

## Mini-Portfolio



*A screenshot from my Gears of War prison level, Sanction*

This portfolio highlights a single-player level in *Gears of War* that I created while attending The Guildhall at SMU. The level, Evacuation, provides an alternate scenario for players as they escape from the Fenix Estate. In this portfolio, I explain my thought process for the level's design and combat encounters. This provides some insight as to how and why I make decisions about everything from gameplay and architecture to optimization and flow.

Thank-you for taking the time to review my work.

## EVACUATION

### OVERVIEW

I created this *Gears of War* level in eight weeks as part of a directed focus study assignment. My focus for this project involved creating unique memorable experiences that culminate in a high-quality level. This level provides an alternate scenario for Marcus as he escapes from the Fenix estate with the Locust's underground tunnel data. In all, the work needed for this project consisted of: the initial design and level layout, two original piano pieces, three Matinee sequences, and the actual level's construction.

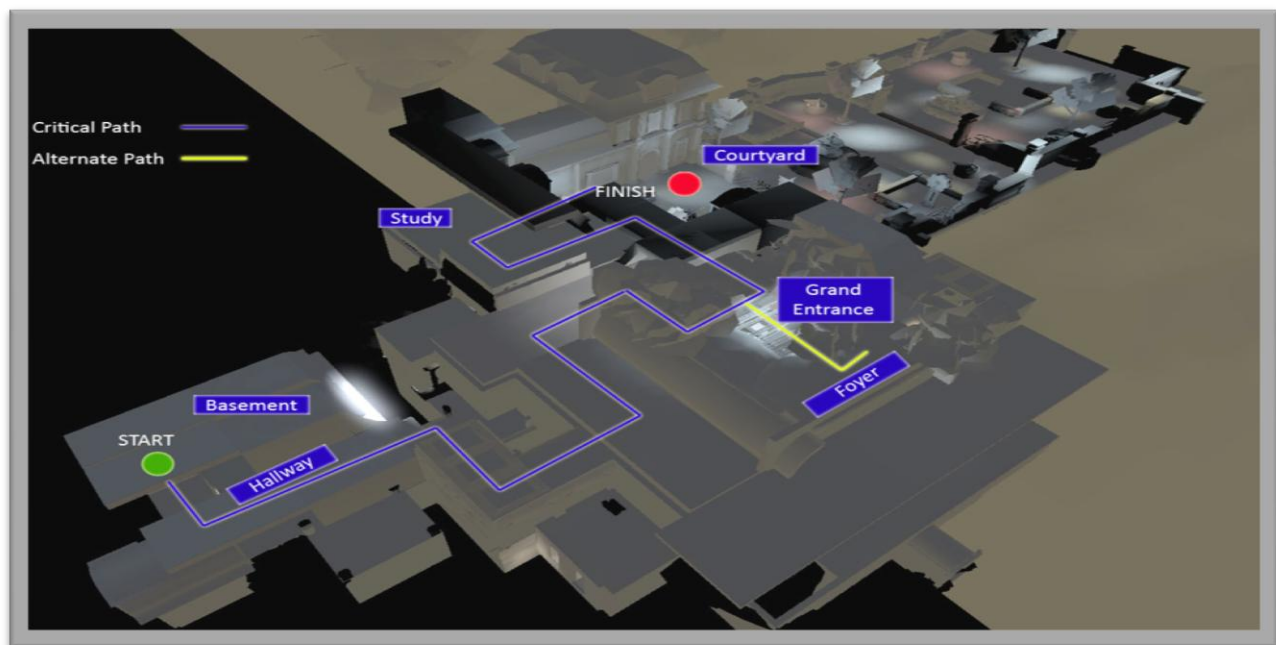


Figure 1 - Players fight through six distinct areas in order to safely evacuate from the Fenix estate.

I had several goals for this project. First, Evacuation seeks to engage players by introducing unique gameplay experiences that players remember going through after completing the level. In order to accomplish this, I designed specific encounters to complement each area's environment. I also wanted to integrate both custom and original music that help characterize each gameplay area. Visually, my goal with Evacuation was to create a highly detailed environment that remained faithful to the architecture and visual style of the Fenix estate encountered in the game.



Figure 2 - Hallway area from Level Overview

The Hallway and Grand Entrance area provide a good example of how I use the level's environment to introduce memorable gameplay experiences. For the first combat experience, I scripted three wretches to rush towards players down a narrow hallway. The quick action increases players' adrenaline while keeping the difficulty down since the enemies run in a straight line down a narrow hallway and die in one shot. This provides players with a sense of satisfaction early on. The gameplay then transitions to a more challenging fight where the environment introduces multiple cover objects and more room for tactical maneuvers.



Figure 3 - Locusts move to various cover nodes while attacking Marcus



Figure 4 – Previous combat oriented gameplay experience

The Foyer area serves a few purposes that, while not critical to gameplay, adds to the variety of memorable experiences for players. Since the previous two areas introduced two different combat experiences, I felt that a different type of gameplay experience would create a more interesting flow in the overall level. In order to create a believable type of functionality for the room, I designed an area with an interactive piano element that reveals a short machinima sequence of Marcus rocking out on the piano. I believe that including these types of unique interactions with the environment helps create a more memorable experience for players.



Figure 5 - An original Easter Egg for someone to find

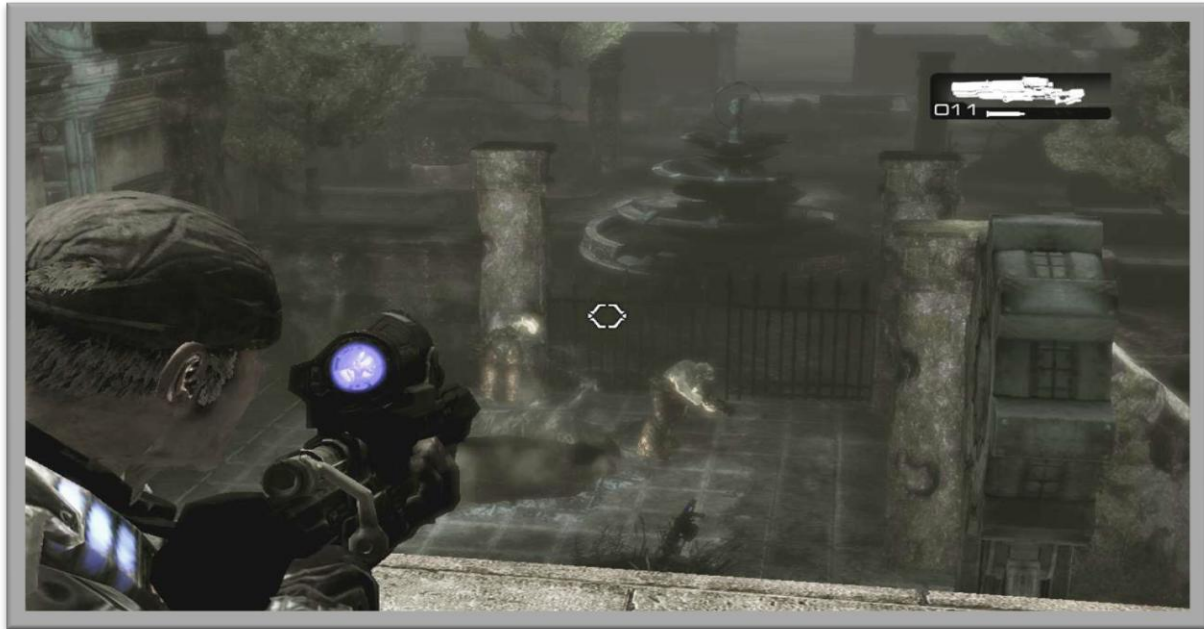


Figure 6 - Increasing number of assets introduced some frame rate issues

The final Courtyard area consisted of so many assets that I finally noticed some frame rate issues while constructing this area. I felt that the level would really benefit from filling out the Courtyard's landscape, so I did not really want to just wall in the gameplay area on all sides. In order to keep the assets and improve the frame rate, I researched and implemented the level streaming feature used in the Unreal engine. This greatly helped the level's performance, and allowed me to create a more detailed world for players.



Figure 7 - Level streaming allows the engine to not render meshes in the mansion

Evacuation provided me with a great opportunity to work within the different aspects of creating a level. Overall, I integrated both custom and original music to create a seamless experience, I took an initial concept from the design phases to full construction, and I also encountered performance issues that I managed to overcome. The following screenshots display a few additional viewpoints of my Evacuation level as well as other projects I've worked on.



Figure 8 - The transition from the Foyer to the Grand Entrance features high ceilings and a split staircase



Figure 9 - The Study Area contains split-level flooring, a fireplace, sitting area, office area, and skylights

## OTHER WORK



Figure 10 - Prison combat in a *Gears of War* level, *Sanction*

This level is from a different *Gears of War* level that consists of a continuous combat sequence in a single room. Enemies approach from side doors, the vents, and an emergence hole.



Figure 11 – Marcus engages several waves of Locusts

Combat flows throughout the room. Players must keep moving using different objects as cover to gain a tactical position advantage.



Figure 12 - An Asian inspired level, *Zen Garden*, in *Unreal Tournament 3*

This screenshot is from a multiplayer *Unreal Tournament 3* mod that featured a variant of the Freeze Tag game mode. The towers allowed players to reach the roofs of other buildings, which added a vertical element to the gameplay. The arena is set in the mountains of a feudal estate.



Figure 13 - An environmental level, *Eve*, in *Unreal Tournament 3*

This screenshot shows a tranquil Garden of Eden scene. Iconic elements such as: angels with flaming swords, and The Tree of Life pay homage to the biblical garden. The level features a custom soundtrack as a matinee sequence flies viewers around the environment. The level focuses solely on visuals and does not contain any gameplay.