

## **Intro to Construct Environment & Navigating its Layout!**

Hey everyone!

Great to see you back again! I hope by now you have successfully installed Construct 2 and are wanting to make fascinating and lively games.

Today, we will get familiar with the Construct environment and help you set up your project from scratch, by adding objects and creating some sample sprites.

Let's get started. To create a new project, open the Construct software, Click on 'File' at the top left corner and the 'New' option. From the window that opens up select the 'New empty project' option and click 'Open'. You will now see that a new project has opened.

What you see in front of you is called 'Layout 1'. Think of the layout as different levels in your game. The number of levels will match the number of layouts. I am sure you could relate this with games of multiple levels like Mario Bros, Candy Crush etc. An 'Event Sheet' gets created every time a new layout is added. The Event Sheet 1 is the place where all actions, behaviors, coding for objects present in the Layout 1 are done.

You can navigate the whole page by scrolling up and down / left to right by just clicking on the screen side arrows. Else you can pan around the whole layout by holding the 'space key' and moving the mouse pointer around your layout.

Next, let's try to zoom in and out of the layout. You can either click on the 'View' section in the header and then click on 'Zoom in' to enlarge the layout or 'Zoom out' to reduce the size of the layout. Alternatively, you can hold the 'Control Key' and scroll the mouse roller to zoom in and out.

Let's now understand the difference between the 'Grey dotted line' and the 'Full white page'. Consider the grey dotted line as the boundary for your game play window. It shows how big your window size is when you play the game. So, when someone plays the game, the person will not be able to see the whole white page, but only what is inside the boundary of the grey dotted line. The whole page becomes important if your game is big and there is screen or camera

like movement happening, think of games like Mario Bros, Temple Run etc and you will understand.

Moving on from here we will learn to setup a window & layout size. To do that, let's select the 'New Project' option in the 'Projects' Window. The Project window is an important part of the layout as it keeps all information related to the layouts, events, objects or freshly added sprites etc. at one place. This helps in navigating easily to the required layout from here. On the left side, you'll see the 'Properties' Window. This is used to add details of your project like project name, author name, website address, version etc.

Now let's adjust the window size depending on our requirement. The default 'Window Size' visible under the Project settings, is 854 by 480 pixels which means that the window has a width of 854 pixels and a height of 480 pixels. But this is only suitable for wide screen monitors. In order to fit the game to old CRT monitors and tablets, you can change the window size, by pressing the '+' button present next to Window Size and changing the dimension to 640 (width) by 480 (height) pixels. This is the commonest window size observed across most devices.

We will now setup the layout. Click on the 'Layout 1' option in the Projects window, right-click over it and select 'Rename' option. Rename the layout to 'Level 1'. As we don't want to use this extra white page in our game so let's change the layout size by clicking on '+' button of layout size on the left side 'Layout properties'. Use the same parameter as you did for the window size. Change the dimension to 640 by 480 pixels. Please remember that anything outside the white space will not be visible in your game screen now.

The next step is to fill the screen with some graphic or objects. There are 3 different ways in which you can add objects to your game. First, by right clicking on the folder 'Object types' in the Projects window and then right-clicking to select 'Insert new object' option. Second, by right clicking on the 'Layout screen' itself and then clicking on 'Insert new object' option. Third, by double clicking on the 'Layout screen' to show the object window.

Next, we will learn about the different objects you can use for the game. There are a lot of things that you could choose as objects for your game. The easiest ones to recognize are the OK button, Text box, Sprites etc. Sprites are mainly images and are considered as building blocks of the game. You can also add mouse, keyboard, gamepad etc. as inputs. All these objects add new features to your game. In case you would like to know more about any of the objects, just click once on the object and read the description displayed at the bottom.

To create an object, select 'Sprite' option in the object window. Remember to give your sprite a proper name before clicking on 'Insert'. You could do well by giving really meaningful names to your objects as it will help you track them easily when the game grows bigger. In this case, let's name our selected sprite 'LeanRectangle' – do notice that we have followed good naming convention by using a capital L & a capital R in the name. Please do not leave any space in between while naming your objects.

As soon as you click Insert, you'll either see an 'X or +' sign coming on the screen and it says Layer 0. X signifies inserting an object and Layer 0 refers to the layer that you are inserting the object into. So now, left click on the screen and it brings up an 'Edit Image' window. It's basically a smaller version of paint. The good thing about this image editor is that it allows you to control animations and different animation frames.

Let's create a quick sample object to use in our layout. Click on the 'Fill' tool and select a color of your choice from the palette and click in the middle of the box. This box is your whole image. To confirm this change, you just close this window and you'll see the colored box appearing on the screen. Please remember not to click on the 'Save' option as it will save this sprite into a separate file. As we want to make a rectangle so let's make one out of it. Before that, let's position the box in the center. You can move the box by clicking & holding the left mouse key and dragging it anywhere over the screen. You can do the same manually by clicking on the '+' button of Position under common area in properties window. Change the values of X & Y to set its position manually. Next, let's change the size of the box by grabbing any of the anchor points and moving it around to



make it look like a rectangle. You can rotate this object by grabbing the little square inside and moving it around.

One important thing to remember is that there is something called Layers. You can go to Layers bar by clicking on it in the Projects window. You may think of a layer as a transparent sheet of glass on which the objects are painted. Layers can be used to show different groups of objects in front or behind each other, like the foreground and background. Layers belong to a layout and can be added, edited and removed in the Layers bar.

In order to run this layout, click on the 'Run Layout' option in the header section.

We have now come to the end of this video and we hope that it helped you get familiar with the Construct environment - creating a new project, navigating the layout screen, setting up the project and creating a simple sprite or object. In the next video we'll learn to create an interesting game by not only creating the sprites but also programming them by adding behaviours and actions to them.

Goodbye. See you soon where we will get started with our first project.