DIGITAL INPUT KEYPAD SYSTEM V1.0
DOCUMENTATION

Contents

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Introduction

DO NOT MOVE OR REPOSITION KEYPAD CANVAS ONCE PLACED IN YOUR SCENE!

Thank you for purchasing the "Digital Input Keypad System" which is intended for use in Unity 5 with the new UI system. This is a digital keypad features 0-9 number, clear, enter and close keys which are directly customisable through the new UI system. The asset includes some simple sound effects for key pressing. The valid code needed to get past the keypad is very easy to edit and only takes a few seconds when selecting the correct controller. This asset is extremely easy to use, and has full documentation and commented code for those that might not be accustomed to regular coding practises.

The asset includes:

- Full functioning 0-9 keypad with display output at the top, along with a clear, enter and close buttons all directly editable and customisable within the appropriate canvas.
- Includes simple keypad model, walls and pivot door.
- Easy to change valid code, by changing a single element in the inspector.
- Includes a basic door opening script, and integration with the default Unity 5 character controller.
- Includes some basic sounds for key pressing, and invalid code input.
- Easy setup

FAQ

Q). How do I Import the asset?

A). Go to the Unity asset store and visit your "Download manager". Download the asset if not already downloaded and click "Import", import all required features of the asset for your use. It should have appeared in your project under "Digital Keypad System".

Q). Is there an example of this asset working?

A). Yes, you can open the "DemoScene" to see the keypad asset or use this scene as your initial base of your project.

Q). How can I manually setup this asset?

A). See the manual setup instructions on "Page 2". Make sure to remember to import the standard assets into your scene before starting or you may have errors!

Q). Why can't I see the UI or why is the UI in the wrong place?

A). that might be because you may have dragged some UI objects into the scene rather than onto the hierarchy. Make sure the X, Y, Z positioning of all parent objects (Which contain the UI's) are set to 0, 0, 0 in the inspector.

Q). I'm having trouble getting the interaction to work and activating the keypad. What can I do?

A). Make sure your 3D keypad object has the "LayerMask" at the top right of the inspector as "Interact". You can change this name as long as you change the value in the inspector based on the public variable of the "KeyPadRay".

Q). Can I use this asset with a different character controller or door interaction?

A). This asset is intended for use with the provided Unity 5 character controller and door interaction script provided but can be replaced by doing a couple of simple modifications. See "Extending the keypad asset" or send me an email.

Q). How can I add more than one keypad to my scene?

A). Check the "Extending the keypad system".

Q). Do you want to organise the keypad elements into a empty GameObject?

A). When you create an empty GameObject, please make sure that the X, Y, Z coordinates of the empty GameObject are all 0, 0, 0 before dragging the parts into the GameObject.

My door spins around? What can I do?

When using the door script provided, it basically rotates the door around the value for the "Door open angle" is at that time, this is normally 90 or -90 degrees. This means it will transform the "Y" rotation by that amount, if the doors "Y" rotation is already in a negative value and you decrease by -90 it will spin. Make sure the door has a positive value to begin with. It may be beneficial to replace with your own door system, or animations, even several doors with different pivots for rotation on different angles.

Manual Setup – Initial #1

1. First import the "**Standard Assets > Characters**" into your scene by right clicking on the project panel or finding them on the asset store. Place the **"FPSController"** prefab in your scene from the **"Package Assets > Prefabs"** – On the FirstPersonCharacter (MainCamera) – Attach **"KeyPadRay"** Script. (If not already).
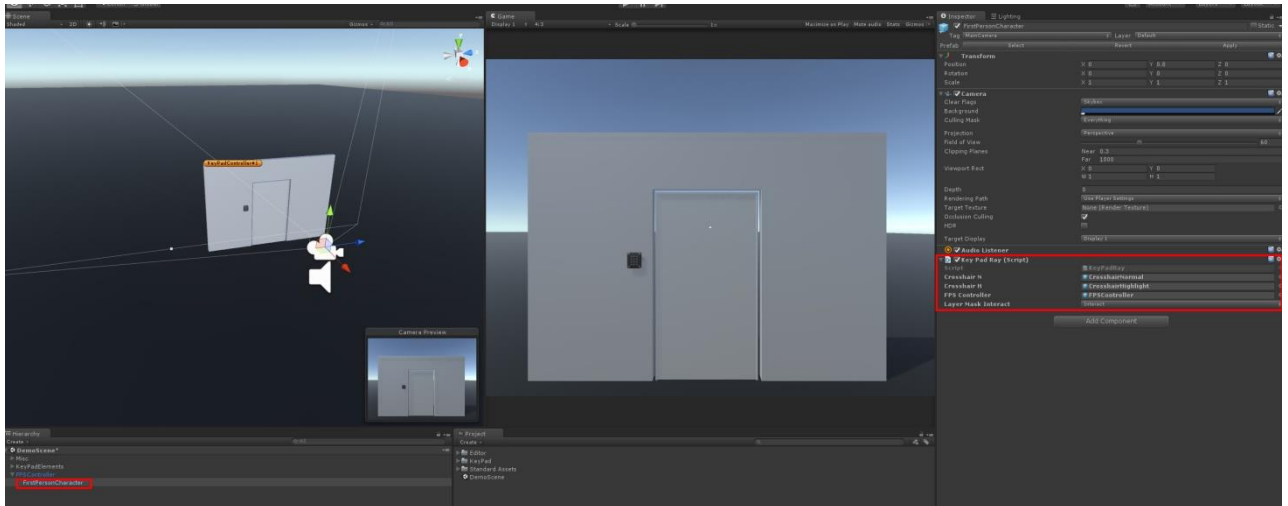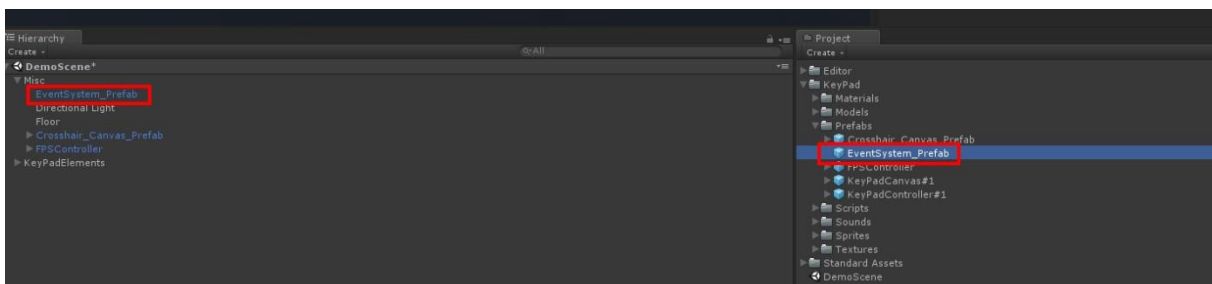

2. Add **"Crosshair_Canvas_Prefab"** from the prefabs folder to your Hierarchy from prefabs folder.
NOTE: Don't drag this into the scene view, only the Hierarchy.
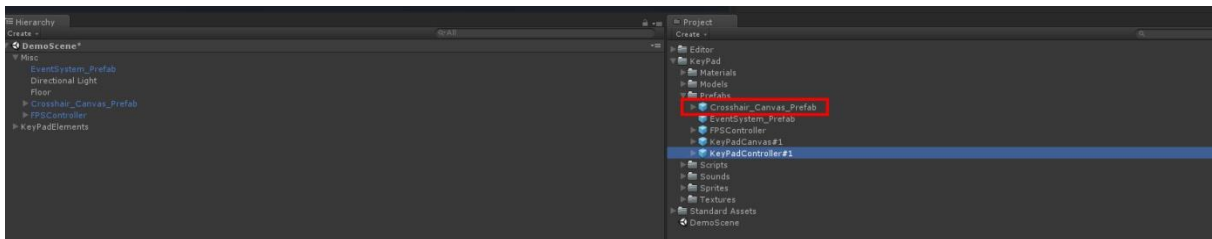
3. Add **"EventSystem_Prefab"** to your scene.
NOTE: Have only ONE event system at any time.

4. Add **"KeyPadController#1"** to your Hierarchy, from the prefabs folder.
Note: Don't drag this into the scene view, only the Hierarchy. This should include
"DoorObjects" and **"KeyPad_Model_Prefab".**

5. Add **"KeyPadCanvas#1"** to your Hierarchy, from your prefabs folder. (DO NOT REPOSITION THIS AFTERWARDS)
Note: Don't drag into the scene, only the Hierarchy.
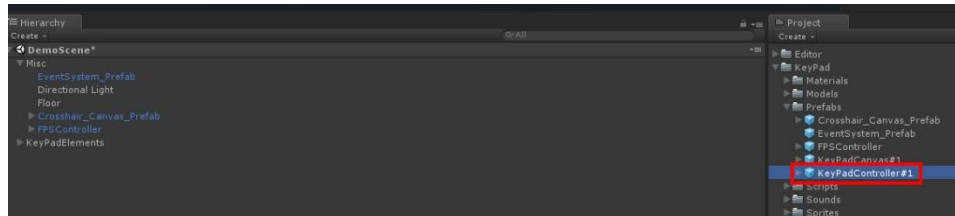
6. Tag **"KeyPad_Model_Prefab"** (which is located inside the "KeyPadController" parent) – **"KeyPad"** if not already.

7. Set the **"KeyPad_Model_Prefab"** Layer to **"Interact"** if not already.

8. Add **"CanvasInteract"** script to the **"KeyPad_Model_Prefab"** and attach the **"KeyPadCanvas#1"** to the slot. (If not already added and attached).
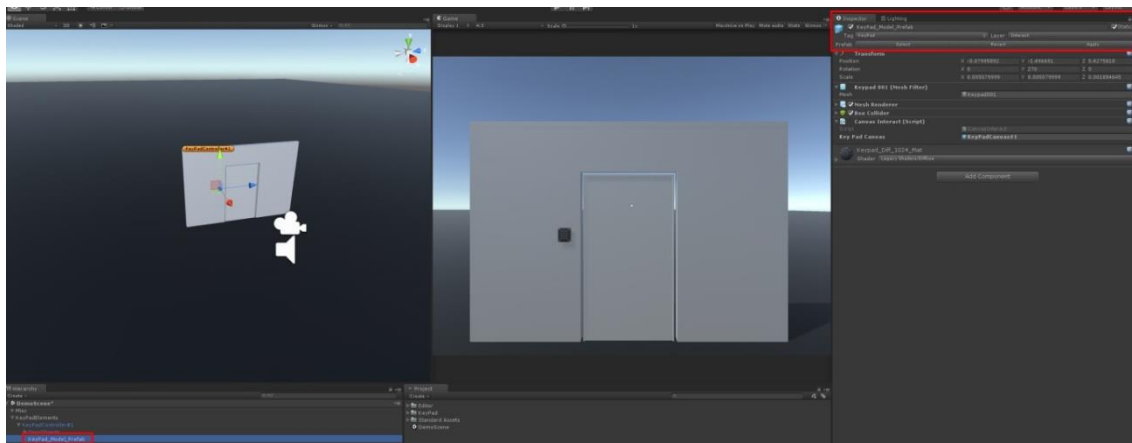

9. Add **"OpenDoor"** script to **"InteractiveDoor"** if not already. (Inside **"KeyPadController"** > **"DoorObjects"**).
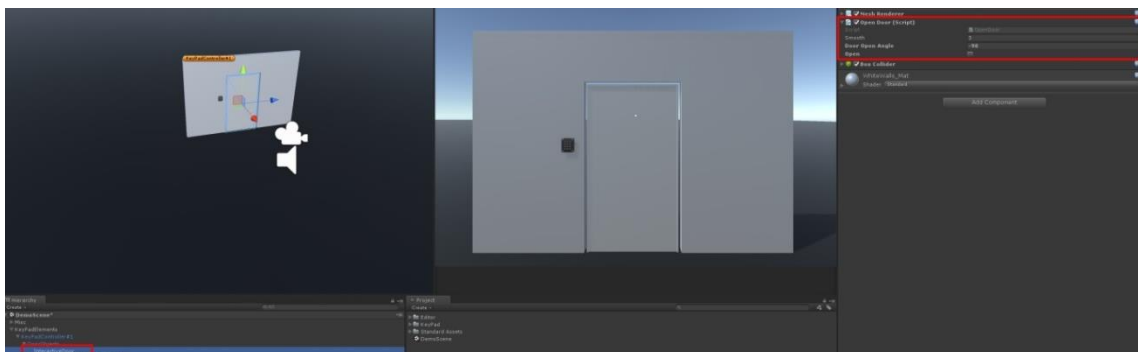
Script Linking – Initial #2

1. On **"KeyPadRay"** (On FirstPersonCharacter)
   Add **"CrosshairNormal"** from the **"Crosshair_Canvas_Prefab"** (In the Hierarchy) to **"CrosshairN"** slot in inspector on "KeyPadRay" script.
   Add **"CrosshairHighlight"** from the "Crosshair_Canvas_Prefab" (In the Hierarchy) to **"CrosshairH"** slot in inspector on "KeyPadRay" script.
   Add **"FPSController"** (from the Hierarchy) to **"FPSController"** slot in inspector on "KeyPadyRay".
   Set the **"Layer Mask Interact"** to **"Interact"** from the dropdown on "KeyPadRay".
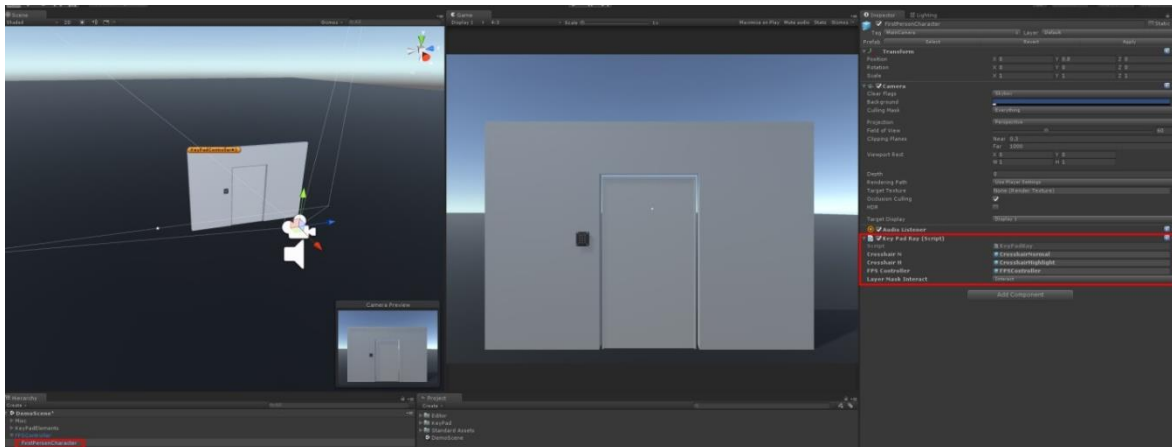
2. Click on **"KeyPadController#1"** (Some of these might already be attached for you)
   Choose your valid code for door
   Set character limit, based on the code you've just chosen
   Add **"CodeInputField"** from **"KeyPadCanvas#1"** Canvas to **"CodeText"** in inspector
   Add **"InteractiveDoor"** GameObject to **"Door"** slot in inspector
   Add **"KeyPad_Model_Prefab"** GameObject to **"KeyPadModel"** slot in inspector
   Add **"Short_Beep"** and **"Access_Denied"** from the sounds folder to slots the in inspector
   Add **"AudioSource"** to the object. (If not already added)
   Add **"KeyController"** script to this object, from the scripts folder in "Project" (If not already)
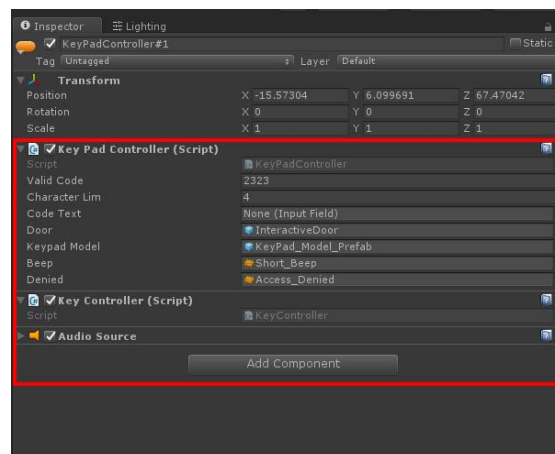
Keypad Canvas Setup – Initial #3

NOTE: This only needs to be done if you're setting the canvas buttons yourself or if anything might be missing.

1. Select and open out the **"KeyPadCanvas#1"** (In Hierarchy) to find all the elements.
2. Select any of the Button numbers, add an **"OnClick()"** event in the bottom right of the inspector by clicking the **"+".** (Unless it already has one added, image below).
3. Add the **"KeyPadController#1"** to the available slot
4. On the drop down on the right, (No function dropdown if nothing is selected) choose the **"KeyController"** option which will open out into more.
5. Choose **"KeyController.KeyPressNum"**
6. You can then add whatever number you like in the slot below the dropdown.
7. Continue this for each button available.
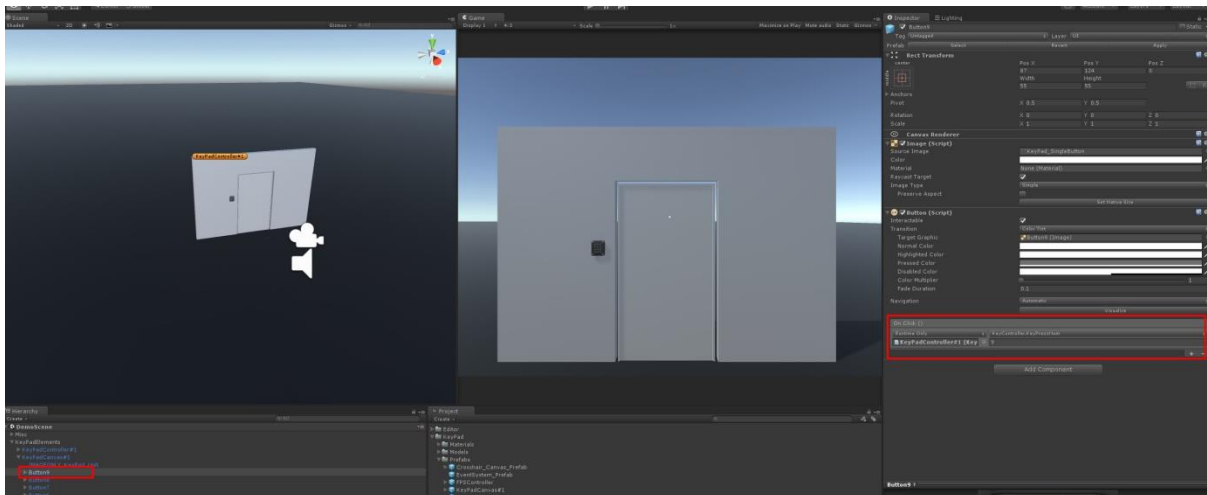
NOTE: Similar setup for the CLOSE / CLEAR / ENTER Button.

1. Select any of the input keys, add an **"OnClick()"** event in the bottom right of the inspector by clicking the **"+".**
2. Add the **"KeyPadController#1"** to the available slot
3. On the drop down on the right, choose the **"KeyController"** option which will open out into more.
4. Choose **"KeyController.KeyPressClose"** or **"KeyController.KeyPressClr"** or **"KeyController.KeyPress.Ent"** to the corresponding buttons.
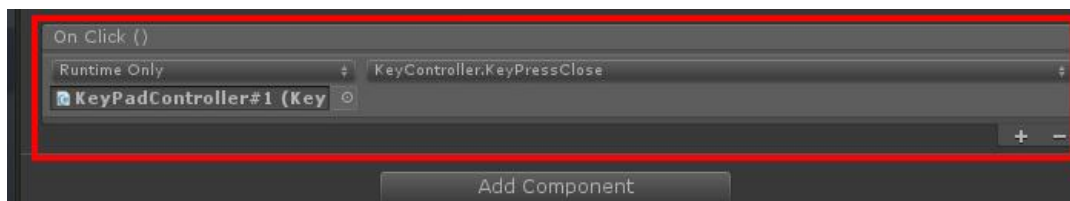
Finishing up / Things to remember

After following these steps you will have completely setup the asset, any question don't hesitate to contact me. Please remember:

- Do not directly reposition "KeyPadCanvas" or it will not appear on screen.
- Look at the extending the asset on the page below for more details.
- You can move the "KeyPadController" entire parent around without issue.
- You could add the non-essential items to it's own empty GameObject if you wish.
- Take a look at the "DemoScene" if you're unsure about anything!

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Extending the Keypad System

I want to do something different when the code is valid:

If you want to use a different door interaction piece of code you can edit the line of the
"KeyPadController" script: door.GetComponent<OpenDoor>().open = true;

Add your own suitable code for doing something you want to happen when the keycode is valid. It
could be an animation playing or similar.

```
public void CheckCode()
    {
        if (codeText.text == validCode)
        {
            door.GetComponent<OpenDoor>().open = true;
            keypadModel.tag = "Untagged";
        }
    }
```

I want to use a different character controller whilst using this asset:

You would need to reference your new character controller in the "KeyPadRay" script and work your
own code for disabling camera movement, player movement, and mouse cursor locking and
unlocking.

```
void DisablePlayer()
    {
FPSController.enabled = false;
        Cursor.lockState = CursorLockMode.None; //Set the cursor lock to unlocked
        Cursor.visible = true; //Make the cursor visible
    }

    public void EnablePlayer()
    {                FPSController.enabled = true;
    }
```

I want organise my keypad elements in the scene what can I do?

If you take a look at the demo scene it has the two major elements of the keypad system which include **"KeyPadController"** and **"KeyPadCanvas"** inside one GameObject called **"KeyPadElements#1"** or similar. You can put your two elements inside an empty GameObject to keep things organised. Make sure that when you create the empty GameObject you set the X, Y, Z position coordinates to 0, 0, 0. If not the object will take the position of the parent GameObject and the canvas UI's might not appear.

I want to add more than one keypad to one scene, how do I do this?

You can duplicate "**KeyPadController#1"** and "**KeyPadCanvas#1" TOGETHER**, do not duplicate the entire GameObject (If you have already added these two elements to an empty GameObject). You can increment the number once duplicated yourself and you just want to check that each of the inspector slots has the corresponding elements in the hierarchy, to what you just duplicated. For example: If you select the **"KeyPadController#2"** for instance, click on the **"InteractiveDoor"** slot in the inspector and check to see if it finding the GameObject you just duplicated. In this case it will be the **"InteractiveDoor"** object that you just duplicated in the hierarchy.

I want to change the button UI, how do I do this?

Select any of the buttons from the **"KeyPadCanvas"** and change the **"Source Image"**, so you can add your own sprite to create a different style of button. **"Highlight colour"**, to change how the button is highlight when hovered over.

You can also change the overall style of the Keypad

By changing the source image for the **"IMAGEONLY_KeyPad_Unit".**

I need to change the number on the buttons, how do I do this?

Select one of the buttons from the **"KeyPadCanvas"** and drop the parent down to reveal the **"Text"** element, select this and you can change the text field to whatever you need. You can then change fonts, sizes and styles if you need too. Make sure to remember to also change that in the button properties at the bottom.

Contact

If you have any problems with the pack, or have some ideas for new features you'd be interested in, please feel free to contact me.

Email: volumetricgames@gmail.com

Website: http://www.volumetric-games.com

Changelog:

V1.0:

Initial release of the Digital Input Keypad System

V1.1:

- Fine tuning the code to make it more efficient.
- Added "Read Only" to the KeyPad Input box so you couldn't input with the keyboard.
- Fixed some issues in the demo scene.
- Removed Standard assets from the package and updated the documentation.