Game Logic
Project 4
Due date: Monday, September 28th

Introduction
- Third in a series of related projects
  - Will build towards working game
- Focuses on
  - Development of game objects
  - Game logic
- Using Flash

Motivation
- At core of game are the rules
  - Such as rules on gameplay (i.e. payoff matrices)
- More than that
  - Hit points
  - AI for computer-controlled objects
  - Obstacles
  - Interface objects...
- Begin prototyping the game
  - Gain experience implementing and testing game logic

Overview
- Work in same group
- Use the treatment from Project 2
- Use the art from Project 3
  - Intent is not to more art or design (but can add – art is not “frozen”).
- All effort on implementing a variety of objects in Flash!
- Evaluated based on
  - object activity
  - object interactivity
  - user interactivity
  - AI/reactivity
- Options
- Informal README with flexible grading

Details (1 of 4)
- At least 10 Objects
  - Next project on Level Design so consider choices
- Each should have somewhat unique behavior
  - More than a copy or sub-class of another
- As a whole, your objects will meet the following criteria:
  (Specific criteria next slide)

Details (2 of 4)
- Object Activity - Change state, reflected to the user in some fashion.
  - Ex: change in location (motion)
  - Ex: change in appearance (damaged object)
- Object Interactivity - interaction with other objects
  - Ex: collision between two objects causes rebound
  - Ex: collision between two and “pickup” other item
- User Interactivity - respond to user input
  - Ex: pressing arrow keys moves avatar
- AI/Reactivity – “intelligent” behavior in reacting to objects around it. Adapt as situation changes.
  - Ex: Object pursues hero once awake
Details (3 of 4)

- For testing, create 1+ Stages in Flash
  - NOT meant to be playable levels (that's next project)
  - Do not spend much time on the rooms themselves
  - Rather, use to test your objects (grading will use to evaluate)
  - Use as many rooms and as many copies as needed
- Write a short README (text file)
  - Describes the objects, behaviors, and which objects fill which criteria.
  - List the members of group
  - Grading criteria (next)

Details (4 of 4)

- Options screen/buttons
  - At least two options to influence game world
  - Ex: number of lives, health, game speed, difficulty...
- Tell how options work (how affect world and objects) in README
- README also tells where you put your "flex points"

Grading Guidelines

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object Activity</td>
<td>15%</td>
</tr>
<tr>
<td>Object Interactivity</td>
<td>15%</td>
</tr>
<tr>
<td>User Interactivity</td>
<td>15%</td>
</tr>
<tr>
<td>AI/Reactivity</td>
<td>15%</td>
</tr>
<tr>
<td>Flexible</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Distribute across 2-3 criteria, above</td>
</tr>
<tr>
<td>Options</td>
<td>10%</td>
</tr>
<tr>
<td>README + Stages</td>
<td>5%</td>
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</tbody>
</table>

Submission

- Turn in (see Web page for instructions)
- Flash source and project files (.fla, .html, and .swf)
  - Will have art embedded
- README Document

Group Exercise

- Break into groups:
  - Blinky, Pinky, Inky, Clyde, Pac
- Consider objects in Pac-Man
- List and describe (5-7 minutes)
  - Object activity
  - Object interactivity
  - User interactivity
  - AI/Reactivity
- Are some objects related to others? If so, how?