



## The Game Development Process: Genres



### Outline

- What is a Game?
- Genres



### What is a Game? (1 of 4)

- Movie?
- Toy?
- Puzzle?

Based on notes from Mark Overmars



### 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."

Based on notes from Mark Overmars



### 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*.

Based on notes from Mark Overmars



### 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)



Based on notes from Mark Overmars

## 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*)

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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

Based on notes from Mark Overmars

## 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)