**Project Nighterror**

By

Evan Geissler

**Table of Contents**

**1.0 Introduction……………………………………………………………………………………......1**

1.1 Main Requirements……………………………………..………………..........………..…2

1.2 Secondary Requirements……………..…………………………………….......…...…2

1.3 Scope…………………………………………..………………………………………........…2

1.3 Game Description.......…………......…………………………………………................1

**2.0 Technologies Used.…………………………………………………………………………......1**

2.1 Game Engine.......…………………………………..……………………………………...1

2.2 Animation Software…………………………………...……………..……………...........1

2.2.1 Unreal Engine 4.......…………………………………………………………….1

2.2.2 Mixamo......................…………………………………………………………….1

2.3 Audio Software...................................……………………………………………………1

2.3.1 GarageBand .......…………......………………………………………………….1

2.3.2 Other.......…………………………....................………………………………….1

2.4 World Design..…………………………………………………….....................................1

2.4.1 OpenTopgraphy.......…………......…………………………………………….1

2.4.2 Software to convert it.......…………......…………………………..……….1

2.5 Other.......…………………………………………………………….....................................1

2.6 Collaborations.......………………………………………………....................1

**3.0 Design Alternatives..........………….…………………………………………………………2**

3.1 Game Theme....……………………………………………………………………………...25

3.1 World Design......................…………......………………………………………………….1

3.1.1 Landscape.......…………......………………………....………………………….1

3.1.2 Location.......…………......……………………........…………………………….1

3.1.3 Buildings & Other Objects.......…………………………………………….1

3.2 Perspective.......…………......…………………………………………………...................1

3.2.1 First Person.......…………......…………………………………………………..1

3.2.2 Third Person.......…………......…………………………………………………1

3.3 Genre.......…………......…………………………………………………...............................1

3.3.1 First Person Shooter.......…………......……………………………………..1

3.3.2 Survival.......…………......…………………………………………………..........1 3.3.3 Horror.......…………......…………………………………………………............

3.3.4 Other.......…………......…………………………………………………...............1

3.3.1 Combination.......…………......………………………………………………….1

3.4 System.......…………......…………………………………………………............................1

3.4.1 Computer.......…………......…………………………………………………......1

3.4.2 Console.......…………......…………………………………………..........……….1

3.5 Button & Control Configurations.......…………......…………………………….….1

3.6 Characters.......…………......…………………………..........................................….….1

3.6.1 Enemies…………………………………………………………………………...25

3.6.2 NPCs………………………………………………………………………………...25

3.6.3 Player……………………………………………………………………………...25

3.7 Extra Features……………………………………………………………………………...25

3.7.1 Accomplishments....………………………………………………………...25

3.8 Game Name.......……………………………………………………………………...25

**4.0 Game Story Line.....……………………………………………………………………………...25**

**4.0 Nightmare Events..……………………………………………………………………………...25**

4.1 War March (Main)

4.2 D-day Beach (Side Quest)

4.3 Church Crucifixion (Main prob first)

4.4 Repeated Dreams (Main not final, later on)

**4.0 References & Easter Eggs………………………......……………………………………...25**

**4.0 Techniques & Algorithms……………………………………………………………………2**

**4.0 Characters.......…………......………………………...........................................................1**

**4.0 Music........................……………………………………………………………………………...25**

**5.0 Knowledge Representation & Data Structures……….…………………………4**

5.1 Class Diagrams……………..………..............................……………………………....24

5.2 Project Flow Charts……………..………………………......................……………...24

**6.0 Structure Diagrams………………………………………………………………………10**

**7.0 How to Use..…………………………………………………………………………………….11**

**8.0 Sample Screenshots...……..………………………………………………….……………12**

8.1 Before & After an Event.......…………......……………………………………………12

8.2 Start of Game & End.......…………......………………………………………………….12

8.3 User Interface.......…………......………………………………….....……………….......12

8.4 Landscape.......…………......…………………………………………………...................12

8.5 Buildings & Objects.......…………......………………………………………………….12

**9.0 Sample Sessions.......….....………………………………………………….......................11**

**10.0 Testing Sessions…………………………………………………………………….……………12**

**11.0 Discussion……………………………………………………………………………………….24**

11.1 Pros of Approaches & Methods………….…………………..……………....24

11.2 Cons of Approaches & Methods……………..………………....………………...24

**12.0 Conclusions.……………………………………………………….…………………………25**

12.1 Reasons for Unsuccessful Trials.…………………………………………………25

**13.0 Future Work……………………………………………………………………………………...25**

13.1 Future Titles: Linked or Unlinked…………………….....……………………...25

**14.0 References…………………………………………………………………………………….…27**

**List of Figures**

Figure 1.1-1. NAME……………………………………………………………………………………......1

Figure 1.1-2. Name………………………………………………………………………………………......1

Figure 2.1-1. Comparing Different Game Engines………………………………………......1

**List of Tables**

Table 1.1-1. NAME………………………………………………………………………………………......1

Table 1.1-2. NAME………………………………………………………………………………………......1

\*\*Consider putting sections into parts and note how it currently it is. I.e. Part 1: Intro, Part 2: Design Alternatives, etc.

**\*\*IMPORTANT\*\* -Gantt Chart, Proposal, Sub Systems, WHIMIS, Proposal (again), Small Demo at end of fall term, Log book (very important), Git Hub (very important)**

https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20180003204.pdf?fbclid=IwAR0C4ZA8LkWesxezIl64Vs0h7dZElykaBXd79oN4wR-LCNPckbpanadFaqM

“Is it better to know demons exist and constantly wondering if one is around you OR is it better to think there is nothing and not live in fear?”

I won’t lie. This project is getting to me. At first it was just the things around me; things I even tried to block out. It felt like more than my imagination and I thought focusing on my work would help. I couldn’t have been more wrong. Being so involved forced me to open my mind and thoughts to terrible things. Things that I wish I could just forget. Things that I must force myself into so I can get the project finished.

I watched a movie today from my childhood. It was so sweet and innocent and for a moment I forgot about the world. I forgot the horrors that faced me. In that moment I almost lost hope of the project, never look back, and dedicate my life to making others happy. But only for a moment.

I’m becoming depressed. Anxious. Paranoid. I’m not sure any of this should be happening... maybe if I take the pills we’ve been giving the test subjects it will all go away. Maybe it will stop following me.

\*\*The ghost is the Mrs. Seymor of Camp Gilwell. She’s pissed about her dogs and is helping you.

\*\*Instead of voice acting, do text (Add subtitles)

**Opening/Main Menu:**

**Part 1:**

**Location:** Cabin/House(Interior, Exterior)

**Time:** Early Morning

**Weather:** Sunny, then cloudy/dark

**Plot:** \*\*Upstairs is locked. Player wakes up in a room and gets up. Player looks around the room/house and finds a note of things to do (which become current objectives). Player follows objectives, finds a flashlight, and uses it for the first time. After and/or during each of these minor tasks the player hears noises or things look creepy (for example a shadow looks like a monster). For the final task, the user is outside and starts to walk towards a wooded area. Before they get there, a ghost like being emerges from the trees, whispers for the user to follow them, and then turns back from where they emerged (or disappears).

The user then follows and enters the wooded area. Inside the area, there is a small clearing with a pond in the middle, and the ghost from earlier is on the other side. The ghost is looking down and looks scared/terrified, but looks up and begs the player to help “us”. Suddenly, a demon like being rises from the pond (or from some type of portal that appears on top of the water). The ghost screams and runs away in the opposite direction. The demon then begins to attack the player by throwing dark/black fireballs (look like fire, but is very dark in colour). The player can then use trees or rocks for cover. To combat the demon, the player must shine the flashlight on the demon. If the user does not do this after a select amount of time, will have some clue to the user to suggest they use the flashlight. For example, there could be a beam of light that the demon walks into and is visibility hurt by it. \*The flashlight can only be used for so long before it needs to be turned off and recharged. After using the flashlight on the demon and defeating it, the demon vanishes into the woods (implying that it is still out there).

The player now has two options. Continue with the main story line or take a short detour to sub objective 1.

**Sub-Objective 1:** The first option is to pursue the demon and try to find it in the wooded area. If the player chooses to do this, they will eventually walk into a clearing by the lake with a small shed/cabin, lights (that are currently off), and the demon by the structure. On sight, the demon will begin to attack the player. The player will have to make their way to the structure and turn on the lights. By doing this, the demon with finally be defeated. Inside the structure will be an upgrade for the flashlight that increases the time it can stay on. There is also a note with some background information about that area.

After finishing Sub-Objective 1 OR if the player continued with the main story line, the player follows the path the ghost ran down. The player exits the forested area to see buildings in the distance. There is a small church, a small cemetery, and a few surrounding buildings at ground level. To the left of the buildings are the hills of the valley that have 12 crosses, a small building, and a winding path connecting the crosses. There is smoke and fire billowing up. There are also beings in the distance around the crosses. This concludes the first area and the next area is loaded.

**Part 2:**

**Location:** Labret(Exterior)

**Time:** Night

**Weather:** Cloudy, Dark, Raining/Storming

**Plot:**

**Part 3:**

**Location:** Cabin/House (Interior, Exterior)

**Time:** Night

**Weather:** Cloudy, Dark, Raining/Storming

**Plot:**

Getting back to the cabin, everything looks more rundown. The ghost stands by the door, the player feels compelled to go inside so they do. The player hears rattling of blinds and faint footsteps. Looking around, the player must realize that she intends for them to go upstairs (which is previously locked). The player walks up the stairs and unlocks the door, but it’s dark, dusty, and, eerie. Opening the door reveals a woman (dead? Killing? Something else?). She turns and screeches at the player.

**Part 4 (Optional):**

**Location:** Small Town (Exterior)

**Time:** Night

**Weather:** Cloudy, Dark, Raining/Storming

**Plot:**

**Part 5:**

**Location:** Institute(Exterior)

**Time:** Night

**Weather:** Cloudy, Dark, Raining/Storming

**Plot:**

**Part 6:**

**Location:** Institute(Interior)

**Time:** Night

**Weather:** Cloudy, Dark, Raining/Storming

**Plot:**

Finally, the player is confronted by the main demon and the main scientist. The scientist says that the whole thing is because of drugs and offers a pill (or something else like no pill) saying it was all from experiments OR the player can accept everything as real. Accepting it as real makes the main demon kill or possess the scientist. Life goes back to normal from the start of the game HOWEVER there are signs of demons. OR if the player decides it was never real, goes back to the start, but there is evidence that this is a tampered reality (i.e. too cheery or something).

**Part 7:**

**Location:** Institute(Interior)

**Time:** Night

**Weather:** Cloudy, Dark, Raining/Storming

**Plot:**

Finally, the player is confronted by the main demon and the main scientist. The scientist says that the whole thing is because of drugs and offers a pill (or something else like no pill) saying it was all from experiments OR the player can accept everything as real. Accepting it as real makes the main demon kill or possess the scientist. Life goes back to normal from the start of the game HOWEVER there are signs of demons. OR if the player decides it was never real, goes back to the start, but there is evidence that this is a tampered reality (i.e. too cheery or something).

**Part 8:**

**Location:** Cabin/House(Interior)

**Time:** Morning

**Weather:** Bright or cloudy

**Plot:** Wake up in house, almost as if the entire game was a dream. The player can look around, but can’t get up.

**Option 1-Player Sides with Dr.:** The room is bright and things are cheery, but come off as bit too cheery. There is a bottle of pills on the side and a flashlight. The player goes to reach for the flashlight, but stops and grabs the pills. Once touched the screen goes dark and the game is done.

**Option 2-Player Sides with Demon.:**

**Credits:**

**Milestone Notes:**

List changes, conflicts, problems, etc. here. Give a brief description of each milestone under each (talk about specific concerns/problems, what is accomplished, etc. there.

**Milestone 1:**

Landscape, buildings, environment

**Milestone 2:**

Character creation & AI

**Milestone 3:**

**Milestone 4:**

**Levels**

1. Opening Main Menu
2. Main Game (Valley Region)
3. WW1 Scene (Trenches)
4. WW2 Scene (D-day Beach)
5. Other (for recursive part)
6. End Credits

**Weapons**

1. M1 Garand (Semi-Automatic; WW2)
2. Lee-Enfield (WW1 Bolt Action; WW1)

**User Items (Usable)**

1. Flashlight (Throughout Game)
   1. Upgrade 1 (Battery Pack)
   2. Upgrade 2 (Infinite Battery)
2. Fdf

**User Items (Passive)**

1. Notebook
2. fdf

**Custom Objects (Blender)**

1. Barbed Wire (WW1/WW2)
2. Trenches (WW1)
   1. Planks
   2. Sandbags
3. Atlantic Wall (WW2)
   1. Hedgehogs
   2. Barbed Wire
   3. Ramps
   4. Gates
   5. Pill Boxes
   6. Turrets
4. Jhkghj

**1. Introduction**

\*\*Talk about what the system MUST do (I.e. button mapping, animation, etc.), what we WANT it to do (Scope)

My project is to create a 3D, first person, horror game focusing on the themes of death, depression, and terror. The game will be single player and will be mainly story driven. It will also be based around and inspired by ghost stories, real locations, and real and/or fictonal events in Saskatchewan; such as the ghost story of Camp Gilwell and stories around Fort San Sanitarium. The project, when finished, will have a game that can be played from the very start to a very end i.e. a finished product. Although there are plans to make the project accesible on different platforms, the main platform for this project will be for PCs.

**1.1 Main Requirements**

1. Realistic Landscape & Environmental Creation
2. Key buildings with interiors and/or exteriors
3. Qu’Appelle Valley area
4. Two main Non-Playable Characters (NPCs)
5. Passive ghost (guides player)
6. Mostly passive demon (main antagonist)
7. Multiple NPC with Varying AI
8. Passive NPC mostly minimum AI (walking around, etc.)
9. Various Enemy AI levels (Attacks, abilities, etc.)
10. Dynamic Menus
    1. Changes as player progresses: Ex. Main Menu environment changes from sunny to stormy
11. Multiple Items
    1. Flashlight
    2. Notebook
    3. Etc.
12. Upgradable Items
    1. Optional (Can complete game without them)
    2. Usually obtained in side objectives
    3. 0 to 3 upgrades per item
13. Save Game
    1. Ability to save progress and return to that point without penalty
14. Start to Finish Aspects
    1. Main menu
    2. Opening
    3. Main Game
    4. Credits
    5. At Least Some Music & Sound Effects
15. Collectables
    1. Letters, texts, messages, etc.
    2. Objects that relate to area
16. Set of side objective

**1.2 Secondary Requirements**

1. Easter eggs & references
2. Trophies, achievements, etc.
3. Multiplatform
   1. Currently only for CPU, hoping to expand to PS4, Xbox1
4. New game+ (second play through)
   1. Harder and different NPC AI
   2. Level changes
5. Complete Set of Music & Sounds
6. Voice Actin
7. More Items
8. More Details
   1. Environment (Nicer grass, water, etc.)
   2. Items (Intricate design)

**1.3 Scope**

-Have 3+ “nightmare” events

-Gets darker after each event

-Some form of AI

-Need some new or unique thing in game

I plan on having two main non-playable charcters (NPCs); one that guides the player and one that is the main antagonist. Along with these two, there will be enemy NPCs that will challenge and/or attack the player and passive NPCs that add to the game’s darker atmopshere or that assist in telling the story. The enemy NPCs will consist of at least 3 different demon characters that are all affected by light to some degree. The NPCs will also have variying levels of AI depending on their purpose.

The playable area will be a landscape that is similar to the landscape of the Qu’apelle Valley. Other aspects of playable areas include the interiors and/or exteriors of popular haunted buildings inspired by different areas in Qu’apelle Valley. A large portion of the game will take place outside with smaller interior areas.

The game will have items such as a gun or a flashlight. These are mostly used to defeat the enemies in the game, but can also aide the player in different locations. These items and the player’s health will be upgradable. The upgrades will be available as collectables in different areas and the player will be able to use them on any form of upgrade they wish. For example, the player may choose to upgrade maximum health or add a regeneration to the health. Another example is to increase bullet damage or to increase ammo capacity.

Some other aspects in the game’s scope include dynamic menus i.e. main menu changes as the player progresses and also the ability to save the game at different points. Music and sound effects will be added to the best of my ability. Subobjectives will be used to add to the story and add a means of getting an upgrade. The story will be told by NPCs, collectibles, etc. The collectibles will be different things from sound files, letters, items, etc.

Accesibility options will also be added to allow for subtitles, brightness changes, speed of the playable character, etc. This will allow for a more userfriendly gameplay and also allow for a larger demographic to play the game.

If there is time, easter eggs/references, trohpies/achievements, and more items will be added. Multiplatforming, a new game+, better sound/music/graphics, and better detail will also be added if there is time after most, if not all the main requirements are complete.

I will segment my project by splitting tasks into different catagories such as landscape, characters, menus, AI, etc. The core creation of these tasks will typically be created first so the functionality can be added, tested, and updated as development continues. For example, creating an NPC could have the following steps:

1) Creation 2) Adding to project 3) Test 4) Functionality 5) Test 6) Additions 7) Test

This allows for the core to be created, tested, etc. and details be added at a later time when it is needed.

Beyond the scope of this project is any form of mulitplayer. There will also be a limit on quality of graphics, number of assets, in depth voice acting, sound track, etc. since many of these areas are done by experts with more time. For example, instead of having the newest most realistic graphics of a human talking I may implement subtitiles to a character who looks real, but can be easily seen as created in the game.

Constraints of the project include time to complete tasks, having to learn new or more indepth tools, money, etc. To get around these constraints I have been watching tutorials, using free programs, using easy to use programs, and using software that best fits my skills.

**2. Technologies Used**

**2.1 Game Engines**

Main reasons to pick a specific engine was:

1. What games were made using it
2. Platforms
3. Cost of software
4. Usability
5. Ease of learning
6. Language of code
7. Royalties, etc.
8. Other

\*\*Put in most important to least\*\*

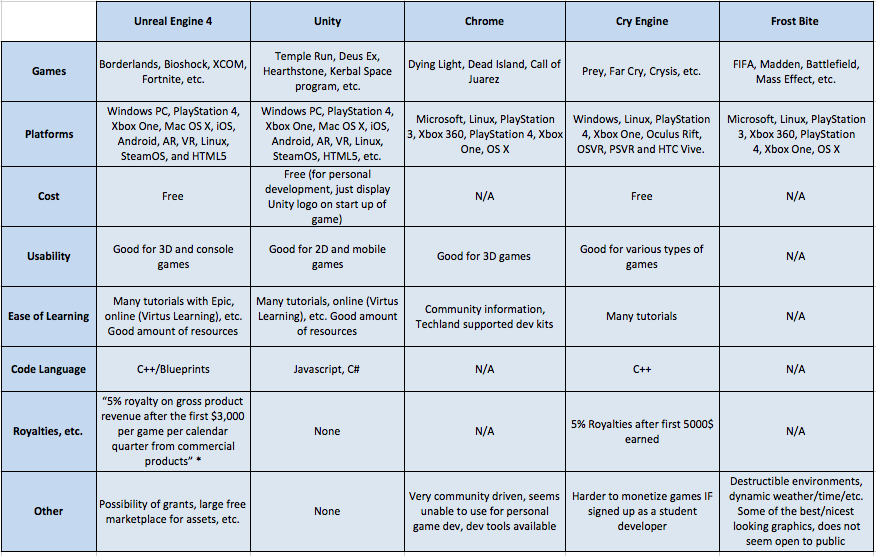


Figure 2.1-1. Comparing Different Game Engines

\*https://www.unrealengine.com/en-US/faq

**2.2 Animation Software**

**2.2.1 Unreal Engine 4**

**2.2.2 Mixamo**

**2.2.3 Other**

**2.3 Animation Software**

**2.3.1 GarageBand**

**2.3.2 Other**

**2.4 Collaborations**

**3.8 Game Name**

-The Nightmare Chronicles

-Asleep

-Awake

-Haunted

\*\*SW Names

-Deception Games

-Desolation

**4. Nightmare Events**

-Above bed, at church (cross), computer taken over, family graves, horse/buggy from window, explosion from remote, repeated dreams (still dreaming), poe, something to do with water, war related, orc related,

**3.6 Characters**

**3.6.1 Enemies**

1. Imp
2. Recursive Demon
3. Main Demon
4. Long Demonic Animal
5. Slender Demon
6. Small Demon
7. Ghost (Hostile)
8. Light Demon
9. Heavy Demon

3.6.2 NPCs

1. Ghost (Benign)
   1. Translucent/Glowing
   2. Normal
   3. Two
2. WW1 Soldier
   1. Enemy
   2. Ally
3. WW2 Soldier
   1. Enemy
   2. Ally
4. Father?
5. Crucified Person

**3. Techniques & Algorithms**

**3.1 Location**

**3.1.1 Open Topography &**

**4. References & East Eggs**

-Ghost BC, “Never shoulda come here”

-Reference that something is always watching at the start

**5.0 Knowledge Representation & Data Structures**

**5.1 Class Diagrams**

**5.2 Flow Chart of Program**

**6.0 Music**

**4.1 End Credits**

Pro Memoria or Original

7.0 Structure Diagrams

6. How to Use

7. Sample Sessions

8. Testing Sessions

9. Discussion

9.1 Pros of Approaches & Methods

9.2 Cons of Approaches & Methods

10. Conclusions

11. Future Work

13.1) 2 games one in space, the other this game

12. References

Playing Styles: -Escape (unknown at first, but then knows), always known, amnesia style, story driven

Items: Flash light, notebook

Interface: -Notebook style, pause or not depending on difficulty (dying light, can add stress)

Gameplay: -Difficulties (how does it change?)

-Saving (Auto save, anytime, etc.)

-Level up system (player level, weapons, equipment, passive, active, etc.)

-Unlocks (End game, achievements, additional content/locations, etc.)