

# Group 14 – Phase 4 Report

## Raccoon Simulator

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### 1. The Game

While we followed our design plan quite religiously near the start of the implementation, as we progressed in development we strayed away more and more from our original UML diagram. Our interaction between subject, collisions, and map remained the same for the most part, with some variation when we implemented the BFS for the enemy's player pathfinding algorithm. The part that changed the most was our complete lack of handling and management classes in our UML diagram. In the end we have several management classes including keyHandler, sound, tree and graph maker, and others. We also implemented further abstraction in our object package which allowed us to inherit the GeneralObject class in our Node class, which we used for enemy pathfinding.

The most important lesson we learned during our project is that communication is key, and that good planning is very important. During the implementation phase we soon realized due to lack of proper planning that we were falling behind schedule. However we managed to get this back on track by implementing semi-weekly meetings on top of our pre-scheduled weekly meetings. This allowed us to check up on each other to see if anyone needed help with their parts before too much time had passed.

### 2. Tutorial

In Raccoon Simulator you play as a very hungry raccoon who has made its way into a building on the SFU Burnaby campus and must collect enough food via garbage cans to survive. Along your journey you will encounter stationery cardboard box traps as well as moving humans who will try their hardest to beat you to death with their baseball bats. While playing the game you may randomly hear the sound of a Red-dress raccoon, the Red-dress raccoon will spawn at a random location on the map and you must try your best to ask the Red-dress raccoon out on a date before she disappears.

- **Use W, A, S, D Keys to Move, Pause Using ESC**

In this game you must use the W,A,S,D keys to move up, left, down, and right respectively. You may tap the key to move one tile in the specified direction or hold the key to move at a rate of 4 tiles per second. If you would like to pause the game for any reason simply hit the Escape key.

- **Keep Your Score Above Zero**

In this game your score is your hunger, and you must keep it above 0 to survive. The score decreases at a standard rate of 1 point per second, and traps detract 10 points from your total score.



- **Collect All Garbage Cans**

Your goal in Raccoon Simulator is to collect all of the garbage cans splayed across the game map, to collect a garbage can simply move your character over top of it, you may stay on the tile or simply move over it. Either way the collection of the object will be registered.



- **Avoid Traps and Enemy Humans**

Running into a cardboard box trap within the game will deduct 10 points from your current score, however running into one of the moving enemy humans patrolling the map will END YOUR GAME, so avoid them at all costs.



- **Keep An Eye Out For the Red-Dress Raccoon**

On certain time intervals a Raccoon wearing a red dress will spawn at a randomly generated location on the game map. Collect the Red-Dress Raccoon before she disappears to get a “bonus” to be added to your total score at the end of the game. Don’t worry if you miss her the first time cause she’ll be back!



- **Escape Once you Have Collected All Garbages**

Once you have collected all the garbage cans placed on the map an exit door will open up on the far right of the map. You



must continue to avoid traps and humans and your score will still deplete regularly until you get to the door, so be careful. You must escape through this door to win the game!