

# Learning AWS Lumberyard Game Development

## Chapter 1: Welcome to the Lumberyard



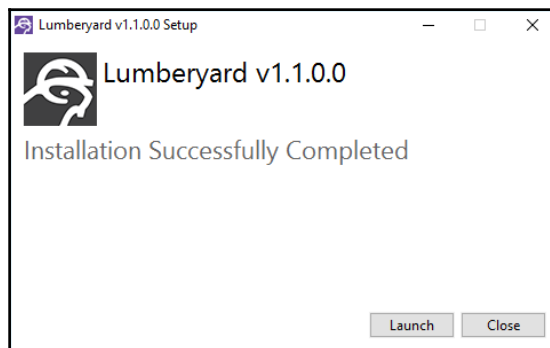
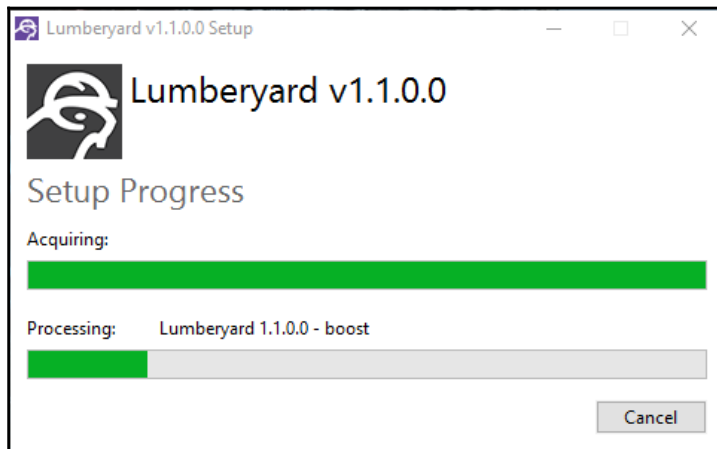
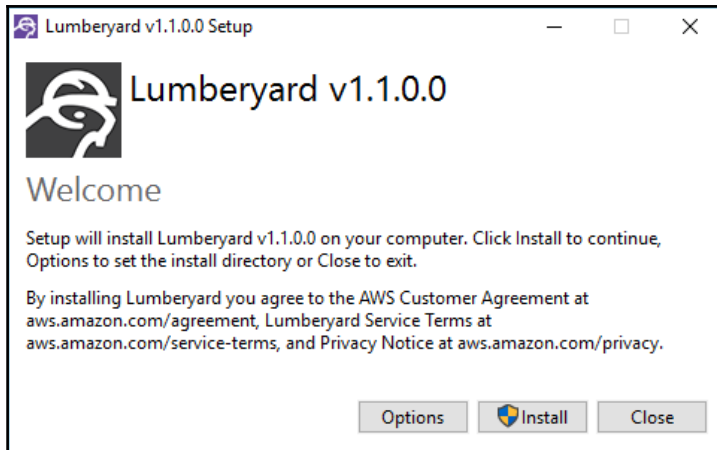
### Amazon Lumberyard

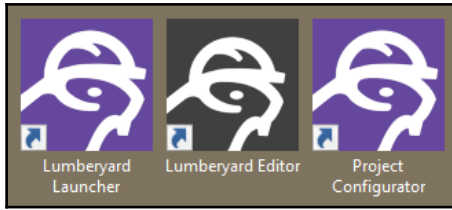
Amazon Lumberyard is a free, cross-platform, 3D game engine for you to create the highest-quality games, connect your games to the vast compute and storage of the AWS Cloud, and engage fans on Twitch. Includes full source.

[Download Lumberyard](#)


v1.1. Requires Windows 7 or later. File Size: 620KB / ~5.3GB  
Download .zip version here  
Checksum (MD5): fdcdfba2194b204a6094fcbcd1651652


*By downloading Amazon Lumberyard or any of the packages on this page, you agree to the [AWS Customer Agreement](#) and [Lumberyard Service Terms](#).*






Lumberyard Launcher

 1. Get started  
Lumberyard Launcher helps to validate that your environment is properly configured to run Lumberyard.

1. Get started  **Verify the location where you installed Lumberyard**

Path | C:/Amazon/Lumberyard/1.1.0.0/dev   Valid Path

5. Summary

**What do you want to do with Lumberyard?**

- Run your game project
- Run the Lumberyard Editor and tools
- Compile the game code
- Compile the engine and asset pipeline
- Compile the Lumberyard Editor and tools
- Compile for Android devices
- Compile for iOS devices

Documentation



Lumberyard Launcher

**2. Install software**  
 The selections you made in step 1 require the following third-party software. Some software must be obtained directly from the third-party; click "Get it" to visit the third-party site.

1. Get started ✓

2. Install software ✗

3. Install SDKs ✓

4. Install plugins ⚙️

5. Summary

**Required software**

Install link	Located on HD	Status
<a href="#">Install it</a>	Not found	✗
<a href="#">Installed</a>	Found	✓
<a href="#">Installed</a>	Found	✓

**Optional software**

Install link	Located on HD	Status
<a href="#">Get it</a>	Not found	⚠️
<a href="#">Get it</a>	<a href="#">Browse</a>	⚠️

**Microsoft DirectX Redistributable**  
 The Microsoft DirectX Redistributable allows multimedia-rich applications to run and display on Windows-based computers.  
 The Microsoft DirectX runtime library does not appear to be installed.  
 Click **Install it** to install the Microsoft DirectX Redistributable.

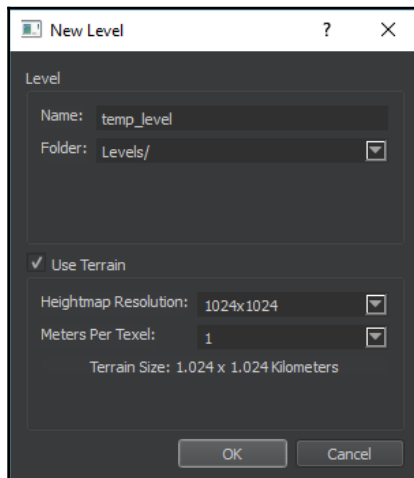
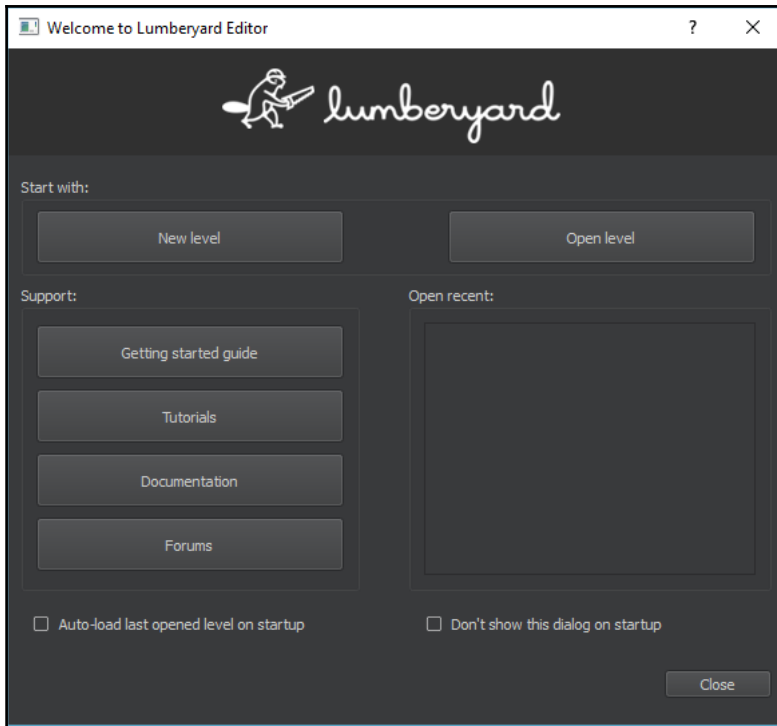
**Visual C++ Redistributable for Visual Studio 2012**  
 Visual C++ Redistributable for Visual Studio 2012

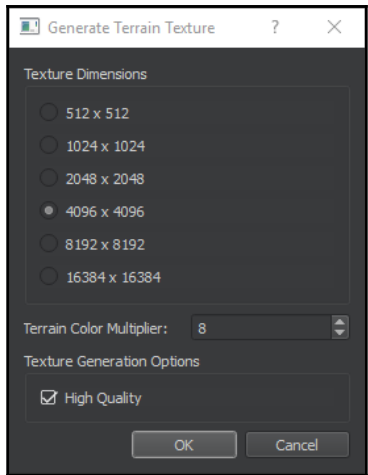
**Visual C++ Redistributable for Visual Studio 2013**  
 Visual C++ Redistributable for Visual Studio 2013

**Audiokinetic Wwise LTX Authoring Tool**  
 Wwise LTX is a comprehensive audio middleware solution for game development designed to create sophisticated and rich interactive audio.

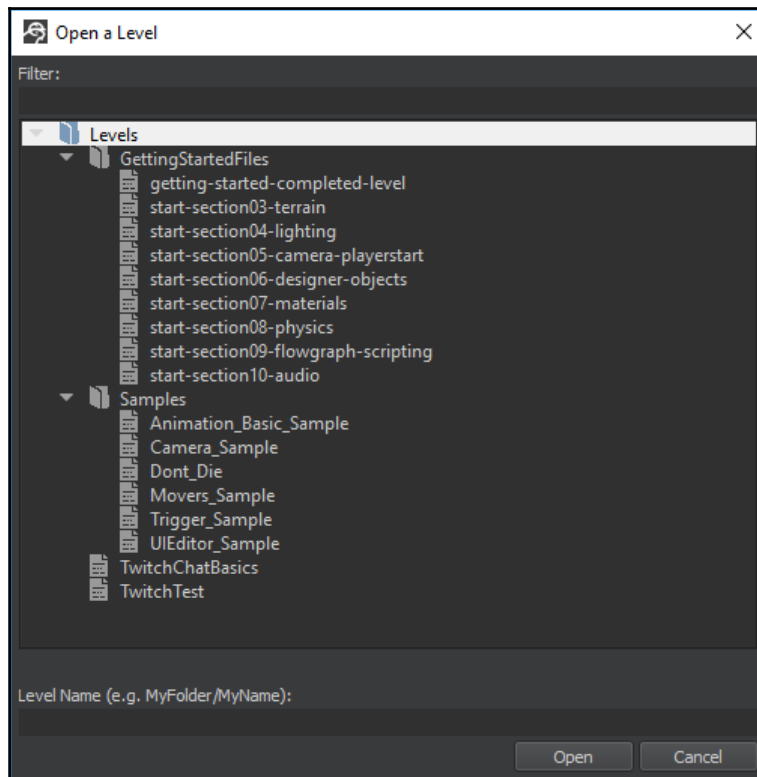
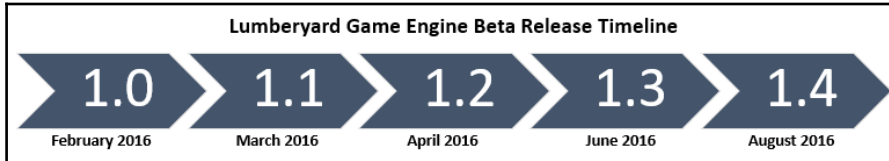
**FFmpeg**  
 Video encoding software  
 The FFmpeg application (ffmpeg.exe) could not be found.  
 FFmpeg is a third-party application used to compress and convert video. Lumberyard Editor will function without this component; however, you must have FFmpeg to capture video in the Track View Editor.  
 To download FFmpeg, click **Get it** and download the latest 64-bit static version from the Download FFmpeg page.  
 If you have already downloaded and unzipped FFmpeg, click **Browse** to locate ffmpeg.exe.

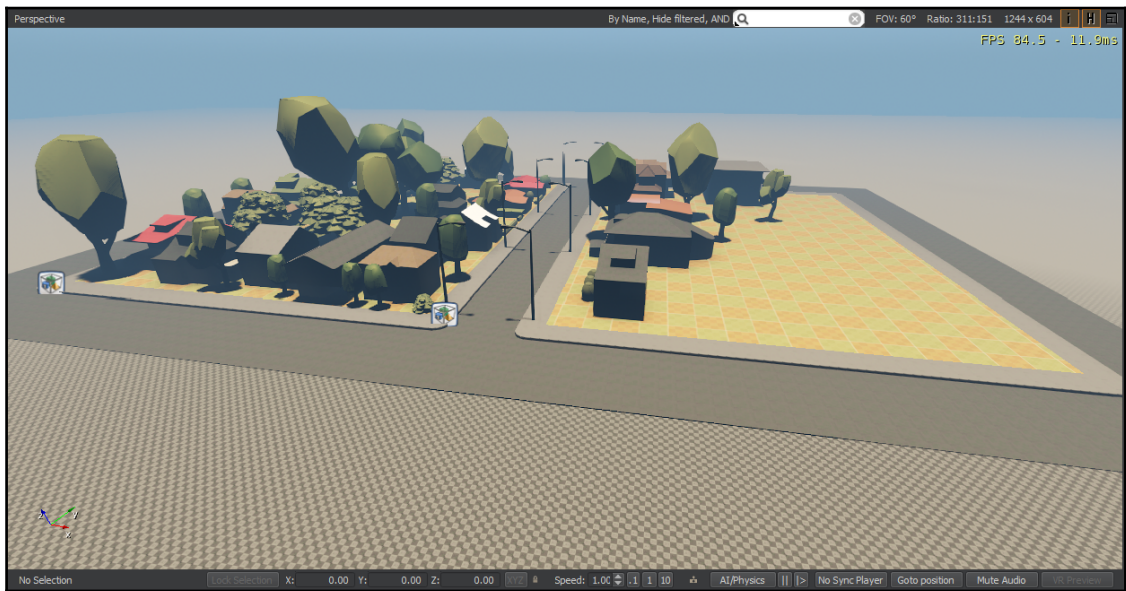
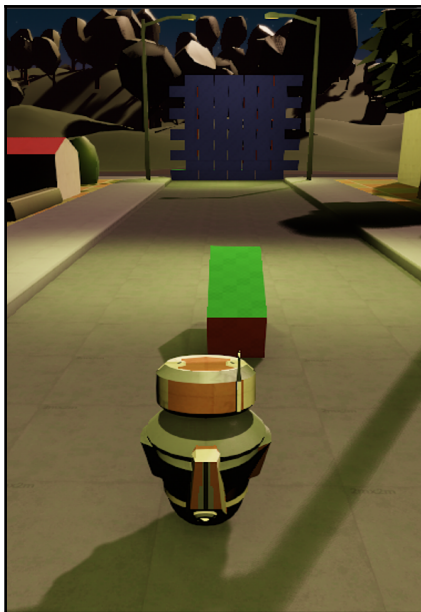
Documentation Previous Next



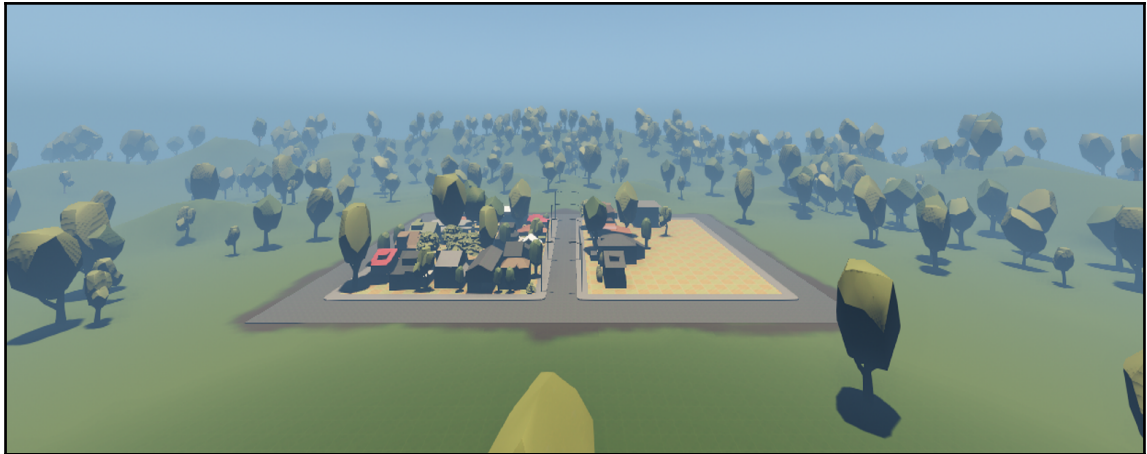


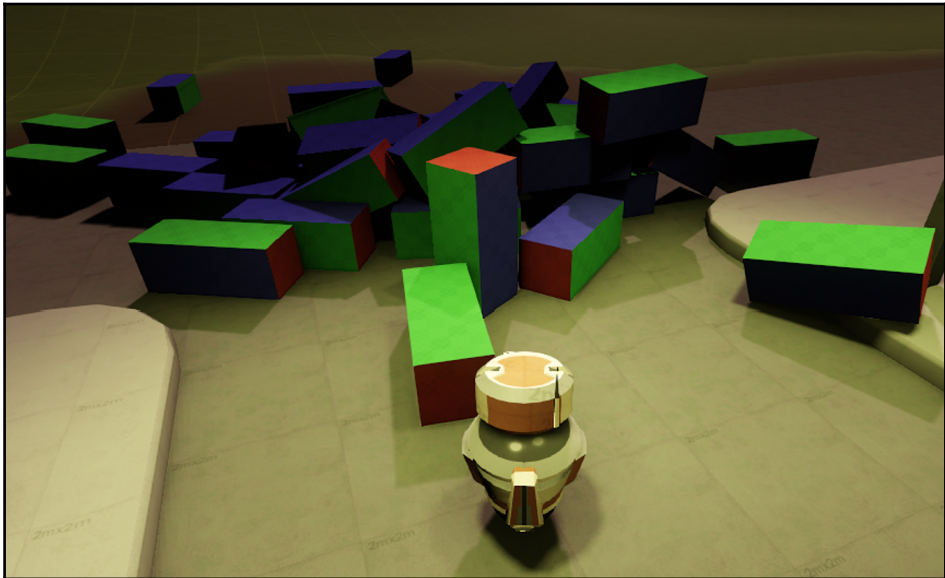
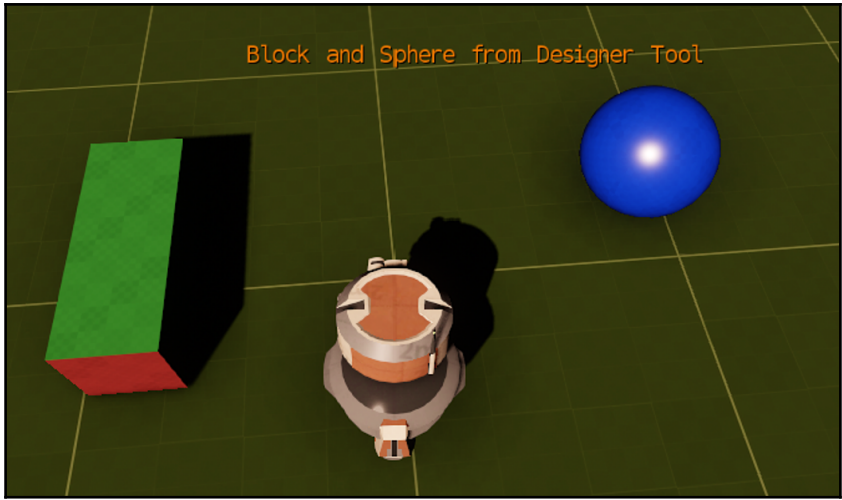
# Chapter 2: Planning Your Game in the Lumberyard

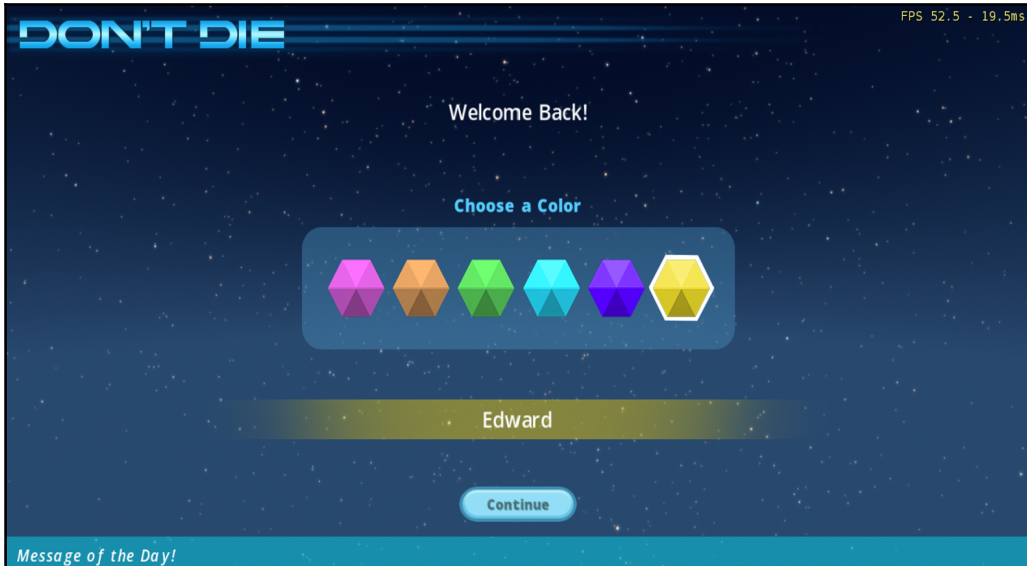
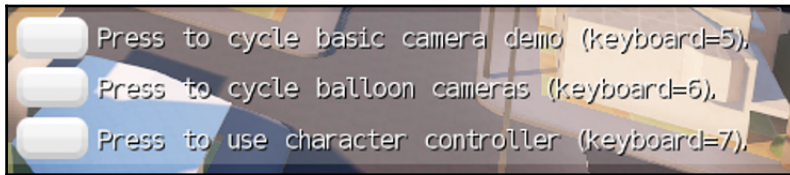
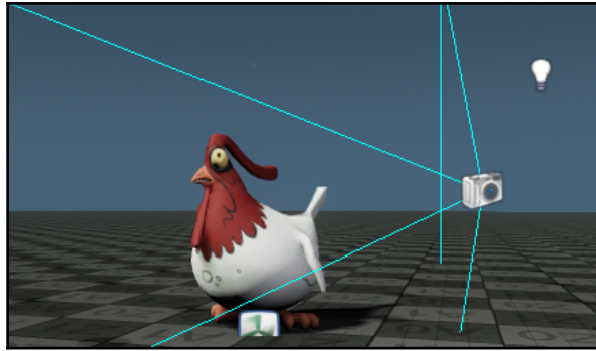


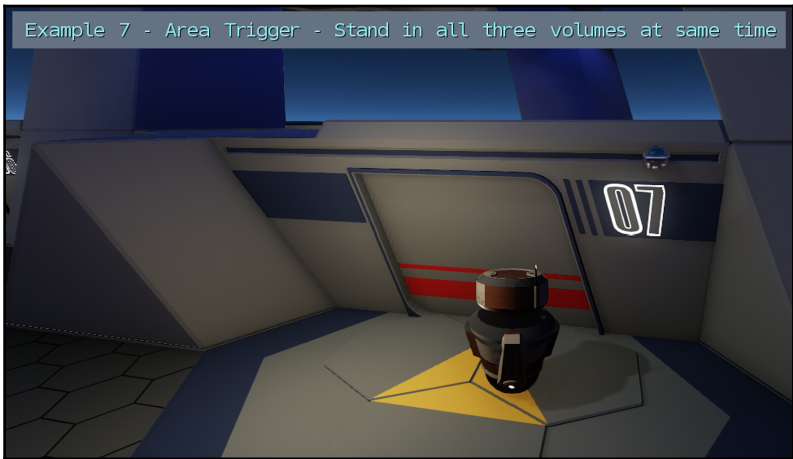
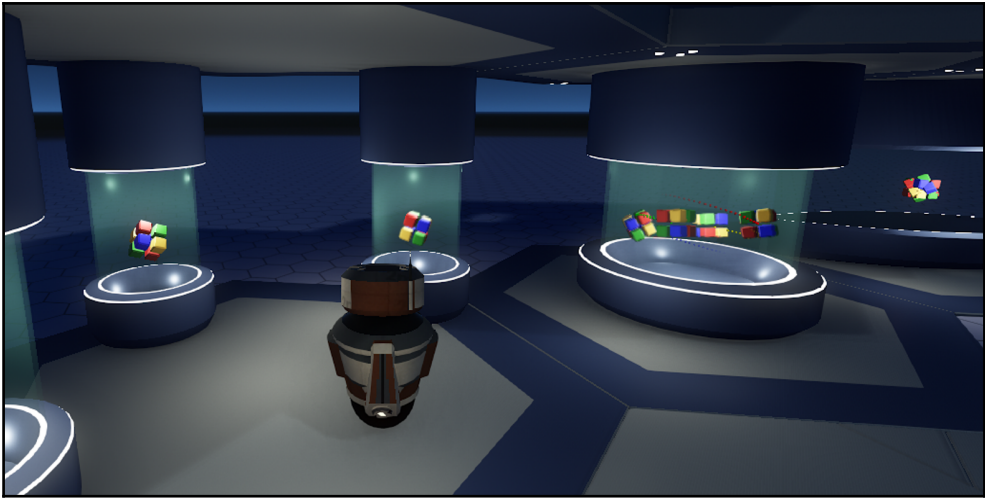


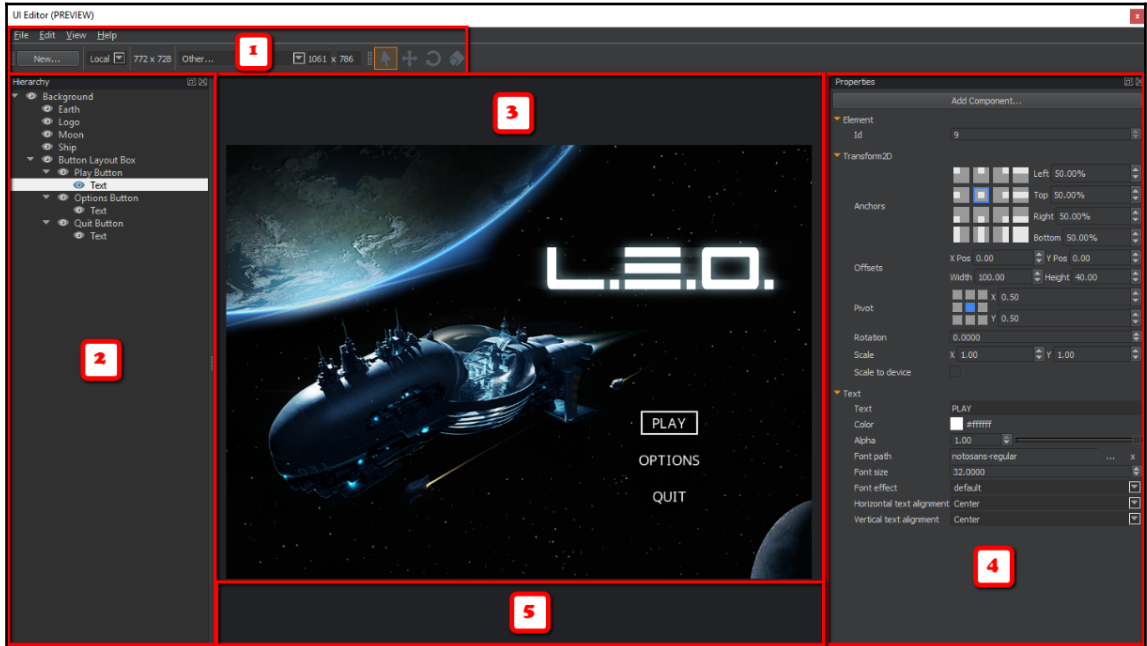


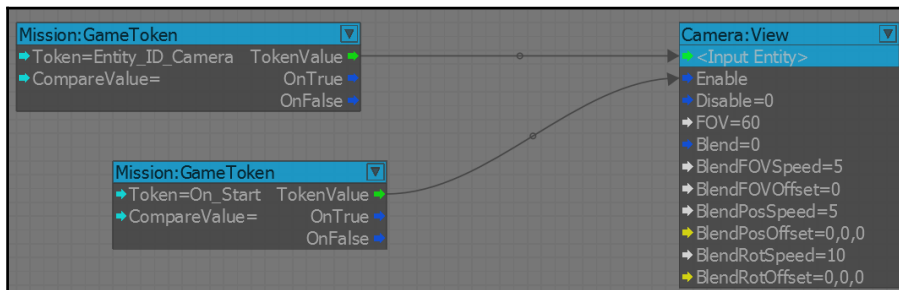
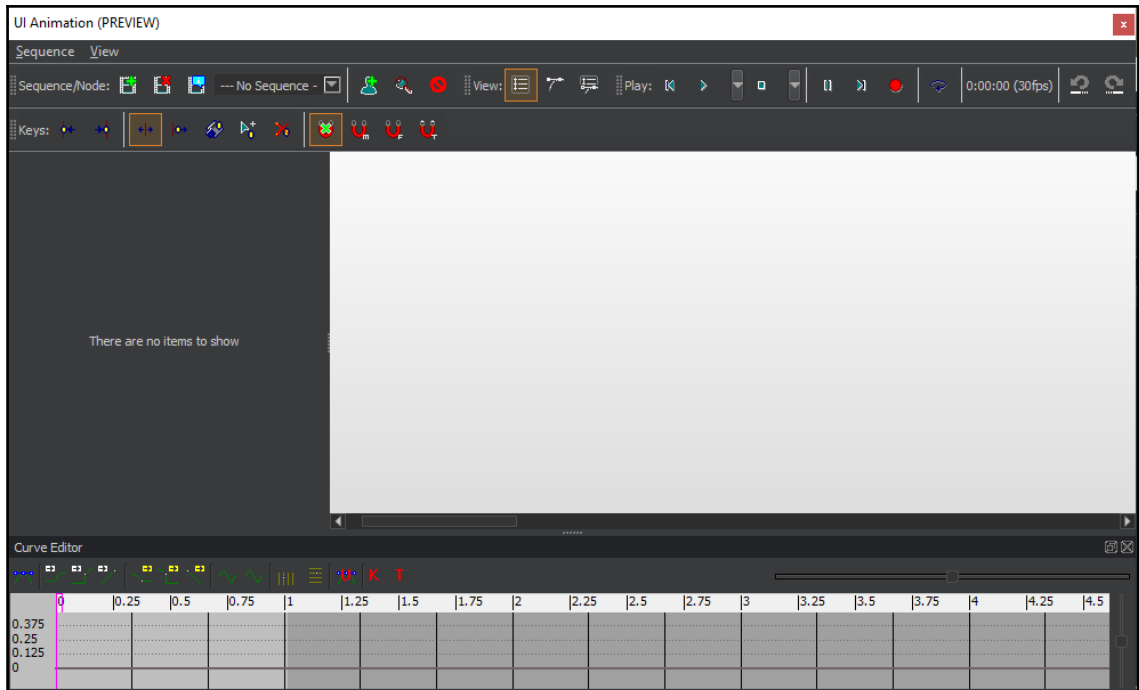


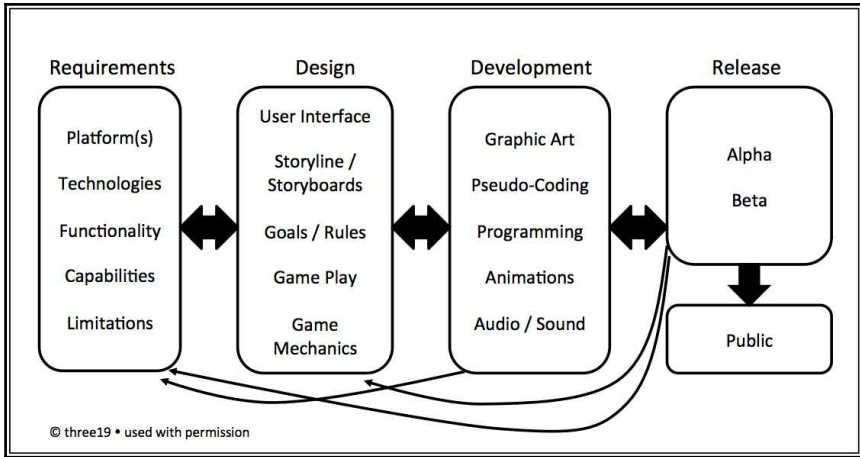




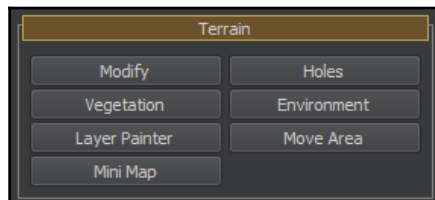
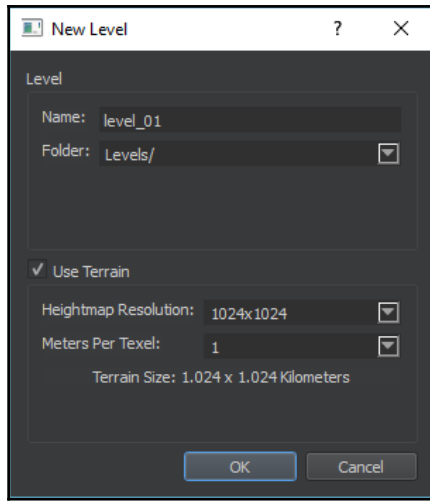








Objects	
AI	Actor Entity
Archetype Entity	Area
Audio	Brush
Custom	Designer
Entity	Geom Entity
Misc	Particle Entity
Prefab	
Object Type	
AIAnchor	AIHorizontalOcclusionPlane
AIPath	AIPerceptionModifier
AIPoint	AIRinforcementSpot
AIShape	CoverSurface
NavigationArea	NavigationSeedPoint
SmartObject	TagPoint





### Modify Terrain

#### Brush Settings

Flatten

Smooth

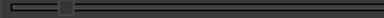
Rise/Lower

Pick Height



Outside Radius

2.00



Sync Radius for all Types

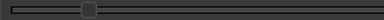
Inside Radius:

0.00



Hardness:

0.20



Height:

1.00



#### Noise Settings

Enable Noise

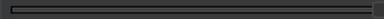
Scale:

5



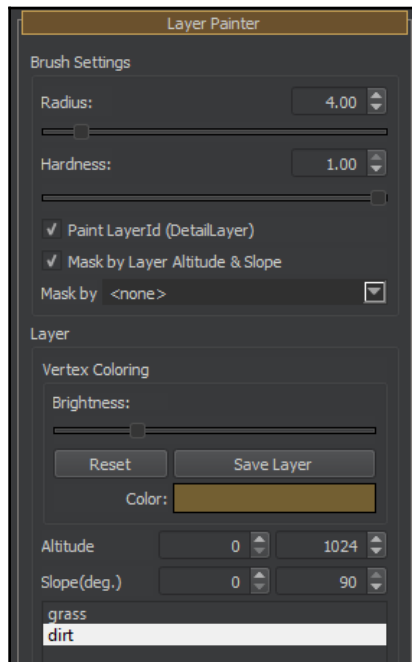
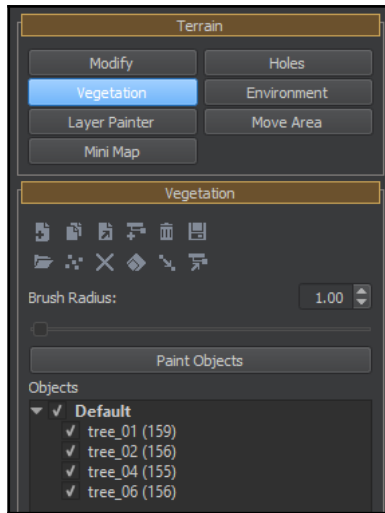
Frequency

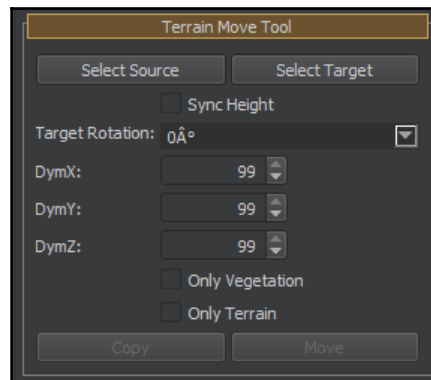
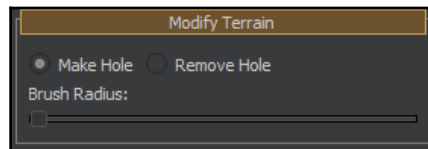
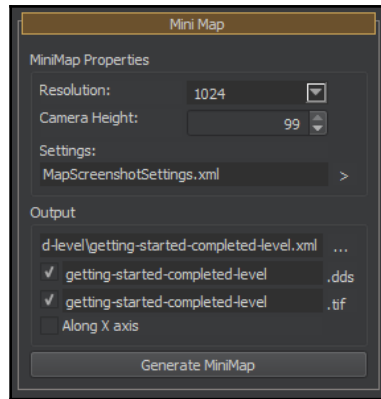
100



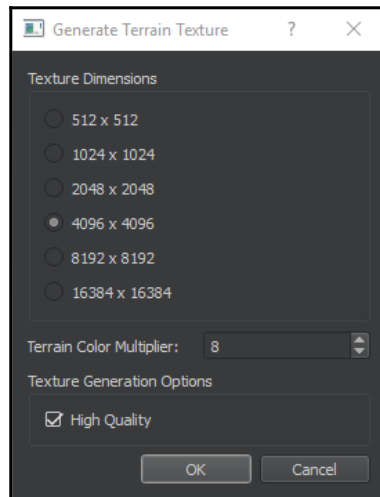
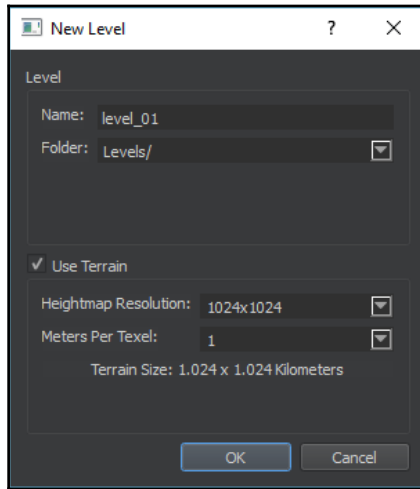
Reposition Objects

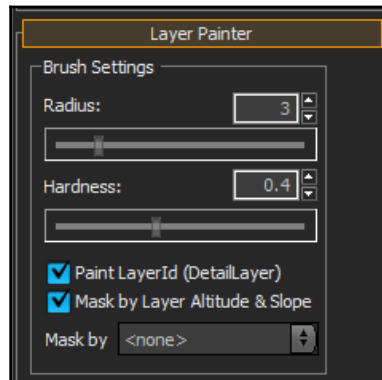
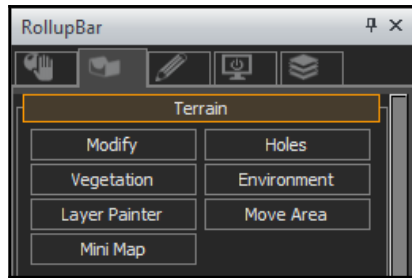
Reposition Vegetation

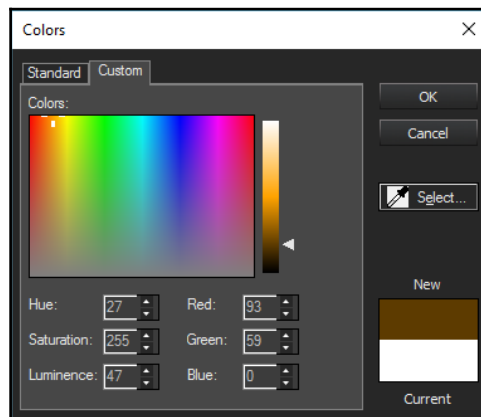
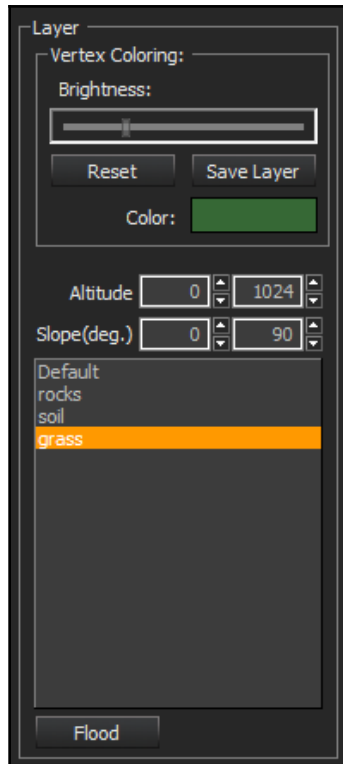


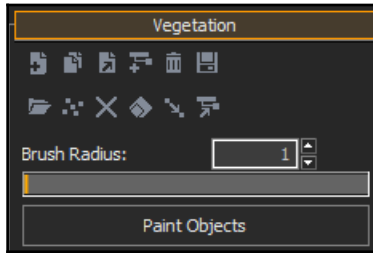
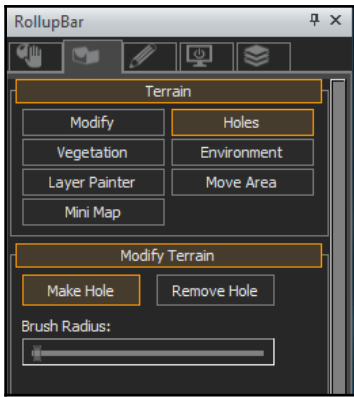


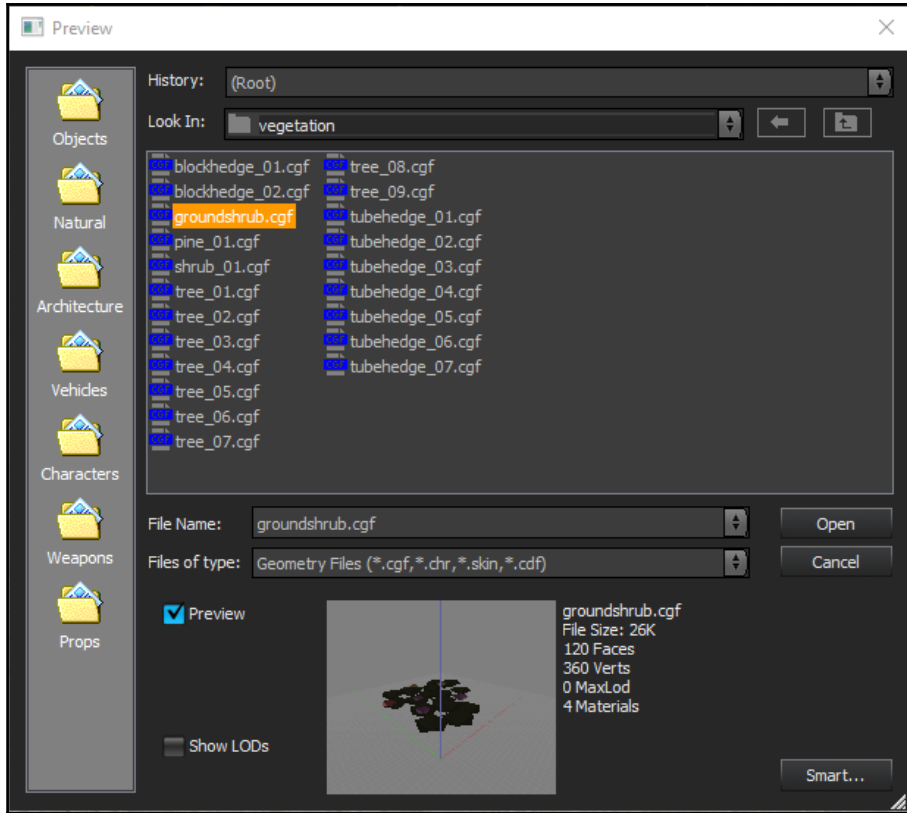
# Chapter 3: Constructing an Immersive 3D Game World













**Vegetation**

Icons:

Brush Radius:

**Paint Objects**

Objects

- Default**
- groundshrub (0)

**Modify Terrain**

Brush Settings

Outside Radius:

Sync Radius for all Types

Inside Radius:

Hardness:

Height:

Noise Settings

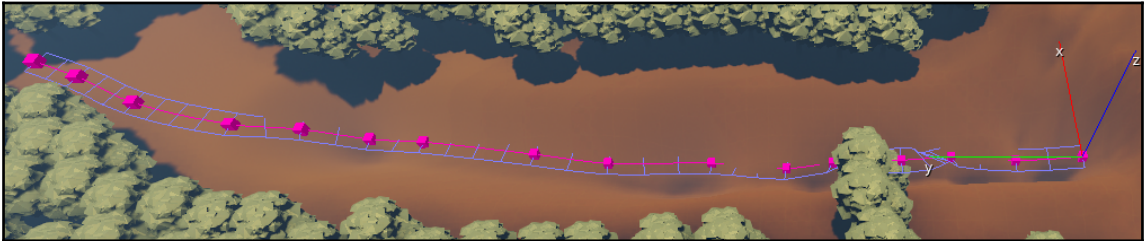
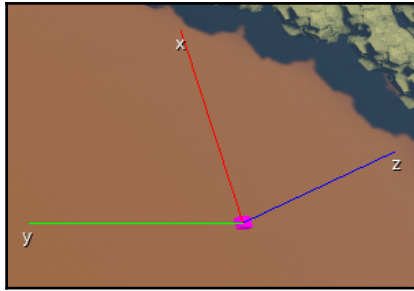
Enable Noise

Scale:

Frequency:

Reposition Objects

Reposition Vegetation



RollupBar

Objects

AI	Actor Entity
Archetype Entity	Area
Audio	Brush
Component Entity	Custom
Designer	Entity
Geom Entity	Misc
Partide Entity	Prefab

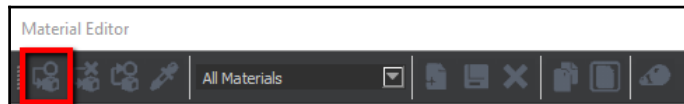
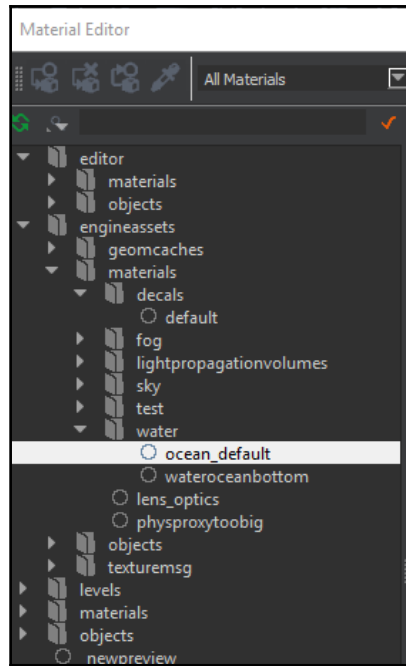
River

River2

Main\*

Mt: <No Custom Material>

Area: 0 MinSpec: All



Time Of Day

00 06 12 18 24

HDR Settings

Time of Day Tasks

Tasks

- Import From File
- Export To File
- Reset Values
- Expand All
- Collapse All
- Toggle Advanced Properties**

Time

Current Time: 12:00 PM

Start Time: 12:00 PM

End Time: 12:00 PM

Play Speed: 0.00

Update Tasks

- Play
- Stop
- Force sky update

Parameters

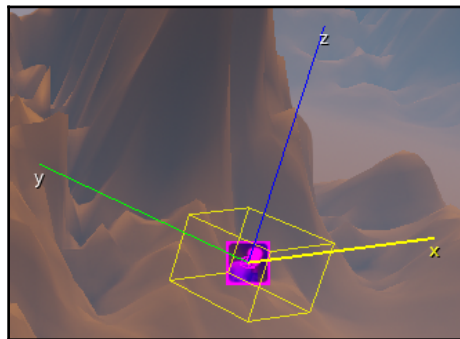
- Sky**
  - Sun color: 249,2...
  - Sun color multiplier: 10
- Fog**
  - Global density: 1.5
- Volumetric fog**
  - Global density: 0.1
- Sky Light**
  - Sun intensity: 255,2...
  - Sun intensity multi: 200
- Night Sky**
  - Star intensity: 0
  - Moon color: 255,2...
- Night Sky Multiplier**
  - Moon color: 0
- Sun Rays Effect**
  - Sun rays visibility: 1.5

Timeline

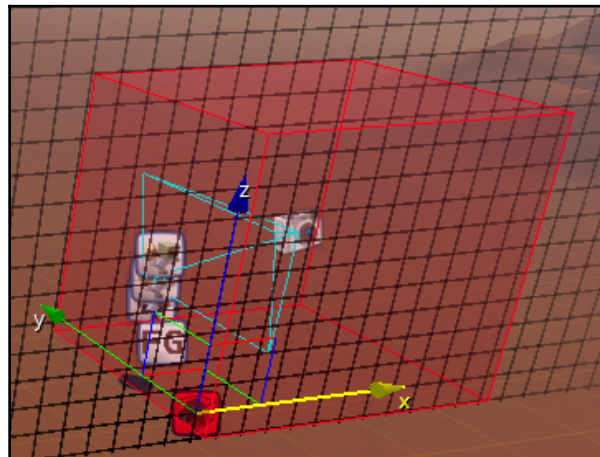
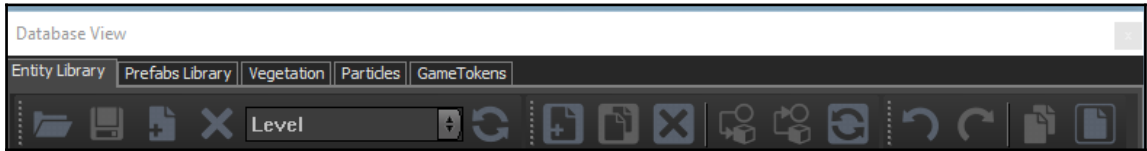
00:00 12:00 23:59

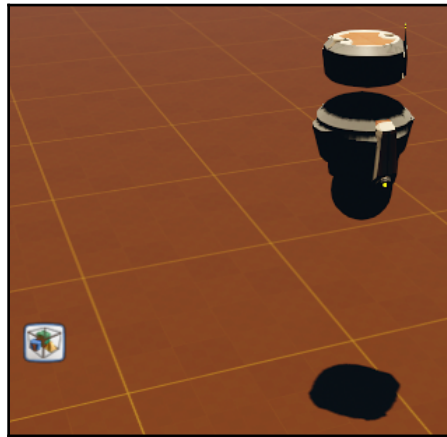
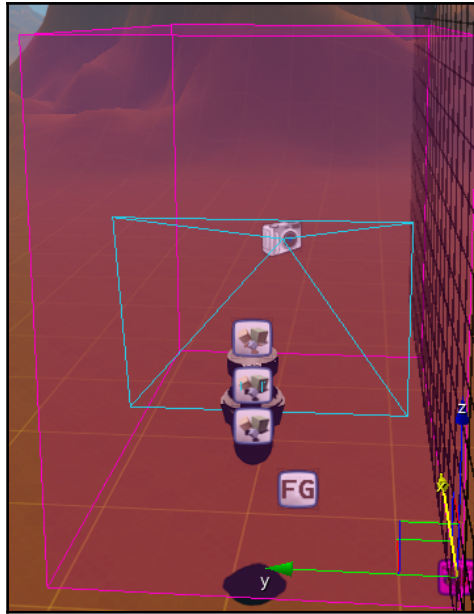
**VolFogShadows**

- ? Enable
- ? Enable for clouds

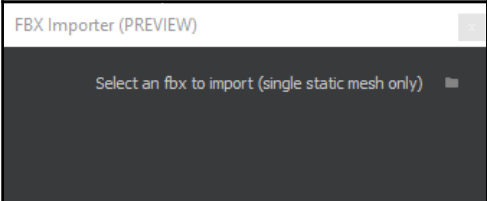


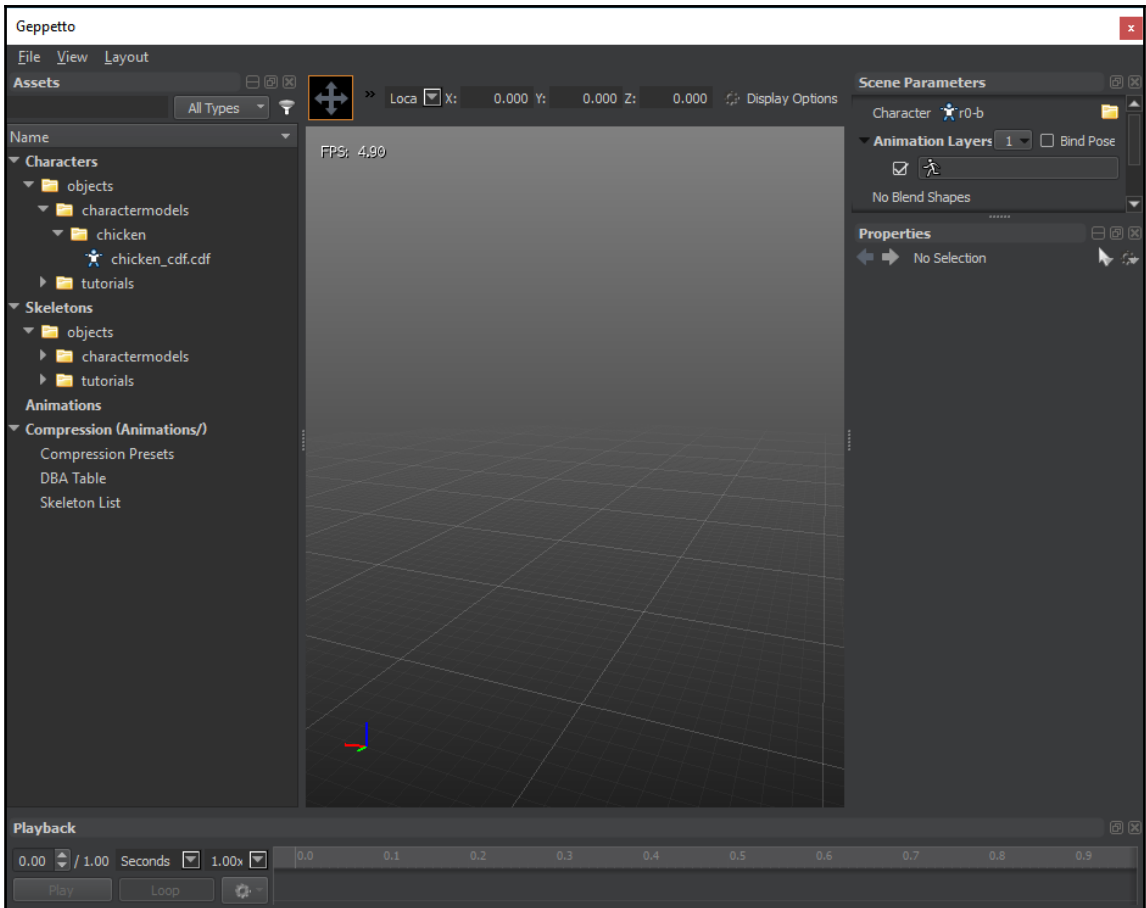
EnvironmentProbe Properties		
? Active		<input checked="" type="checkbox"/>
n BoxSizeX		200
n BoxSizeY		200
n BoxSizeZ		40





# Chapter 4: Creating 3D Characters

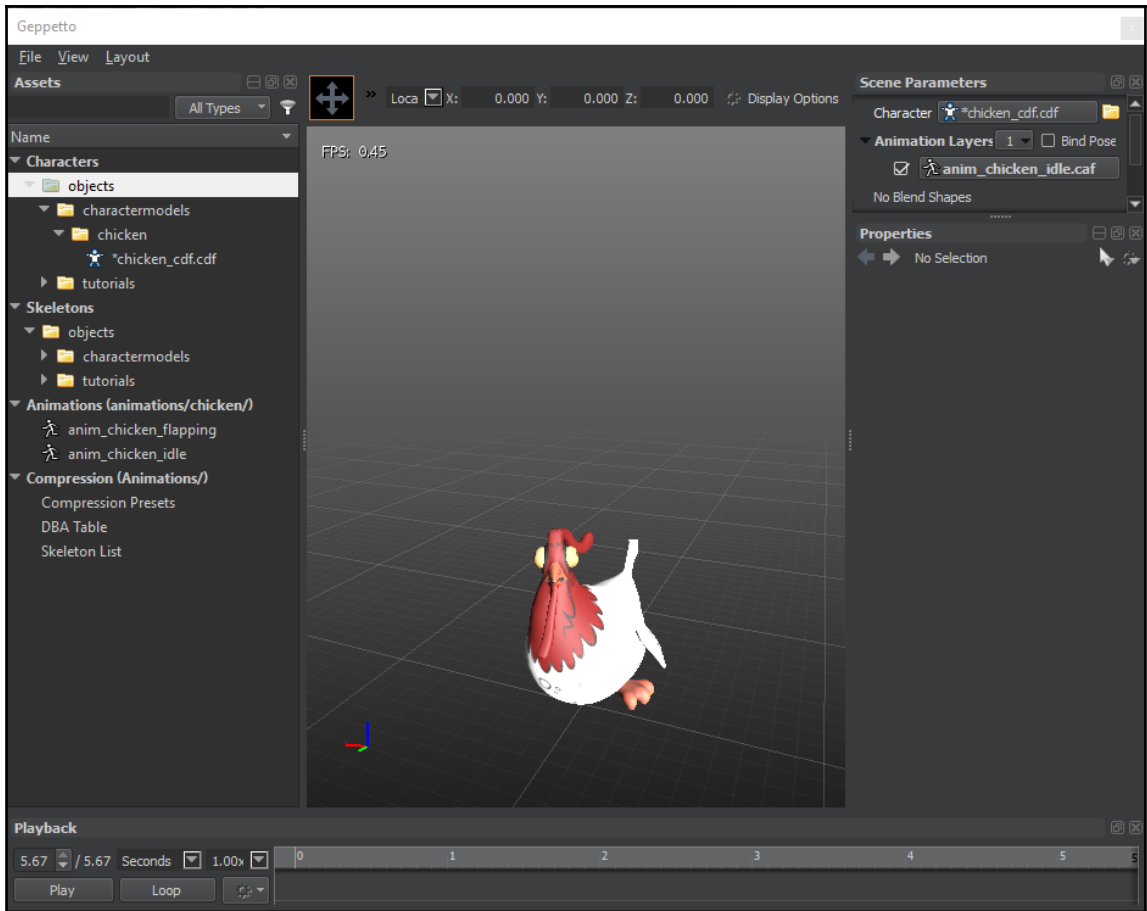


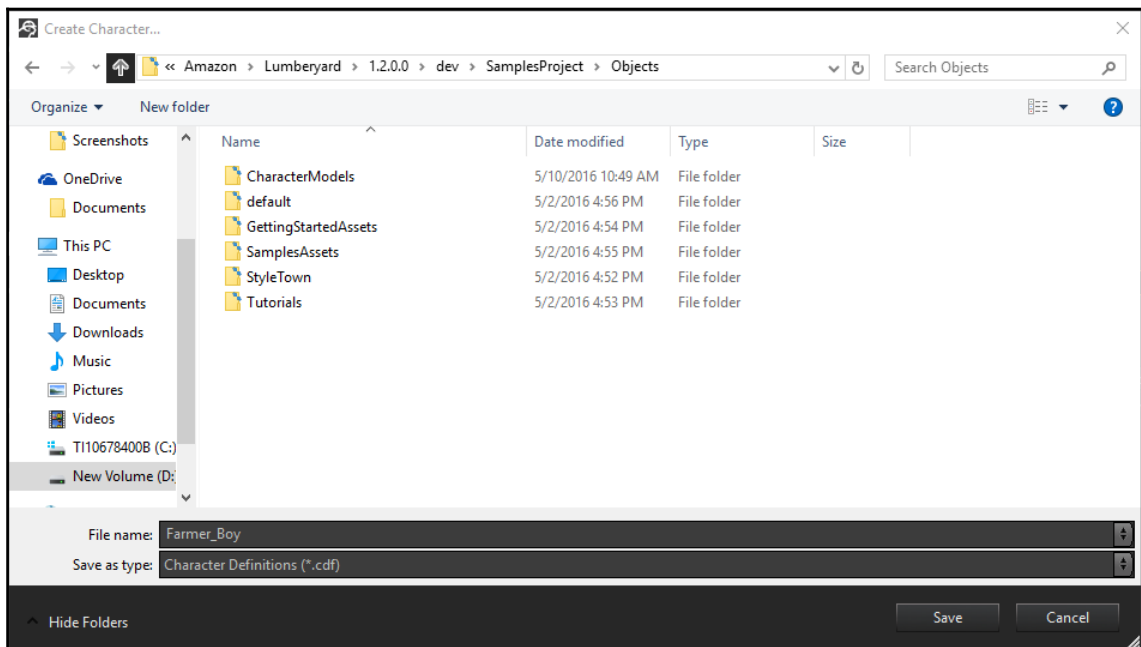
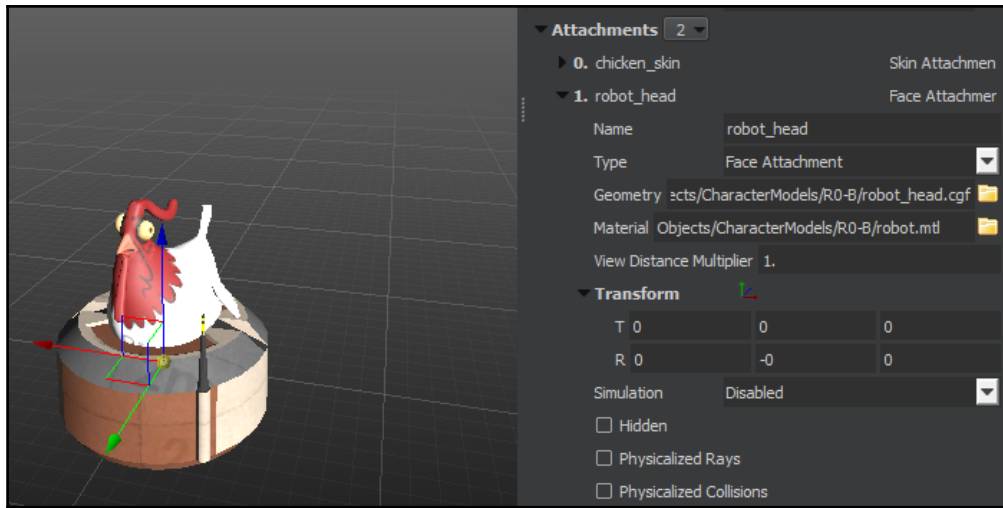


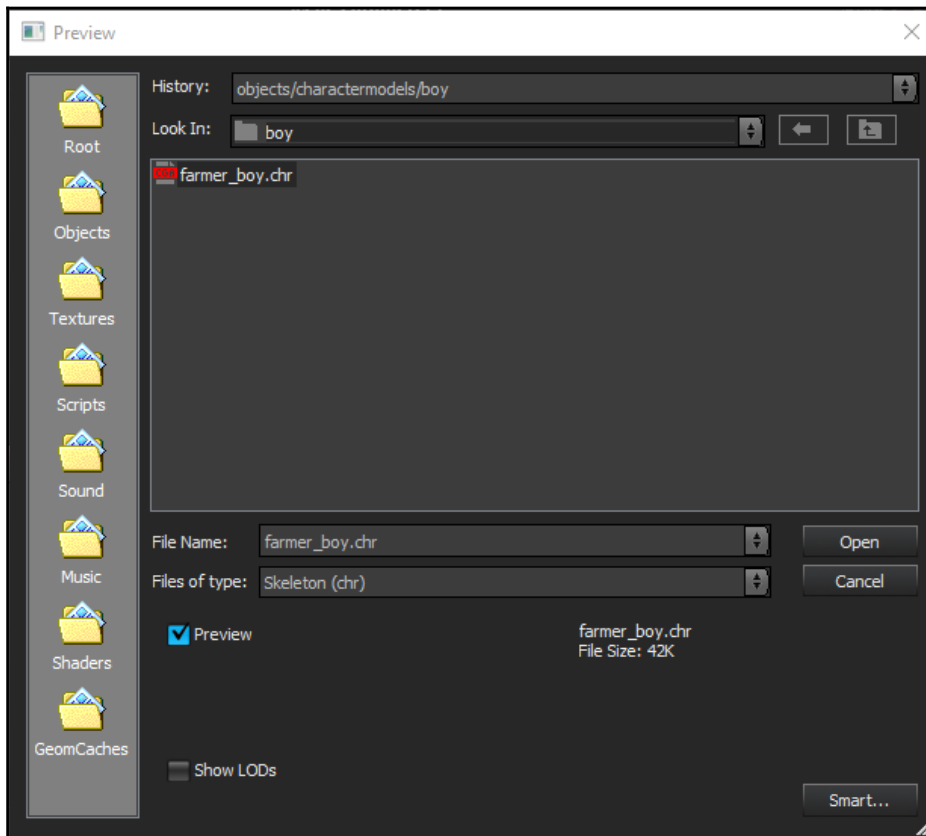
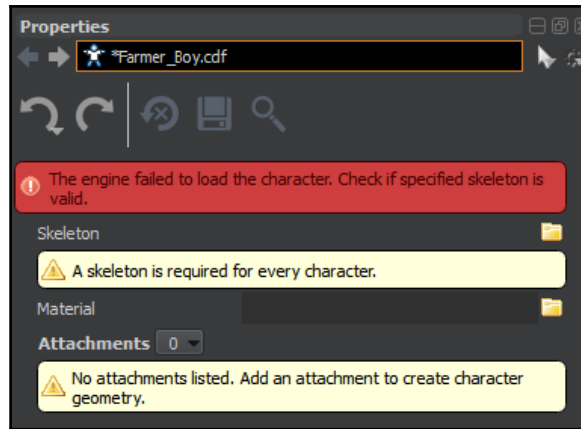


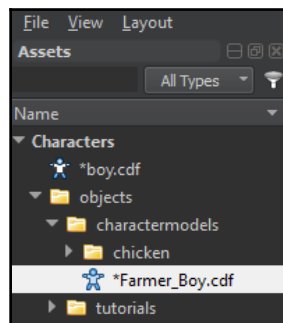
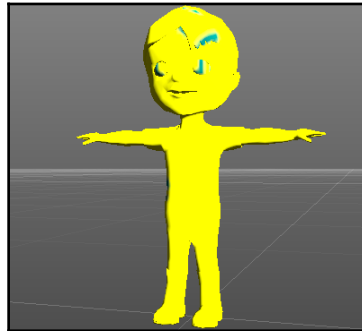
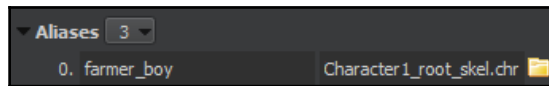
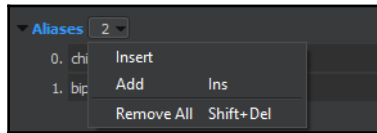
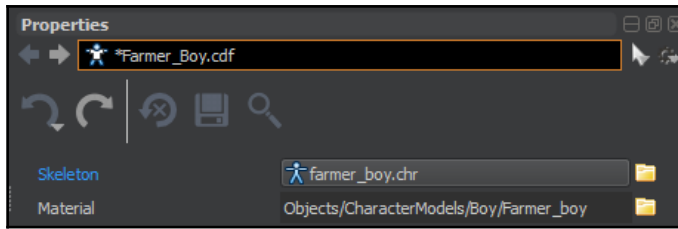
00 Z: 0.000 Display Options

- Attachment/Modifier Gizmos
- ▼ **Animation**
  - Movement In place (Only g) ▼
  - Compression Preview Com. ▼
  - Animation Event Gizmos
  - Locomotion Locator
  - DCC Tool Origin
  - Reset Character
- ▶ **Rendering**
- ▶ **Skeleton**
- ▶ **Camera**
- ▶ **Secondary Animation**
- ▶ **Physics**
- ▶ **Grid**
- ▶ **Lighting**
- ▶ **Background**









▼ Attachments 1

▼ 0. Farmer\_Boy Skin Attachmen

Name	Farmer_Boy
Type	Skin Attachment

▼ Attachments 1

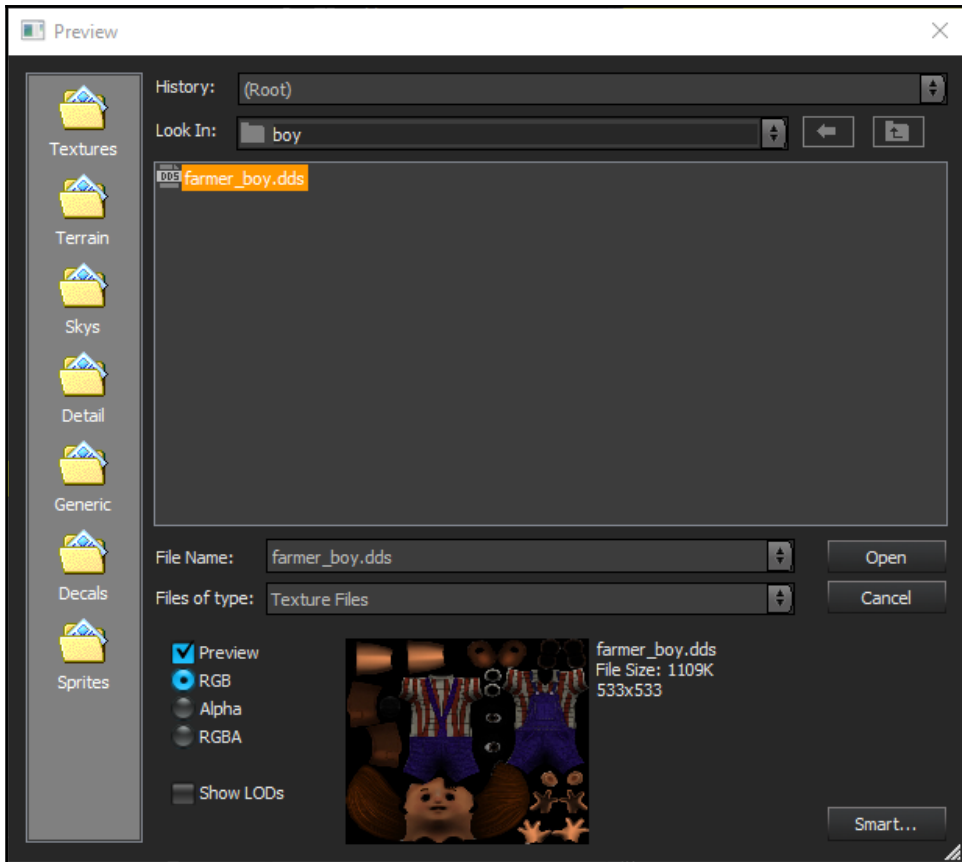
▼ 0. Farmer\_Boy Skin Attachmen

Name	Farmer_Boy
Type	Skin Attachment
Geometry	Objects/CharacterModels/Boy/Farmer_boy.skin
Material	Objects/CharacterModels/Boy/Farmer_boy.mat

Material Editor

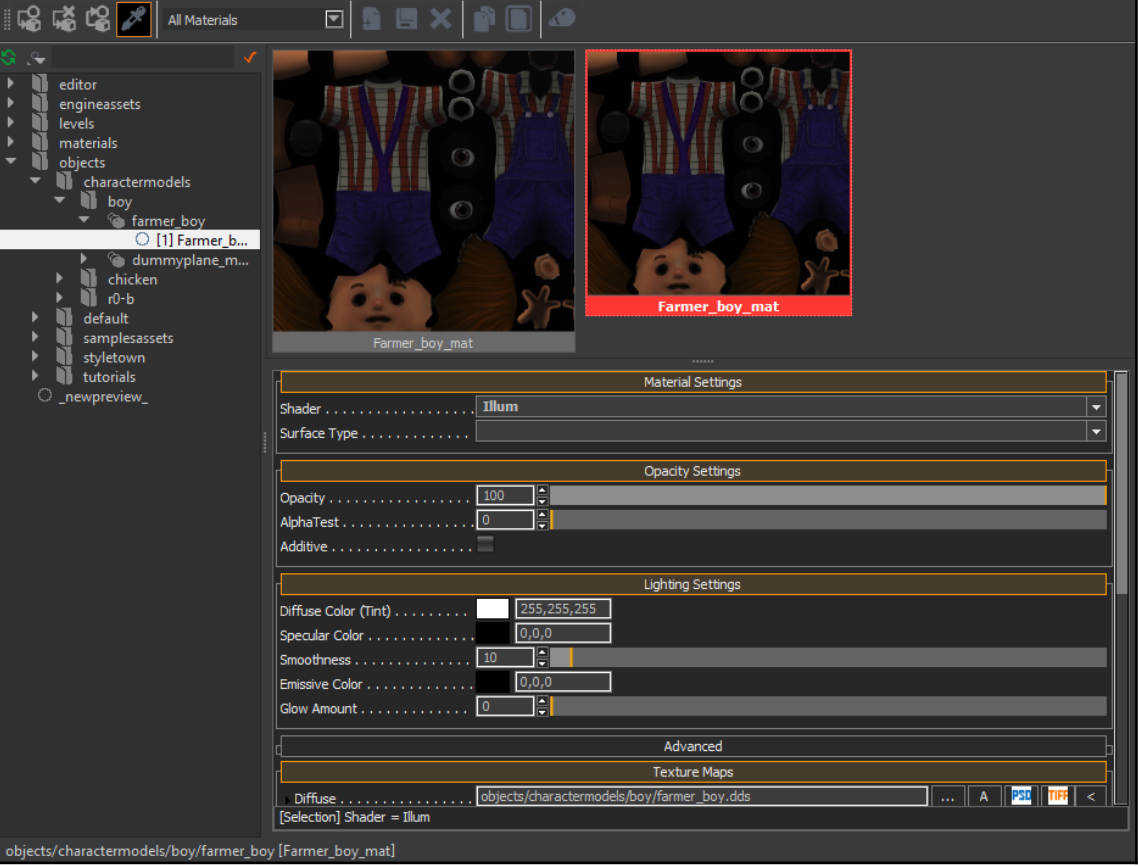
All Materials

- editor
- engineassets
- levels
- materials
- objects
  - charactermodels
    - boy
      - farmer\_boy
        - [1] Farmer\_boy\_mat



Material Editor

All Materials



The Material Editor interface is shown with a dark theme. On the left is a hierarchical tree view with the following structure:

- editor
- engineassets
- levels
- materials
- objects
  - charactermodels
    - boy
      - farmer\_boy
        - [1] Farmer\_b... (selected)
  - dummyplane\_m...
  - chicken
  - r0-b
  - default
  - samplesassets
  - styletown
  - tutorials
  - \_newpreview\_

The main preview area contains two images of a character model wearing a striped shirt and purple overalls. The left image is labeled 'Farmer\_boy\_mat' and the right image is labeled 'Farmer\_boy\_mat' with a red border.

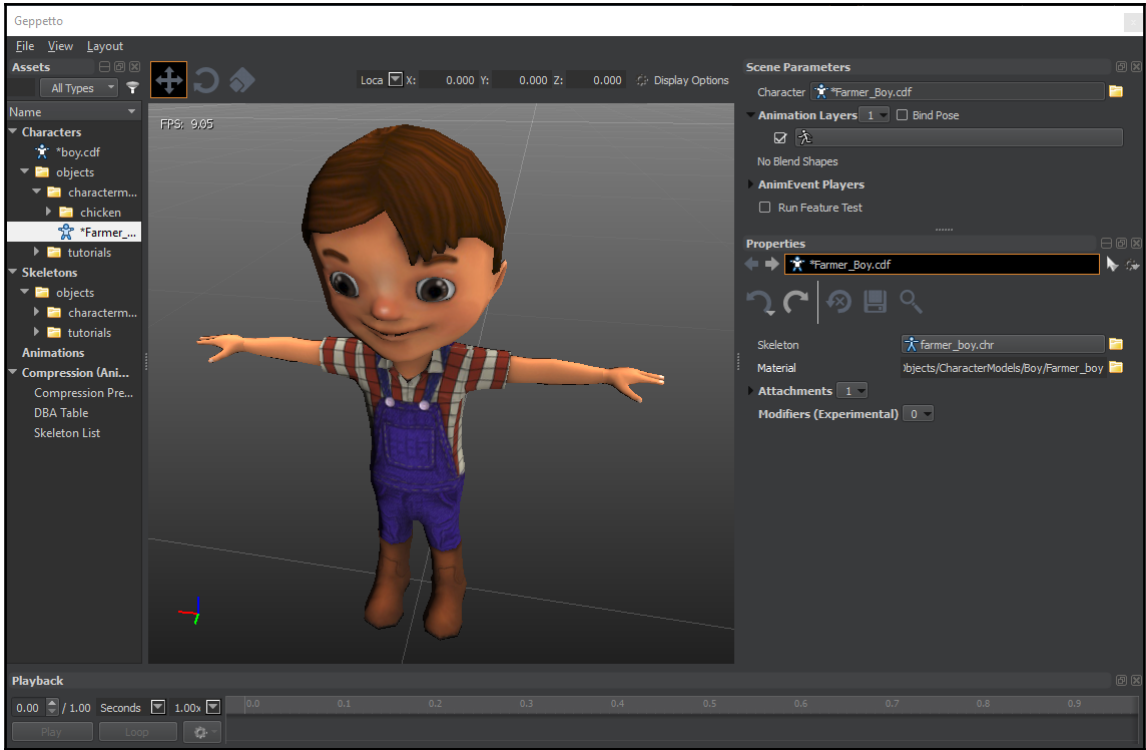
The settings panel on the right is organized into sections:

- Material Settings**
  - Shader: Illum
  - Surface Type: (dropdown)
- Opacity Settings**
  - Opacity: 100
  - AlphaTest: 0
  - Additive: (checkbox)
- Lighting Settings**
  - Diffuse Color (Tint): 255, 255, 255
  - Specular Color: 0, 0, 0
  - Smoothness: 10
  - Emissive Color: 0, 0, 0
  - Glow Amount: 0
- Advanced**
- Texture Maps**
  - Diffuse: objects/charactermodels/boy/farmer\_boy.dds

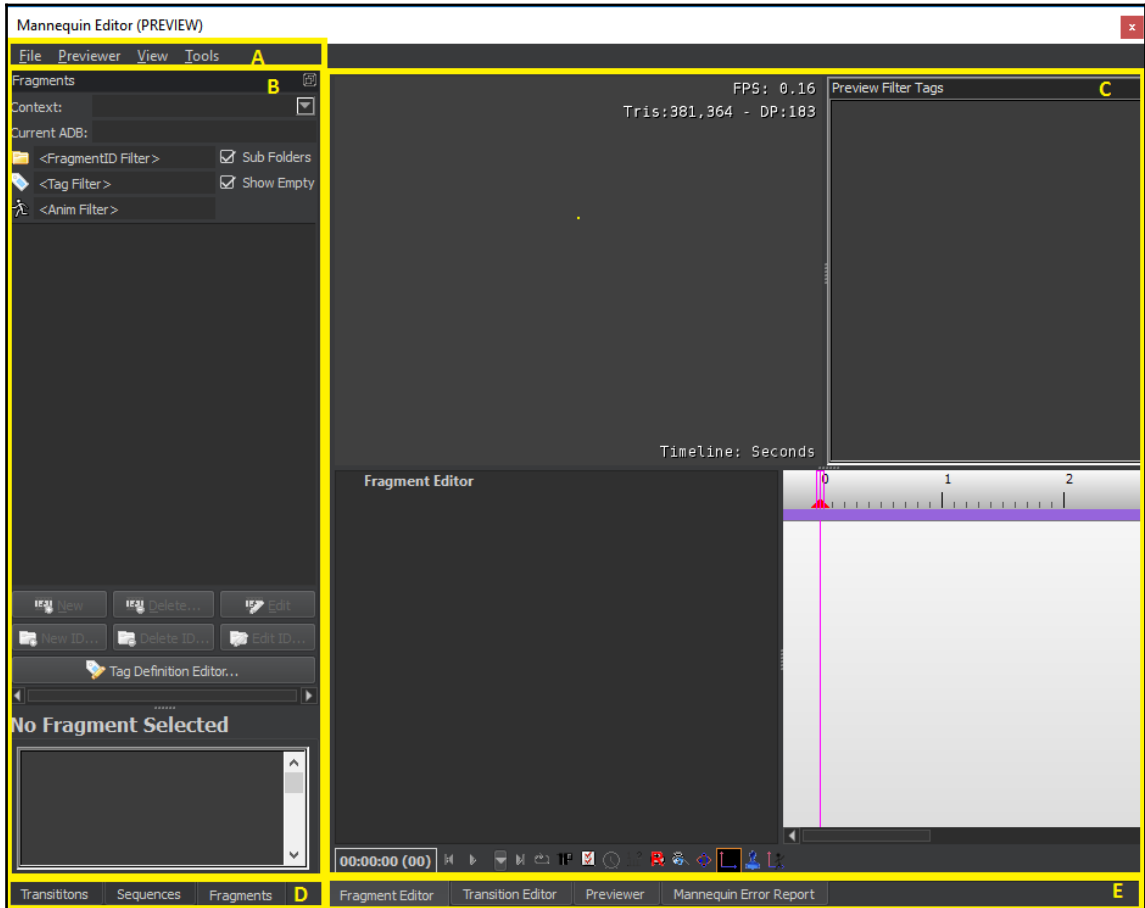
[Selection] Shader = Illum

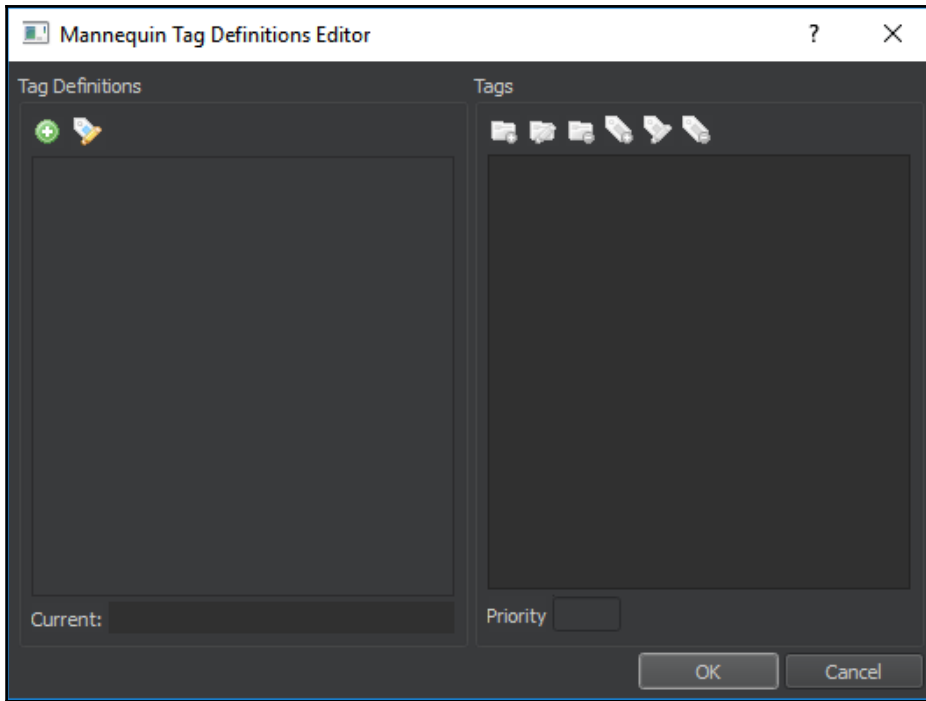
objects/charactermodels/boy/farmer\_boy [Farmer\_boy\_mat]





# Chapter 5: Animating Your Characters





Transitions

Context: [Dropdown]

Transition from: Transition to:

agmentID Filter > [Folder Icon] <-> [Folder Icon] agmentID Filter >

<Tag Filter > [Tag Icon] <-> [Tag Icon] <Tag Filter >

<Anim Filter > [Anim Icon] <-> [Anim Icon] <Anim Filter >

[New...] [Open] [Edit...]

[Copy] [Delete...]

Sequences

Sequences

[Open]

Fragments

Context: [Dropdown]

Current ADB:

[Folder Icon] <FragmentID Filter >  Sub Folders

[Tag Icon] <Tag Filter >  Show Empty

[Anim Icon] <Anim Filter >

[New] [Delete...] [Edit]

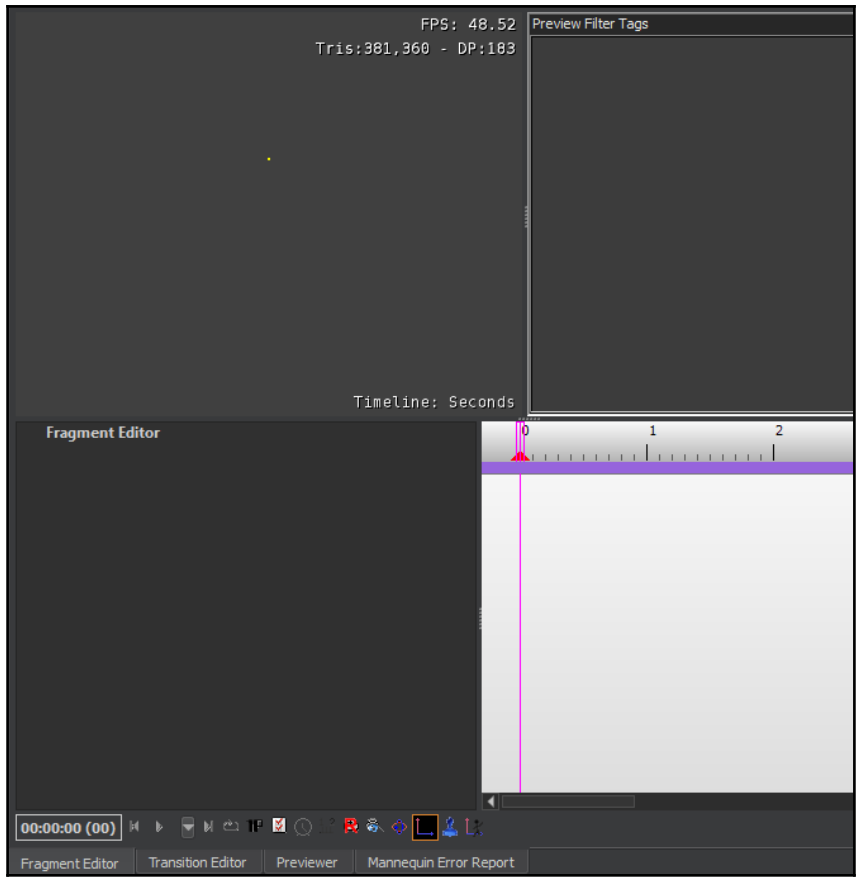
[New ID...] [Delete ID...] [Edit ID...]

[Tag Definition Editor...]

.....

**No Fragment Selected**

[List View]



FPS: 50,97  
Tris: 0,496 - DP:5

Preview Filter Tags

Timeline: Frames

Transition Preview

00:00:00 (00)

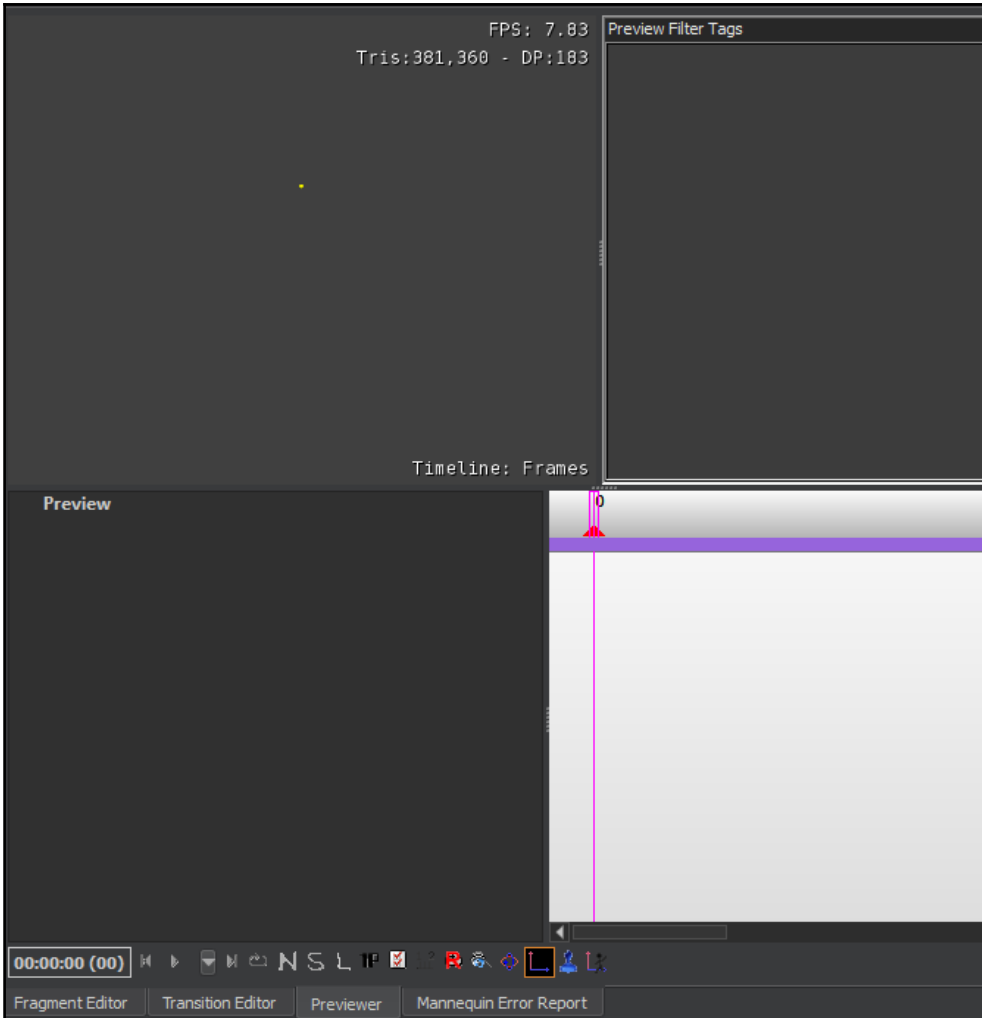


Fragment Editor

Transition Editor

Previewer

Mannequin Error Report



Select All Clear Selection Check Delete Fragments

Sel ▲	Frag	Tags	FragTo	TagsTo	Type	Text
There are no items to show.						

Fragment Editor Transition Editor Previewer Mannequin Error Report



Entity

MannequinObject2

Main\*

Mtl: <No Custom Material>

Area: 0.00 MinSpec: All

Entity Params

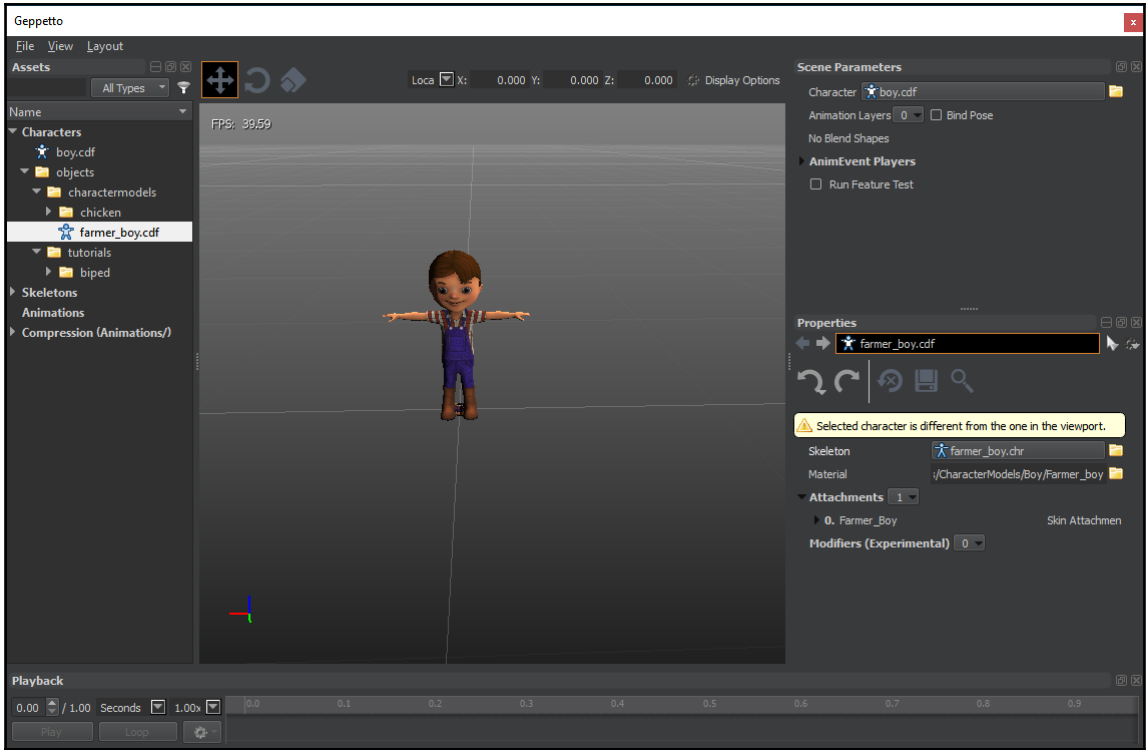
? Outdoor Only	<input type="checkbox"/>
Cast Shadow MinSpec	Low
∩ LodRatio	100
∩ ViewDistanceMultiplier	1
? HiddenInGame	<input type="checkbox"/>
? Receive Wind	<input type="checkbox"/>
? RenderNearest	<input type="checkbox"/>
? NoStaticDecals	<input type="checkbox"/>
? Created Through Pool	<input type="checkbox"/>
∩ Obstruction Multiplier	1

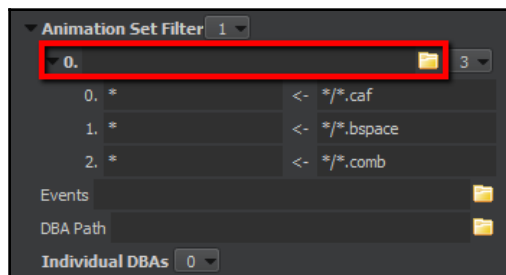
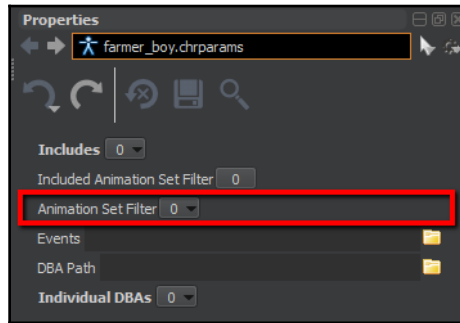
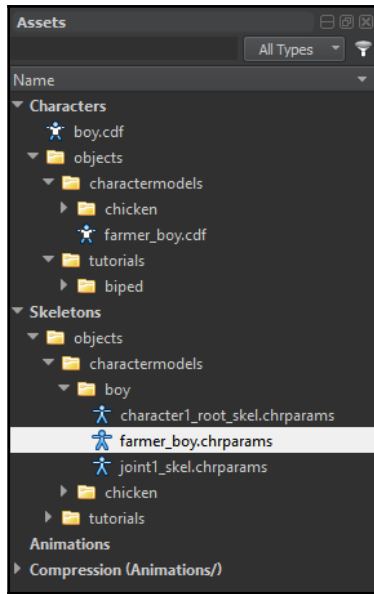
Entity Properties

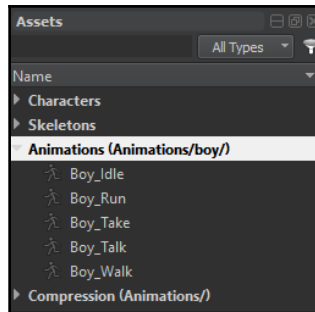
📄 ActionController	
📄 AnimDatabase3P	
📄 Model	

Entity: MannequinObject

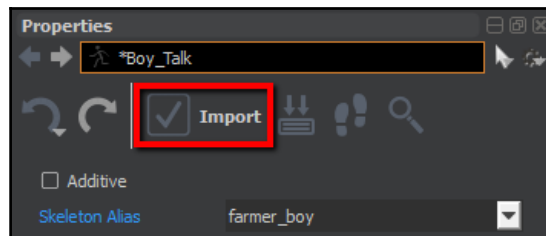
Entity Links



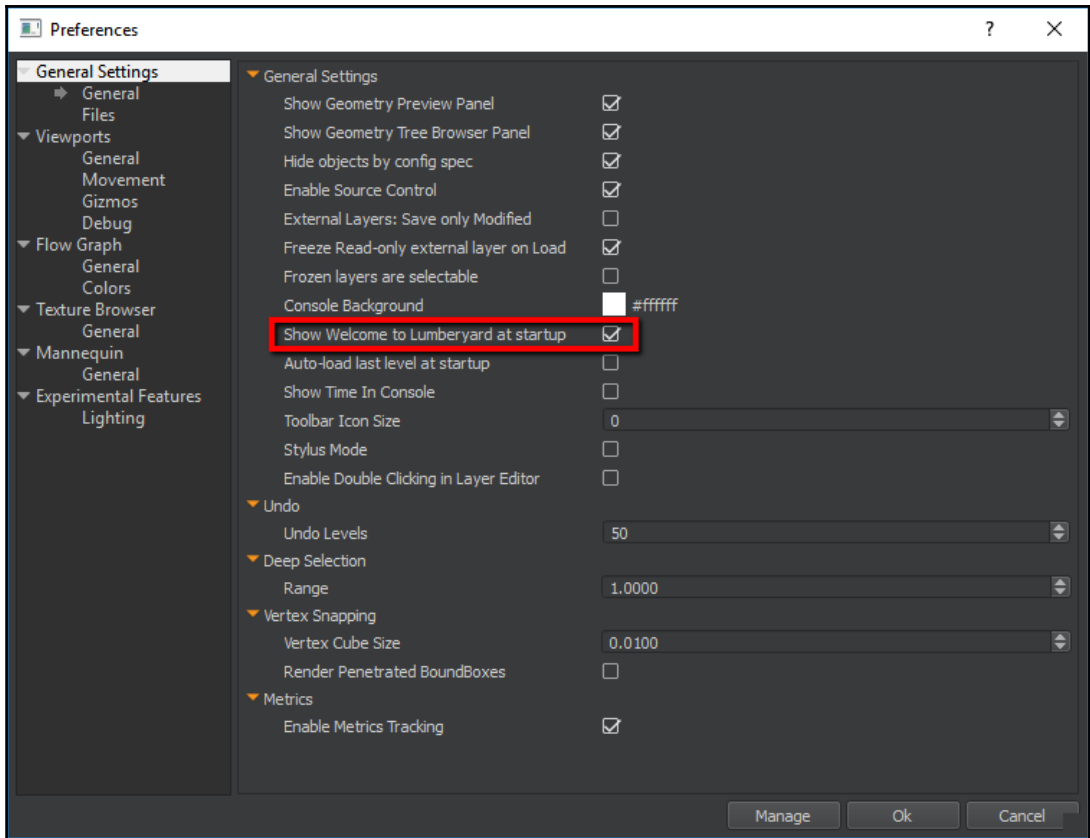


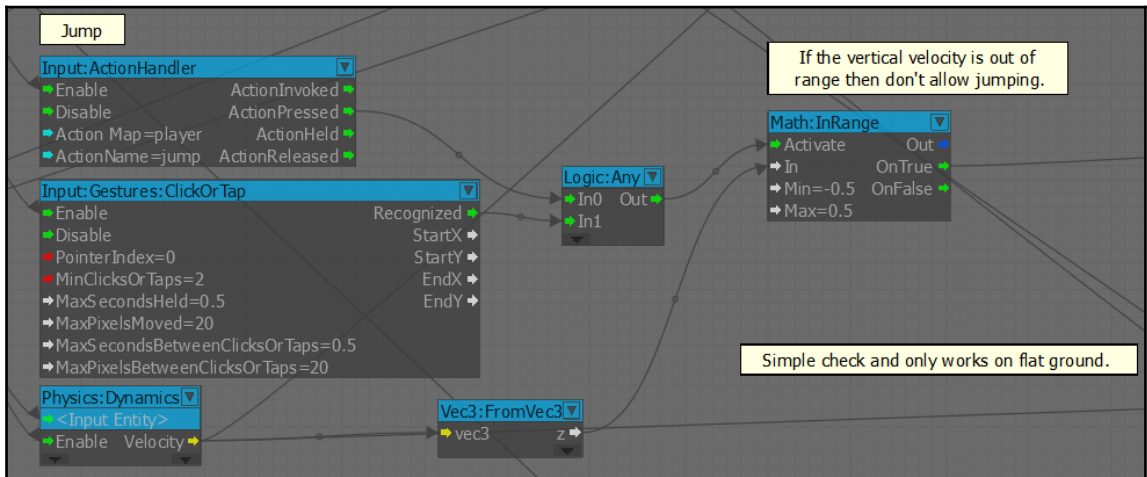
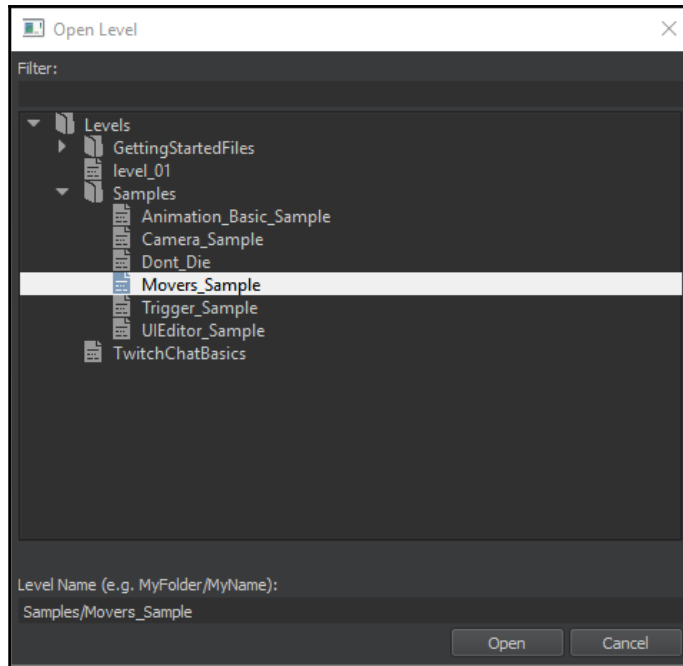


**Boy\_Talk**  
Error: Animation is missing from animation set. Please assign the animation to a skeleton alias in the properties window and click the "Import" button.



- Boy\_Idle.animsettings
- Boy\_Idle.i\_caf
- Boy\_Run.animsettings
- Boy\_Run.i\_caf
- Boy\_Take.animsettings
- Boy\_Take.i\_caf
- Boy\_Talk.animsettings
- Boy\_Talk.i\_caf
- Boy\_Walk.animsettings
- Boy\_Walk.i\_caf



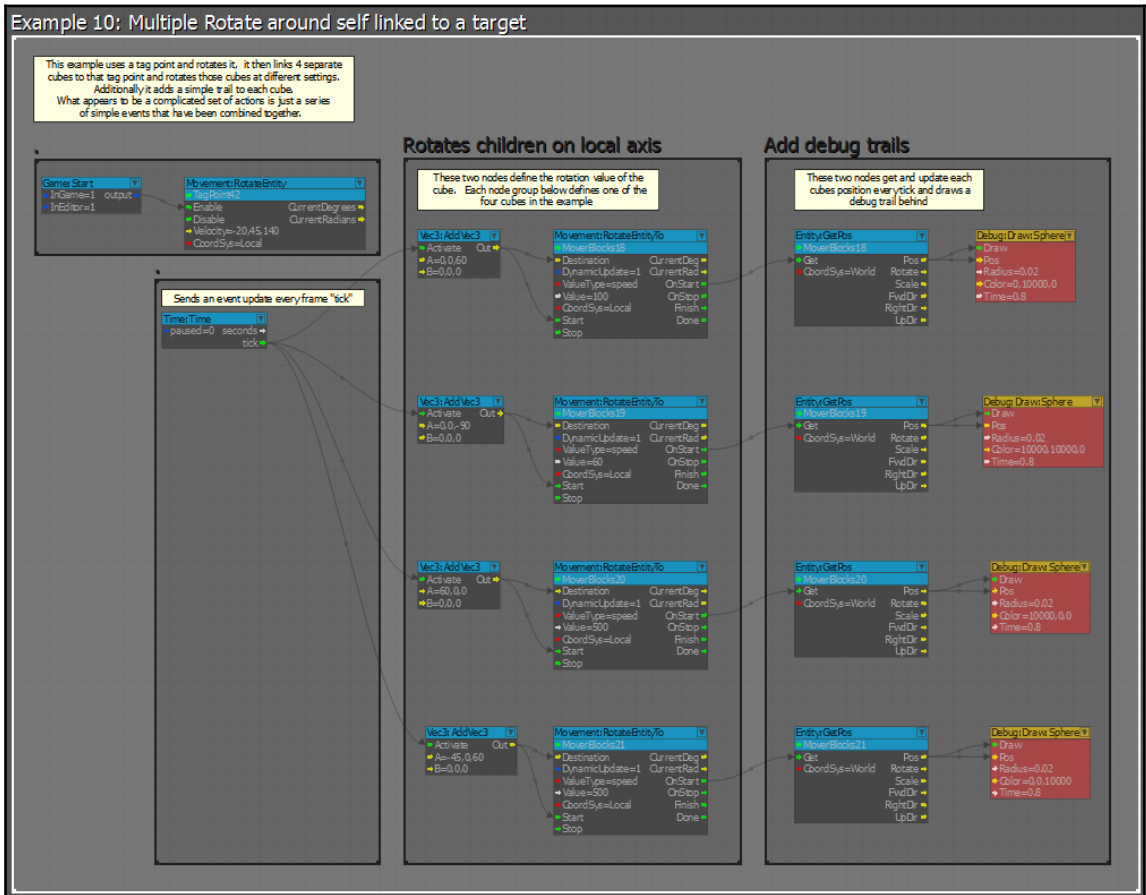


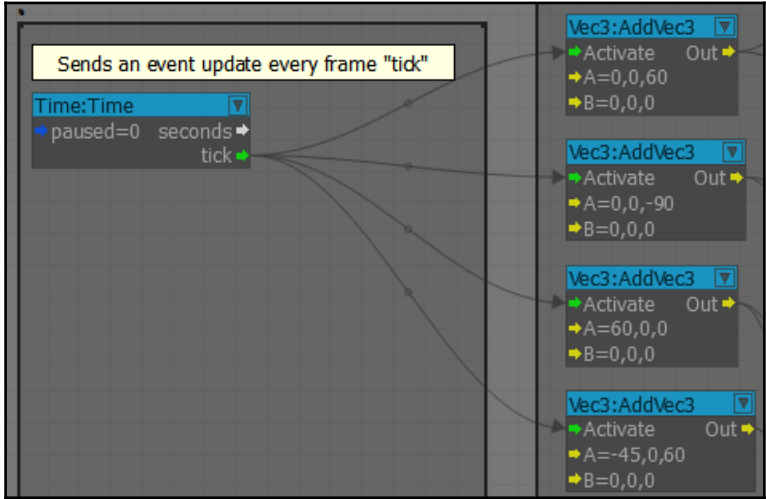
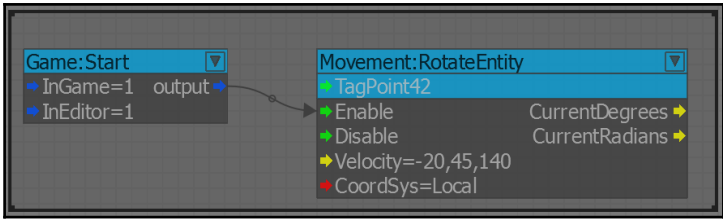
**Physics: ActionImpulse**

- <Input Entity>
- Activate
- Impulse=0,0,2000
- AngularImpulse=0,0,0
- Point=0,0,0
- PartIndex=0
- CoordSystem=World

### Example 10: Multiple Rotate around self linked to a target

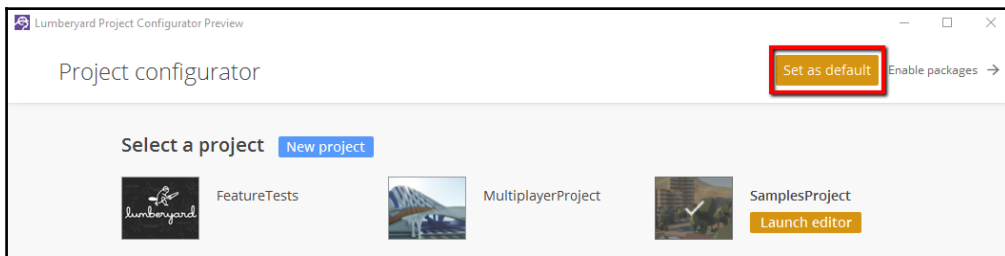
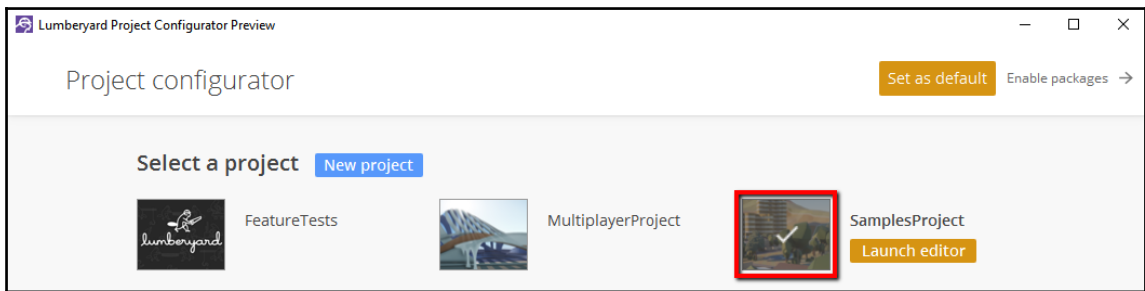
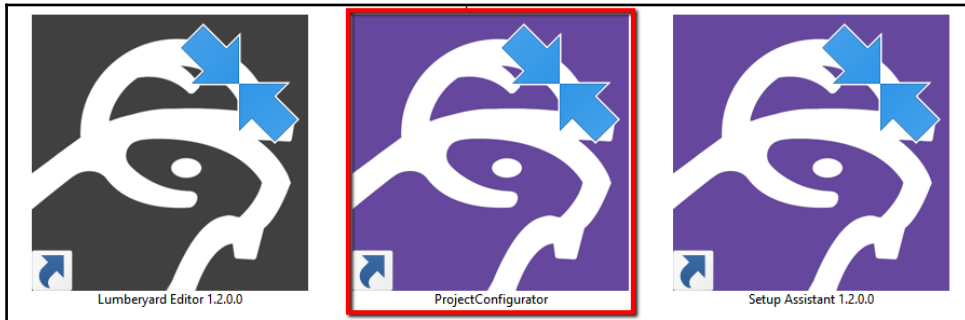
This example uses a tag point and rotates it, it then links 4 separate cubes to that tag point and rotates those cubes at different settings. Additionally it adds a simple trail to each cube. What appears to be a complicated set of actions is just a series of simple events that have been combined together.

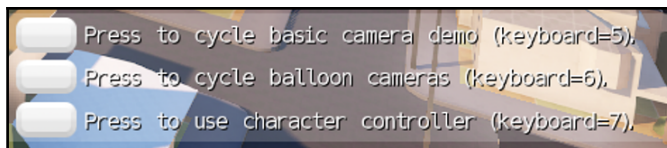
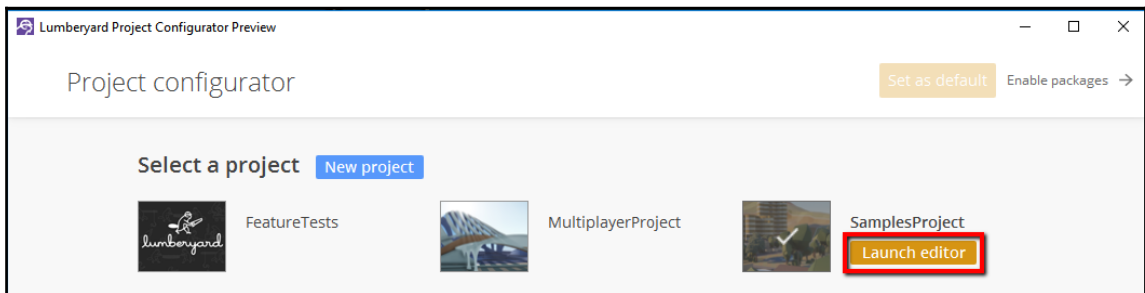
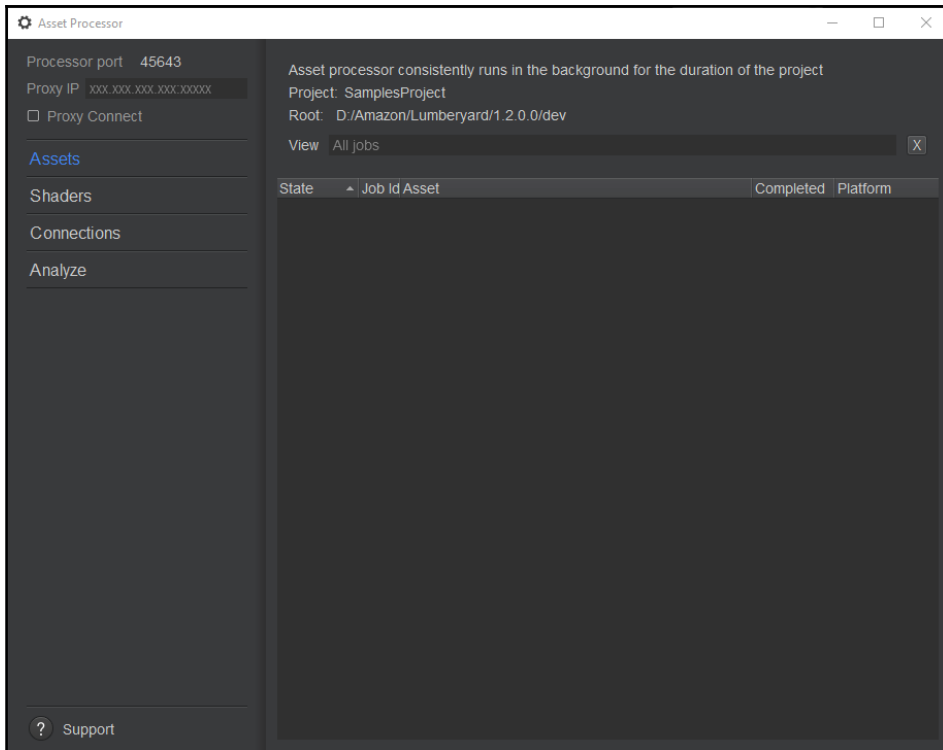


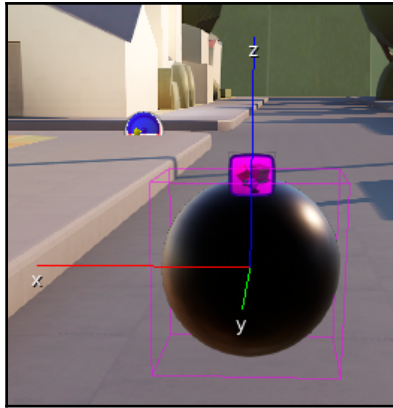




# Chapter 6: Creating Gameplay







Flow Graph

File Edit View Tools Debug **1**

**2**

Components

Search Keyword: **3**

Components:

NodeClass	Category
AI	
AISequence	
Cloud Canvas (AWS)	
Actor	
Animations	
Audio	
Camera	
ComponentEntity	
CustomAction	
Debug	
Dialog	
DynamicResponse	
Engine	
Entity	
Environment	

**4**

Graphs

- Level
- Global
- Prefabs
- External files

Properties

Inputs **6**

Selected Node Info

Graph Properties

Graph Tokens

Search **7**

Find what:

Look in: Current

Special: ---

Include Ports

Include Values

Include Entities

Include IDs

Find All

Search Results **8**

Breakpoints **9**

There is no Flow Graph Loaded. Create a new Flow Graph using "File"

File Edit View Tools Debug

Lumberyard ? X

Inputs

- Controller\_Ref\_Box\_Pitch (Int) [New Input]
- Controller\_Ref\_Box\_Move (Int) [Delete Input]
- Awesome\_Sphere (Int) [Edit Input]
- Robot\_Head (Int)
- Camera\_Rig (Int)
- Robot\_Body (Int)
- Head\_Tilt\_Parent (Int)

Outputs

- [New Output]
- [Delete Output]
- [Edit Output]

OK Cancel

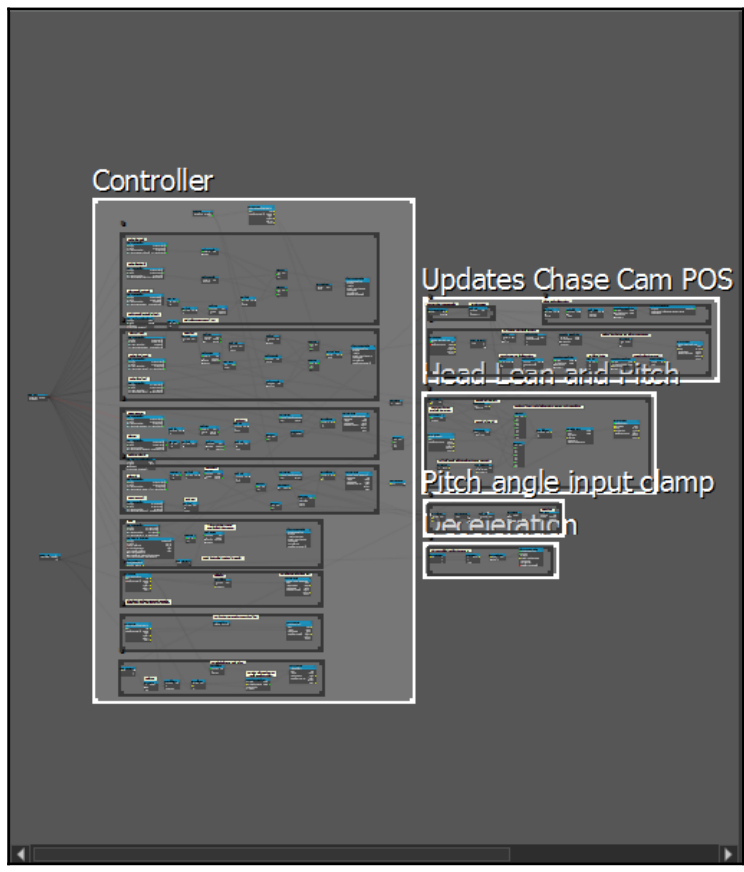
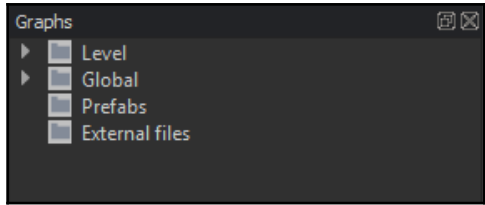


Components [Close]

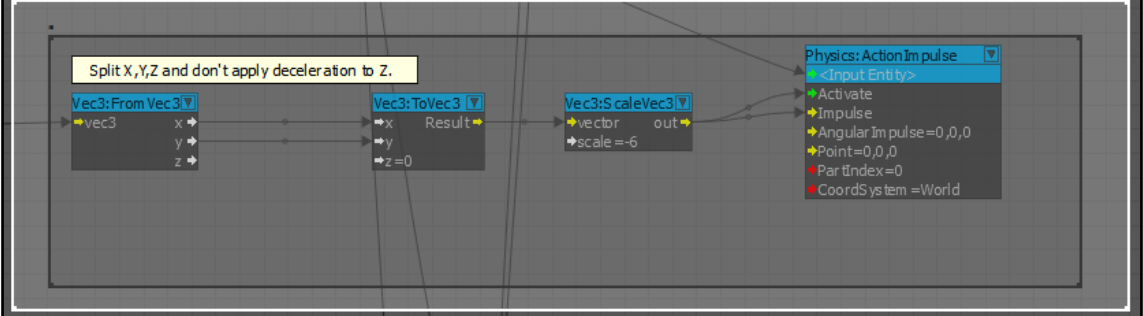
Search Keyword:

Components:

NodeClass	Category
▶ AI	
▶ AISequence	
▶ Cloud Canvas (AWS)	
▶ Actor	
▶ Animations	
▶ Audio	
▶ Camera	
▶ ComponentEntity	
▶ CustomAction	
▶ Debug	
▶ Dialog	
▶ DynamicResponse	
▶ Engine	
▶ Entity	
▶ Environment	
▶ FeatureTest	
▶ Game	
▶ Helicopter	



# Deceleration



Properties

Inputs

Selected Node Info

Graph Properties

Graph Tokens

Search

Find what: robot

Look in: Current

Special: ---

Include Ports

Include Values

Include Entities

Include IDs

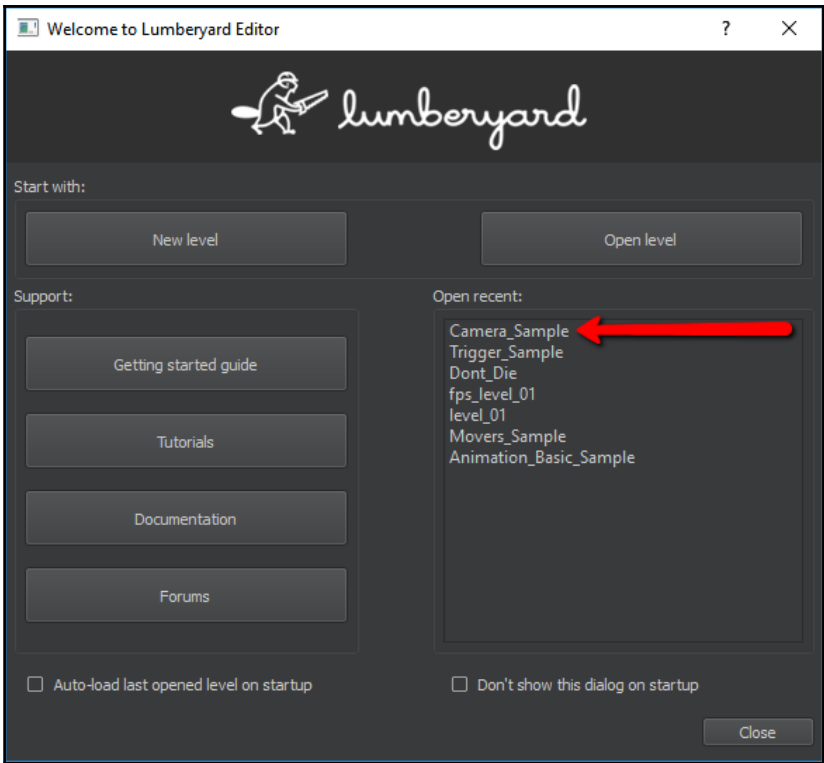
Find All

Search Results

Graph	Node	Context
Character_C...	Module:Start_C...	Node: Module:Star...
Character_C...	Module:End_Ch...	Node: Module:End...
Character_C...	Set Robot body ...	_comment: Set Ro...
Character_C...	Robot Velocity (...)	_comment: Robot ...
Character_C...	Robot Moveme...	_comment: Robot ...
Character_C...	Robot Head So...	_comment: Robot ...

Breakpoints

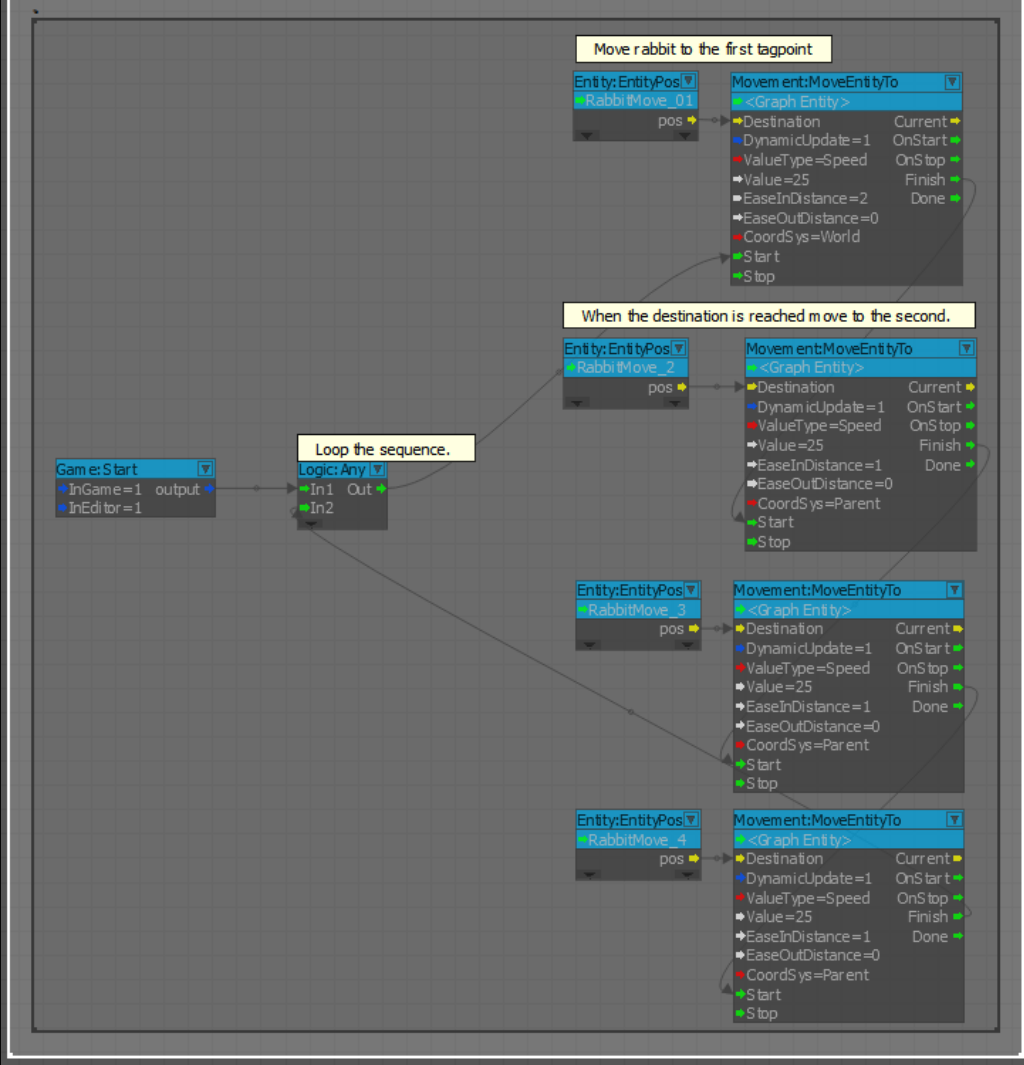
FG	Mover_Capsule
	Movement:MoveEntityTo
	→ Destination
	→ Current

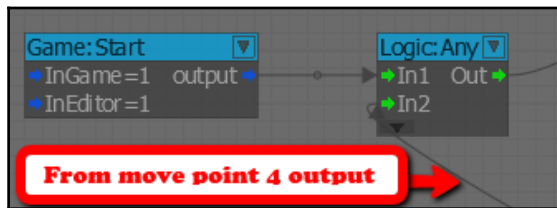
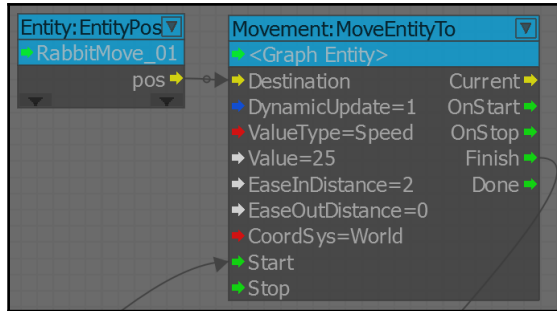




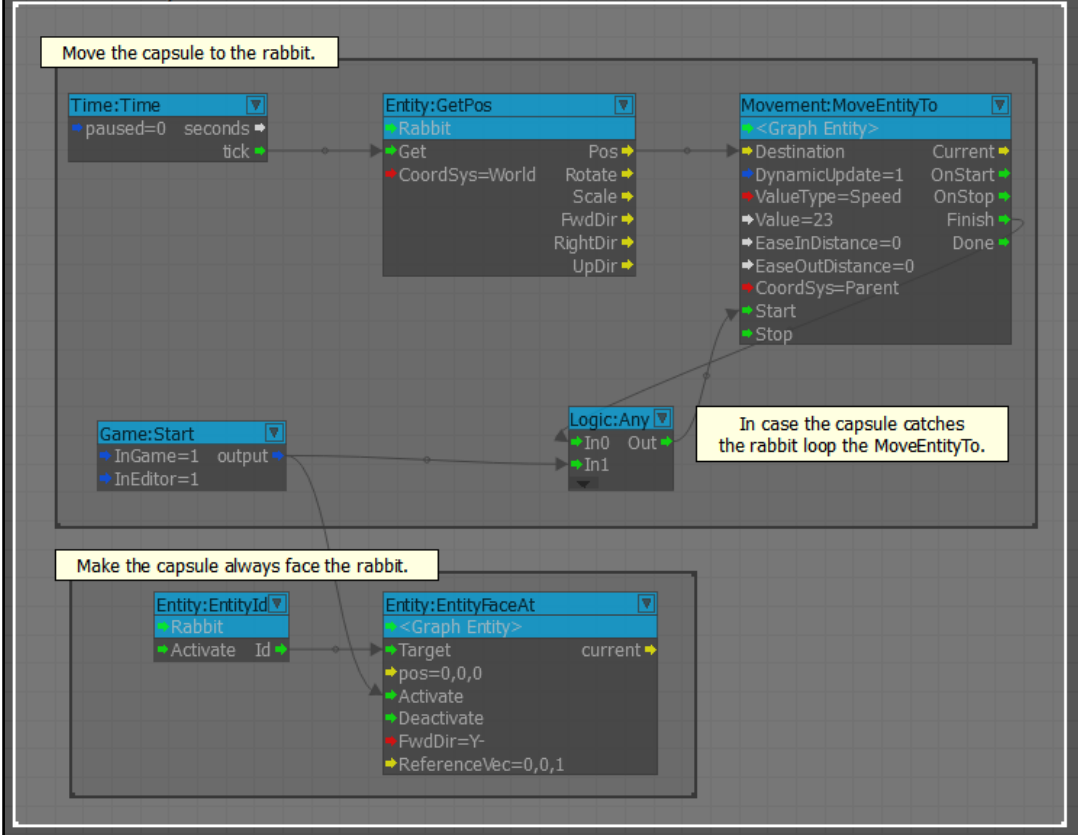


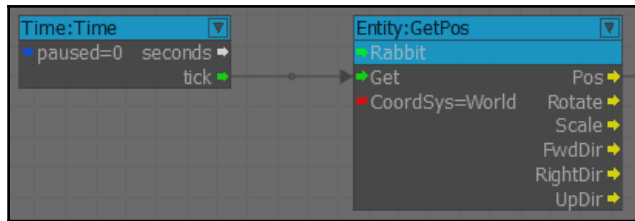
# Move the Rabbit





# Move the capsule

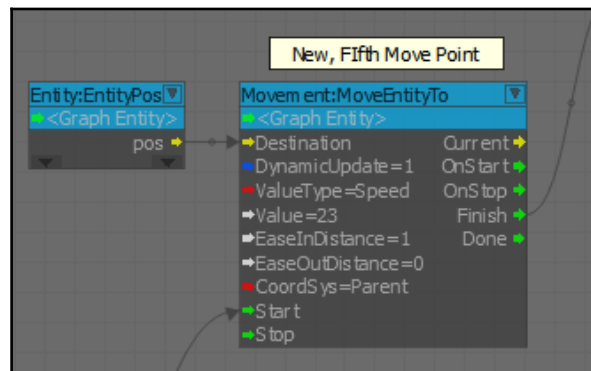




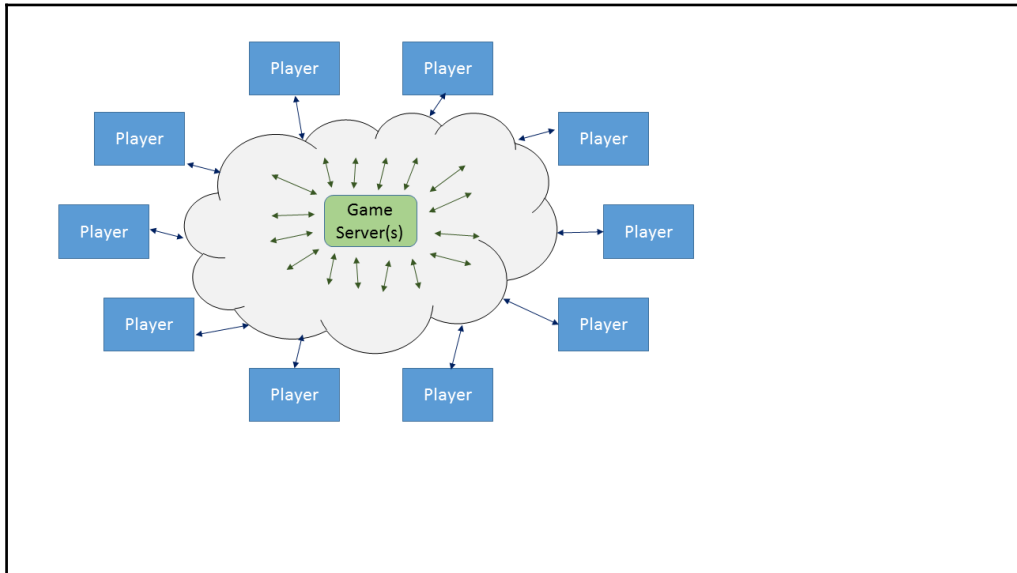
By Name, Hide filtered, AND


Components:

NodeClass	Category
Module	
Movement	
MoveEntityTo	Release
RotateEntity	Release
RotateEntityTo	Release
Physics	



# Chapter 7: Creating Multiplayer Gameplay



Menu  English My Account [Create an AWS Account](#)

Build and run web applications without provisioning and managing servers

[Try AWS Lambda today »](#)

**Get Started with AWS for Free**

[Create a Free Account](#)

**Amazon EC2**  
750 hours of Linux & Windows  
Micro Instances/month


[View AWS Free Tier Details »](#)

## Sign In or Create an AWS Account

What is your email (phone for mobile accounts)?

E-mail or mobile number:

I am a new user.

Sign in using our secure server 

## Login Credentials

Use the form below to create login credentials that can be used for AWS as well as Amazon.com.

My name is:

My e-mail address is:

Type it again:

note: this is the e-mail address that we will use to contact you about your account

Enter a new password:

Type it again:

Create account

✓ Contact Information

Payment Information

Identity Verification

Support Plan

Confirmation

## Payment Information

Please enter your payment information below. You will be able to try a broad set of AWS products for free via the Free Tier. We will only bill your credit or debit card for usage that is not covered by our Free Tier.

AWS Free Tier	Compute Amazon EC2	Storage Amazon S3	Database Amazon RDS
free for 1 year	750hrs/month*	5GB	750hrs/month*

[\\*View full offer details >](#)

Credit/Debit Card Number

Expiration Date

Cardholder's Name

 Use my contact address Use a new address



Progress bar: Contact Information ✓, Payment Information ✓, Identity Verification (active), Support Plan, Confirmation

## Identity Verification

You will be called immediately by an automated system and prompted to enter the PIN number provided.

**1. Provide a telephone number**  
Please enter your information below and click the "Call Me Now" button.

<b>Country Code</b>	<b>Phone Number</b>	<b>Ext</b>
<input type="text" value="United States (+1)"/>	<input type="text"/>	<input type="text"/>

2. Call in progress

3. Identity verification complete

## Identity Verification

You will be called immediately by an automated system and prompted to enter the PIN number provided.

1. Provide a telephone number ✓

2. Call in progress ✓

**3. Identity verification complete**  
Your identity has been verified successfully

## Confirmation

Thank you for updating your Amazon Web Services (AWS) subscription. Your management console will now be up to date with all AWS services.

[Go to the Management Console](#)



## Game Development



### GameLift

Deploy and Scale Session-based Multiplayer Games



### Test with a sample game

See for yourself how easy it is to run multiplayer servers using Amazon GameLift. With the [AWS Free Tier](#), this test can be completely free.

[Test Amazon GameLift](#)

## Step 1: Upload the sample game server to your Amazon GameLift account

Each version of your game server is called a build by Amazon GameLift. The first step is to upload a build. For this test, we've already created a build of a sample game developed with Lumberyard. Give the sample game server build a name and add it to your account below.

Game Server Name:

[Add build](#)

## Step 2: Deploy the sample game server

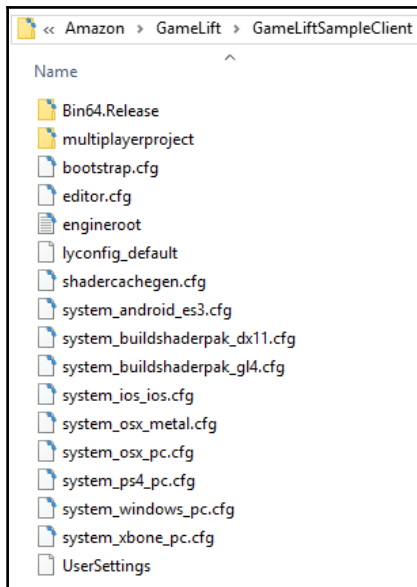
Game servers are deployed into fleets of one or more Amazon EC2 instances. Creating a fleet, starting an EC2 instance, and running a game server can take up to 40 minutes. Create a new fleet to run the sample game server from your account below.

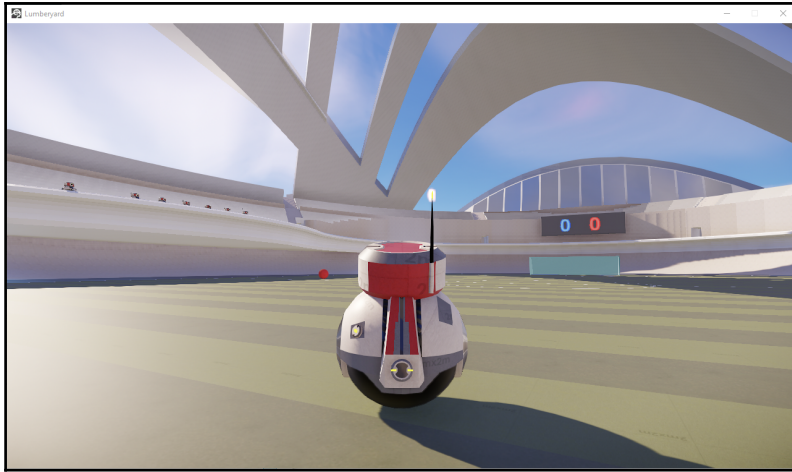
Create a fleet

## Step 3: Download the sample game client

While your fleet is activating, download the sample game client now on a PC with the [system requirements](#). The download is a zip file, which you'll need to extract before playing. Once your fleet is active, you can move on to Step 4.

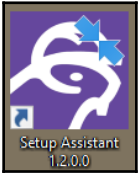
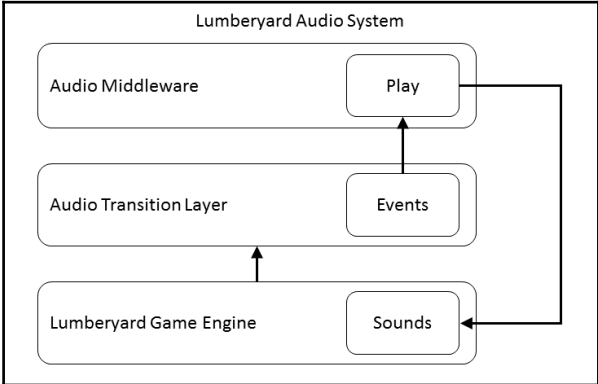
Download game client



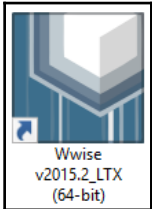


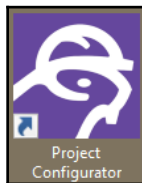
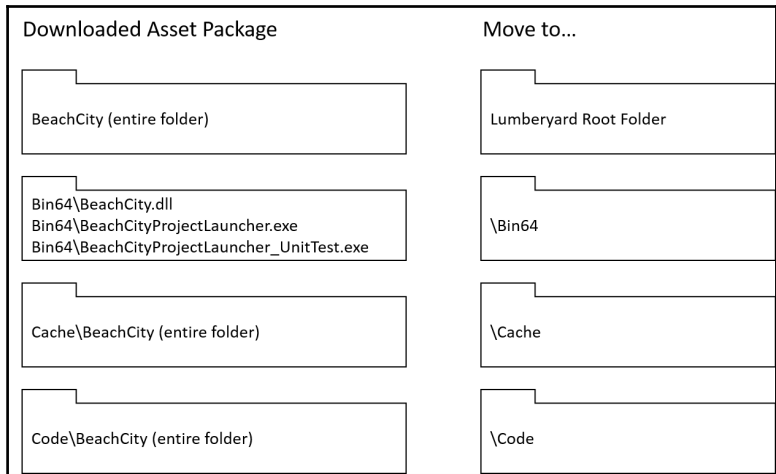
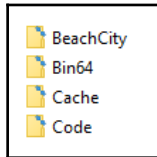
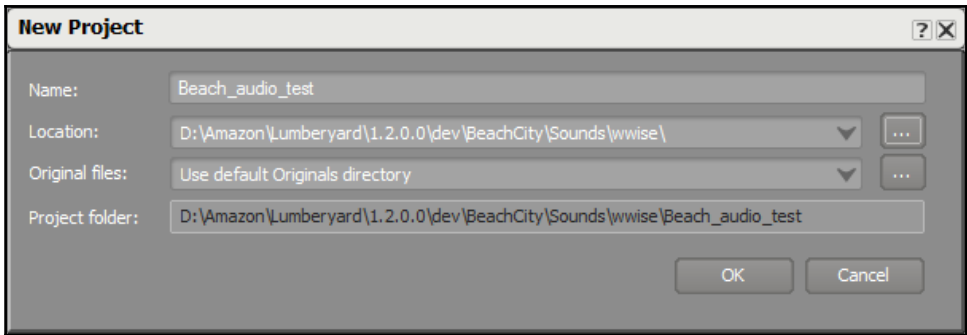
Status	Fleet ID	EC2 type	Active instances	Protection	Active game sessions	Current player sessions	Uptime	Date created
Active	fleet-26f2d56a-0b8a-40dd-871e-b8682a914d1a	c3.large	1	No protection	1	0 of 8	00d 15h 37m 21s	Sun, 26 Jun 2016 0:43:0

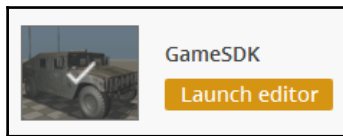
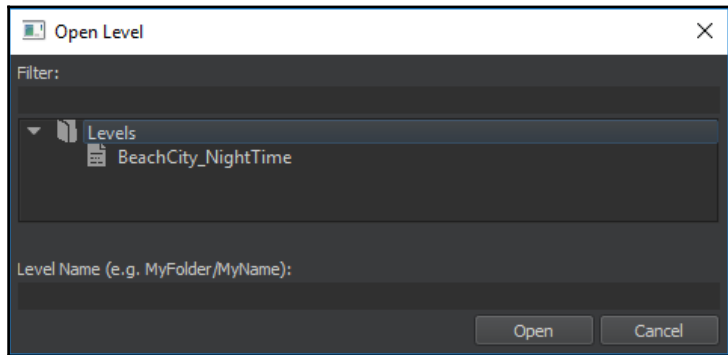
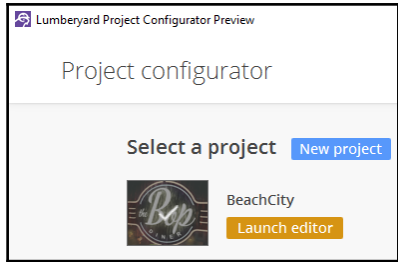
# Chapter 8: Bringing Your Game to Life with Audio and Sound Effects




Optional software	Install link	Located on HD	Status
<b>Audiokinetic Wwise LTX Authoring Tool</b> Wwise LTX is a comprehensive audio middleware solution for game development designed to create sophisticated and rich interactive audio.	<a href="#">Get it</a>	Found	✓







 **Woodland Asset Collection** Version 1.0.0

**Open a Level** [Close]

Filter:

- Levels
  - singleplayer
    - woodland**

Level Name (e.g. MyFolder/MyName):  
singleplayer/woodland

RollupBar [Close]

Objects

AI	Actor Entity
Archetype Entity	Area
<b>Audio</b>	Brush
Custom	Designer
Entity	Geom Entity
Misc	Particle Entity
Prefab	

Object Type

AudioAreaAmbience	AudioAreaEntity
AudioAreaRandom	AudioTriggerSpot



Audio Controls Editor

File

Search

Filters

+ Add

Inspector

Wwise Controls

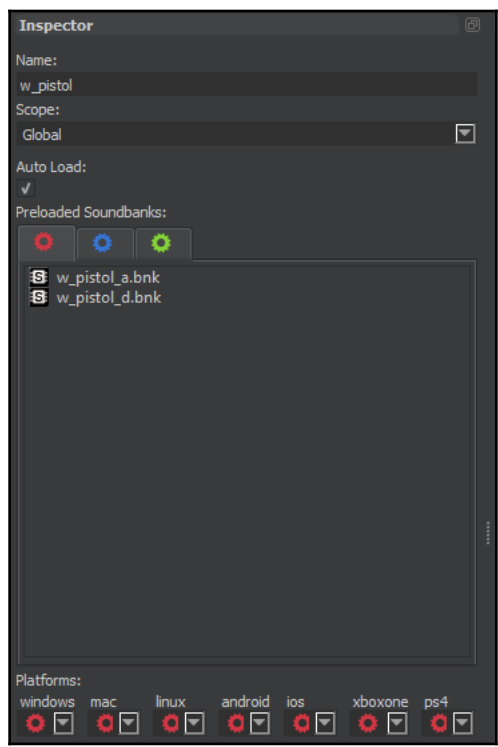
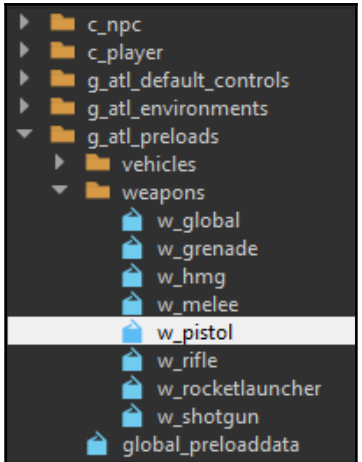
Search

Hide Assigned

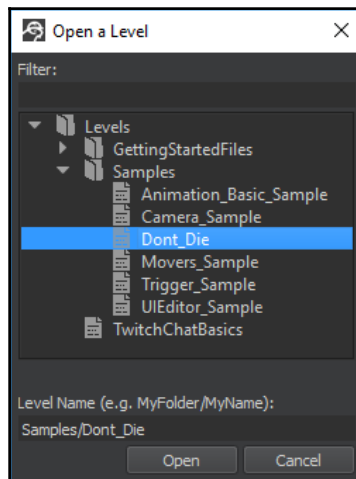
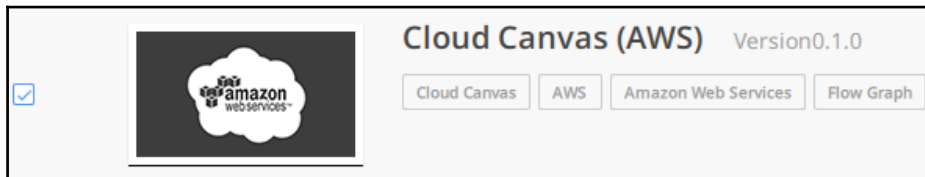
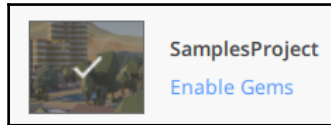
- ▶ c\_npc
- ▶ c\_player
- ▶ g\_atl\_default\_controls
- ▶ g\_atl\_environments
- ▶ g\_atl\_preloads
- ▶ g\_atl\_rtpcs
- ▶ g\_atl\_switches
- ▶ l\_airfield
- ▶ l\_atl\_preloads
- ▶ l\_atl\_rtpcs
- ▶ l\_atl\_switches
- ▶ l\_global
- ▶ l\_vr\_demo
- ▶ l\_woodland
- ▶ m\_global
- ▶ p\_brk
- ▶ p\_col\_mat
- ▶ p\_col\_obj
- ▶ p\_col\_veg
- ▶ p\_pfx
- ▶ p\_pro
- ▶ ui\_hud
- ▶ ui\_menu
- ▶ v\_abrams
- ▶ v\_global
- ▶ v\_hmmwv
- ▶ v\_mh60\_blackhawk
- ▶ v\_speedboat
- ▶ v\_swat\_van
- ▶ w\_global
- ▶ w\_grenade
- ▶ w\_hmg
- ▶ w\_melee
- ▶ w\_pistol
- ▶ w\_rifle
- ▶ w\_rocketlauncher
- ▶ w\_shotgun
- ▶ w\_tank\_cannon

Select a control to explore its properties

- 🔍 c\_global\_a.bnk
- 🔍 c\_global\_d.bnk
- 🔍 c\_global\_voc\_a.bnk
- 🔍 c\_global\_voc\_d.bnk
- 🔍 cr\_hangar\_ad.bnk
- 🔍 cr\_openground\_ad.bnk
- 🔍 g\_events\_d.bnk
- 🔍 l\_airfield\_a.bnk
- 🔍 l\_airfield\_d.bnk
- 🔍 l\_global\_a.bnk
- 🔍 l\_global\_d.bnk
- 🔍 l\_vr\_demo\_a.bnk
- 🔍 l\_vr\_demo\_d.bnk
- 🔍 l\_woodland\_a.bnk
- 🔍 l\_woodland\_d.bnk
- 🔍 p\_global\_a.bnk
- 🔍 p\_global\_d.bnk
- 🔍 ui\_hud\_a.bnk
- 🔍 ui\_hud\_d.bnk
- 🔍 ui\_menu\_a.bnk
- 🔍 ui\_menu\_d.bnk
- 🔍 v\_abrams\_a.bnk
- 🔍 v\_abrams\_d.bnk
- 🔍 v\_global\_a.bnk
- 🔍 v\_global\_d.bnk
- 🔍 v\_hmmwv\_a.bnk
- 🔍 v\_hmmwv\_d.bnk
- 🔍 v\_mh60\_blackhawk\_a.bnk
- 🔍 v\_mh60\_blackhawk\_d.bnk
- 🔍 v\_speedboat\_a.bnk
- 🔍 v\_speedboat\_d.bnk
- 🔍 v\_swat\_van\_a.bnk
- 🔍 v\_swat\_van\_d.bnk
- 🔍 w\_global\_a.bnk
- 🔍 w\_global\_d.bnk
- 🔍 w\_grenade\_a.bnk
- 🔍 w\_grenade\_d.bnk
- 🔍 w\_hmg\_a.bnk
- 🔍 w\_hmg\_d.bnk
- 🔍 w\_melee\_a.bnk
- 🔍 w\_melee\_d.bnk
- 🔍 w\_pistol\_a.bnk
- 🔍 w\_pistol\_d.bnk
- 🔍 w\_rifle\_a.bnk
- 🔍 w\_rifle\_d.bnk
- 🔍 w\_rocketlauncher\_a.bnk
- 🔍 w\_rocketlauncher\_d.bnk
- 🔍 w\_shotgun\_a.bnk



# Chapter 9: Employing Cloud Computing and Storage



**Enter User Names:**

1.
2.
3.
4.
5.

Maximum 64 characters each

---


**Generate an access key for each user**

**Create New Users** User Actions ▾ ↻ ⚙️ ⓘ

Filter Showing 1 results

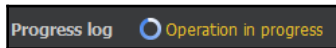
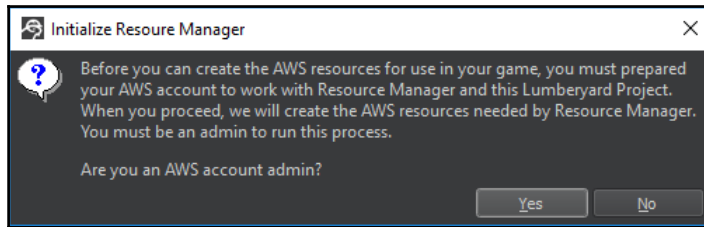
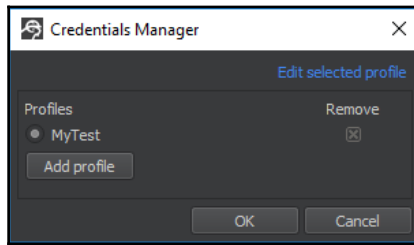
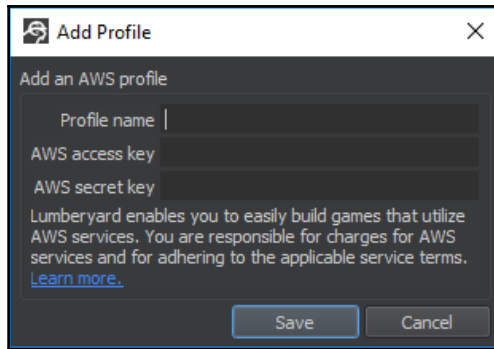
<input type="checkbox"/>	User Name ▲	Groups	Password	Password Last Used ⇅	Access Keys	Creation Time ⇅
<input type="checkbox"/>	MyTestUserAccount	0		N/A	1 active	2016-07-10 17:13...

**Groups** | **Permissions** | **Security Credentials** | **Access Advisor**

<input type="checkbox"/>	<input type="checkbox"/>	Policy Name ⇅
<input checked="" type="checkbox"/>		AdministratorAccess

**Credentials Manager** [X]

Add one or more AWS profiles to the editor to utilize AWS resources in your game.



**Create deployment** ? X

You must add a deployment before you can proceed. Only AWS account admins can create deployments. You will be able to create multiple deployments for your Lumberyard project. Each deployment provides an independent copy of the AWS resources you create for your game. For example, you create Dev, Test, and Live deployments for your project. Deployments exist in AWS as a CloudFormation stack that contains a child stack for each resource group.

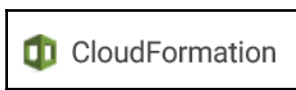
[Learn more](#)

Deployment name: myTest

This operation may take a few minutes to complete.

OK Cancel

Progress log Operation succeeded



**Get Started with AWS Today**

Try Amazon S3 for Free

AWS Free Tier includes 5GB storage, 20,000 Get Requests, and 2,000 Put Requests with Amazon S3.

[View AWS Free Tier Details >](#)

AWS Services

Create Bucket Actions

Create a Bucket - Select a Bucket Name and Region Cancel

A bucket is a container for objects stored in Amazon S3. When creating a bucket, you can choose a Region to optimize for latency, minimize costs, or address regulatory requirements. For more information regarding bucket naming conventions, please visit the [Amazon S3 documentation](#).

**Bucket Name:**

**Region:**

Set Up Logging > Create Cancel

Create Bucket Actions None Properties Transfers

All Buckets (3)

Name
mytest111abucktest

### Bucket: mytest111abucktest

**Bucket:** mytest111abucktest  
**Region:** Oregon  
**Creation Date:** Mon Jul 11 16:21:44 GMT-500 2016  
**Owner:** edljr

- Permissions
- Static Website Hosting
- Logging
- Events
- Versioning
- Lifecycle
- Cross-Region Replication
- Tags
- Requester Pays
- Transfer Acceleration

Upload Create Folder Actions


All Buckets / mytest111abu

Name
------

- Open
- Download
- Create Folder...
- Upload
- Make Public
- Rename
- Delete
- Initiate Restore
- Cut
- Copy
- Paste
- Properties



# Chapter 10: Engaging With Users Using Twitch

 [Connect with Facebook](#)

[Log In](#) [Sign Up](#)

---

**Username**


**Password**

Use at least 8 characters.

**Birthday**

Month  Day  Year

**Email**

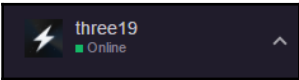
I'm not a robot  reCAPTCHA  
[Privacy](#) - [Terms](#)

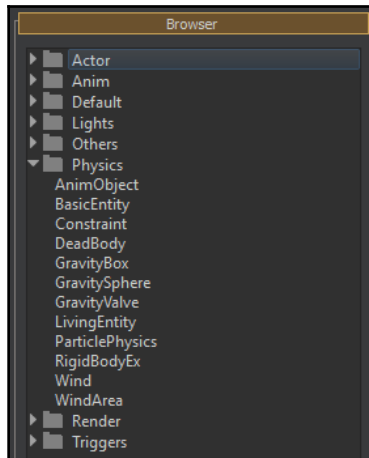
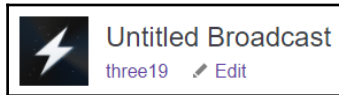
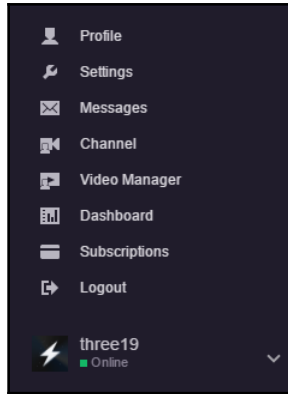
By clicking Sign Up, you are indicating that you have read and agree to the [Terms of Service](#) and [Privacy Policy](#)

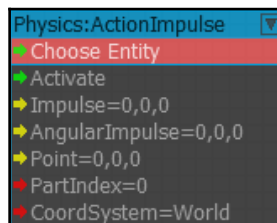
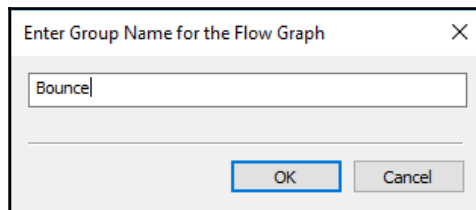
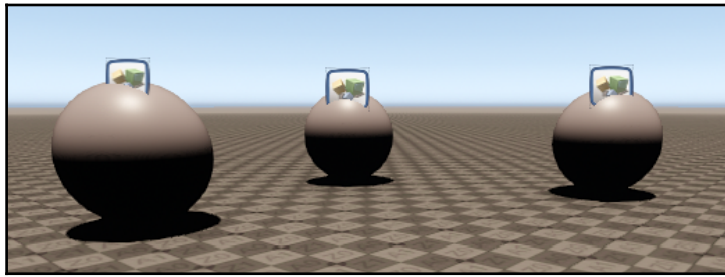
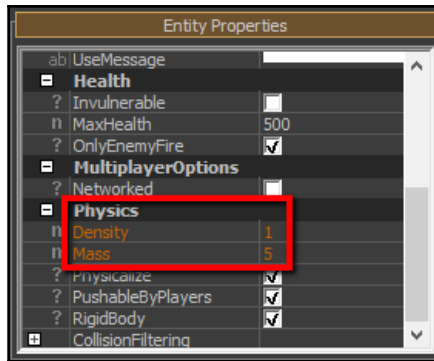
---

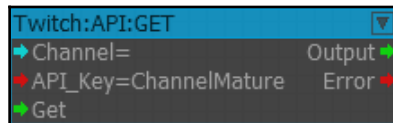
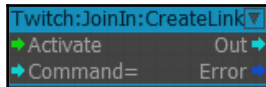
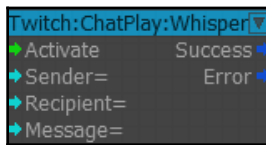
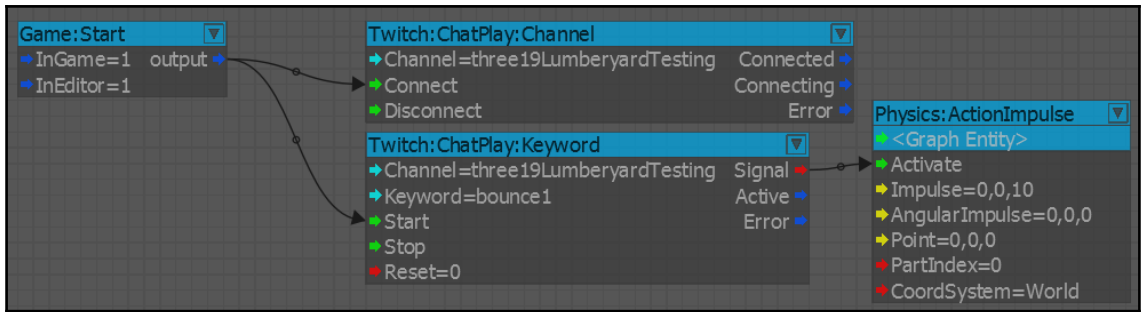
[Sign Up](#)

Welcome to Twitch! [Please click here to verify your email!](#)





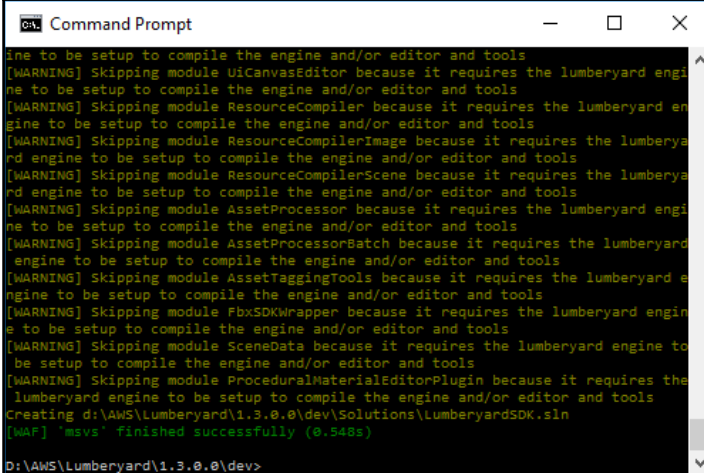




# Chapter 11: Providing Your Game to the World

What do you want to do with Lumberyard?

- Run your game project
- Run the Lumberyard Editor and tools
- Compile the game code
- Compile the engine and asset pipeline
- Compile the Lumberyard Editor and tools
- Compile for Android devices
- Compile for IOS devices



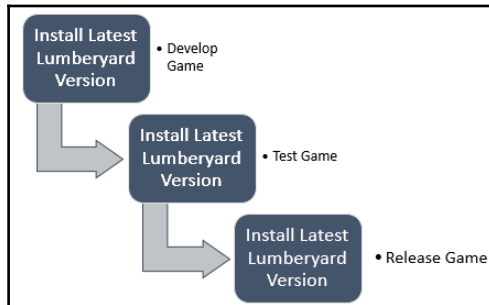
```
Command Prompt
ine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module UiCanvasEditor because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module ResourceCompiler because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module ResourceCompilerImage because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module ResourceCompilerScene because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module AssetProcessor because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module AssetProcessorBatch because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module AssetTaggingTools because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module FbxSDKWrapper because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module SceneData because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
[WARNING] Skipping module ProceduralMaterialEditorPlugin because it requires the lumberyard engine to be setup to compile the engine and/or editor and tools
Creating d:\AWS\Lumberyard\1.3.0.0\dev\Solutions\LumberyardSDK.sln
[MAF] 'msvs' finished successfully (0.548s)
D:\AWS\Lumberyard\1.3.0.0\dev>
```

```
CA: Command Prompt
D:\AWS\Lumberyard\1.3.0.0\dev\Tools\CrySCompileServer\x64\profile>dir
Volume in drive D is New Volume
Volume Serial Number is 9288-995F

Directory of D:\AWS\Lumberyard\1.3.0.0\dev\Tools\CrySCompileServer\x64\profile

07/04/2016  07:47 PM  <DIR>          .
07/04/2016  07:47 PM  <DIR>          ..
06/29/2016  04:18 PM                474,624 CrySCompileServer.exe
               1 File(s)          474,624 bytes
               2 Dir(s)    907,573,788,672 bytes free

D:\AWS\Lumberyard\1.3.0.0\dev\Tools\CrySCompileServer\x64\profile>
```

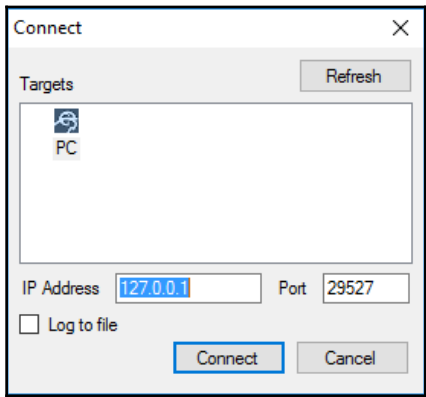
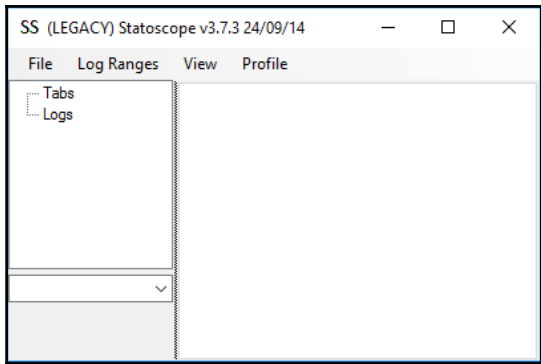


```
CA: Command Prompt
D:\AWS\Lumberyard\1.3.0.0\dev>dir 1*.cmd
Volume in drive D is New Volume
Volume Serial Number is 9288-995F

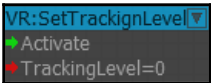
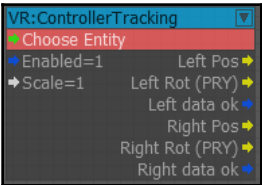
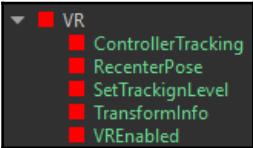
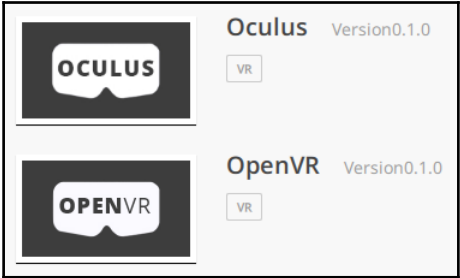
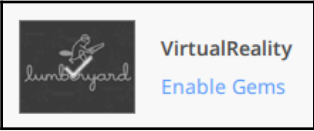
Directory of D:\AWS\Lumberyard\1.3.0.0\dev

06/29/2016  04:17 PM                1,191 lmr_aws.cmd
06/29/2016  04:17 PM                1,027 lmr_test.cmd
               2 File(s)          2,218 bytes
               0 Dir(s)    907,573,485,568 bytes free

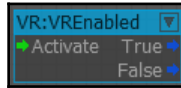
D:\AWS\Lumberyard\1.3.0.0\dev>
```



# Chapter 12: Stretching Your Lumberyard Wings







```
Command Prompt
D:\AWS\Lumberyard\1.3.0.0\dev\_WAF_>dir
Volume in drive D is New Volume
Volume Serial Number is 9288-995F

Directory of D:\AWS\Lumberyard\1.3.0.0\dev\_WAF_

07/04/2016  08:56 PM    <DIR>          .
07/04/2016  08:56 PM    <DIR>          ..
07/04/2016  07:47 PM    <DIR>          android
06/29/2016  04:18 PM             15,450 default_settings.json
06/29/2016  04:18 PM             159 environment.json
07/04/2016  07:46 PM    <DIR>          ios
07/04/2016  07:46 PM    <DIR>          msbuild
07/04/2016  07:47 PM    <DIR>          specs
08/20/2016  09:36 AM             2,199 user_settings.options
              3 File(s)          17,808 bytes
              6 Dir(s)  906,980,159,488 bytes free

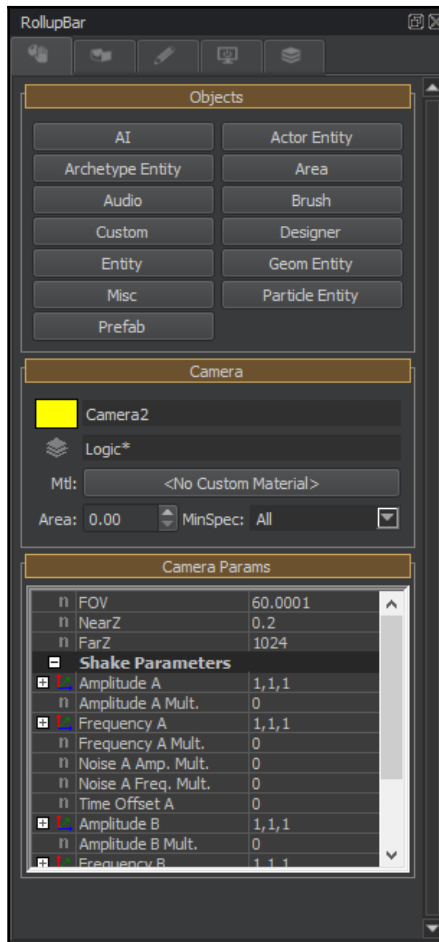
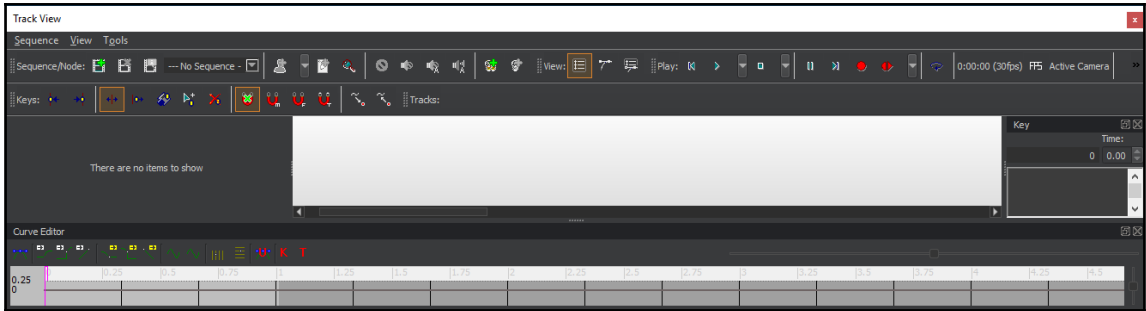
D:\AWS\Lumberyard\1.3.0.0\dev\_WAF_>
```

```
Command Prompt
D:\AWS\Lumberyard\1.3.0.0\dev\_WAF_\specs>dir
Volume in drive D is New Volume
Volume Serial Number is 9288-995F

Directory of D:\AWS\Lumberyard\1.3.0.0\dev\_WAF_\specs

07/04/2016  07:47 PM    <DIR>          .
07/04/2016  07:47 PM    <DIR>          ..
06/29/2016  04:18 PM             7,576 all.json
06/29/2016  04:18 PM             1,148 dedicated_server.json
06/29/2016  04:18 PM             205 game.json
06/29/2016  04:18 PM             1,913 game_and_engine.json
06/29/2016  04:18 PM             906 resource_compiler.json
06/29/2016  04:18 PM             522 shadercachegen.json
06/29/2016  04:18 PM             1,298 tools.json
              7 File(s)          13,568 bytes
              2 Dir(s)  906,980,077,568 bytes free

D:\AWS\Lumberyard\1.3.0.0\dev\_WAF_\specs>
```



PC System Requirements for Popular Game Titles (titles suppressed)			
Spec	1997	2007	2017
Intel CPU	Pentium Processor	Pentium 4.2 GHz	Core i5-3470 3.2 GHz
RAM	16 MB	512 MB	8 GB
Graphics	SVGA with 1 MB VRAM	Nvidia GPU GeForce 6600	Nvidia GPU GeForce GTX 750 Ti
Hard Drive	80 MB	8 GB	80 GB
Direct X	N/A	DX 9	DX 12
Windows	Win 95	Win XP 32-bit	Win 10 64-bit

