

Zombie High: Gated



Fight today to learn tomorrow.
Game Design Document
Version 1

1 Concept Document

1.1 Credit page

Document Purpose: The purpose of this document is to inform and educate Emrys Kleintjens about the ideas I have on how to use his board game concept as a inspiration source for my game. This document should give him all the information needed to understand all my ideas and the reasoning behind it so he can get a clear picture of what the game is about. This way he can form an educated opinion on whether he likes my ideas or not.

Document version: 1

Working Title: Zombie High

Game Concept: The concept of the game is that you are playing as a high school professor and have to fight of the undead that are invading your school. The behavior of the zombies is controlled by another player and you have to do you best to defeat the other player. The game is a First Person Shooter for the player playing the professor and is a Real Time Strategy game for the person controlling the zombies.

Game Document Author: Robbin Lieverse.

1.2 Sign off

By putting this signature I fully agree and accept Zombie High's game design and undoubtedly support it. I have read the entire document and I have no further questions regarding Zombie High's design.

Client, Emrys Kleintjens

Game Designer, Robbin Lieverse

1.3 Introduction

Zombie High combines FPS with RTS. It puts the FPS player against hordes of zombies controlled by another player from an RTS perspective. Zombie High's theme is horror with some school references and thematic thrown into the mix. It is aimed at players that like FPS games as well as players that like RTS games.

1.4 Game Analysis

Game Description

Genre

Zombie High's genre is horror. The game is all about zombies and school, so there will be a lot of items and settings related to school in the game. The main theme is still horror because the players should really feel that there is a zombie apocalypse going on at their location.

Game Elements

Zombie High's elements are different for each player. The person playing as the professor will be playing an FPS, where they can enjoy jumping, exploring and hack 'n slashing. They also have to avoid getting hit by the zombies and upgrading their weapons to become more powerful.

The player controlling the zombies will be playing an RTS game where they can chose where the zombies spawn, create different zombie behavior, and set up a landscape that is as beneficial as possible for the zombie master while maintaining your resources.

Game Content

The content of Zombie High should be focused on Horror. Both players should get that feeling since the game is completely centered around zombies. The FPS player has to get the feeling that he is in real danger if caught by the zombies while the RTS player should get the feeling of power by controlling a giant army of zombies. Both players should get enough feedback from the game to know that there is a zombie apocalypse going on.

Theme

The theme of this game is both zombies and school. Zombies are the main center of the game, while school is more the center point of the setting. All the game mechanics are based off of the zombie theme (how to better kill the zombies, how to stop zombies in their tracks, what to do against the zombies). How these mechanics are presented to

the player is all done through the game's setting (using school utensils to fend off the zombies, closing a door/gate to prevent zombies from entering).

Style

The style of *Zombie High* is realistic. The players should get the feeling that this could potentially happen in real life. The art of the game is based off of real life just like the level design. The whole game is centered about there being a zombie invasion at a school. It's set in the 21st century so a lot of things that appear in game can be also found in real life

Game Sequence

The game has a low profile storyline. The main focus of the game is the action that takes place between the two players. There is a linear story in the game, but it isn't the main focus. The story will be told through cut scenes and character quotes in-game.

Player count

The amount of players that can play the game is two. One person controlling the professor, another person controlling the zombies.

Game Reference

Game Taxonomy

Zombie High is a Fictional Game/Narrative/Simulation game that focuses more on the Game side of things than the Narrative or Simulation, since the narrative is a really small part of the game. The Simulation part of the game really only applies to the RTS player and that is only for a little while when he sets up his zombies and waits for the other player to react. *Zombie High* is only a tiny bit simulation, but just enough to be mentioned. It also uses a bit of gambling because of the upgrades players can buy. They have to decide which upgrade suits the situation that is at hand best.

[See Appendix A]

Player Immersion

The RTS player will get a really tactical and strategically immersion from the game. They will feel like they have to outsmart the FPS player and have to tactically place their zombie spawns to win the game. The FPS player will get a Mental and Action immersion because they need to use quick reflexes and lots of on the fly thinking to adapt to what the RTS player is throwing at them. This puts a lot of strain in their mental condition but will give them a huge adrenaline rush in return.

Reference

The game will make use of zombies. Zombies have been used in countless other games and other media so the public already has a good understanding of what a

normal zombie could behave like. Zombie High combines all those ideas by giving the RTS player a lot of different zombies to create, from slow walking zombies, to fast runners to special zombies. This should give all players some kind of reference from what they know about zombies. If they only know slow walking zombies for example, they will see the slow walking zombies and get the reference that this game is about zombies (if the undead moans and rotting skin aren't a dead giveaway). The FPS player will be playing as a professor who will use quotes that remind the player of school related stuff, remembering things their teacher would have told them years ago while they were still in school. The game's visuals will also give the players a lot of references. The setting is inside or near a school coated in a dark and scary theme. This should give both players the feeling of a zombie apocalypse while also maintaining the feeling of being at school and having to protect it from the incoming zombies.

Game Technical

Technical Form

The game will have 3D graphics to further enhance the immersion the players can have and to best emulate the "real" feeling the players should get while playing the game.

Camera

The professor player will see everything from the First Person perspective while the zombie master will see everything from a top down perspective since that player is playing the game's RTS mode.

Platform

The game will be made using Unity and C#. This is because the developers are most familiar with Unity and how to make games using C# scripts. Unity shouldn't have any limitations that should impact Zombie High's development and since Unity is the developer's preferred tool to use it is only logical to make the game in Unity.

Device

The device that Zombie High should be published on is PC and Xbox 360/One . This is done because, once again, the developers have the most experience developing for both Xbox and PC and because it is relatively easy to convert from PC to Xbox. Zombie High has a high chance of succeeding on these platforms since PC players love competitive games with RTS mechanics (Starcraft 2, League of Legends, Dota 2) with the general notion being that PC control are superior for RTS games. Xbox is dominated with Action games like Call of Duty and Battlefield since the general notion seems to be that a controller works best for Action games. Both games have their fair share of the other genre (Battlefield is high popular on PC while Xbox has numerous

successful RTS games), so those communities would be likely to accept a hybrid like Zombie High.

Game Sales

Consumer group

Zombie High aims at people between the age of 15-26. These people have the most time available to play video games. They are usually not bound yet by when their 5-year-old is sleeping or when they have a day off from work. These people are usually still in school and have a lot more free time than a full-time working adult. Since this group is still in school they can relate more to the game's setting being in a school than people that haven't been in a school in two or more decades. This should make them more excited to play the game since they can relate a lot to what they are seeing and might get them excited enough to spread the word about Zombie High.

1.5 Game Atmosphere

General description of the game's style

Since Zombie High is a zombie horror game set in and near a school it has a dark atmosphere surrounding it. This should give the player a feeling that there is a apocalypse going on and that there is danger around every corner. The dark tone of the game should also increase the FPS player's immersion and get their adrenaline pumping. It will make them easier scared when a zombie suddenly pops up in front of them or they hear moans from the undead. It's harder for the player to predict where the zombies are coming from while clearly setting the tone of the game.

Audio

There shouldn't be a whole lot of music coming from the game. The danger with music is that it takes away the attention from the player and also removes the immersion. Some really soft slow eerie music should still be played so players will not be bored by the lack of audio they get from the game. For the FPS player the audio should be lower than for the RTS player so the FPS player can focus more on the sounds of his surroundings and be aware of what is happening. For the FPS player character quotes should be on the forefront as well as Action feedback and zombie moans. Character quotes help create a connection between the character and the player, improving the immersion and give some backstory of the game. Zombie sounds are really important for the FPS player to know where the zombies are, while the Action sounds are important to get the feedback that something actually happened while also improving

the immersion (Slashing a zombie should make a satisfying sound, just like how pulling a lever should give the player the feedback that he just pulled a heavy lever).

The RTS player has to hear the zombie sounds to feel like he really is in control of a “living” undead army instead of some AI. The background music should be a bit louder for the RTS player than the FPS player since the RTS part of the game is less interactive and action based than the FPS part of the game and the player should still be getting something to enjoy at all times in the game besides just visuals. For the zombie master everything should sound a bit more demonic and eerie since he is controlling zombies and the player is involved with something scary and evil forbidden arts.

Level Design

The levels of Zombie High should keep stick to the same format of always being at a school or school related setting while having a horror theme. This is made clear to the player through multiple mediums. Besides audio and visuals the level design also plays a big part of the game. Levels should give players the idea that they are playing in a school or a school related place. Players will be able to play inside school buildings and walk outside in the school yard. Assets of the game will all be school related. The game should still give a horror vibe so pools of blood, skulls and other horror themed assets can be found all over the levels to set the tone of the game.

1.6 Game Mockup

[See Appendix B]

1.7 Game Play

At the start of the game you get to choose as who you want to play; the professor who fights the evil zombies to defend his beloved school or the mad driven zombie master.

Professor (FPS); As the professor you play the game in a first person mode. Your goal is to fight the zombies. After picking a level to play and going through matchmaking to find another player to play against you then load into the map. One of the levels is inside a school with a giant courtyard. A short cut scène will play explaining what is happening and how the professor ended up in this map specific situation. At the start of the level the giant gate is still closed to make it harder for the zombies to come in. You begin inside the Courtyard with a knife you found. After a while you hear some eerie music, followed by some loud screams and some weird moaning. You see zombies attacking the gate as well as zombies appearing from behind the school. They look like the kids you saw at school earlier today. You have no choice but to fight them with your knife. These zombies are still weak. After a while you will have enough points by killing zombies and collecting resources for later use and are able to open doors inside the school. You will find upgrade stations, allowing you to transform you knife to make it more powerful, modify the weapons you already have or craft new ones from the resources you found. After a while the zombies become stronger and new ones will appear. Jumping zombies, running zombies, teleporting zombies, gigantic ugly modified zombies. So many different zombies you have lost count. You have to keep killing them to unlock more of the school to get a bigger playing field. You have to keep on fighting till sunrise when the zombies will all perish. If you manage to survive till then, maybe you can find a way to stop this zombie apocalypse happening at night for once and for all.

The FPS person's controls can jump using standard FPS controls on Xbox using the sticks to move and turn, bumpers to shoot and X to jump and interact with objects. For PC players it will follow standard PC FPS controls, moving using the WASD keys, jumping using Spacebar, Sprinting using Shift, Crouching using CTRL and using the mouse for the shooting/aiming. On both the Xbox and PC the controls are all completely custom adjustable so players can change them however they like.

Zombie master (RTS); As the Zombie Master you will be in control of the zombies. Since this is a difficult task you will need to use your powers to get a birds-eye view of everything that is happening. You will see everything top-down and being able to zoom in/out as much as you want, even being able to see the game from a zombie's perspective. After starting the game and selecting to play as the Zombie master and having gone through matchmaking you will begin playing the game. You will see a small cut scène on how you got driven mad to power and how you happened to get control of

the undead. The game will start and you can create/remove spawn point for different zombie types to spawn which are only visible to you. You can open up a separate menu to adjust you zombies behavior and create duplicate of zombie types to adjust their behavior. This way you can spawn in the same zombie types but with different behaviors. Behaviors include but are not limited to: movement speed, agro, attack speed, health, sounds and visual adjustments. Most of these behavioral changes will cost you Soul Force, which is your currency as the Zombie Master as oppose to the Professor's money. You can also select different kind of zombies like jumpers, runners, walkers and genetic manipulated zombies. These also all cost different amount of Soul Force. You will regenerate Soul Force over time but also for completing different challenges, like hitting the professor with zombies, having a huge number of zombies in a certain area or having a zombie alive for a set amount of time. Soul Force can then be spend on upgrades, different zombie types or more spawners. You will be able to create paths for your zombies to walk. Your goal is to defeat the professor. He will be able to upgrade his weapons and create fortification. You have to be quick because when the morning comes and he hasn't been defeated yet you lost the game since the zombies and you will all be wiped out when exposed to daylight.

At the end of the game both players will be shown a end game cut scène dependent on who won. The players will then be given points based on their performance and will then either move up or down the global leaderboard based on the amount of points they received.

The game is fun because it pits players against each other knowing that the other player can do things to directly impact them negatively, but they can counter strike by doing the exact same thing and using their abilities to fight back with a nasty strategy. This creates a lot of fun moments and short feelings of superiority above the other player at multiple times in the game. For the FPS player the ability to shoot or hack and slash down countless zombies while being able to upgrade your weapons in multiple different ways, putting up blockades for the zombies and opening new parts of the level is a great experience. For the Zombie master the ability to send out zombies that will hunt down your enemy and are customizable so you have your own personal army gives a great feeling of power.

1.8 Key Features & Selling points

The biggest feature of the game that should be one of the main pull factors for potential players is the fact that it combines RTS with FPS and puts players against each other. In the past this has been tried multiple times and almost always failed. This is because those games tried to make RTS and FPS players work together. If you put those against each other instead of put them together this changes the entire point. FPS players don't feel like they are bossed around by some person who sits back and clicks on things telling the FPS people where to walk to, while the RTS person doesn't feel like they are controlling an army that doesn't want to listen. Players have the ability to choose who to play as and can create different strategies for all the levels hoping that the other player doesn't know about the plan.

Another key feature is that as the FPS player you get to manage your resources to unlock more parts of the map, explore the levels, upgrade your weapons and ruin the zombie master's day by setting up traps/roadblocks. On the RTS player's side there is resource management in deciding how to alter your zombies and decide which zombies to deploy out where to create your own customized army with your own strategy.

The final big key feature is that you get to fight another player. The FPS player gets to kill hordes of zombies. The FPS player is right there in the middle of all the action so that player will get a lot of action in the game, always busy watching the surroundings for incoming zombies. The RTS part of the game is more for the people that want to take their time to unfold their master plan. They get a less action packed experience but will have to use their brain a lot more to come up with the best position to place their zombie spawners and which zombies to spawn from where.

Gameplay

The game has countless hours of fun since it is a highly competitive game where players always need to adapt on the fly to the other player's decisions. The game is to be played with two people over the internet. At the end of the game each player will be given points based off of their performance in the game which will determine if that player is "good enough" to move up in the global leaderboard or is going to drop a few ranks because they performed not as good as they usually do.

Since Zombie High focusses on the competitive spirit between players and there is no reason for each match to be the same, players can keep on playing this game and always get a new experience. This creates endless replay ability value.

2 Design Document

2.1 Design Version

PX1.1 (Pc Xbox 1.1)

P1.1 (Pc 1.1)

X1.1 (Xbox 1.1)

2.2 Design Guidelines

- The game should always put a RTS player against a FPS player.
- The players should always have some kind of feeling of being able to do something no matter how bad the situation at hand might look for them.
- The FPS players should be able to spend points in meaningful ways like upgrading weapons or unlocking more parts of the level.
- The RTS players should feel empowered by being able to control a zombie army and need to be able to customize the way they play, i.e. being able to customize/upgrade zombies, place new spawn locations and decide which kinds of zombies spawn where.
- The game should be horror themed and the levels should be based off of school related areas.
- The game's art direction should be focused on realism. No cartoony or bright and colorful art unless it has been accepted as an exception and fits in the context without heavily changing the way the game is represented. Examples of approved exceptions: Easter Eggs and alternate Game Modes.
- Leaderboards must be global and internet connection is a must for players to play the game.

2.3 Game Design Definitions

Menu

The menu of the game should be easy to use and navigate through. No menus hidden inside menus, simple and easy to access options. The theme of the menu should follow the theme of the game and should thus give a dark and eerie vibe.

Synopsis

In the game you fight as either the Professor or the Zombie master. The Professor plays in First Person fight off waves and waves of zombies till the sun comes up protecting his beloved school. When this happens and all the Professor is still alive he lives to fight another day and has won the game, the zombies as well as the Zombie master will perish in the sunlight. When the player plays as the Zombie master he/she will play the RTS part of the game. The Zombie master will see the level from a top-down view and is able to upgrade/change his zombies by spending Soul Force which is obtained overtime and from completing several challenges. The Zombie master can create spawn locations for the zombies and decides which zombies spawn where, decides how they move and decides what their behavior is.

Gameplay

The FPS player has the ability to move around the map in 3D. The RTS player is restricted to a top-down view but can zoom in as much as desired up to the point seeing the game through an AI-controlled zombie's eyes. While the FPS player can kill countless zombies the RTS player can spawn them to hunt the player down. The FPS player can upgrade their weapons, create a fort of traps and roadblocks to hold off the zombies as well as spend his points on unlocking more of the map. The RTS player on the other hand can spend his points on altering the zombies and choosing different behavior and spawning locations as well as different zombie types.

Player control

The FPS player moves around using the Xbox controller's sticks/ PC's WASD and can jump with X on the Xbox or Spacebar on the PC. In short, the game's controls for the FPS player will fall in line with what is most used in games nowadays because people are used to having about the same kind of controls.

The RTS player will use his mouse to do most of the things on PC since this is the most efficient way to play the RTS part of the game. On Xbox the player's mouse will be simulated using the left stick, using the bumpers to zoom in or out and the X button to accept whatever is hovered over at the time. Since the RTS side of the game is less action focused on more tactic based there isn't the need for a whole lot of assigned buttons.

All the buttons on both platforms are completely remap-able to give players the most optimal experience and be able to play using the controls they like the most.

Game Over

When the sun comes up this means that the professor is still alive and has won the game, since the Zombie master along with all his zombies will be burned by the power of the sun. However, if the zombie master proves too strong with his army for the professor to handle and the professor gets defeated, this means that the Zombie master has won the game. At the end of the game points will be calculated based on player performance. The players will then either move up or down on the leaderboard based off of their current last previous performances.

3.4 Game Matrix

[See Appendix C]

3.5 Game Flowchart

[See Appendix D]

3.6 Player Elements

FPS player (Professor)

- Weapon_1 (Knife), used to attack the zombies, starter weapon
- Weapon_2 (Silo gun), shoots a spiral wave of compressed air traveling through multiple zombies.
- Weapon_3 (Bombard Knuckles), attack zombies up close with Brass Knuckles that have explosives attached to them, hitting multiple Zombies while dealing some damage to the player.
- Weapon_4 (Strike Sniper), attack zombies from a distance, goes through multiple zombies, dragging them to where the bullet is going till a solid object is hit, causing an explosion evaporating all zombies near the explosion.
- Blockade_1 (Chairs), place a destructible chair that zombies cannot walk over.
- Blockade_2 (Rubble), place destructible rubble that prevents zombies from passing.
- Blockade_3 (Desks), place big destructible desks that zombies cannot pass over.
- Trap_1 (iMine), place a phone mine on the ground that explodes on contact.
- Trap_2 (Death Ball), a ball on a chain flails when placed on a ceiling or wall. Does nothing when placed on the ground.
- Trap_3 (Fling), flings both zombies and players into whatever direction the trap is facing.
- Upgrade_desk (Upgrade Desk), upgrade weapons/blockade/traps using resources.
- Resource (Resources), items found on the map or inside zombies that can improve your equipment.
- Zombie (Zombie), the enemy of the Professor.

RTS player (Zombie master)

- Zombie_1 (Walker), slow movement speed but low cost.
- Zombie_2 (Runner), a bit faster than the normal zombie but also higher cost.
- Zombie_3 (Jumper), a zombie that can jump real high with a medium cost.
- Zombie_4 (Teleporter), teleporter zombie at a high cost.
- Zombie_5 (Genetic Manipulated Mutant), slow but sturdy and packs a punch at a really high cost.
- Zombie_6 (Screamer), can scream to make other zombies stronger and ruin the orientation of the Professor.
- Spawn_points (Spawners), zombies spawn from here.
- Soul_force (Soul Force), upgrade currency to upgrade the zombies.
- Professor (Professor), the enemy of the Zombie master.

Terminology

Soul Force is the force that drives the zombies and gives the Zombie master souls to put inside the undead bodies. Without them there would be no moving zombies. This is the resource that the Zombie master can use to create his zombie army or modify it, trading souls in with some higher evil power to make his army stronger.

The zombies all have different names that are all related to what they do to easier distinct the different kinds of zombies for both players even after they have been heavily modified by the Zombie master.

The Professor uses money to open up new areas of the level or upgrade his weapons/traps/blockades to improve his chances against the Zombie master who will be upgrading his own army. Money is earned by killing zombies, collecting items or doing certain challenges.

3.6.1 Player Definition

FPS player

Actions: At the start of the game the FPS player has not a whole lot to do. The player only has a knife as a weapon but can already start looking for collectibles to upgrade/create new weapons. When the zombies start appearing he can attack them with his weapon to collect some money which can be used later on in the game to open up new places in the map or upgrade weapons. The player can jump and move around as much as is desired but is limited to the area that the player has unlocked at the time.

Information: At the start of the game the only information that is available to the player is his money balance, what weapon he is holding and how much ammo (if applicable) the player has.

Default properties: The player begins the game by selecting a level and choosing if you want to play as either the Professor or the Zombie master. In one of the levels you start in the courtyard of a school and your only weapon is the knife you are holding. Your character can move around and jump all they want but you are only able to explore the school's courtyard.

Winning: The FPS player wins by staying alive long enough till the sun comes up. This usually takes about 20-30 minutes.

Losing: The FPS player loses when he has been overwhelmed by the zombies and he has no Health left.

RTS player

Actions: The RTS player starts with just a few normal slow walking zombies at his disposal. He has to create spawn points which cost very little Soul Force. The player can move over the entire level but everything that his zombies haven't explored yet are

“unmapped” and are covered in Fog of War. The Zombie master has to collect Soul Force by doing challenges and hitting the Professor to upgrade his zombies and create new zombies with new behaviors.

Information: At the start of the game the only information that is available to the player is the amount of Soul Force that he has, that he has one free Spawn Point to place, that he has a normal, slow walking zombie to deploy and that he can only see what is not covered by the darkness of the Fog of War.

Default properties: The Zombie master begins the game with 1 free Spawn Point and 1 normal walking zombie. He also has some Soul Force that he can spend on either upgrading his zombies, getting new behaviors for his zombies, different types of zombies or create more Spawn Points for the zombies to spawn from. The player also has the ability to create a custom pathing for the zombies or let them hold position.

Winning: The RTS player wins by defeating the Professor before he runs out of time and the sun will destroy him.

Losing: The RTS player loses when the sun comes up and the time limit has been reached. This takes about 20-30 minutes.

3.6.2 Player Properties

FPS player

- Health, the player has health that indicates how much damage he can take before being wiped out and losing the game.
- Weapon, a weapon must be used to fight the zombies and damage them. There are numerous unique weapons.
- Jump, the player has the ability to jump in the air.
- Movement speed, the player has the ability to move in a 3D space on a set speed.
- Money, money can be spend on a lot of different things, from traps to upgrades to a new area to explore.

RTS player

- Soul Force, this fuels the players ability to modify his zombies, create new zombies and “build” new zombies. Obtained over time, for hitting the other player or completing challenges.
- Placement, the player has the ability to place new Spawn Points.
- Zombie Creation, the Zombie master can make zombies come out of the Spawn Points.
- Grouping, the ability to combine the selected units into one group to make an easier controllable army.
- Pathing, the ability to tell your zombies how to move from one place to another.

3.6.3 Player Rewards (Power-ups & Pick-ups)

FPS player

- Collectables. These can be used to upgrade your weapon/trap/blockade or be used to create new items. It depends what kind of collectible it is on what kind of item it can be spend. The player can find them all over the map or by killing a zombie and then has to manually click on them to pick them up.
- Health Packs & Ammo Packs. These can be picked up to refresh the players Health or Ammo supply. The player can find them all over the map and then has to manually click on them to pick them up.
- Money. The player can find money on the ground in a small bundle or from zombies when defeated. When the zombie drops gold it is dropped on the ground. In both cases has the player to manually pick them up by pressing the Action button.

RTS player

- Soul Force. When a challenge is completed or the enemy player has been hit the Zombie master will be rewarded with Soul Force. This has to be manually clicked on the be obtained. If it is not clicked on within a set timeframe it will dissappear.

3.6.4 User Interface (UI)

FPS player

When the player is hit by a zombie the screen will get a short red flash on the side he was hit to tell the player that he has been hit by a zombie from that direction. The player will also see a interaction button when there is the ability to interact with a game object.

3.6.5 Heads up Display (HUD)

FPS player

The top right will feature the player portrait and the player's Health displayed in hearts. The top right will show a mini-map to the player indicating where on the map he is. If applicable, the bottom right will show a ammo count of the players weapon. The middle of the screen will also have a crosshair if a gun is equipped. Above the ammo count will be the money the player has. This is only visible if money has recently been acquired, spend or the player has been idle for a short while.

RTS player

At the bottom of the screen will be multiple types of zombies for the player to choose from as well as different buildings (Spawn points, etc.) that can be build. On the right will be a animated portrait of the currently selected zombie/group. Soul Force that has to be collected from challenges or a hit enemy player will appear in the 3D space near where the event occurred and will appear on the player's HUD. A small icon will point the player in the direct at the side of the screen depending where the collectable Soul Force is in the level.

3.6.6 Player View

FPS player

For the FPS player, like the name indicates, the camera will be from the first person perspective.

[See Appendix B]

RTS player

The RTS player will see everything from the top-down birds-eye view like other RTS games. However, if the player chooses to zoom in as far as possible, the player will see the game through the eyes of one of his zombies, turning it into a First-Person perspective.

3.7 Antagonistic Elements

FPS player

The player will be fighting a multitude of different zombies depending on how the other player created them. Their default stats and descriptions can be seen in Appendix C. Their names are based off of their main feature. This way the players know what they are up against and can expect a “Runner” to run and thus move faster than other zombies without having to see what they do first. Players are always quick to create names for characters or enemies themselves based off of their main feature, so doing this already from the start makes it easier for everyone involved.

RTS player

The only enemy in this game for the RTS player is the FPS player playing the professor. He is the enemy that wants to defend his school from the zombie invasion and will try to defeat all your zombies until the sun comes up and he can live to fight another day.

3.7.1 Antagonistic Definitions

FPS player

The FPS player will face hordes of zombies that are invading his school, the school that is so precious to him. The zombies are an exact opposite of the teacher, they want to destroy and eat brains, he wants to improve them by teaching. They want to destroy the school and its people, he wants to protect the building and its people. This, and the default nature that zombies have and the ideas we have about zombies makes them the perfect Antagonists in this game.

RTS player

The only thing that is stopping the RTS player from winning the game are the actions the FPS player takes. The Zombie master rules the zombies and those are the direct enemy of the Professor who will try to destroy whatever you throw at him. He is the opposite of what you are and to win he has to do the exact opposite of what you want

him to do; survive till sunrise. He might be a bit crazy like you, and the love for his school knows no bounds, but he is the perfect antagonist in this game for the Zombie master.

3.7.2 Antagonistic Properties

FPS player

- They are all undead.
- Commanded by the Zombie master.
- Can move around and attack.
- Are defeated once the FPS player has done enough damage to them.
- Are hurt by traps and weapons from the FPS player.

RTS player

- Is a professor.
- Can move around and attack freely.
- Ability to interact with objects
- Ability to deal damage to the zombies.
- Has Health that gets lower when hit by zombies and increases when a health pack is picked up.
- Has quotes.

3.7.3 Antagonistic List

FPS player

[See Appendix C]

RTS player

The other player playing as the professor.

3.7.4 Artificial Intelligence (AI)

FPS player

Zombies:

Normal state: When the zombie hasn't encountered the Professor yet they will keep on walking or hold their position till they have found their target depending on what order the Zombie master has given. They will moan and make zombie like shuffle movements or run real fast depending on what type of zombie they are.

Detection state: all zombies except the Screamer and the Teleporter zombie will behave the same when they have encountered or spotted the Professor. The Screamer will start screaming to confuse and disorientate the Professor and make nearby zombies move

faster. The Teleporter zombie will, if the command is given to move freely, teleport nearby the Professor to attack him when he gets in teleport range.

Reaction state: The zombies will keep attacking the Professor when in range and will follow him unless the Zombie master intervenes and manually controls them. Screamer zombies will keep screaming and try to take cover from the Professor's fire while the Genetic Manipulated Mutants will charge to the frontline and attack in a rage. Teleporters will teleport to a different location once they have hit the Professor or started taking damage.

End state: When the game has ended and the Professor has won the zombies will stand in place till the players have been moved to the leaderboard screen and been put back into matchmaking or are starting a rematch. If a zombie is defeated a animation will be played and they will lose all function. They will soon be dragged back to hell and at this point there is a chance for them to drop a collectable or some money for the Professor.

3.8 Global Game Elements

The game will be filled with objects that follow the theme of horror and the setting of a school or a school related area.

Most boundaries are set by placing trees or walls in the correct places to prevent the players from going out of bounds.

Neutral objects change depending on the levels but some examples are: doors, stairs, vegetation, benches, other misc. Since the core concept of the game is to put a FPS player against an army controlled by a RTS player there is very little use for other objects in the game besides traps. This is why all other objects that exist in the game except traps and player controlled objects / collectables are neutral objects and mainly consist of thematic assets. The camera view as can be seen in **3.6.6** depend on the player and will either follow the player in First-Person mode, follow a zombie in First-Person mode or give the player an Birds-eye view. The background, to fit the setting, has to be apocalyptic to give the feeling of a zombie apocalypse. How this is achieved depends on the setting of each map and its level design.

3.9 The Story

The Professor stayed up all night to work on this new experiment that he wanted to show the kids in his class the following morning. What he did not expect was what would happen next. He heard some rumbling and moans outside and decided to take a look. He ran out of his office forgetting his keycard to access special Staff-Only parts of the school. He realised his mistake but felt like the it wasn't that big of a deal. When he arrived outside he saw a dark blue sky and he had never seen the moon this bright. In the distance he saw some shadowy figures move towards the school's gate. Rightfully afraid of what might be coming his way he grabbed his dissecting knife he still had in his lab coat and prepared for the worst.

Deep inside the mist of the night a dark and ominous creature is hiding. It barely resembles what some might have called a human in the past, but that time is long gone. This creature is something different, something way more powerful. Something that shouldn't belong in this world and doesn't seem to be from it either... This is the Zombie master, an ancient demon that made its way out of the depths of hell, looking to conquer the world that spit him out a lifetime ago. He doesn't remember a lot from this past lifetime, since it was so long ago and he didn't feel like it was worth remembering. Instead he focuses on controlling his army of reanimated corpses to overthrow everything and everyone that stands in his way.

3.9.1 The Story Copy

FPS player

No one ever said his classes were boring, but they weren't the most interesting either. This the school's most dedicated professor decided it would be wise to spend a few nights on a secret project to blow the kids' minds during class. That would sure make him the most popular teacher in school. But what is that? Did he just hear a creepy moan coming from outside or was that just his imagination. Must be from watching too many horror movies. There it is again! This time the professor felt something was off. In a hurry he ran out of his office, forgetting his keycard and ran to the school's courtyard. When he arrived outside he saw a dark blue sky and he had never seen the moon this bright. In the distance he saw some shadowy figures move towards the school's gate. Rightfully afraid of what might be coming his way he grabbed his dissecting knife he still had in his lab coat and prepared for the worst.

RTS player

It seems like centuries had passed, rotting away in the depths of hell.... or so was the plan. Fate had other plans. Crawling from the most grueling corner of Hell I crawled my way towards that tiny ray of light, leaving behind the tortured souls and endless screams of those doomed to spend their time in this place with me. I broke free from my shackles and reached out to the swirling pool of hands above me. It was at the moment that I arrived at this place. I don't know where I am or why I got here. All I know is that this resembles that filthy place I used to call Earth. But that was too long ago and I have no cares left for those memories or what I was back then. All I care about now is power. I will be victorious. I shall spit them out like they did to me, only I'll do it slowly, after I have chewed on their damned souls.

3.10 Level Design

The level design should closely resemble a real life school or school area. It should be influenced by horror as a theme but overall it should stay true to the setting and not overdo it with the horror aspects. In the Courtyard level the player has to start in the courtyard of the school, so this will be a rather open area to give the players an easy time avoiding the zombies and learning their movement and get used to the game by being able to see them coming from a distance. Inside the school it should be a combination of locked hallways that can be opened by the player as well as little clues about the story. Collectables should also be placed all over the level, making sure it isn't too out of place with the area's setting.

[See Appendix C]

3.11 Audio & Sound F/X

The general theme of the game audio should be eerie music. There should be soft music playing on the background to make sure the player is not bored and always has something to listen to even if there is nothing going on in-game.

There shouldn't be a whole lot of music coming from the game. The danger with music is that it takes away the attention from the player and also removes the immersion.

Some really soft slow eerie music should still be played so players will not be bored by the lack of audio they get from the game. For the FPS player the audio should be lower than for the RTS player so the FPS player can focus more on the sounds of his surroundings and be aware of what is happening. For the FPS player character quotes should be on the forefront as well as Action feedback and zombie moans. Character quotes help create a connection between the character and the player, improving the immersion and give some backstory of the game. Zombie sounds are really important for the FPS player to know where the zombies are, while the Action sounds are important to get the feedback that something actually happened while also improving the immersion (Slashing a zombie should make a satisfying sound, just like how pulling a lever should give the player the feedback that he just pulled a heavy lever).

The RTS player has to hear the zombie sounds to feel like he really is in control of a "living" undead army instead of some AI. The background music should be a bit louder for the RTS player than the FPS player since the RTS part of the game is less interactive and action based than the FPS part of the game and the player should still be getting something to enjoy at all times in the game besides just visuals. For the zombie master everything should sound a bit more demonic and eerie since he is controlling zombies and the player is involved with something scary and evil forbidden arts.

3.12 Game Architecture

[See Appendix C]

3.12.1 Game Architecture Overview

[For the Mock-up see Appendix B]

[For the flowchart see Appendix C]

3.12.2 How to play Copy

The game is played by two people online over the internet on either a Xbox or PC. At the start of the game both players choose who they want to play as. Play the RTS side of the game and play as the Zombie master or pick the Professor and play the game as a FPS. You are then put against each other with the Zombie master creating spawn points and controlling the zombie's AI from a birds-eye view like any other RTS game out there. The goal of the Zombie master is to defeat the Professor by making his Health drop to zero. The Professor will play the game as a FPS, hacking 'n slashing and shooting all he wants to kill all the zombies the Zombie master throws at him. If the Professor wants to win all he has to do is stay alive for long enough till the sun comes up. The players can completely remap the buttons to whatever they like, but for the default button layout see Appendix E.

4. Technical Document

4.1 System Requirements

- CPU: Intel Core i5-2500K @ 3.3 GHz or AMD Phenom II x4 940 @ 3.0 GHz or AMD FX-8350 @ 4.0 GHz
- CPU Speed: Info RAM: 6 GB
- OS: Windows 7 SP1, Windows 8/8.1 (64-bit operating system required)
- Video Card: NVIDIA GeForce GTX 680 or AMD Radeon HD 7970 (2 GB VRAM)
- Sound Card: Yes Free Disk Space: 50 GB

4.2 Visual Content

- General
 - 5MB
 - .PNG
 - > 1280x720 px, > 72DPI
 - 16:9
- Player Elements
 - Type of States (Default, Damage, Destroyed, ect.)
 - 24 Frames
- Heads Up Display (HUD)
 - Type Icons
 - States
 - Arial
- Antagonistic Elements
 - Type of States (Default, Damage, Destroyed, ect.)
 - 24 Frames
- Global Elements
 - Background/Texture/Tiles
 - Arial

4.3 Audio Content

- General
 - o 5MB
 - o .mp3
 - o CD quality
- Player Elements
 - o War Sound Effects
 - o Device Vibration yes
- Antagonistic Elements
 - o Scary Sound Effects
 - o Device Vibration
- Global Elements
 - o Ambient Music = Horror
- Splash Screens
 - o Ambient Music = Horror
- Menus
 - o Scary Sound Effects

4.4 Programming content

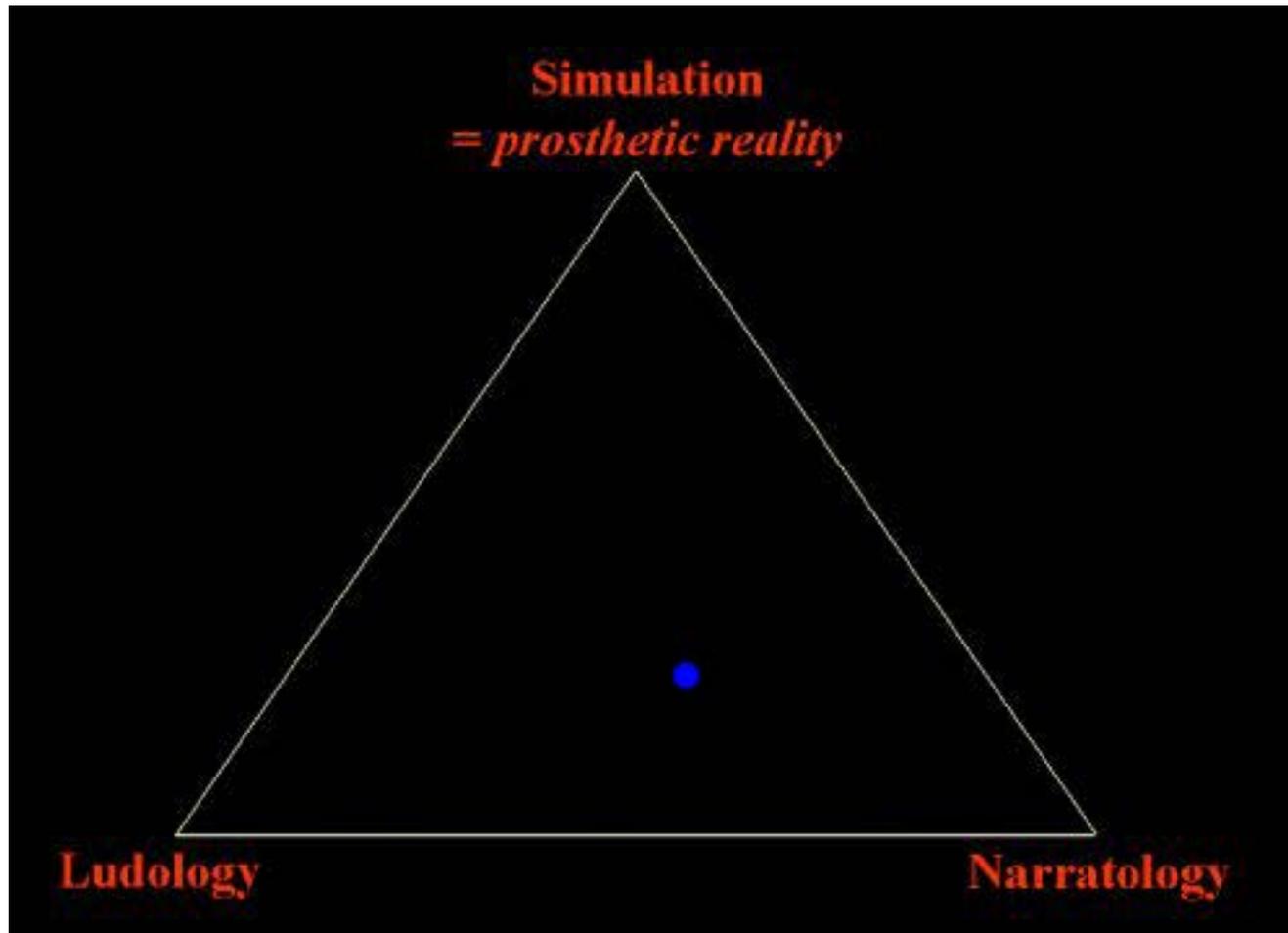
- General
 - o .cs
 - o Screen Type = Large

4.4 Resources

Following is a list of programs that are allowed to be used for the development of project Zombie High. This list, like anything else in this document is tentative to change and will be updated frequently. Any suggestions for future additions to this list can be submitted and will be reviewed.

- Unity 3D
- Photoshop
- MS Paint
- C#

Appendix A



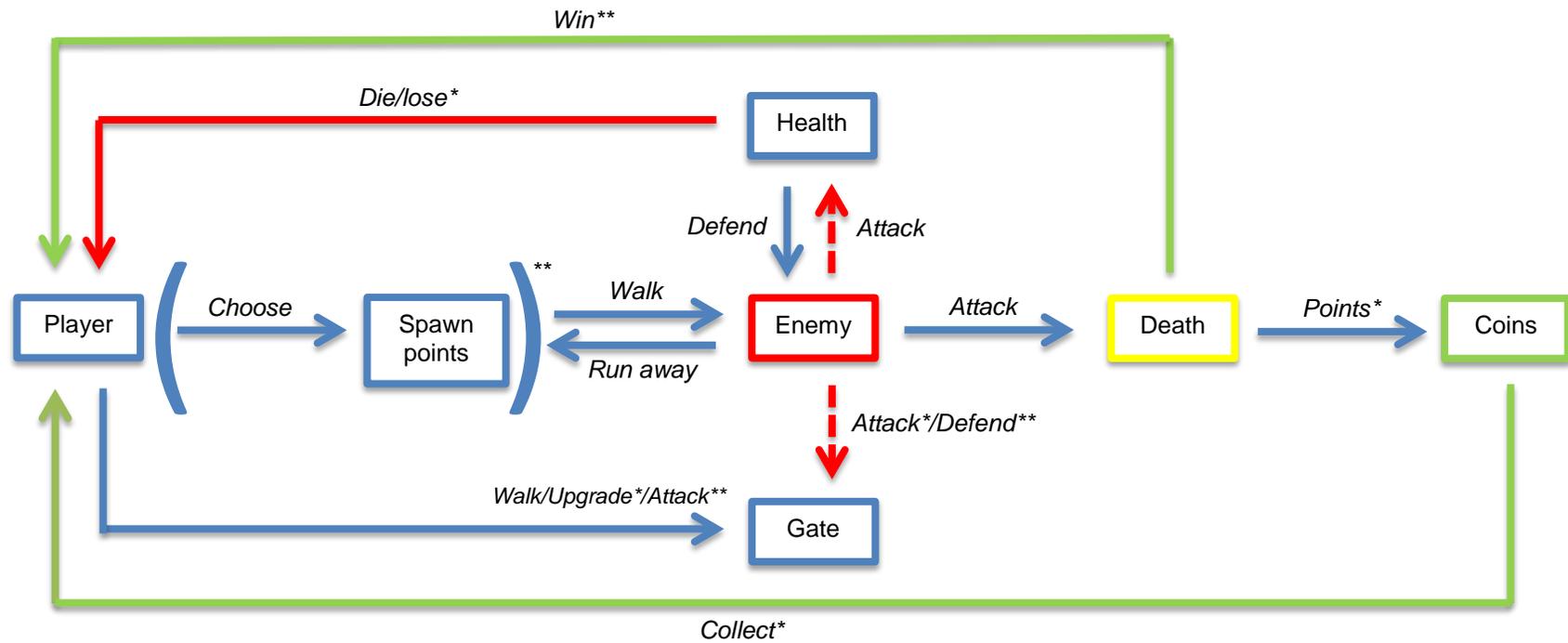
Appendix B



Appendix C

Zombie type	HP	Speed	Soul Force	Special Notes
Walker	Low HP	Slow	Low cost	-
Runner	Low HP	Fast	Medium cost	Can run
Jumper	Low HP	Medium speed	Medium cost	Can jump high
Teleporter	Medium HP	Slow	High cost	Can teleport
Genetic Manipulated Mutant	Medium HP	Medium speed	High cost	Big, can destroy obstacles faster
Screamer	Medium HP	Medium speed	High cost	Can scream, distorting the professors HUD & inspiring nearby zombies

Appendix D



* = if player is Professor

** = if player is Zombie

Appendix E

