

Objects, Events and Actions

Having created the sprites and sounds does not mean that anything is going to happen in your game. Sprites are only the images for game *objects* and we have not yet defined any game objects.

Instances

However, before we do this you will have to understand the basic way in which *GameMaker: Studio* operates. Note that there can be *multiple instances of the same game object*. So for example, in our "Tutorial 1" game there will be one wall object, but a large number of instances of that object surrounding the playing field, and there can be one or multiple instances of the Fruit object.

Events

Instances of game objects don't do anything unless you tell them how to act, the object must react to *events* that happen. There are many different events that can happen as your game progresses, but the first event is called the **Create Event**, and more often than not some action is required here, for example we must tell the instance of the Fruit object that it should start moving in a particular direction.

Another important event happens when two instances collide with each other and is called a **Collision Event**.

Other events happen when the player presses a key on the keyboard or clicks with mouse on an instance etc

Actions

To indicate what must happen in any given event, you must specify *actions*. There are many useful actions for you to choose from

So, to sum up the above, defining a game object that we can create instances of consists of:

- Giving the object a name and assigning a sprite (if necessary)
- Setting the initial object properties
- Adding events which will be triggered by specific things in our game
- Adding actions to the events to have our instances of the object act/react in different ways

There is a very important distinction that you should always keep in mind, and that is the distinction between **objects** and **instances** of those objects