

Bullet Blitz

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ABSTRACT

Bullet Blitz is a multiplayer first-person shooter (FPS) game based on classical shooters from the past. In the game, players will assume the roles of intelligent rodents armed with an array of weapons. This project is built on Unreal Engine 5 while using assets made from Blender and Ultimate Doom Builder. Bullet Blitz is meant to engage players in a fast paced FPS game with an emphasis on fast movement to keep players in fights with minimal downtime. Players will fight each other or artificial intelligent (AI) enemies on different kinds of maps, find weapons, and eliminate other opponents to score points.

Bullet Blitz has networking capabilities for multiplayer interactions, reliable damage handling, and efficient spawning systems to keep the action flowing smoothly. Multiple kinds of maps will be available to play on, as well as various environments in those maps that require the player to use the movement systems in order to gain an advantage over other players. The weapons are balanced into two groups, primaries and power weapons. While primaries are common and the player can equip two, power weapons are much stronger, but are combined with the map's environment, making them only accessible via the movement system.

Author Keywords

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1. INTRODUCTION

Bullet Blitz is a multiplayer first person shooter (FPS) game project made with Unreal Engine 5. The game is an arena shooter where all of the players are placed in an arena as rodents going around jumping around the maps at high speeds and shooting at each other with different unique weapons that spawn around the map. The core gameplay and idea for the game was inspired by many classic arena shooters, but the main influence was from Quake.

The Developers of the game are: Victor Gasior, Blade Johnson, Andrew Newbill, and Lucky Woods. We have put our focus into making sure the game runs as smoothly as possible and put in as much as possible to make it like many classical arena shooters of the past. The game is separated into three important categories of focus: core gameplay, networking, and User Interface design along with customizable settings. Gameplay will go over core concepts of the game such as weapons, movement, and map design. Networking will go over how the players will be able to play together and how they interact with each other. User Interface will go over the interface the players will be seeing constantly along with settings for a player to have their own preferred play style.

2. TECHNOLOGY

For Bullet Blitz, Unreal Engine 5 (UE5) was used for the creation of the main game. UE5 provides many built-in functions and systems that helped in making all of the player's functionality. These systems further extended into simplifying how networking is handled, limiting how much we had to be involved with the backend.

Ultimate Doom Builder (UDB) is a map maker, primarily used for older FPS games. The maps in the game were solely developed on this platform, before being imported into Blender so the file could be changed to an FBX, as that is the format UE5 primarily uses.

Blender is a 3-D modeling software that was used for both the creation of the weapon models, the models' texturing, and their respective animations. The program was also used for a few simpler meshes that were used in conjunction with UE5's built-in particle system for visual effects.

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