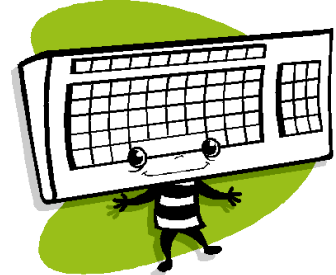


INTRODUCTION TO GAME MAKER: KEYBOARD EVENTS

A keyboard event is something that happens when the user presses a key on the keyboard.

THE KEYBOARD EVENT

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

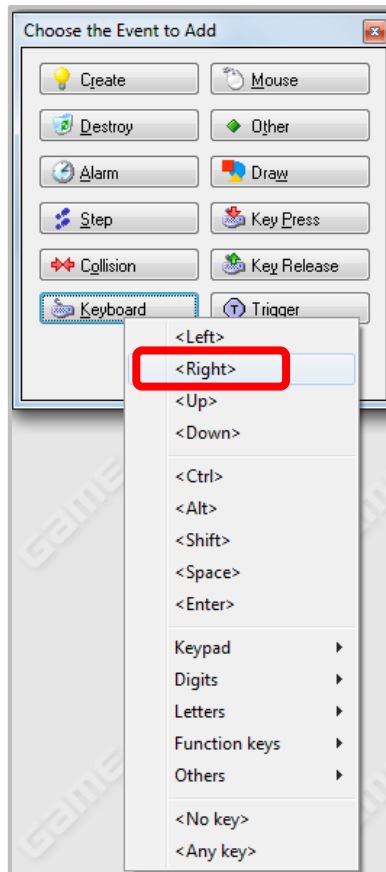


The **Keyboard** event is useful whenever you need the user to press a key continuously in order for something to happen (such as moving a character across a room).

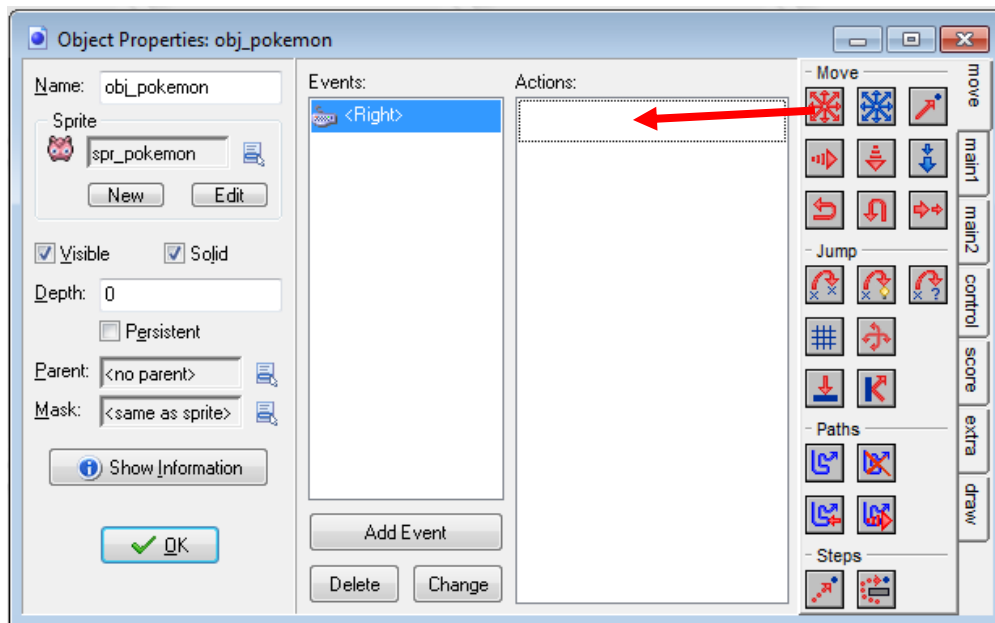
We are going to add a **Keyboard** event to the character by clicking on **Add Event**.

You'll notice that each of the key events has a submenu from which you can assign a key for the action. Use **<Left>**, **<Right>**, etc. for the arrow keys on the keyboard. The **Keypad**, **Digits**, **Letters**, **Function** keys, and **Others** have a sub menu that allow you to select from a variety of keys on the keyboard. Most of the keys are pretty obvious, except for **No Key** and **Any Key**. These events check for when the player doesn't press a key at all or presses any key on the keyboard. Also note that the keys for the numeric keypad only work if the player has turned on **NumLock**.

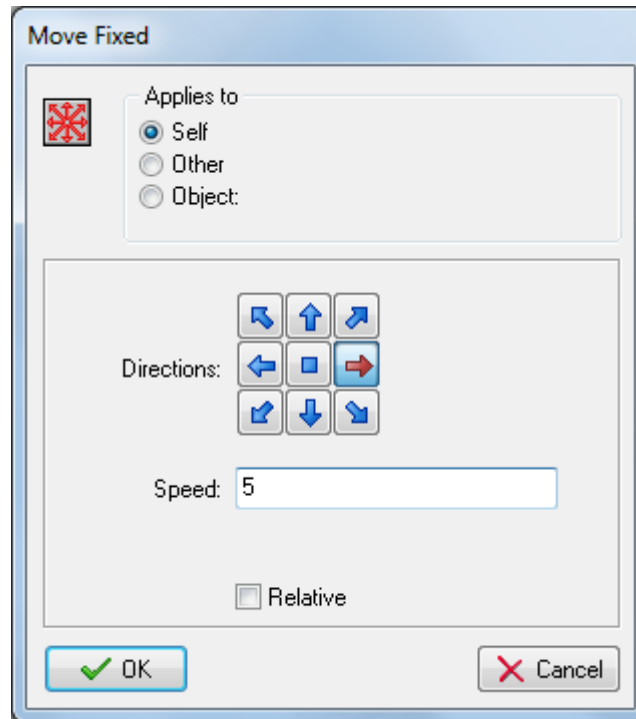
For this example, we are going to select **Keyboard <Right>** so that we can move the character with the right arrow key:



Next, we are going to add the **Move Fixed** action to the event:

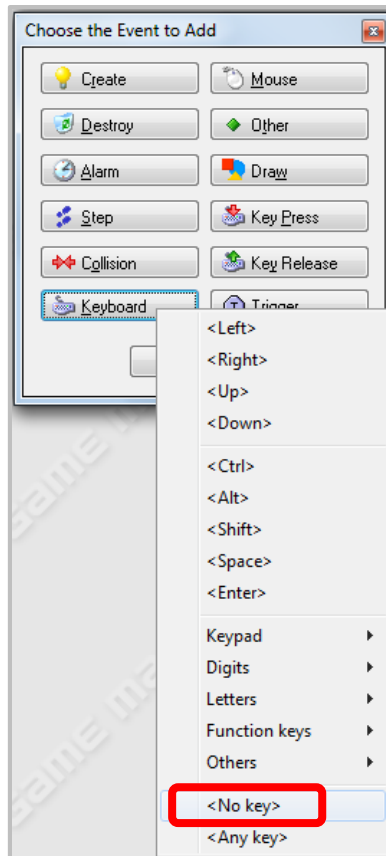


Select the right arrow direction and set **Speed** to 5.

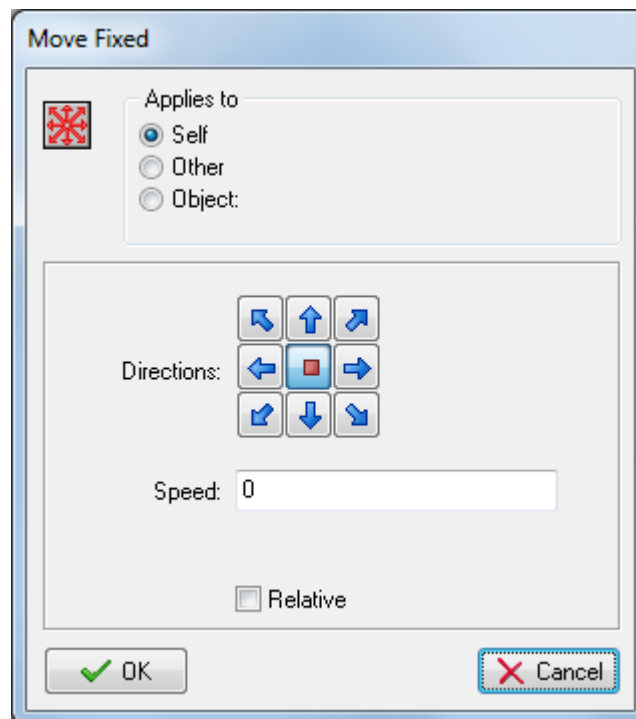


You'll notice when you run the program, the character will start moving across the screen when the user presses the right arrow key. However, you'll notice that the character does not stop moving even when the user stops pressing the key. In order to make the character stop moving, we need to use the **<No key>** event to check when the user is no longer pressing any keys.

Click the **Add Event** button and select **Keyboard**, then **<No key>**.



Add the **Move Fixed** action, select the **centre** square to indicate no movement and set the speed to **0**.



Now when you run the program, you'll notice that the character will move across the screen as long as the user holds the right arrow key but will stop once the user lets go of the key.

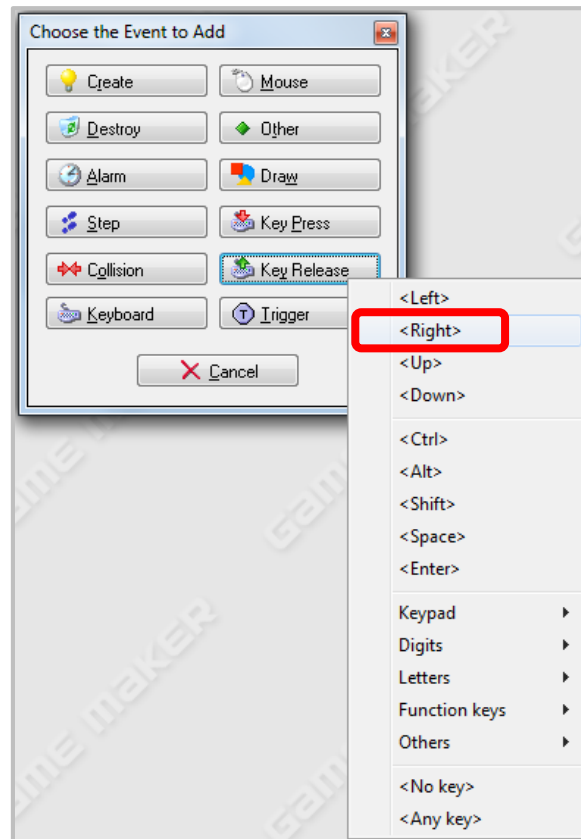
THE KEY PRESS EVENT

The **Key Press** event, unlike the **Keyboard** event, is only triggered once whenever the selected key is pressed down. So if you change our previous **Keyboard** event to a **Key Press** event, you will notice that when the user holds down the **<Right>** key, the character only moves once and then stops.

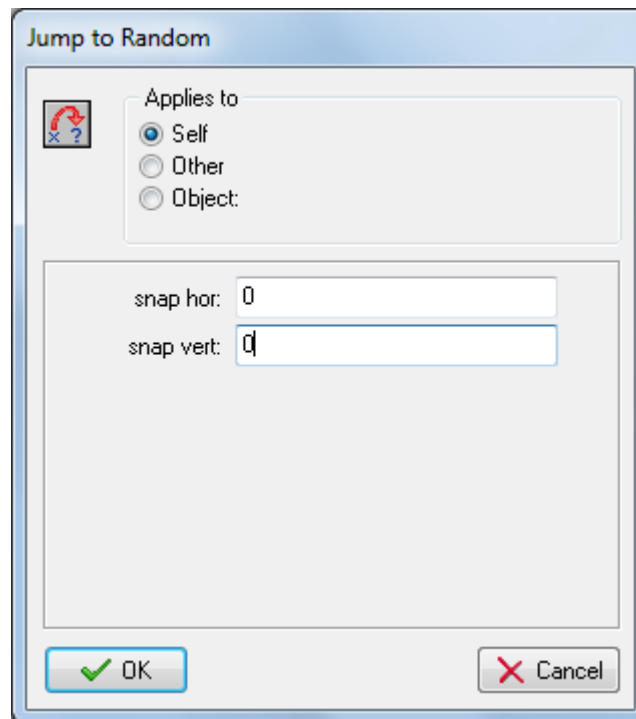
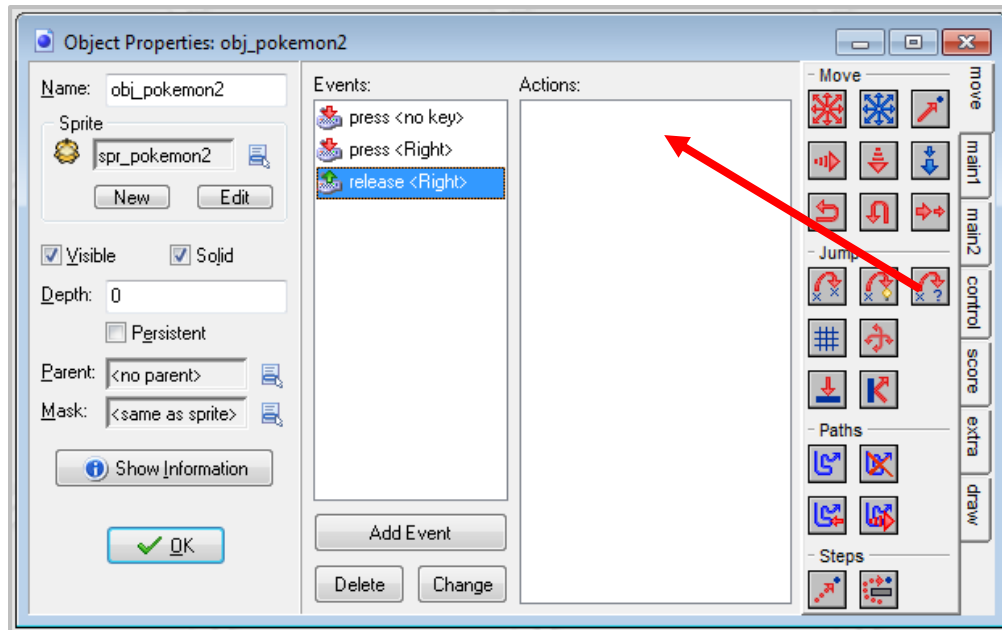
THE KEY RELEASED EVENT

The **Key Released** event, like the **Key Press** event, is only triggered once. However, the event is triggered whenever the selected key is released.

Let's have our character move to a random position on the screen when the user releases the right key. We can do this by adding a **Key Release** event to our object and selecting the **<Right>** key.



Now add the **Jump to Random** action to the event and just leave it at the default values.



Now when you run the program and press the **<Right>** and then release the **<Right>** key, the character will move right once and then move to a random position on the screen.