# Multi Line Slot Machine Framework Docs

In this documentation, we will go over how to setup and manipulate your project to get the very most out of this framework. Everything available in this framework will be described in detail.



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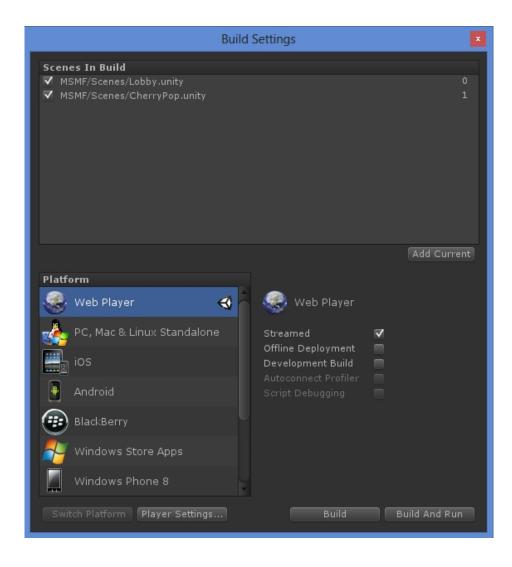
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#### **SETTING UP THE PROJECT**

After importing the framework, the first thing you will want to check is the Build Settings for the project. You can find the build setting at FILE > BUILD SETTINGS.

The build settings should display Lobby.unity as 0 and CherryPop.unity as 1. If the build settings are empty or mismatched, you will need to them. Inside the project panel window, go to **ASSETS** > **MSMF** > **SCENES** and drag the Lobby scene in first, then the CherryPop scene.

If the **Scenes In Build** are correct, the next step is to choose the platform that you will be working with. Inside the **Platform** window, Choose from one of the options. This framework currently supports Webplayer, Standalone and Android. Then press **Switch Platform** and that's it.



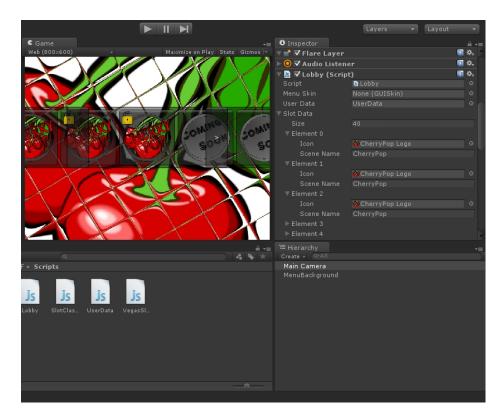
NOTE: When adding scenes, they can be in any order as long as Lobby.unity is the first scene "0".

**TIP:** When creating a new room, all you have to do is duplicate the CherryPop scene and rename it.

#### **KNOW THE LOBBY**

In the lobby scene, you can view and change the settings by clicking on the Main Camera object in the **Hierarchy** window. Once selected, scroll down the inspector and find the Lobby (Script).

The lobby script only contains a few options and everything else is handled automatically. More about these options will be described in detail below.



**Menu Skin:** This option is left empty because we are currently using the default unity skin. If you would like to add a custom skin to the GUI in this scene, this option is available.

**User Data:** This slot is for the UserData prefab. This prefab stores information about the players progress. The UserData prefab is instantiated into the scene from this script and does not destroy when changing levels.

**Slot Data > Icon:** The icon slot is the button texture that will represent a specific level.

**Slot Data > Scene Name:** This is the name of scene that will represent a specific level. The name must match the name of the actual scene. for instance: CherryPop = CherryPop.unity.

**Button Size:** The x and y size value of each button representing a level.

Lock Texture: The lock image that will display on top of the level button if it is locked.

**Lock Size:** The x and y size value of the Lock Texture.

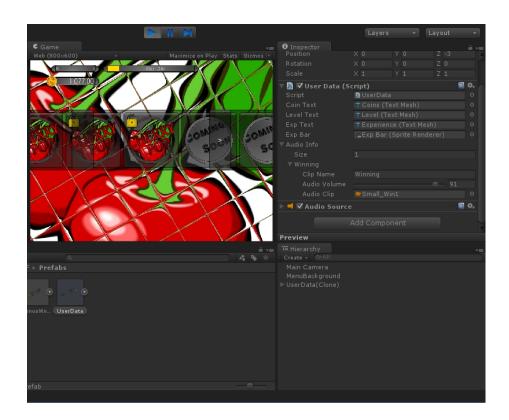
**Lock Offset:** The x and y offset value of the Lock Texture from the button itself.

The last thing in the Lobby scene not explained is the **MenuBackground** object in the Hierarchy window. This is the background sprite which can changed to anything you like to represent as the background.

#### KNOW THE USER DATA

The user data explained in this section can be found as a prefab in the **Project** window at **Assets > MSMF > Prefabs**. UserData is an object that is instantiated into the scene that stores all the data about a players progress. It also stores that sprites that are displayed on the screen to show the players statistics and sounds or images that will be the same for every scene

The UserData object is <u>only</u> instantiated from the lobby scene. You must return to this scene if started in another.



**Coin Text:** The Text Mesh that displays how many coins the user currently has.

**Level Text:** The Text Mesh that displays which level the user is currently on.

**Exp Text:** The Text Mesh that displays how much experience the use currently has compared to how much they need to level up.

**Exp Bar:** The experience bar sprite renderer that changes in size to represent how close the user is to leveling up.

Audio Info > "Name" > Clip Name: This is just a helper to know what this audio clip is.

Audio Info > "Name" > Audio Volume: The volume at which this clip will play at.

Audio info > "Name" > Audio Clip: The actual audio clip that will be played.

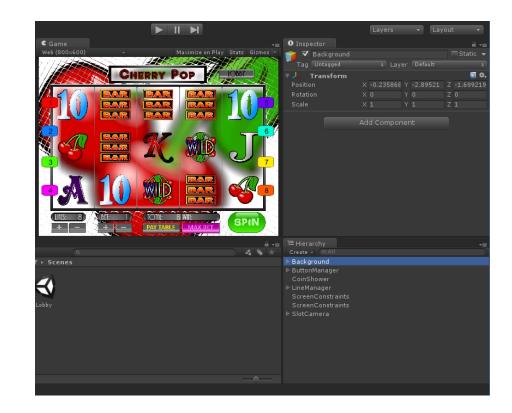
important: If more audio is added than what is already supplied, It will need to be programmed to work. The Audio Info tab is only for organization. None of the audio is handled automatically besides what is already provided.

You can find the Text Mesh objects and background/border sprites described in this section as children of the UserData prefab. All of them are named and seperated as children for convinience.

### **KNOW MACHINE OBJECTS**

In this section we will be going over the objects that are in the Hierarchy. Each object has a specific purpose and plays a vital role in the slot machine. Some objects are generated by script and some objects are placed in the scene manually.

We will first go over the actual objects in the scene and how and why they are they. Descriptions on how to manipulate the scene or scene objects will be described in another section.



**NOTE:** All static sprites can be changed by simply swapping them out.

**Background:** This object is empty but acts as a storage for the *Background, Foreground* and *Dividers*. These objects are all *Static Sprites* (Sprites manually placed in the scene).

**ButtonManager:** This object, like the background, is empty and stores all static objects. This object not only stores all the buttons, but it also stores Text Mesh objects that display the current machine settings and the background/border sprites for that text. It also stores the Text Mesh and background/border that displays how many free spins we have. Bonus picks information is not under this object.

**Coin Shower:** This object is the coin effect that showers in the background when you have won on a line. It is made up of a Particle System component that stores the effect settings and coin texture. This object is also a static scene object.

**Constraints:** This object is an empty, static object that stores 2 black sprites that are used to place on the sides of the foreground image to clear any excess of the screen when changing screen resolutions.

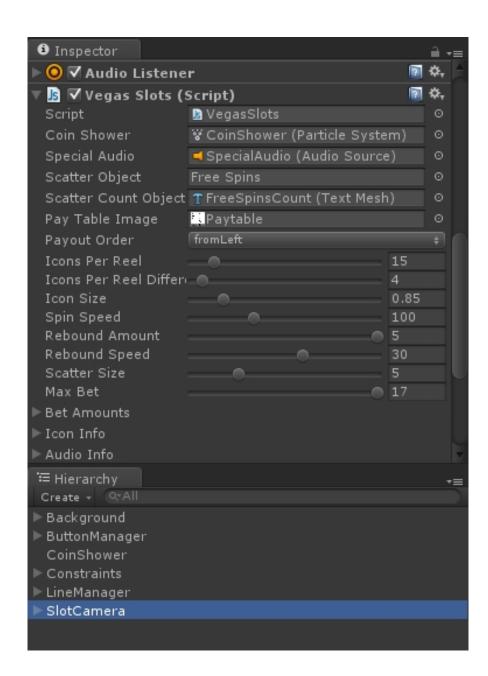
**LineManager:** Unlike the previous objects, this object and its children are not static objects. Although, they can be treated as static object. This object is empty and stores on the physical line objects that make up a given line with LineRenderer components attached to them. All information about these objects though are handled within the VegasSlot.js.

**SlotCamera:** This object is the main camera and has VegasSlots.js component attached. This object is the main object you will have selected and stores several objects in the scene. The *BonusCam* object is the camera specifically for renderering the bonus game and it's children are all the bonus game sprites including the bonus picks TextMesh and background sprite. *BonusWord* is the letter objects that play the drop animation when a bonus has been won. All of the *Reels* are generated from script and contains every symbol on each reel. This cannot be changed outside of using the VegasSlots.js options. And lastly is the SpecialAudio. This is just an object that will play special types of audio.

## **KNOW THE MAIN SCRIPT**

In this section, We will be going over the main part of the script and understanding how we can manipulate the settings and what exactly they do. The main part of the script is shown in this image between Coin Shower and Max Bet.

To open window in the Inspector, click on the *SlotCamera* object in the Hierarchy and scroll down to you see Vegas Slots (Script). From here, you will have the options to change anything you like about how the machine works or even looks.



Coin Shower: This slot is for the particle system for the CoinShower object found in the hierarchy.

**Special Audio:** This slot is for the audio source of the SpecialAudio object found under the SlotCamera in the Hierarchy.

**Scatter Object:** This slot is for the FreeSpins gameobject found in the ButtonManager to enable and disable the display for free spins.

**Scatter Count Object:** This slot is for the TextMesh that displays the amount of free spins we have.

**Pay Table Image:** This slot is for the paytable image that you would like to represent for this machine.

**Payout Order:** This is option that allows you to change which direction this machine is going to pay. The option are fromLeft and fromRight. If fromLeft, a winning combination must start on the first reel. If fromRight, a winning combination must start on the last reel going to the left.

**Icons Per Reel:** This lets you select how many symbols (as a base) are on a single reel. More symbols = longer spin.

**Icons Per Reel Difference:** This lets you select how many more symbols are on a reel compared to the previous reel. More extra symbols = Longer time between reel stops.

**Icon Size:** This is the size that a symbol sprite will be generated too. All symbol sprites must be the same size.

**Spin Speed:** This is how fast the reel is going to move while spinning.

**Rebound Amount:** This is the amount of bounce the reel will do when the reel comes to a stop.

**Rebound Speed:** This is the speed of the bounce when the reel comes to a stop.

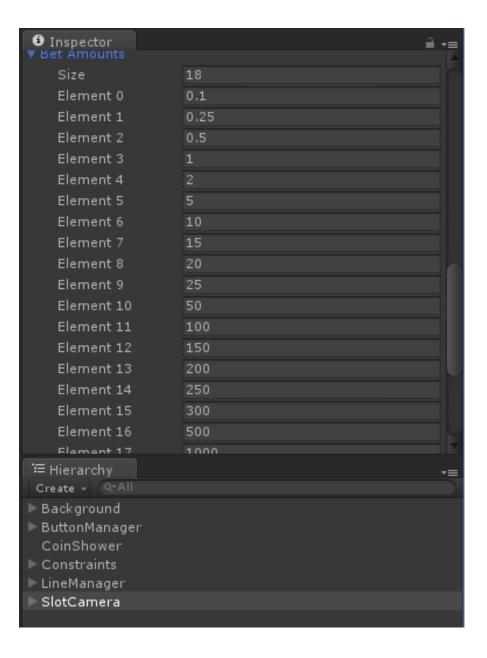
**Scatter Size:** This is the amount of scatters a user will win if 3 scatter symbols are shown on the screen. This number is automatically multiplied by how many more extra scatter symbol are present.

**Max Bet:** This is how high the user is allowed to bet. The number symbolizes which bet out of a list of bets is the highest amount that we can bet. (This list is explained in the next section)

#### **CHANGING BET AMOUNTS**

This section continues exploring the VegasSlots.js attached to the SlotCamera object. We will go over how we can change these and how they are used.

To see the betting amounts, click on the SlotCamera object in the Hierarchy. Then scroll down until you see VegasSlots (Script). If it's opened, you can scroll down to where you see Bet Amounts and click on the dropdown icon.

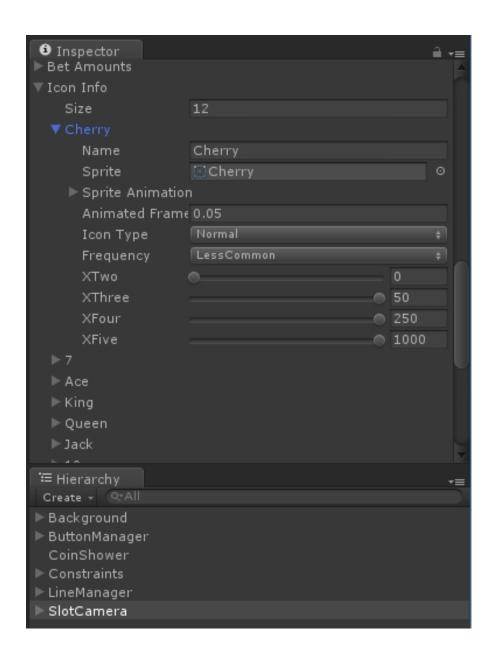


**How it works:** Each Element in this list is an amount that we can bet, Whether now or later. As you can see, the lowest number is on Element 0 and increasing in size until it reaches Element 17. As described earlier, this is the betting amounts that the Max Bet option will determine. So in my case, if I set the max bet to 8, the highest I can bet will be 20. The amount of bets we can use is as high as you want and how much we can bet is up to you as well. As long as the list is in order from least to greatest.

#### **CHANGING THE SYMBOLS**

This section will describe the options that are available for the symbols. You can have as many symbols as you want. You will see that the final symbol in this list is called LeaveMeEmpty. This must remain empty. This is used a catch because of a bug inside unity when dealing with size of arrays and randomly selecting between them. The reason why it's not removed is because if for some reason it selects one higher than expected, this catch symbol will make sure that it does not throw an error.

To open up the symbol information, click on the SlotCamera object in the hierarchy. Then scroll down until you VegasSlots (Script) and inside this are you will find Icon Info. Then click on the dropdown icon.



The name is see in the dropdown is the name we specify inside of it

Name: This is the name that we are calling our symbol. (Strictly for convinience)

**Sprite:** This is the sprite that we specify to represent this symbol. This is the sprite that will be generated into the scene.

**Sprite Animation:** This is allows you to add a sprite animation for this symbol if you have one. This is not required and can be left empty or at a length of 0.

**Animated Frame Rate:** This is the frame rate in which this sprite animation will run. This is only required if an animation is being used.

**Icon Type:** This option allows you to change what type of symbol this specific symbol is. There is 4 available options. *Normal, Bonus, Scatter* and *Wild.* 

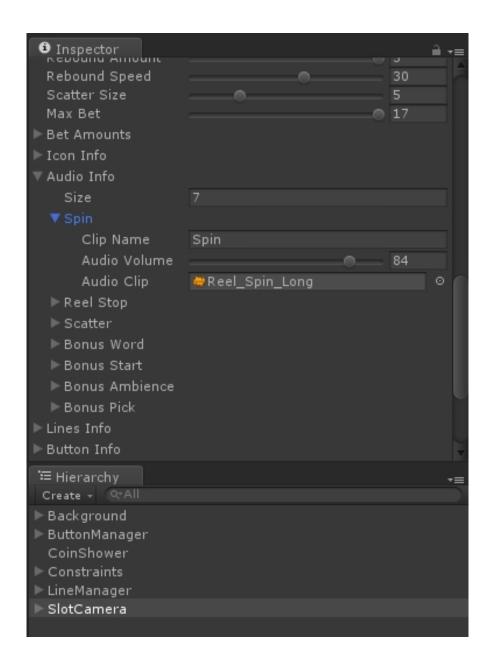
**Frequency:** This option allows you to change how frequent this specific symbol will be generated on a reel. There are 4 available options. *Most Common, Common, Less Common* and *Rare.* 

**XAmount:** There are 4 types of amounts. XTwo is how much this specific symbol will pay if there is 2 of the same of these symbols in a row. XThree describes 3 of these symbols in a row. Same for XFour and XFive.

#### **AUDIO INFORMATION**

This section will describe how and where to change the audio information about this specific room. Each room can have different audio for spinning, reel stops, scatter, bonus win, bonus start, bonus music and bonus picks.

To open the audio information, click on the SlotCamera object in the hierarchy. Then scroll down until you VegasSlots (Script) and inside this are you will find Audio Info. Then click on the dropdown icon.



Names for each slots in this dropdown are specified inside of it.

Clip Name: This is just a helper to know what this audio clip is.

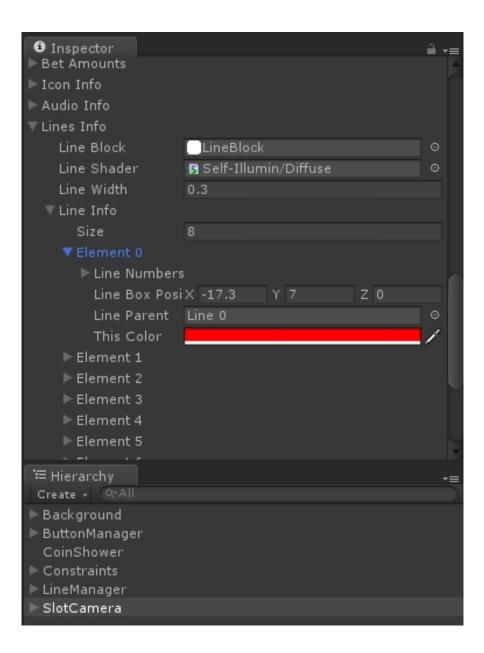
**Audio Volume:** The volume at which this clip will play at.

Audio Clip: The actual audio clip that will be played.

#### CHANGING LINE INFO

This section will describe how to change information about specific lines. Each line has a series of properties that can be changed and has no limit on how many lines can be present at a time. To create a line. I have created a custom editor button that be seen at the bottom of the inspector for this component. It will say "Generate A New Line Object". This creates all the components and objects for your line and places it under the LineManager in the Hierarchy. This object is not automatically added to this line info, object creates the line object. A picture can be seen in the extras section of this documentation.

To open the line information, click on the SlotCamera object in the hierarchy. Then scroll down until you VegasSlots (Script) and inside this are you will find Line Info. Then click on the dropdown icon.



**Line Block:** This is the texture that represents which line it is. The image is white so we can change the color to the same color as the line.

**Line Shader:** The shader we will be using on each line renderer.

Line Width: The width each line renderer will be.

**Line Info:** This is the section that refers to individual line information to customize individual lines.

**Line Info > "Element" > Line Numbers:** This is how we specify which slots this line will be on. It starts from the first reel to the last reel and whether that slot on that reel is on the top, middle or bottom.

Line Info > "Element" > Line Box Position: This is the position of the line block for this specific line

**Line Info > "Element" > Line Parent:** This is the line object that will represent this line. Instructions on how to create a line will be explained later.

**Line Info > "Element" > This Color:** This is the color that the line block and line renderer will be.

#### **BUTTON INFORMATION**

This section will describe how to change the information about a button. Simple methods have been added to make it easier to change how a button works. Each button is a sprite in the scene that can be under the button manager object.

To open the button information, click on the SlotCamera object in the hierarchy. Then scroll down until you VegasSlots (Script) and inside this are you will find Button Info. Then click on the dropdown icon.



**Button Info > "Element" > Sprite:** This is the actual sprite object in the scene that we will be using as a button.

**Button Info > "Element" > Function Type:** This allows you to change what this specific button will do.

#### **DISPLAY INFORMATION**

This section will describe how to change what information is being called to what Text Mesh. This section is room specific so the only information that is being accessed here is the line count, bet, win and total values.

To open the display information, click on the SlotCamera object in the hierarchy. Then scroll down until you VegasSlots (Script) and inside this are you will find Display Info. Then click on the dropdown icon.



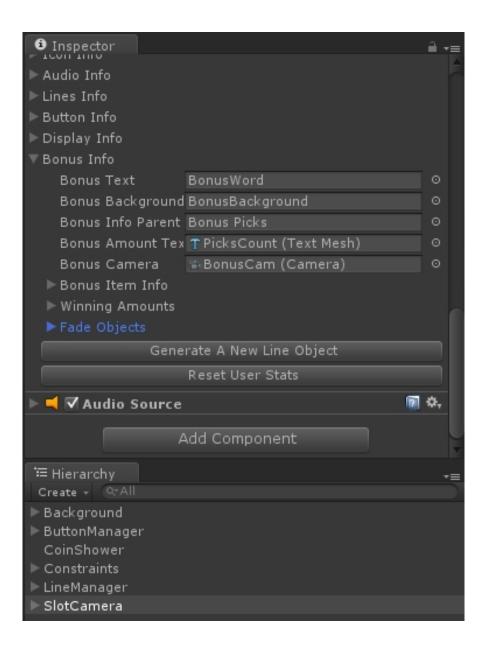
**Display Info > "Element" > Text Object:** The Text Mesh this information will use.

Display Info > "Element" > Function Type: The operation this information will use.

#### **Bonus Info**

This section will be covering all the options for our bonus game. Inside of the Bonus Info tab as seen in this image, everything involving the bonus game can be found here. If it has some relation to the bonus, it will be in this section.

To open the bonus information, click on the SlotCamera object in the hierarchy. Then scroll down until you VegasSlots (Script) and inside this are you will find Bonus Info. Then click on the dropdown icon.



**Bonus Text:** This is the bonus letter objects that drops down onto the screen when a bonus is won.

**Bonus Background:** This is just simply the background object for the bonus game.

**Bonus Info Parent:** This is the parent object for all the bonus pick objects in the scene.

**Bonus Amount Text:** The text mesh that displays how many bonus picks are left.

**Bonus Camera:** The camera that renders the bonus game or camera that has less priority.

**Bonus Item Info:** This is array of all the objects in the scene that can be picked during a bonus game.

**Winning Amounts:** All of the amounts that can be won with a pick during a bonus game. (x1)

**Fade Objects:** The objects that will fade in or out from a bonus game. (Only background objects)

# **EXTRAS**

Generating New Line Objects: When in edit mode, you will see an option to *Generate A New Line Object*. This button generates a new line object in the scene with all the necessary components and child objects. More information about lines can be found in the Lines Info section of this documentation. This option is only available in edit mode.

Resetting Player Statistics: When in edit mode, you will see an option to *Reset User Stats*. This button resets your statistics which is good for testing how something is handled as a new player, and how something is handled as a returning player. This option is only available in edit mode

**Testing Bonus Games:** For testing bonus games, I have added a button called *Force A Bonus* that is only available in Play Mode. To force a bonus game, click the "Spin" button when not in fullscreen and press the Force A Bonus button before the reels stop spinning. This will automatically start a bonus game as if 3 bonus symbols were on a line.

**Testing Free Spins:** For testing free spins, I have added a button called *Force A Scatter* that is only available in Play Mode. To force a scatter, click the "Spin" button when not in fullscreen and press the Force A Scatter button before the reels stop spinning. This will automically give you free spins as if 3 scatter symbols are on the screen.

