

Creating Games with Game Maker: Events

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Photoshop Assignment

- Due next Friday
- Create two separate sprites using Photoshop
 - A 16x16 pixel sprite
 - A 32x32 pixel sprite
- Turn in a printout with your name, and the two sprites
 - Two images for each sprite, one at normal (tiny) size, the other blown up to be about 1.5"x1.5"
 - Black & white printout is OK, color is better if possible

Types of Events



Create events

- This event occurs when an object is created
- If an object is placed in a room, as soon as the game starts, the create event occurs
- Example: set initial movement for an object



Delete events

- This event occurs when an object is destroyed
- Technically the object still exists when this event is issued, so it really occurs immediately before it is destroyed
- Example: increase the players score

Types of Events

Collision Events

- If two objects collide (run into each other)
- A collision event is generated for each object in the collision

Keyboard Events

- When a key is pressed, an event is generated for all objects

Types of Events



Mouse event

- When the mouse is inside an object and is clicked
- No button, left button, right button events
- Press events are when button is pressed
 - Completion of downstroke
- Release events are when button is released
 - Completion of upstroke

Types of Events



Step events

- The processing in the game progresses in a sequence of processing steps
 - There are multiple steps per second
 - Time elapsed depends on amount of processing per step
- A single time step event is generated for each step in the game
- Can also have event generated at beginning of time step, or end of time step

Types of Events



Alarm Events

- Set alarms using certain actions
- When the alarm ticks down to zero, this event is fired
 - Alarms are updated for each step
- Example: Time delayed destruction
 - Can have an alarm set after a collision
 - Alarm counts down for a couple of steps
 - Once alarm goes off, can destroy the object

Types of Events



Drawing Events

- This event occurs when the sprite is drawn
- Instead of drawing the sprite's image, can perform other drawing instead
- Can add text, circles, ellipses, etc.
- Can build up more complex visual elements using drawing events
- Can also annotate a figure using this
 - For example, showing a person carrying a sword

Types of Events

- Other events
 - Game start
 - Game end
 - Room start
 - Room end
 - Can use these for initialization and cleanup
 - Outside
 - Object is outside the boundary of the room
 - Boundary
 - Object intersects the boundary of the room