Making Games with Game Maker – Movement and Rooms

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Non-Video Game Projects

• Grading:
  – Did not meet expectations: 85
  – Met expectations for assignment: 90
  • Occasionally added a 1-3 point bump on this
  – Game of distinction: 95
  – Game of exceptional distinction: 100
• The vast majority “met expectations”
• Most that clearly didn’t meet expectations were returned
  – Several teams neglected to turn in their game play analysis
Games of Distinction

- Last Man Standing
  - Porter Koopas: Adam Tenney, John Stubbs, Paul Leary
- Wicked Pickle
  - Alison Byers, Kim Davis, Jeffrey Hodges
- Arinthe Island
  - Insane Exploding Ninja Robot Chinchilla of Doom!!1!
    - Jemima Thomas, Ben Levy, Ari Seidman
- Delivery Doods
  - David Sims, Kimberly Bohling
- Dice Baseball
  - Gabriel Darone
- DoomKitty, Game of Maximum Power!
  - Chelsea Collins, Katie Seim, Theodore Reid Jr.
- Ninjanomicon Piratependium
  - Brendan Seaman, Eric Carter, Ross Yancey
Game of Exceptional Merit

• ! (Bang)
  – Alexi Productions: Nic Kent, Vasily Koroslev

• Last Man Standing
  – Nick McSpadden, Devon Kelly-Sneed, Jeff Regalia
Movement

• In many games, you want the visual appearance of a game character to change as you move
  – If you move right, face right, etc.

• How can you accomplish this in Game Maker?
  – Make different sprite for each direction
    • Have animation loop for each direction
  – Then, when the character’s direction changes:
    • Change sprite
    • Change direction of movement
Movement (con’t)

• Moving a player-controlled character:
  – In the character’s object, add events for
    • <press Up>, <press Down>, <press Right>, <press Left>
      – Might also want to add a key to stop motion
  – For each of these events, add actions:
    • Change the sprite (to the one appropriate for the new direction – located on “main1” pane
      – Alters the visual appearance for new direction
    • Add a “start moving in a direction” action to change the direction of movement to the new direction
      – Alters the actual movement of the object
Movement Demo

• Switch to Game Maker, and show a demonstration using the Pacman sprites that ship with Game Maker
Paths

• In many games, there are one or more computer controlled characters that move by themselves.

• Simplest way to do this is with a preprogrammed path of motion.
  – Character follows the path.
  – Think Mario Bros, or Castlevania on NES
Paths in Game Maker

• Add -> Add Path
  – Note that this is an advanced (pay version) Game Maker feature
  – Click out the outline of the path
    • Can follow path exactly, or follow a curve created by the bounding polygon
  – Can be useful to have is be a closed polygon, so you can have it repeat
  – Connect the path to an object:
    • Add a Create event for the object to follow the path
    • One of the actions is the follow-path action
      – Specify the newly created path
Rooms

• Rooms in Game Maker represent many things
  – Opening screens
  – Fields of play (levels, rooms, dungeons, villages, outdoors, etc.)
  – Help screens
  – Cut scenes

• As a result, it is important to be able to transition between rooms
Changing Rooms

• There are 4 actions that can change the room
  – Go to the next room
  – Go to the previous room
  – Go to a specific room
  – Restart the current room

• There are also two conditions for rooms
  – If the previous/next room exists
  – More on this later
Changing Rooms (cont’d)

• Since changing rooms are expressed as actions, to actually change rooms, they must be connected to an event

• Example events:
  – Collision with an object (like a door)
  – Going off the edge of the room (as in Zelda)
  – If all of the monsters in the level have been killed
  – If all available things have been collected
  – Last two require use of conditionals (more on this later)
Changing Rooms Demo

• Switch to Game Maker and show a demo of how PacMan colliding with a door causes a transition to another room
Persistent Objects

• By default, all objects are created fresh in each room
  – Health would go back to 100, all collected objects would go away, etc.
• Need a way to hold on to the state of the character across rooms
• Object persistence
  – Click on “object persistent” in object dialog box
• Demo: Make a sound that is played when Pacman is created. Note how the sound is not played in the new room when the Pacman object is persistent.