GameMaker Studio 2

Game developement is for everyone.

By Malcolm Graham

Special thanks to:
Shaun Spalding

Font used is Arial

You can contact YoYoGames by e-mail at:
datacontroller@yoyogames.com

Table of Contents

1
THE BASICS

Before We Begin...

Gamemaker Studio 2 is a game development software created by YoYoGames. The software has a few paid subscription plans, however a free version of Gamemaker Studio 2 is availiable. The demo does not expire, but you have limited resources per project, and you will be unable to properly publish your game for any platform.

This manual assumes you have already made an account, and have installed Gamemaker Studio 2, though this guide will work no matter which licence you choose.

With all that out of the way, please enjoy the rest of this manual.

STARTING YOUR FIRST PROJECT

When you boot up **Gamemaker Studio 2**, you will be greeted with the launcher. Here, you can:

- Start a new project

- Open an old project

- Browse the Marketplace

- Look for more tutorials

- Try out pre-made games

- Check the Latest news
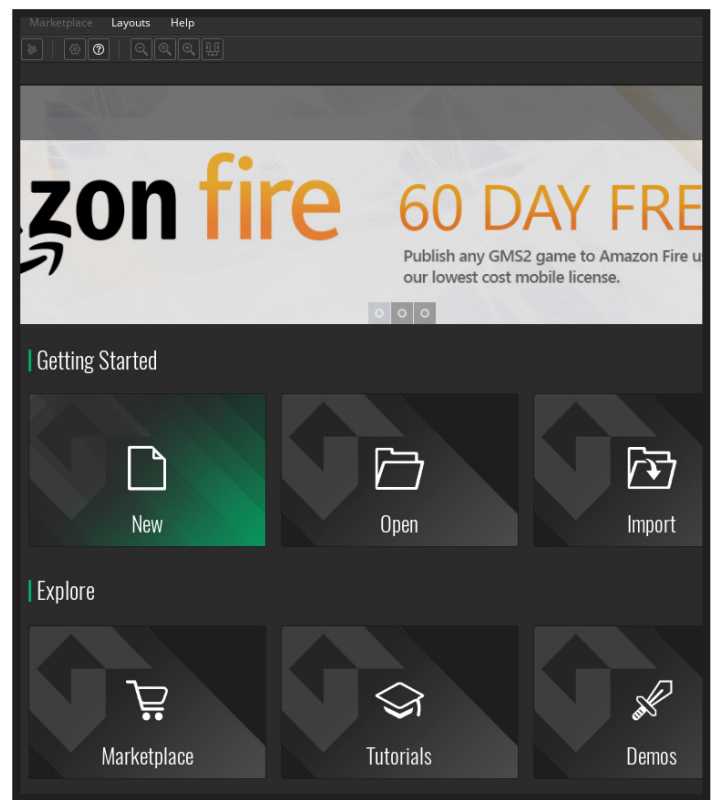
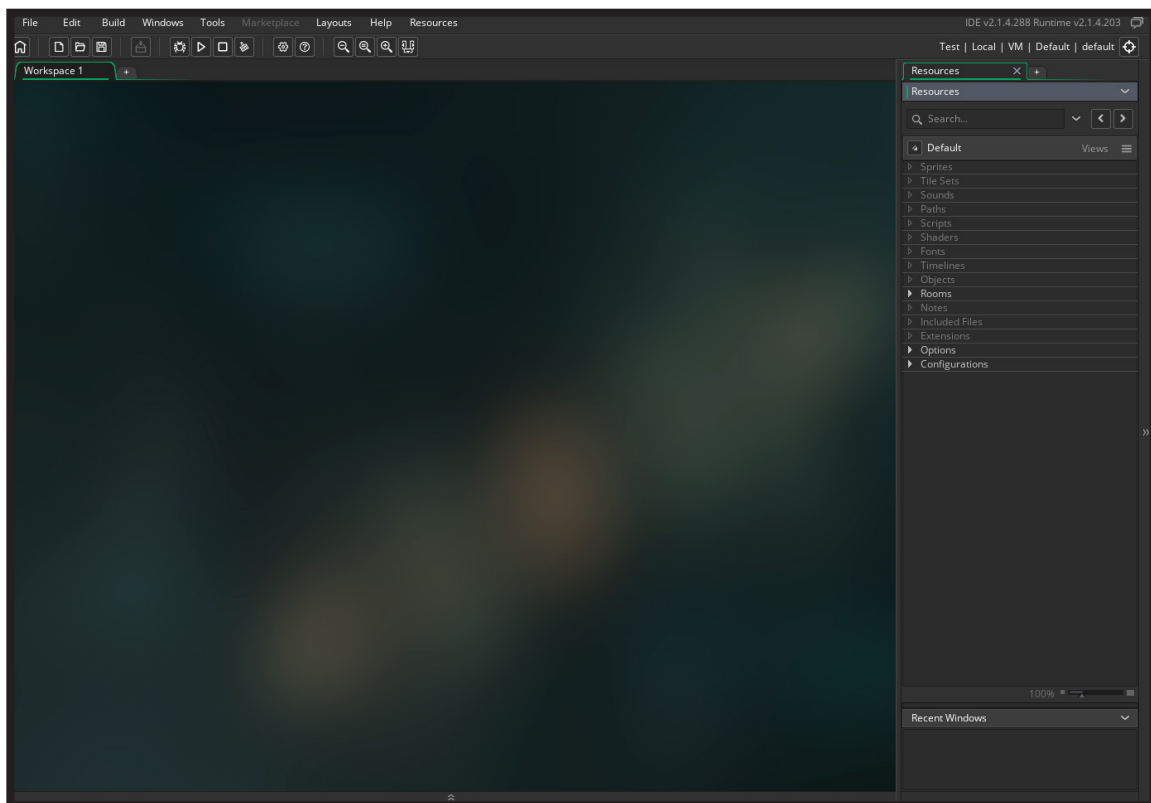# Let's start by creating a new project.

You can do this by choosing the options that are highlighted in the following screenshots.
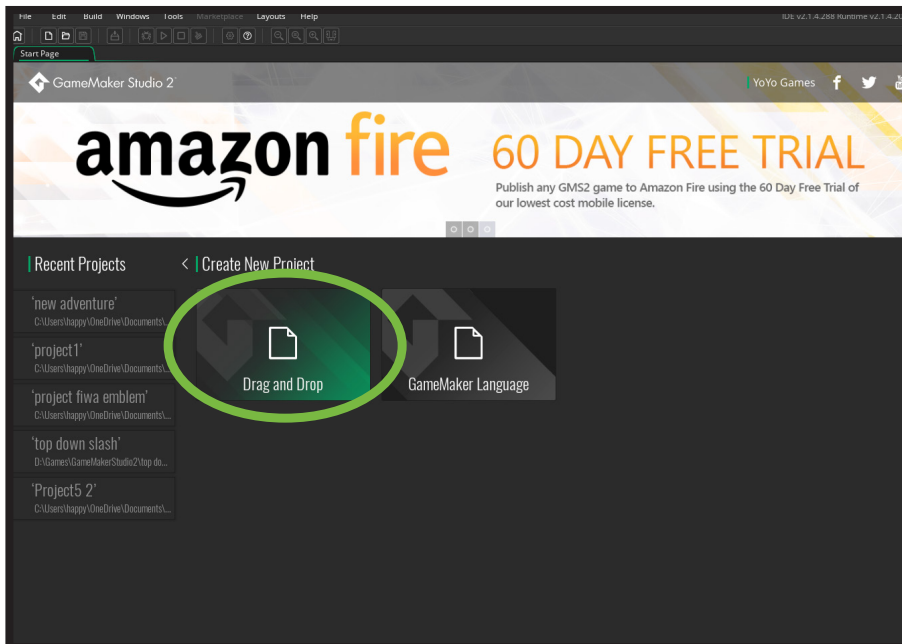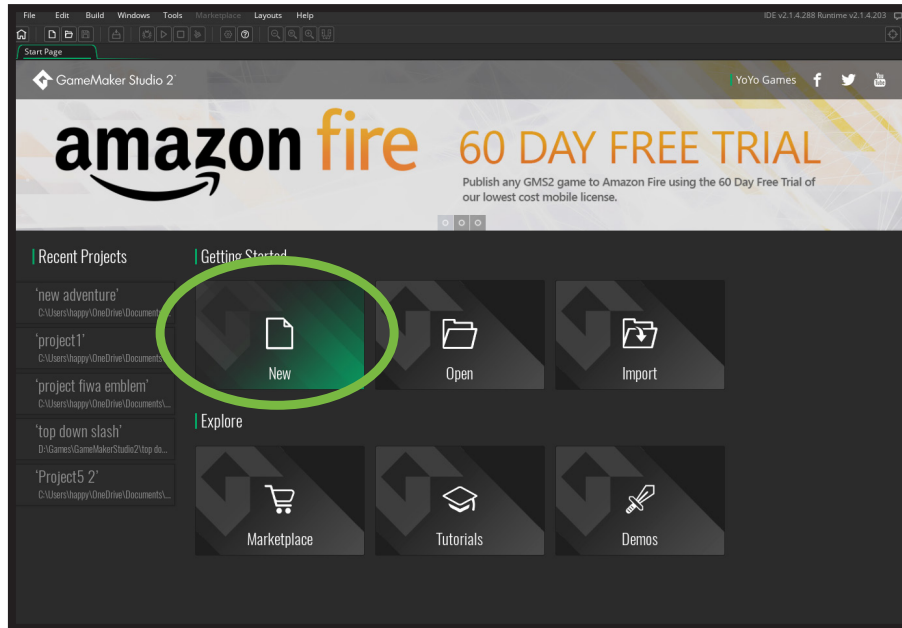
For beginners, it is recommended that you start off by choosing the Drag and Drop option.

MENU NAVIGATION

## Once you start up a new project, this is what the menu will look like.

This may seem intimidating at first, but don't worry!
We'll guide you through it.

The Control Panel

The control panel is where you can find almost all of the commands, like saving, loading, playtesting, etc...

Your Resources

This is the list of resources to be used in your game. These resources will be explained in more detail soon.
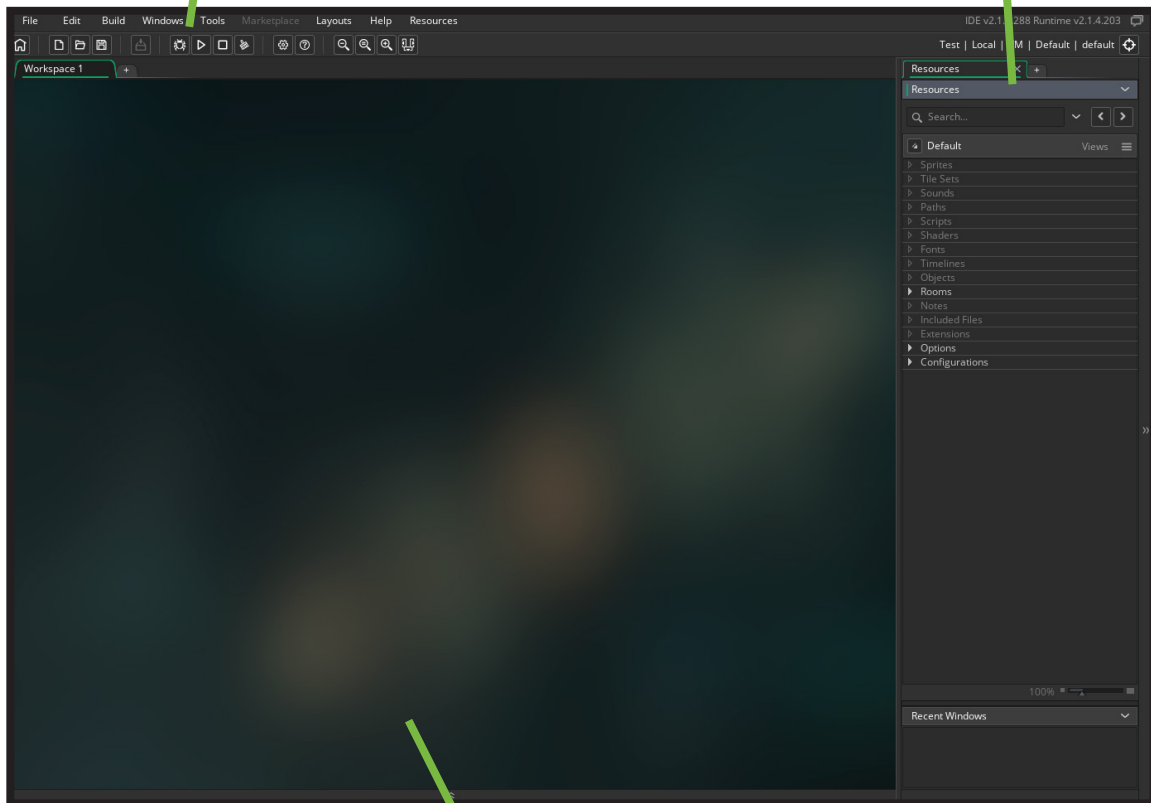
The Workspace

This is the space you have to sort all of your resource windows, and to edit them individually. When you have a lot of windows open, you can click and drag to move around the Workspace and get to where you want to go. There is no size limit to the Workspace, so no need to worry about that.

2
RESOURCES

On Resources...

In Gamemaker Studio 2, resources are what make the world go round. In short, resources are all the different parts that make up your game. There are a number of different types of resources, but the most important ones are Sprites, Objects, and Rooms. Those three resources are the only necessary resources needed to make a game, but every resource has it's own purpose.

For the sake of simplicity, this manual will only be covering the three main resources in detail.

However, if you ever want to expand your knowledge of Gamemaker Studio 2 and start working on bigger projects, knowing how to effectively use every resource will come in use.
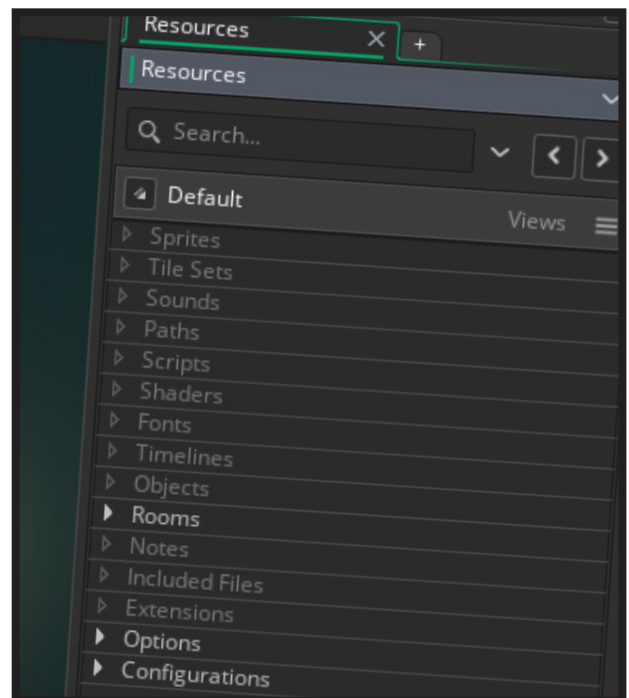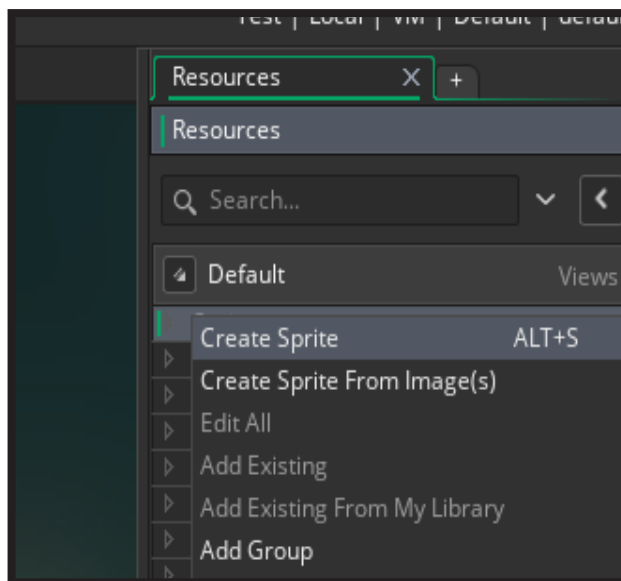
CREATING SPRITES

The first step to making any game is creating a sprite.

Sprites are what make up everything you can see in the game. This includes character sprites, background images, UI, other npcs, etc...

Basically, without sprites you would only have a black screen.


So, how do you make them?

You can create a sprite in the Resources menu. Just right click the "Sprites" text at the top of the list, and select "Create Sprite".

Or, alternatively, you can just press ALT + S.

This will open a new window in the Workspace, where you will have all the different tools necessary to create a sprite.
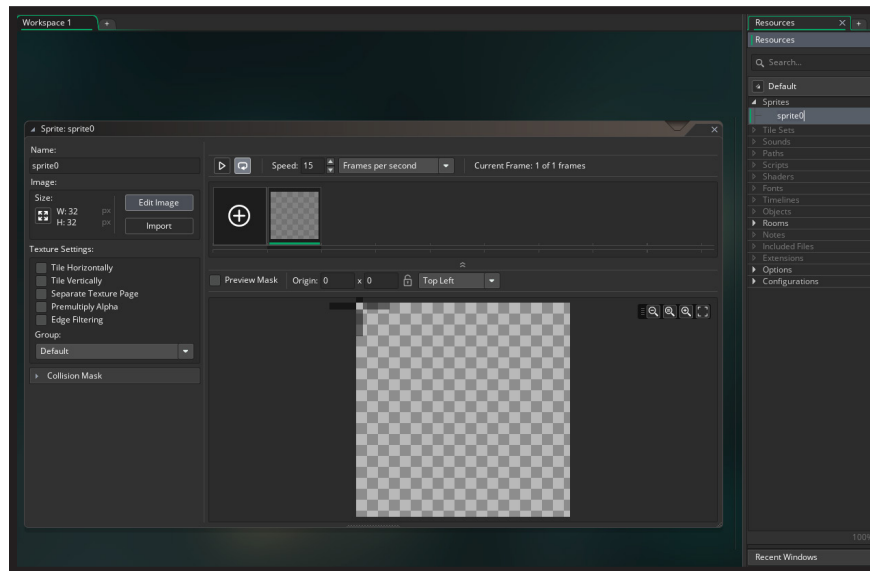
The center of the window is where you will find the preview of the sprite, but you won't have anything there until you press the edit image button on the top right.
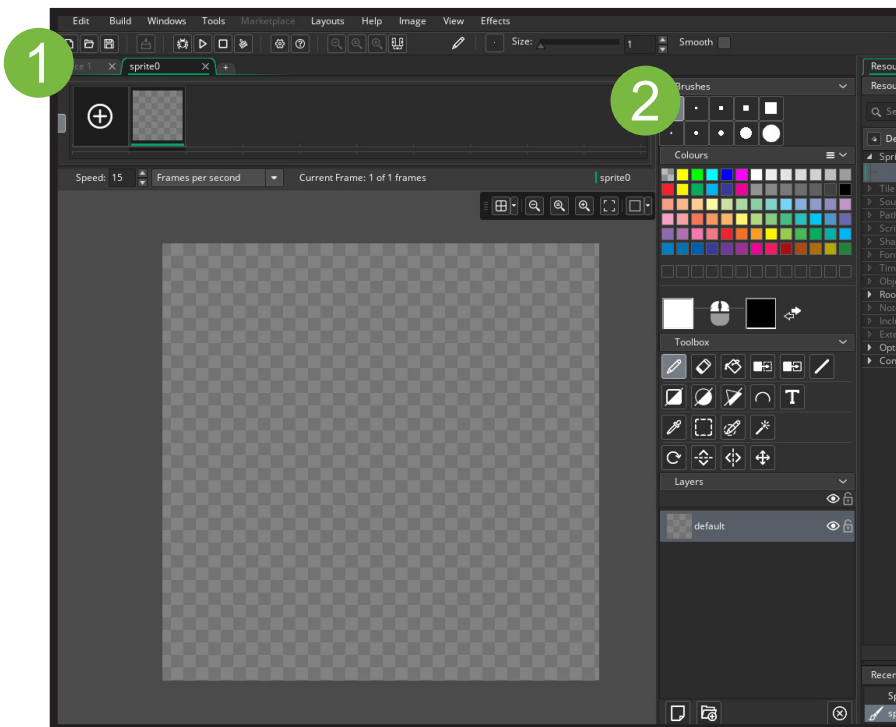
1. The top of the window shows the sprite's timeline, and you can add multiple frames to make an animation by clicking the plus icon.
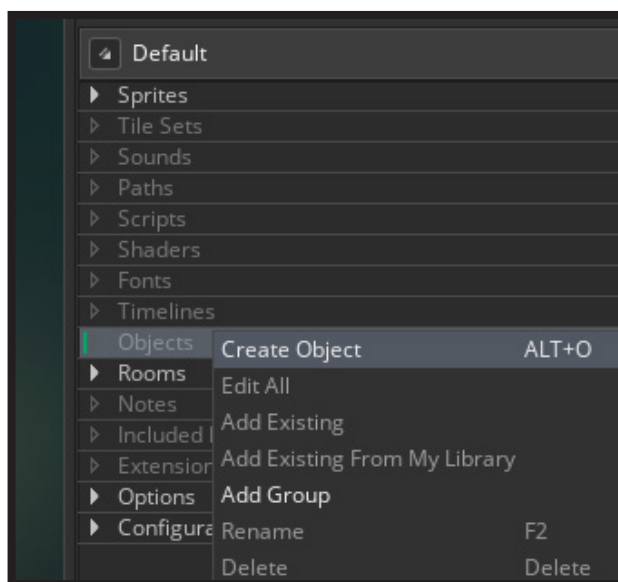
2. On the right you can choose from a selection of drawing tools used to make your sprite, as well as what colors to use.

13

MAKING OBJECTS

Objects are the key to adding interactive elements to your game.

Objects are code that has been attached to an element. Usually the element has a sprite, though it's not necessary.
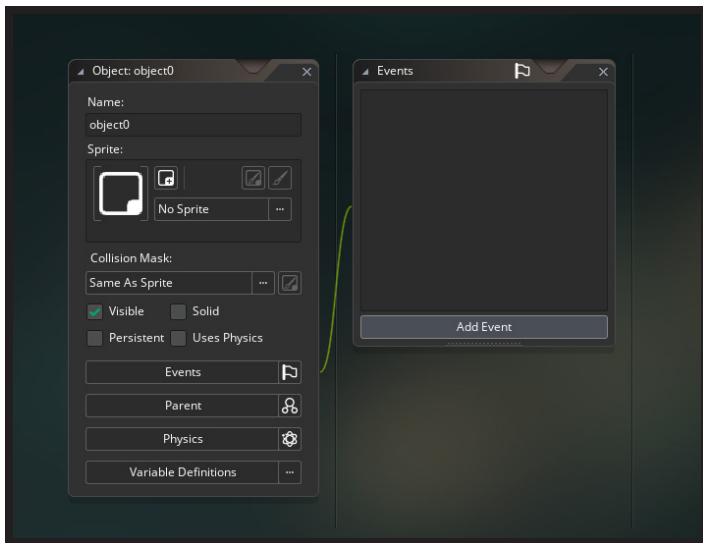
They are essentialy what makes the game do what it does.

So, how do you make them?

You can create an object not unlike how you did it with sprites, simply right click and select the "Create Object" option.

Or, alternatively, you can just press ALT + O.

When you create an object, you will be shown not 1, but 2 windows. The window to the left is where you can change basic object properties (i.e. object name, it's visibility in the game, what sprite it has, etc..)

To the right, you will see the events window. This is where you define what can happen and when it can happen with the object.

This next part is about to get a bit wordy, so make sure you pay attention!

If you click the "Add Event" button, a menu will appear with all the options. Essentially, all of these events are what needs to happen in order to run the following commands. This manual will not go over the properties of all these options. Here we chose the step event, which is an event that happens on every frame of the game no matter what.

Yet another window will appear when you chose an event option, and this is where you chose what commands to run upon the event. Simply click and drag what option you want from the menu to the right, in to the middle workspace. In this example, we chose simple commands to check to see if spacebar was being pressed, and if so, move the object to the right.
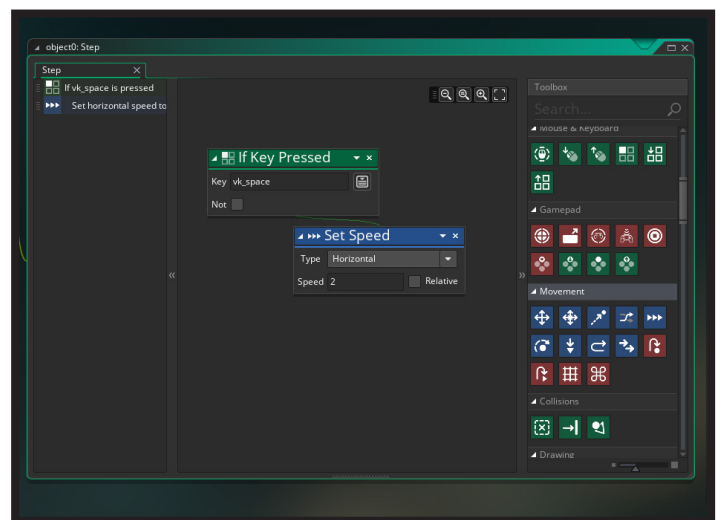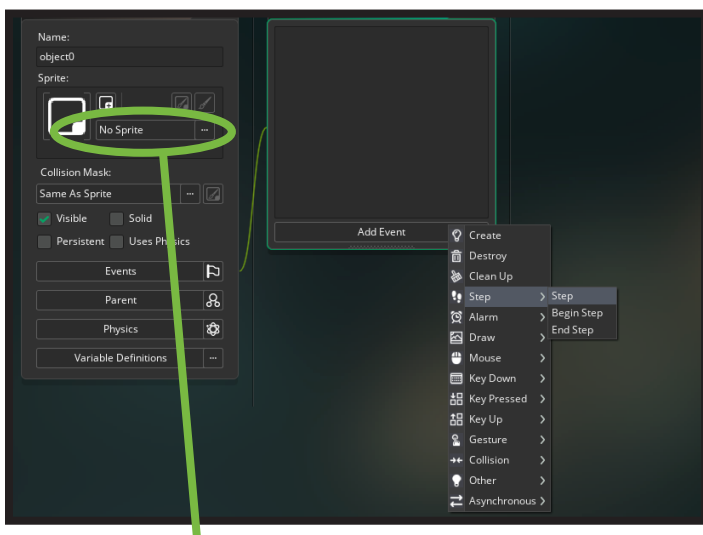
It is important to remember to choose a sprite for the object from this menu, otherwise you will not be able to see it when the game runs.

SETTING UP ROOMS

Now that you have an object with a sprite, Let's create a room for the game.

Rooms are like the levels of the game, where you can place all the different assets you've made in the resource panel so far.

A game will not be able to run without a room.
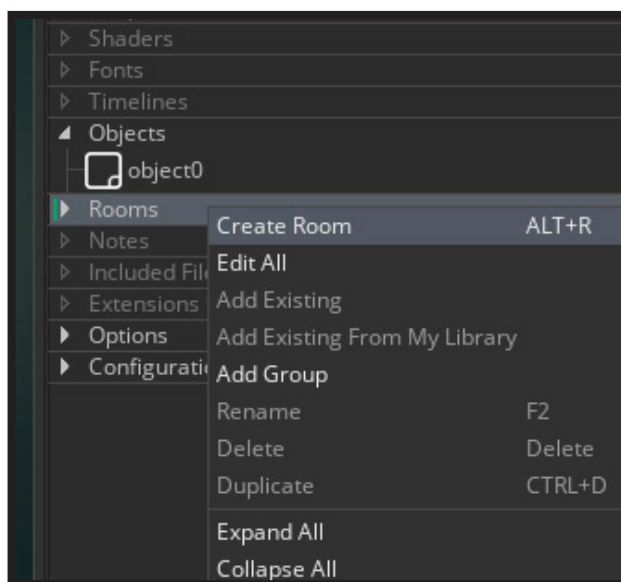
So, how do you make them?

You should know this step well by now, just right click and select the "Create Room" option to create a room.

Or, alternatively, you can just press ALT + R.

Creating a room is much different than the last two steps

Once you select a room from the resources menu, it will show you this window.

1 This is the layers panel. Much like many other programs, you can place objects on to layers. Layers on top will appear in front of layers below.

2 This shows a list of all the instances that are currently in the layer. Similar to layers, objects at the top of the list here will appear in front of any below.

3 This is where you will find the room properties, where you can change a multitude of miscellaneous settings of the room.

4 This is what the room currently looks like. This will change once you start bringing objects, and other resources in to the room

Adding objects on to the layer and in to the room is easy, just drag the object from the resources window in to 4ᵗʰ section.

PLAYING YOUR GAME

So, if you've followed the last three steps and your room has an object like this, then you're ready to playtest your game!
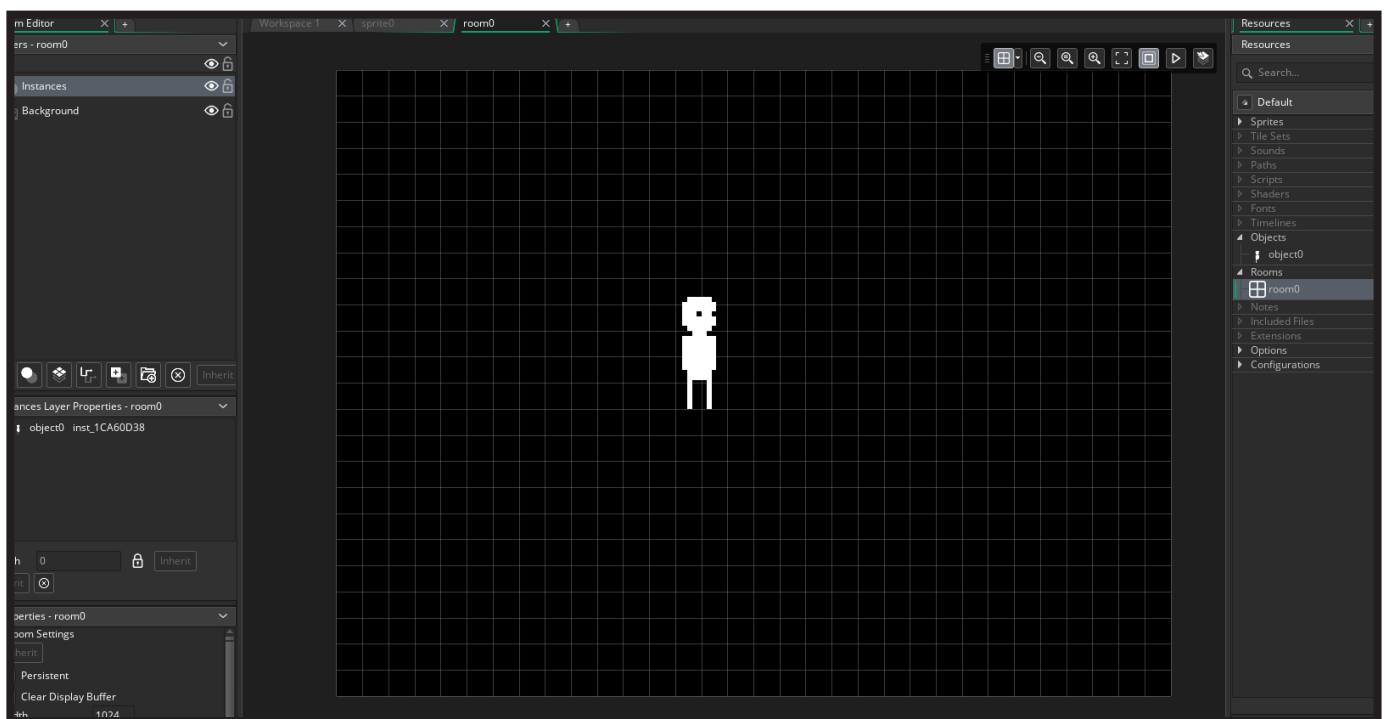

Since the last step, we chose a sprite for the object we created, and simply placed the object in the center of the room.

The option to run the game can be found in the control panel at the top of the Gamemaker Studio 2 window

You can also choose to run the game by pressing the F5 key.
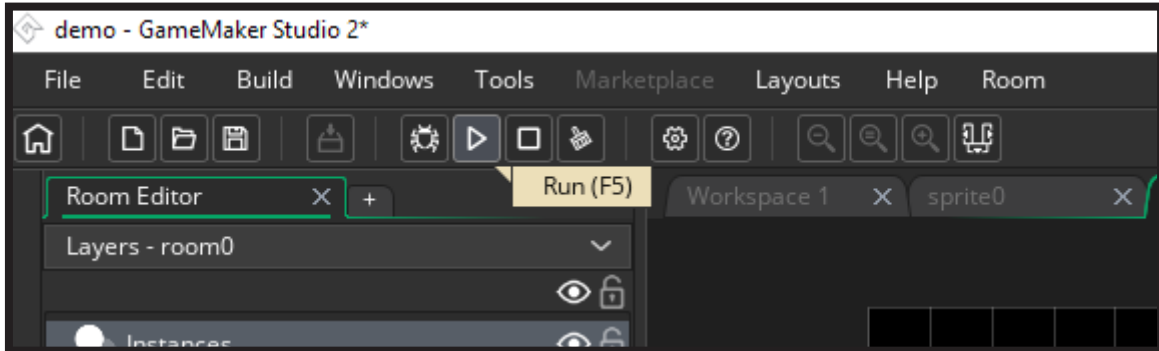
Once you run the game, it will start up on the first room you have listed in your resources menu. The game will boot up in a new window, and would you look at that! You've just made a game!
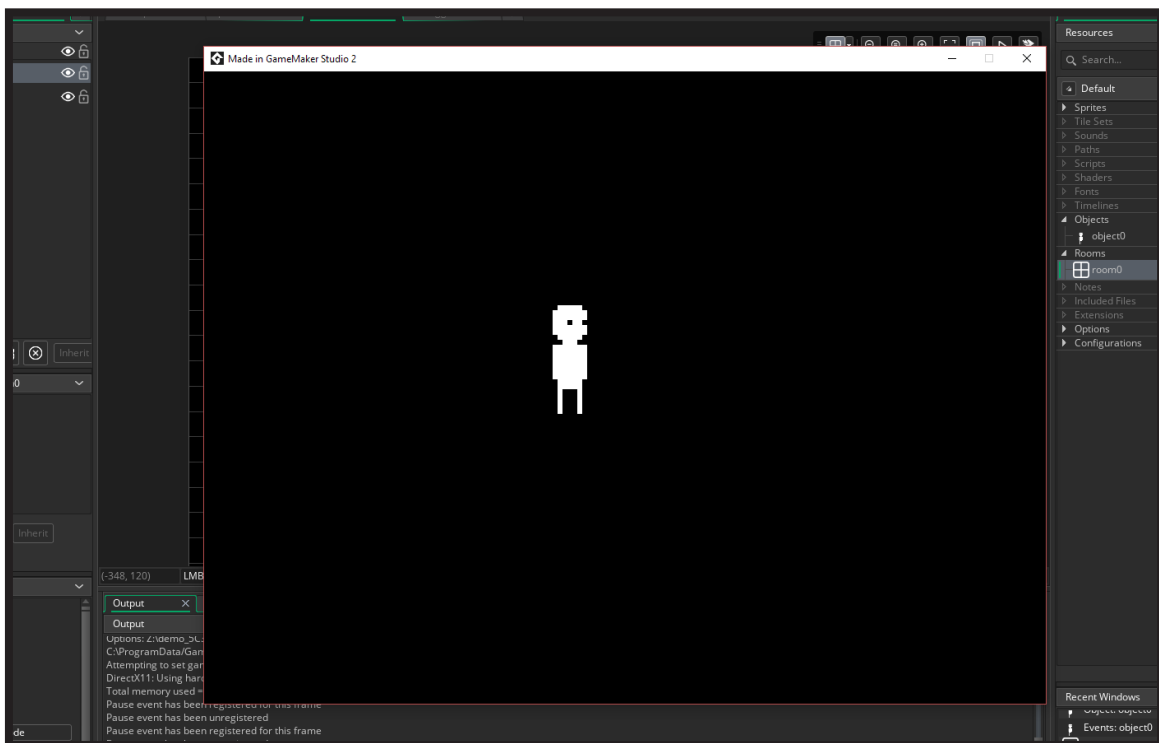
It may not look like much right now, but with the right creativity and determination, Gamemaker Studio 2 gives you all the tools you'll need for a full fledged video game of your own!

THE GLOSSARY

Sprites

Sprites are the images used in games that make up just about everything the player can see.

Resources

In Gamemaker Studio 2, resources are all the different parts that any one game consists of.

Timeline

A timeline represents the series of images that form an animation.

Instance

Instance is essentially another word for an object, but used in the context of a room.

Workspace

A workspace is a given area in which you can control certain elements to create your game.

Assets

Assets are the resources and or equipement.

THE INDEX

Thank you for reading this manual.

The end

9 780747 595823 >