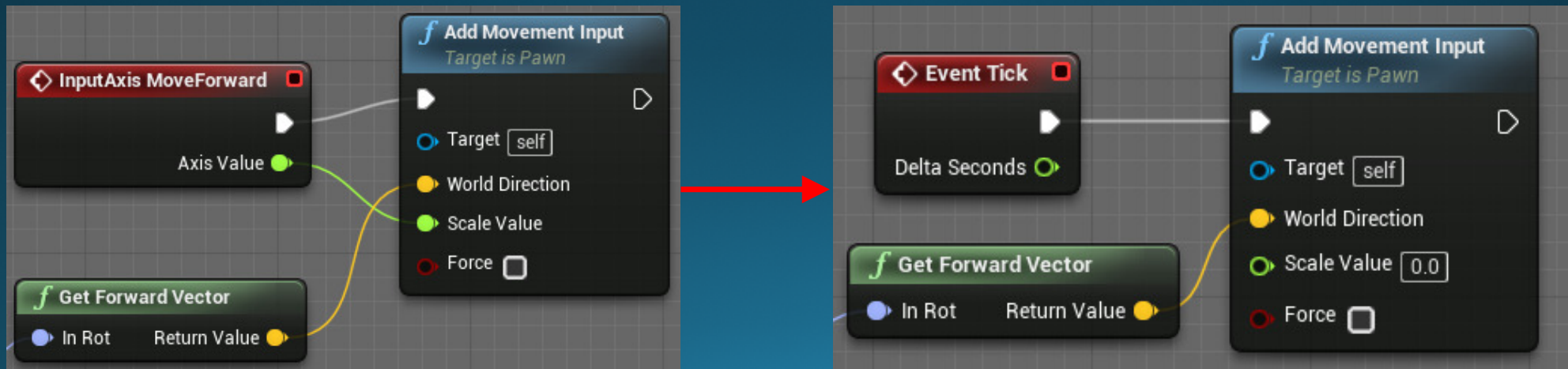


Steve Harris

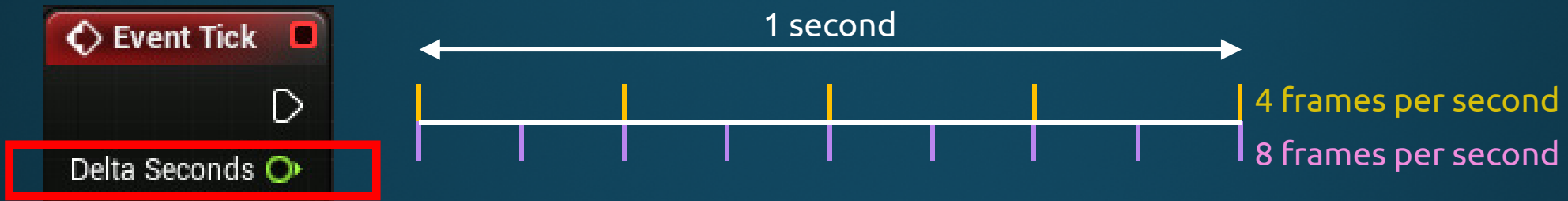
UE4: Endless Runner

Third Person Blueprint Template

- Third Person Character blueprint
 - Remove key press for forward movement. Replace with 'Game Tick' to create constant forward motion.



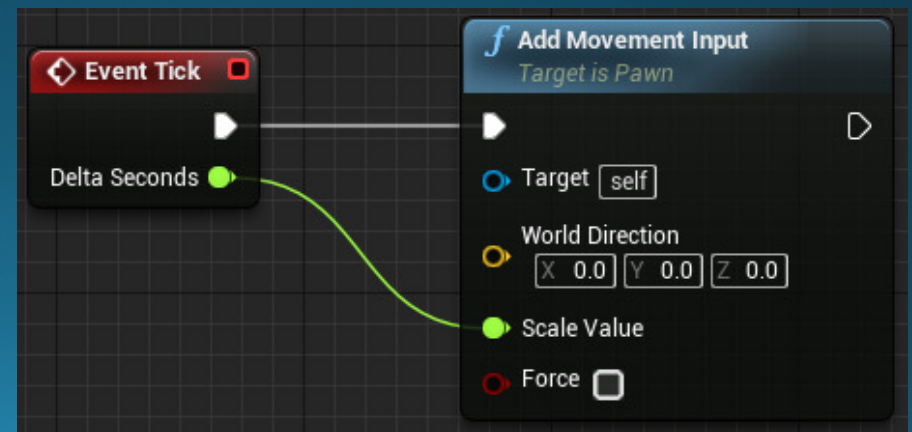
Delta Time *(Delta Seconds in UE4)*



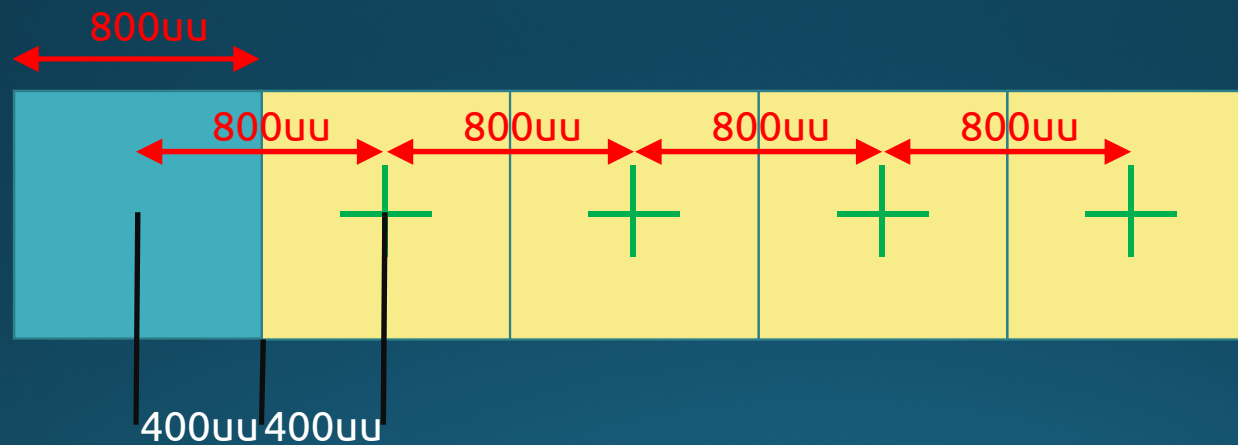
If object set to increment its movement by 1uu per game tick.
It will move 1uu per frame.

4 frames per second moves 4uu in one second
8 frames per second moves 8uu in one second

- Delta Seconds is the amount of time which has passed between last frame and current frame.
- Use this as the Scale Value to adjust movement up or down depending on current frame rate.
- Connect Delta Seconds to Scale value to implement this adjustment.

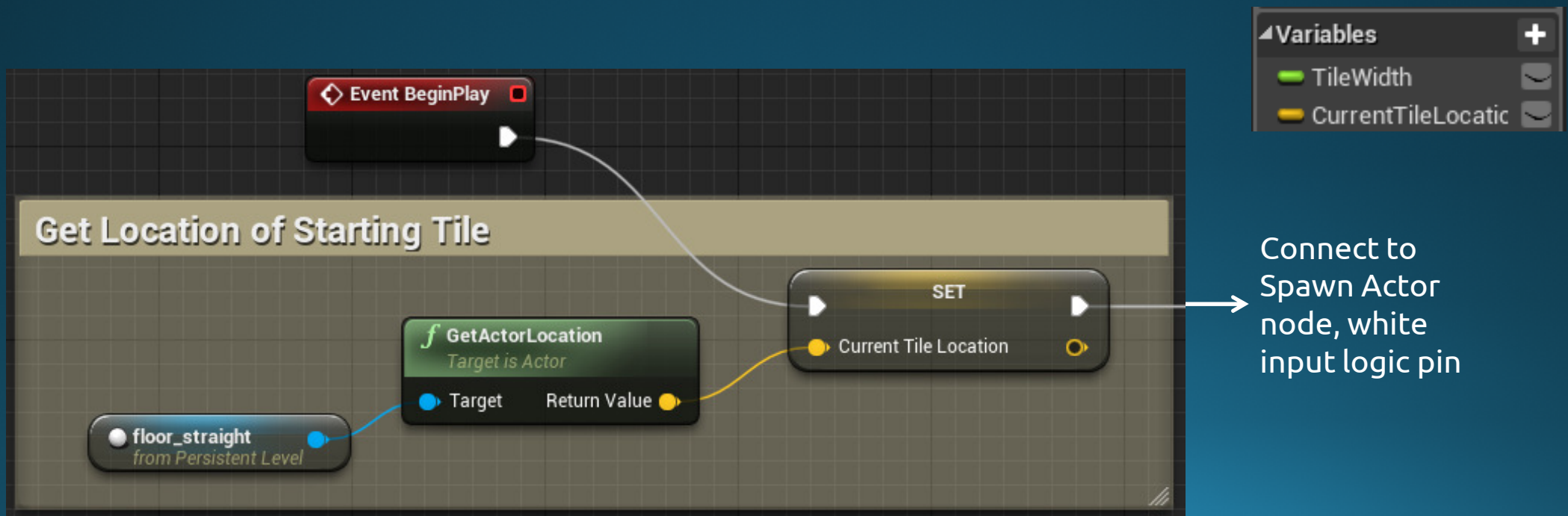


Tile Placement



Setup

- In the Level Blueprint insert an 'Event Begin Play' node.
- Create a variable for the tile width and location of current tile.



Subtract 400 uu from the current location to create new location for next tile



Place new location into a blank 'transform' and use this as the new spawn transform

Connect to
Spawn Actor
node,
Transform
pin

Spawn a new tile at current location
Keep the location of the new tile

SpawnActor Floor Straight

Class
Floor Straight

Spawn Transform

Collision Handling Override
Default

Instigator
Select Asset

Return Value

GetActorLocation
Target is Actor

Target

Return Value

SET

Current Tile Location

Wait until next tile is spawned

Delay

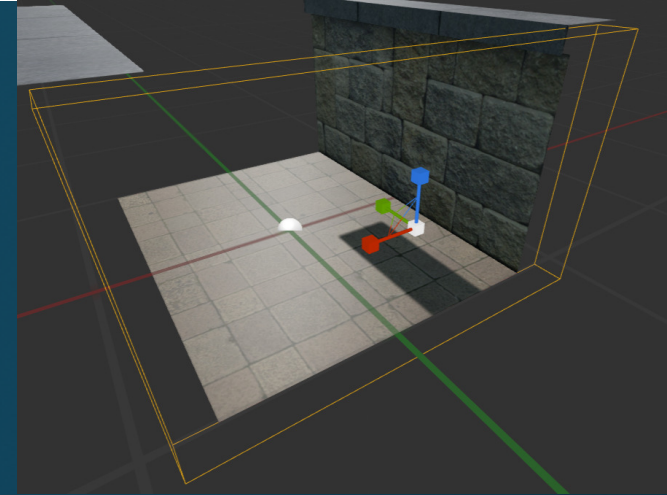
Duration 0.75

Completed

From
previous
slide

Tile Actor

- Create a blueprint actor which contains the corridor static mesh.
- In the Event Graph for that actor, place a box Collision component on the exit location form the tile.
- In the Event Graph, when make the actor destroy itself after a short delay



When actor leaves exit box, wait, then make the blueprint destroy itself



Further Reading

- Delta Time in Unreal engine 4 <https://goo.gl/Cnu5xj>
- Endless Runner with Blueprint <https://goo.gl/ReCVMK>

Task

- Implement a simple endless runner using the techniques covered in the session.
 - Make sure that tiles are being destroyed behind the player.
 - Press F8 to jump out of the active viewport to use the mouse to fly around in-game.
 - How would you place obstacles/pickups in each tile so that they appear to be placed randomly ?