

An easy and complete beginner book to learn Game Maker. Filled with cool tutorials and resources to get you started in minutes.



GAME MAKER FOR **BEGINNERS**

- Learn GML
- Create Four Games
- No Programming Required
- How To Stay Motivated, Get New Ideas.
- Tools And Resources To Help You.

SUJIT KUMAR YADAV

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The Spiritual Guide to Learn Game Maker

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OVERVIEW

So you want to make a video game. Where do you start? What do you need to learn? To whom can you look for help? It's not as complicated as you'd think, and you don't need to be a programming genius to do it. In fact, everything you need to create your first game is included in this book. Author Sujit Kumar Yadav met with Game Maker 5 years back, but he truly started using it a year ago. He started learning it and after year of hard work, He learnt something (at least this is what he thinks). His first game was Breakout.

Bio: Sujit Yadav is a graduate with Electronics and communication degree from India.

ACKNOWLEDGMENTS

This book has been one of the hardest projects I've ever worked on. Not because the book itself was hard to write, but there were times when you felt like giving up. Sometimes when you felt like, oh don't waste your time nobody is going to read it. Whether anybody read it or not, I did it because I know how it feels like when you want to do something so desperately, like creating your dream game but you are stuck at the starting point. How it feels when someone says hey that was a cool game, I wish I can make one like this. I want to help those newbie's so that they can learn easily without getting lost. I have completely revised and formatted it. Hope you will like it.

Download Link of resources: N/A

Alternative Link: N/A

WHAT'S DIFFERENT ABOUT THIS BOOK

There are lots of Game Maker books. In the end, the question everyone asks is, "What's special about this book in particular?"

I'm glad you asked.

The short answer to your question is that this book is completely focused on a complete beginner who doesn't even know the ABCD of Game Maker.

IT DOESN'T ASSUME YOU KNOW HOW TO PROGRAM COMPUTERS

Most people who want to get started in game programming don't know how to program at all. They are bright, creative, and innovative and they like games. But they can't yet write computer programs. If you want to be a game developer, but you have little or no programming experience, this book is for you. It doesn't assume you know any programming language at all.

IT TEACHES YOU REAL GAME PROGRAMMING SKILLS

This book will teach you how to think in Game Maker. How can you solve different problems you will encounter throughout the process? How can you avoid the mistakes most newbie makes?

IT TEACHES YOU HOW TO BUILD A REAL GAME

Many beginning programming books give you lots of nifty little sample programs that demonstrate the concepts they're teaching. However, very few show you how to pull all of those concepts into a complete game. That's a skill in itself. And the process of building a complete game often stumps people who clearly understand how to write the individual pieces. By the end of this book, you'll see how to write a complete game.

Aren't most games today written in 3D?

Well, yes. But writing 3D games is much harder. If you will start with simple 2D games, you'll learn fundamentals of game programming before you have to deal with 3D concepts. It makes the learning process much easier and much more fun.

BOTH TEENS AND ADULTS CAN USE THIS BOOK

Although this book is not written specifically for teens, it is usable by everyone. If you can read, you can use this book. Both teens and adults will find everything they need right here.

CHAPTER 1: GAMES

There is nothing more satisfying than playing your favorite game and being transported to a world where you are not a simple guy but a hero. Video games have affected our life. Today video game industry has been grown so much. This is a market with lots of opportunities, because it will never get saturated until a man can imagine. Unfortunately, making games is considered a black art in which you have to spend years learning how to program in complex machine languages before you can even get a simple graphic moving across the screen. Doesn't sound like much fun, if you're just starting out? Does it?

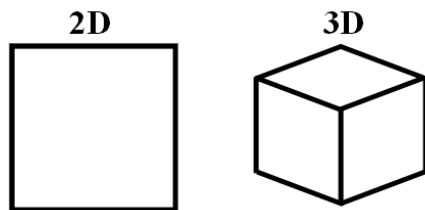
This book will show you that it is a lot easier than you may have thought to make fun and exciting games. It will also allow you to progress quickly and take an idea from concept to a fully playable game by the end of the book. So let's begin our journey to learn how to make and design games the easy way!

Why Make Games?

Why do you want to make games? Just think for a moment and write down the reasons. There could be many answers. Some of them might be:

- You love to play games and want to create your own.
- You are doing it as a hobby.
- You want to re-create your favorite game with extra features.
- You want to create games for your friends.
- You want to learn how do these games work?

2D or 3D Games



A simple way to represent the difference between 2D & 3D.

Difference between 2D and 3D

2D stands for two dimensional games. 2D represents the two coordinates on screen: top to bottom and left to right, known as x and y. A 3D game uses three coordinates x, y, and z. Now a day 3d games are being developed. But it is also true that many 2D games are still developed and enjoyed by thousands of player around the world. This book is all about making 2d games. It does not cover 3D aspects. 2D games are much easier to create. If you want to learn 3D games then first you should learn some basics of 2D games and then should move to another level.

Games

There are many types of games. Before developing our game we will take a look at various game types. These games are created by Game Maker.

Platform

I am sure you have heard of Mario. It was one of the most popular games of video game history. In platform games, the player has to navigate a series of platforms and ladders to reach the goal.



Nadan: A platformer game you'll learn how to make in this book

Arcade

A fast paced action game, which requires hand-eye coordination skill to play. Pinball games for the PC would be considered an arcade game.

Side Scrolling Shooters

Side scrolling games would usually have the gamer flying a plane or spacecraft, which was defending the city against waves of enemies. The game could scroll from left to right or bottom to top, and it also could include bonuses for destroying a wave of enemy fighters, including shield and weapons upgrades.

Racing games



Racing games: Where you have to race against your competitors

Racing games are usually racing between cars or bikes. It center on the concept of driving around different tracks, collecting bonuses, and perhaps racing against a computer player. The great thing about racing car games is that you can add so much to the game, and it's pretty easy to think of new ideas for it. Car games could have weapons to destroy other cars, strange weather conditions, car upgrades to make them faster, single races, or tournaments.

Real-Time Strategy Games



A screenshot from a RTS game

Age of empires and Rise of the nations are a few popular RTS games. In these games, you have to use your resources to battle with the opponent. It can be a war game where you have to use your army with planning.

First Person Shooter



A view from a first person shooter game

These games include half-Life, Counter Strike and Halo. These games attempt to put you into the action, as you are literally looking out of the eyes of the character, seeing and hearing what the character sees or hears.

Third Person games



A 3rd person shooter Android game

Batman, Catwoman and Tomb raider are some of the examples. In these games, you can see the character.

Role-Playing Games



A screenshot from a famous RPG game

Neverwinter Nights and Dungeon Siege are all RPGs. These games emulate the traditional pen-and-paper games in which you play characters that have many significant attributes, such as health, intelligence, strength, areas of knowledge and skill. RPGs generally allow you to create your own character and select the level of their attributes to create unique characters with specific skill sets.

Adventure Games



Adventure games where you have to explore worlds

Adventure games are all about unraveling stories, exploring worlds and solving puzzles. It focuses on puzzle solving within a narrative framework, generally with few or no action elements.

Card Games



A screenshot from a card game for PC: Hearts

Card games like solitaire, Poker, Hearts and Free cell are very popular. These are just challenging games. In these you can play against other player or the computer.

Simulator games



Truck simulator: where you have to play as a driver

Simulator games try to bring realistic elements in the game. For example, Flight simulators or train simulator where the player have to operate a plane or train. A flight simulator (Sim) attempts to simulate real flying conditions by giving you control over such things as fuel, wind speed, and other instruments, as well as control over the flaps and wings of your craft. A sim will respond with the same limits as a real plane, as opposed to a simpler flying game, where you can't control much.

Puzzle games

Puzzle games include Tetris, Mario, and others. Tetris, for example, involves game pieces falling from above, which players have to line up before they hit bottom. The player must fit them all together, in the most efficient manner, to leave no open spaces between the pieces. The pieces become more complex and all faster as the game progresses.

Summary

Now that you have learnt about game types, you will be dying to create your first game. Don't rush off, we will first learn some basics of Game Maker and then you will move to the creation process.

CHAPTER 2: UNDERSTANDING YOUR TOOL

Game Maker enables you to create your own windows games without needing to know how to write any code. Built in drag and drop actions can be used to create simple games in multitude of genres Platform, RTS, Arcade and even 3d games. Once you have become familiar using drag and drop you may want to learn Game Maker's built-in scripting language, GML, which enables you to extend the possibilities of your games. Game Maker is very much community-driven meaning there is a thriving forum of users and reams of user manuals to help you get to grips with it. YoYo Games offers eight clearly explained lessons to get you started.

First I want you to get familiar with this software. Because when you open unknown software it feels like you are on Mars. So let's get to know Game Maker.

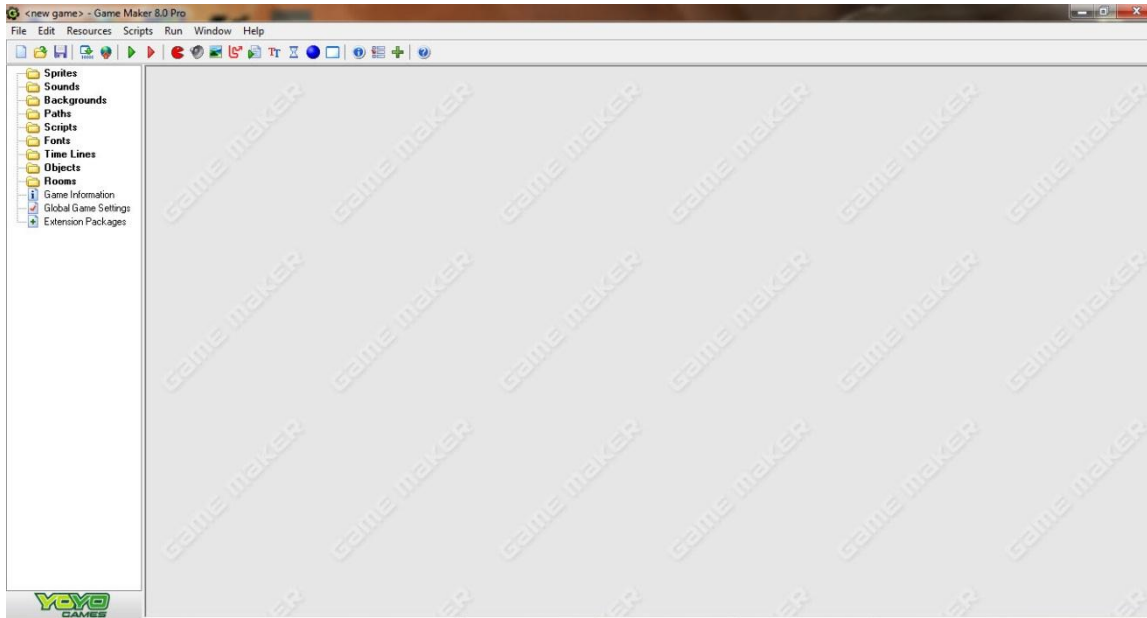


Figure 2-1. User interface of Game Maker

How does Game Maker work: Think for a moment, what does a 2D game have? List all the things that come in your mind.

- a) Images
- b) Sounds
- c) Backgrounds
- d) Effects like explosion
- e) Levels

A game consist of many elements like static images or images performing some animations, sounds like punch, bullet or plane's sound, effects like explosion or recoil, backgrounds of forest, sky etc. These things are mixed together to create a good game. These are called resources in Game Maker. Game Maker also provides a simple way to organize these resources and turn them into a fully-fledged game. Objects are the most important ingredients of games. Game Maker works on events and actions formula. If a certain event occurs, an action specified with that event also takes place. For example, you programmed Game Maker to make a ball bounce when it collides with the bat or the player dies if he gets hit by a bullet. There are many predefined events and many actions in the Game Maker. All you have you do is to combine them according to your needs and make a game.

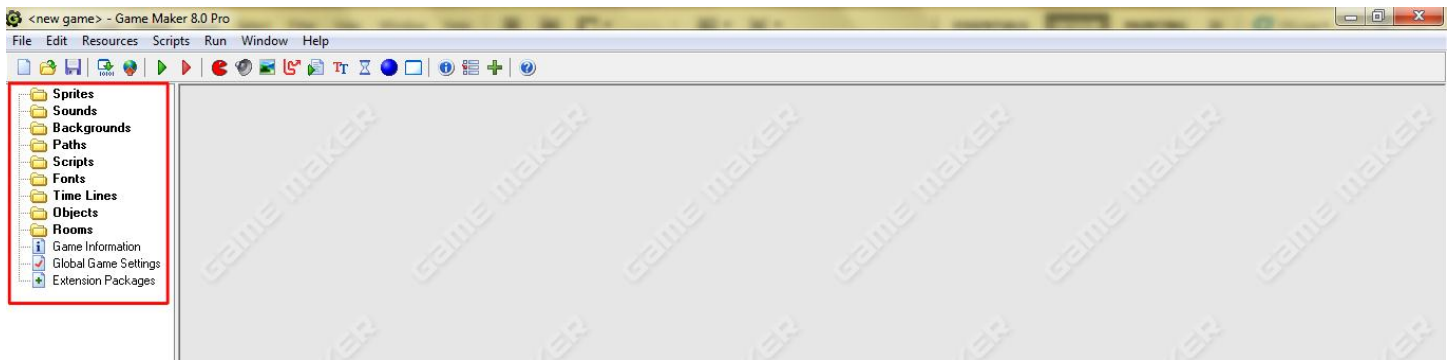


Figure 2-2. Resource explorer: Graphics, sounds, background and levels etc. are organized here

If you seriously want to learn it then you have to integrate your life with Game Maker. You have to think like a developer. Let's learn some terms that you are going to see again and again.

Sprites: Sprites are single or animated images that represent any object. For example, a zombie's image or a gun's image. These are the graphics that will be displayed on the screen. If you are making a zombie shooter game then you will need sprites of

- a) A shooter
- b) Zombie
- c) Bullet
- d) Gun

And the list goes on.



Figure 2-3. An animated sprite of a character in our game

To create a new sprite, Right click on **Sprites** folder from the resource tree. Choose the item **Create Sprite**. You can also use the little red Pac-man button on the toolbar.

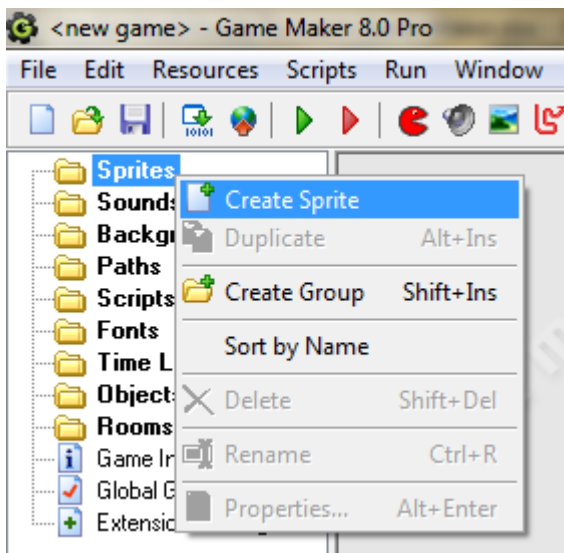


Figure 2-4. Creating a new sprite

After that you just have to select any sprite. You can also make or edit sprite in Game Maker's built-in sprite editor. It offers lots of tools to create cool sprites.

Note: Always name your sprites like: **spr_hero**, **spr_zombie**. So it will be easy to manage them when you will be working on a large project.

Objects: I want to explain about objects first. Objects are the main elements of your game. They are programmable. Sprites are just their graphical representation. Think sprite as a human body and object as its soul. Your body is your physical representation and without your soul it's nothing. In the object, you have to set event and actions. This is how your object will behave in the game. For example: if you want any sprite to move left when **A**-key is pressed on the keyboard. You have to program the motion in its object.

Steps:

1. Create a new sprite and load **spr_bat** from the folder (*Resources/Chapter 2/ Resources/ Sprites/ spr_bat_blue.png*).

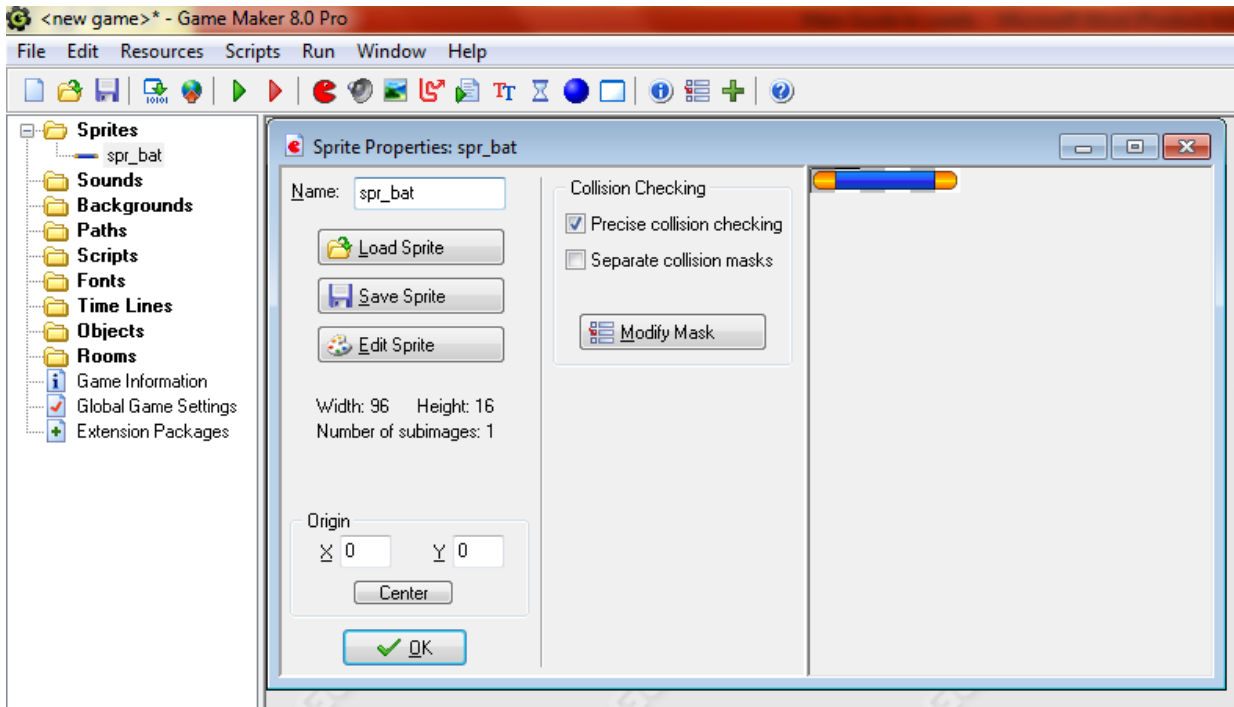


Figure 2-5 .Loading a sprite from the folder

1. It's just a sprite and it will not move until we will assign this sprite to any object. Let's create our first object.

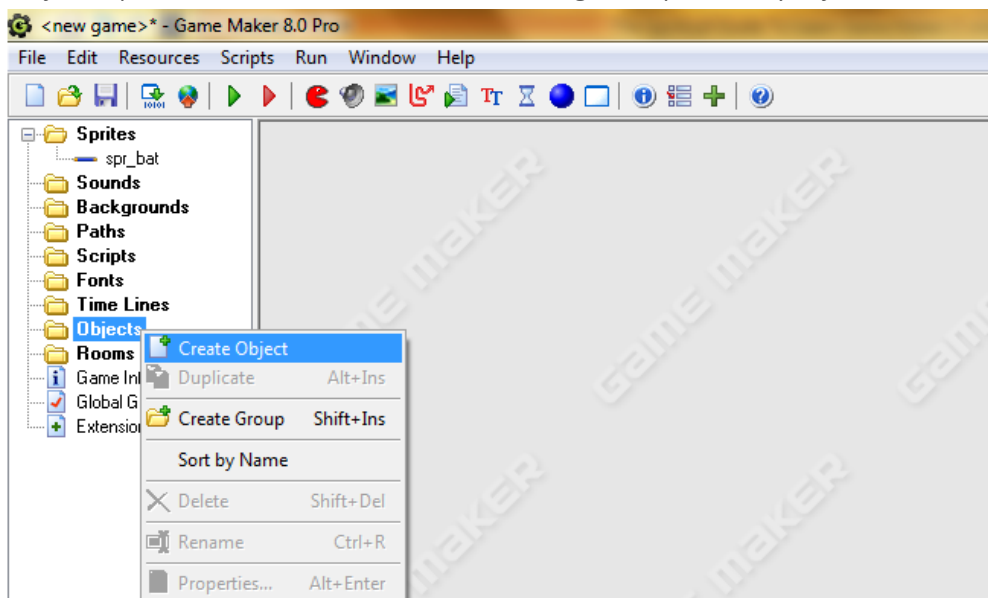


Figure 2-6. Creating your first object

When you will select **Create Object**, object properties box will pop up. Here you can set which actions will be performed by the object. In the **Name** field, enter **obj_bat**. In **Sprite** field choose **spr_bat**. You have successfully assigned a sprite to **obj_bat**.

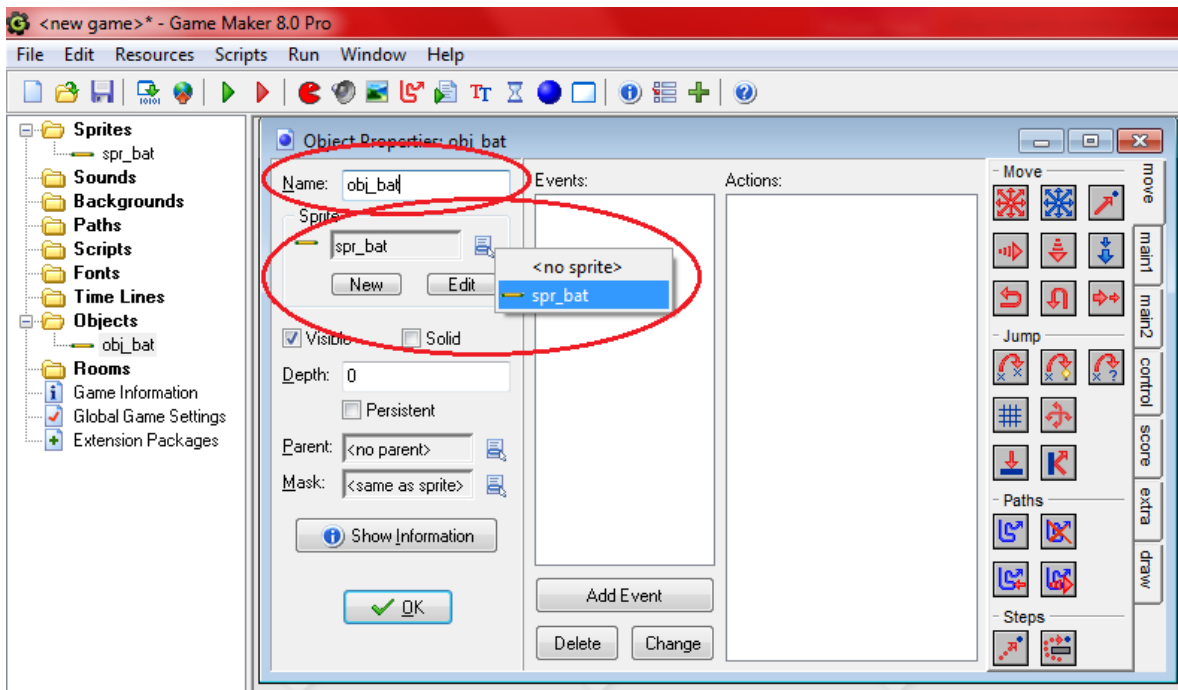


Figure 2-7. Properties box for objects. You have to add events and actions here

Game Maker works on events and actions formula. All you have to do is to set events and actions. In the above figure, you can see that there are two large empty boxes. In the left box, you can set events and in the right box you define actions for that event.

For example, you want **obj_bat** to move in the left direction if A-key is pressed on the keyboard. In this statement, If A-key is pressed is an event and moving in the left direction is an action. So practically the action will take place only if the event will occur.

Sounds: Sounds include the sound effects and background music. You can add sounds and import them in the game to play at particular time. You can import wav, midi or MP3 sound files and add effects like 3d, echo etc.

To add a new sound, just right click on **Sounds** in **Resource** menu and load your favorite sound.

*Note: Save the sounds by adding **snd_** in front of the name. For ex:- **snd_hit, snd_backgroundmusic, snd_jump, snd_die.***

Backgrounds: All rooms (levels) have a background. Backgrounds can be any image. You can import .jpeg, .bmp or .png images. See the screenshot below. It has a tree and starry sky background.

*Note: Save your background by adding **bg_** in front of the name. For ex:- **bg_dark, bg_jungle.***

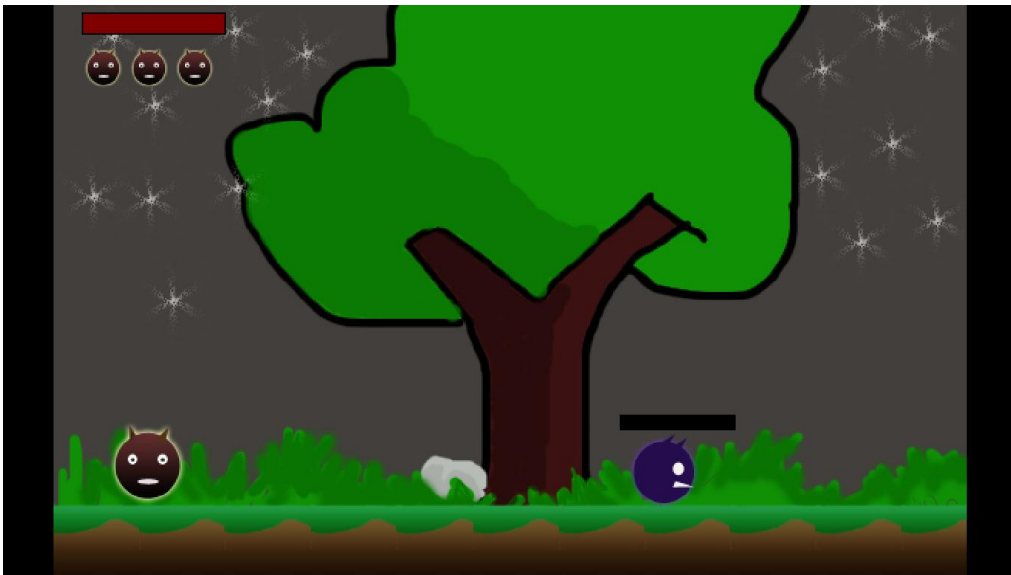


Figure 2-8. A screenshot from my old and unfinished game 'Devil of the Jungle'

Paths: In some games you want any objects to follow certain path. For example, you have a guard in you game that is patrolling around the house. You can create a path around the house and set it in the **obj_guard** properties.

To create a new path, just right click on **Paths** in **Resource** menu. You can also use little path icon on the toolbar.

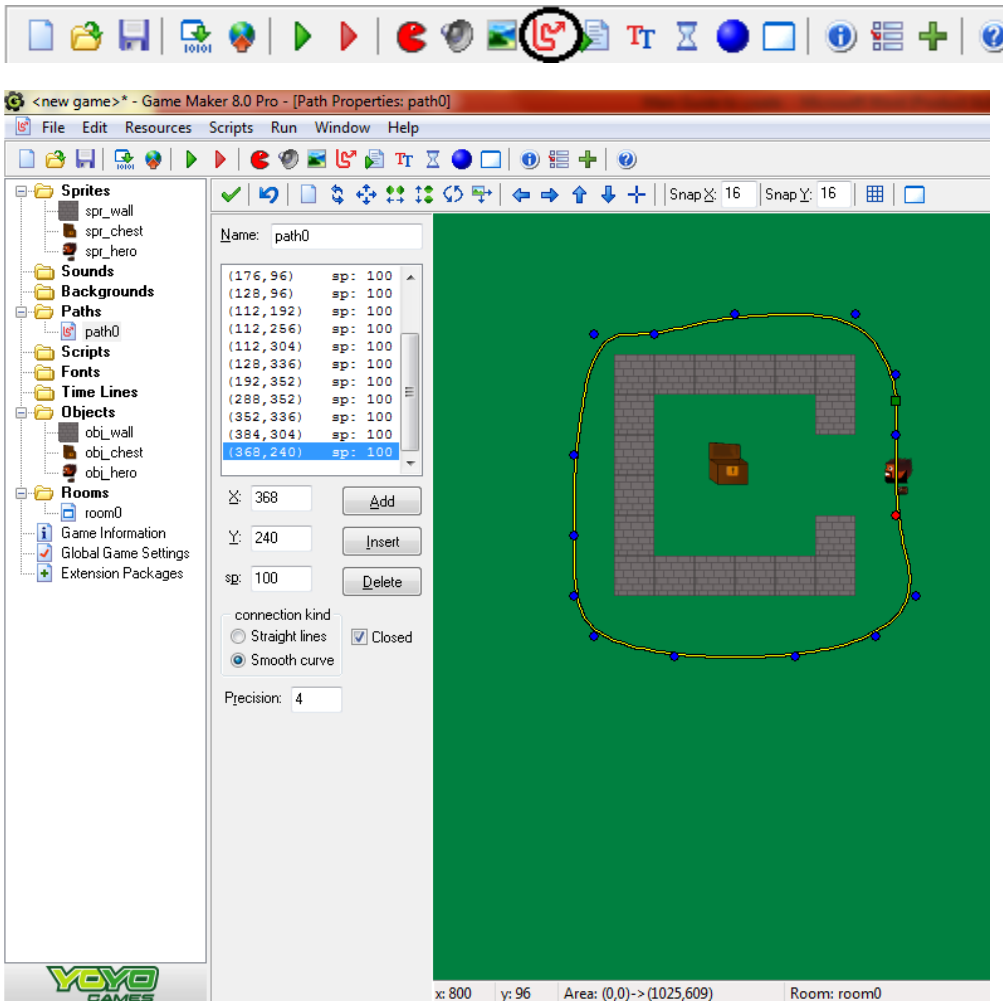


Figure 2.9. Demonstration of creating a new path

Scripts: Scripts are useful when creating more advanced games. Scripts are written in Game Maker language.

Fonts: You can add new fonts in the resources and use them in the game. Fonts play a vital role in your game's look and appeal. It's always advisable to use neat and simple fonts. But always use fonts according to the theme of your game. For example, if I am making a zombie game then simple and elegant font will not look good. Whereas bloody fonts will look cool and suits the game. For example:



You can see by yourself, which one will look good.

Timelines: In game, sometimes you want certain things to happen at the specific time. Timelines are meant for this purpose. For example, if you want to create enemies at certain moment or while creating cut scenes.

Rooms: Rooms are the levels in a game. You can create different rooms and the game will keep progressing from one room to another. You have to place objects in the rooms so that they can perform actions. You can add backgrounds, tiles etc. You can also edit room properties like size, view and other parameters of the game. It's like you are God and after creating earth you are placing your kids on the earth.

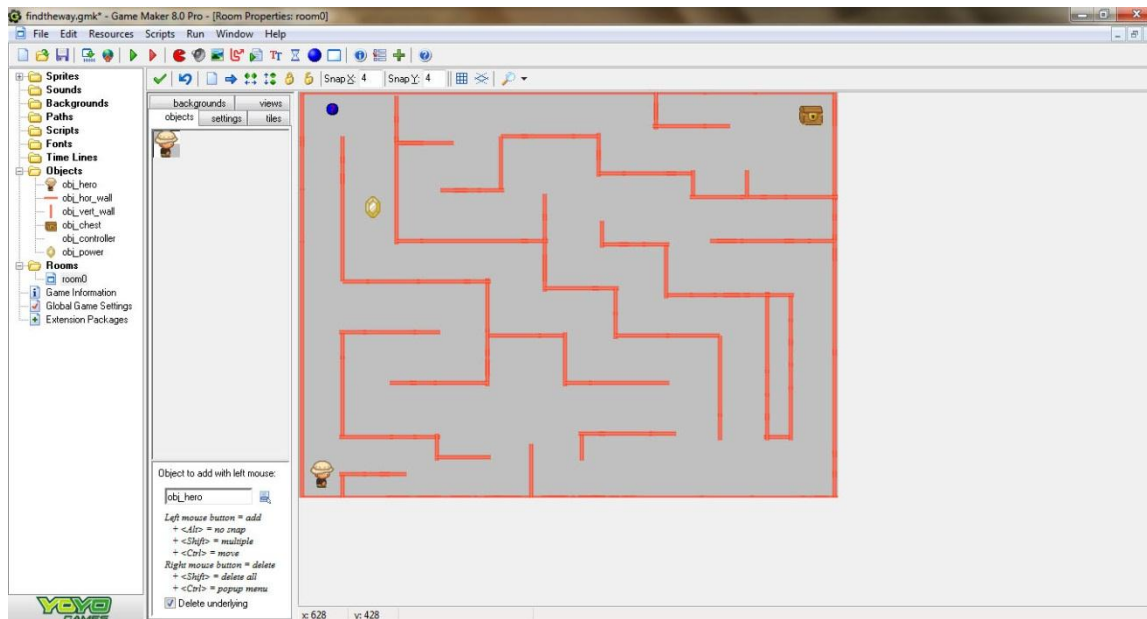


Figure 2.10. Room editor: Where you can edit the level and add or delete the objects you want in the level

All I want you to understand is Sprites, Objects and Rooms first. Leave other advanced things for later.

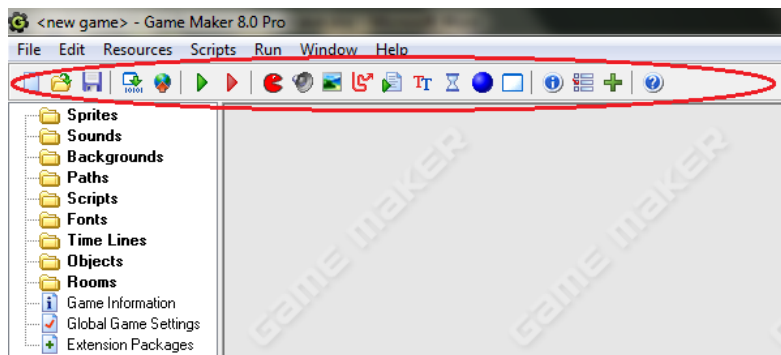


Figure 2.11. These are shortcuts icons available for creating new sprites, sounds, rooms etc

You have covered a lot till now. I hope you understand the basic terms of Game Maker now. In the next chapter, we will be creating our first game. Yes a working game, our own version of the classic game 'Breakout'.

Events and Actions: Overview

EVENTS	ACTIONS
When Left key is pressed	Move Left
When Up key is pressed	Jump
When ball collide with bat	bounce
When player dies	End the Game
When bullet hits player	reduce health by 50

Figure 2-12. Events and actions

As I told earlier Game Maker uses events and actions formula. You can set these events and actions for every object in the game and that will decide the behavior of that object.

Events: To find the list of available events, create a new object and open its properties dialog box.

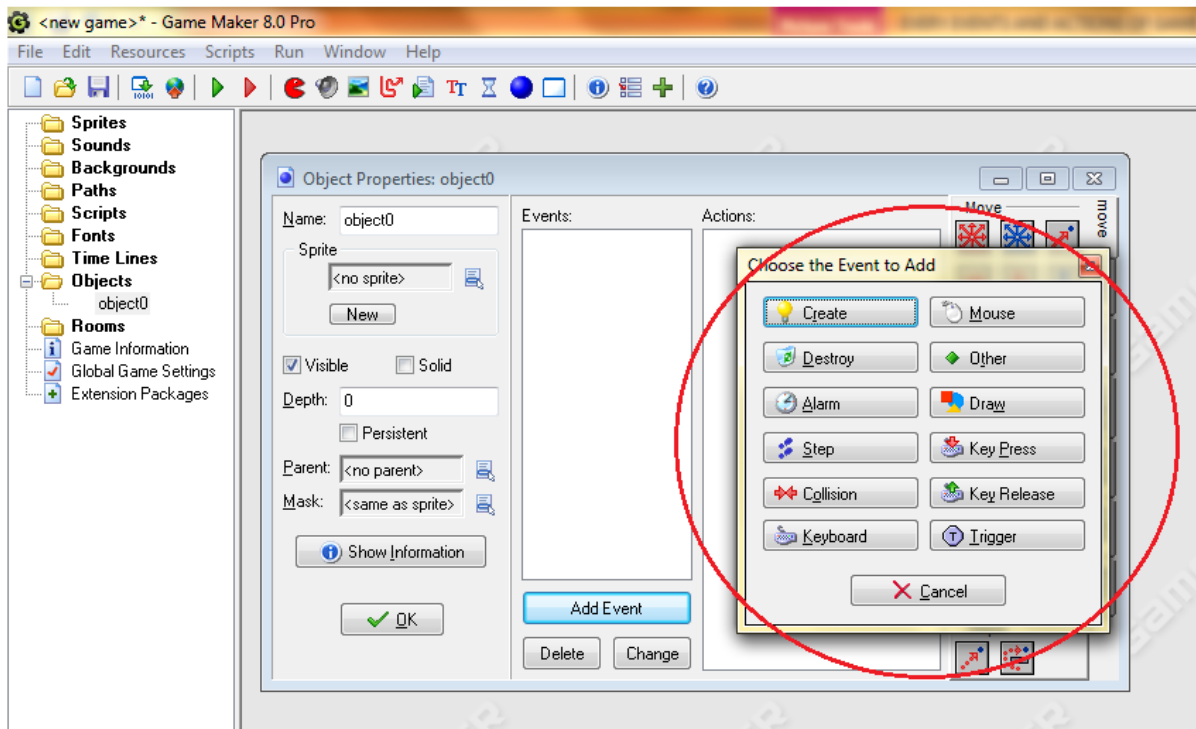


Figure 2-13. List of available events

These are the available events. For example, in **Create** event, you can set the lives, health of the object. **Create** event occurs when an object is created. In **Mouse** events, you can set what should happen when left mouse button is pressed or released.

Actions: There are seven sets of actions. In the object's properties dialog box only, you can find the list of the available actions at the right hand side. All you have to do is to drag and drop them in the desire events.

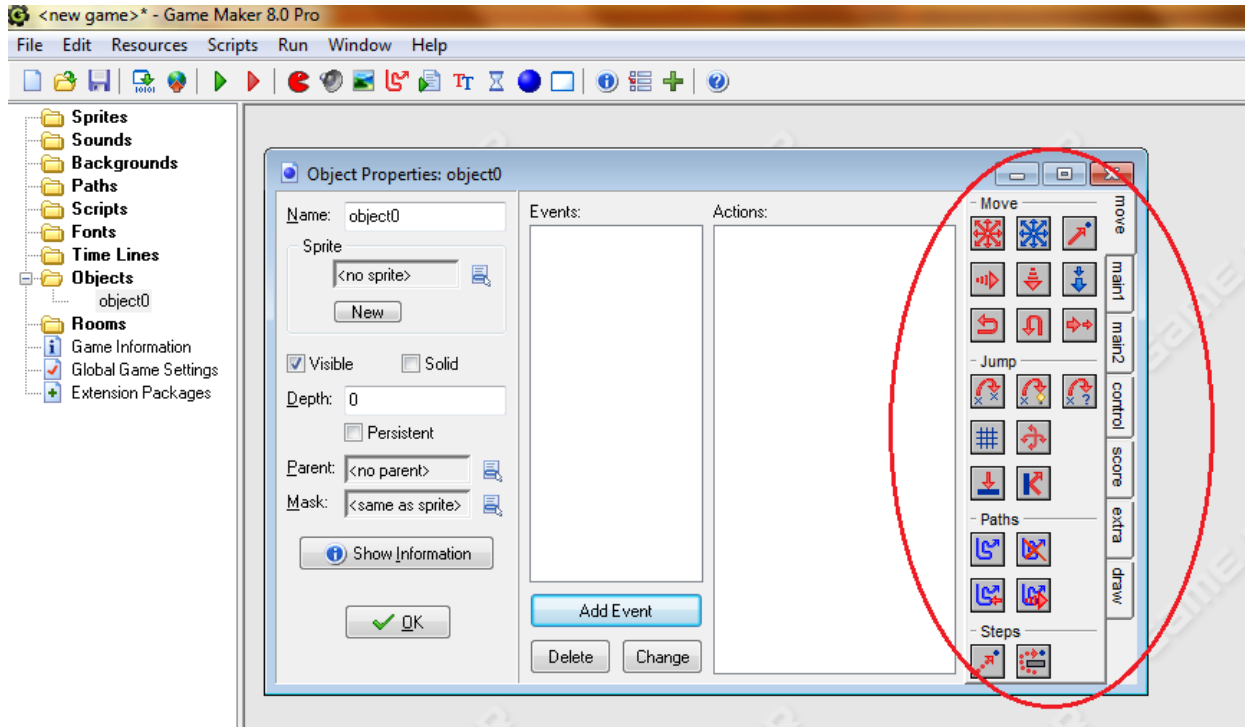
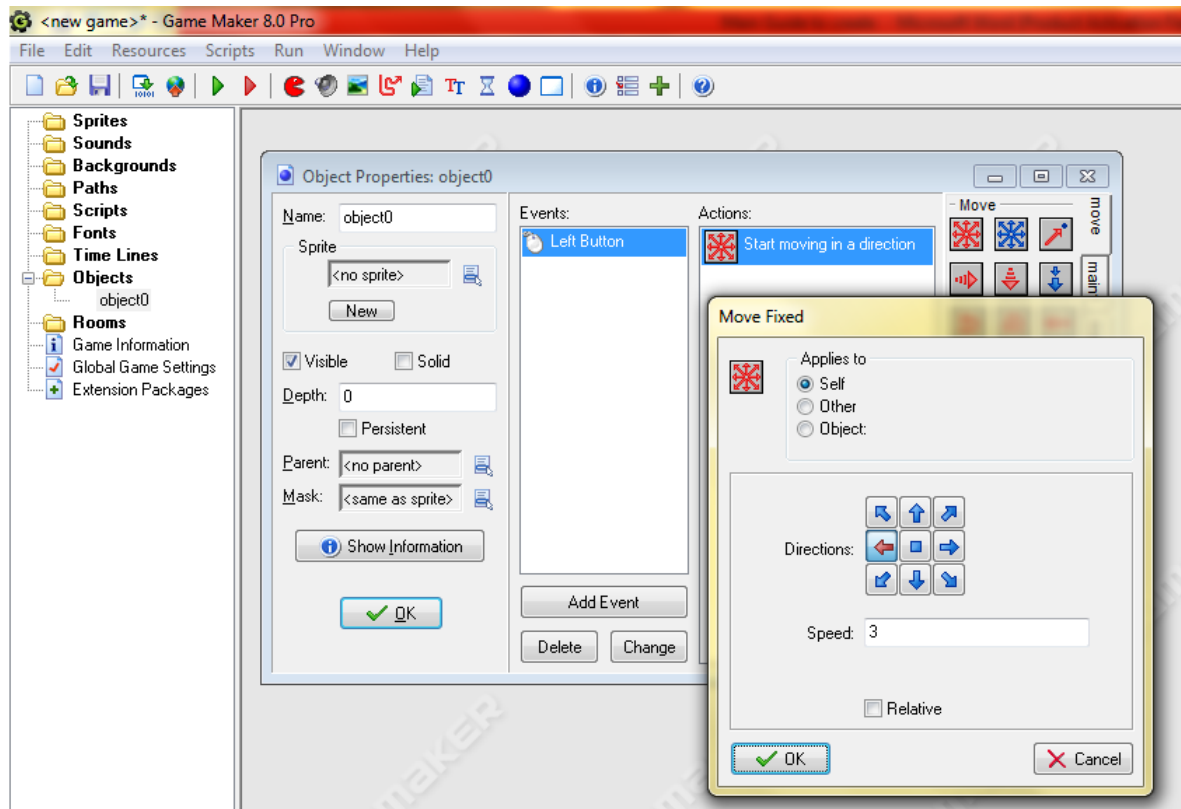


Figure 2.14. List of available actions

Actions are placed in events of objects. Whenever the event takes place these actions are performed.





For example, we dragged and dropped **Move Fixed** action in the **Left Mouse Button Pressed** event. Checked the left and direction and entered speed equals to 3. Now when the player will press the left mouse button, our object will move in the left direction with a speed value 3. If it is confusing then don't worry, it will all make sense when we will be creating our first game.

GAME MAKER FOR BEGINNERS

To purchase the book, Go to www.unluckystudio.com

3.99\$