UE4 C++ CODE PLUGIN – MANTLING SYSTEM

by Berkay Tuna
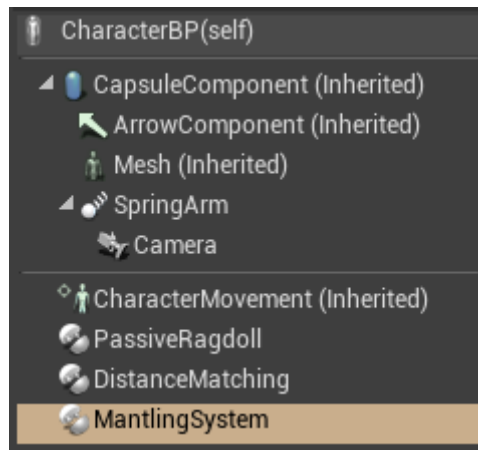
Table of Contents

Introduction

This plugin provides an Actor Component for a Mantling System. When Character jumps if there is an obstacle blocking its way, it will mantle and get to top of the obstacle.


Picture 1: MantlingSystem as an Actor Component

Please keep in mind, that for Montages to be seeable in the game, you will have to use "Slot DefaultSlot" Node in the Animation Blueprint:
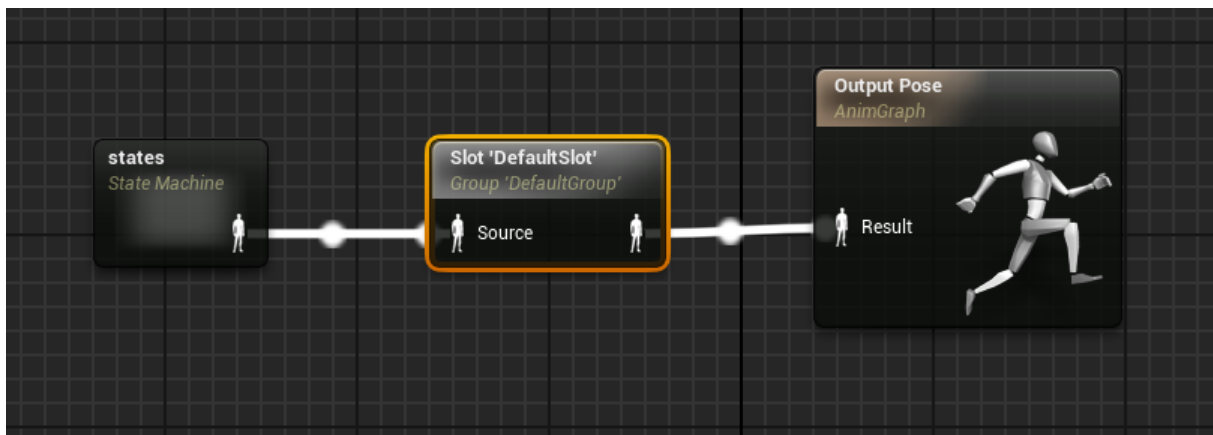
Installation

After adding the Actor Component in the Character BP, we have to add a Notify Window for each of the Montages. We are going to use two Montages, depending on the height of the obstacle: High or Low.
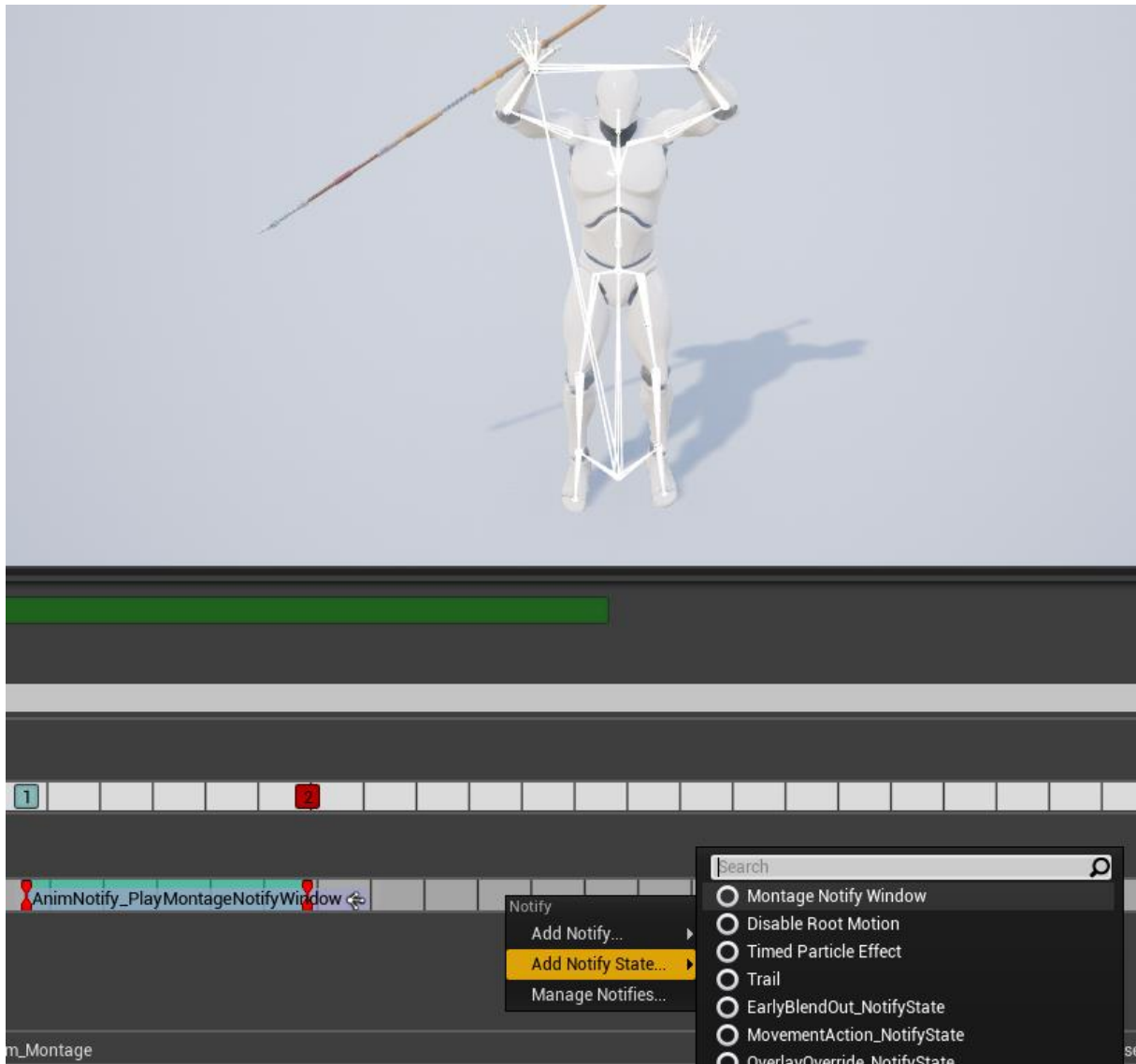
Picture 2: Adding AnimNotify Window to the Montage

In both Montages the Notify Window covers the part, where the character pulls his body up until it steps up.

Then we get the Begin Time and Duration of the NotifyWindow and provide this information to the Actor Component.
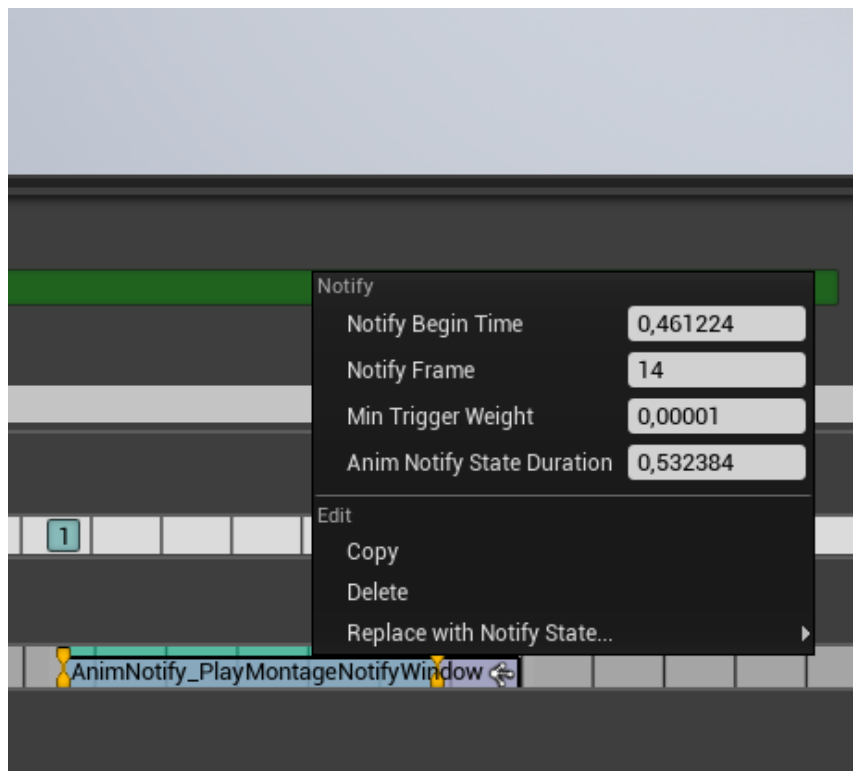
Picture 3: Begin Time and Duration of the Notify Window

Here are the fields we need to fill in the Actor Component:
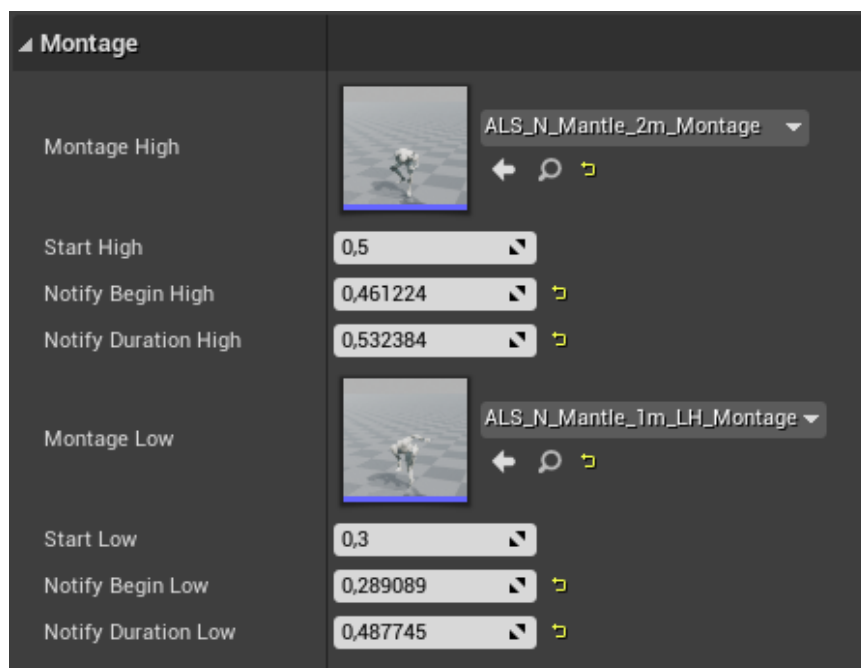
Picture 4: Montage Information in the Actor Component

Parameters

- *Line Trace*
  - *Actors to Ignore:* These Actors will be ignored by the system. The array can also be set during runtime.
  - *Fwd Offset:* Where the Line Trace Should be drawn, beginning from the Actor Location
  - *High Offset:* Line Trace Begin Height, beginning from the top of the Character, i.e. (ActorLoc.Z + CapsuleHalfHegith).
  - *Low Offset:* Line Trace End Height, beginning from the bottom of the Character, i.e. (ActorLoc.Z - CapsuleHalfHegith).

- *Montage*
  - *Start High/Low:* Time at Montage starts to play, usually when the Character begins to grab itself

- *Mantling*
  - *Distance to Grab:* Distance to Location, where Character should begin grabbing. Beginning from top of Actor, i. e. (ActorLocation.Z + CapsuleHalfHeight). In Z Axis. (for High Montage)
  - *Mantle Enter Threshold:* How close do we have to be to the Grabbing Point to begin Mantle (for High Montage)

Summary

For further information please also refer to my Explanation Video. If you encounter any unexpected behaviour when using this plugin please let me know through my given communication channels in my marketplace profile.