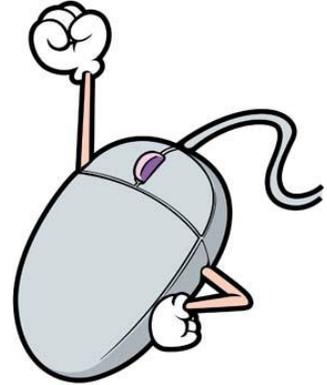


# INTRODUCTION TO GAME MAKER: MOUSE EVENTS

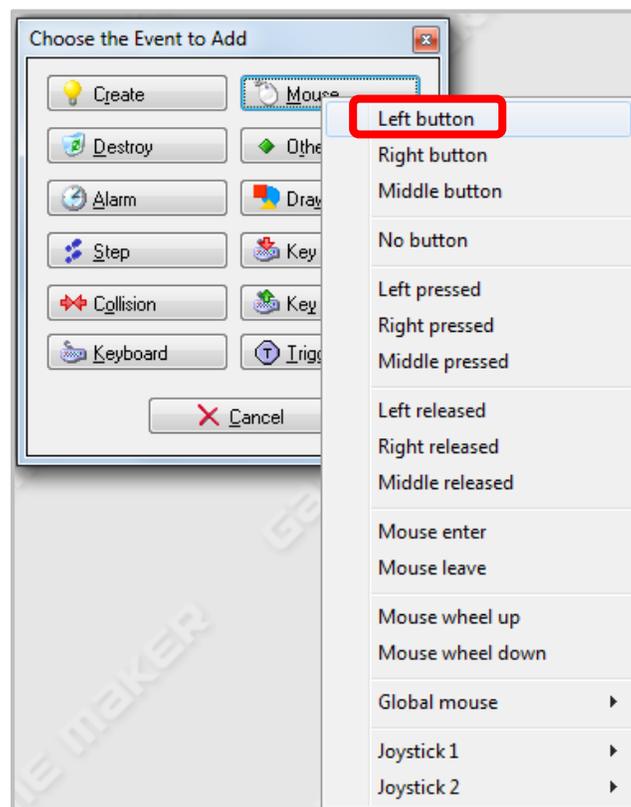
A mouse event is something that happens when the user does something with the mouse (i.e. clicking a button on the mouse, releasing a button, etc.).

## MOUSE CLICK, MOUSE PRESS, MOUSE RELEASE

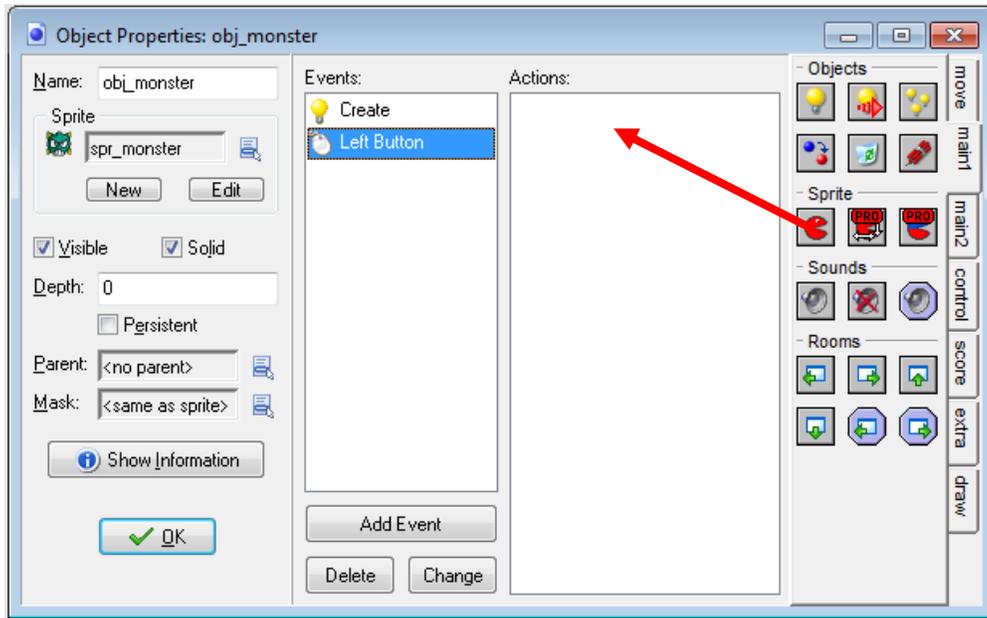
To add a mouse event, you first need to have an object that will trigger the event. For this example, we will use the image of a monster (which you can find in the shared directory).



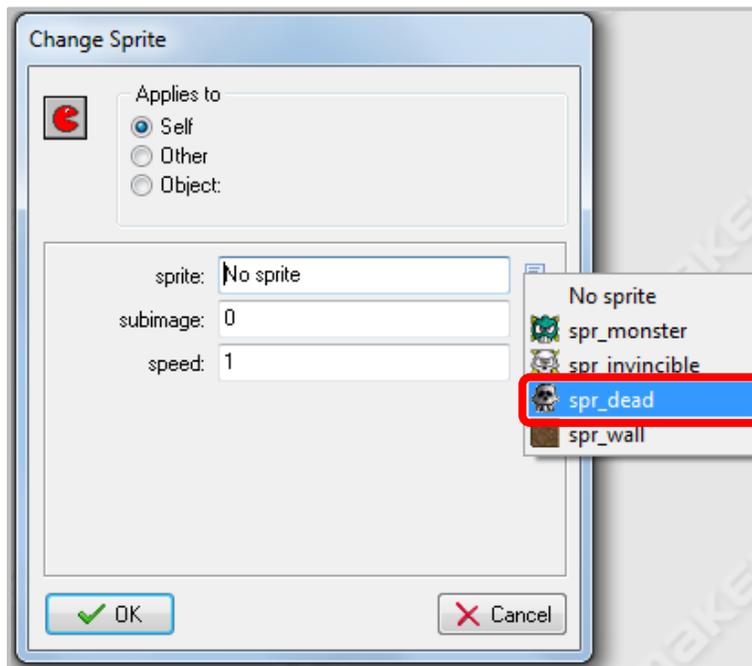
We are going to add a Mouse event to this monster by clicking on **Add Event** and then selecting **Mouse > Left Button**:



Next, we are going to add the **Change Sprite** action to the event:



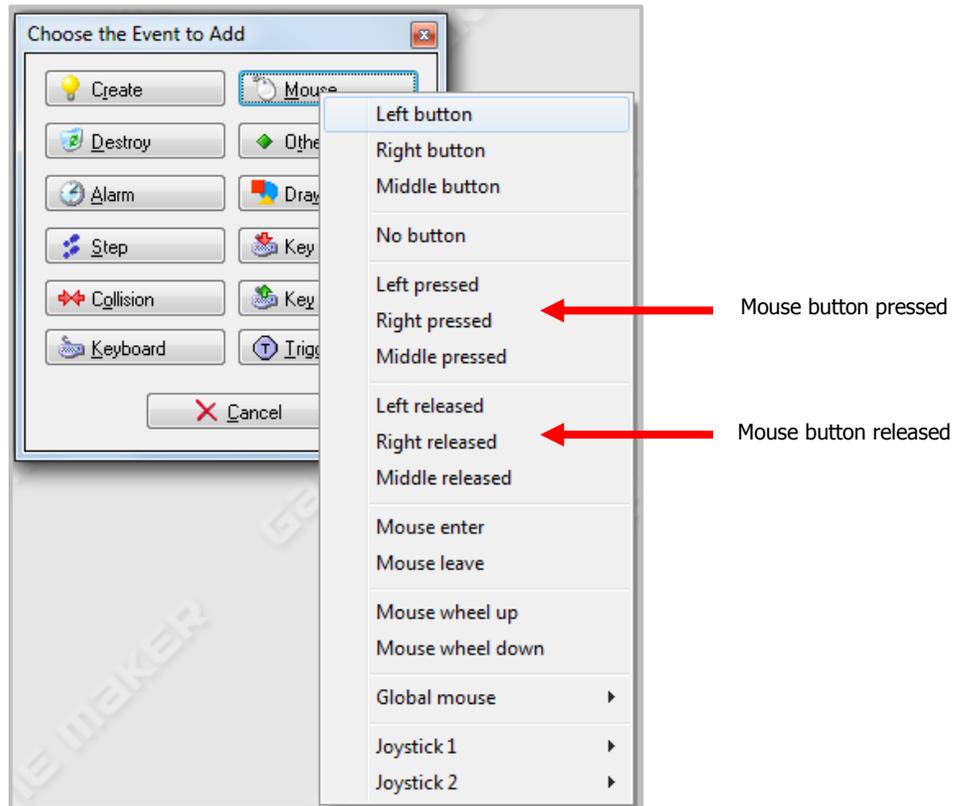
When the user clicks the left button on the monster, we want the image of the monster to change. So we will need to select the sprite that we want to use when the monster is clicked. In this case, I have an image called **spr\_dead** which you will need to add and which you can find on the shared directory.



Now when you run the program and click the left button while hovering over the monster, the image should change to the dead sprite.

Try the same thing except when the user clicks the right button on the mouse, the image changes back to the original picture of the monster (i.e. **spr\_monster**).

When programming a button on the mouse, an event is triggered once the user clicks the button. If you want different things to happen when the mouse button is pressed and when the mouse button is released, you could set actions for those events separately by using the pressed and released events and setting separate actions for each of those events.

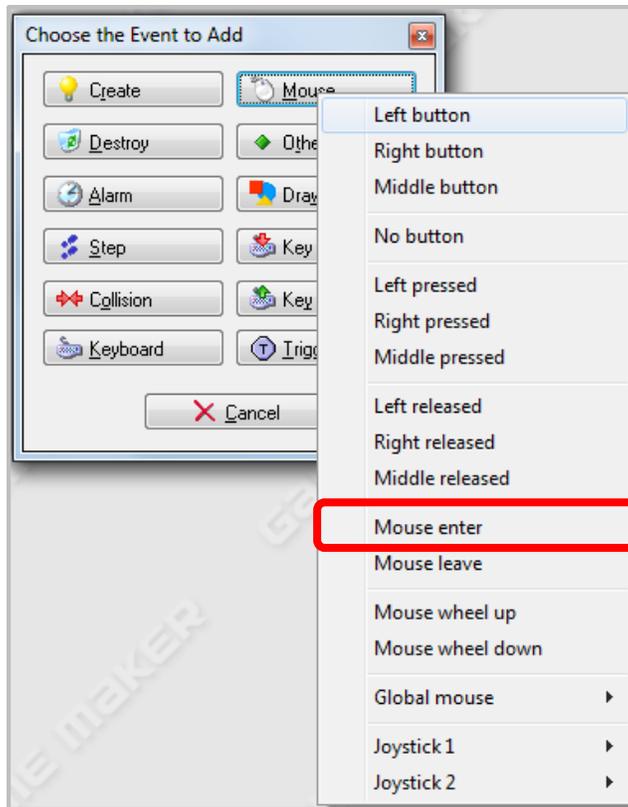


## MOUSE ENTER AND MOUSE LEAVE

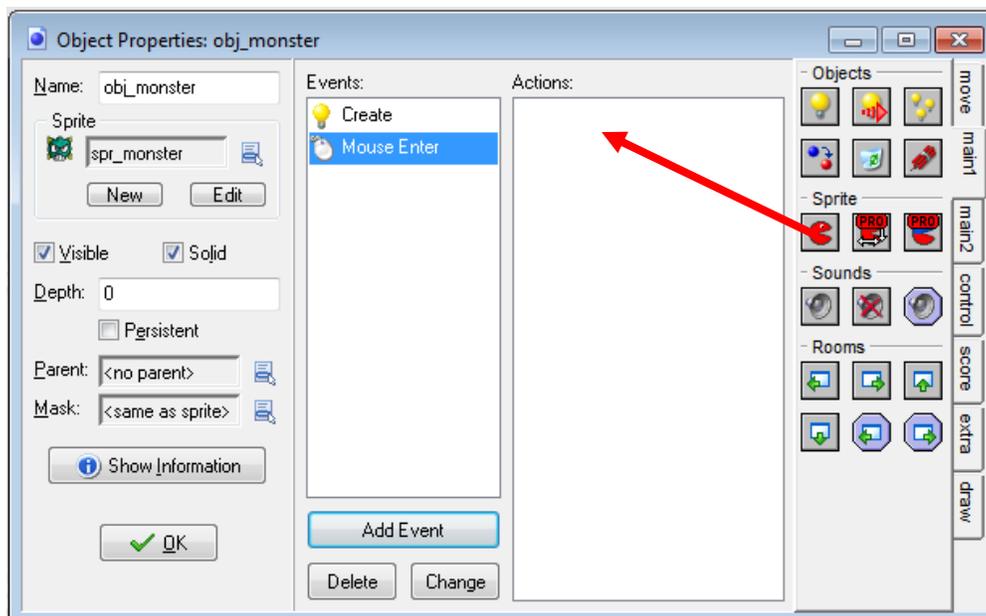
The Mouse Enter event is triggered when the cursor first enters (or touches) an object. The Mouse Leave event is triggered when the cursor leaves (or stops touching) an object. Keep in mind, however, that these events are not continuous and are triggered only once for each time the mouse enters or leaves the object.

Let's try this with our previous example. Let's have the image of the monster change to **spr\_invincible** when the cursor touches the monster and back to normal (i.e. **spr\_monster**) when the cursor stops touching the monster.

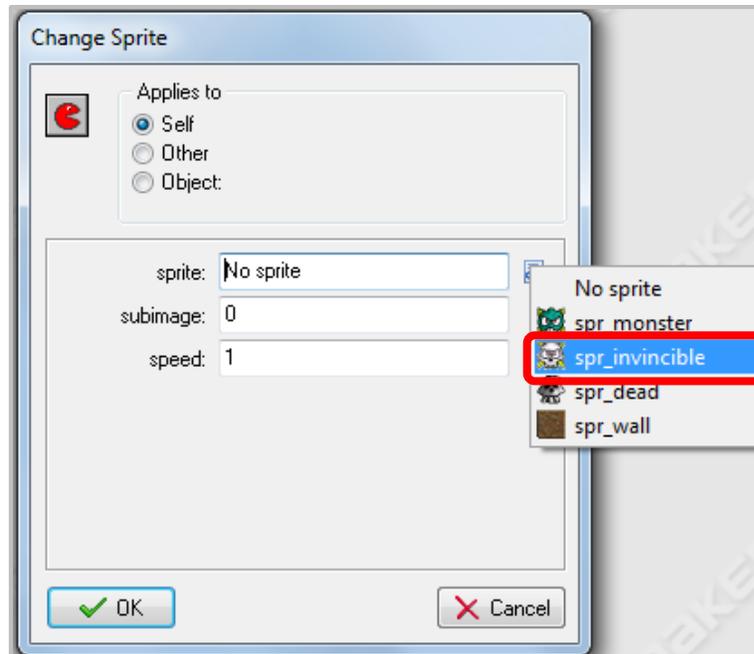
To do this, we will first need to click **Add Event** and select **Mouse > Mouse Enter**:



Next we will add the **Change Sprite** action:



Set the sprite to **spr\_invincible**:



Now add a second **Mouse Event**, but this time **Mouse Leave** and set the action so that the sprite changes back to the original image (i.e. **spr\_monster**).

Now when you run the program, the image of the object should change to **spr\_invincible** when the mouse cursor touches the object and should go back to the original image when the mouse cursor stop touching the object.

## GLOBAL MOUSE EVENTS

Global mouse events are used for generating events in instances even when the mouse is not touching or even close to objects. These are events that are generated for all objects and if there are actions or code defined for the specified event then it will be run, regardless of the position of the mouse within the game room.

