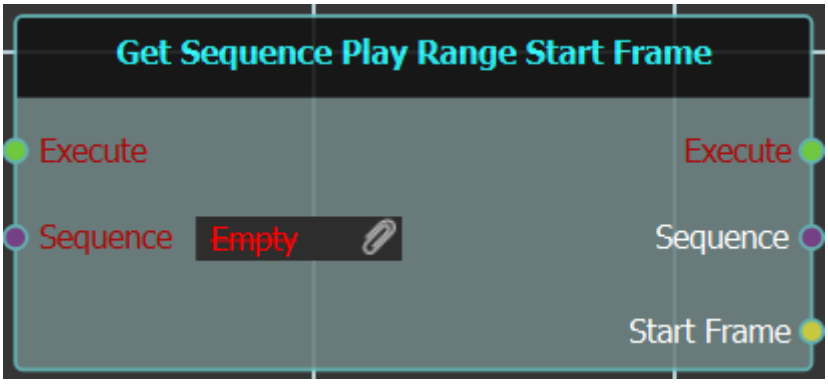
sequence to either true or false.

Play Range









Play Rate (Speed)

Swing

Is Playing

Is Reversing

Find By Name

Revision #42
Created 2025-09-14 05:44:44 UTC by Samia Sabri
Updated 2026-10-25 09:26:09 UTC by Rafat