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 player's 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