

Iterative Design Revisions & Motivations

Throughout this whole project one thing has been very evident, user studies work. Even though this practical and useful tool was hard to grasp at first it now one of the most important tools we have at our disposal. By performing a second user study various issues were discovered with our gameplay, most prominently among them, the need to clarify both the users required actions during gameplay, as well as the objects and services available to them. In this regard the following modifications were made.

- Addition of Zombie & Defense Statistics
- Addition of Zombie Count & Capacity.
- Addition of Zombie & Buildings & Defense's Costs.

Through the addition of the previously mentioned features gameplay is now more clear and user friendly. A user is now able to see how many zombies he has at his disposal to attack as well as how many more he can build with his current setup. Furthermore, users are now aware of the difference between the two types of defenses, making it easier for the user to strategically choose which to buy.

Aside from this revisions, the addition of actual gameplay was finally implemented. A user can now place buildings down in their designated area thus attack another and see the results of his strategic prowess. . All buildings and defenses, are now working and serve a purpose, described as follows:

- Factory: Allows you to place zombies.
- Bank: Generates additional income.
- Zombie Cage: Holds limited amount of zombies.
- Turret & Orb: Help defend players base.
- Zombies: Attack Unit.

A user can now attack another and see the results of his strategic prowess. Through the use of an A* library called EasyStar, Zombies are now able to move around the battlefield, and through the use of a nearest object algorithm, attack their nearest object, which might be an enemy zombie, building and most importantly the enemy base. Furthermore, defenses were given functionality, adding to the game's strategic challenge and complexity. Along with the introduction of zombie and defense functionality, the overall gameplay experience was improved through the introduction of sound and visual effects. The addition of sound and visual effects help bring the user to a greater level of enjoyment when playing the game as well as demonstrate to the development of his military plans, by being able to see building being attacked and hearing building being blown up as they are destroyed.

Another thing that was revised was the overall health bars. Previously, the health bars were static and were going to be implemented to keep track of the overall health of all buildings, including the player's base. This was revised to only keep track of the player's base and not any of the other buildings, as this could have cause confusion to the player. The health bars themselves were also revised to be dynamic, and react to attacking zombies. When a zombie attacks a player's base, or when a player's zombie attacks an enemy's base, the health bars are adjusted accordingly in real time. When one of the health bars is completely disappears, indicating the end of the game, a victory message now appears and the game is finished.