

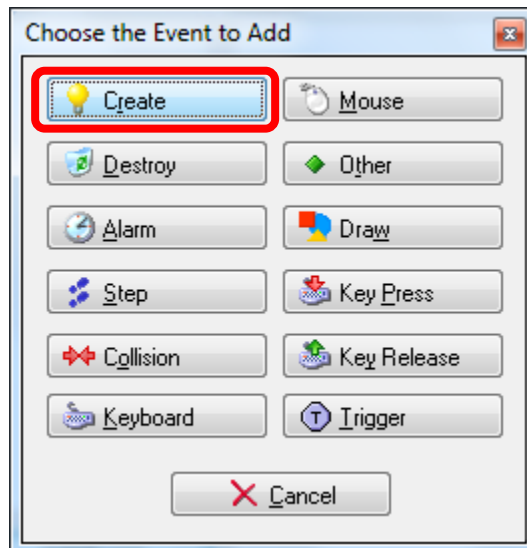
INTRODUCTION TO GEMMAKER: THE ALARM EVENT

WHAT IS AN ALARM?

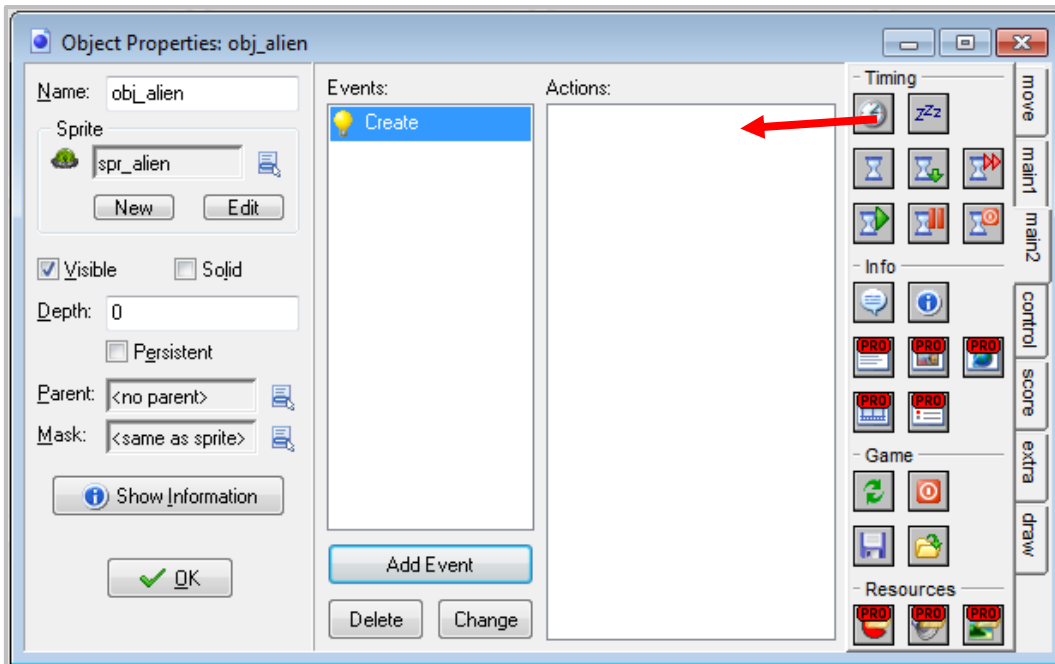
An alarm is a special event that allows you to set things in motion at precise moments. For example, let's say you have a monster and you want it to turn right every three seconds. You could do this by setting an alarm and in its create event to the room speed * 3 (if the room speed is 30, that's 30 steps per second, so multiply that by 3 and you get 3 seconds) and then in the alarm event you would have the code or action to set its direction, as well as the action (or code) to set its alarm to room speed * 30 again. This will essentially create a loop where things happen repeatedly at specific intervals.



The first step is adding a **Create** event to your object:

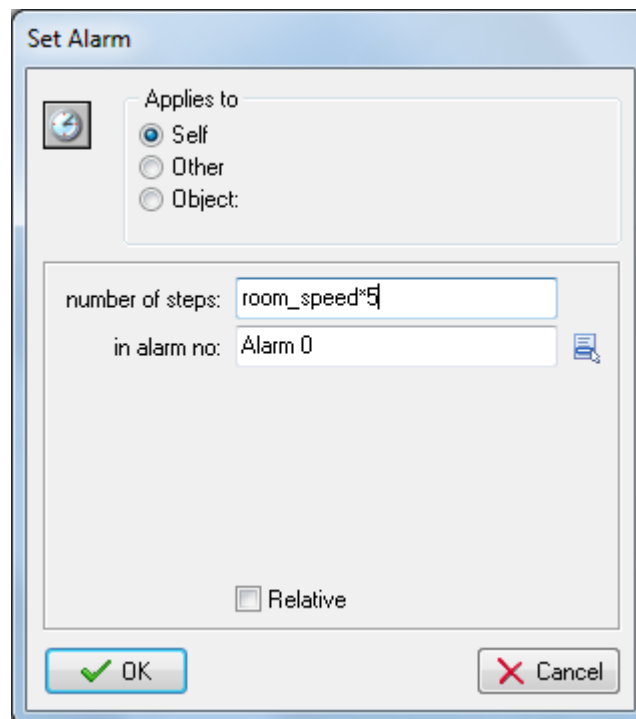


The next step is dragging the **Set Alarm** event:

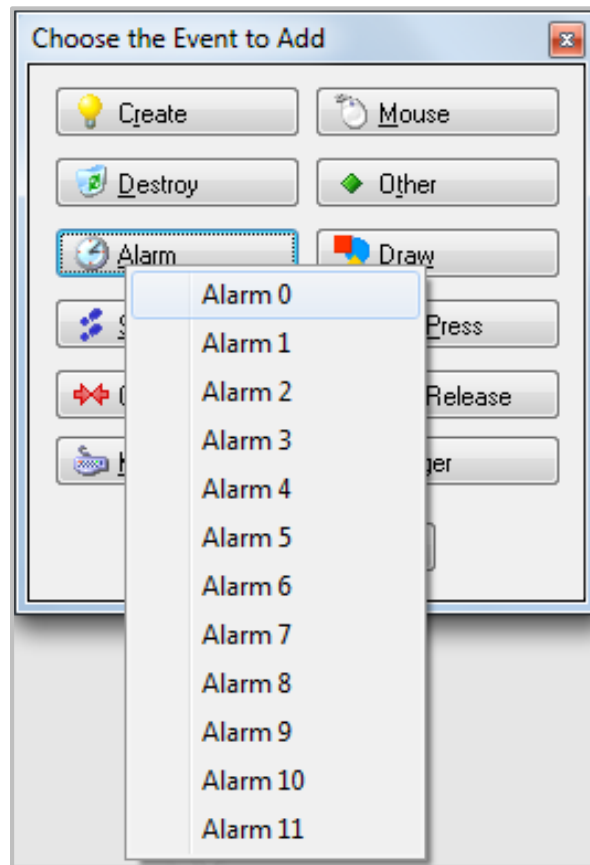


For the number of steps, 1 second equals 30, 2 seconds = 60, etc. So what we want to do is take the frames per seconds (that is, the speed of the room) and multiply it by the number of seconds. To make things easier, you can just type **room_speed * 5**, where 5 represents the number of seconds we want.

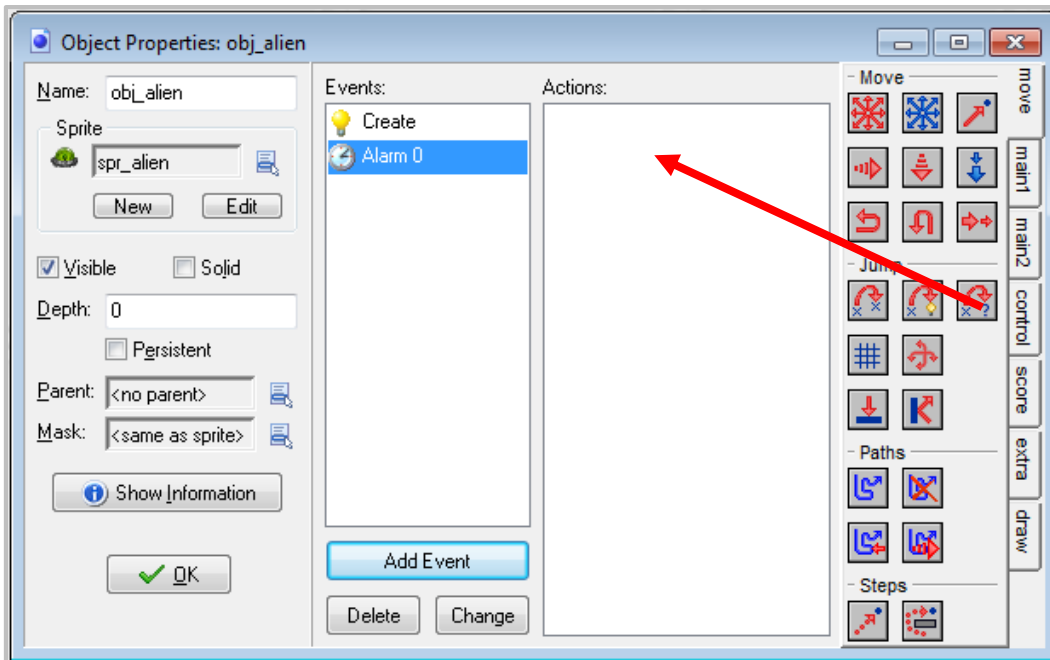
As for the **Alarm No.**, you have the option to assign up to 12 alarms for every object in your game. We will assigning **Alarm 0** to this action.



Once you create an **Alarm** you have to set an event on that alarm. You can do this by clicking **Add Event**, selecting **Alarm** and selecting the alarm number you created:

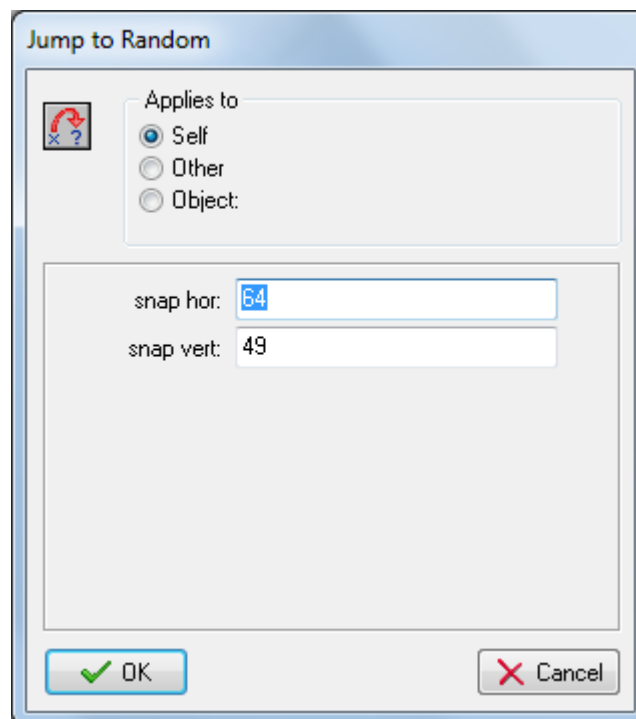


We are going to make the object move to a random position in the room after five seconds has elapsed.



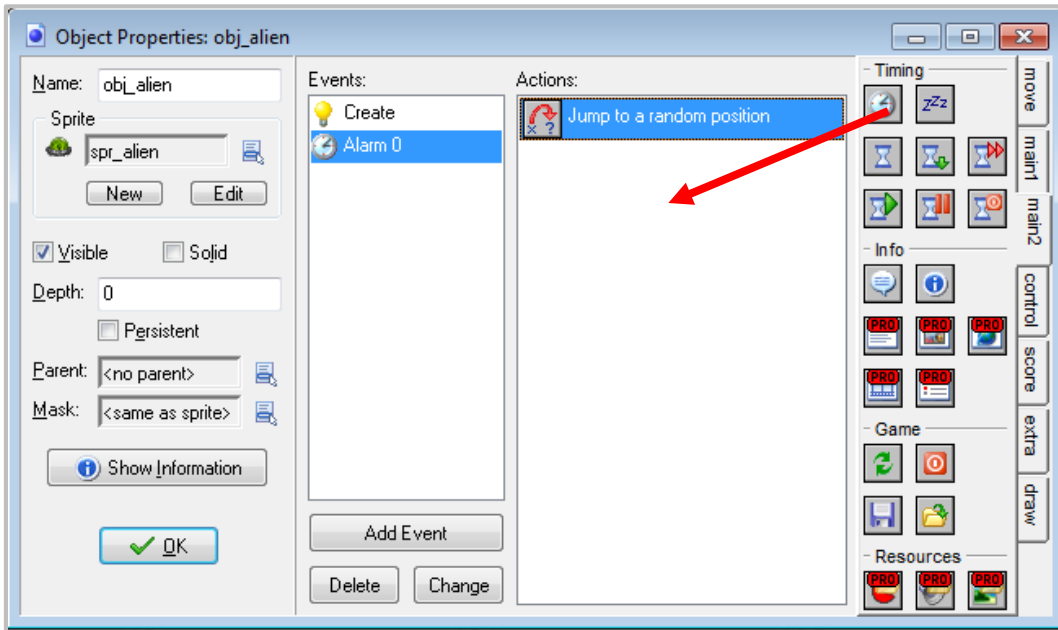
The **Jump to Random** action moves the object to a random position in the room. Only positions are chosen where the object does not intersect any solid object. You can specify the snapping used. If you specify positive values, the coordinates chosen will be integer multiples of the indicated values. This could, for example, be used to keep the object aligned with the cells in your game (if any). You can specify a separate horizontal snapping and vertical snapping.

For our example, we will simply use 64 and 49 since that is the width and height of our image:

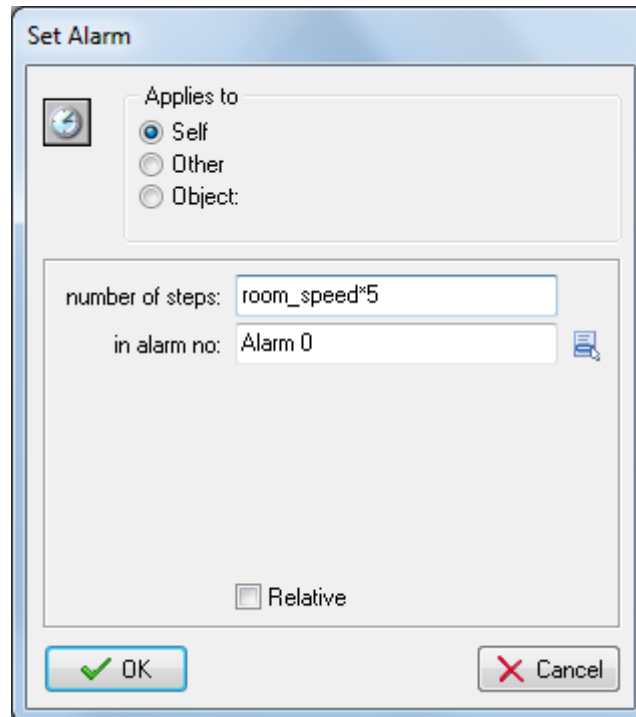


When you run the program, you will notice that the object will jump to a random position after 5 seconds and will do nothing else. However, you can create a loop with alarms by having an alarm call a previous alarm.

Let's say, for example, we want the alien object to jump to a random spot in the room continuously every 5 seconds. We can do this by setting an alarm within our first alarm event (i.e. Alarm 0).



Set the number of steps to whatever number of seconds and make sure you select **Alarm 0** so that the actions in Alarm 0 are executed again.



Now when you run the program, Alarm 0 will be created and after 5 seconds the alien will jump to a random spot. After the alien jumps to a random position, the actions in Alarm 0 will happen again after 5 seconds, and this will happen repeatedly.