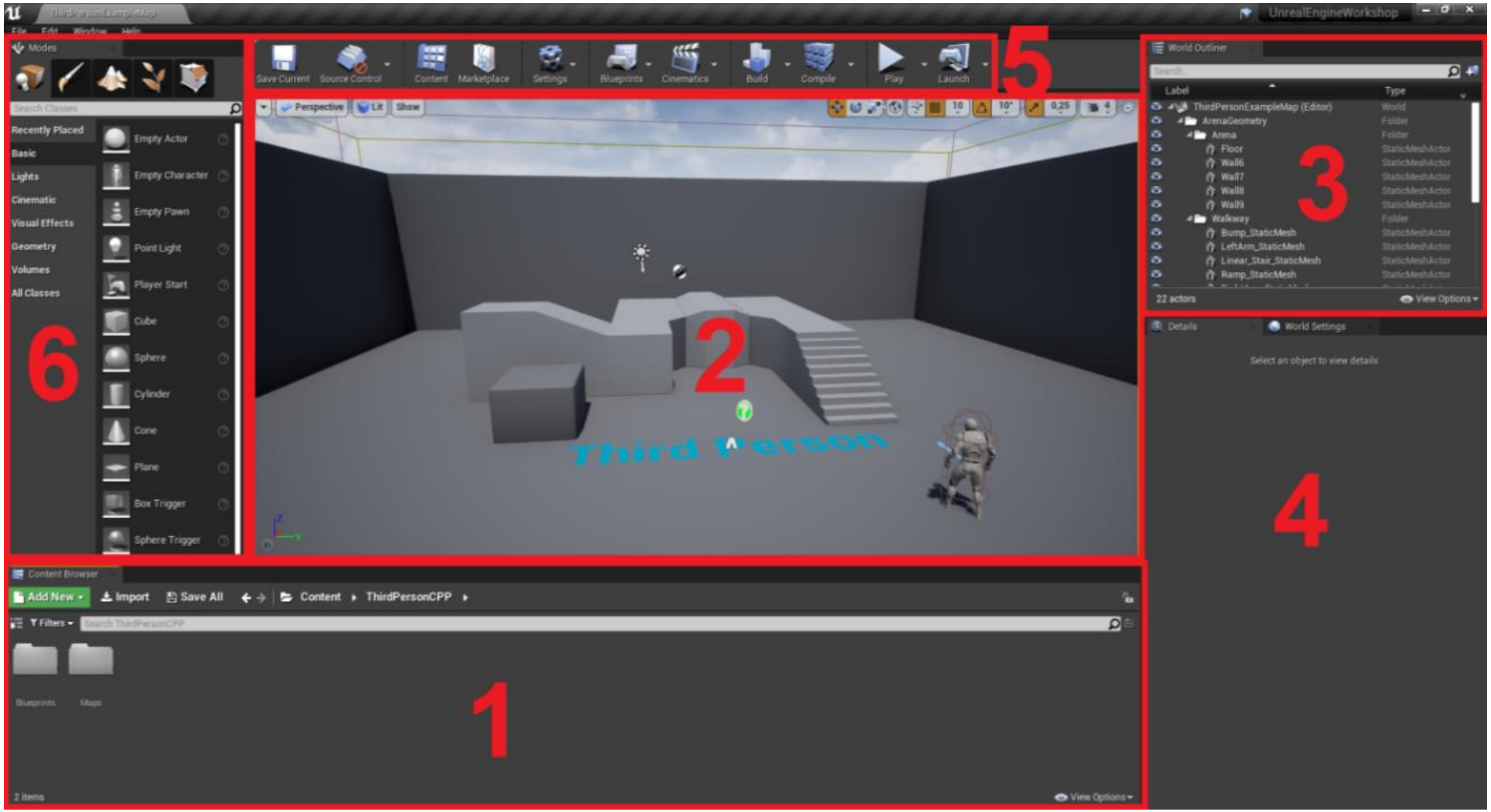
Unreal Engine Introduction

2nd Week, 2021

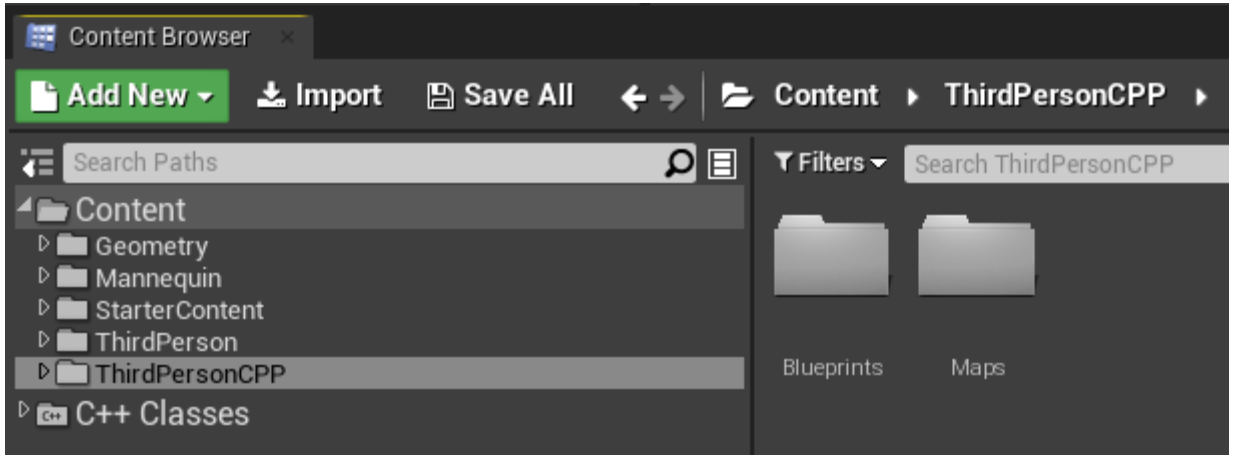
UNREAL ENGINE

Getting to Know Unreal



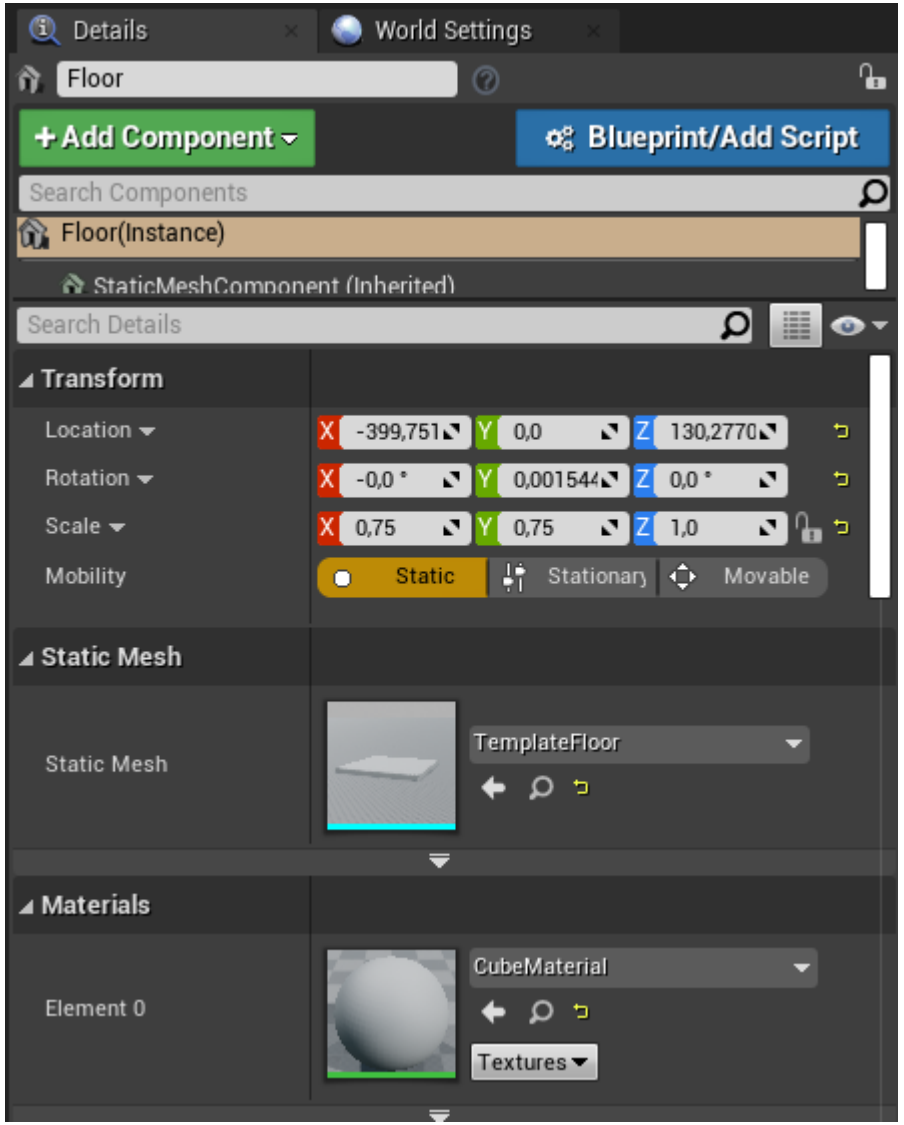
Getting to Know Unreal

› Content Browser



Getting to Know Unreal

- Content Browser
- Viewport
- World Outliner
- The Details panel and World Settings



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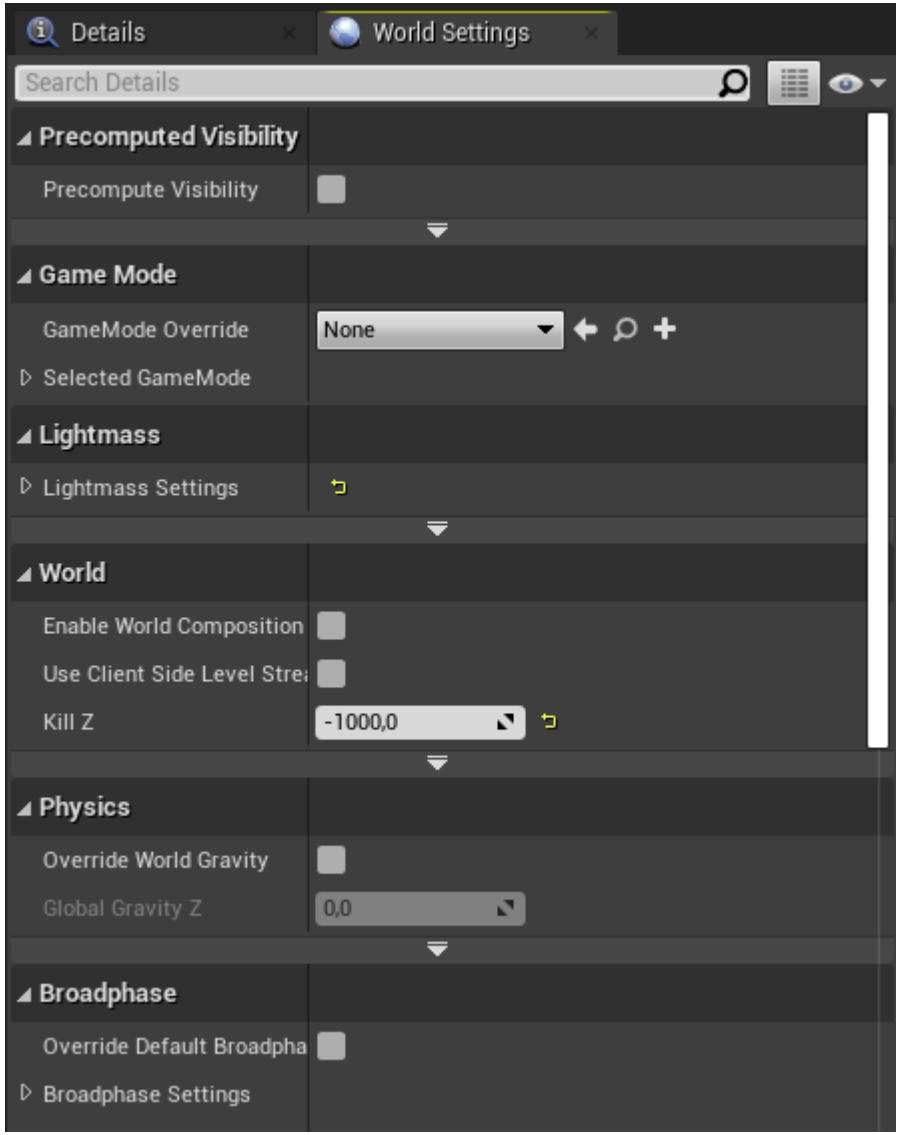
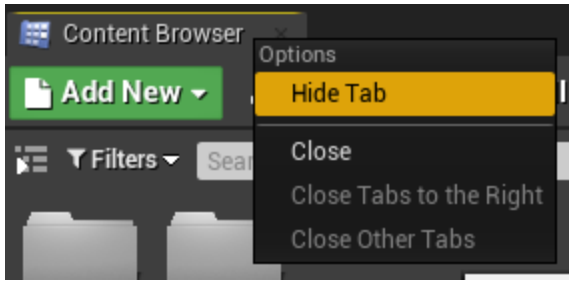


Getting to Know Unreal

- Content Browser
- Viewport
- World Outliner
  - Content Browser shows the *assets* in your project and World Outliner shows you the *objects* in your level.
- The Details panel and World Settings
- Toolbar
- Modes

Editor Windows

› How to hide tab labels
  – *Right-clicking* them and selecting the Hide option



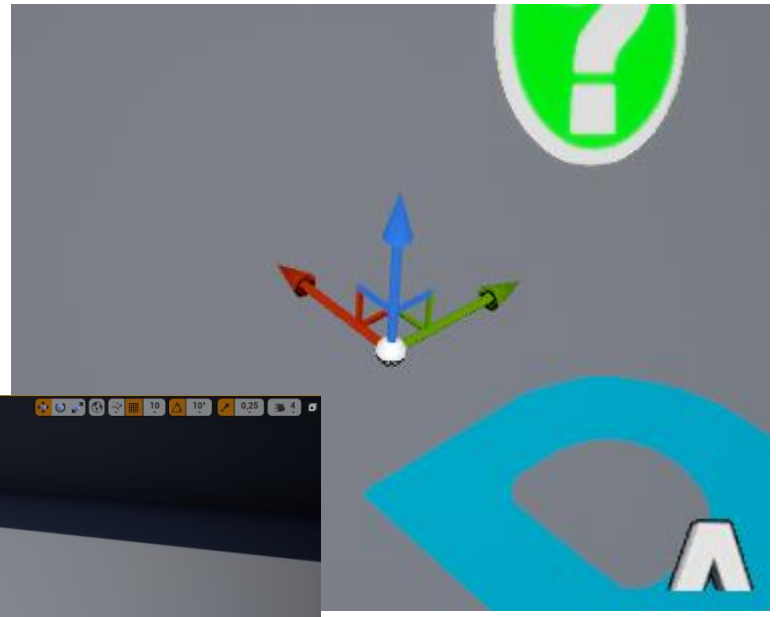
› The yellow triangle allows you to show a window's tab.

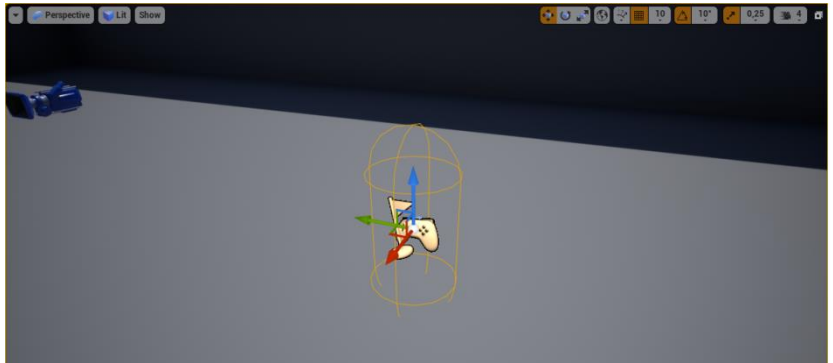
Viewport Navigation

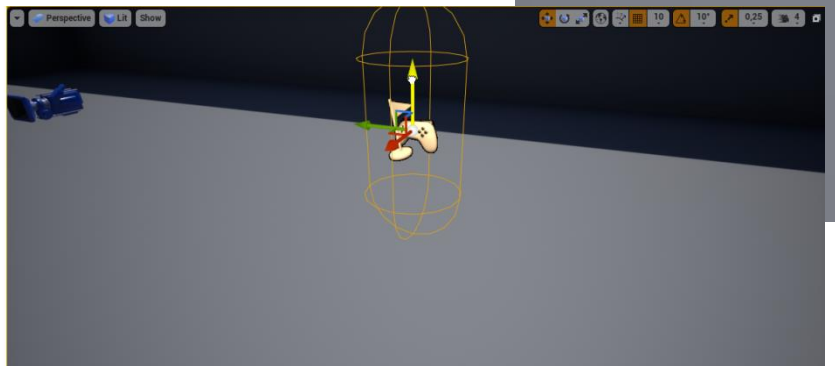
- **Levels** represent a **collection of objects**, as well as their locations and properties.
- The Viewport window will always show you the contents of the currently selected level.
  - Left mouse button: to rotate the camera horizontally and forward/backward
  - Right mouse button: to rotate the camera horizontally and vertically
  - W, S, A, D, E and Q (to move up and down)
- To change the type of visualization

Manipulating Actors (1)

- Actor
  - Every single object in your level, including walls, floors, weapons, and characters
- Transform property
  - Location
  - Rotation
  - Scale
- The Move tool – a three axis gizmo

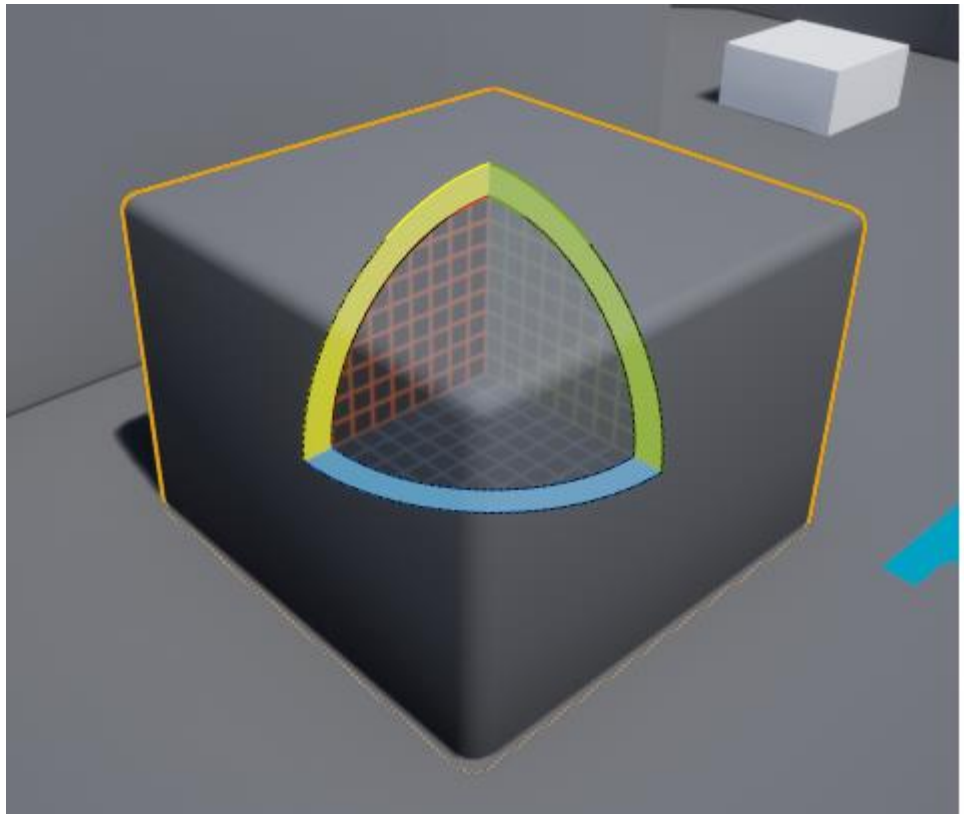


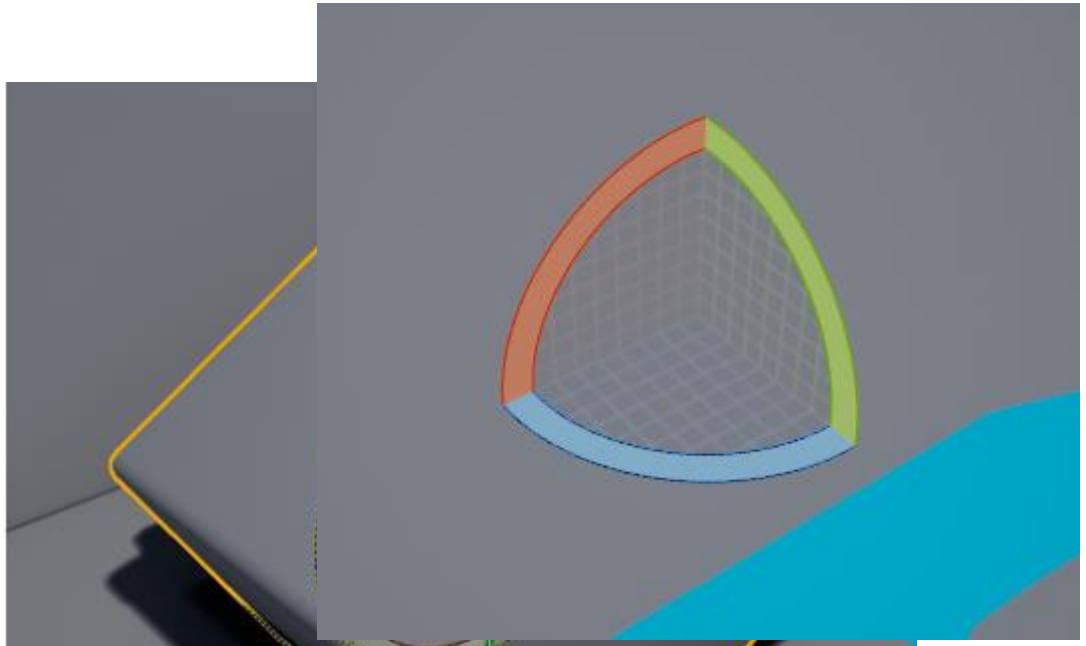




Manipulating Actors (2)

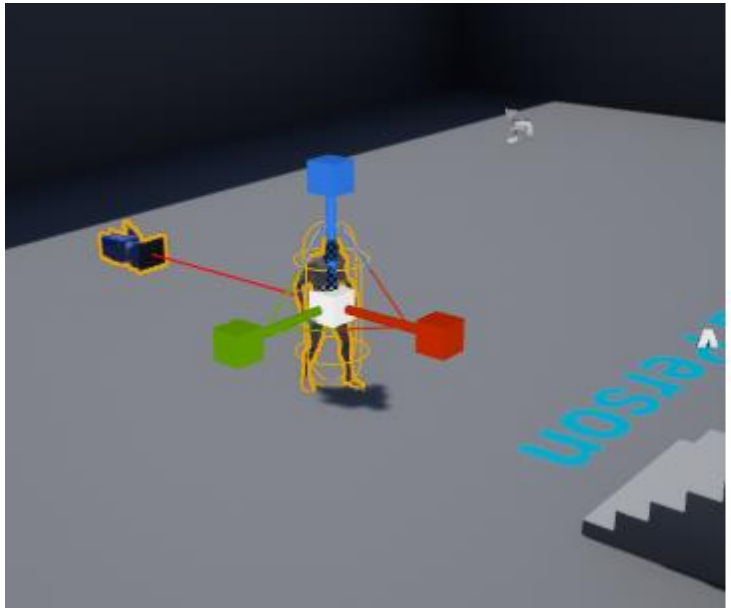
- You can switch between the Move, Rotate, and Scale tools by pressing the W, E, and R keys, respectively.
- The Rotate tool

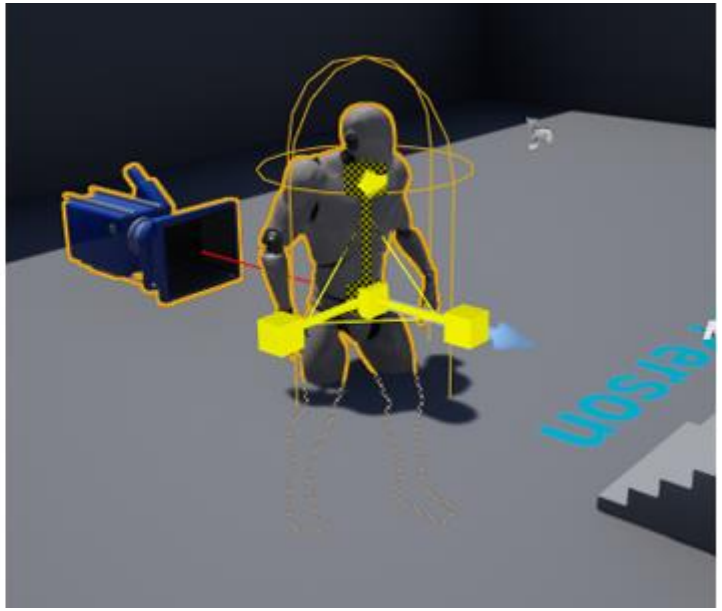


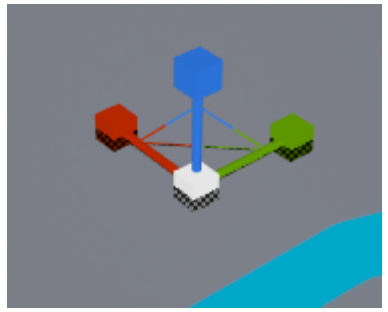


Manipulating Actors (3)

› The Scale tool



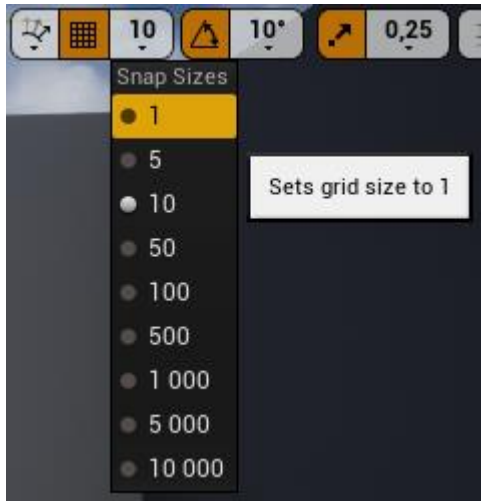




Manipulating Actors (4)

› The Move, Rotate, and Scale tool icons

› The grid snapping icons for moving, rotating, and scaling



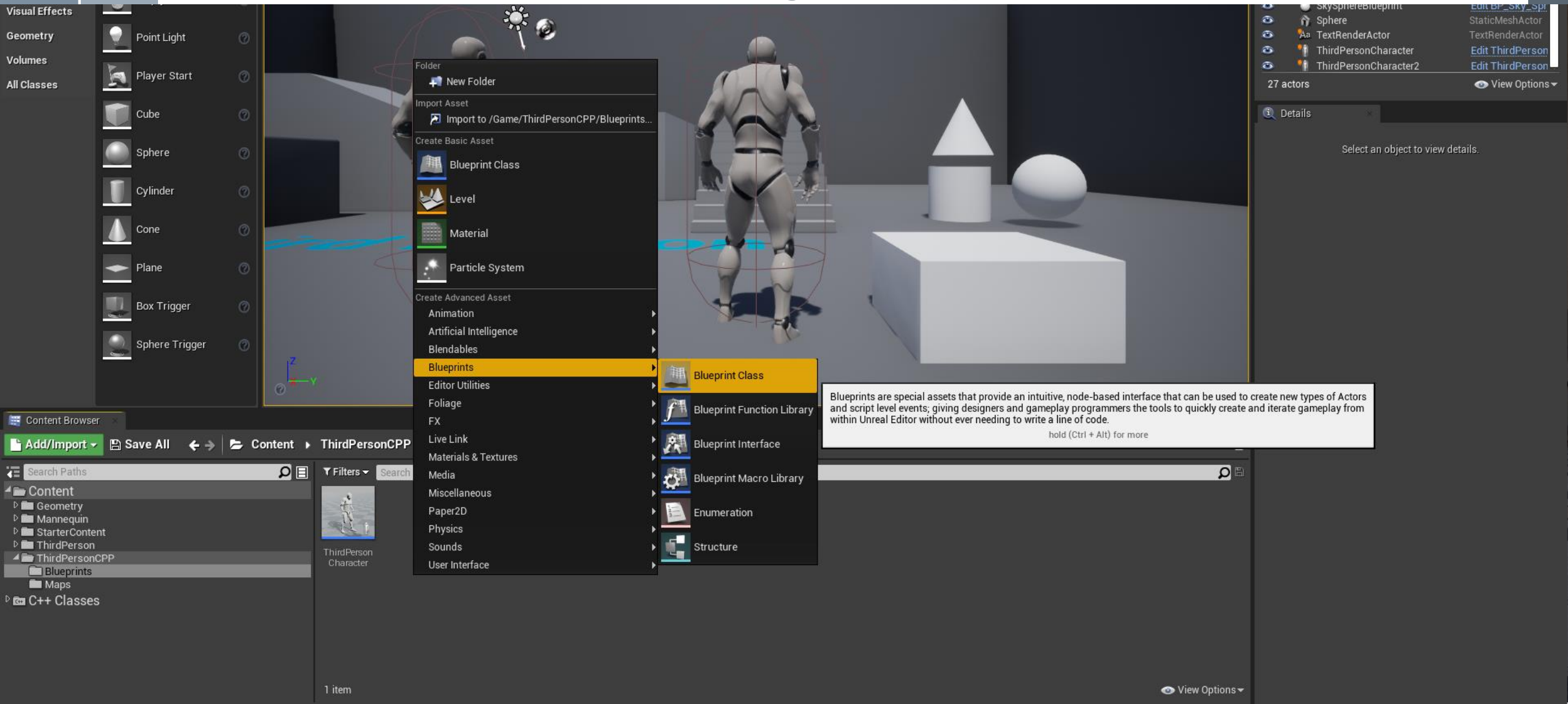
Blueprint Actors (1)

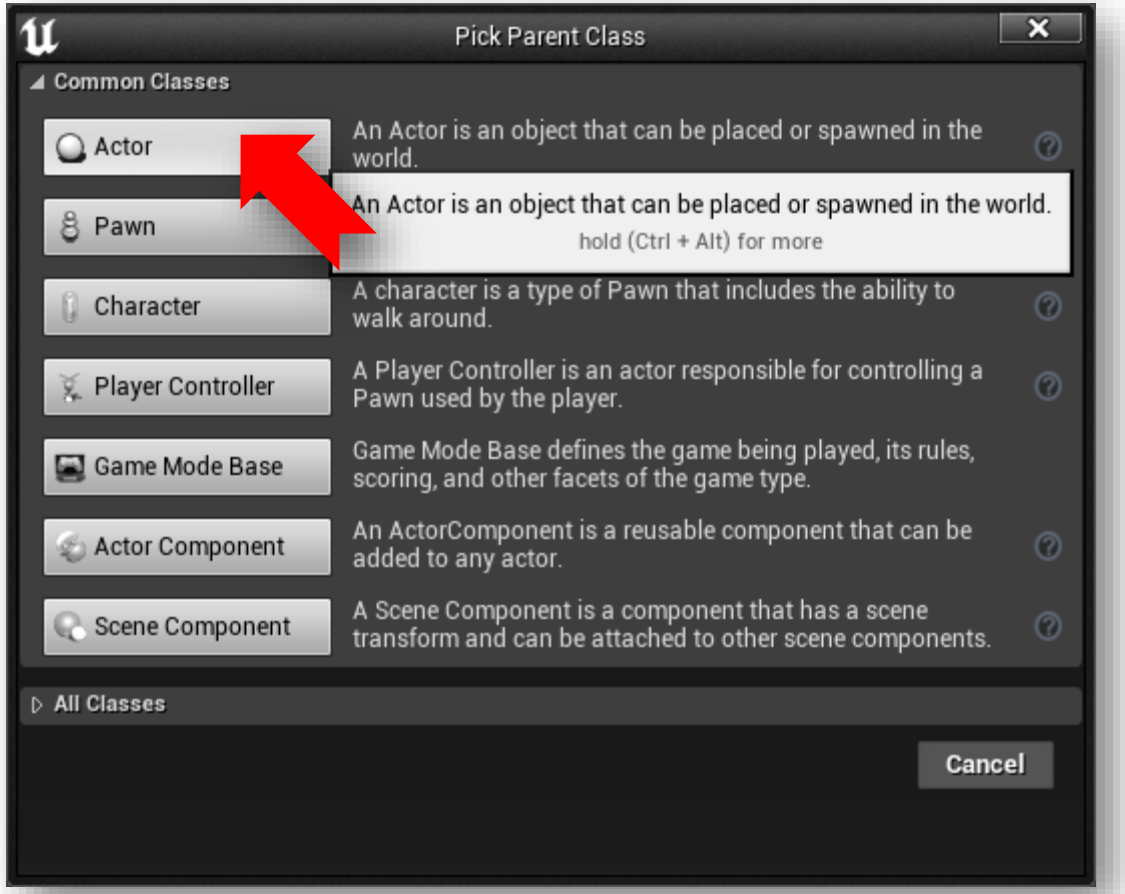
- Blueprint
  - Visual scripting language or a specific type of asset
  - A Blueprint class or Blueprint asset
- Actor
  - An instance of a C++ class or an instance of a Blueprint class, both of which must inherit from the Actor class
- The Blueprint classes can inherit either from a C++ class or from another Blueprint class.

Blueprint Actors (2)

- The difference between a C++ class and a Blueprint class
  - More advanced engine functionality if you add programming logic to your C++ class
  - Easily view and edit visual components of a Blueprint class
  - In a Blueprint class, you can easily reference other assets in your project.
    - In C++, you can also do so but less simply and less flexibly.
  - Programming logic that runs on Blueprint visual scripting is slower in terms of performance than that of a C++ class.
  - It's simple to have more that one person work on a C++ class simultaneously without conflicts in a source version platform.
    - With a Blueprint class, which is interpreted as a binary file instead of a text file, this will cause conflict in a source version platform.

Exercise 1.03: Creating Blueprint Actors




Pick Parent Class
Common Classes
Actor
An Actor is an object that can be placed or spawned in the world.
Pawn
An Actor is an object that can be placed or spawned in the world.
hold (Ctrl + Alt) for more
Character
A character is a type of Pawn that includes the ability to walk around.
Player Controller
A Player Controller is an actor responsible for controlling a Pawn used by the player.
Game Mode Base
Game Mode Base defines the game being played, its rules, scoring, and other facets of the game type.
Actor Component
An ActorComponent is a reusable component that can be added to any actor.
Scene Component
A Scene Component is a component that has a scene transform and can be attached to other scene components.
All Classes
Cancel

ThirdPersonExampleMap

File Edit Window Help

Save Current | Source Control | Modes | Content | Marketplace | Settings | Blueprints | Cinematics | Build | Compile | Play | Launch

Place Actors

Search Classes

- Recently Placed
- Basic
- Lights
- Cinematic
- Visual Effects
- Geometry
- Volumes
- All Classes

Empty Actor, Empty Character, Empty Pawn, Point Light, Player Start, Cube, Sphere, Cylinder, Cone, Plane, Box Trigger, Sphere Trigger

Perspective | Lit | Show

ThirdPersonCharacter

90.000000 °

World Outliner

Search...

Label	Type
Cone	StaticMeshActor
Cube	StaticMeshActor
Cylinder	StaticMeshActor
DocumentationActor1	DocumentationAc
NetworkPlayerStart	PlayerStart
SkySphereBlueprint	Edit BP_Sky_Sph
Sphere	StaticMeshActor
TextRenderActor	TextRenderActor
ThirdPersonCharacter	Edit ThirdPerson
ThirdPersonCharacter2	Edit ThirdPerson

27 actors (1 selected) View Options

Details

ThirdPersonCharacter

+ Add Component | Edit Blueprint

Search Components

ThirdPersonCharacter(self)

Capsule Component (CollisionCylinder) (Inherited)

Mesh (CharacterMesh0) (Inherited)

Search Details

Transform

Location X -770.0 Y 370.0 Z 226.0

Rotation X 0.0 ° Y 0.0 ° Z 0.0 °

Scale X 1.0 Y 1.0 Z 1.0

CapsuleComponent

Mobility: Static | Station | Movab

Animation

Animation Mode: Use Animation Blueprint

Anim Class: ThirdPerson_AnimBP_C

Disable Post Process

Mesh

Skeletal Mesh: SK_Mannequin

Skin Cache Usage: 0 Array elements

Pre/Post Skin Deltas U: 0 Array elements

Camera Settings

FollowCamera

Projection Mode: Perspective

Content Browser

Add/Import | Save All | Content ▸ ThirdPersonCPP ▸ Blueprints

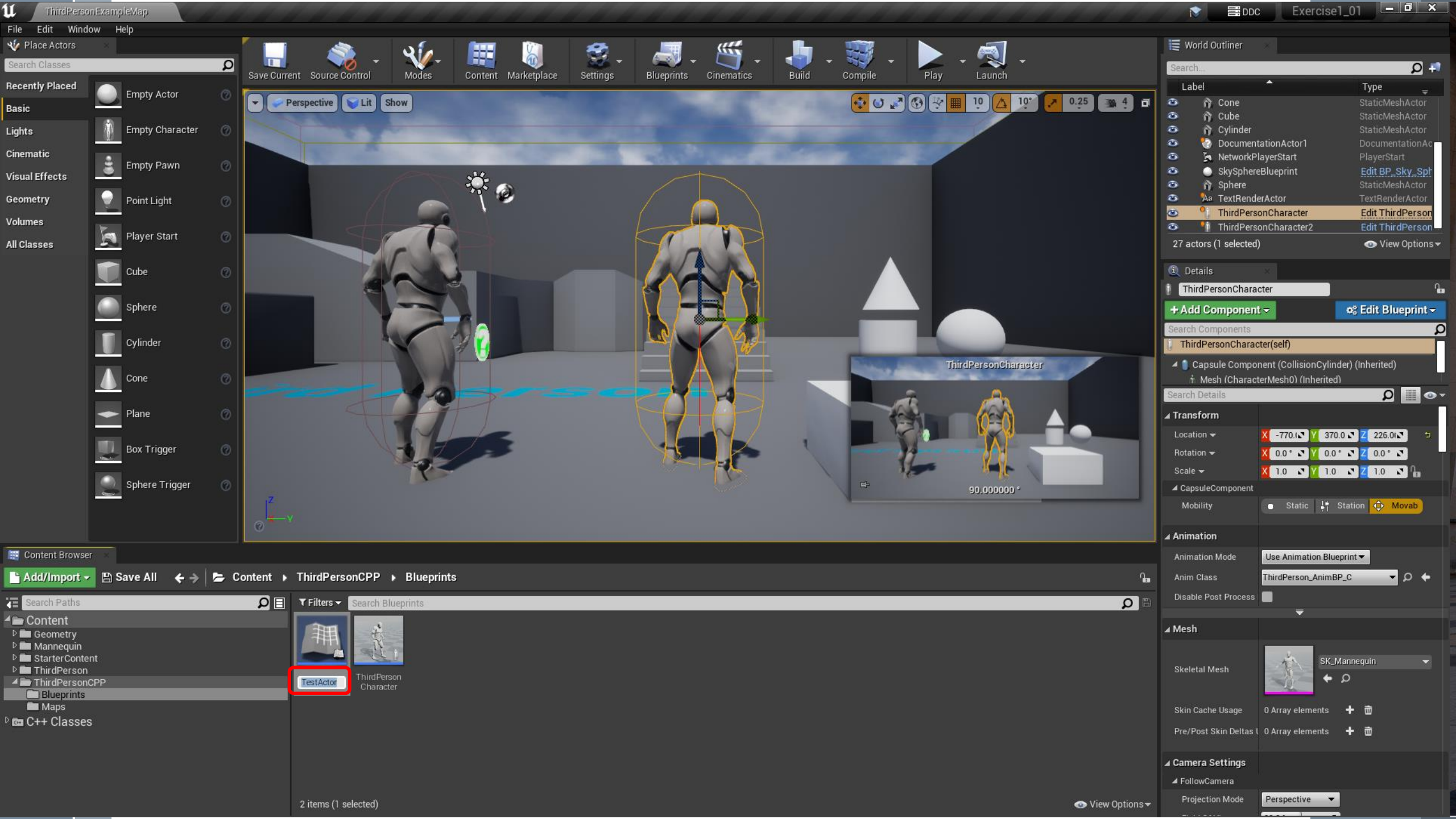
Search Paths

- Content
  - Geometry
  - Mannequin
  - StarterContent
  - ThirdPerson
  - ThirdPersonCPP
    - Blueprints
    - Maps
- C++ Classes

Filters | Search Blueprints

NewBlueprint | ThirdPerson Character

2 items (1 selected) View Options


ThirdPersonExampleMap
DDC
Exercise1_01
File
Edit
Window
Help
Place Actors
Search Classes
Recently Placed
Basic
Lights
Cinematic
Visual Effects
Geometry
Volumes
All Classes
Empty Actor
Empty Character
Empty Pawn
Point Light
Player Start
Cube
Sphere
Cylinder
Cone
Plane
Box Trigger
Sphere Trigger
Save Current
Source Control
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90.000000 °
World Outliner
Search...
Label
Type
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StaticMeshActor
DocumentationActor1
NetworkPlayerStart
PlayerStart
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Animation Mode
Use Animation Blueprint
Anim Class
ThirdPerson_AnimBP_C
Disable Post Process
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Skeletal Mesh
SK_Mannequin
Skin Cache Usage
0 Array elements
Pre/Post Skin Deltas
0 Array elements
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ThirdPerson Character
2 items (1 selected)
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  - ThirdPersonCPP
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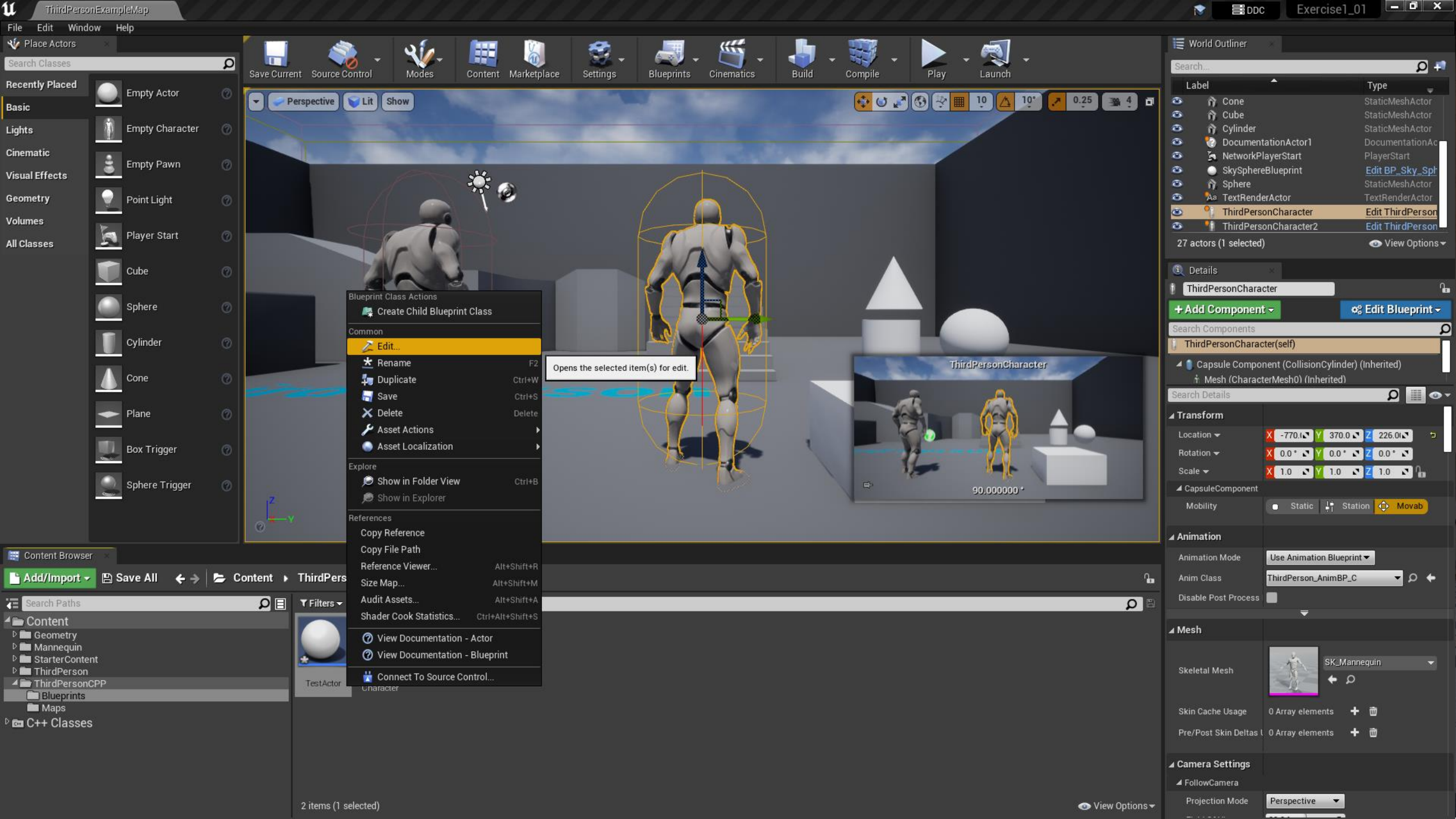
    - Maps
- C++ Classes

Filters | Search Blueprints

TestActor | ThirdPerson Character

2 items (1 selected) View Options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Build
Compile
Play
Launch
Perspective
Lit
Show
Blueprint Class Actions
Create Child Blueprint Class
Common
Edit...
Rename F2
Duplicate Ctrl+W
Save Ctrl+S
Delete Delete
Asset Actions
Asset Localization
Explore
Show in Folder View Ctrl+B
Show in Explorer
References
Copy Reference
Copy File Path
Reference Viewer... Alt+Shift+R
Size Map... Alt+Shift+M
Audit Assets... Alt+Shift+A
Shader Cook Statistics... Ctrl+Alt+Shift+S
View Documentation - Actor
View Documentation - Blueprint
Connect To Source Control...
Opens the selected item(s) for edit.
ThirdPersonCharacter
90.000000 °
World Outliner
Search...
Label
Type
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NetworkPlayerStart PlayerStart
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Mannequin
StarterContent
ThirdPerson
ThirdPersonCPP
Blueprints
Maps
C++ Classes
Filters
TestActor
Character
2 items (1 selected)
View Options

TestActor*

File Edit Asset View Debug Window Help

Parent class: Actor

Components

+ Add Component

TestActor(self)

DefaultSceneRoot

Compile Save Browse Find Hide Unrelated Class Settings Class Defaults Simulation

Viewport | Construction Scrip | Event Graph

Perspective Lit 10 10° 0.25 4

My Blueprint

+ Add New Sear

Graphs

EventGraph

Event BeginPlay

Event ActorBeginOverla

Event Tick

Functions (18 Overridable)

ConstructionScript

Macros

Variables

Components

DefaultSceneRoot

Event Dispatchers

Details

Search Details

Actor Tick

Start with Tick Er

Tick Interval (sec 0.0

Allow Tick Before

Replication

Only Relevant to

Always Relevant

Replicate Moven

Net Load on Clier

Net Use Owner R

Replay Rewindab

Replicates

Net Dormancy Awake

Net Cull Distance 225000000.0

Net Update Frequ 100.0

Min Net Update F 2.0

Net Priority 1.0

Rendering

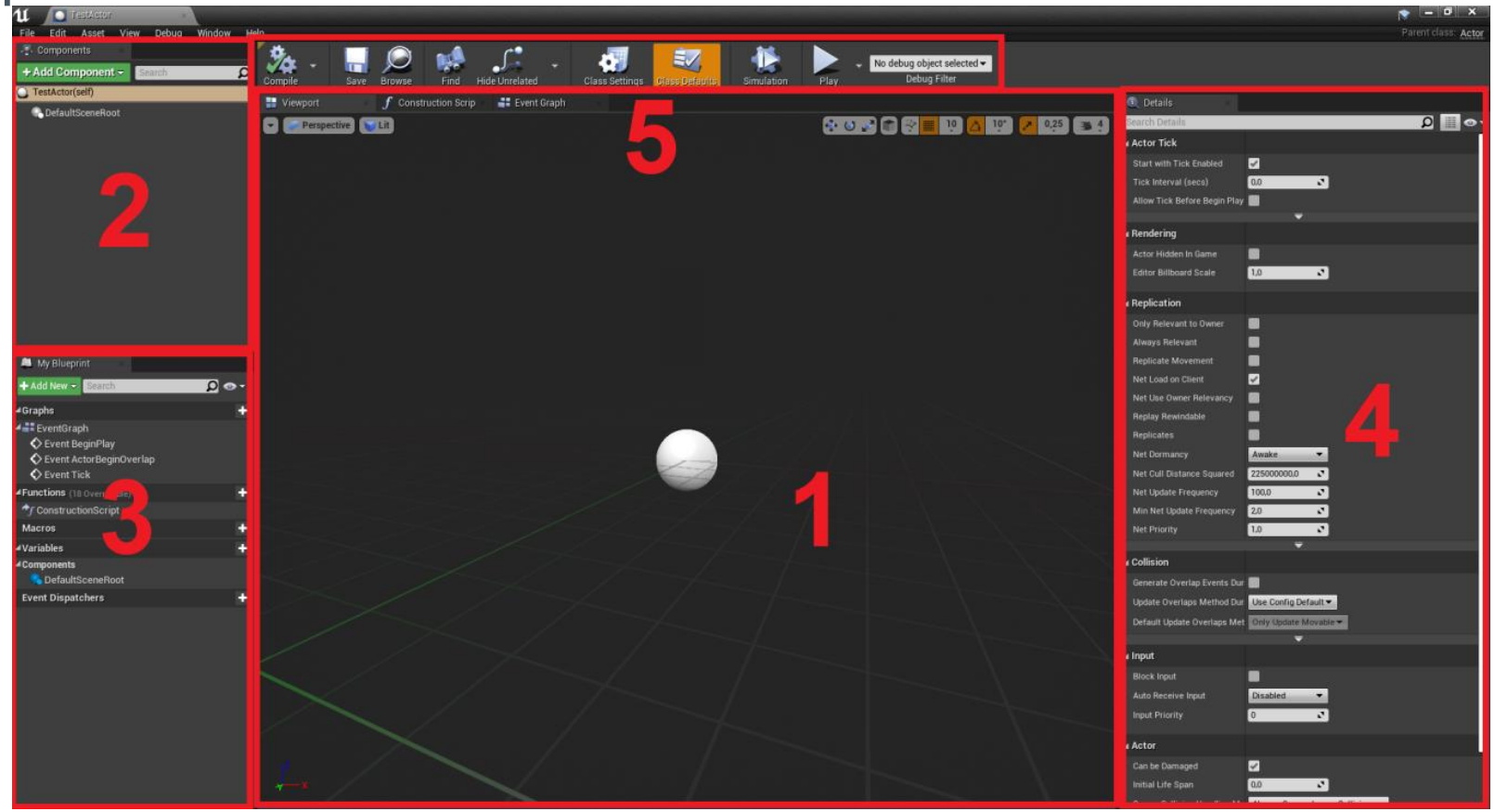
Actor Hidden In G

Editor Billboard S 1.0

Collision

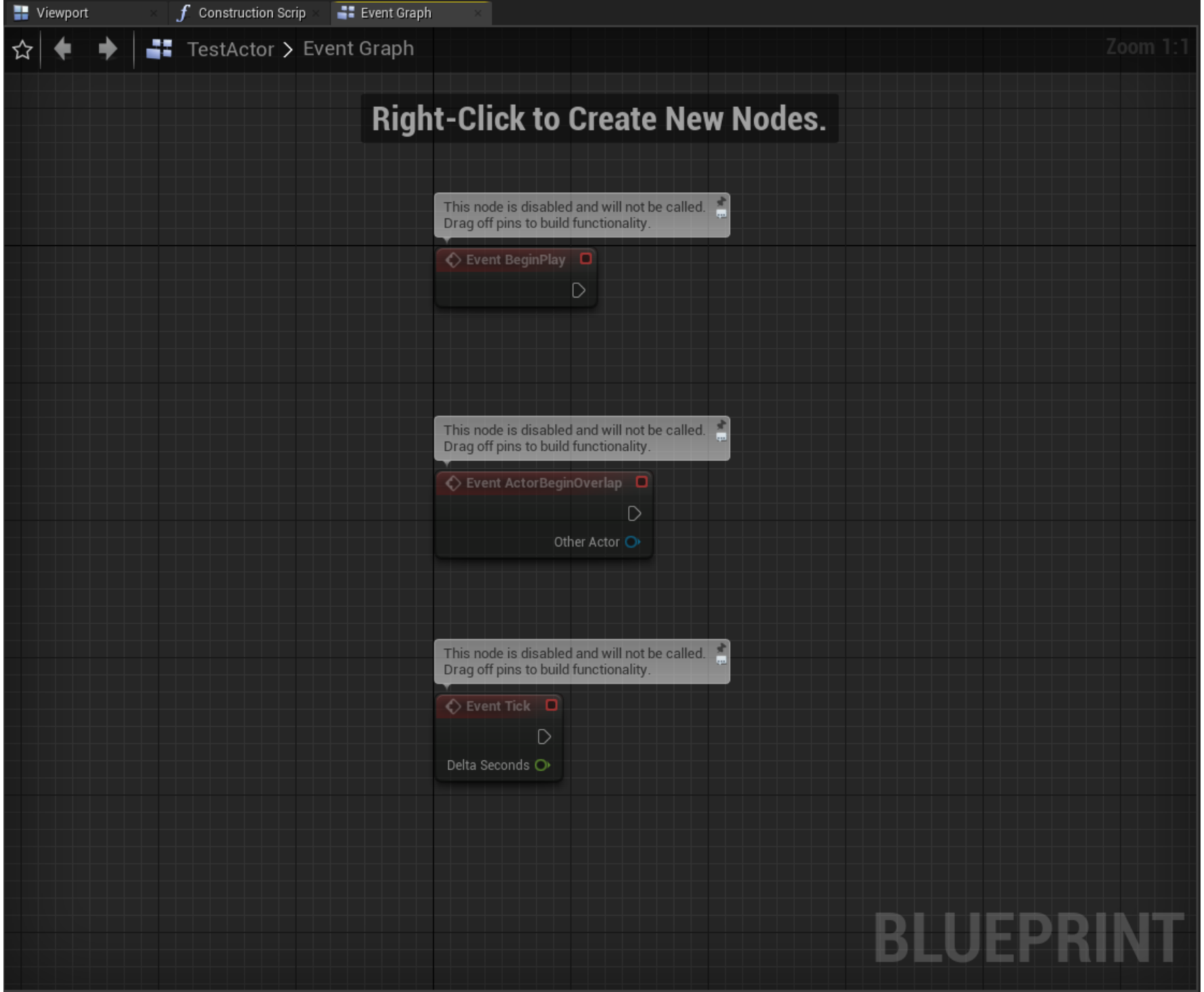
The Blueprint Editor (1)

› Sub-editor within the Unreal Engine editor specifically for Blueprint classes



The Blueprint Editor (2)

- Viewport / Event Graph / Construction Script
- Components
  - Actors can have several Actor Components.
- My Blueprint
  - To browse, add, and remove variables and functions defined in both this Blueprint class and the C++ class it inherits from.
  - An **event**: a special kind of function
- Details
- Toolbar

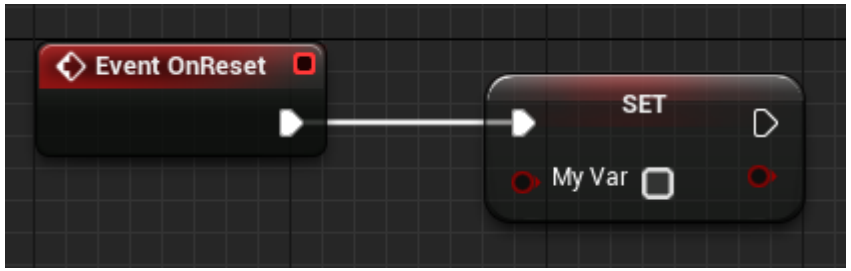

Viewport
Construction Scrip
Event Graph
TestActor > Event Graph
Zoom 1:1
Right-Click to Create New Nodes.
This node is disabled and will not be called.
Drag off pins to build functionality.
Event BeginPlay
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
This node is disabled and will not be called.
Drag off pins to build functionality.
Event Tick
Delta Seconds
BLUEPRINT

Event Graph (1)

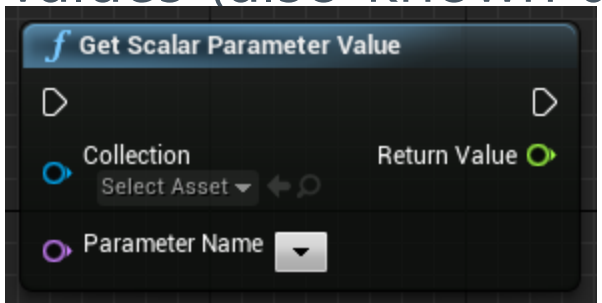
- Writing all of your Blueprint visual scripting code, creating your variables and functions, and accessing other variables and functions declared in this class's parent class
- The Event Graph window
  - Navigating: dragging the right mouse button
  - Zoom in and out: scrolling the mouse wheel
  - Selecting: clicking
  - Accessing the Blueprint's Action menu: right-clicking

Event Graph (2)

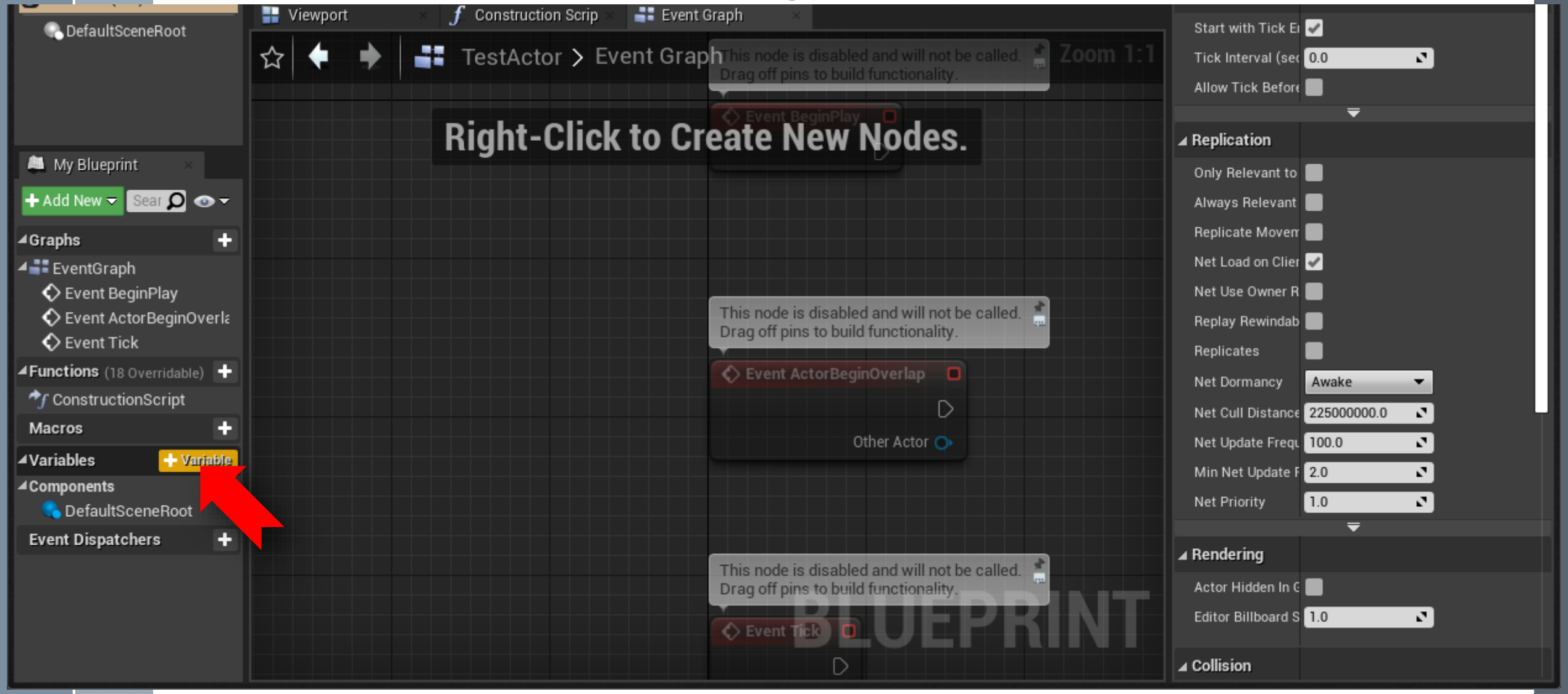
- The way scripting works in Blueprint is by connecting nodes using pins.
- Execution pins
  - These will dictate the order in which the nodes will be executed.

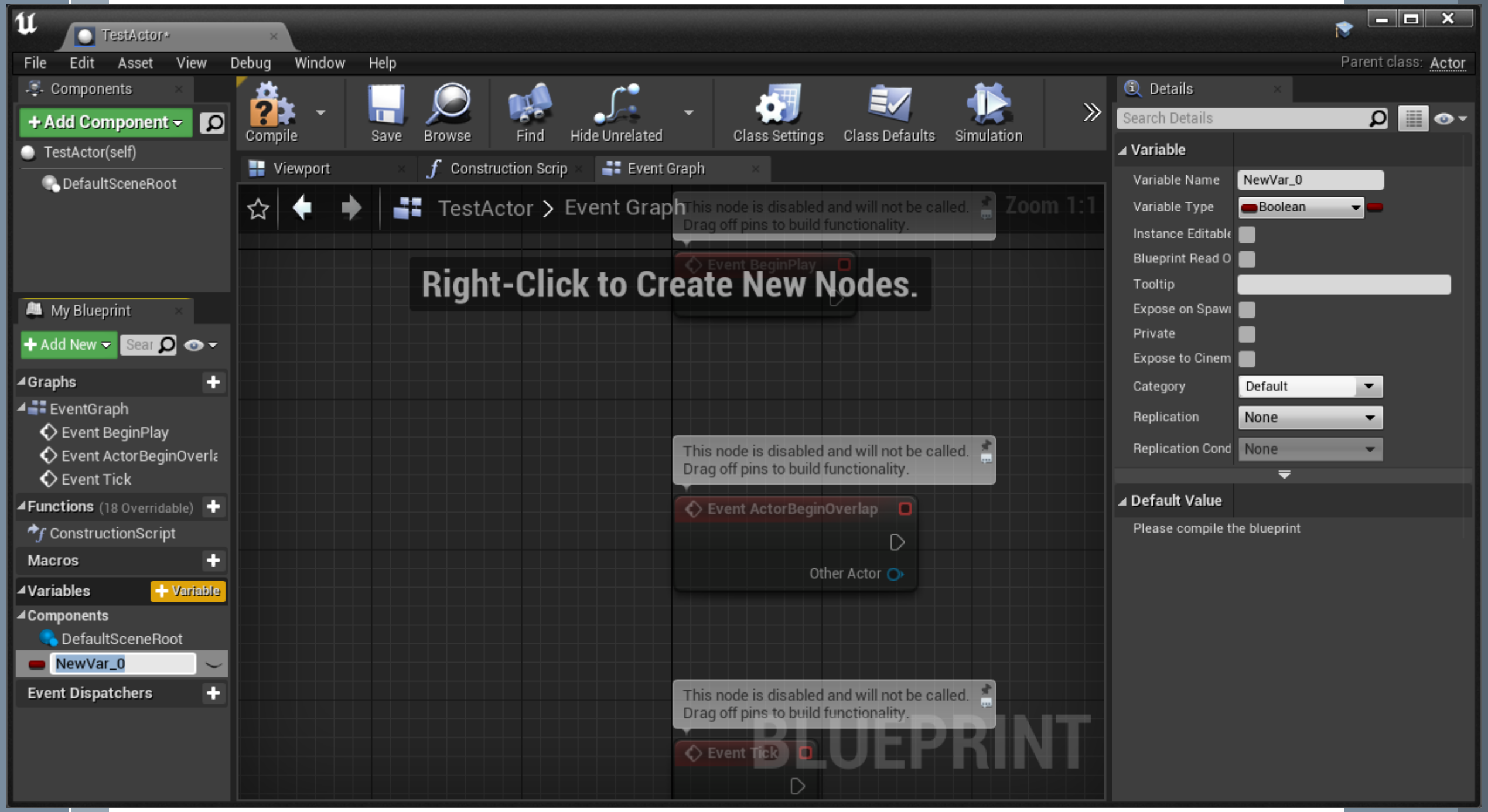


- Variable pins
  - These work as parameters (also known as input pins), at the left of the node, and return values (also known as output pins), at the right side of node.



Exercise 1.04: Creating Blueprint Variables




TestActor*
File
Edit
Asset
View
Debug
Window
Help
Parent class: Actor
Components
+ Add Component
TestActor(self)
DefaultSceneRoot
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Details
Search Details
Viewport
Construction Scrip
Event Graph
TestActor > Event Graph
Zoom 1:1
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Event Tick
BLUEPRINT
My Blueprint
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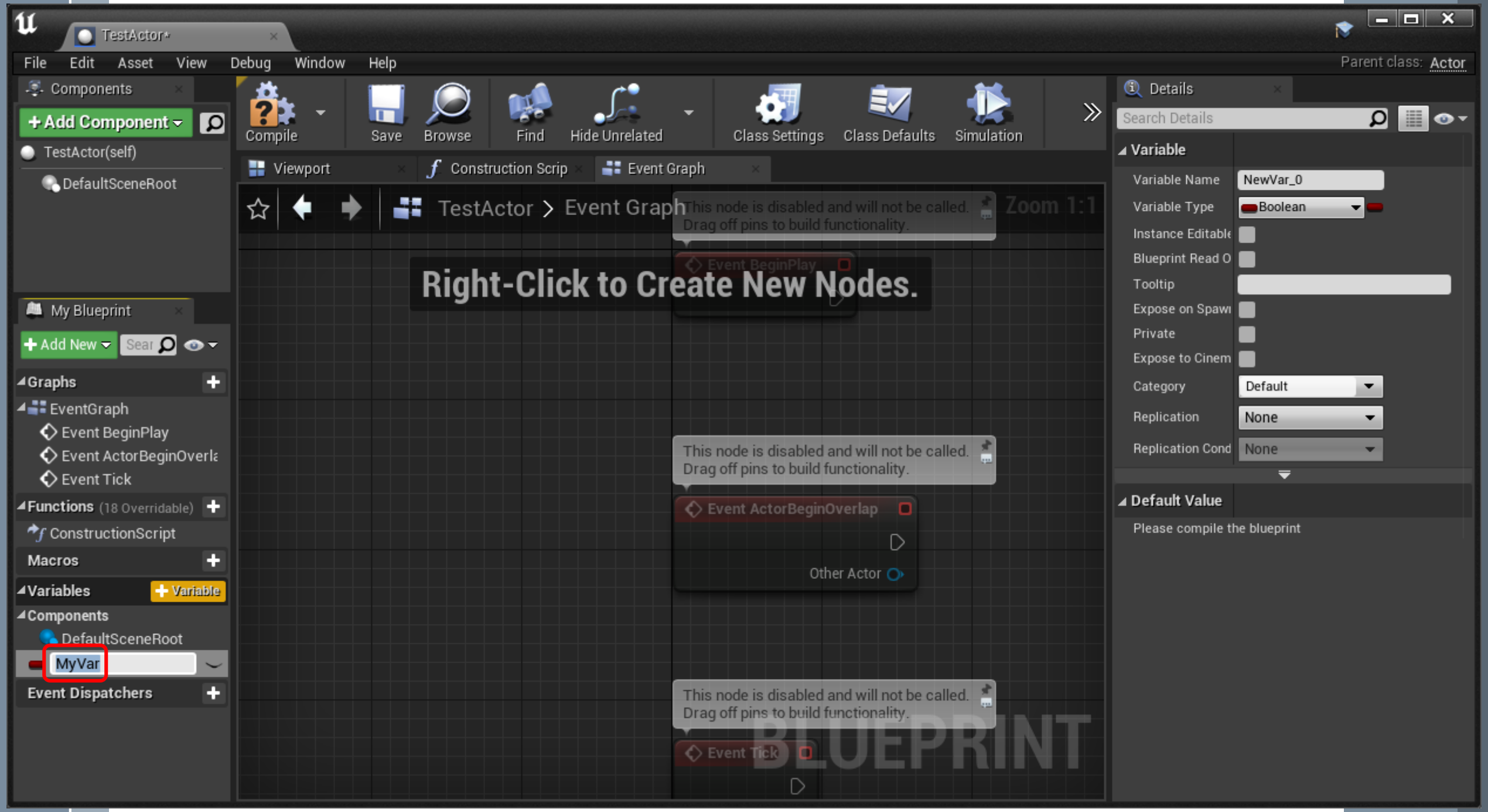
Functions (18 Overridable)
ConstructionScript
Macros
Variables
+ Variable
Components
DefaultSceneRoot
NewVar_0
Event Dispatchers
Variable
Variable Name
NewVar_0
Variable Type
Boolean
Instance Editable
Blueprint Read O
Tooltip
Expose on Spawn
Private
Expose to Cinem
Category
Default
Replication
None
Replication Cond
None
Default Value
Please compile the blueprint


TestActor*
File Edit Asset View Debug Window Help
Parent class: Actor
Components
+ Add Component
TestActor(self)
DefaultSceneRoot
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
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Simulation
Details
Search Details
Viewport
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Event Graph
TestActor > Event Graph
Zoom 1:1
This node is disabled and will not be called.
Drag off pins to build functionality.
Event BeginPlay
Right-Click to Create New Nodes.
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
This node is disabled and will not be called.
Drag off pins to build functionality.
Event Tick
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My Blueprint
+ Add New
Graphs
EventGraph
Event BeginPlay
Event ActorBeginOverla
Event Tick
Functions (18 Overridable)
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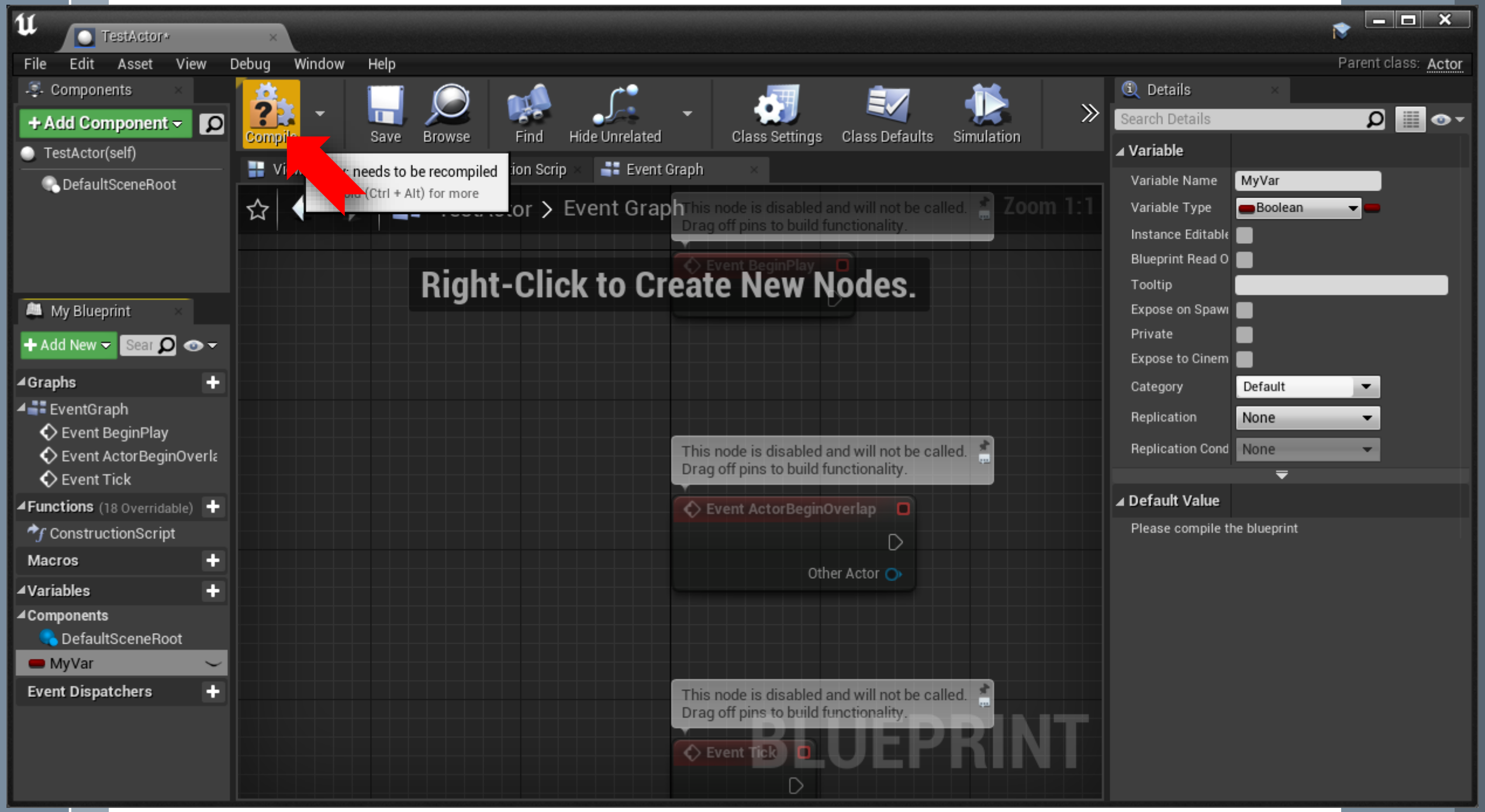
Please compile the blueprint


TestActor*
File
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Parent class: Actor
Components
+ Add Component
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Drag off pins to build functionality.
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Functions (18 Overridable)
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MyVar
Event Dispatchers
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Search Details
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Expose on Spawn
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Expose to Cinem
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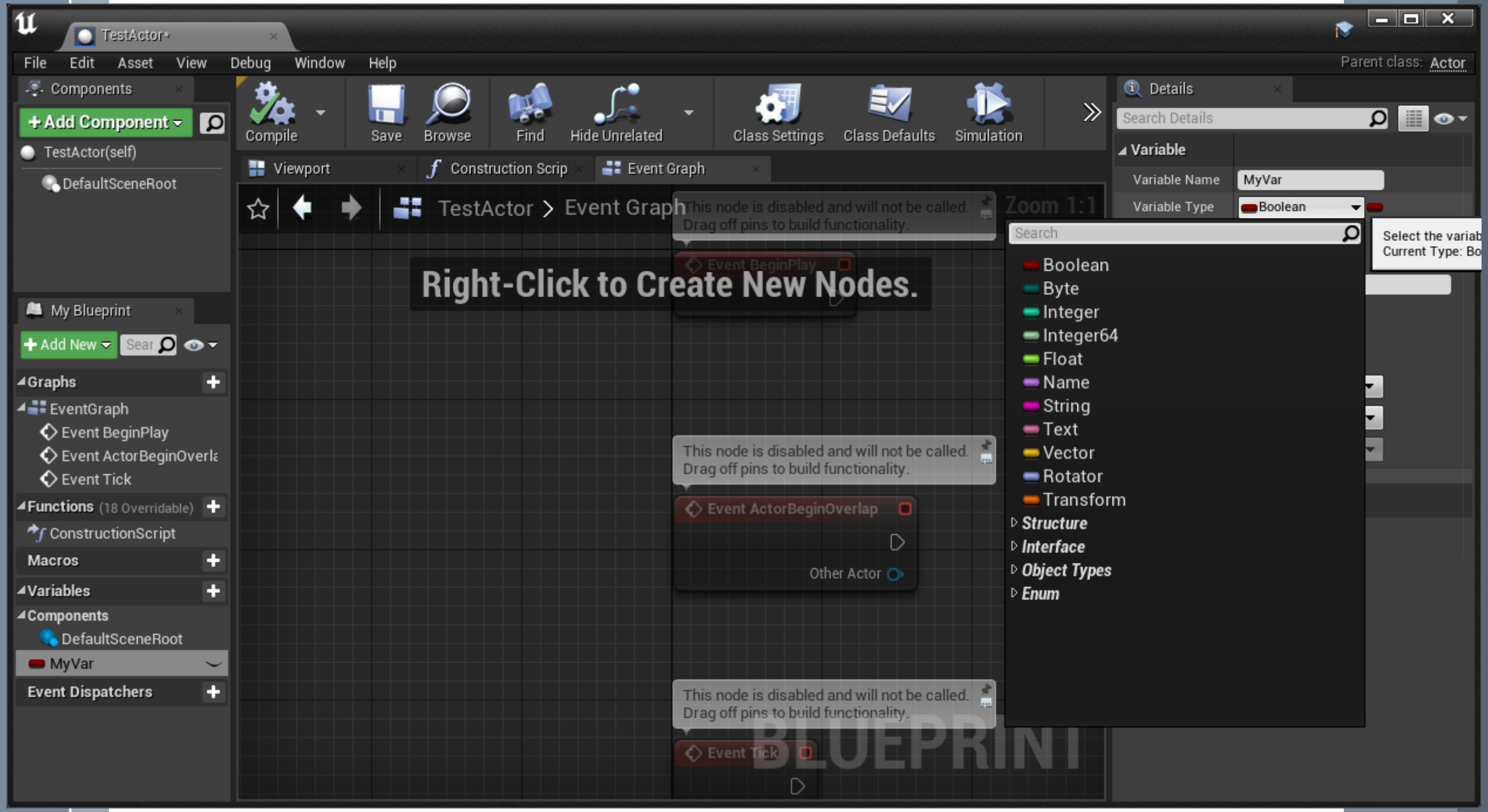
Default Value
Please compile the blueprint


TestActor*
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Debug
Window
Help
Parent class: Actor
Components
+ Add Component
TestActor(self)
DefaultSceneRoot
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
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Search Details
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Variable Name
MyVar
Variable Type
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Viewport
Construction Scrip
Event Graph
TestActor > Event Graph
Zoom 1:1
This node is disabled and will not be called.
Drag off pins to build functionality.
Event BeginPlay
Right-Click to Create New Nodes.
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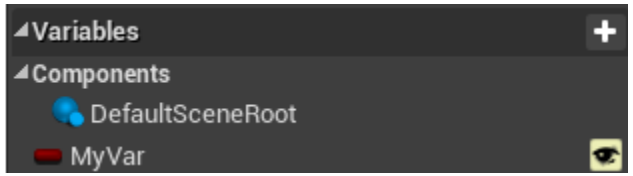
Event Dispatchers
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
This node is disabled and will not be called.
Drag off pins to build functionality.
Event Tick
BLUEPRINT

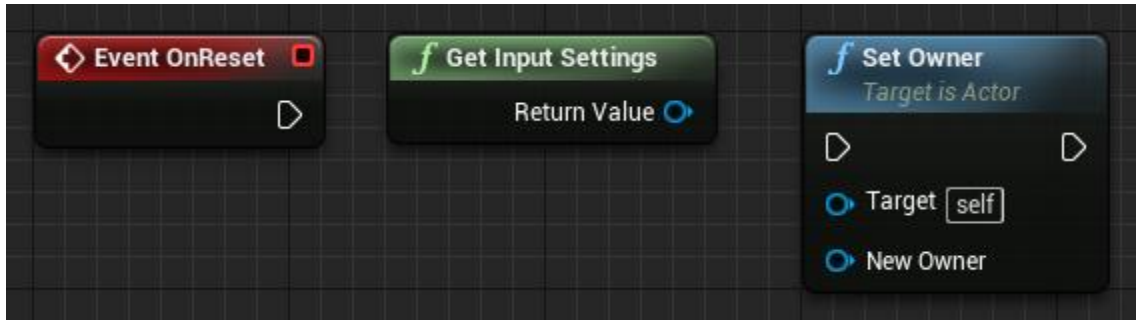
Dragging the MyVar into the Event Graph window and choosing whether to add a getter or setter



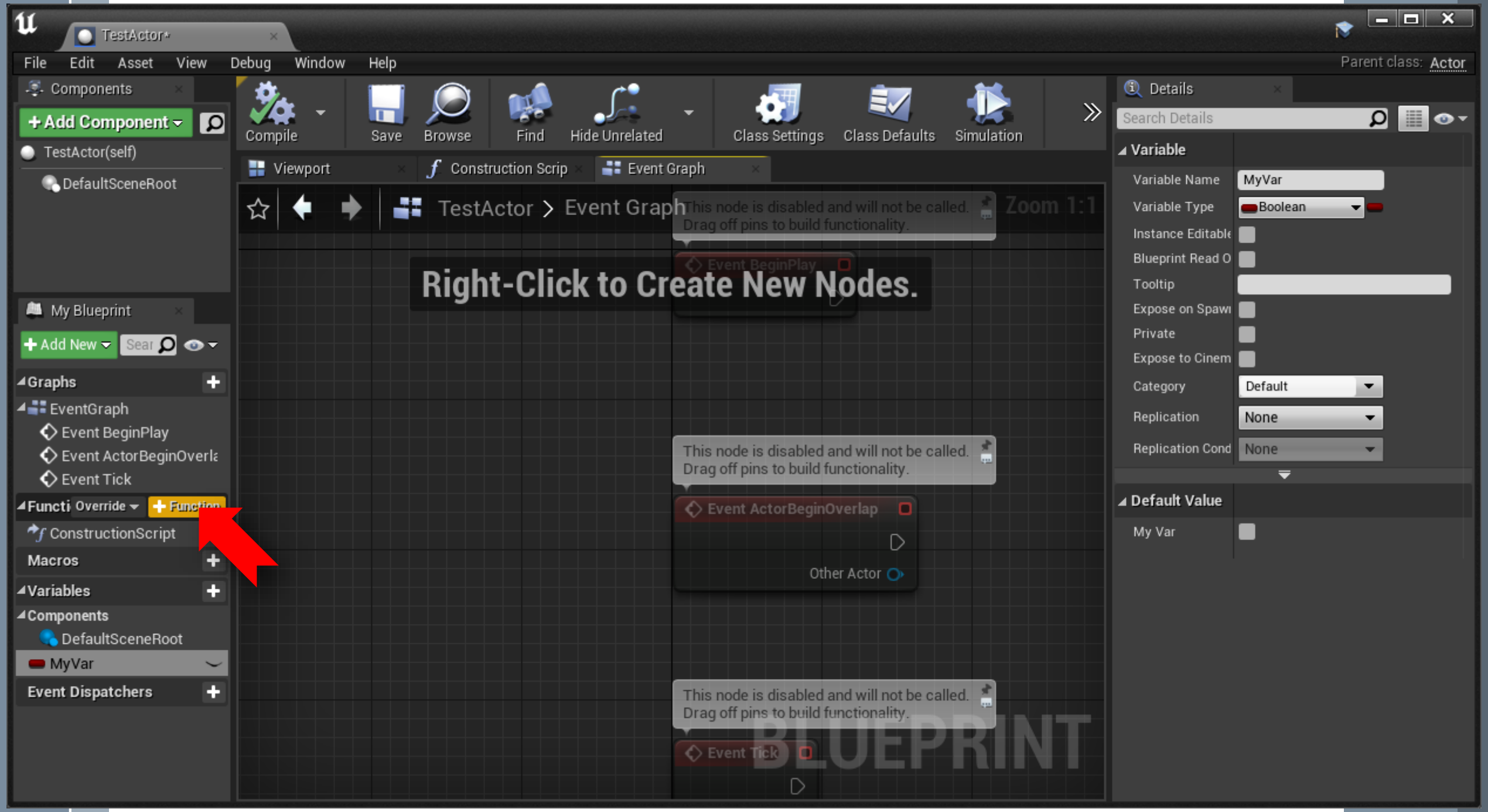
Clicking the eye icon to expose a variable and allow it to be instance-editable

The exposed MyVar variable that can be edited through the Details panel of that object

Exercise 1.05 Creating Blueprint Functions



An event (left), a pure function call that doesn't that need execution pins (middle), and a normal function call (right)


TestActor*
File
Edit
Asset
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Window
Help
Parent class: Actor
Components
+ Add Component
TestActor(self)
DefaultSceneRoot
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Viewport
Construction Scrip
Event Graph
TestActor > Event Graph
Zoom 1:1
Right-Click to Create New Nodes.
This node is disabled and will not be called.
Drag off pins to build functionality.
Event BeginPlay
Event ActorBeginOverlap
Other Actor
Event Tick
BLUEPRINT
My Blueprint
+ Add New
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EventGraph
Event BeginPlay
Event ActorBeginOverla
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MyVar
Event Dispatchers
Details
Search Details
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Variable Name
MyVar
Variable Type
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Blueprint Read O
Tooltip
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Default Value
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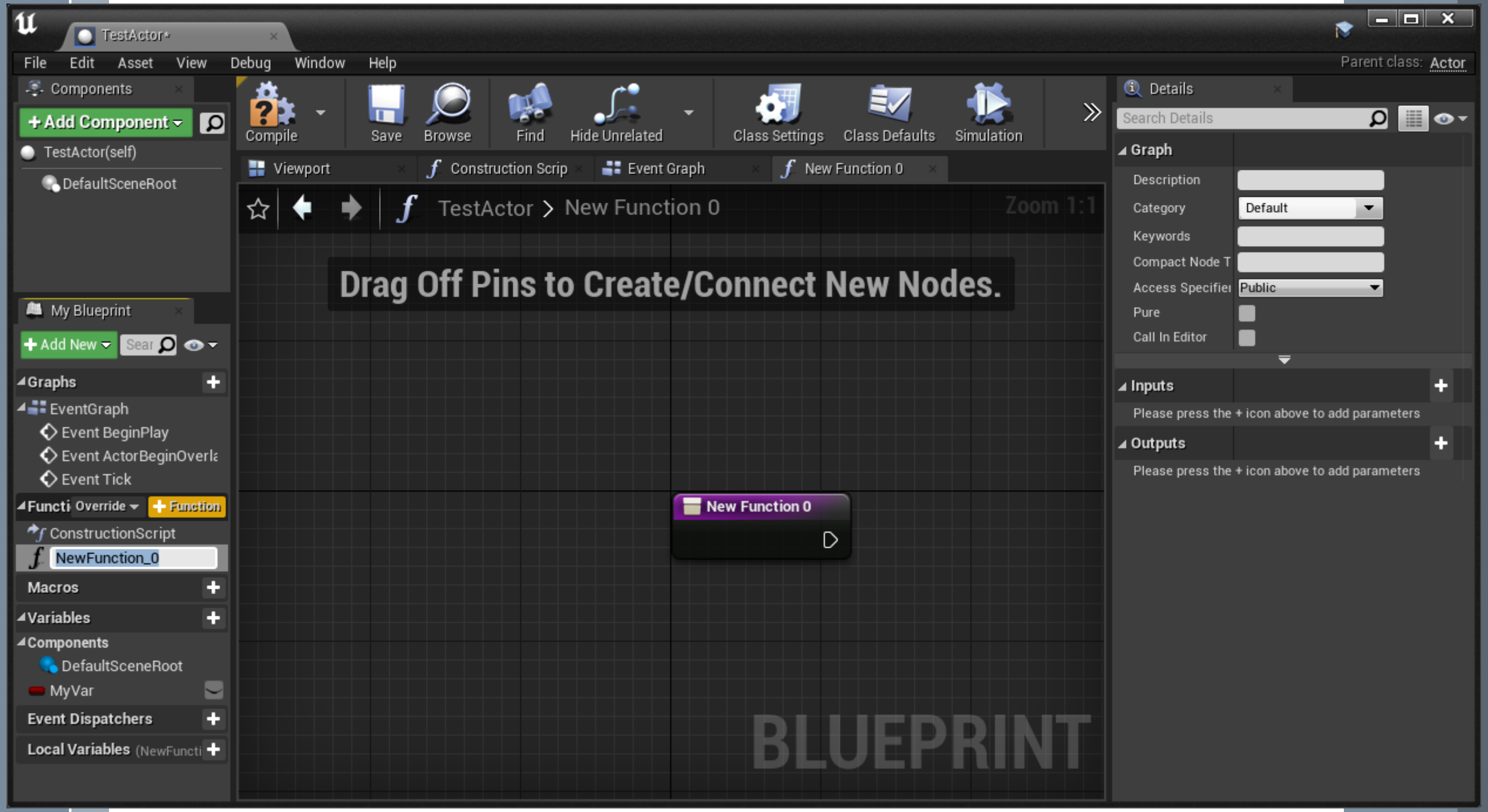
TestActor*
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Parent class: Actor
Components
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Class Settings
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Zoom 1:1
Drag Off Pins to Create/Connect New Nodes.
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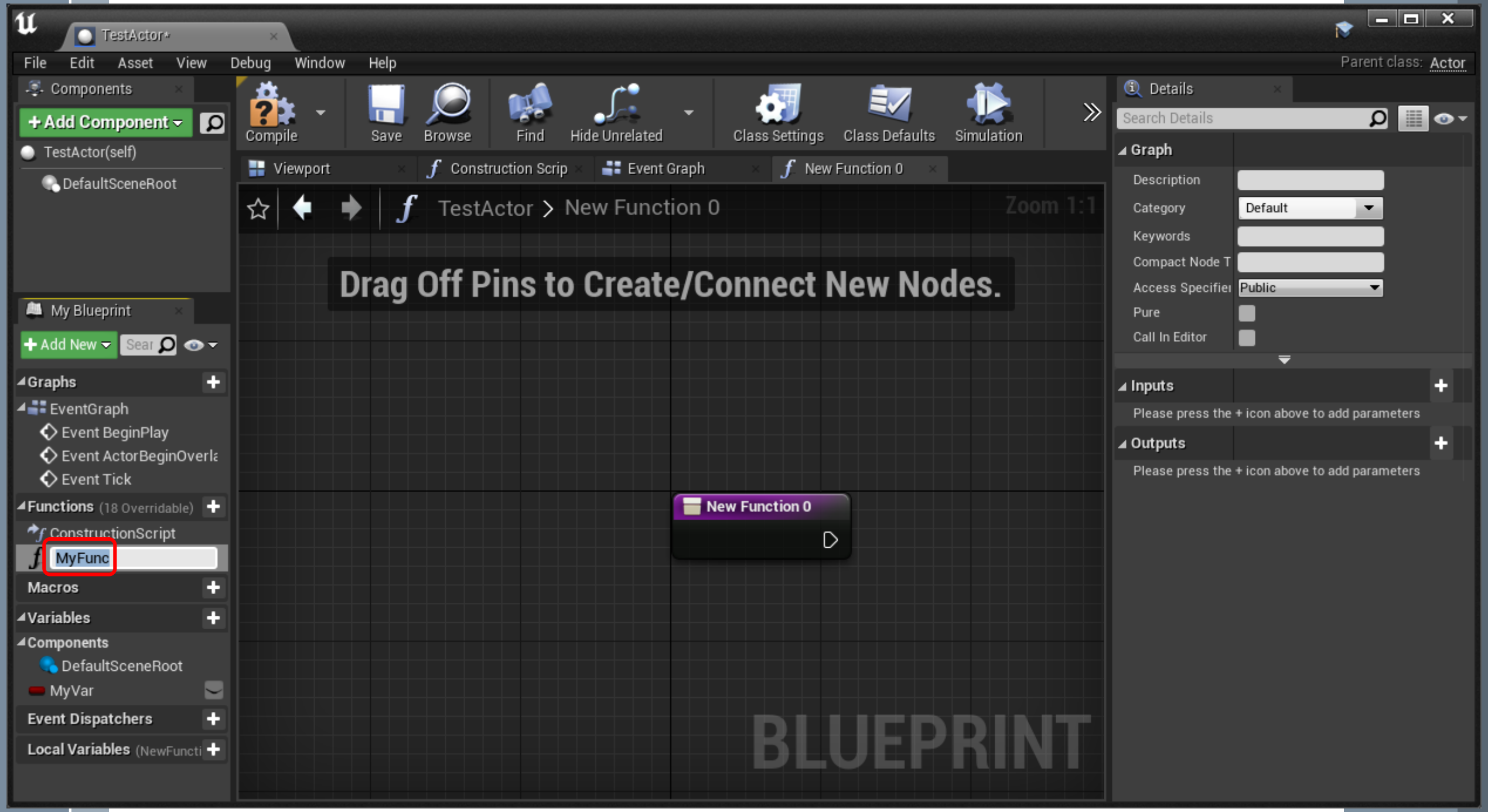
Outputs
Please press the + icon above to add parameters


TestActor*
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Drag Off Pins to Create/Connect New Nodes.
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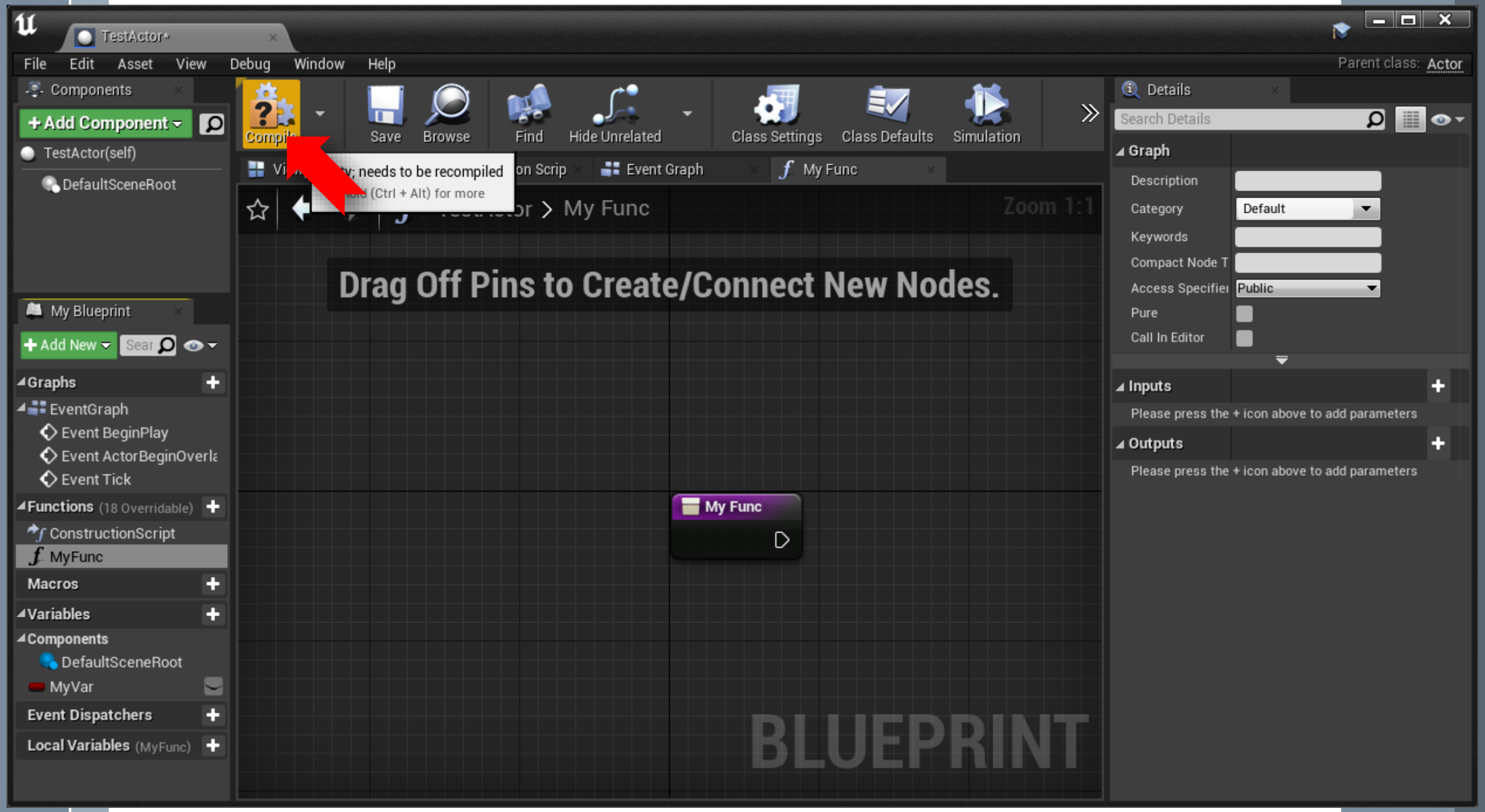
Please press the + icon above to add parameters


TestActor*
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TestActor*

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Parent class: Actor

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Zoom 1:1

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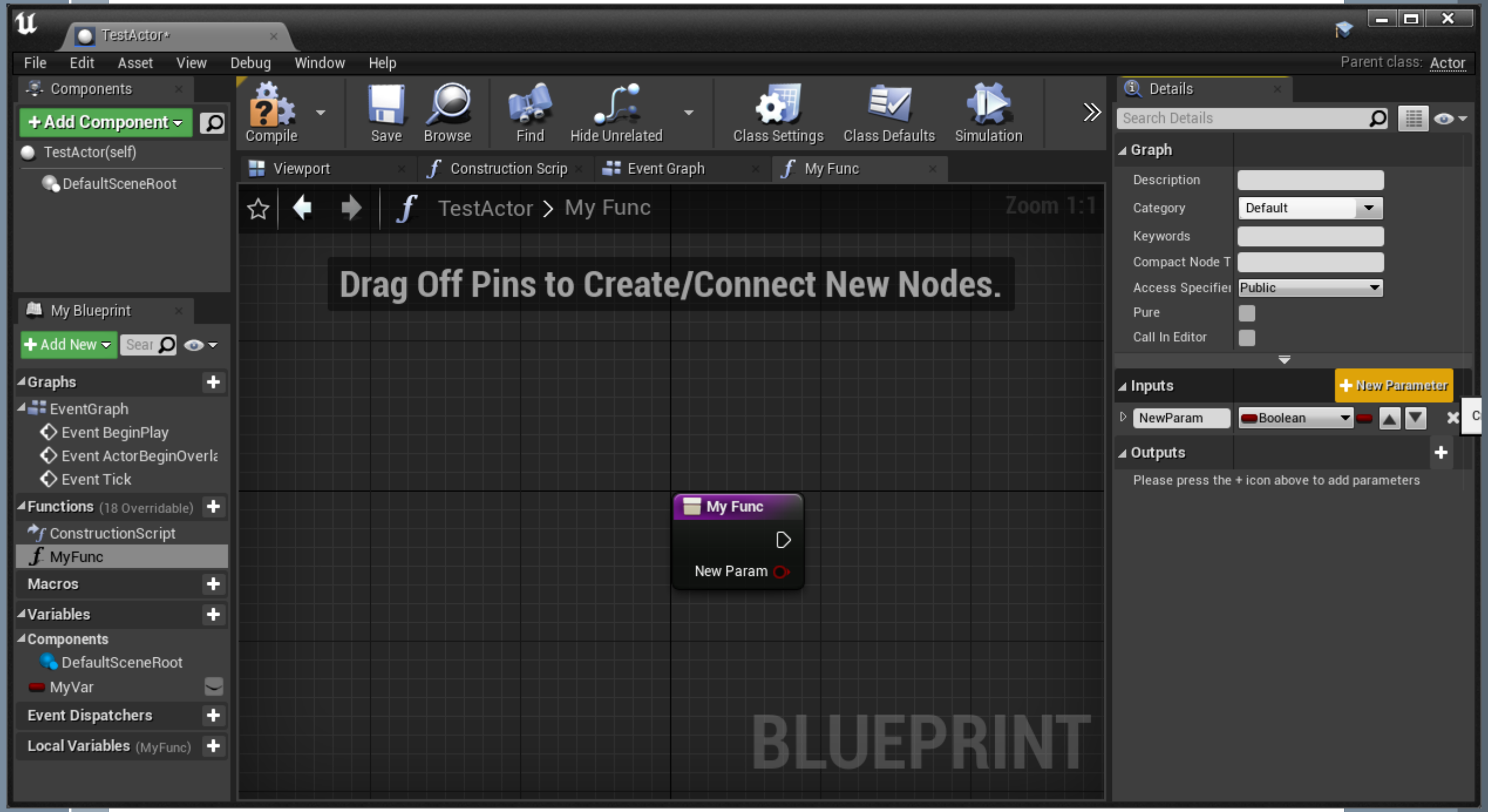
Please press the + icon above to add parameter

Outputs

Please press the + icon above to add parameters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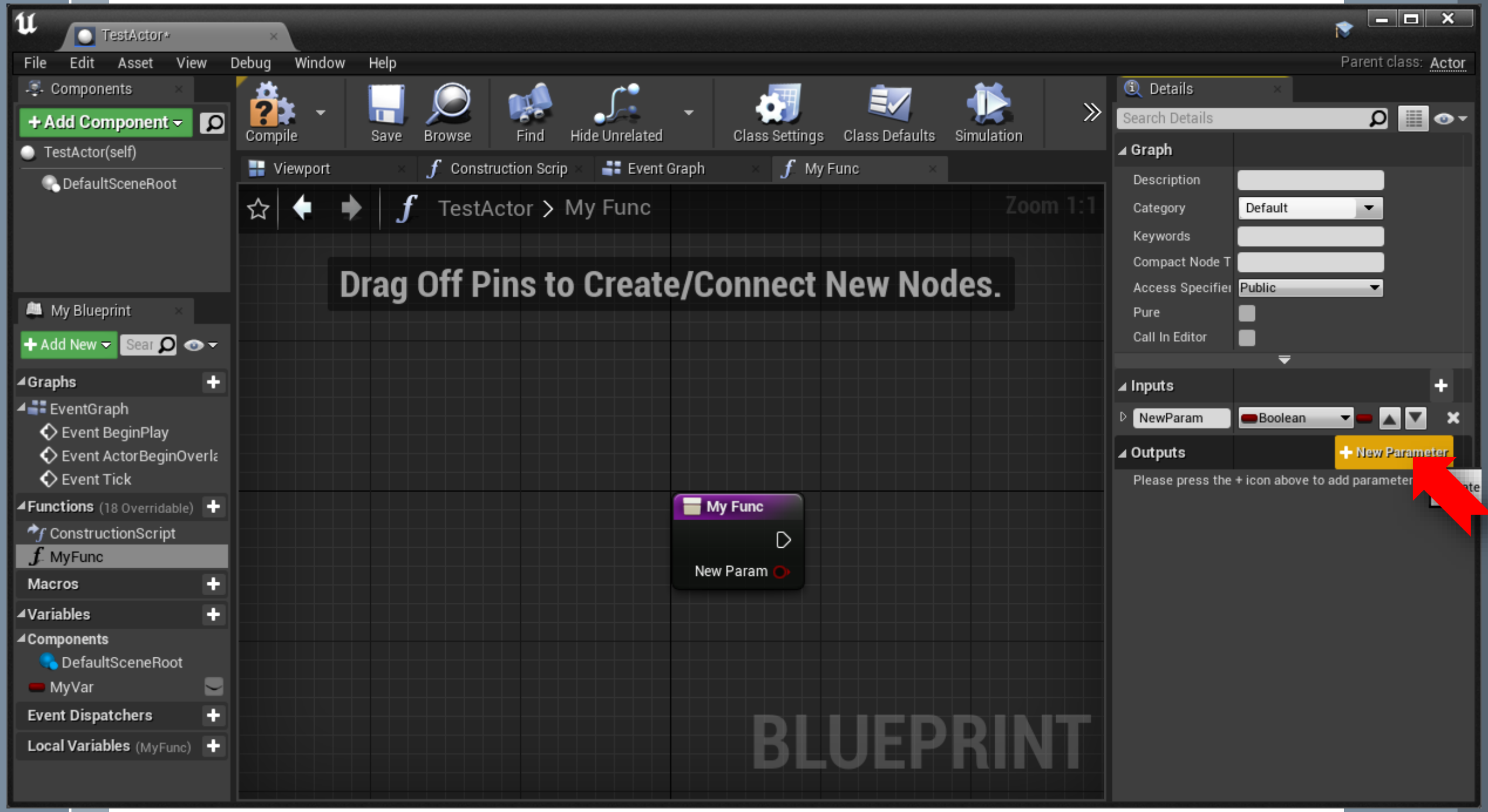
TestActor*
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Event ActorBeginOverla
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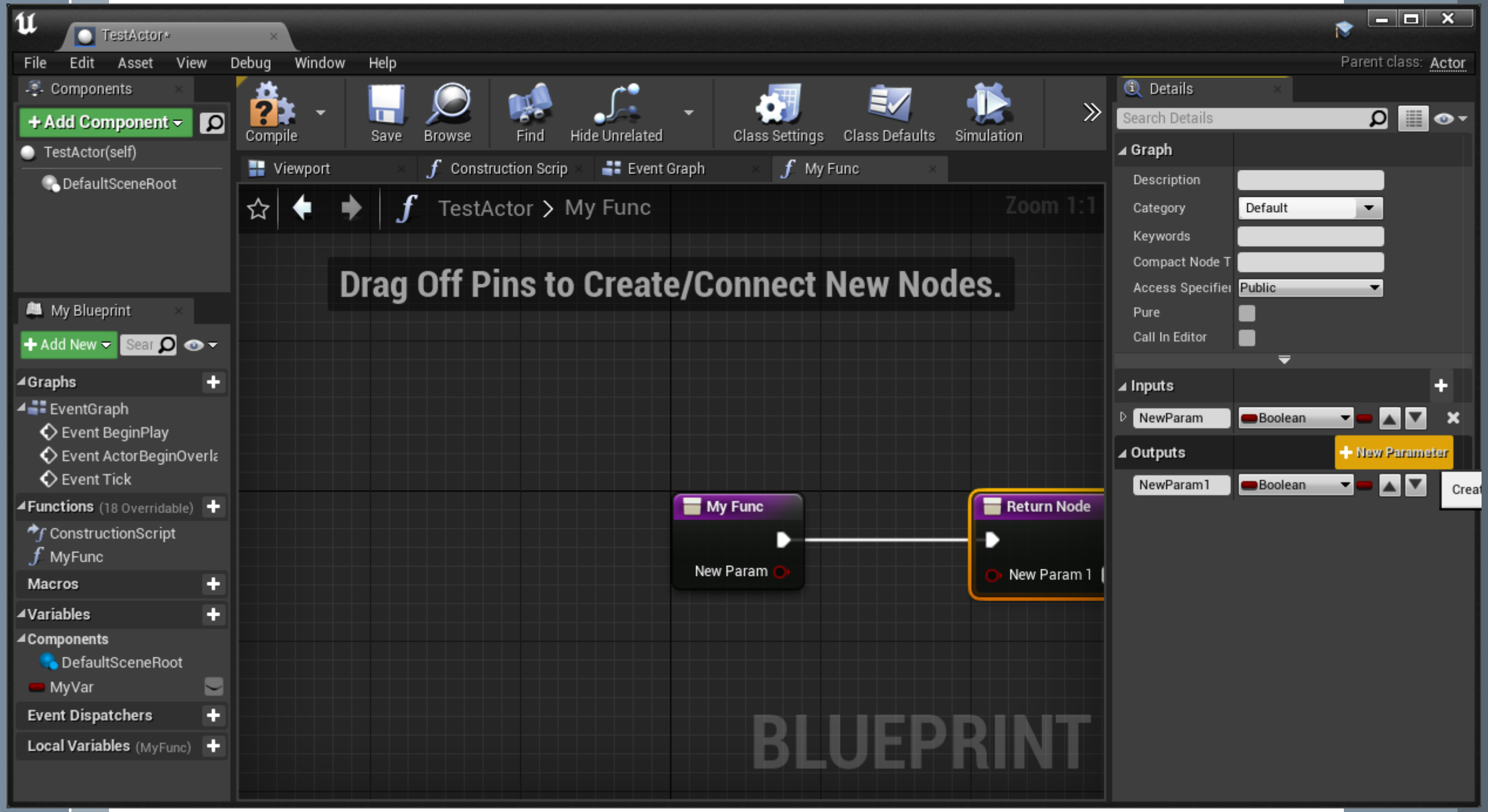
Local Variables (MyFunc)


TestActor*
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Zoom 1:1
Drag Off Pins to Create/Connect New Nodes.
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ConstructionScript
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Event Dispatchers
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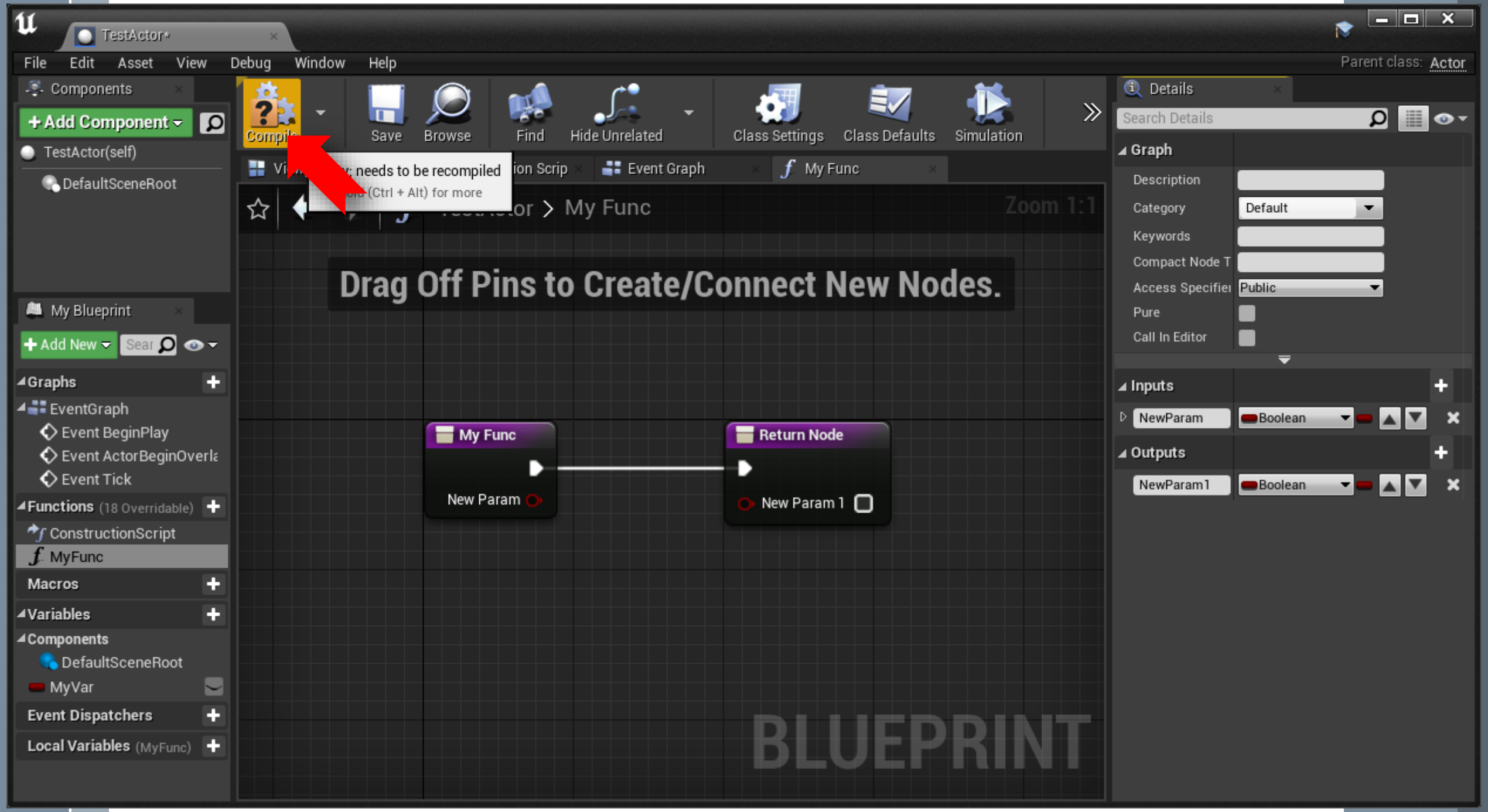
TestActor*
File
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Asset
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Window
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Parent class: Actor
Components
+ Add Component
TestActor(self)
DefaultSceneRoot
Compile
Save
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Find
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Class Settings
Class Defaults
Simulation
needs to be recompiled
(Ctrl + Alt) for more
Event Graph
My Func
Zoom 1:1
Drag Off Pins to Create/Connect New Nodes.
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New Param 1
BLUEPRINT
My Blueprint
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Event BeginPlay
Event ActorBeginOverla
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Functions (18 Overridable)
ConstructionScript
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Event Dispatchers
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Keywords
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Access Specifier
Public
Pure
Call In Editor
Inputs
NewParam
Boolean
Outputs
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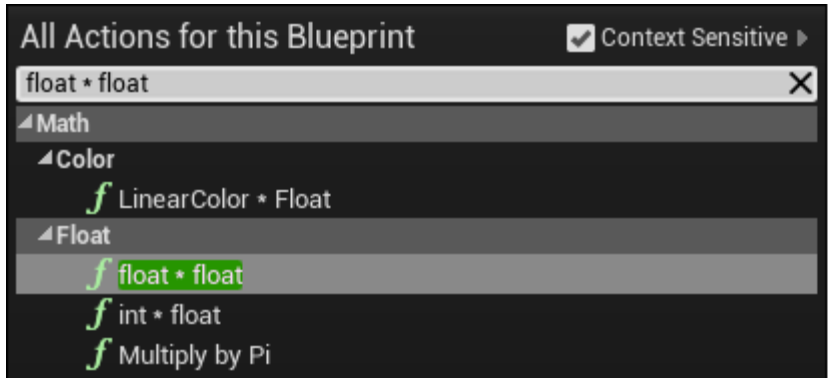
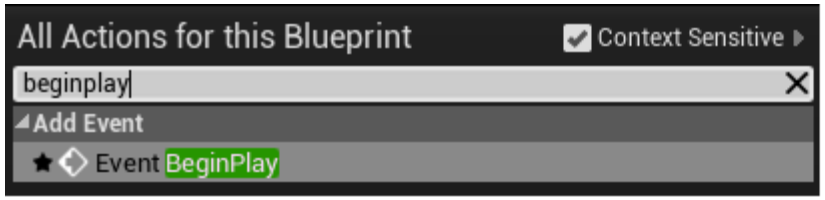
The Float Multiplication Node

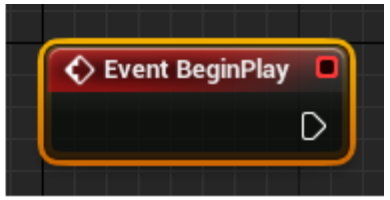
› Blueprint contains many more nodes that are not related to variables or functions.

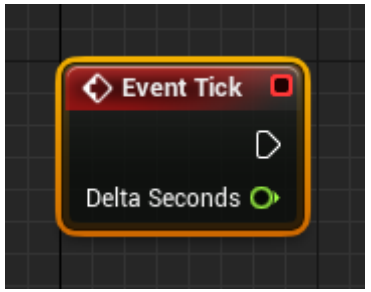


BeginPlay and Tick

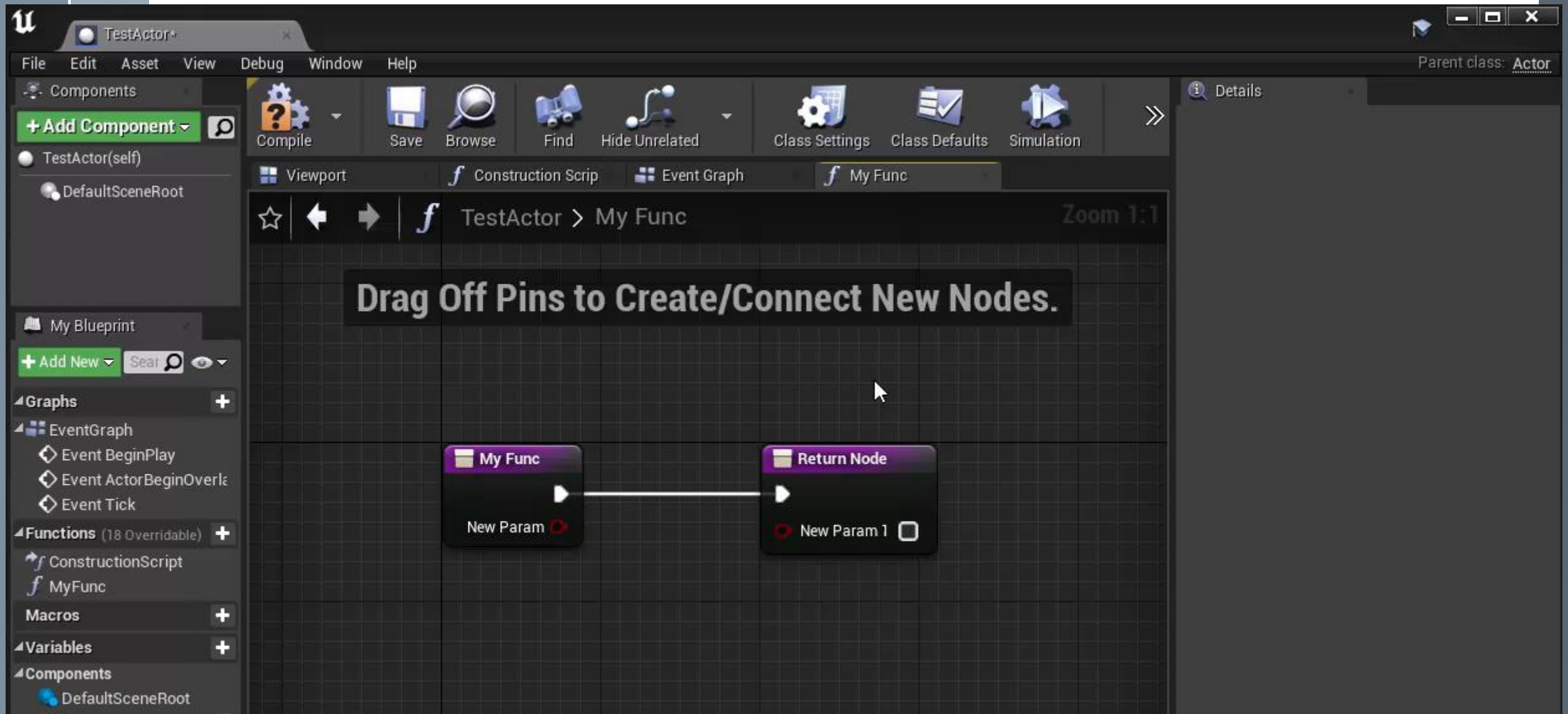
- The BeginPlay event
  - Called either when an instance of this Blueprint class is placed in the level and the level starts being played, or when an instance of this Blueprint class is spawned dynamically while the game is being played
- The Tick event
  - Called every time the game renders an updated image of game 30 or 60 times every second (30 FPS (frames per second) or 60 FPS)

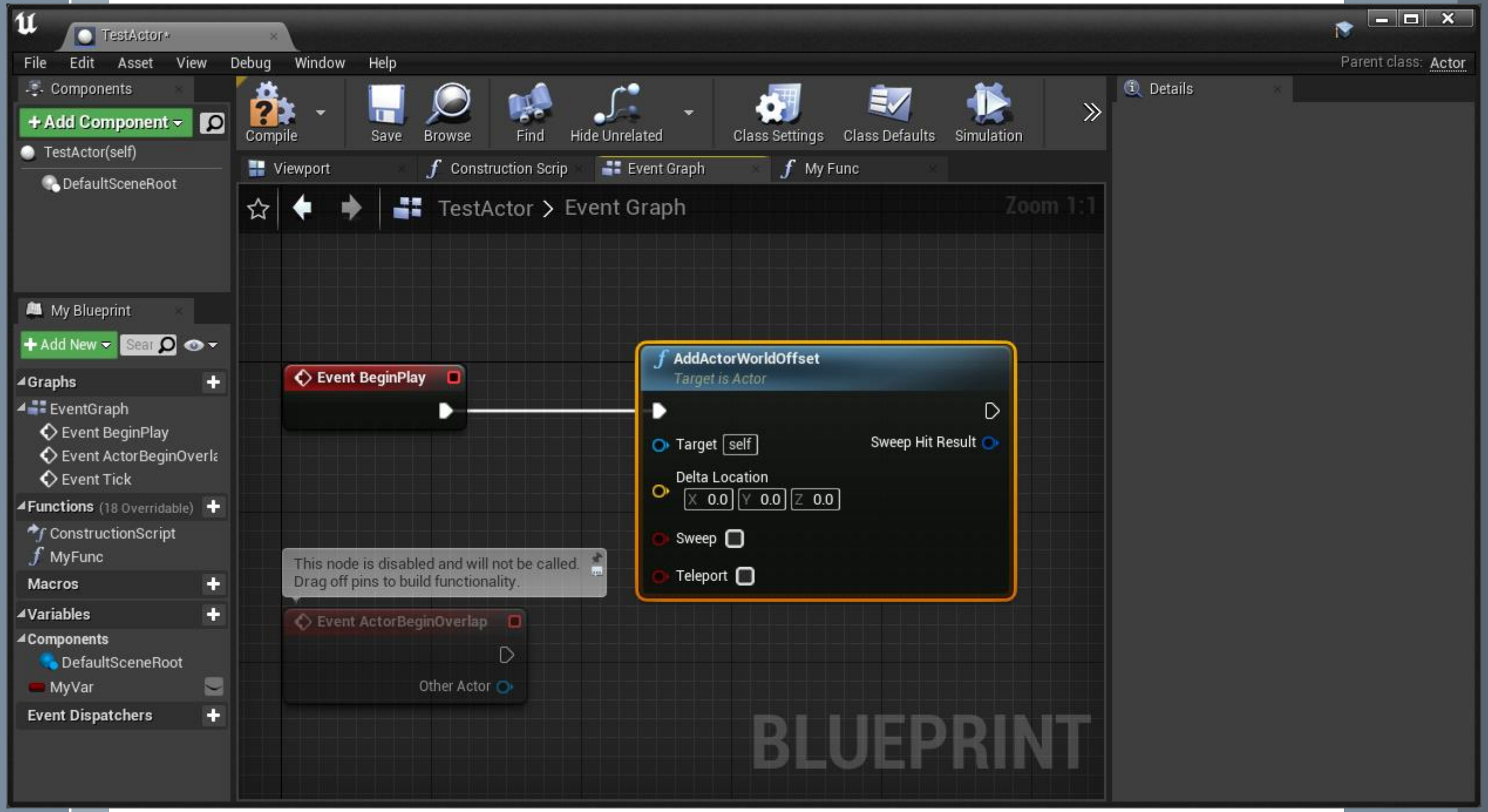






Exercise 1.06: Offsetting the TestActor Class on the Z Axis




TestActor*
File
Edit
Asset
View
Debug
Window
Help
Parent class: Actor
Components
+ Add Component
TestActor(self)
DefaultSceneRoot
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Details
Viewport
Construction Scrip
Event Graph
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TestActor > Event Graph
Zoom 1:1
My Blueprint
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ConstructionScript
MyFunc
Macros
Variables
Components
DefaultSceneRoot
MyVar
Event Dispatchers
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 0.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
BLUEPRINT

TestActor*

File Edit Asset View Debug Window Help

Parent class: Actor

Components

+ Add Component

TestActor(self)

DefaultSceneRoot

Compile Save Browse Find Hide Unrelated Class Settings Class Defaults Simulation

Details

Viewport | Construction Scrip | Event Graph | My Func

TestActor > Event Graph

Zoom 1:1

My Blueprint

+ Add New

Graphs

EventGraph

Event BeginPlay

Event ActorBeginOverla

Event Tick

Functions (18 Overridable)

ConstructionScript

MyFunc

Macros

Variables

Components

DefaultSceneRoot

MyVar

Event Dispatchers

Event BeginPlay

AddActorWorldOffset

Target is Actor

Target self

Sweep Hit Result

Delta Location

X 0.0 Y 0.0 Z 100.0

Sweep

Teleport

This node is disabled and will not be called.
Drag off pins to build functionality.

Event ActorBeginOverlap

Other Actor

BLUEPRINT

TestActor*

File Edit Asset View Debug Window Help

Parent class: Actor

Components

+ Add Component

Search Components

스크립팅

New Blueprint Script Component...

New C++ Component...

Common

Audio

Geometry Cache

Niagara Particle System

Particle System

Point Light

Rect Light

Scene

Skeletal Mesh

Static Mesh

Chaos Destruction Listener

큐브

AI

AIPerception

AIPerception Stimuli Source

Behavior Tree

Blackboard

Components

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MyVar

Event Dispatc

Compile Save Browse Find Hide Unrelated Class Settings Class Defaults Simulation

Construction Scrip Event Graph My Func

TestActor > Event Graph

Zoom 1:1

Event BeginPlay

AddActorWorldOffset

Target is Actor

Target self

Sweep Hit Result

Delta Location

X 0.0 Y 0.0 Z 100.0

Sweep

Teleport

node is disabled and will not be called.

g off pins to build functionality.

Event ActorBeginOverlap

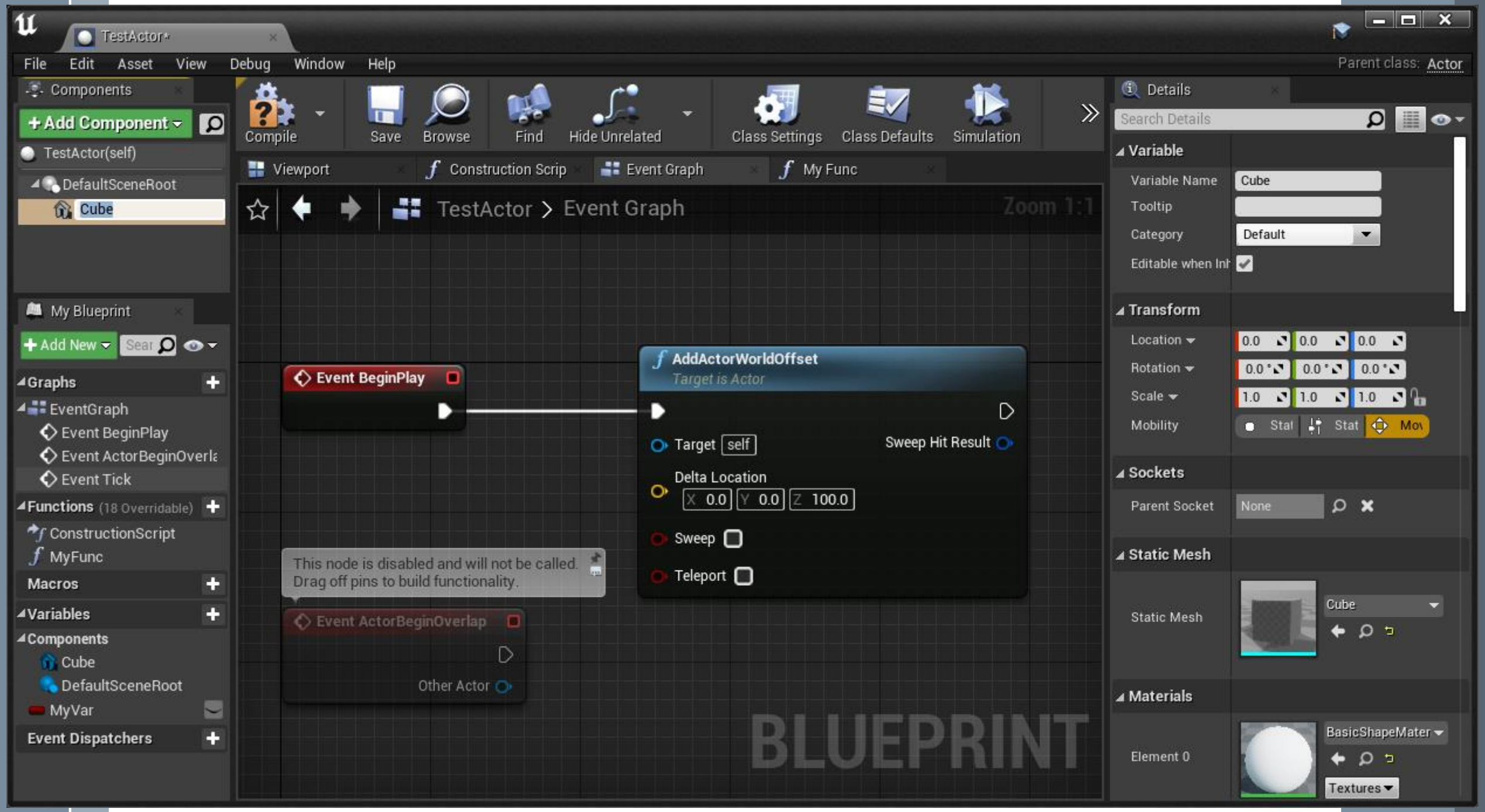
StaticMeshComponent is used to create an instance of a UStaticMesh.
A static mesh is a piece of geometry that consists of a static set of polygons.

@see https://docs.unrealengine.com/latest/INT/Engine/Content/Types/StaticMeshes/
@see UStaticMesh

hold (Ctrl + Alt) for more

BLUEPRINT

Details


TestActor*
File
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Asset
View
Debug
Window
Help
Parent class: Actor
Components
+ Add Component
TestActor(self)
DefaultSceneRoot
Cube
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Viewport
Construction Scrip
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
My Blueprint
+ Add New
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Event BeginPlay
Event ActorBeginOverla
Event Tick
Functions (18 Overridable)
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MyFunc
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Variables
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Cube
DefaultSceneRoot
MyVar
Event Dispatchers
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
BLUEPRINT
Details
Search Details
Variable
Variable Name
Cube
Tooltip
Category
Default
Editable when Inh
Transform
Location
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Rotation
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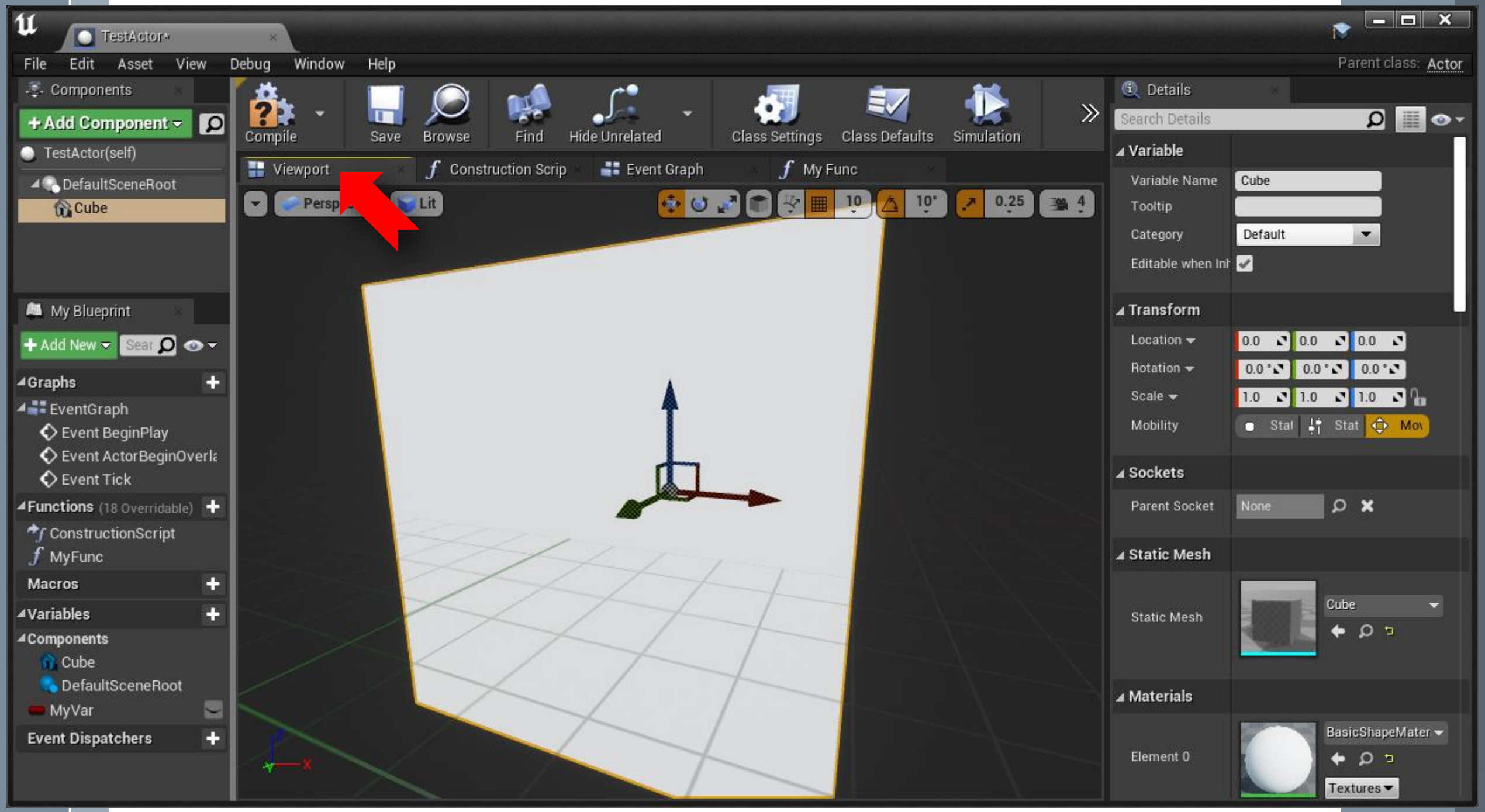
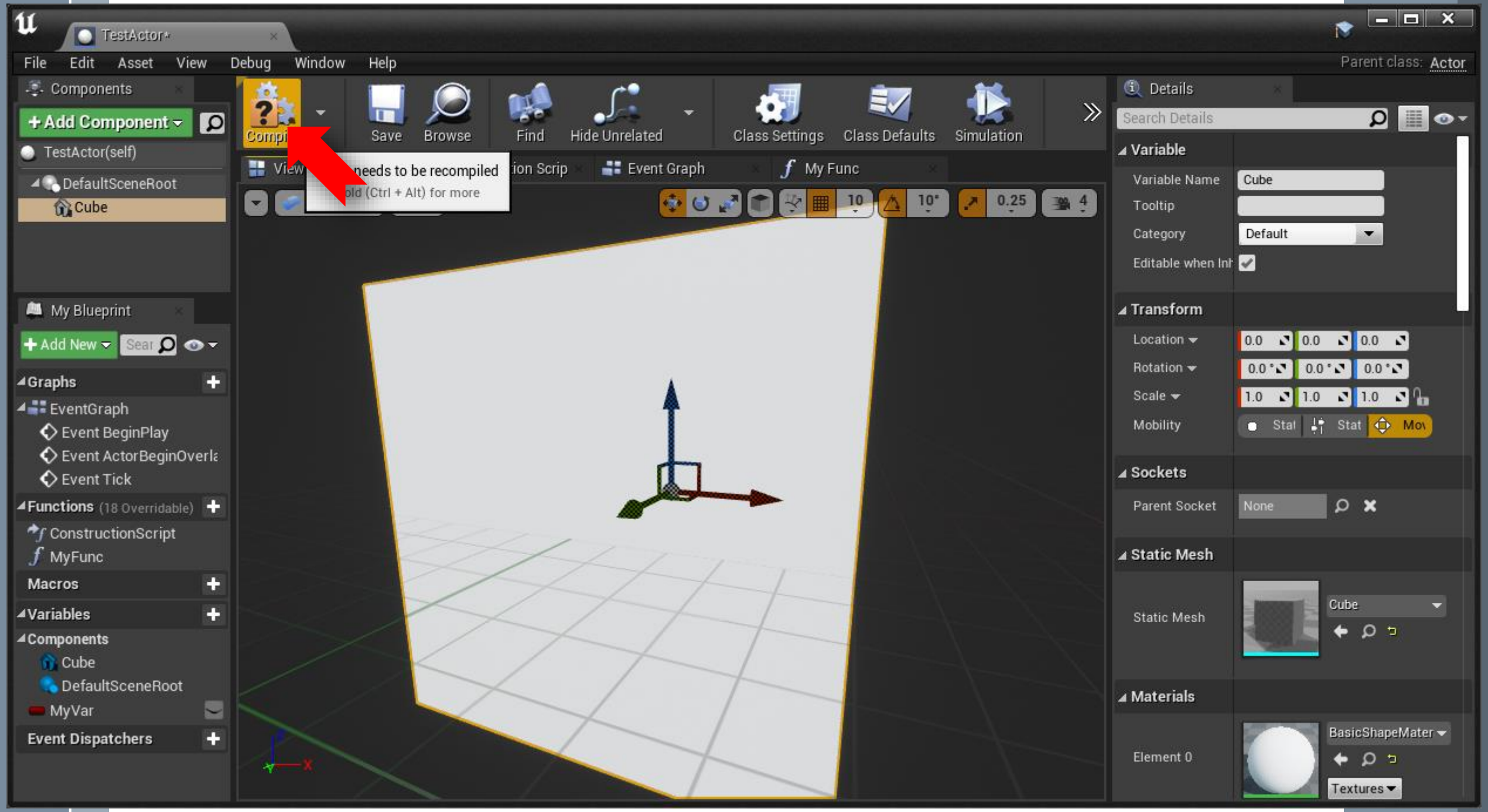
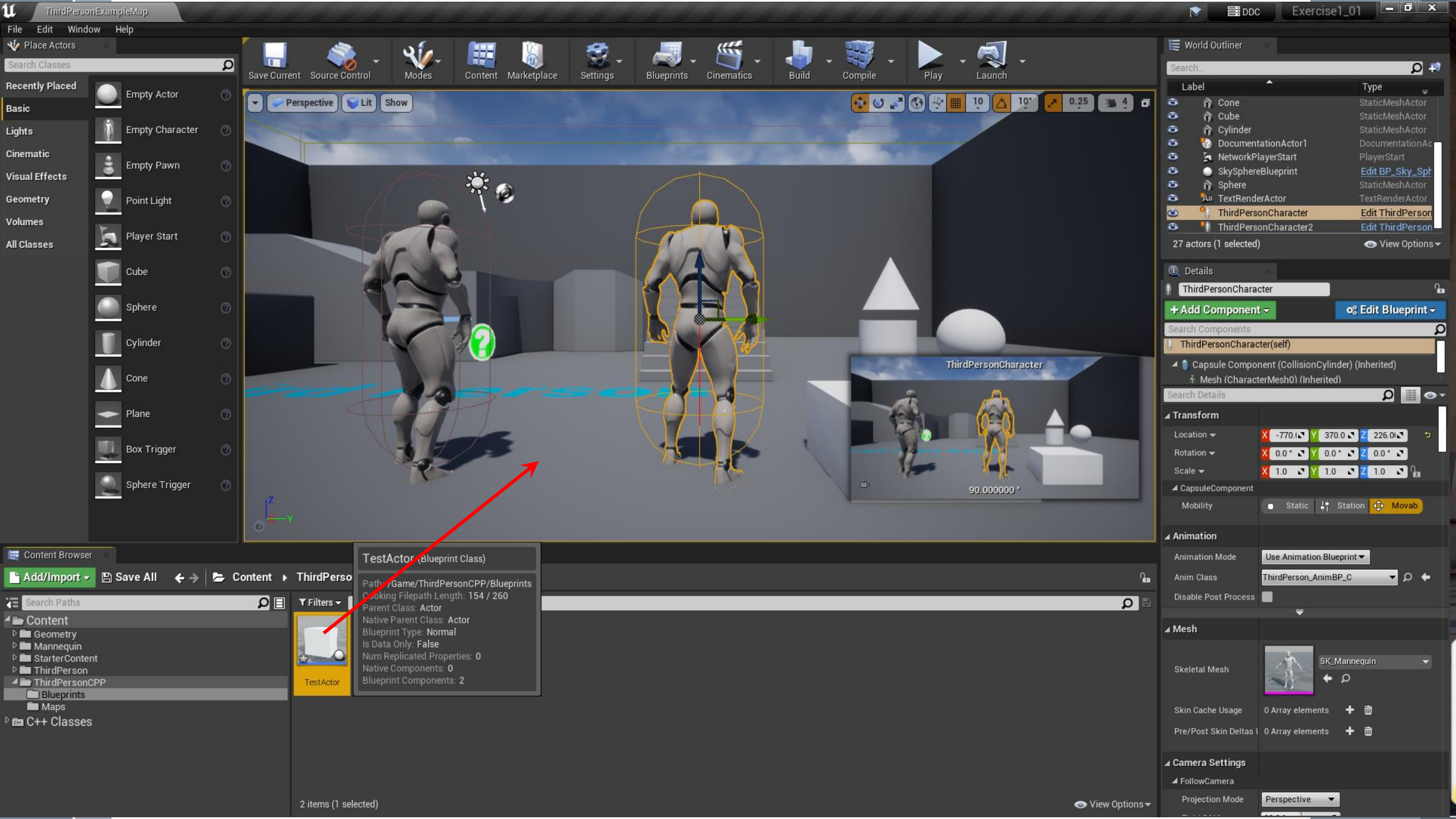
Scale
1.0
1.0
1.0
Mobility
Stat
Stat
Mov
Sockets
Parent Socket
None
Static Mesh
Static Mesh
Cube
Materials
Element 0
BasicShapeMater
Textures


TestActor*
File
Edit
Asset
View
Debug
Window
Help
Parent class: Actor
Components
+ Add Component
TestActor(self)
DefaultSceneRoot
Cube
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Details
Search Details
Viewport
Construction Scrip
Event Graph
My Func
Persp
Lit
10
10°
0.25
4
Variable
Variable Name
Cube
Tooltip
Category
Default
Editable when Inh
Transform
Location
0.0
0.0
0.0
Rotation
0.0°
0.0°
0.0°
Scale
1.0
1.0
1.0
Mobility
Stat
Stat
Mov
Sockets
Parent Socket
None
Static Mesh
Static Mesh
Cube
Materials
Element 0
BasicShapeMater
Textures
My Blueprint
+ Add New
Graphs
EventGraph
Event BeginPlay
Event ActorBeginOverla
Event Tick
Functions (18 Overridable)
ConstructionScript
MyFunc
Macros
Variables
Components
Cube
DefaultSceneRoot
MyVar
Event Dispatchers


TestActor*
File
Edit
Asset
View
Debug
Window
Help
Parent class: Actor
Components
+ Add Component
TestActor(self)
DefaultSceneRoot
Cube
Compi
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
needs to be recompiled
old (Ctrl + Alt) for more
Event Graph
My Func
My Blueprint
+ Add New
Graphs
EventGraph
Event BeginPlay
Event ActorBeginOverla
Event Tick
Functions (18 Overridable)
ConstructionScript
MyFunc
Macros
Variables
Components
Cube
DefaultSceneRoot
MyVar
Event Dispatchers
Details
Search Details
Variable
Variable Name
Cube
Tooltip
Category
Default
Editable when Inh
Transform
Location
Rotation
Scale
Mobility
Sockets
Parent Socket
None
Static Mesh
Static Mesh
Cube
Materials
Element 0
BasicShapeMater
Textures


ThirdPersonExampleMap
DDC
Exercise1_01
File
Edit
Window
Help
Place Actors
Search Classes
Recently Placed
Basic
Lights
Cinematic
Visual Effects
Geometry
Volumes
All Classes
Empty Actor
Empty Character
Empty Pawn
Point Light
Player Start
Cube
Sphere
Cylinder
Cone
Plane
Box Trigger
Sphere Trigger
Save Current
Source Control
Modes
Content
Marketplace
Settings
Blueprints
Cinematics
Build
Compile
Play
Launch
Perspective
Lit
Show
ThirdPersonCharacter
90.000000 °
World Outliner
Search...
Label
Type
Cone
Cube
Cylinder
DocumentationActor1
NetworkPlayerStart
SkySphereBlueprint
Sphere
TextRenderActor
ThirdPersonCharacter
ThirdPersonCharacter2
StaticMeshActor
PlayerStart
Edit BP_Sky_Sph
Edit ThirdPerson
27 actors (1 selected)
View Options
Details
ThirdPersonCharacter
+ Add Component
Edit Blueprint
Search Components
ThirdPersonCharacter(self)
Capsule Component (CollisionCylinder) (Inherited)
Mesh (CharacterMesh0) (Inherited)
Search Details
Transform
Location
Rotation
Scale
CapsuleComponent
Mobility
Static
Station
Movab
Animation
Animation Mode
Use Animation Blueprint
Anim Class
ThirdPerson_AnimBP_C
Disable Post Process
Mesh
Skeletal Mesh
SK_Mannequin
Skin Cache Usage
0 Array elements
Pre/Post Skin Deltas
Camera Settings
FollowCamera
Projection Mode
Perspective
Content Browser
Add/Import
Save All
Content
ThirdPerso
Search Paths
Filters
Content
Geometry
Mannequin
StarterContent
ThirdPerson
ThirdPersonCPP
Blueprints
Maps
C++ Classes
TestActor
TestActor (Blueprint Class)
Path: /Game/ThirdPersonCPP/Blueprints
Cooking Filepath Length: 154 / 260
Parent Class: Actor
Native Parent Class: Actor
Blueprint Type: Normal
Is Data Only: False
Num Replicated Properties: 0
Native Components: 0
Blueprint Components: 2
2 items (1 selected)
View Options

ThirdPersonExampleMap*

DDC | Exercise1_01

File | Edit | Window | Help

Save Current | Source Control | Modes | Content | Marketplace | Settings | Blueprints | Cinematics | Build | Compile | Play | Launch

Play level in the active level editor viewport (Alt+P)
Hold (Ctrl + Alt) for more

Place Actors

Search Classes

- Recently Placed
- Basic
- Lights
- Cinematic
- Visual Effects
- Geometry
- Volumes
- All Classes

Empty Actor
Empty Character
Empty Pawn
Point Light
Player Start
Cube
Sphere
Cylinder
Cone
Plane
Box Trigger
Sphere Trigger

Perspective | Lit | Show

World Outliner

Search...

Label	Type
Cone	StaticMeshActor
Cube	StaticMeshActor
Cylinder	StaticMeshActor
DocumentationActor1	DocumentationAc
NetworkPlayerStart	PlayerStart
SkySphereBlueprint	Edit BP_Sky_Sph
Sphere	StaticMeshActor
TestActor	Edit TestActor
TextRenderActor	TextRenderActor
ThirdPersonCharacter	Edit ThirdPerson

28 actors (1 selected) | View Options

Details

TestActor

+ Add Component | Edit Blueprint

Search Components

TestActor(self)
DefaultSceneRoot (Inherited)
Cube (Inherited)

Search Details

Transform

	X	Y	Z
Location	-520.0	220.0	130.0
Rotation	0.0 °	0.0 °	0.0 °
Scale	1.0	1.0	1.0

Rendering

Actor Hidden In Game
Editor Billboard Scale 1.0

Replication

Net Load on Client ☑

Collision

Generate Overlap Ever
Update Overlaps Meth: Use Config Default
Default Update Overla: Only Update Movable

Input

Auto Receive Input: Disabled
Input Priority: 0

Actor

1 selected in: Persistent Level
Convert Actor: Select a Type

Content Browser

Add/Import | Save All | Content ▸ ThirdPersonCPP ▸ Blueprints

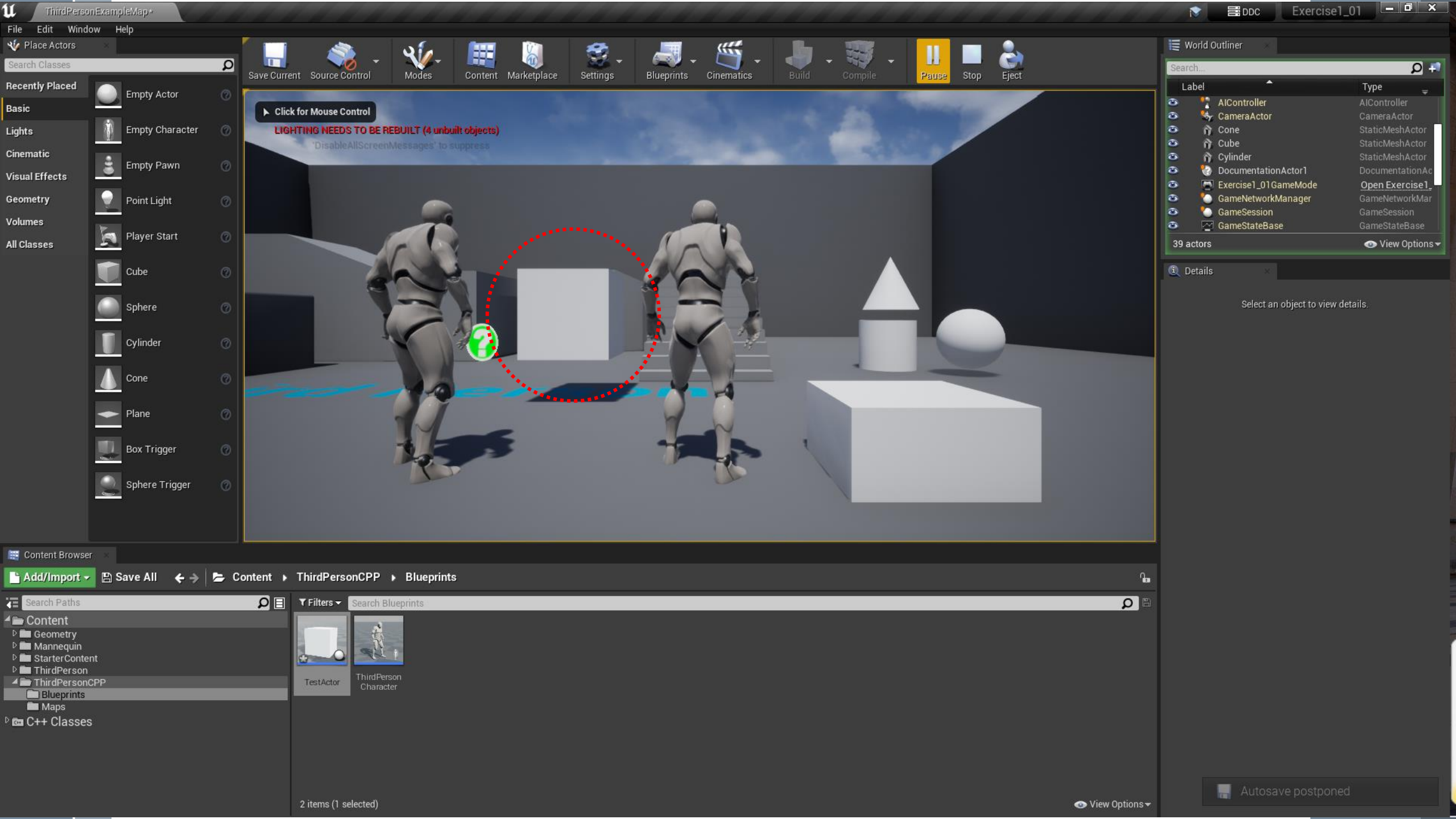
Search Paths

- Content
  - Geometry
  - Mannequin
  - StarterContent
  - ThirdPerson
  - ThirdPersonCPP
    - Blueprints
    - Maps
- C++ Classes

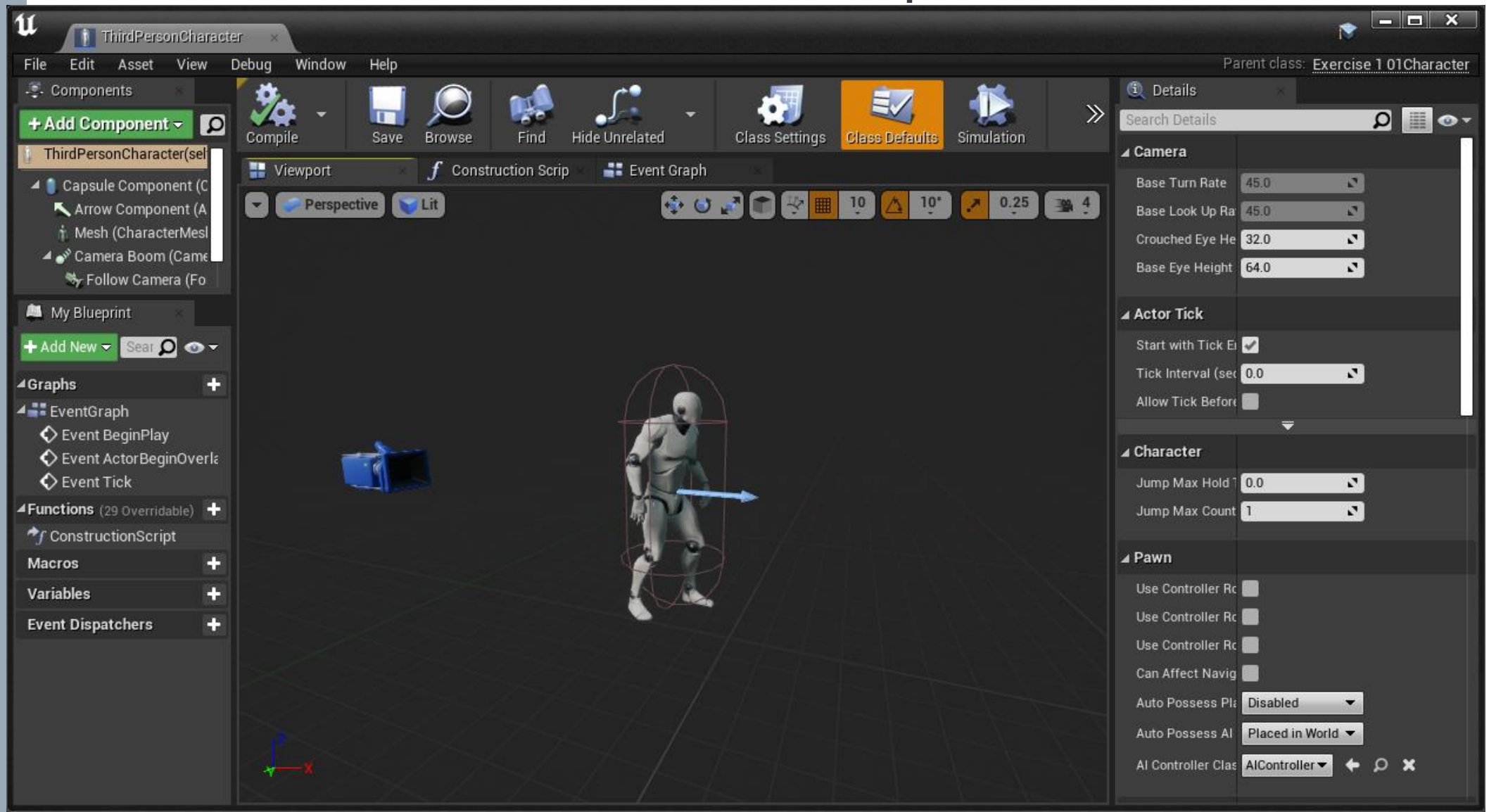
Filters | Search Blueprints

TestActor
ThirdPerson Character

2 items (1 selected) | View Options


ThirdPersonExampleMap*
DDC
Exercise1_01
File
Edit
Window
Help
Place Actors
Search Classes
Recently Placed
Basic
Lights
Cinematic
Visual Effects
Geometry
Volumes
All Classes
Empty Actor
Empty Character
Empty Pawn
Point Light
Player Start
Cube
Sphere
Cylinder
Cone
Plane
Box Trigger
Sphere Trigger
Save Current
Source Control
Modes
Content
Marketplace
Settings
Blueprints
Cinematics
Build
Compile
Pause
Stop
Eject
Click for Mouse Control
LIGHTING NEEDS TO BE REBUILT (4 unbuilt objects)
"DisableAllScreenMessages" to suppress
World Outliner
Search...
Label
Type
AIController
CameraActor
Cone
Cube
Cylinder
DocumentationActor1
Exercise1_01GameMode
GameNetworkManager
GameSession
GameStateBase
39 actors
View Options
Details
Select an object to view details.
Content Browser
Add/Import
Save All
Content
ThirdPersonCPP
Blueprints
Search Paths
Content
Geometry
Mannequin
StarterContent
ThirdPerson
ThirdPersonCPP
Blueprints
Maps
C++ Classes
Filters
Search Blueprints
TestActor
ThirdPerson Character
2 items (1 selected)
View Options
Autosave postponed

ThirdPersonCharacter Blueprint Class (1)

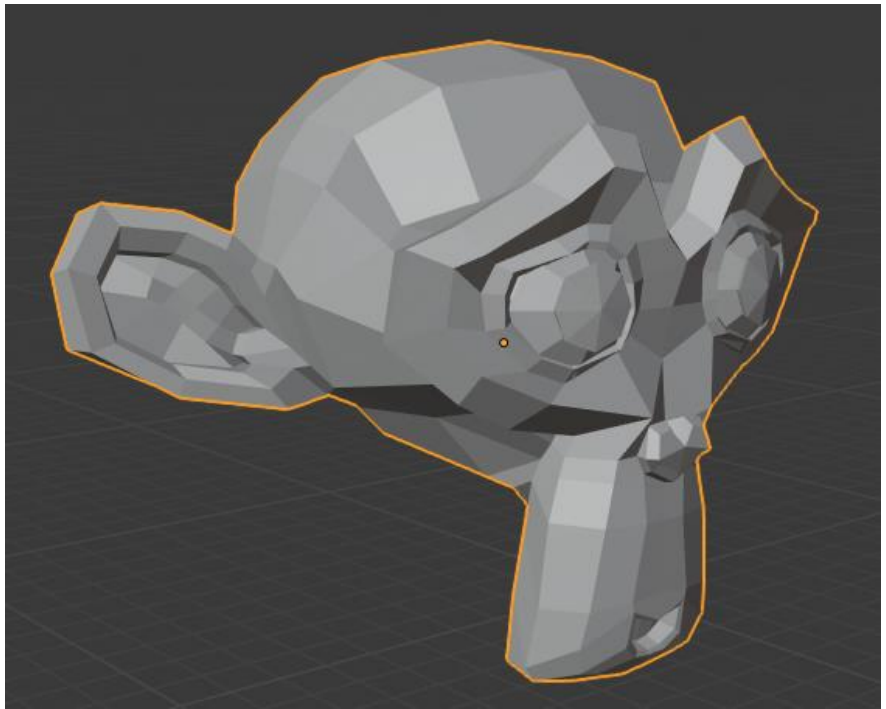


ThirdPersonCharacter Blueprint Class (2)

- Actor Component
  - A Skeleton Mesh Component
  - A Camera Component
  - An Arrow Component
  - A Capsule Component
- Event Graph
  - The logic is defined in the C++ class and not in this Blueprint class. M

Meshes and Materials (1)

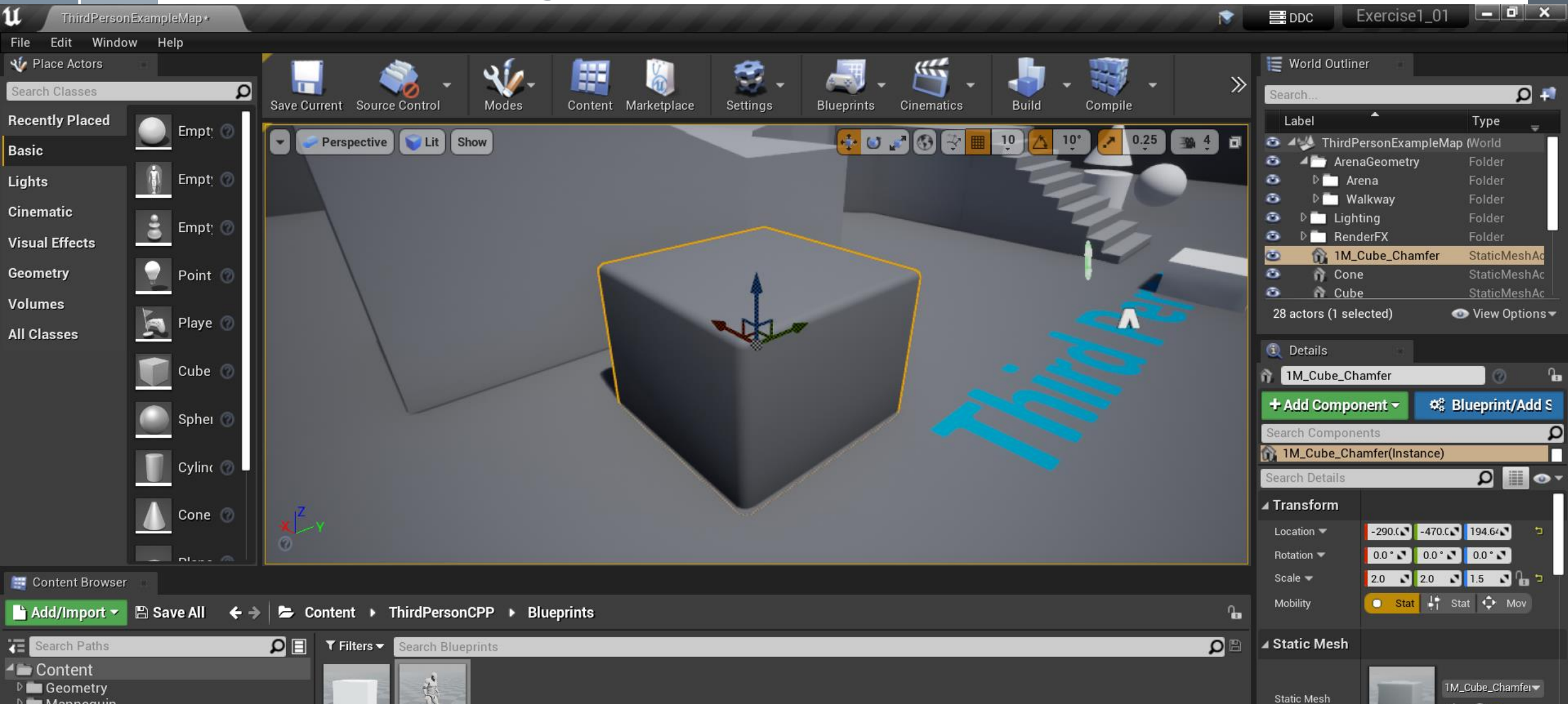
- For a computer to visually represent a 3D object, it needs two things: a 3D mesh and a material.
- Meshes
  - To specify the size and shape of an object



Meshes and Materials (2)

- Materials
  - To specify how a mesh is going to be represented
  - To specify a mesh's color, draw a texture on its surface, or even manipulate its individual vertices
- You can add meshes through Mesh Components, which inherit from the Actor Component class.
  - Two most important types of Mesh Components:
    - Static Mesh Components for meshes that don't have animations (for example, cubes, static level geometry)
    - Skeletal Mesh Components for meshes that have animations (for example, character meshes that play movement animations)

Manipulating Materials in UE4 (1)



ThirdPersonExampleMap*

DDC | Exercise1_01

File | Edit | Window | Help

Place Actors

Search Classes

Recently Placed | Basic | Lights | Cinematic | Visual Effects | Geometry | Volumes | All Classes

Empty | Empty | Empty | Point | Player | Cube | Sphere | Cylinder | Cone

Save Current | Source Control | Modes | Content | Marketplace | Settings | Blueprints | Cinematics | Build | Compile

Perspective | Lit | Show | 10 | 10° | 0.25 | 4

World Outliner

Search...

Label	Type
ThirdPersonExampleMap (World	
ArenaGeometry	Folder
Arena	Folder
Walkway	Folder
Lighting	Folder
RenderFX	Folder
1M_Cube_Chamfer	StaticMeshAc
Cone	StaticMeshAc
Cube	StaticMeshAc

28 actors (1 selected) | View Options

Details

1M_Cube_Chamfer

+ Add Component | Blueprint/Add S

Search Components

1M_Cube_Chamfer(Instance)

Search Details

Scale 2.0 2.0 1.5

Mobility Stat Stat Mov

Static Mesh

Static Mesh 1M_Cube_Chamfer

Materials

Element 0 CubeMaterial

Browse to 'CubeMaterial' in Content Browser

Physics

Content Browser

Add/Import | Save All | Content ▸ Geometry ▸ Meshes

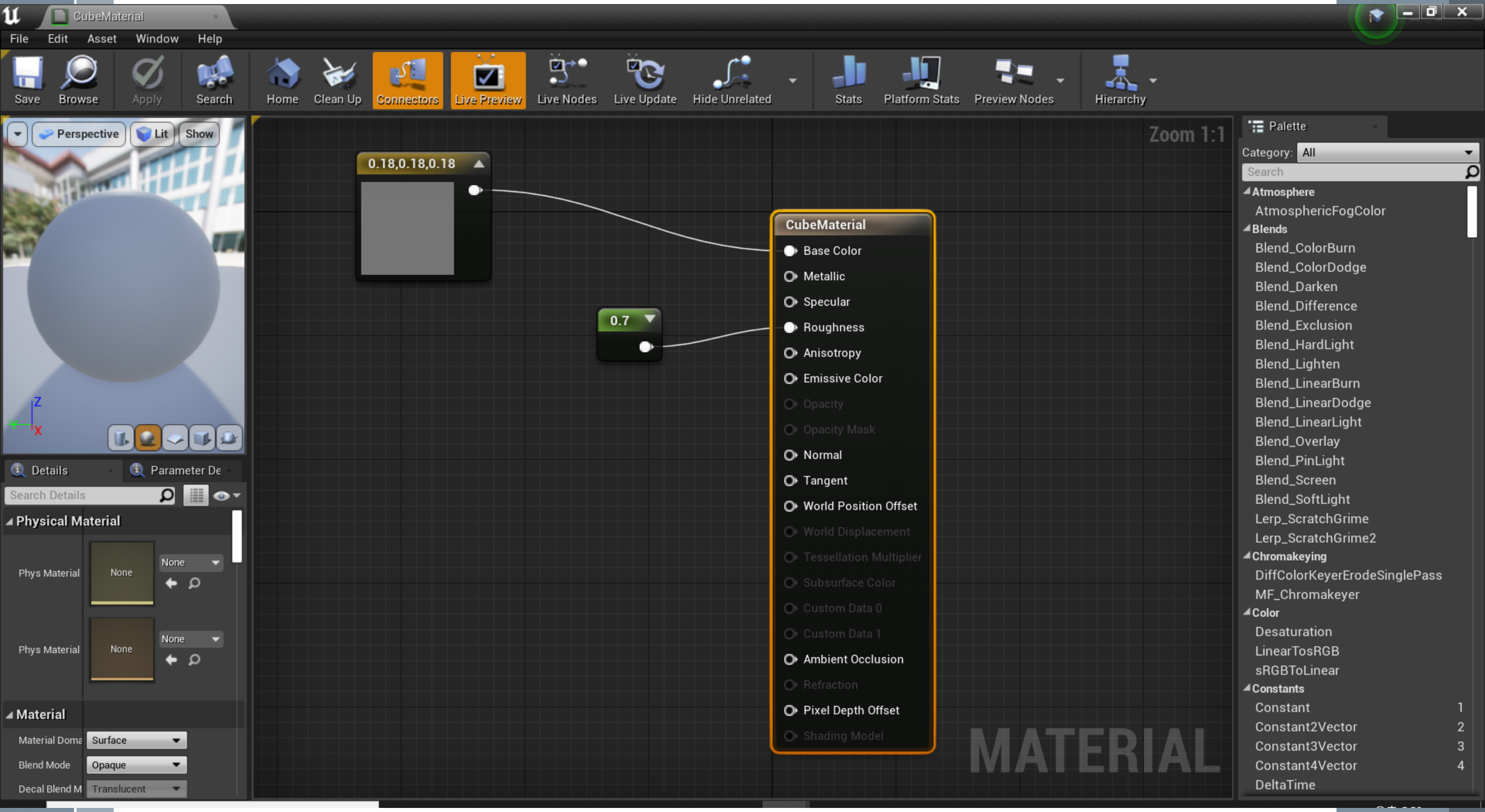
Search Paths

Content
- Geometry
  - Meshes
- Mannequin
- StarterContent
- ThirdPerson
- ThirdPersonCPP
  - Blueprints
  - Maps
- C++ Classes

Filters | Search Meshes

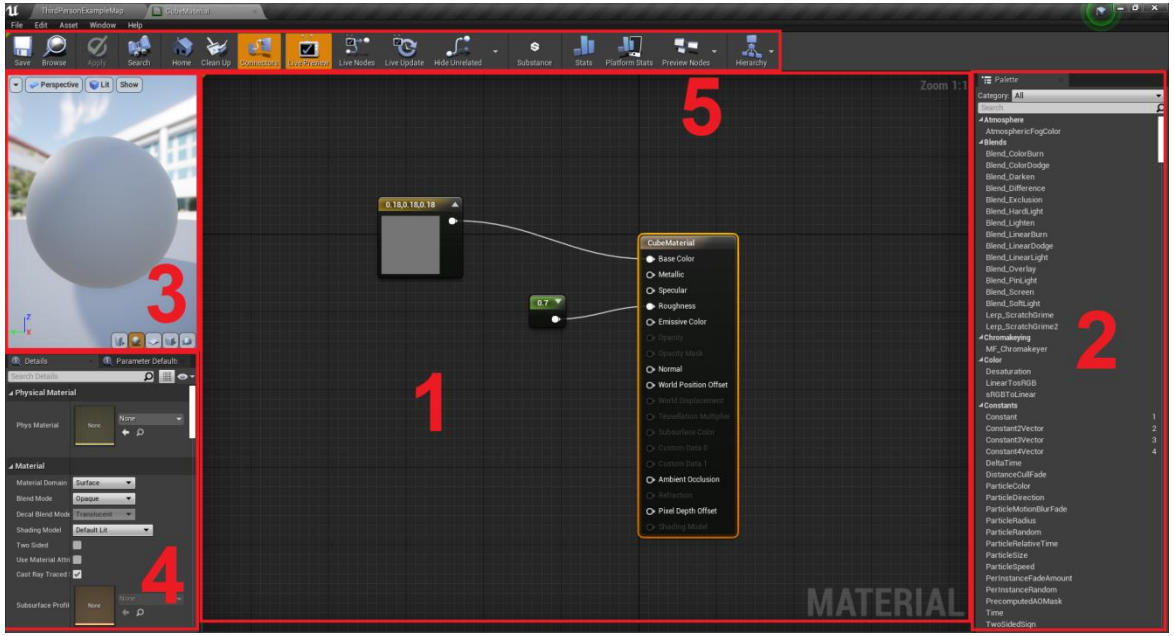
1M_Cube | 1M_Cube_Chamfer | CubeMaterial | TemplateFloor

4 items (1 selected) | View Options

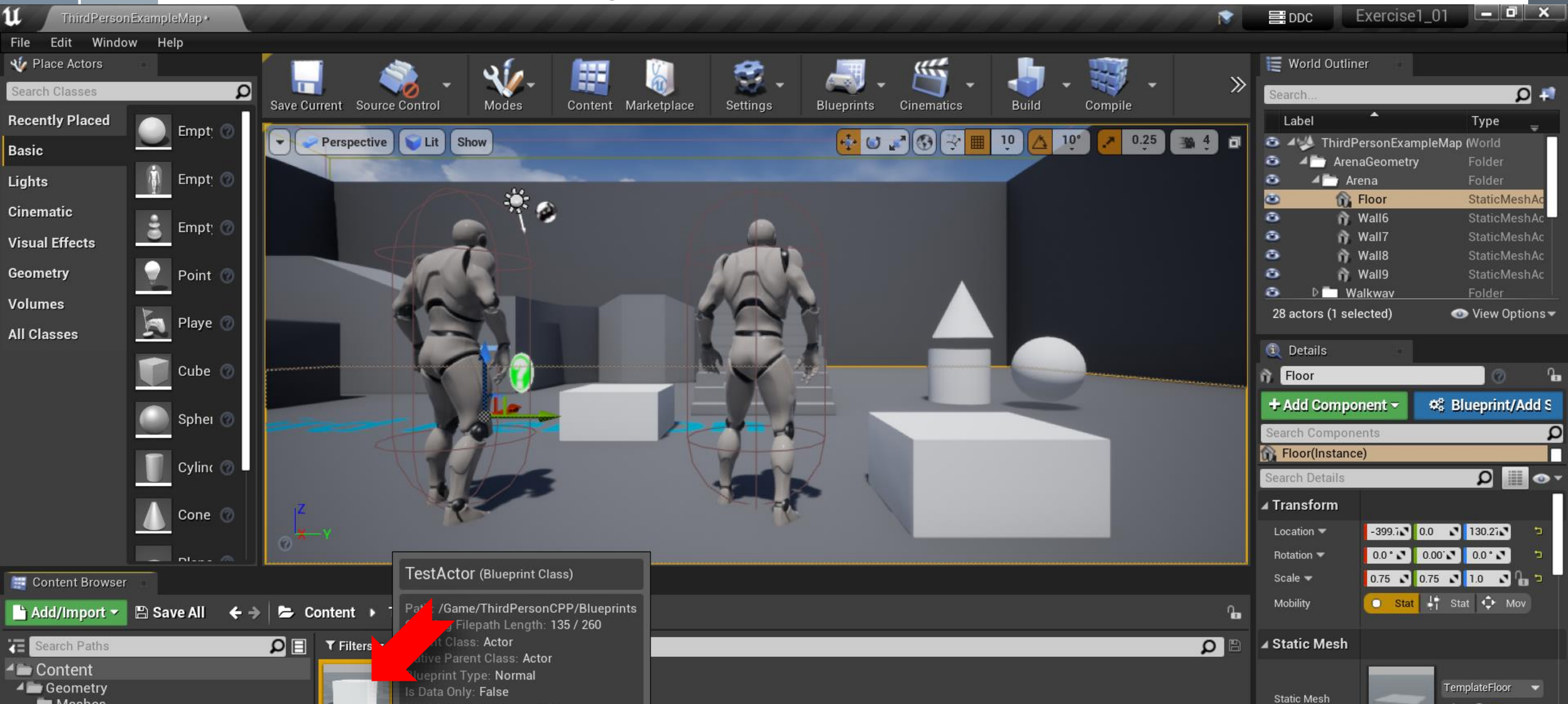

CubeMaterial
File
Edit
Asset
Window
Help
Save
Browse
Apply
Search
Home
Clean Up
Connectors
Live Preview
Live Nodes
Live Update
Hide Unrelated
Stats
Platform Stats
Preview Nodes
Hierarchy
Perspective
Lit
Show
Zoom 1:1
0.18,0.18,0.18
0.7
CubeMaterial
Base Color
Metallic
Specular
Roughness
Anisotropy
Emissive Color
Opacity
Opacity Mask
Normal
Tangent
World Position Offset
World Displacement
Tessellation Multiplier
Subsurface Color
Custom Data 0
Custom Data 1
Ambient Occlusion
Refraction
Pixel Depth Offset
Shading Model
MATERIAL
Details
Parameter De
Search Details
Physical Material
Phys Material
None
Phys Material
None
Material
Material Doma
Surface
Blend Mode
Opaque
Decal Blend M
Translucent
Palette
Category:
All
Search
Atmosphere
AtmosphericFogColor
Blends
Blend_ColorBurn
Blend_ColorDodge
Blend_Darken
Blend_Difference
Blend_Exclusion
Blend_HardLight
Blend_Lighten
Blend_LinearBurn
Blend_LinearDodge
Blend_LinearLight
Blend_Overlay
Blend_PinLight
Blend_Screen
Blend_SoftLight
Lerp_ScratchGrime
Lerp_ScratchGrime2
Chromakeying
DiffColorKeyerErodeSinglePass
MF_Chromakeyer
Color
Desaturation
LinearTosRGB
sRGBToLinear
Constants
Constant 1
Constant2Vector 2
Constant3Vector 3
Constant4Vector 4
DeltaTime

Manipulating Materials in UE4 (2)

- Graph
  - The Material editor's graph is node-based.
- Palette
  - All the nodes to add
- Viewport
  - Preview
- Details
- Toolbar



Activity 1.01: Propelling TestActor on The Z Axis Indefinitely



TestActor

File Edit Asset View Debug Window Help

Parent class: Actor

Components

+ Add Component Search

TestActor(self)

DefaultSceneRoot

Cube

My Blueprint

+ Add New Search

Graphs

EventGraph

Event BeginPlay

Event ActorBeginOverlap

Event Tick

Functions (18 Overridable)

ConstructionScript

MyFunc

Macros

Variables

디폴트

Cube

DefaultSceneRoot

MyVar

Event Dispatchers

Compile Save Browse Find Hide Unrelated Class Settings Class Defaults Simulation Play

Viewport | Construction Scrip | Event Graph | My Func

TestActor > Event Graph

Zoom 1:1

Event BeginPlay

AddActorWorldOffset

Target is Actor

Target self

Sweep Hit Result

Delta Location

X 0.0 Y 0.0 Z 100.0

Sweep

Teleport

This node is disabled and will not be called.
Drag off pins to build functionality.

Event ActorBeginOverlap

Other Actor

This node is disabled and will not be called.
Drag off pins to build functionality.

Event Tick

Delta Seconds

BLUEPRINT

Details

Search Details

Actor Tick

Start with Tick Enabled

Tick Interval (secs) 0.0

Allow Tick Before Begin

Default

My Var

Replication

Only Relevant to Owner

Always Relevant

Replicate Movement

Net Load on Client

Net Use Owner Relevan

Replay Rewindable

Replicates

Net Dormancy Awake

Net Cull Distance Squar 225000000.0

Net Update Frequency 100.0

Min Net Update Frequen 2.0

Net Priority 1.0

Rendering

Actor Hidden In Game

Editor Billboard Scale 1.0

Collision

Generate Overlap Event

Update Overlaps Metho Use Config Default

Default Update Overlaps Only Update Movable

Actor

Can be Damaged

TestActor

File Edit Asset View Debug Window Help

Parent class: Actor

Components

+ Add Component

Search

TestActor(self)

DefaultSceneRoot

Cube

My Blueprint

+ Add New

Search

Graphs

EventGraph

Event BeginPlay

Event ActorBeginOverlap

Event Tick

Functions (18 Overridable)

ConstructionScript

MyFunc

Macros

Variables

디폴트

Cube

DefaultSceneRoot

MyVar

Event Dispatchers

Compile | Save | Browse | Find | Hide Unrelated | Class Settings | Class Defaults | Simulation | Play

Viewport | Construction Scrip | Event Graph | My Func

TestActor > Event Graph

Zoom 1:1

Event BeginPlay

AddActorWorldOffset

Target is Actor

This node is disabled and will not be called.
Drag off pins to build functionality.

Event ActorBeginOverlap

Other Actor

This node is disabled and will not be called.
Drag off pins to build functionality.

Event Tick

Delta Seconds

Executable actions

Context Sensitive

addac

Add Component

Sequence

Add Actor Sequence Component

Layer

Add Actor to Layer

Utilities

Transformation

AddActorLocalOffset

AddActorLocalRotation

AddActorLocalTransform

AddActorWorldOffset

AddActorWorldRotation

AddActorWorldTransform

AddActorWorldTransforml

Adds a delta to the location of this actor in world space.

Target is Actor

BLUEPRINT

Details

Search Details

Actor Tick

Start with Tick Enabled

Tick Interval (secs) 0.0

Allow Tick Before Begin

Default

My Var

Replication

Only Relevant to Owner

Always Relevant

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Net Load on Client

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Actor Hidden In Game

Editor Billboard Scale 1.0

Collision

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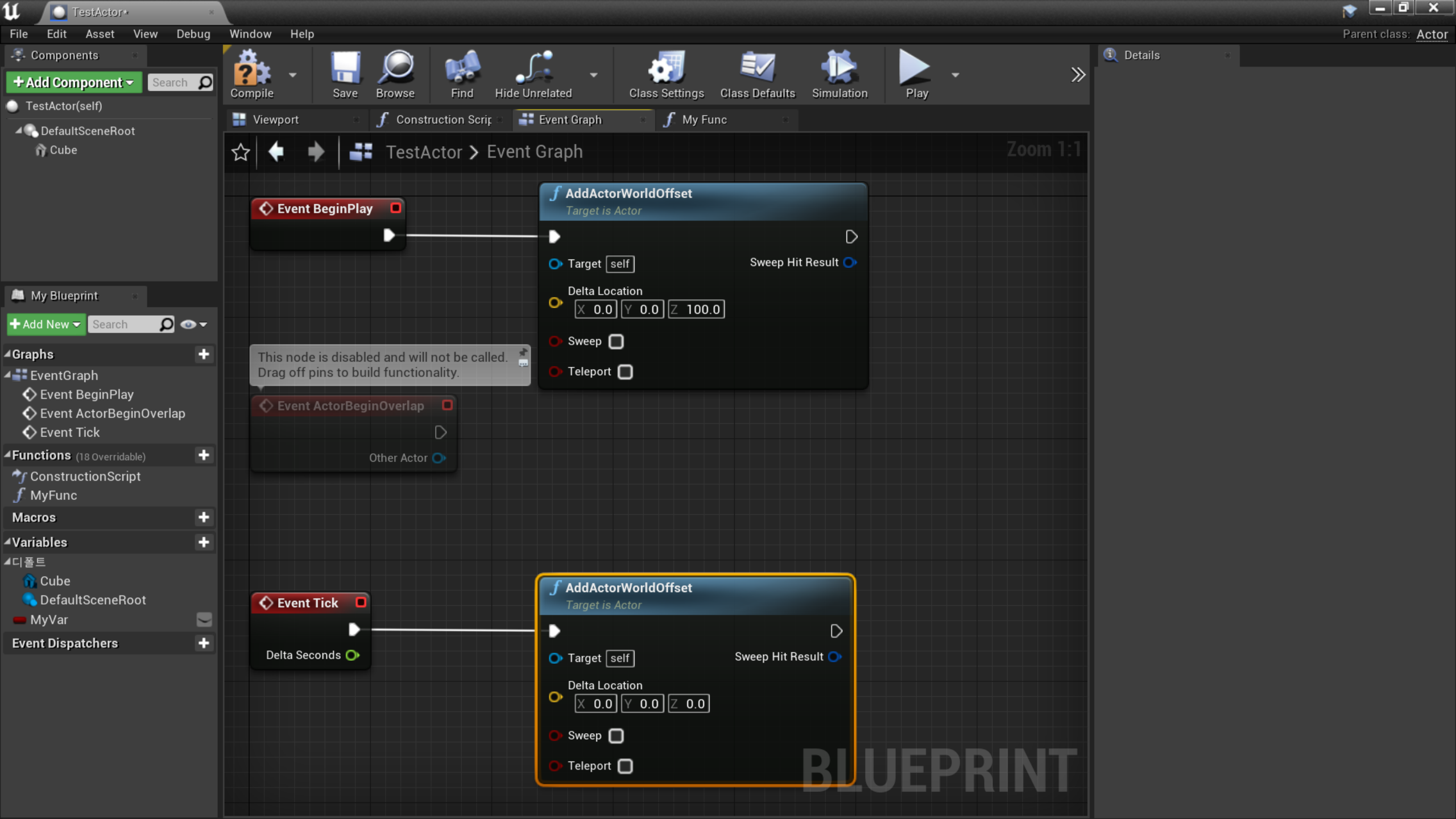
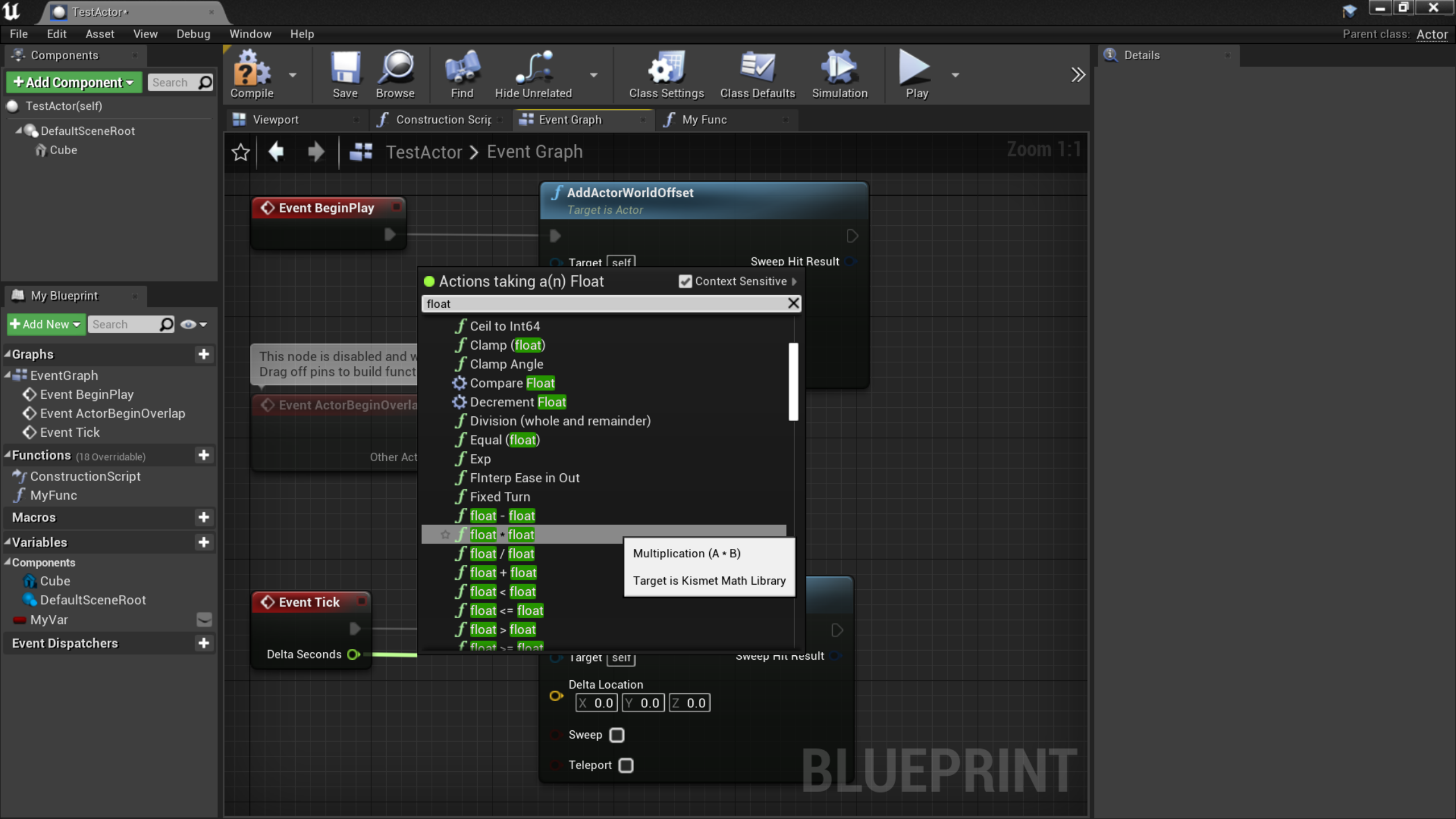
Update Overlaps Metho Use Config Default

Default Update Overlaps Only Update Movable

Actor

Can be Damaged


TestActor*
File
Edit
Asset
View
Debug
Window
Help
Parent class: Actor
Components
Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
Details
Viewport
Construction Scrip
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
My Blueprint
Add New
Search
Graphs
EventGraph
Event BeginPlay
Event ActorBeginOverlap
Event Tick
Functions (18 Overridable)
ConstructionScript
MyFunc
Macros
Variables
디폴트
Cube
DefaultSceneRoot
MyVar
Event Dispatchers
Event Tick
Delta Seconds
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 0.0
Sweep
Teleport
BLUEPRINT


TestActor*
File Edit Asset View Debug Window Help
Parent class: Actor
Components
+ Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
Details
Viewport
Construction Scrip
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
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Macros
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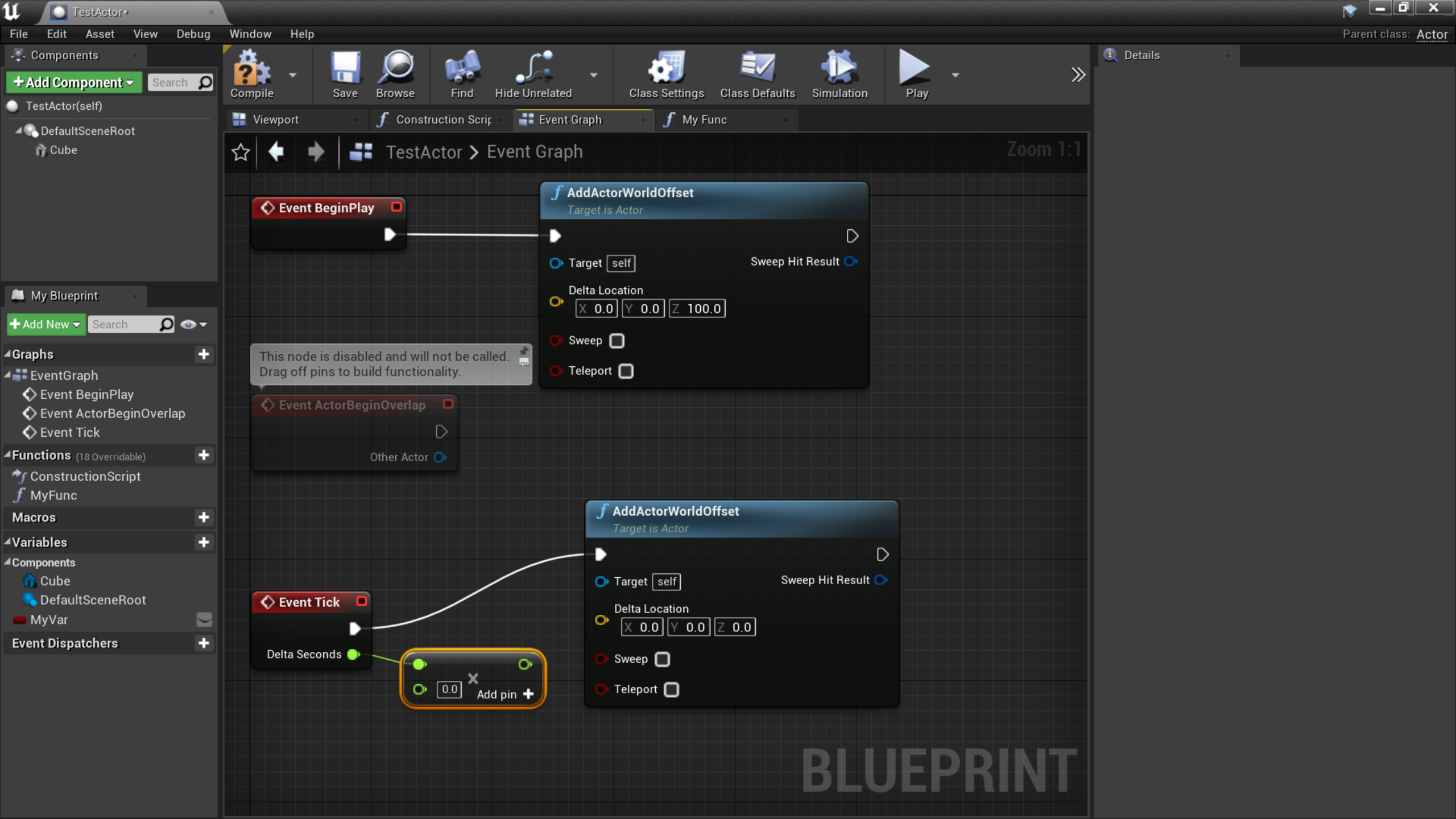
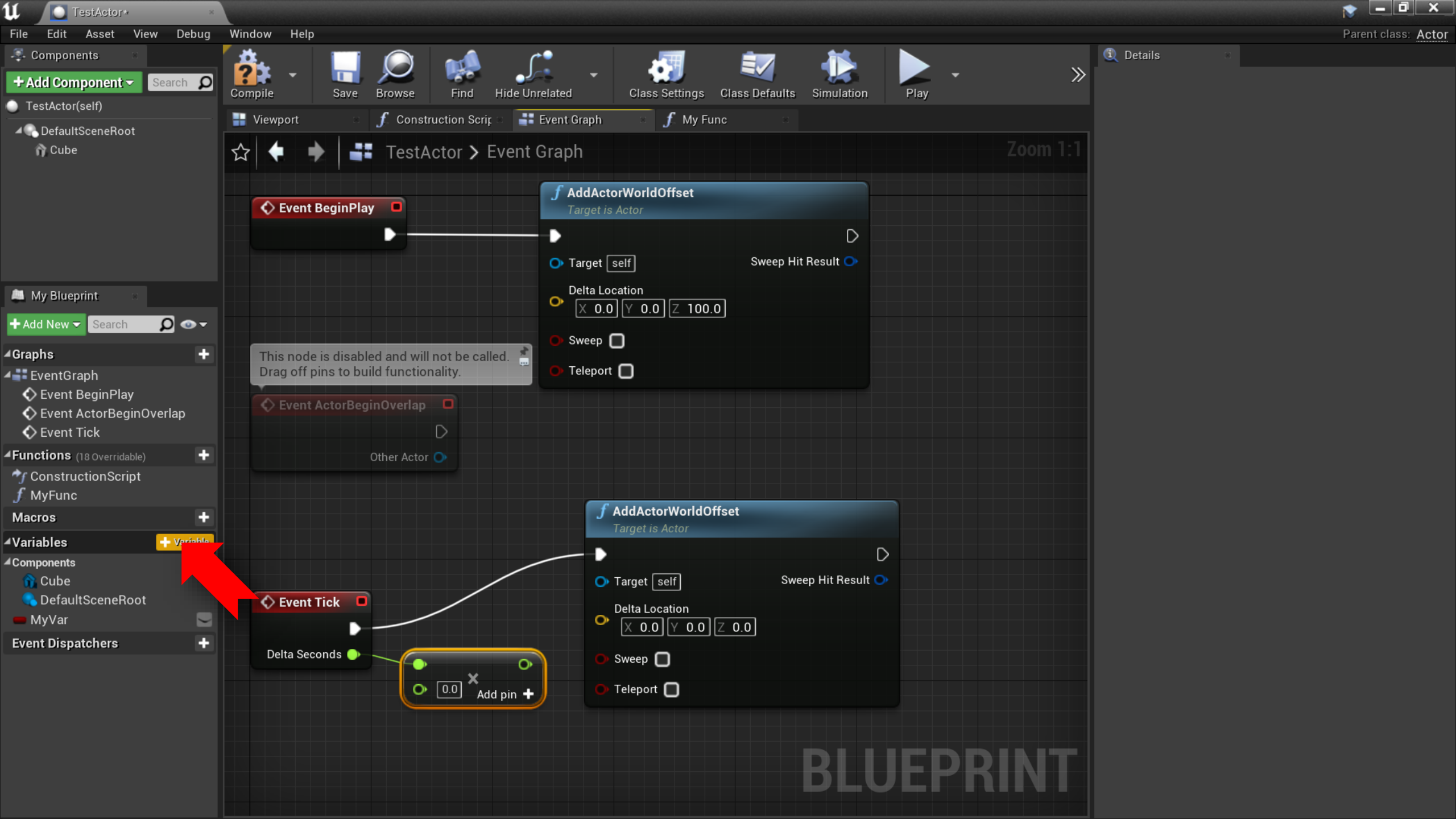
Components
Cube
DefaultSceneRoot
MyVar
Event Dispatchers
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
This node is disabled and w
Drag off pins to build funct
Event ActorBeginOverla
Other Act
Actions taking a(n) Float
Context Sensitive
float
Ceil to Int64
Clamp (float)
Clamp Angle
Compare Float
Decrement Float
Division (whole and remainder)
Equal (float)
Exp
FInterp Ease in Out
Fixed Turn
float - float
float * float
float / float
float + float
float < float
float <= float
float > float
Multiplication (A * B)
Target is Kismet Math Library
Event Tick
Delta Seconds
Delta Location
X 0.0
Y 0.0
Z 0.0
Sweep
Teleport
BLUEPRINT


TestActor*
File
Edit
Asset
View
Debug
Window
Help
Parent class: Actor
Components
Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
Details
Viewport
Construction Scrip
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
My Blueprint
Add New
Search
Graphs
EventGraph
Event BeginPlay
Event ActorBeginOverlap
Event Tick
Functions (18 Overridable)
ConstructionScript
MyFunc
Macros
Variables
Components
Cube
DefaultSceneRoot
MyVar
Event Dispatchers
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 0.0
Sweep
Teleport
Event Tick
Delta Seconds
0.0
Add pin
BLUEPRINT


TestActor*
File
Edit
Asset
View
Debug
Window
Help
Parent class: Actor
Components
Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
Details
Viewport
Construction Scrip
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
My Blueprint
Add New
Search
Graphs
EventGraph
Event BeginPlay
Event ActorBeginOverlap
Event Tick
Functions (18 Overridable)
ConstructionScript
MyFunc
Macros
Variables
Variable
Components
Cube
DefaultSceneRoot
MyVar
Event Dispatchers
Event Tick
Delta Seconds
0.0
Add pin
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 0.0
Sweep
Teleport
BLUEPRINT

TestActor*

File Edit Asset View Debug Window Help

Parent class: Actor

Components

+ Add Component | Search

TestActor(self)

- DefaultSceneRoot
  - Cube

My Blueprint

+ Add New | Search

Graphs
- EventGraph
  - Event BeginPlay
  - Event ActorBeginOverlap
  - Event Tick

Functions (18 Overridable)
- ConstructionScript
- MyFunc

Macros

Variables

Components
- Cube
- DefaultSceneRoot

- MyVar
- VerticalSpeed

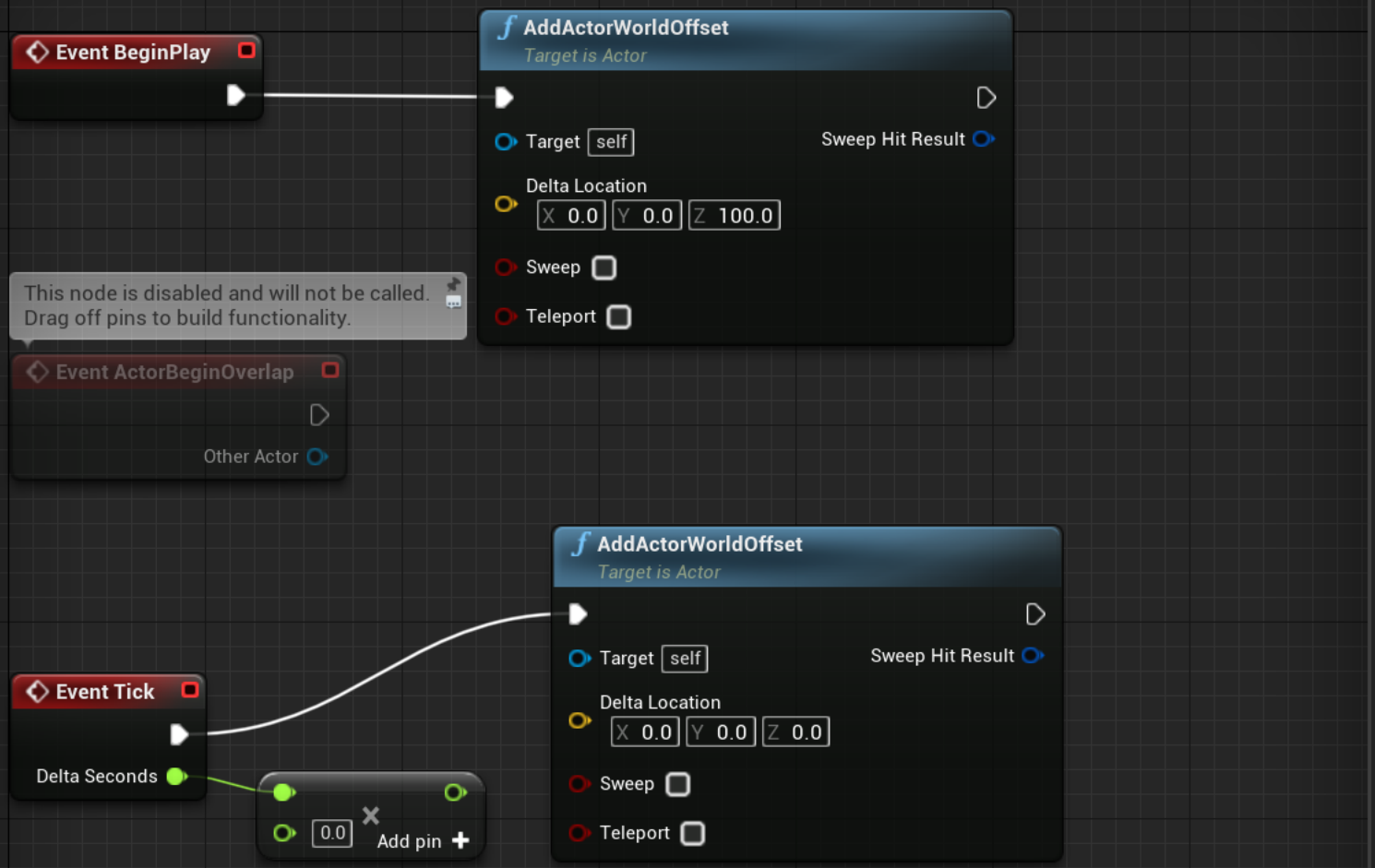
Event Dispatchers

Compile | Save | Browse | Find | Hide Unrelated | Class Settings | Class Defaults | Simulation | Play

Viewport | Construction Scrip | Event Graph | My Func

TestActor > Event Graph

Zoom 1:1



BLUEPRINT

Details

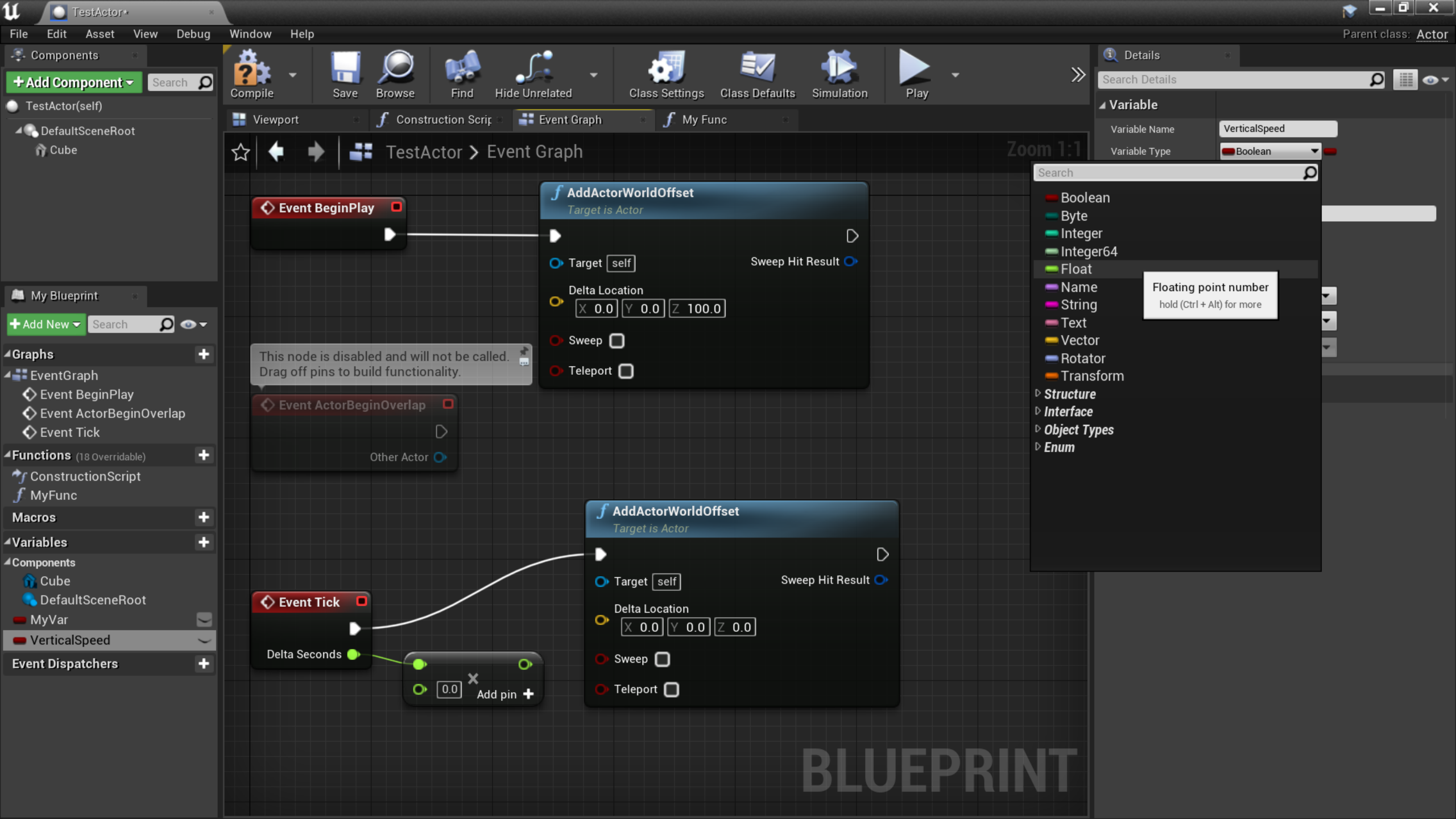
Search Details

Variable

Variable Name	NewVar_0
Variable Type	Boolean
Instance Editable	
Blueprint Read Only	
Tooltip	
Expose on Spawn	
Private	
Expose to Cinematics	
Category	Default
Replication	None
Replication Condition	None

Default Value

Please compile the blueprint


TestActor*
File Edit Asset View Debug Window Help
Parent class: Actor
Components
+ Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
My Blueprint
+ Add New
Search
Graphs
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Compile
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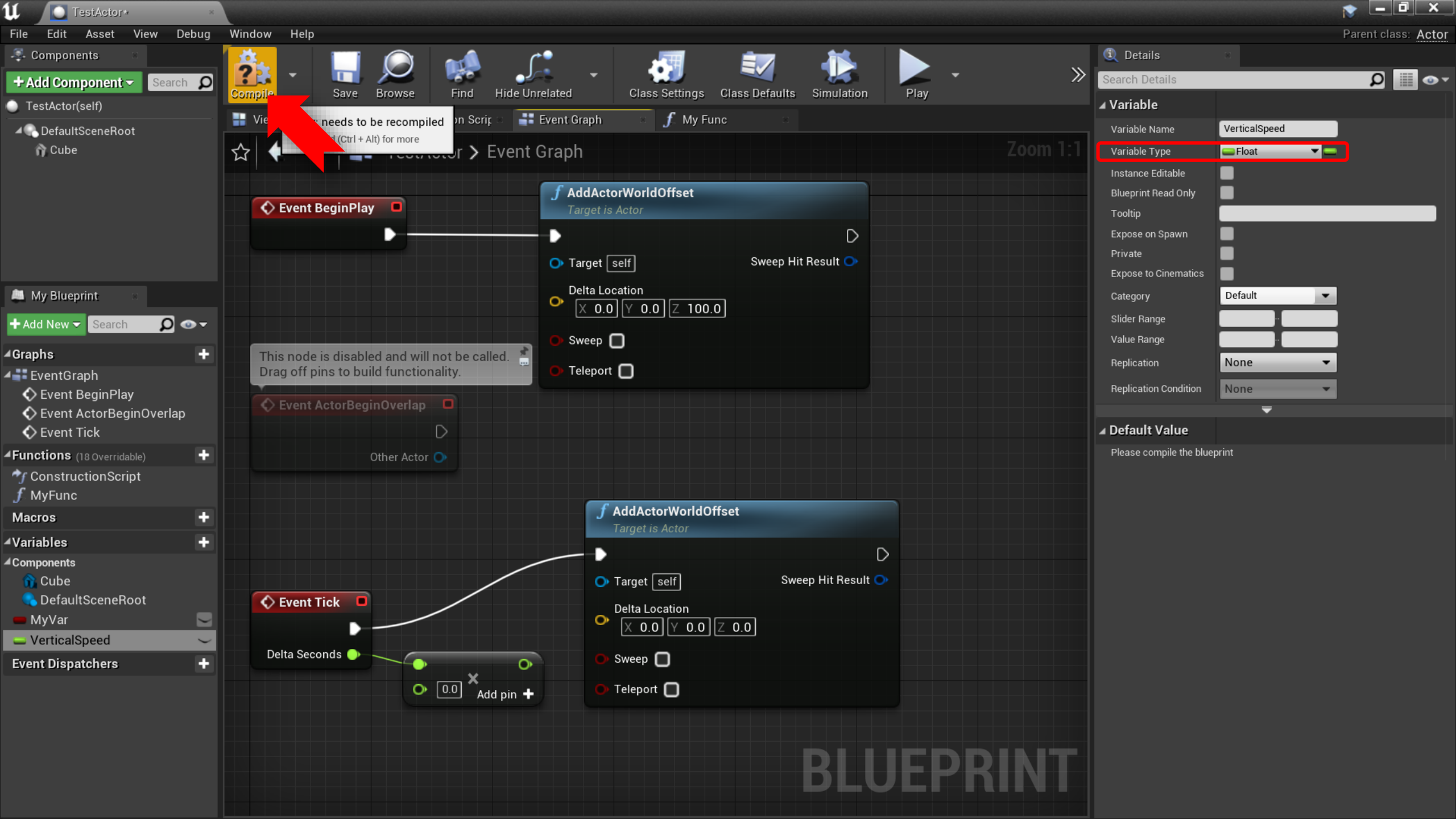
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
Viewport
Construction Scrip
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 0.0
Sweep
Teleport
Event Tick
Delta Seconds
0.0
Add pin
BLUEPRINT
Details
Search Details
Variable
Variable Name
VerticalSpeed
Variable Type
Boolean
Search
Boolean
Byte
Integer
Integer64
Float
Name
String
Text
Vector
Rotator
Transform
Structure
Interface
Object Types
Enum
Floating point number
hold (Ctrl + Alt) for more


TestActor*
File Edit Asset View Debug Window Help
Parent class: Actor
Components
+ Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
needs to be recompiled
(Ctrl + Alt) for more
Event Graph
My Func
Event Graph
Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 0.0
Sweep
Teleport
Event Tick
Delta Seconds
0.0
Add pin
BLUEPRINT
My Blueprint
+ Add New
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Graphs
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Event BeginPlay
Event ActorBeginOverlap
Event Tick
Functions (18 Overridable)
ConstructionScript
MyFunc
Macros
Variables
Components
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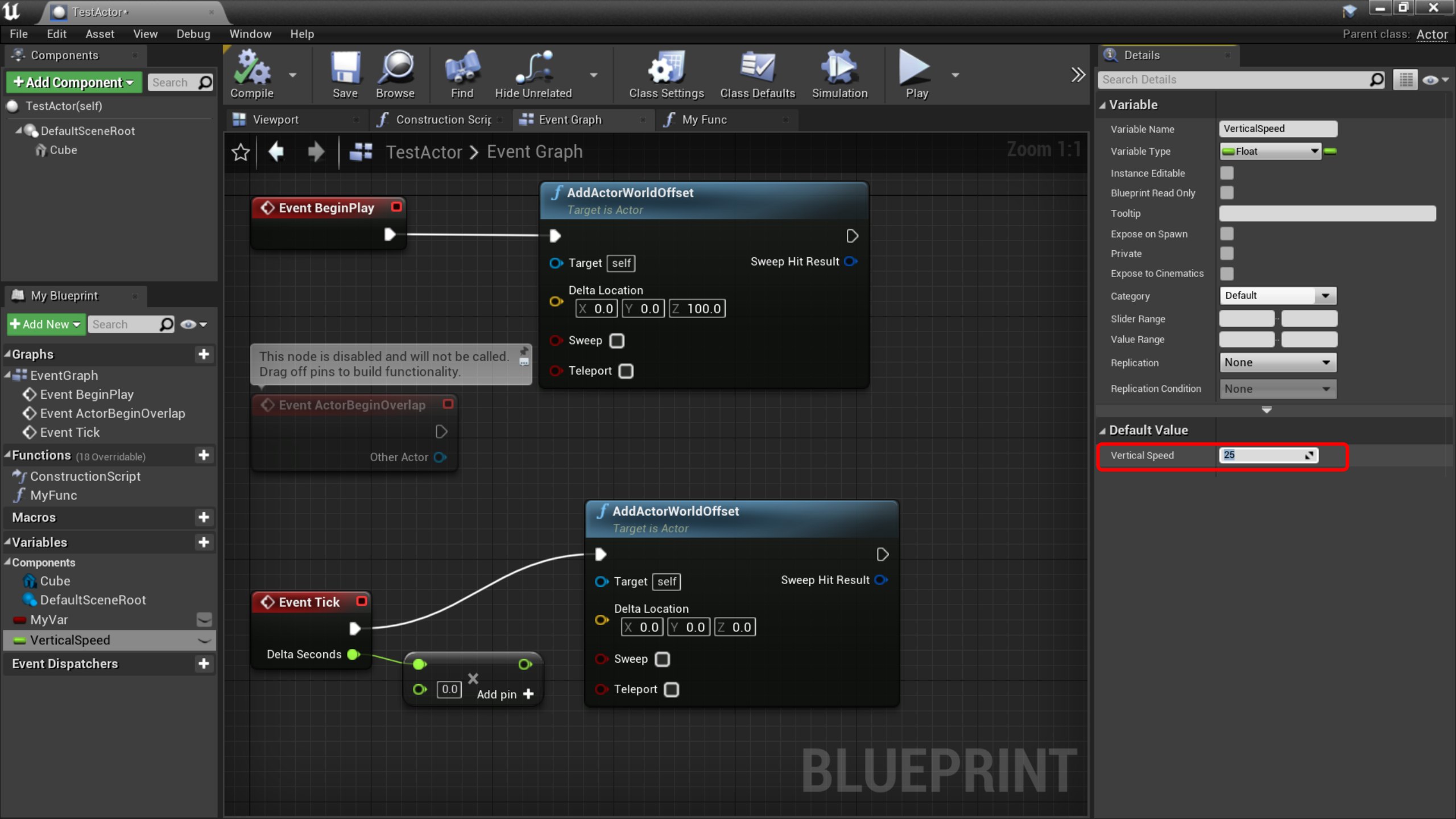
DefaultSceneRoot
MyVar
VerticalSpeed
Event Dispatchers
Details
Search Details
Variable
Variable Name
VerticalSpeed
Variable Type
Float
Instance Editable
Blueprint Read Only
Tooltip
Expose on Spawn
Private
Expose to Cinematics
Category
Default
Slider Range
Value Range
Replication
None
Replication Condition
None
Default Value
Please compile the blueprint


TestActor*
File Edit Asset View Debug Window Help
Parent class: Actor
Components
+ Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
My Blueprint
+ Add New
Search
Graphs
EventGraph
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Browse
Find
Hide Unrelated
Class Settings
Class Defaults
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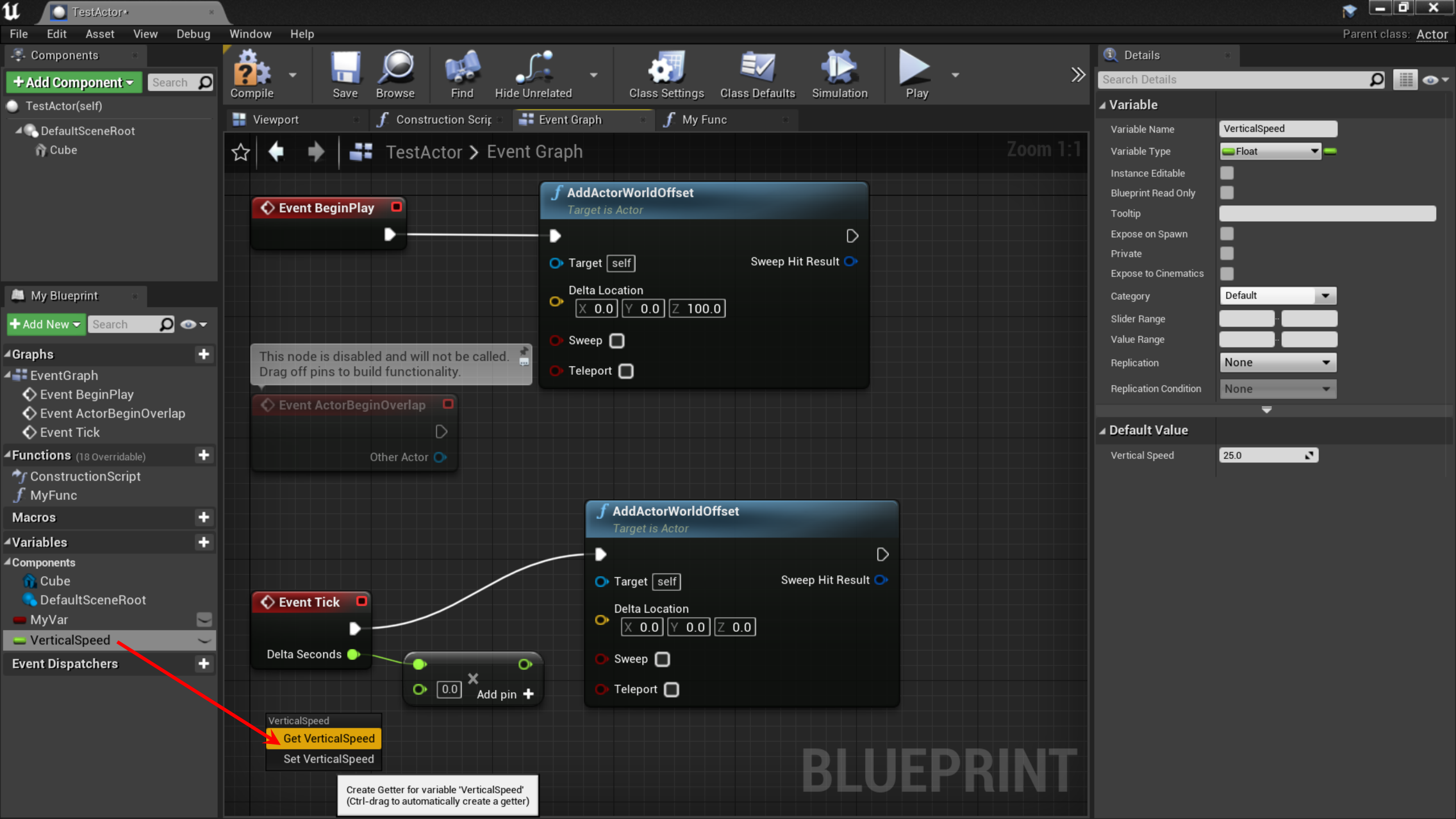
Construction Scrip
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 0.0
Sweep
Teleport
Event Tick
Delta Seconds
0.0
Add pin
BLUEPRINT
Details
Search Details
Variable
Variable Name
VerticalSpeed
Variable Type
Float
Instance Editable
Blueprint Read Only
Tooltip
Expose on Spawn
Private
Expose to Cinematics
Category
Default
Slider Range
Value Range
Replication
None
Replication Condition
None
Default Value
Vertical Speed
25


TestActor*
File Edit Asset View Debug Window Help
Parent class: Actor
Components
+ Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
My Blueprint
+ Add New
Search
Graphs
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Event ActorBeginOverlap
Event Tick
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Event Dispatchers
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
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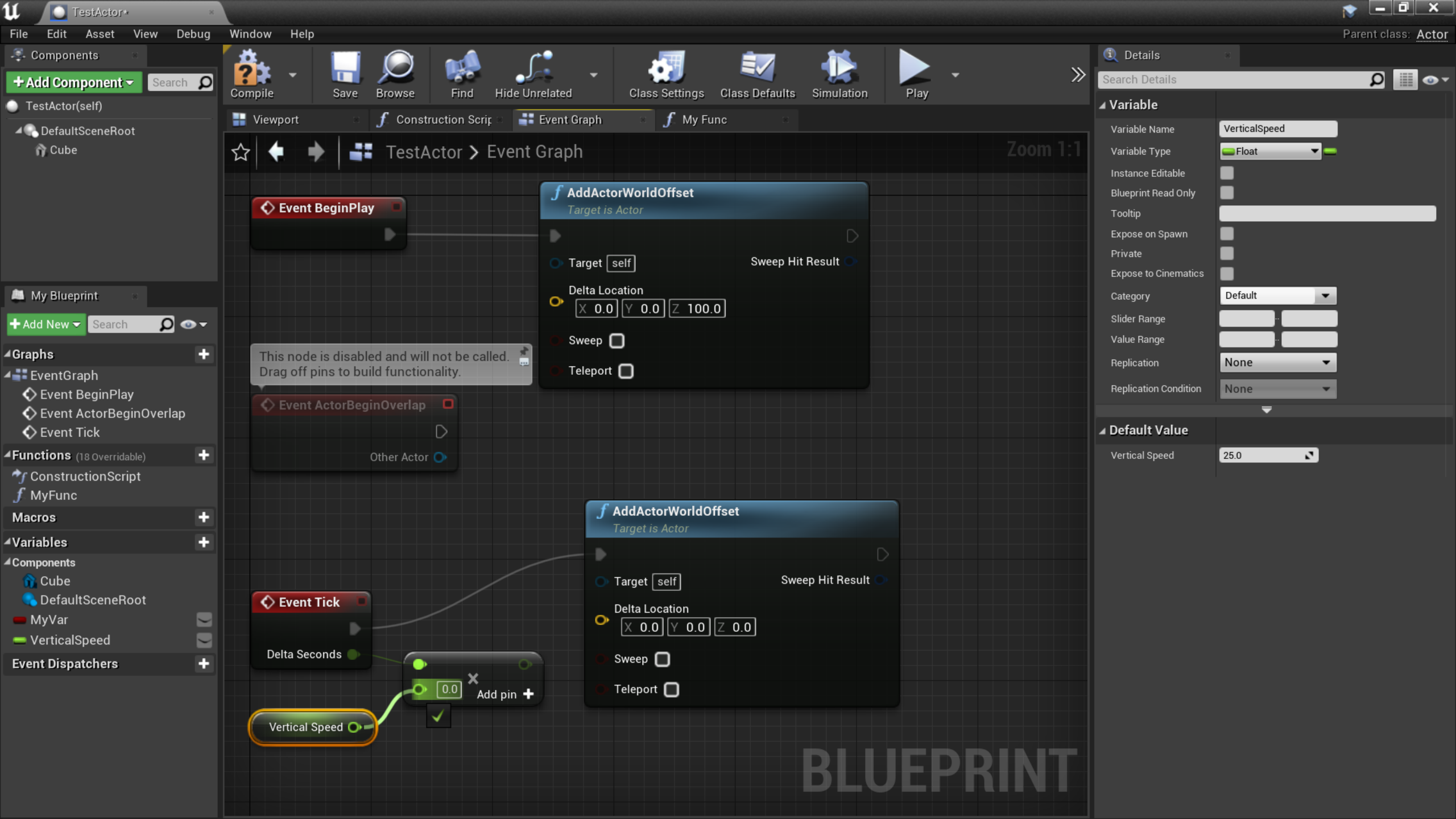
Viewport
Construction Scrip
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 0.0
Sweep
Teleport
Event Tick
Delta Seconds
0.0
Add pin
VerticalSpeed
Get VerticalSpeed
Set VerticalSpeed
Create Getter for variable 'VerticalSpeed'
(Ctrl-drag to automatically create a getter)
BLUEPRINT
Details
Search Details
Variable
Variable Name
VerticalSpeed
Variable Type
Float
Instance Editable
Blueprint Read Only
Tooltip
Expose on Spawn
Private
Expose to Cinematics
Category
Default
Slider Range
Value Range
Replication
None
Replication Condition
None
Default Value
Vertical Speed
25.0


TestActor*
File Edit Asset View Debug Window Help
Parent class: Actor
Components
Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
My Blueprint
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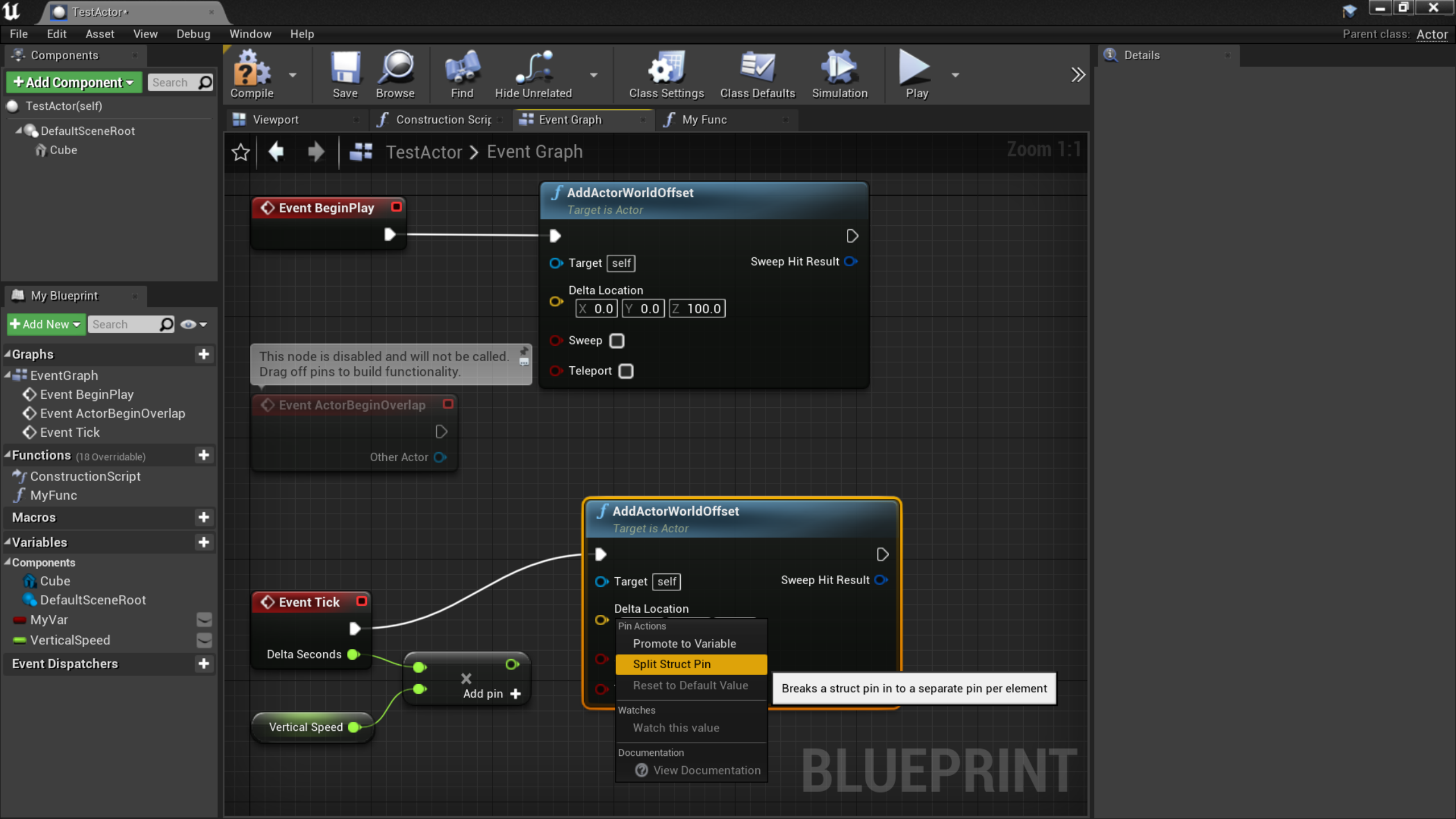
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 0.0
Sweep
Teleport
Event Tick
Delta Seconds
0.0
Add pin
Vertical Speed
BLUEPRINT
Details
Search Details
Variable
Variable Name
VerticalSpeed
Variable Type
Float
Instance Editable
Blueprint Read Only
Tooltip
Expose on Spawn
Private
Expose to Cinematics
Category
Default
Slider Range
Value Range
Replication
None
Replication Condition
None
Default Value
Vertical Speed
25.0


TestActor*
File Edit Asset View Debug Window Help
Parent class: Actor
Components
+ Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
My Blueprint
+ Add New
Search
Graphs
EventGraph
Event BeginPlay
Event ActorBeginOverlap
Event Tick
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Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
Pin Actions
Promote to Variable
Split Struct Pin
Reset to Default Value
Watches
Watch this value
Documentation
View Documentation
Breaks a struct pin in to a separate pin per element
Event Tick
Delta Seconds
Add pin
Vertical Speed
BLUEPRINT

TestActor*

File Edit Asset View Debug Window Help

Parent class: Actor

Components

+ Add Component | Search

TestActor(self)

DefaultSceneRoot

Cube

My Blueprint

+ Add New | Search

Graphs

EventGraph

Event BeginPlay

Event ActorBeginOverlap

Event Tick

Functions (18 Overridable)

ConstructionScript

MyFunc

Macros

Variables

Components

Cube

DefaultSceneRoot

MyVar

VerticalSpeed

Event Dispatchers

Compile | Save | Browse | Find | Hide Unrelated | Class Settings | Class Defaults | Simulation | Play

Details

Viewport | Construction Scrip | Event Graph | My Func

TestActor > Event Graph

Zoom 1:1

Event BeginPlay

AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport

This node is disabled and will not be called.
Drag off pins to build functionality.

Event ActorBeginOverlap
Other Actor

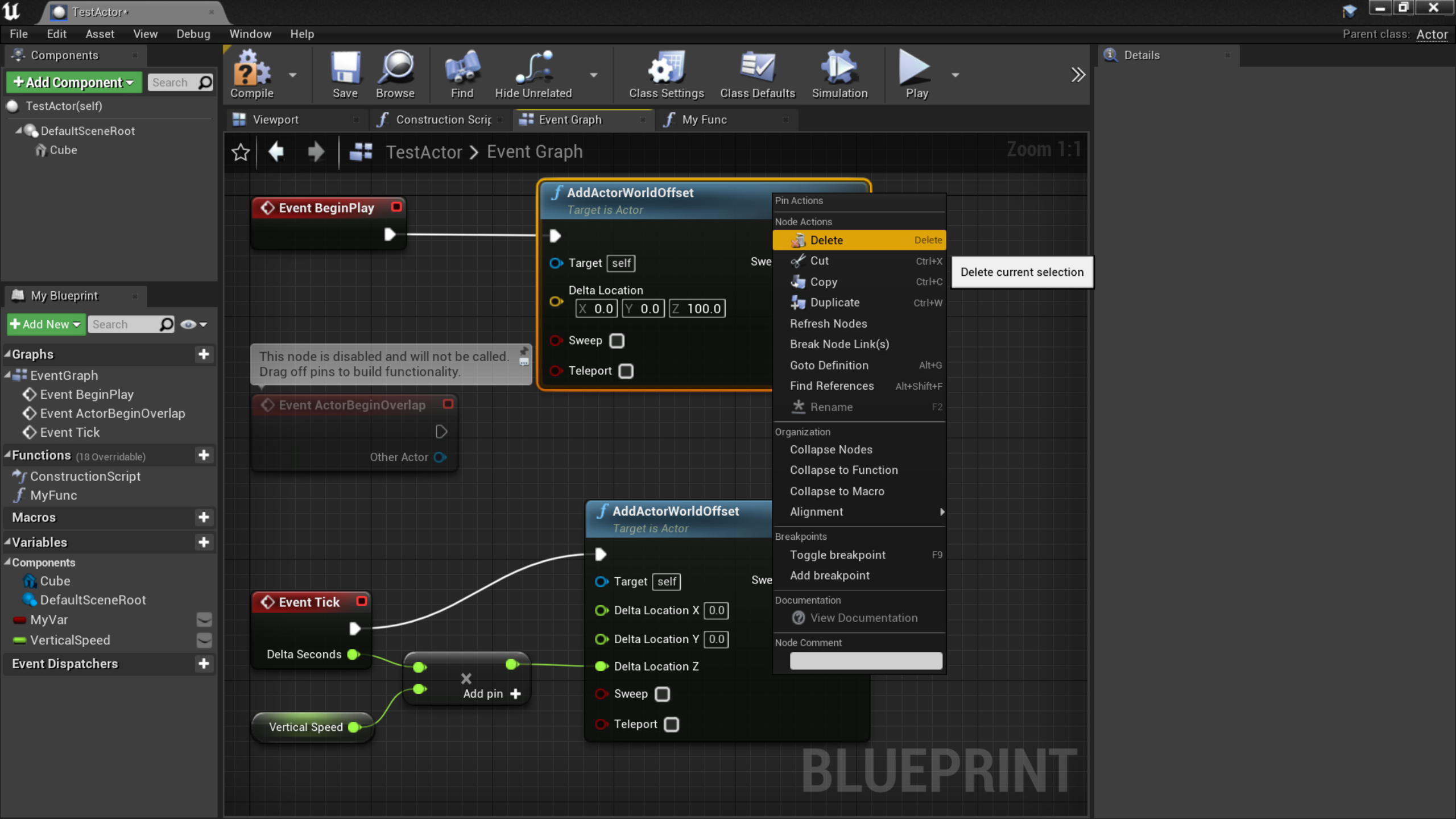
Event Tick
Delta Seconds

Vertical Speed

Add pin

AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location X 0.0
Delta Location Y 0.0
Delta Location Z 0.0
Sweep
Teleport

BLUEPRINT


TestActor*
File Edit Asset View Debug Window Help
Parent class: Actor
Components
+ Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
My Blueprint
+ Add New
Search
Graphs
EventGraph
Event BeginPlay
Event ActorBeginOverlap
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Functions (18 Overridable)
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Find
Hide Unrelated
Class Settings
Class Defaults
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Details
Viewport
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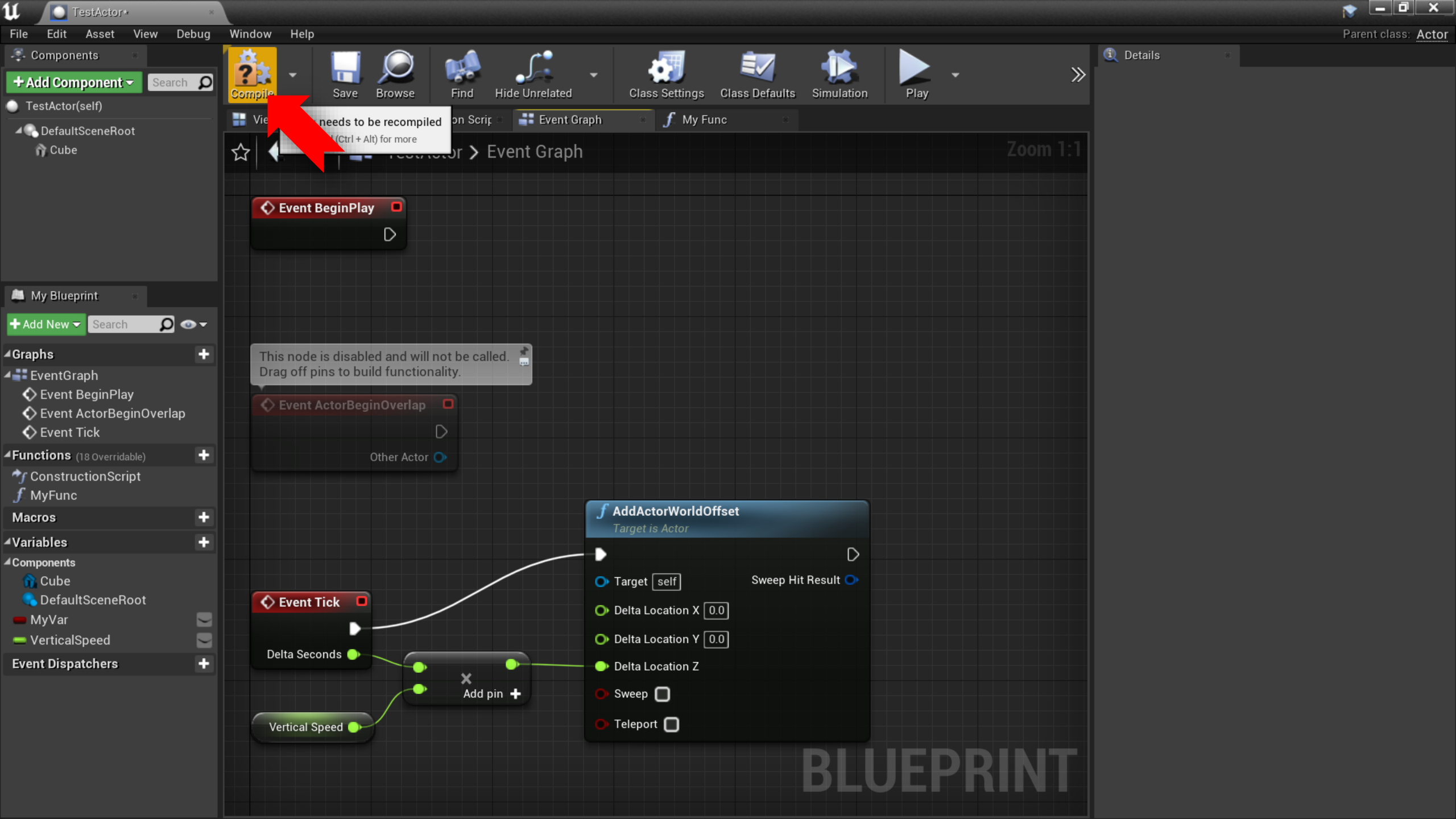
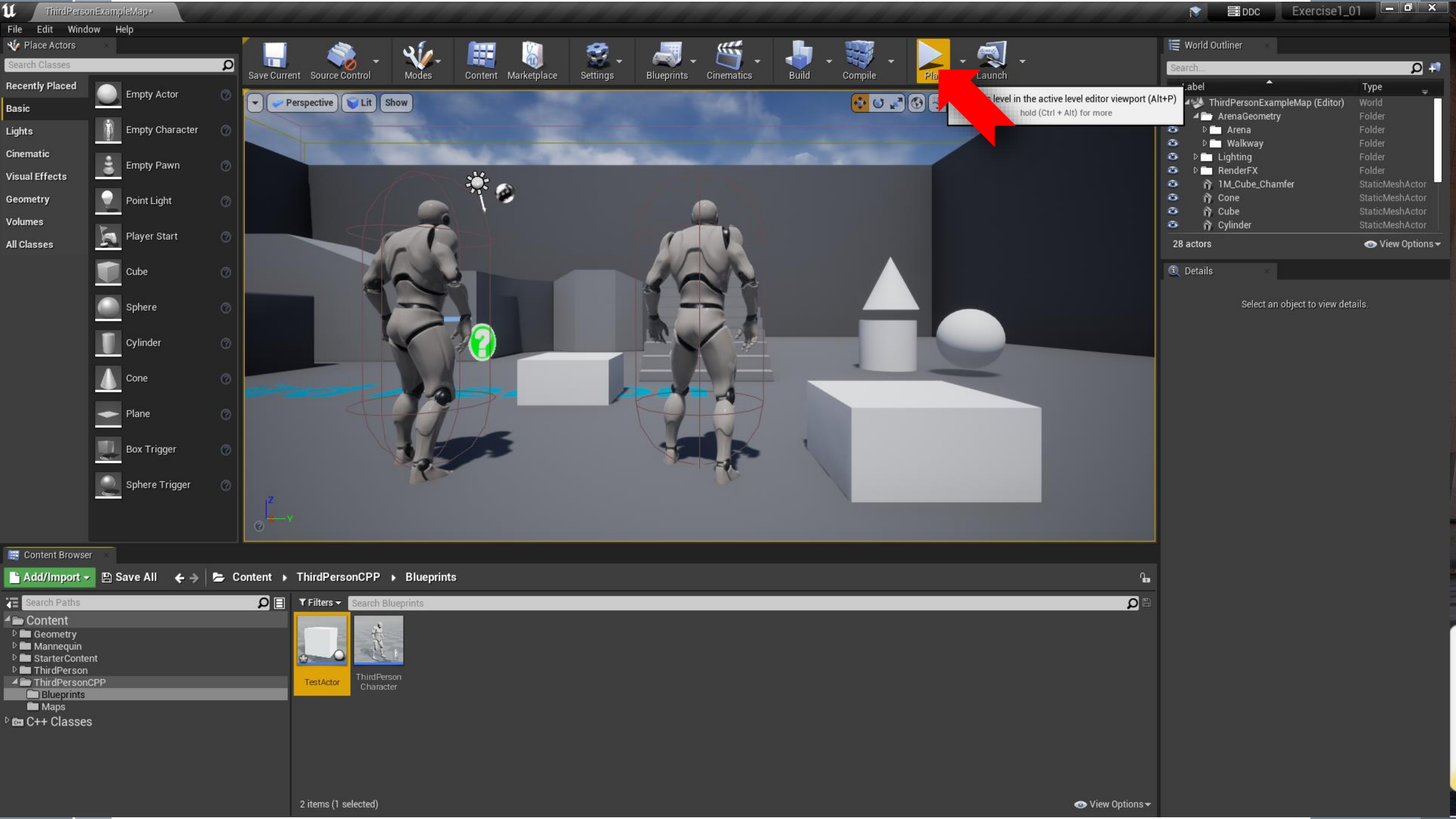
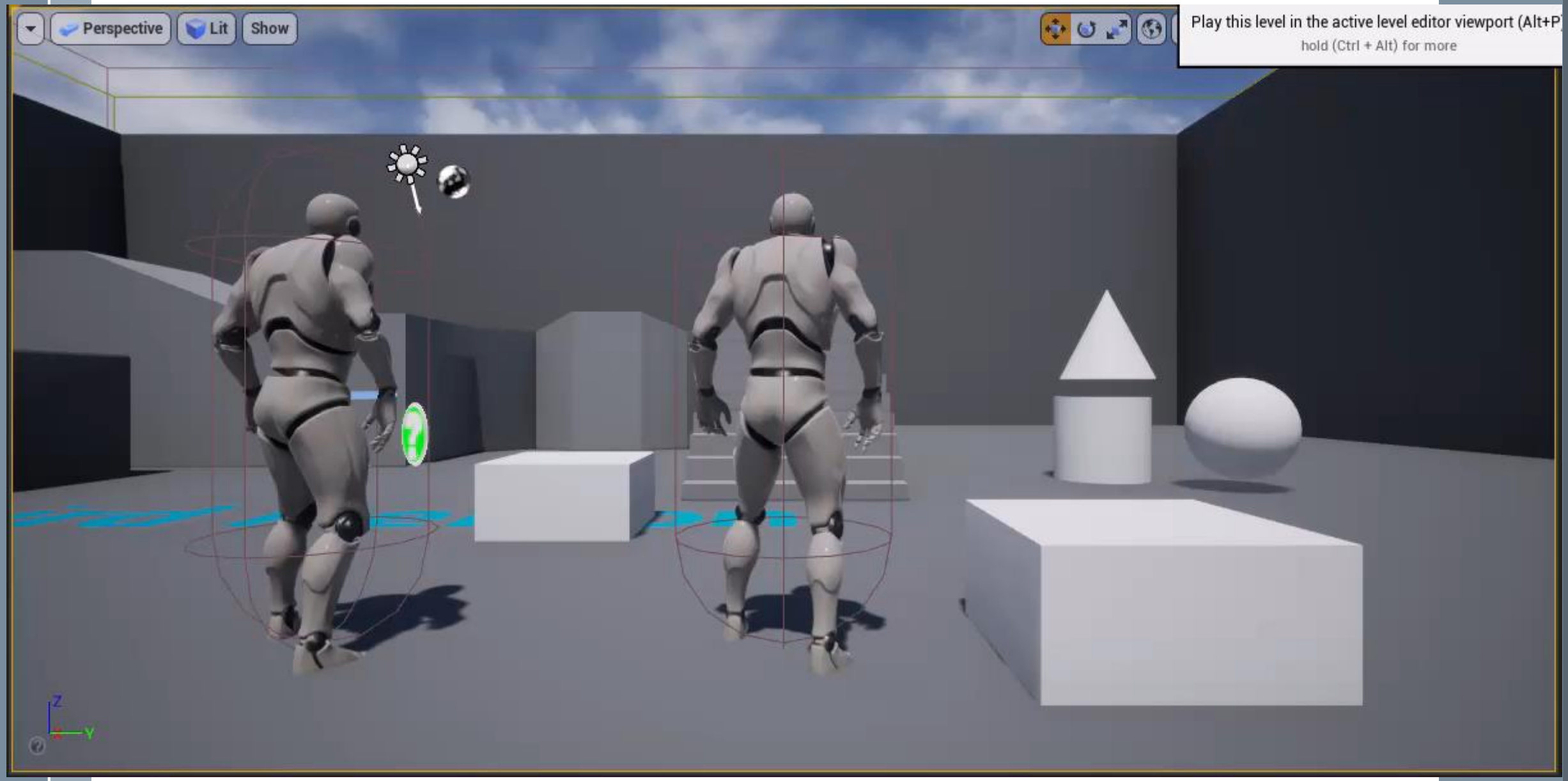
Event Graph
My Func
TestActor > Event Graph
Zoom 1:1
Event BeginPlay
AddActorWorldOffset
Target is Actor
Target self
Delta Location
X 0.0 Y 0.0 Z 100.0
Sweep
Teleport
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
Event Tick
Delta Seconds
Vertical Speed
Add pin
AddActorWorldOffset
Target is Actor
Target self
Delta Location X 0.0
Delta Location Y 0.0
Delta Location Z
Sweep
Teleport
Pin Actions
Node Actions
Delete Delete
Cut Ctrl+X
Copy Ctrl+C
Duplicate Ctrl+W
Refresh Nodes
Break Node Link(s)
Goto Definition Alt+G
Find References Alt+Shift+F
Rename F2
Organization
Collapse Nodes
Collapse to Function
Collapse to Macro
Alignment
Breakpoints
Toggle breakpoint F9
Add breakpoint
Documentation
View Documentation
Node Comment
Delete current selection
BLUEPRINT


TestActor*
File
Edit
Asset
View
Debug
Window
Help
Parent class: Actor
Components
+ Add Component
Search
TestActor(self)
DefaultSceneRoot
Cube
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
Details
needs to be recompiled
(Ctrl + Alt) for more
Event Graph
My Func
Event Graph
Zoom 1:1
Event BeginPlay
My Blueprint
+ Add New
Search
Graphs
EventGraph
Event BeginPlay
Event ActorBeginOverlap
Event Tick
Functions (18 Overridable)
ConstructionScript
MyFunc
Macros
Variables
Components
Cube
DefaultSceneRoot
MyVar
VerticalSpeed
Event Dispatchers
This node is disabled and will not be called.
Drag off pins to build functionality.
Event ActorBeginOverlap
Other Actor
AddActorWorldOffset
Target is Actor
Target self
Sweep Hit Result
Delta Location X 0.0
Delta Location Y 0.0
Delta Location Z
Sweep
Teleport
Event Tick
Delta Seconds
Add pin
Vertical Speed
BLUEPRINT

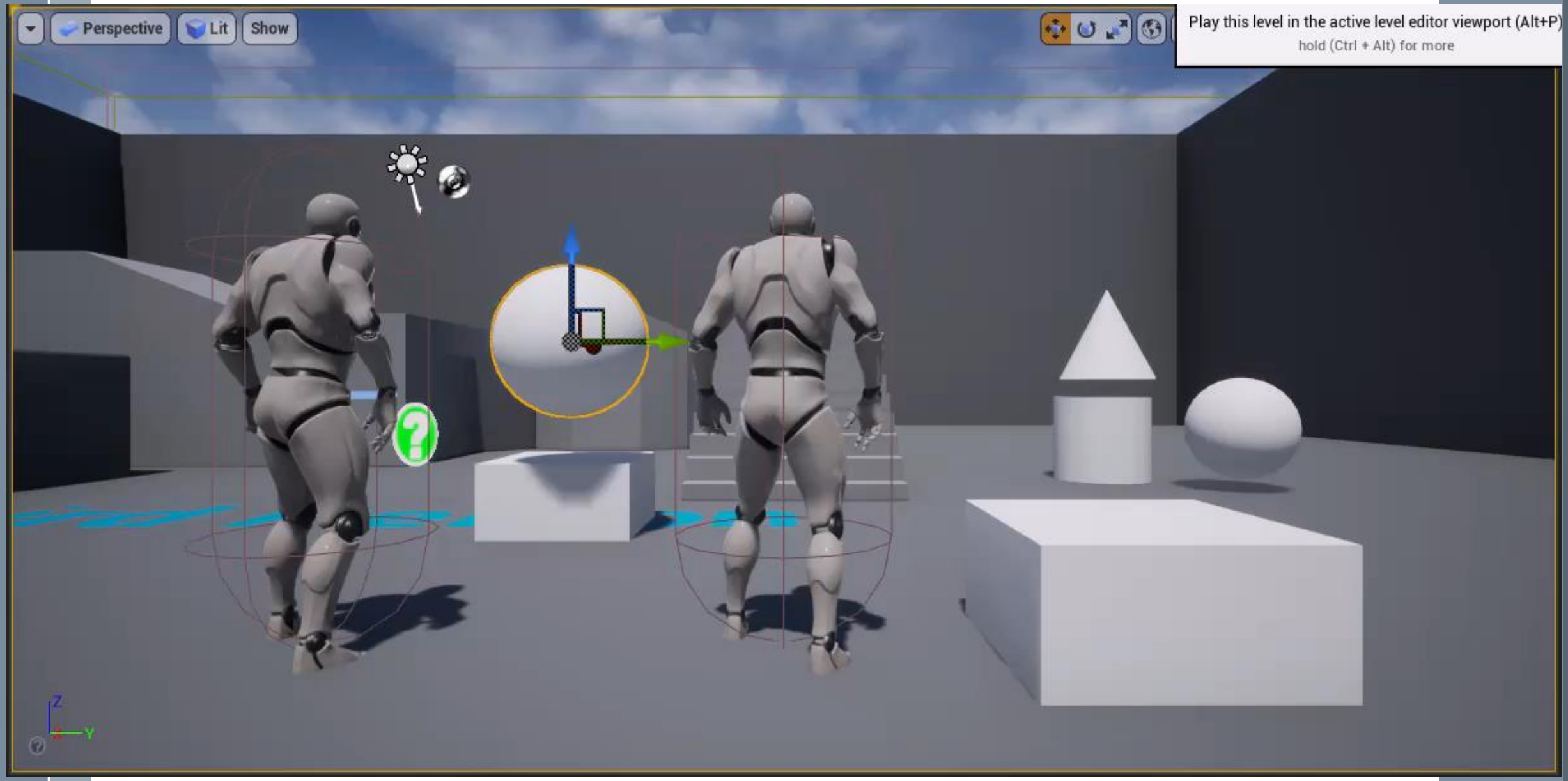

ThirdPersonExampleMap*
DDC
Exercise1_01
File
Edit
Window
Help
Place Actors
Search Classes
Recently Placed
Basic
Lights
Cinematic
Visual Effects
Geometry
Volumes
All Classes
Empty Actor
Empty Character
Empty Pawn
Point Light
Player Start
Cube
Sphere
Cylinder
Cone
Plane
Box Trigger
Sphere Trigger
Save Current
Source Control
Modes
Content
Marketplace
Settings
Blueprints
Cinematics
Build
Compile
Launch
level in the active level editor viewport (Alt+P)
hold (Ctrl + Alt) for more
Perspective
Lit
Show
World Outliner
Search...
Label
Type
ThirdPersonExampleMap (Editor)
World
ArenaGeometry
Folder
Arena
Folder
Walkway
Folder
Lighting
Folder
RenderFX
Folder
1M_Cube_Chamfer
StaticMeshActor
Cone
StaticMeshActor
Cube
StaticMeshActor
Cylinder
StaticMeshActor
28 actors
View Options
Details
Select an object to view details.
Content Browser
Add/Import
Save All
Content
ThirdPersonCPP
Blueprints
Search Paths
Content
Geometry
Mannequin
StarterContent
ThirdPerson
ThirdPersonCPP
Blueprints
Maps
C++ Classes
Filters
Search Blueprints
TestActor
ThirdPerson Character
2 items (1 selected)
View Options


Perspective
Lit
Show
Play this level in the active level editor viewport (Alt+P)
hold (Ctrl + Alt) for more
Z
Y

연습 과제

› 다음과 같은 특징을 갖는 Blueprint Actor인 'TestActor2'를 생성 후 Level에 추가하시오.
  - Mesh Component는 Sphere
  - X축 또는 Y축으로 무한히 이동

› 제출 방법: "프로젝트 폴더" 전체 압축
→ 압축 파일 내에서 다음 "3개 폴더" 삭제
  1) Content 폴더 안 StarterContent 폴더
  2) Intermediate 폴더
  3) Saved 폴더
→ 압축파일 업로드


Perspective
Lit
Show
Play this level in the active level editor viewport (Alt+P)
hold (Ctrl + Alt) for more
Z
Y