Documentation for “TwinStickShooter”

# Version numbers of the tools used

* Unreal 5.5.4
* Visual Studio 2022

# How to download/open/build

* Project files available at: <https://github.com/gwido001/Twin-Stick-Shooter-Assignment>
  + Use your preferred method to get a copy onto your local computer
  + The Folder called “TwinStickShooter” contains all the data needed to open the project in the unreal editor
* Once downloaded open the “TwinStickShooter.uproject” file with the unreal editor
  + Preferably use Unreal 5.5.4 to ensure compatibility
* One the project is opened in the unreal editor it should default to the “TwinSickMap” being loaded, if not the “TwinStickMap” is located in the content folder and can be opened from there.
* Once the “TwinStickMap” is loaded it should be possible to just press play at the top of the editor to try the game out.
  + (Alternatively you can also build out an exe of the game at this point and instead play that)

# Features you implemented

* The required features included include:
  + The project contains all the features from the “BP Twin Stick Shooter” tutorial series in addition to a start and game over screen as well as a lives counter that allows for limited respawns before triggering a game over.
    - When using a life to respawn automatically the score and game difficulty is not reset and instead continues from where it was left of from the last life. Upon a “Game Over” the score, life count and difficulty are all reset to allow for a fresh new game to be started.
  + Both the “Start” and “Game Over” menus contain interactable buttons allowing the player to start the game, get an explanation of the controls and quit the game.
* In addition to the required features I also included:
  + Content from the part 23 bonus tutorial video including:
    - Adjusted lighting
    - Sound effects
    - Particle effects
    - Enemy on death explosions
  + A lives system that allows for 3 deaths before a game over
  + Scaling difficulty
    - With enemy speed, spawn rate and total amounts all increasing with time survived
  + A more detailed arena with higher visual appeal
  + A visually appealing menu camera spin

# Gameplay instructions

* + Menus are all mouse driven with clickable buttons
  + Gameplay itself can be either controlled with:
    - A controlled using the left stick for movement and the right stick for aiming and shooting
    - Keyboard using WASD for movement and the arrow keys for aiming and shooting
  + The goal of the game is achieving as high a score as possible before getting overwhelmed by the ever more difficult enemies drain all your lives
    - To increase your score you need to kill enemies by shooting them enough times

William Doepel

Gwido001 (Intro to GameProgramming)