BIT2400 ~~ Intermediate Programming ~~

Assignment 06 ~~ Final Project

Online Game

For this Assignment, I have decided to make a game that can be played by two players over the internet using networking and multithreading. I have decided to use the code that I wrote for Assignment 2 as a base, since that was a very simple game and I have a good idea on how to alter it to be an online game.

The first thing that needs to be done to make assignment 2 better suited to the assignment requirements is that the classes need to be separated into .h and .cpp files. I will also need to tear apart the sprites class to have child classes; at minimum 2, one for players, and one for enemies.

Since the original map is rather small for multi-player use, I will need to expand it to better suit the game’s needs. The sprites’ animation sequence will have to be slowed down as the FPS is rather high. More goals will be needed and possibly more enemies, I will also be (trying to) add stationary obstacles and make the enemies run on timers that change their direction randomly. There will also be need for a camera.

I also wish to change the gameplay to run on a timer instead of having it end when all the goals have been collected. This will mean altering the goals to re-spawn after a set time and adding a re-spawn point for players when they are hit by an enemy.

As it will be an online game, I will have to add a networking class and have players select between being the server or client player. If they select server, the IP address will need to be displayed to give to the client player. The client player will then need to enter the IP address of the server player to connect. I will look into how to allow random player matching, though that most likely requires the game to be hosted on its own server, where it will then have a list of all the connected players’ IP addresses and matches them from there.

I plan to also try to add a game feature that will allow players to place obstacles on the map that hinder their opponent’s movements, but not their own.