

Locks Plus: Kingdom Lock

Game documentation and HowTo guide.



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Package Description and features

LOCKS+ Kingdom Lock gives you a powerful locking system you can easily integrate into your FPS game. It can work as a standalone project, and can also be integrated into your current FPS project.

[Works with Ultimate FPS Framework](#)

[Works with Realistic FPS Prefab too](#)

PACKAGE INCLUDES

- A chest you need to lockpick by finding the sweetspot and keeping your lockpick inside it as you turn the lock cylinder.
- A standalone demo showing off several examples of the Kingdom Lockpicking system, which also works on mobile.
- Video guide to show you the basics of the system, how it works on mobile, and how it works with UFPS and RFPS.

Current version 1.0

Update history

1.0 (28.02.2018)

- Initial version

Overview of the project's library contents

Let's take a look inside the game files. Open the main LocksPlus folder using Unity3D 5.5 or newer. Take a look at the project library, usually placed on the right or bottom side of the screen. Here are the various folders inside:

- **KingdomLock:** Holds all the assets related to the Kingdom lock system.
 - **Animations:** Holds all the animations we use in the locks.
 - **Fonts:** Holds the font used in the project.
 - **Materials:** Holds some of the materials used in the demo.
 - **Models:** Holds the 3D model for the chest.
 - **Prefabs:** Holds all the lock examples we use in the demo, including 3 chest examples.
 - **Scripts:** Holds all the scripts used in the project.
 - **Sounds:** Holds all the sounds used in the demo.
 - **Textures:** Holds all the textures used in the project.
- **KingdomLockDemo:** This is the main demo scene we can test.

Customization Guide

Getting started

Locks Plus is meant to be used as part of a game project such as Realistic FPS Prefab, or any other game that allows you to interact with objects. You can import it on its own and test the demo scene, or import it into another project and integrate it into the demo scenes of that project.

(When importing into an existing UFPS, RFPS, or other complete packages, don't import Project Settings!)

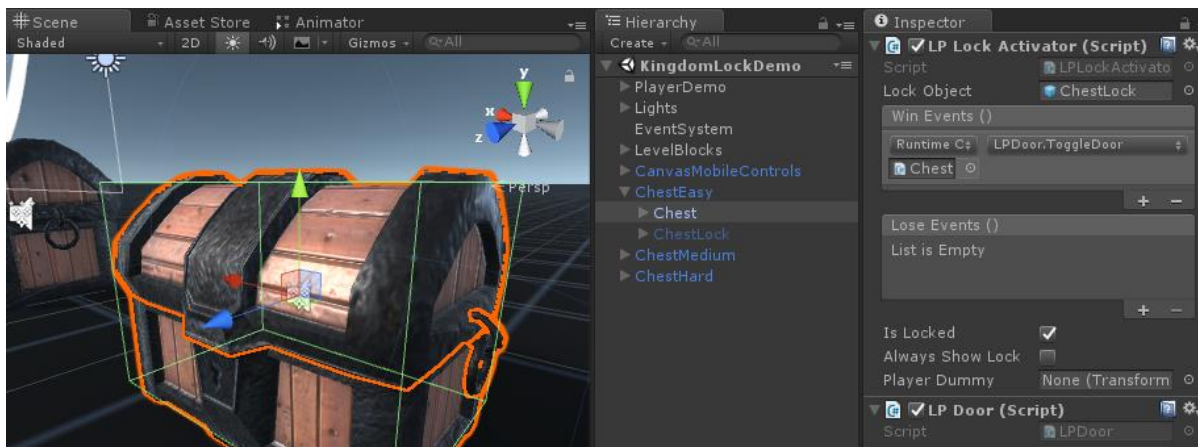
To start testing the locks, simply import the package into an empty project and open the demo scene **KingdomLockDemo**. Here you can see several examples of the kingdom lock you can interact with.

There are two scripts that allow you to use the Dial Pad lock system, **LPDoorActivator**, and **LPKingdomLock**. Read more about them below.

LPActivator

The Activator script allows the player to interact with objects in the scene and activate the relevant lock, then apply either a Win or Lose command which can trigger any custom function you want from the scene.

Select one of the chest objects and take a look at the **LPActivator** component assigned to it.



Lock Object – The lock object that will be activated when we interact with this activator.

Win Actions – A list of actions that will be triggered when we successfully unlock the lock.

Lose Actions – A list of actions that will be triggered when we fail unlocking the lock. It uses the same elements as Win Actions.

Winning in the chest lock above will trigger a function called **ToggleDoor**, which is in the attached script **LPDoor** and simply toggles between two animations between opened and closed for the current chest. On the Lose Actions we didn't put anything, so nothing happens when we fail.

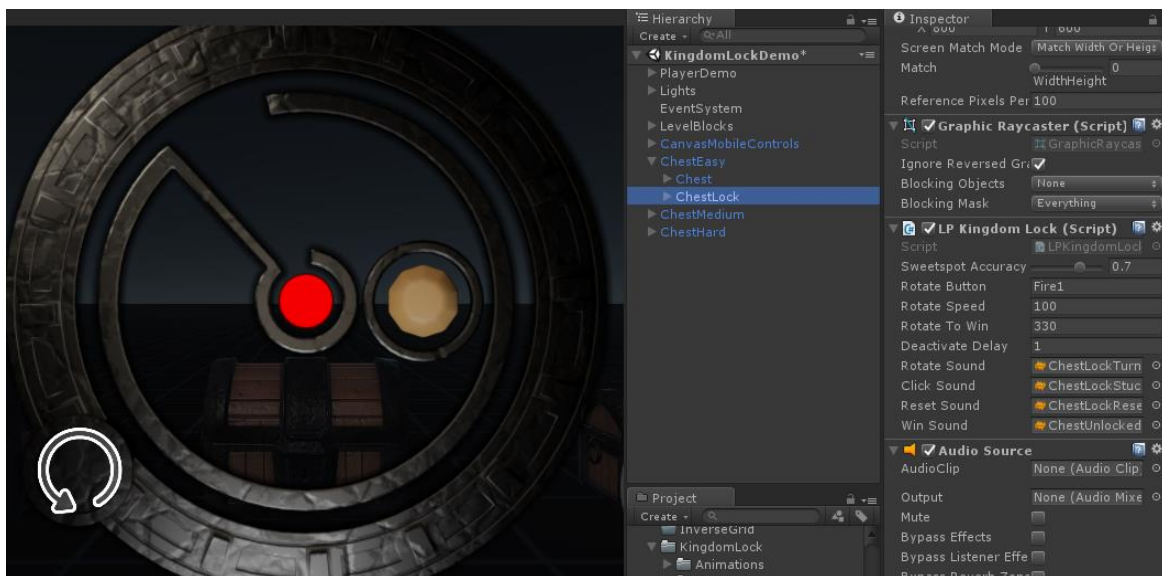
Is Locked – If the lock is locked, we interact with it and try to unlock it. If we succeed it becomes unlocked. If it is unlocked the Win Actions are triggered when we interact with it. This way you can set an object to be unlocked from the start, and even lock it during gameplay.

Always Show Lock – Always show the lock object (Don't hide it when at the start of the game or when we close it). This is good if you want to put the lock in world space, such as lock that can be played right in the game scene rather than showing a new window.

Player Dummy – Reposition the player and rotate it to face the lock object. This is useful if you want the player to look in a certain direction when interacting with a lock in the world space, similar to how you change your position when interacting with a console (facing a lock, or an alchemy table for example).

LPKingdomLock

This is the component that holds the actual lock game with all its custom gameplay. Click on the object **ChestLock** inside and unhide it.



Sweetspot Accuracy – How accurately close we need to be to the sweetspot. If set to 1, we need to be exactly at the sweetspot position, but if set to a lower number we can be farther from the center position of the sweetspot.

Rotate Button – The button that rotates the cylinder. The cylinder will only rotate if we are in the sweetspot.

Rotate Speed – How fast the cylinder rotates.

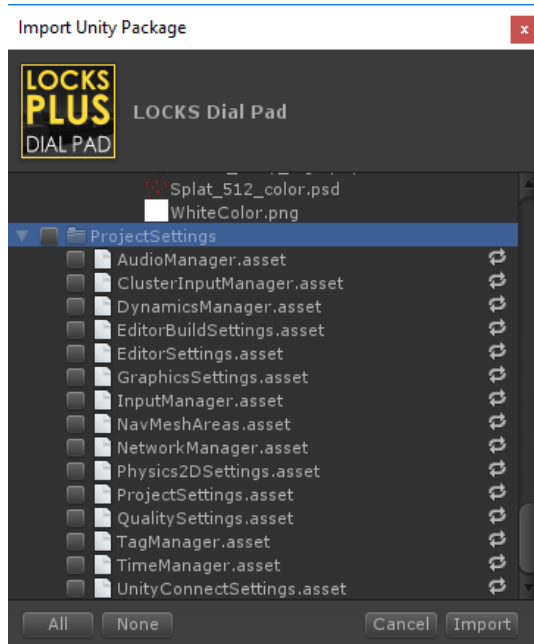
Rotate To Win – How much we need to rotate the cylinder in order to win.

Deactivate Delay – How long to wait before deactivating the lock object when we exit the game, either after winning/losing.

Sounds – Various sounds for rotating, clicking, resetting, and winning the lock.

Integration with Realistic FPS Prefab

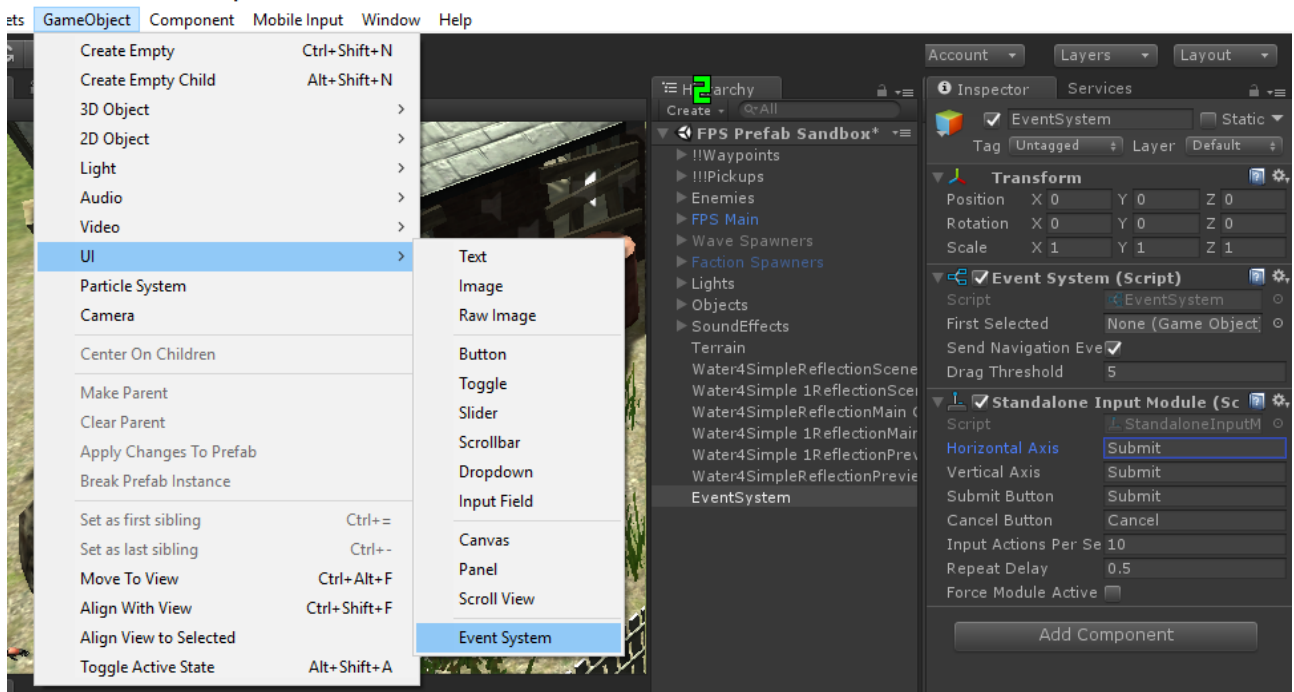
(When importing into an existing UFPS, RFPS, or other complete packages, don't import Project Settings!)



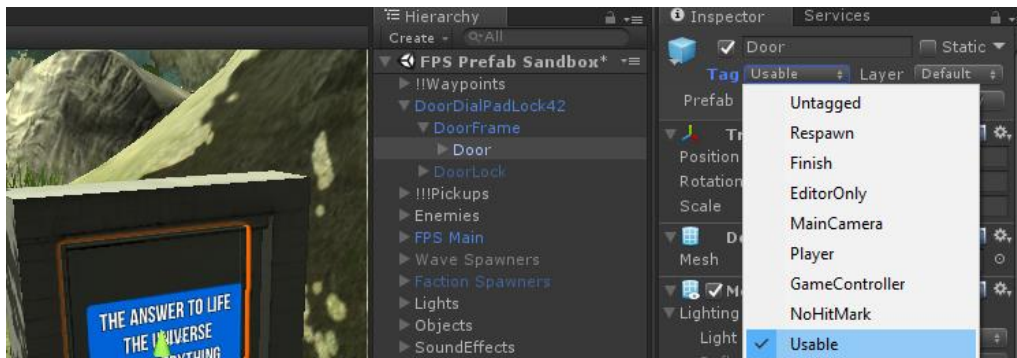
Import into your project the Realistic FPS Prefab project (tested with 1.44), open the Sandbox scene from the RFPS project, and drag one of the lock examples to the scene. In order to make it work with RFPS you need to set a few basic things.

(This guide refers to the LOCKS+ Dial Pad package, but it works the same way in all LOCKS+ packages)

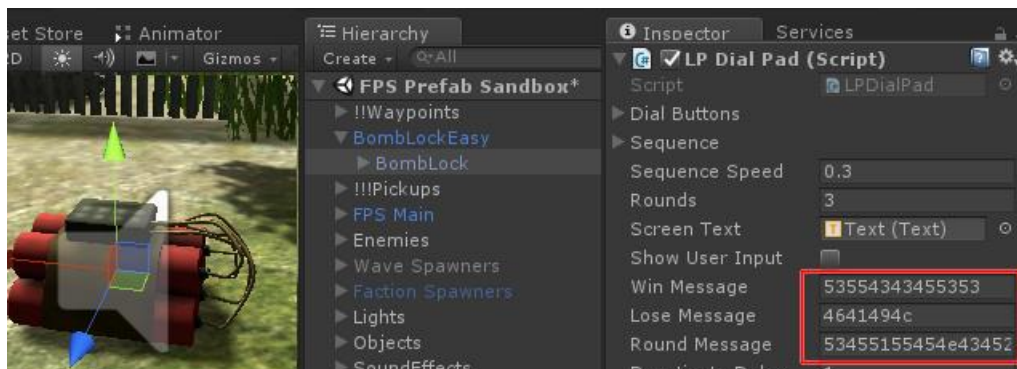
First add an **EventSystem** object, and change the "Horizontal" and "Vertical" to local inputs that RFPS can understand like for example "Submit". The lock in RFPS doesn't use that input anyway, so we just want to avoid an error.



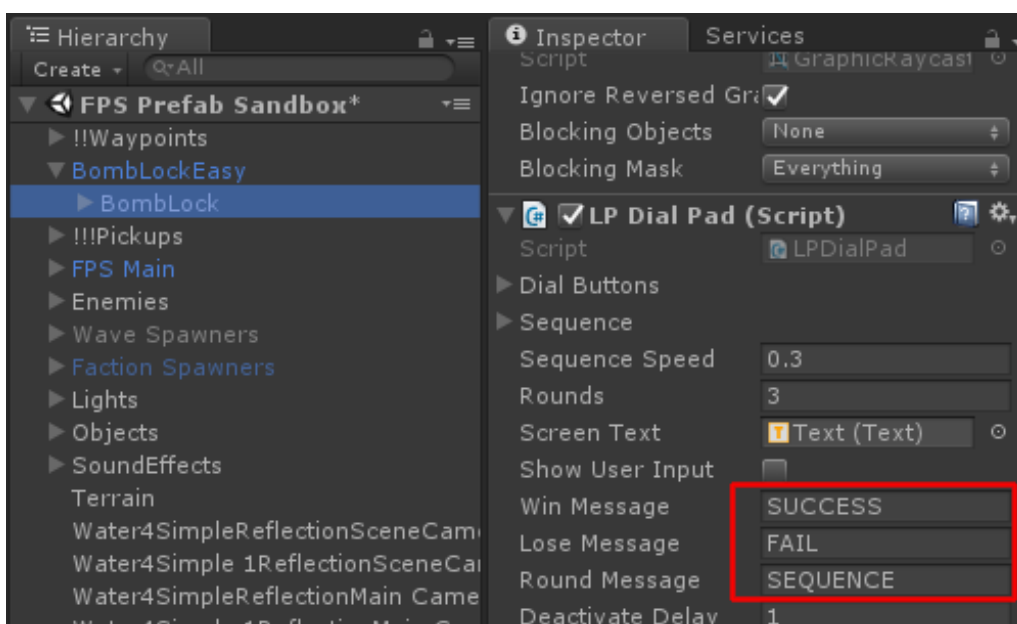
Next thing is to set the tag of your lock Activator to "Useable" which allows RFPS to interact with objects.



One last thing to check is that sometimes when importing a LOCKS+ package into RFPS, some of the text fields in the components are jumbled into random number/letter combinations, like this:



To solve this simply import the LOCKS+ package again, and it will return to normal, like this:



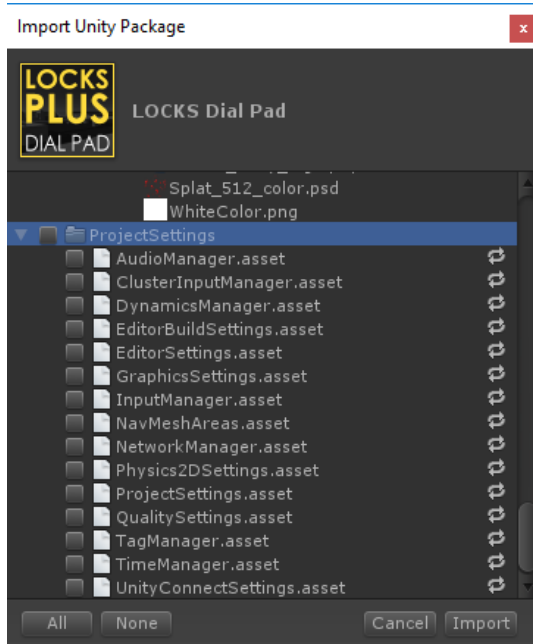
If you test the game now you'll be able to interact with the door, play the dial pad lock, unlock it and then open and close the door freely.

Check out this video to see how it's done:

<https://www.youtube.com/watch?v=Qn5V6uDUrWE>

Integration with Ultimate FPS framework

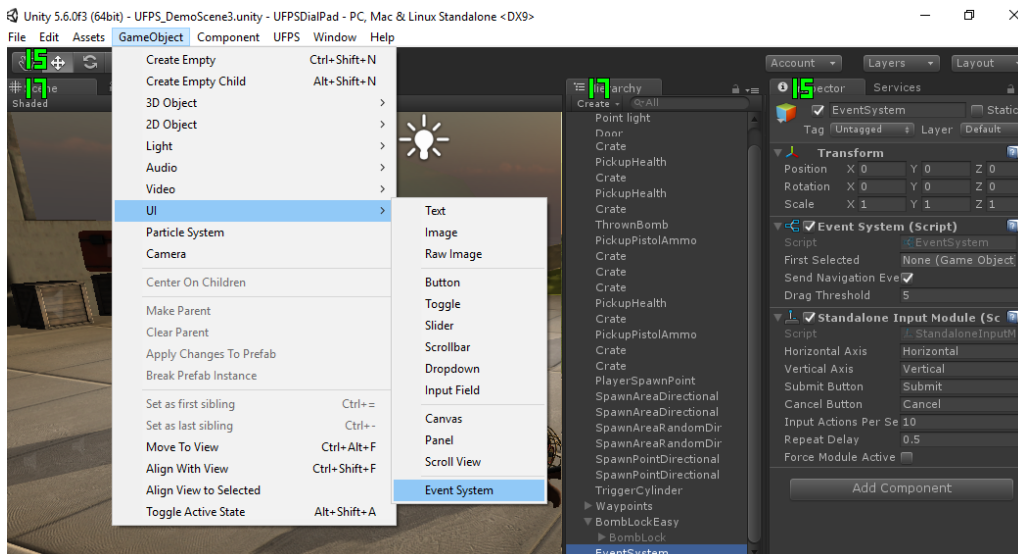
(When importing into an existing UFPS, RFPS, or other complete packages, don't import Project Settings!)



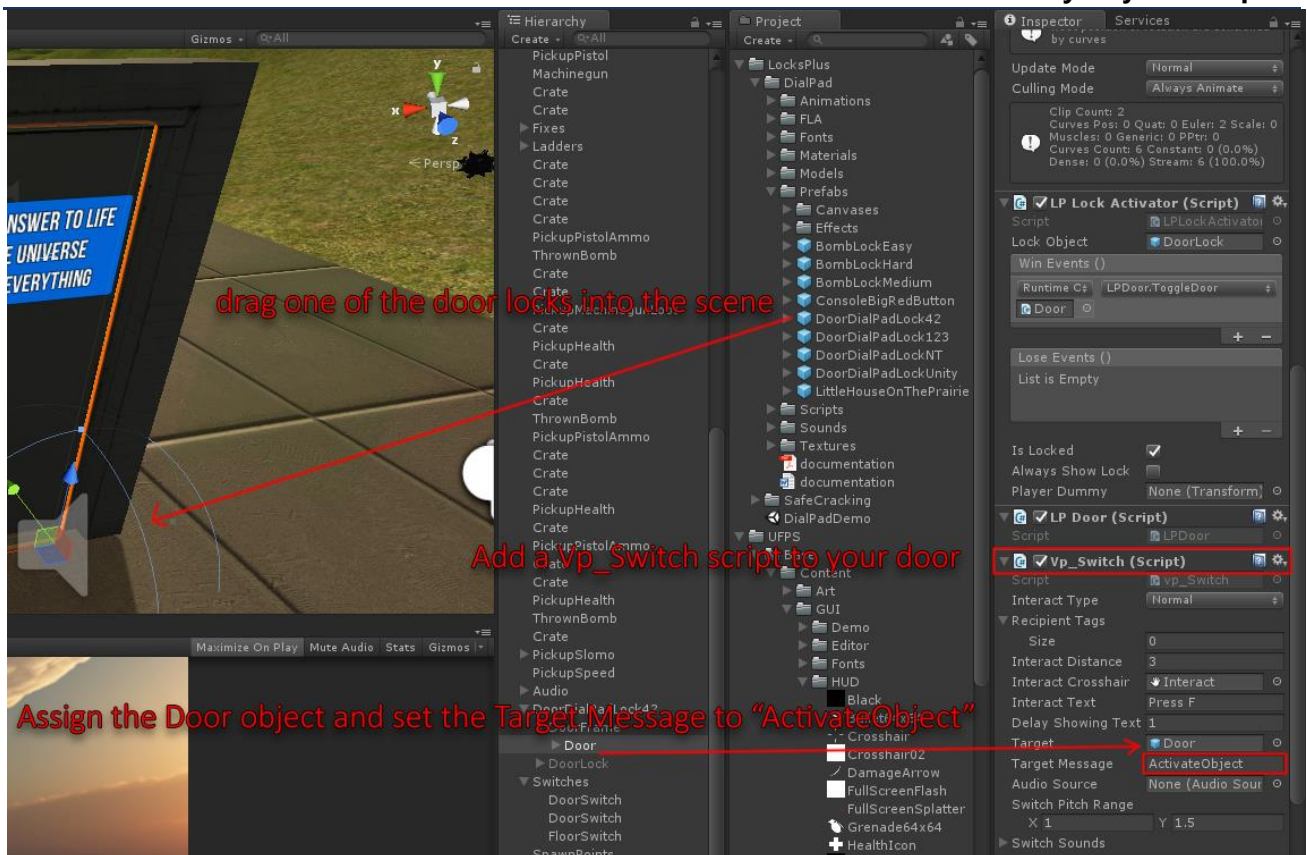
Import into your project the Ultimate FPS package (tested with 1.7.2), open the UFPS_DemoScene3 scene from the UFPS project, and drag one of the lock examples to the scene. In order to make it work with UFPS you need to set a few basic things.

(This guide refers to the LOCKS+ Dial Pad package, but it works the same way in all LOCKS+ packages)

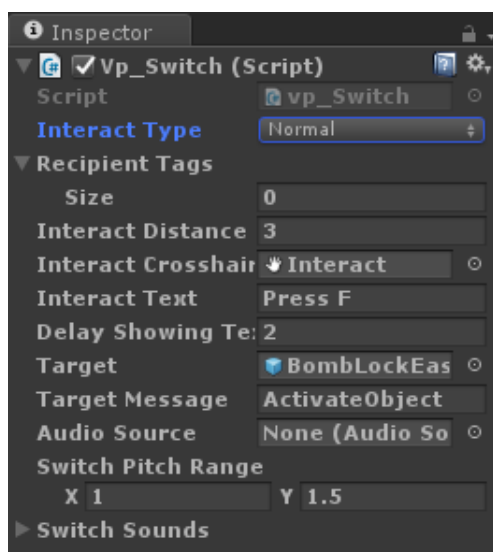
Add an EventSystem object to the scene. LOCKS+ is based on Unity UI and event system so we need that to make the buttons clickable.



Now drag one of the LOCKS+ objects into the scene and let's define it.



We need to add a Vp_Switch script component to the object, and then define it by assigning the object that has a **LockActivator** component on it, and set the Target Message to "**ActivateObject**".

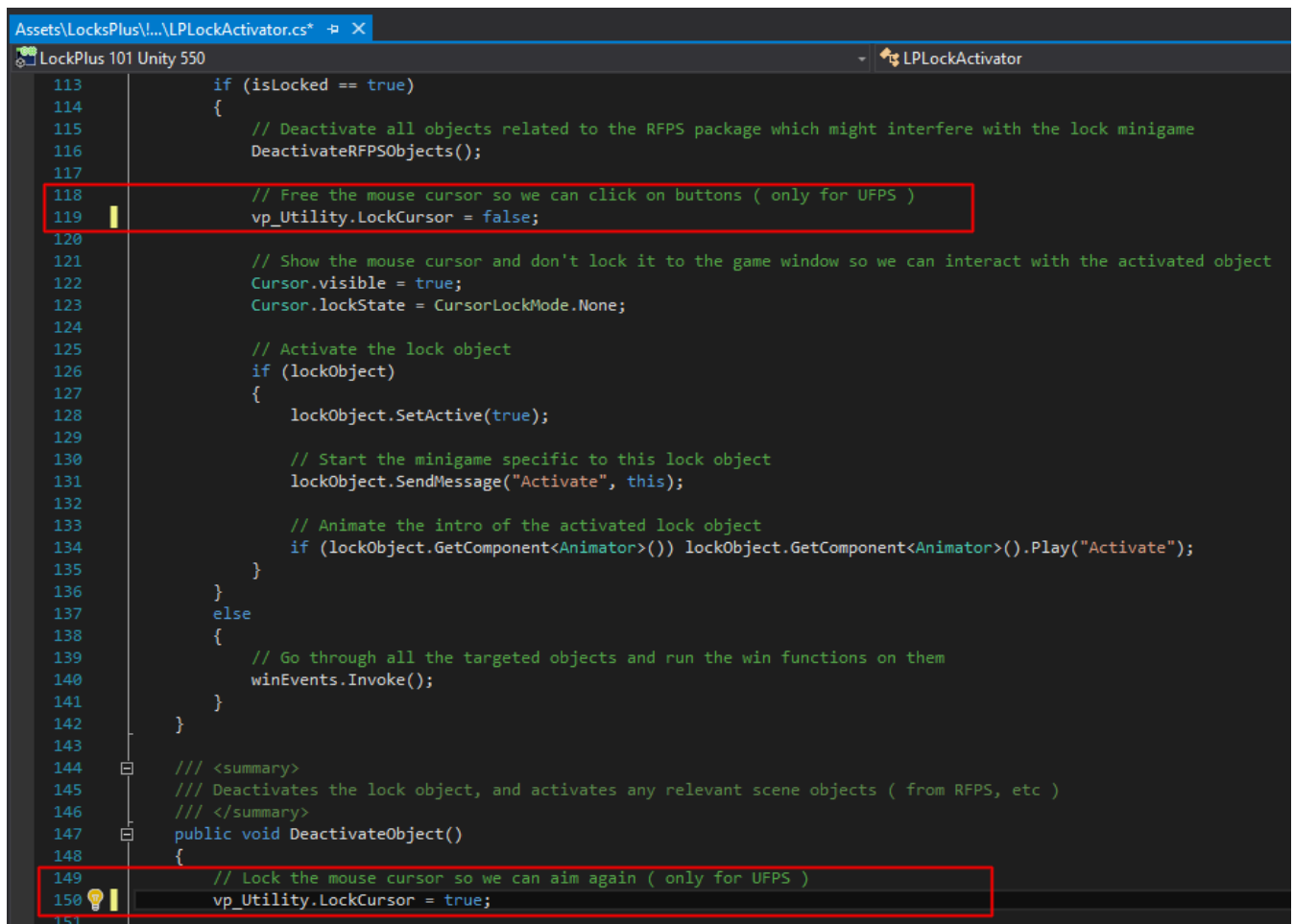


Here's a closer look at the component setup. Make sure interact type is **Normal**, and interact distance is larger than 0 so you can activate it from afar.

You can also set a **Crosshair** and **Text**.

Don't forget to target the lock object itself so we can activate it.

Finally, we need to allow the player to interact with locks by enabling mouse controls in UFPS. To do that, open the script **LPLockActivator** and uncomment these lines:



```
Assets\LocksPlus\...\LPActivator.cs
LockPlus 101 Unity 550
LPLockActivator

113     if (isLocked == true)
114     {
115         // Deactivate all objects related to the RFPS package which might interfere with the lock minigame
116         DeactivateRFPSObjects();
117
118         // Free the mouse cursor so we can click on buttons ( only for UFPS )
119         vp_Utility.LockCursor = false;
120
121         // Show the mouse cursor and don't lock it to the game window so we can interact with the activated object
122         Cursor.visible = true;
123         Cursor.lockState = CursorLockMode.None;
124
125         // Activate the lock object
126         if (lockObject)
127         {
128             lockObject.SetActive(true);
129
130             // Start the minigame specific to this lock object
131             lockObject.SendMessage("Activate", this);
132
133             // Animate the intro of the activated lock object
134             if (lockObject.GetComponent<Animator>()) lockObject.GetComponent<Animator>().Play("Activate");
135         }
136     }
137     else
138     {
139         // Go through all the targeted objects and run the win functions on them
140         winEvents.Invoke();
141     }
142 }
143
144 /// <summary>
145 /// Deactivates the lock object, and activates any relevant scene objects ( from RFPS, etc )
146 /// </summary>
147 public void DeactivateObject()
148 {
149     // Lock the mouse cursor so we can aim again ( only for UFPS )
150     vp_Utility.LockCursor = true;
151 }
```

That should be all, test it out!