Labyrinth: User Documentation

I. Overview

Unity is a 3D networked game, where players will be assigned an avatar to navigate a 3D environment. The player will view the 3D worlds from the third person point of view over the shoulder of their avatar. The main 3D environment and name sake of this software, Labyrinth, is a maze where players must navigate through the twists and turns of the maze to find the hidden endpoint deep within the maze. In the process of looking for the endpoint, players may come across other players or automated cyclopes that move randomly throughout the maze. Besides Labyrinth, players are also given the option enter one of the other two 3D environments where players will have the opportunity to traverse a majestic mountain landscape or play as tanks patrolling a desert military base.

II. How to Use our Software

1. Download the project executable file and supporting datafiles.
2. With internet connection, launch the executable file to play the game.
3. User will arrive at the start menu and be prompted to join Labyrinth or one of the other environments. After selecting the players preferred game setting, the player avatar will be spawned at one of the multiple spawn points within the game environment.
4. To navigate the 3D environments, users will use the left and right arrow keys to rotate the avatar and camera angle. The user will then use the up and down arrows to move the player in the direction the player is facing.
5. The objective of Labyrinth is to avoid the cyclopes, will at the same time searching the maze for hidden endpoint that notifies the player they have won the game.

III. Known Bugs

- Currently there is no way to exit a game room or the application without killing the entire application. To kill the application on a windows machine, the player can simply press “Alt-F4”.
- When the player eventually finds the end point in Labyrinth, there is no prompt that notifies the other players that someone has successfully won.
- There is a limited number of players that can play the game at any one time due to the restrictions on the free usage of the photon network. This bug can be simply mitigated by paying for a license to use the photon network services.
- Cyclopes occasionally move outside of the transparent boundaries of the maze due to the nature of their random motion. This can be mitigated by refining the random motion script to further limit the range the cyclopes can move around in.
- On the mountain terrain environment, when the player attempts to move down the mountain side from a higher elevation, there is a significant delay in the player’s movement in the Y-direction. This can be observed as the player floating about the terrain