Lecture 3-2

Game Design Process

From Idea to Game Concept

- A game concept is a *description with enough detail to discuss it as a commercial product*
- A game concept should include:
  - **High concept statement (story)**
  - **Player's role in the game**
  - **Genre**
  - **Target audience**
  - **General summary of progression**
  - **Short description of the game world**
  - **Key characters, if any**

Choosing a Genre

- A genre is a **category** of games **characterized by a particular set of challenges,** regardless of setting or game-world content .

- Many players buy a particular genre because they like the type of challenges it offers

Classic Game Genres

- **Action games**— physical challenges
- **Strategy games**— strategic, tactical challenges
- **Role-playing games**— tactical, logistical and exploration, challenges
- **Real-world simulations** (sports games and vehicle simulations) —physical and tactical challenges
- **Adventure games**—exploration and puzzle-solving challenges
- **Puzzle games**—logic and conceptual challenges

Hybrid Games

- Games that cross genres
- Risky because it might alienate some of your target audience
- The most successful hybrid is the action-adventure
  - Mostly action
  - Include a story and puzzles that give them some of the quality of adventure games

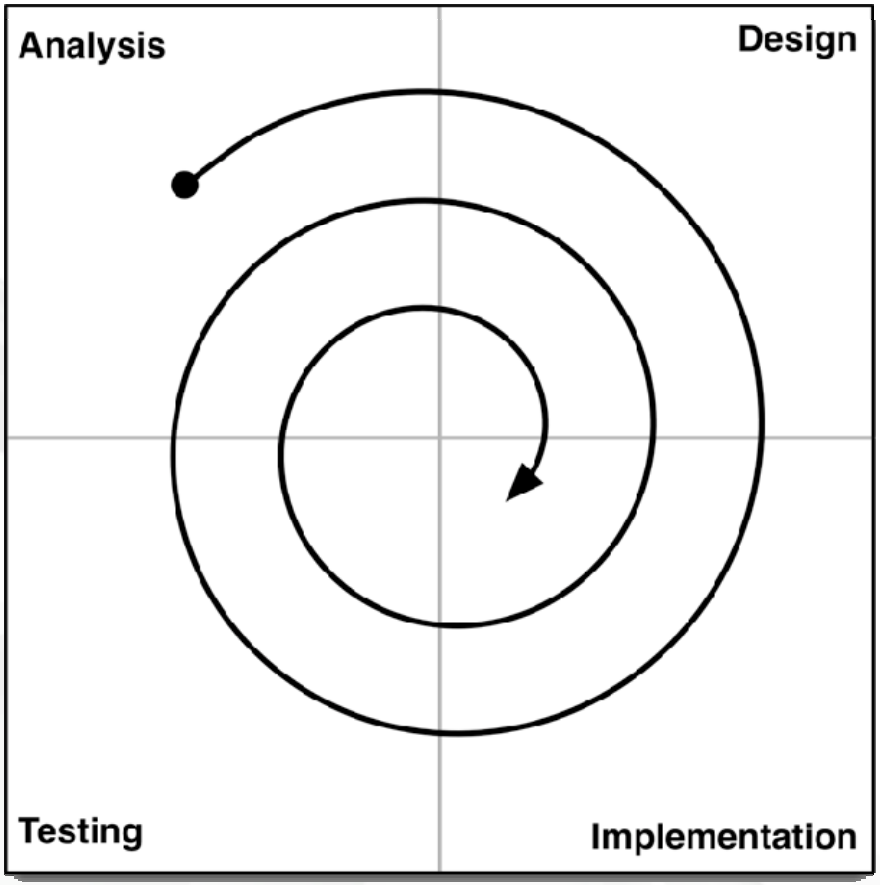
The Iterative Process of Design

The Iterative Process of Design

"Game design is 1% inspiration and 99% iteration"

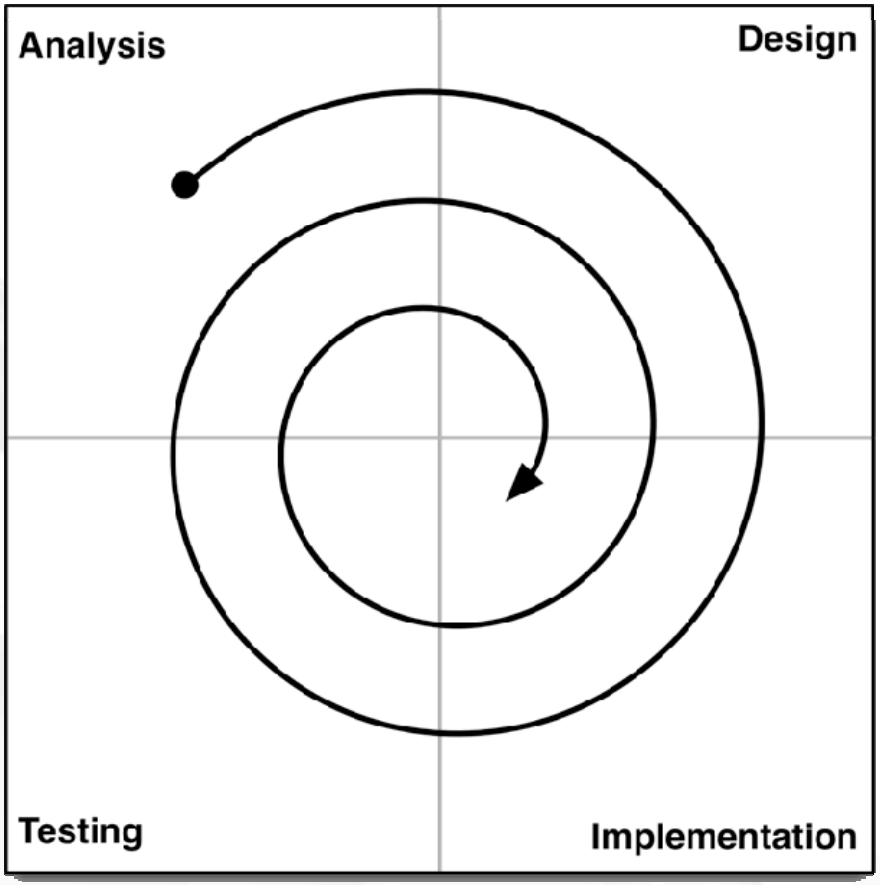
– Chris Swain

The Iterative Process of Design



- **Testing**
  - **Have people actually play your game and get reactions!**
  - **Testing is critically important to this process!**

The Iterative Process of Design



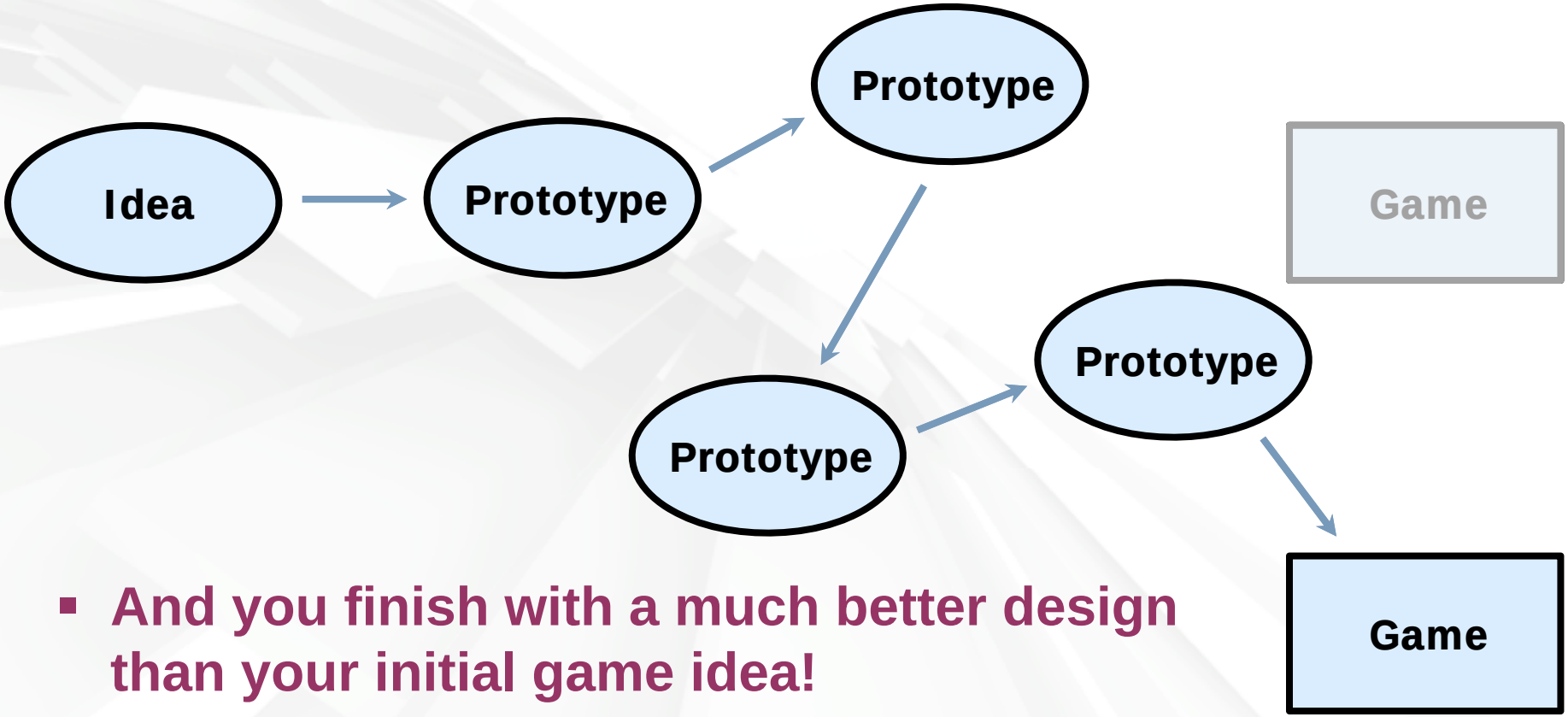
- **Iteration!**
  - **Analyze the results of your game testing**
  - **Modify your design, implement, test again!**

Changing Your Mind

- No one ever goes directly from idea to game

Changing Your Mind

- The real process involves a lot of iteration and changing your mind



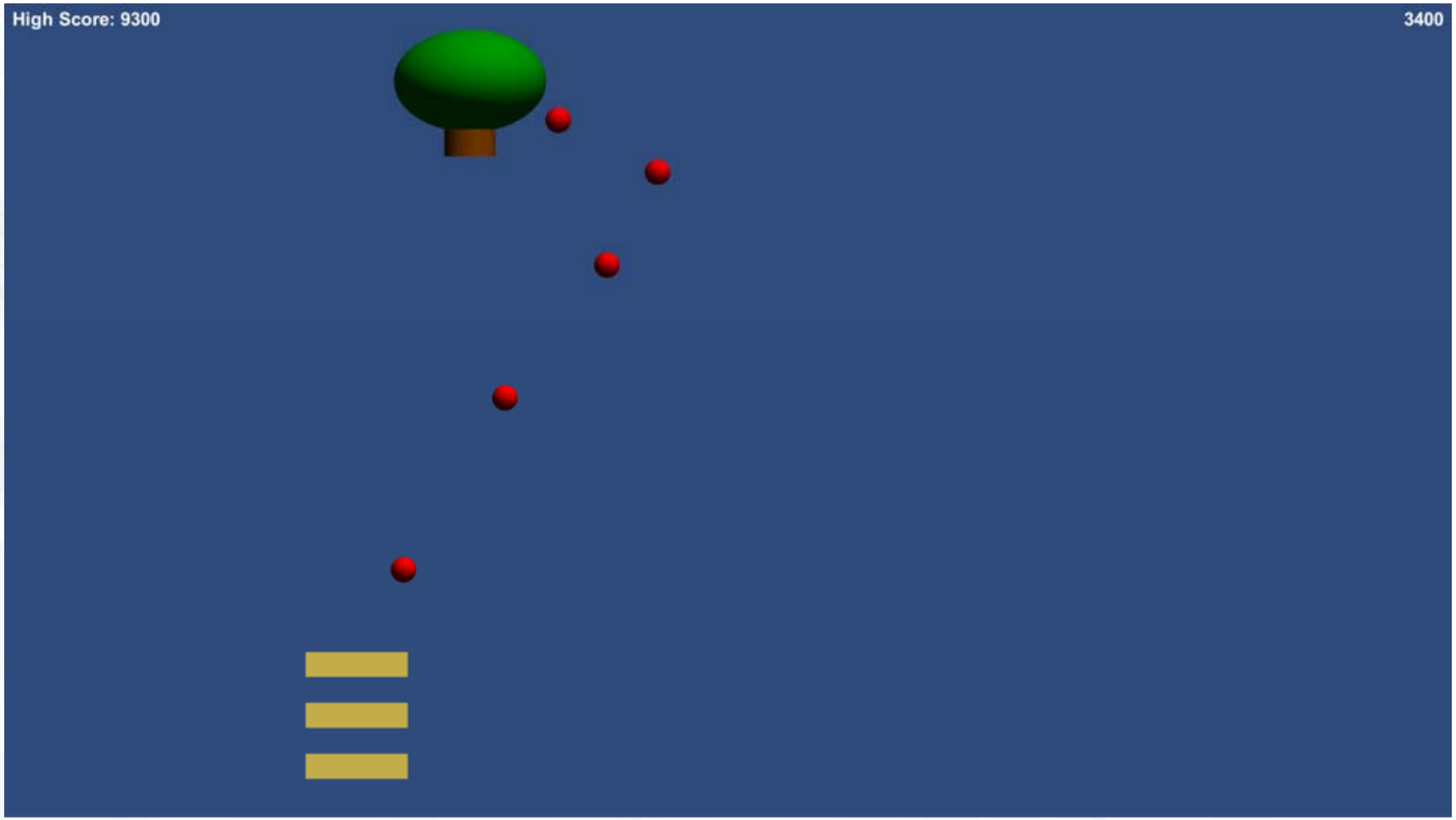
- And you finish with a much better design than your initial game idea!

Game Analysis: Apple Picker

The Key to Computer Programming…

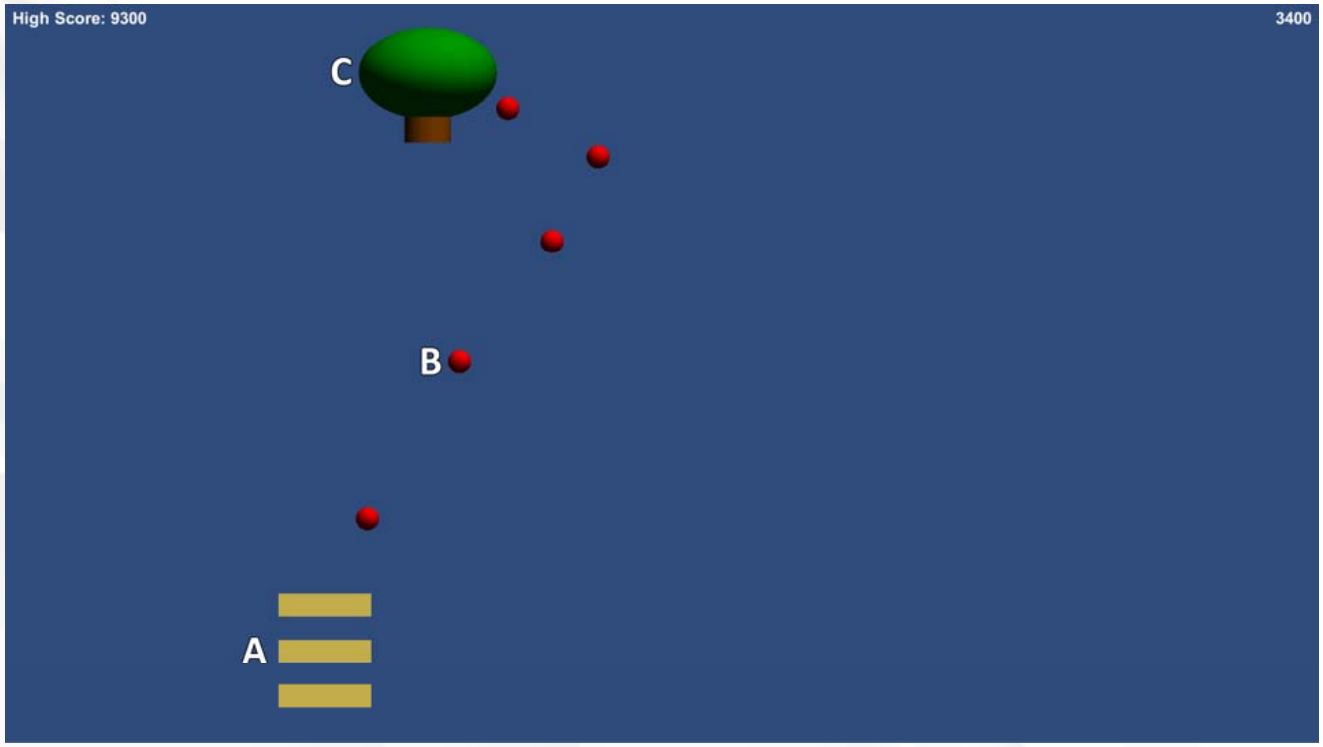
Breaking Complex Problems into Simpler Problems

Game Analysis



Apple Picker

- Based on the classic game Kaboom!



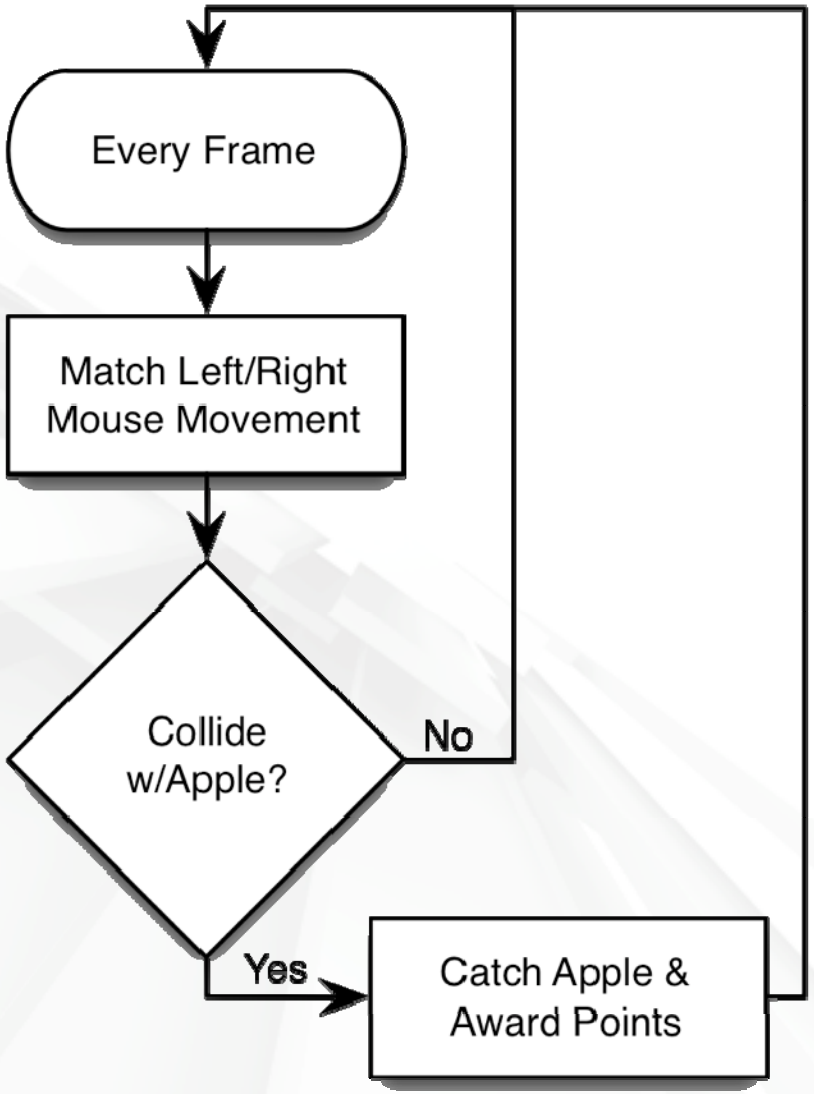
- Player controls 3 Baskets (A) and tries to catch Apples (B) that are dropped by the AppleTree (C)

ApplePicker GameObject Action Lists

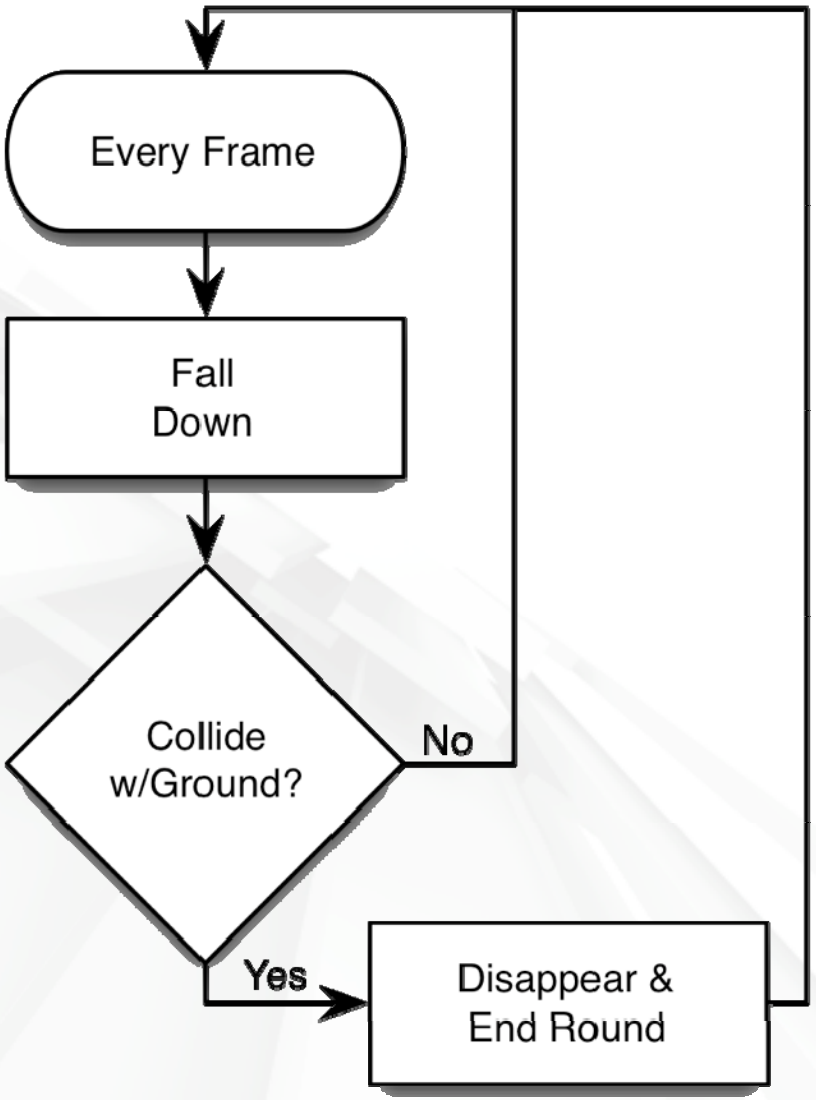
Basket Actions	Apple Actions	AppleTree Actions
Move left and right following the player's mouse.	Fall down.	Move left and right randomly.
If any basket collides with an Apple, catch the Apple	If an Apple hits the ground, it disappears and causes other Apples to disappear.	Drop and Apple every 0.5 seconds.

These can be parsed into flowcharts

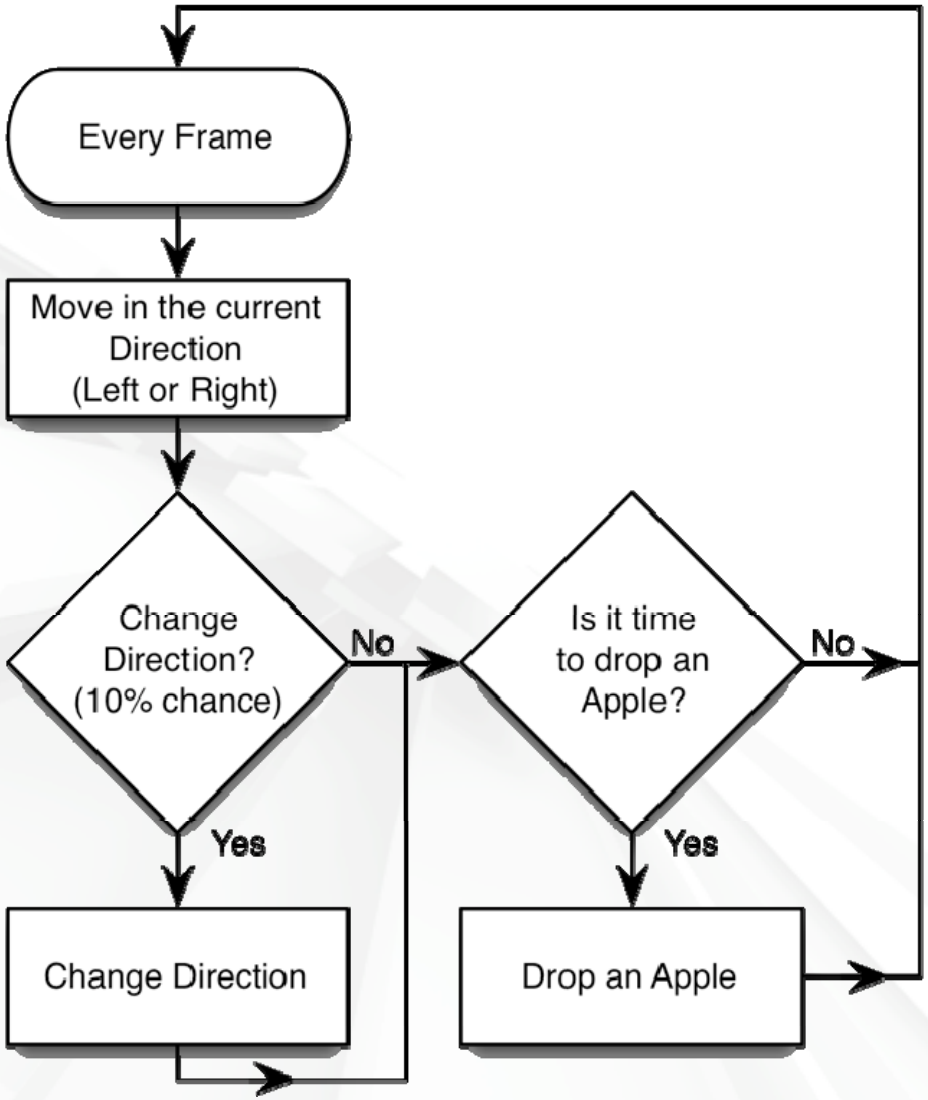
ApplePicker Flowcharts: Basket



ApplePicker Flowcharts: Apple



ApplePicker Flowcharts: AppleTree



Questions?