The Game Development Process:
Genres

Outline
- What is a Game?
- Genres

What is a Game? (1 of 4)
- Movie?
- Toy?
- Puzzle?

What is a Game? (2 of 4)
- Movie?
  - No interaction, outcome fixed
- Toy?
  - No goal, but still fun!
  - Players can develop own goals
- Puzzle?
  - Strategy and outcome is the same each time
  
  "A computer game is a software program in which one or more players make decisions through the control of game objects and resources, in pursuit of a goal."

What is a Game (3 of 4)
- A Computer Game is a Software Program
  - Not a board game or sports
  - Consider: chess vs. soccer vs. Warcraft
  - Ask: What do you lose? What do you gain?
  - Lose: 1) physical pieces, 2) social interaction
  - Gain: 1) real-time, 2) more immersive, 3) more complexity
- A Computer Game involves Players
  - Think about your audience; the game is not for you but for them.
  - Don't just think about your story or the graphics or the interface, but consider the players.

What is a Game (4 of 4)
- Playing a Game is About Making Decisions
  - Ex: what weapon to use, what resource to build
  - Can be frustrating if decision does not matter
  - Want good gameplay (major topic later)
- Playing a Game is About Control
  - Player wants to impact outcome
  - Uncontrolled sequences can still happen, but should be sparing and make logical
- A Game Needs a Goal
  - Ex: Defeat Ganandorf in Zelda
  - Long games may have sub-goals
  - Ex: recover Triforce first, then Sword of Power
  - Without game goals, a player develops his/her own (a toy)
What a Game is Not

- A bunch of cool features
  - Necessary, but not sufficient
  - May even detract, if not careful, by concentrating on features, not game
- A lot of fancy graphics
  - Games need graphics just as hit movie needs special effects, but neither will save weak idea
  - Game must work without fancy graphics
  - Suggestion: Should be fun with simple objects

“When a designer is asked how his game is going to make a difference, I hope he ... talks about gameplay, fun and creativity – as opposed to an answer that simply focuses on how good it looks.” – Sid Meier (Civilizations, Railroad Tycoon, Pirates)

Outline

- What is a Game?
- Genres (next)

Group Game: Game Types!

- Break into groups based on month of birth (or count off by 5’s...)
- Spread out so can talk without others hearing
- Brainstorm all game genres you can think of
  - Provide an example of each! Provide key feature!
- Round-robin by group, say one genre on list
  - What other group has this? Show hands
  - If no-one else has it, you get a point!
  - Everyone, decide distinguishing features
- Team with most genres not on anyone else’s list, wins!

Game Types

- What are some types of games?
- What separates them from others?

Arcade Games

- Reaction and speed are the most important aspects of the game
  - Examples: scrolling shooters, maze games like Pacman, paddle games like Breakout, Pong
- Relatively easy to make
- Normally 2D graphics
- Good starting point for first game
- Relatively easy in Game Maker

Puzzle Games

- Clever thinking is the most important aspect
  - Many maze games are based on puzzle solving, rather than on reaction time
- Other examples board games and sliding puzzles
- Normally 2-dimensional
- Relatively easy to create
  - Except when played against a computer opponent
  - Artificial Intelligence can be harder
  - Ex: How to program the computer to play chess?
- Relatively easy in Game Maker
Role Playing Games
- Steer a character through a difficult world
  - Examples are Diablo and Baldur’s Gate
- Development of character to learn new skills, becoming more powerful, and finding stuff
- Opponents become more powerful as well
- Can create 2D or 3D
- Generally harder to make because must create the mechanism of character development
- Also normally need large world
- Good level design is crucial
- Difficult in Game Maker

Strategy Games
- Real-time (RTS) or turn-based
- Player only indirectly controls the character
  - Tactics less important than Strategy
- Examples include Age of Empires, Warcraft III...
  - Also, usually “God Games”, such as Black & White
- Generally take a lot of time to create
  - Require many different game objects, each with animated images and specific behavior
- Difficult in Game Maker

Adventure Games
- Game is about adventure and exploration
  - Story line is often crucial
- Can be 2D or 3D
- Actions easy (just move)
- Difficulty is in making exploration/adventure interesting
  - Interesting, funny, and surprising story line
  - Corresponding artwork
- Artists’ role is crucial
- Somewhat difficult in Game Maker

First-Person Shooters
- 3D version of many arcade-style games (move and shoot)
- Emphasis is on fast-paced action and reaction speed, not on cleverness and puzzle solving
- Many examples: Doom, Quake, ...
- Need to be 3D
- Relatively difficult to create because of models
- Difficult in Game Maker

Third-Person Action/Platformer
- Player directly controls a game character (avatar) through a hostile world
  - Tomb Raider, Prince of Persia, Onimusha
- Often, not much emphasis on character development
- Fast action and discovering the game world
- Some have story line, other adventure game aspects
- Can be 2D or 3D
- Can sometimes be created easily
- Moderately easy in Game Maker

Sports Games
- Real-life sport, made virtual
- Ideas, rules in place
- Making realistic, challenging, fun like sport can be difficult
- If not realistic, can be done in Game Maker
Racing Games
- Really, special type of sports game
  - But pervasive enough to get own category
- Drive a vehicle, as fast as possible, or sometimes for exploration, or combat
- Either realistic...
  - Formula 1 or Grand Turismo
- ...or focused on fun (arcade)
  - Midtown Madness or Ridge Racer
- Both 2D or 3D
- Difficult in Game Maker

Simulators
- Try for realistic representation
  - Ex: flight simulators, Trainz
- Other simulations include world simulation
  - Ex: SimCity or SimEarth
- Relatively difficult to create since getting details right a challenge
- Difficult in Game Maker

Party Games
- Variety of types
  - Ex: Mario Party, DDR, Karaoke, Guitar Hero
- Social aspects important with participants in the same space
- Allow for rapid change of turns
- Allow for disparate abilities (beginners and experts, both have fun)
- Easy in Game Maker

Educational Games
- Entertainment games are great at teaching...how to play the game!
- Educational games are designed to teach player knowledge or skill that is valuable outside the game
  - Ex: math, reading, problem solving
- Relatively difficult in Game Maker (unless you have the domain expertise)