

Combined Development Blog for Units 5 – Working to a brief, 73 – Sound for Computer Games, 74 – Computer Games Story Development

This blog will be comprised of the task completion and independent research and development of multiple units. The units that will be displayed inside of this blog will be as follows:

Unit 5 – Working to a brief –Damien Coulson

Unit 73 – Sound for computer games – Chris Butler

Unit 74 – Computer games story development – Pete Gibson-Black

Within this blog I will clearly title and separate the different areas dedicated to each individual blog and each task within the units shown. I will also clearly label which areas are speculation or opinion based and label which areas are focused around research and idea generation.

This Development blog will include idea developments between all three units and will intertwine to create one singular completed project. Any Pre-Production and idea generation throughout these tasks and units may be referenced to and used in other units.

Unit 5 – Working to a Brief

This development blog will include the overall progression of my personal projects and tasks provided by the assignment brief. This blog will include insight into my thought process and concepts throughout this unit and will include critical evaluations of my ideas and my research during and at the end of this unit.

By the end of this unit, I would like to achieve professional standards to working to a brief or project to create my own fully functional and working game. Whether this game complete to the standards or expectations matters less than having a fully intractable and functional game that is ready for market use.

Within this unit my hope is to have the confidence to fully complete a project and know how to make a fully functioning game from story to sounds and through mechanics to completion and be able to have a finalized and readymade project that I can show I have completed.

Task 1 – Working to a Brief Explanation and Report

In this task, I will be focusing on the legal requirements and in depth analysis of briefs that are commonly used within the games. This will include many different forms of briefs and work requirements following industry standards and using real life implications of consequences.

This research will be focused around the following briefs and obligations:

- Contractual
- Negotiated
- Formal
- Informal
- Commission
- Tender
- Cooperative
- Competition

Contractual

First off is contractual briefs which is a form of brief that is heavily controlling to the contractor, the contractor being the person or group that accepted and signed the contract, and gives near full control towards the client, the client being the person or company that provided the contract and its guidelines, over how the game is produced or the workflow and ideas that are used throughout production.

Contractual briefs are a form of brief that is used to produce a product that is going to be created exactly as planned and stated within the brief. It is used commonly for a large company or higher position executives to have a larger amount of control over the contractor they have employed.

A contractual brief is designed to have all aspects of the: workflow, objectives, concept, ideas, improvements and any decisions made about the product/game controlled fully by what is stated on the brief. This is commonly used by producers and investors as any company/group/person under these contractual obligations cannot make alterations or decisions based on the product no matter their view or any issues they may see or come across, they are to follow the contractual brief as a strict set of guidelines that are to be followed completely to avoid a breach in contract which has many legal implications that could lead to lawsuits and the loss of reputation for the contractor.

These situations are highly controlled and it is likely that any work done within the contract will be insured and have a strict budget with a set salary or payment for completion. This will also involve no negotiations or changes as the brief would likely provide clarity of exactly what is expected of the contractor throughout the project's completion.

Negotiated

Negotiated briefs are a simple variation of briefs that is a contractual brief with set guidelines (More detail stated above) and a set workflow and concept in mind except with the variation that these guidelines and variables are negotiable.

This means that different variables that are stated within a common contractual brief are negotiable throughout production such as: pay, client involvement, idea generation, budget, product appearance/content etc. which has pros and cons to its use rather than a contractual agreement.

With this form of brief, the project becomes significantly more malleable in that the product is subject to criticism and new ideas or concepts can be suggested, considered and modified to fit the project allowing for variation and growth with the community and the success of the product. This allows for a large amount of leniency and is likely lead to a more successful product if ideas are considered and changes are made at a manageable rate.

The issues with this involve situations where clients are unhappy with any changes and are set into a specific idea. This is an issue since any changes that are made will still go through the necessary hierarchy of control before they can be allowed to take effect but the client will commonly have the final say on decisions made within the companies or developers involved.

Formal

A formal brief is a variation of a contractual agreement (Stated above) that is negotiable but not to the degree of a negotiated agreement. Within this agreement, the producer and the client are still required to agree on decisions before they can be implemented and before changes can be made. This is similar to a contractual agreement except during the idea generation and pre-production phase, the production company and employees involved can still suggest changes and provide criticism and feedback that is necessary to the improvement of a product. In this agreement however, once the agreement is complete it cannot be changed/added to/altered in any way. This meaning that after both the client and production company agree on a set of guidelines, these cannot be changed after. This agreement is also not required to be a contract.

Advantages of this agreement are that some of the ideas and concepts during production can be edited in minor ways and changes can be made so long as they don't directly contradict the initial agreement and it is an efficient way to work as the formal brief provides straightforward directions and objectives for exactly what needs to be done throughout the project and regular meetings are held throughout production where the employees/contractors can make suggestions and this can lead to changes to fit these needs and resolve issues.

Issues with this agreement follow the fact that this agreement is sealed after the client and producer have agreed on the set guidelines, if the client decided to add more resources or funding and change the initial agreement in any way then formally they wouldn't be able to do so. This is constricting to both the client and production companies in many ways. Another issue is that formal agreements very rarely cover legal issues such as insurance or other covers that could lead to risks through production.

Informal

Informal briefs are agreements that are more casual and highly malleable throughout production in the case that there is no: documentation, contracts or obvious information that states the jobs and objectives of the project. In this case, the producer and client would work very closely with each other and would have to fully agree on all ideas, this is also done in a verbal manner meaning the client and producer would be constantly together discussing and changing throughout the project to complete the product.

Advantages of this are based around the project having no legal or contractual restrictions without a timeline or stated deadline for completion. This gives employees and contractors a high degree of flexibility and leniency through the creation of the product and allows for free time, improvements and changes during the development with little to no restrictions other than the client and the producers agreements and choices.

Issues with this come from the lack of documentation and requirements/incentive to complete the project. This meaning that there are very few reasons and incentives for an employee to complete their task other than their own commitment. There is also no legal proof or identification that states any work actually being completed, this kind of brief is commonly used in passion projects and products made for family/friends. These issues lead to a high risk of failure as for the lack of formality and restrictions.

Commission

A commission brief/agreement is focused around larger companies that are already in place with a good reputation for production and management. In this brief a commissioner (this being a company that is already set up) would provide a set pay and support from their company to create a product based on an idea or concept that they have at the time. This means that the commissioner would pay a company to use and interpret the provided idea and use this to produce the product they believe the commissioner are expecting.

This is effective and efficient for both sides of the agreement as the commissioner would likely have little to no input into the project at all other than the funding provided initially and the initial concept and idea pre-production. After this, the independent company has full control of the project and have the authority to change and modify the product in any way to ensure success. It is good for the independent company because of this massive amount of leniency and the fact that the company is getting paid immediately to create the product while building up a reputation for themselves and with the commissioner to create a future connection between the companies. This is also effective because the producer gets an immediate idea of what the commissioner wants and what they have in mind for a final product.

Issues with this brief include the possibility of the independent company creating an end product that is not to the satisfaction of the commissioner and can lead to discontent between the companies, even though this has no major legal implications, it can lead to issues with the reputation between the two companies and the initial release of the product.

Tender

This form of brief is a high risk high reward agreement that is rarely made because of the risk of the client not receiving any producers. A Tender brief involves a client that is interested in creating a specific product/idea and they advertise this idea to the public. This is done in the hopes that different production companies that are looking for projects will find this idea and capitalise on the opportunity to pitch a presentation of the client's product to the client.

This is a great way for a client to get their product produced, so long as they get enough production companies that are interested in creating this product, as they are able to look over many different production companies and pitches provided by many different contractors and are able to choose the best option for their product with a variety of options.

The main issues following this brief is that it is entirely reliant on production companies finding this advertisement and choosing to pitch an opportunity to the client. This means that there is a significant risk of this product being turned down because of lack of producers or a client that is un-decided on their end goal.

Co-operative

A cooperative brief is a form of brief that is more effective in certain situations more than others. This brief is used commonly when two or more production companies/contractors are hired to complete one project. This brief is designed so that this group companies can efficiently and effectively work together to create one project.

This project is commonly incredibly efficient and projects are likely to be completed significantly faster than most other projects so long as the group of companies are able to negotiate and cooperate effectively without long-lasting disagreements. Issues following this brief are based entirely on the different company's ability to cooperate and negotiate fairly and to agree on different aspects of the project. This means that any major disagreements would significantly increase the required time necessary to complete the project. Also any income or payments generated from the project will have to be fairly split between all companies involved.

Competition

Competition or competitive briefs are a form of brief that is used commonly with larger companies or groups as a form of growing popularity and improving relations with the gaming community for a large fairing company. Within this brief, there would likely be a number of restraints for anyone competing within the competition and following the brief. This brief would likely include the following: rules/guidelines, budget, format/style and length or group size. These would be guidelines that would be required to be followed by all contestants participating within the competition.

In this competition, a single objective or idea is posted by the holders of the competition and giving an objective to all participants. Participants are likely to be anyone who follows the guidelines of the competition and is able to submit a piece of media following the objective provided. Once completed, a competitor will submit their piece to the competition holders and it will be judged and assessed following the objective and guidelines and given a place of completion i.e. 1st, 2nd, 3rd, etc.

Advantages of this are shared between the holders of the competition and the competitors that choose to take part. These competitions are likely to have cash or material prizes for the best rated pieces of media and, depending on the company or location that the competition is held, likely to provide competitors with exposure to media outlets and gaming communities worldwide. These kinds of briefs are commonly used to gain large portions of feedback or testing gameplay or used to give a small company or production a place where they would normally be unable to afford the necessary advertisement.

Disadvantages of this are shared between the competition holders and the competitors. This is less so a disadvantage for the competitor and more for the holder but there is no guarantee that the competition will be successful or useful in any way. Competitions may be held and have issues leading to cancelations or profit losses or simply the competition may not lead to any valuable to useful results within the current situation of the project. For the competitors, the main risk is no guarantee that they will be rewarded for their time. These kinds of competitions require some kind of incentive for players to participate reliably but these kinds of rewards will only be available to the top 3 of 5 competitors within the competition. These competitions allow for mostly anyone to take part so there is no guarantee that someone of an incredible skill level won't join in and take the top location pushing a competitor away from the reward and leading them to have wasted their time.

Task 2 – Creating my Game – Initial Ideas and Pre-Production

Within this section, I will be focused around the planned production of my game idea. This will include my environmental, story-based and sound within my game. This will focus on the general environment and mechanics part of my project and will state clearly how the gameplay aspects and environment will directly affect the player and will display the construction process of my project as a whole.

Initially, I had the idea to create a small game which focused around simple and straightforward objectives and a clear path to reach and complete these objectives. I had a simple story and idea for the way this would pan out but it was mostly a filler project until I came up with an idea that I could integrate into a larger project including more than just this simple aspect.

Recently I came up with a more complex idea that could involve: story aspects, environmental effects and combat etc mechanics, sounds and effects that would shape the atmosphere and genre of the game and a clear plan in my mind for a full project that I can hopefully create.

During this phase of the prototype, I will create the basic environment and atmospheric effects that will be present throughout my game and linking my menu system to this environment. This will act as an initial development section starting with my menu system and my plans for an opening scene or location within my game which the player would begin from.

Below is a summary of my current idea that I created during my Unit 73 sound and design task but was mostly referencing exactly how my sounds would relate to the story within the game. The section below has minimal references to sounds but talks closely about the story and the general idea.

Initial idea and Concept – Emotional and Anxiety Inducing Slow Rising Fear

One idea I am considering is a short sight based horror game that pulls away from the jump scares and sudden rushes of adrenaline that players experience within these games. I would like to create a horror game that follows an old concept used by the older games such as silent hill and the old slender games. These games in my eyes control the player's emotional state of mind and the idea of fear through slow implementation of fear and the idea of a silent eerie quiet that instils a low level and slowly rising fear rather than something that immediately shows a player that they are supposed to be scared.

These games I previously mentioned had distorted and long-distance figures within the fog or within dark environments that were designed to add a feeling of something being wrong or 'not right' that creates an anxiety effect within the player. This is the form of pace I would like to set within this game. This is to greatly scare the player and deeply without them actively realising they are scared, as I said to instil an emotional state of anxiety leading to a much more intense form of fear as the figures in the darkness get closer and more real without them directly confronting the player.

This game would rely entirely on its environmental effects and audio effects with ambient sounds to entirely set the pace and emotional state that the player would be throughout the game. This would be indirectly changing the way the player thinks and enacting a deep sense of fear indirectly with small almost unperceivable objects and invoking a sort of sixth sense within the player that people only seem to use when something doesn't seem quite right. The kind of psychological fear-based game that truly scares a player and gives them a true adrenaline rush that gives the player an almost impossible to reach sense of reprieve and safety when the player reaches a 'safe' location.

This game is a new concept for me and would push my level of environment design to a level that I believe I don't currently have the skills to create but would be an amazing passion project that I would truly love to create and experiment with. This would also require a complete recreation of a new environment and set of assets and objects that I would have to create from scratch which I fear would take up too much time from the experience of learning the sound creation but would be something I would love to work towards as these kinds of games just don't seem to be around anymore as players find easier ways to make jump scares and fast paced horror games that give the player an adrenaline rush simulating fear but this then dies down after the scene and the player may feel like this rush won't be present further in the game.

In my mind, the key to creating a truly immersive, fear and anxiety to find a 'true' horror game relies entirely on the long and heavily drawn out growth of fear within the player that scales with a slow growth of increasing risk the player's character that leads to the whole experience being a fearful and a slow going game that crushes the player under the weight of their emotions slowly leading up to a dramatic but eerie story based ending that gives the players a sense of confusion just enough to make them want to know more but giving them enough information to feel a sense of unimaginable relief and accomplishment for getting through to the end of the game rather than an sense of completing a goal.

Currently I have been throwing ideas around based around the horror game I came up with previously in this blog (Emotional and Anxiety Inducing Slow Rising Fear can be found above). I have expanded on this idea further in my head including a small amount of story and dialogue while focusing on the environmental factors and how the game is going to play out for the player. Again this is an experimental idea and may take some time to create and may fail or be incomplete for this unit but I am willing to attempt this for both unit 73 here for sound effects and possibly to tie this into my Unit 74 for story and dialogue development.

My idea currently revolves around a person who was involved in a traumatic car crash where his wife and daughter were killed and he was the sole survivor. The game focuses around this man being inside of a hospital like building being interviewed in a therapy like environment. This man will act as the main character within this game and the game is designed to be an experience or exploratory/walk through story type of game. This game will be focused around the main character and how he is dealing with his situation, the most important part is how he remembers his experience which is the whole world that my game will be placed inside.

Within this game, the player is going to be led through an almost straight path with the ability to explore but there will be very few things to find while exploring as it's a story based experience. While following this path, the player will be led through the same area multiple times or areas that seem similar but will have considerable changes based on the 'narrator' of the story which would be the therapist/doctor that is speaking with the character. Each time the fully goes through an area, the next time they go through they will be able to get a small bit further leading to the eventual end of the game.

While the player goes through the various levels within the game, they will be asked questions by the 'narrator' and the character will respond with a set dialogue, during their conversation, the 'narrator' will contradict the character in many ways and attempt to change the way the character is thinking. This is vital to the direction the game travels through as the game is based within the mind of this character. The player will likely never see the room or the therapist in any way and will be within cutscenes or dialogue that is playing during gameplay depending on my ability to create a proper cutscene if I am able.

As the character is contradicted, the world that the player is in will become more unstable and will change based on the current emotional state of the character and these contradictions will directly and physically change the world that the player is moving throughout. As an example, the character believes he was a passenger within the car during the crash, the car that the player sees will have the body of the wife in the driver's seat but when the 'narrator' explains that he was actually the driver the world may appear to be in a static or distorted state and when the player moves closer to the car, the wife is in the passenger seat and the player enters the level by leaving through the driver's seat rather than the passenger's.

The environment that the game will be set within will change in minor ways but the main idea is to be within a forest like environment with a dark background that will either be a form of night time skybox or possibly a pitch black background that covers the entire map making it impossible to see anything that is not within a light source, these being in only the most vital of places such as around the player and possibly the car lights as the car is an important story point within the game.

This environment will be covered in leaves, trees, bushes, twigs but will be devoid of all animals or sounds until these are mentioned by the 'narrator' and will then become audible/visible within the level. The environment will slowly fill out and become more realistic as the player progresses and the character remembers. The character will start the game next to their crashed car coming out of the passenger's seat and will start to walk out into a 'safe' place within their mind and until specific parts of the game, the player will be unable to reach this location on their own. This will be the player's main reference to noticing that the world is changing as they traverse the environment and learn more about the story.

As an attempt to make this game more replay-able, I would like to add a section or if possible multiple sections of this game where the player is forced into an open world survival like mini-game where the player is chased by the 'remnants' of this memory as they return. These situations will only arrive when the character's emotional state reaches a breaking point where the 'narrator' will mention that they will continue later and speak to an unknown individual to 'sedate' the character. During these times his memories that are rapidly returning will haunt him as he starts to understand the reality of his situation. During this time, the memories that are haunting the character will actively seek out the player until the sedation wears off or the character falls asleep.

These will be combat situations where the player has no way of defeating or escaping the 'enemies' around them and the goal is to last long enough although there will be no timer and during this game there will 'technically' be no way to die as there is no losing in this part. This is because I would like the player to not get stuck on this area if they cannot survive and allow the players to continue but I would like to create a separate level specifically including this game with a small amount of story but focused on the survival situation allowing the player to go directly to this part of the game without a full replay. This option may be unlocked after the game's completion or I may add a recommendation to complete the main story first before starting this mode but allowing them to use this feature if this is what they want.

These two versions will be different in minor ways as in the story the game will continue even if the player dies within the level. This will be different because in the alternate mode that is not story based, the player can die and they will be ejected back into the initial menu which I plan to have some kind of animation that starts from the menu directly into the game. This may involve a scene where the menu is inside of the car on a digital screen and when the player selects the mode they would like to play, the character will leave the car and the options chosen by the player would then take effect.

Within the story based survival location. The player will be haunted and chased by the different memories that have surfaced over their time playing and as I plan on having two or even three of these survival scenes within the whole of the game, these will be progressively harder as the character becomes more unstable and remembers more and more about the tragedy he was involved in.

Within the optional survival that is designed for the player to go through as many times as they want repetitively, the amount of enemies or different situations that the player has to avoid may be selected by difficulty or it may be a harder and more complex copy of the third and final survival situation from the story. This will have all of the story elements from the initial story revealed already so may contain spoilers for the story if played before.

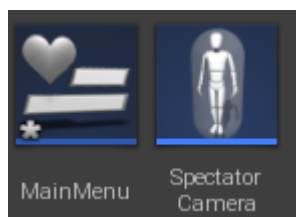
Throughout the story element of the game, things will be changing and the main constant that is increasing and decreasing throughout the game would be the heart rate of the player, I would like to add an increase in breathing rate as well if I have the ability to do this effectively, which will be adversely effected by the events that are 'changing' or being remembered in different ways throughout the game. This will increase as the character and the player both learn more about the story and the world around them starts to fall apart.

All of these ideas are important for my sound design unit being Unit 73 as I would like to make sounds that relate to the world around the player rather than the basic sound creation requirement for the completion of the unit. Now that I have a stable and well thought out (to my knowledge) game idea, I can start to put a deeper focus into the sounds that I would require for these specific aspects and create a fully ready project complete with sounds, story and mechanics.

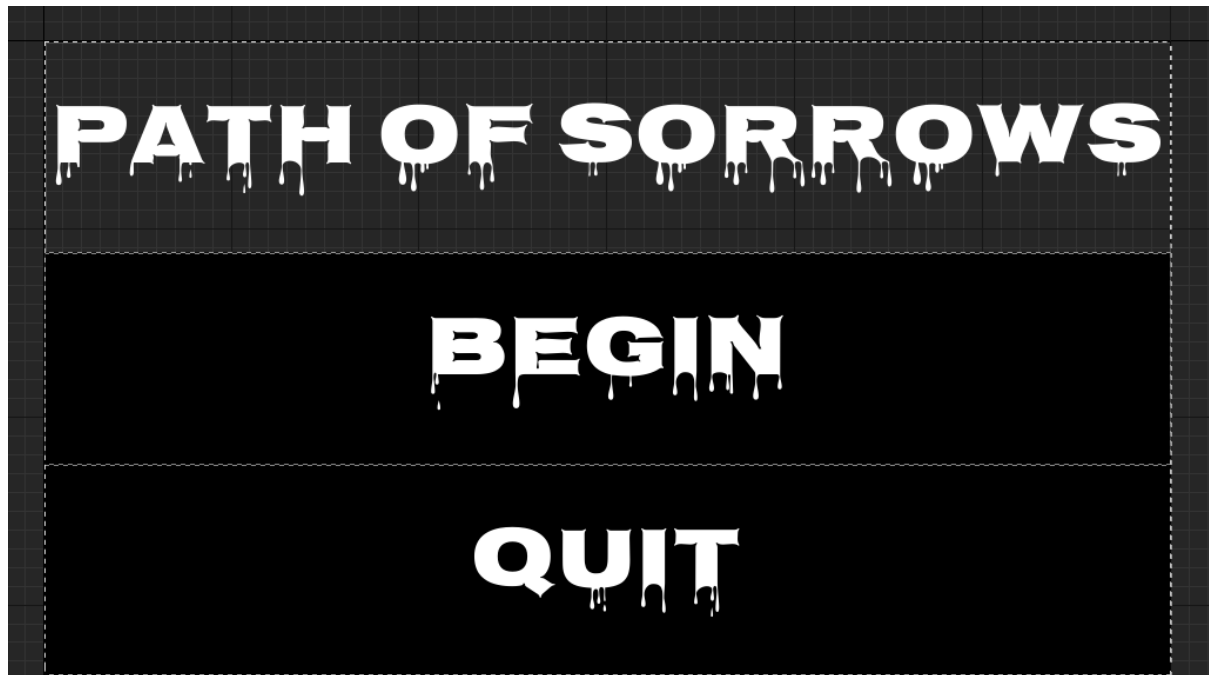
Task 2 – Creating my Game – Menu System

In this section, I will be focusing on the basics towards the start of my game idea. In this section, I will be focusing mostly on the menu systems and UI systems within my game. I will be creating a plan for my idea and developing my environment further if I have time so that it is fully ready for creation and development within task 3.

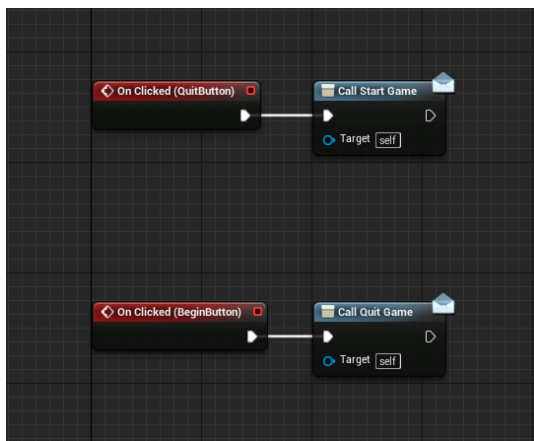
First I created the basic menu system and a spectator camera to have a specific location for the menu to be placed separate from the main character spawn location.



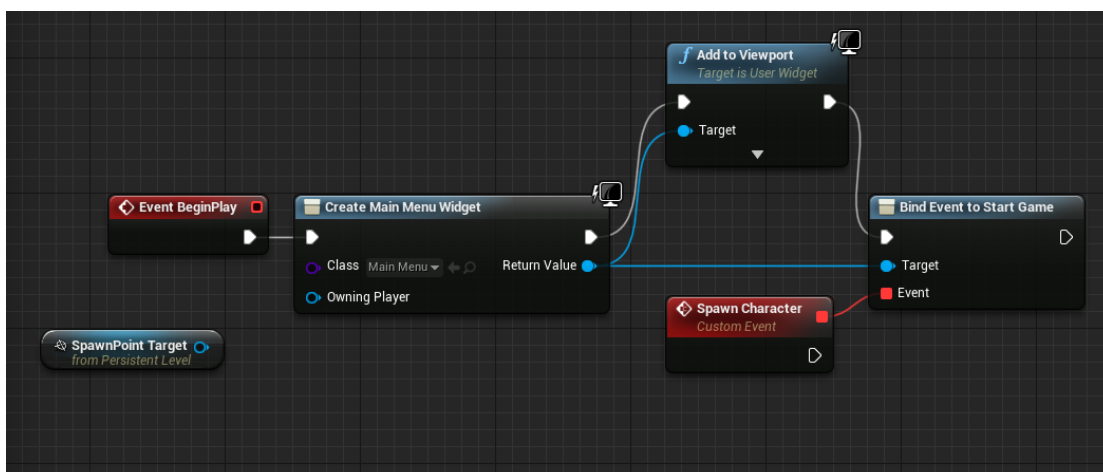
I then created a basic placeholder menu system following the title I created for my game. I found a simple font online that seems to fit my game idea well and applied it to the menu system.



For the sake of simplification and placing everything in one place I created event dispatchers to link my menu to the level blueprint.

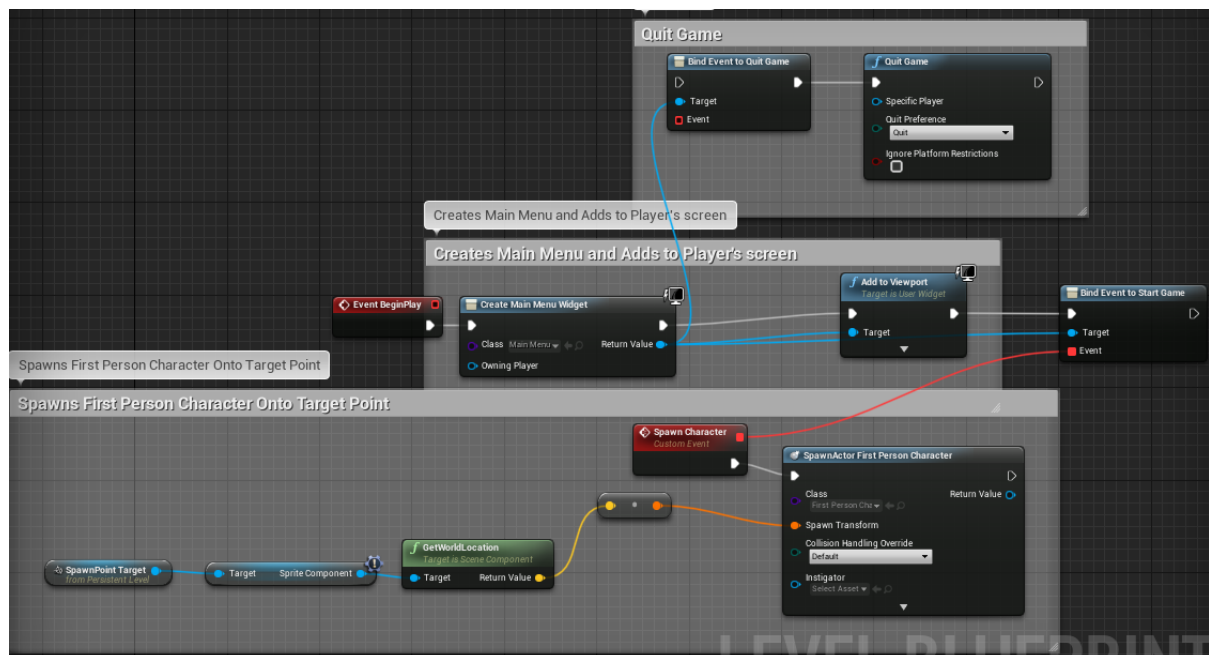


I then created the event that would create my menu at the start of the game and allow me to create a start game button to spawn the character into the game.



Connor Hatton-Holt

Once complete, I created a simple system that found the location of a target point I placed within my project and used this as a world location to spawn my character into the game. As a side note, I also created a quit game button to allow the function of an exit game button.

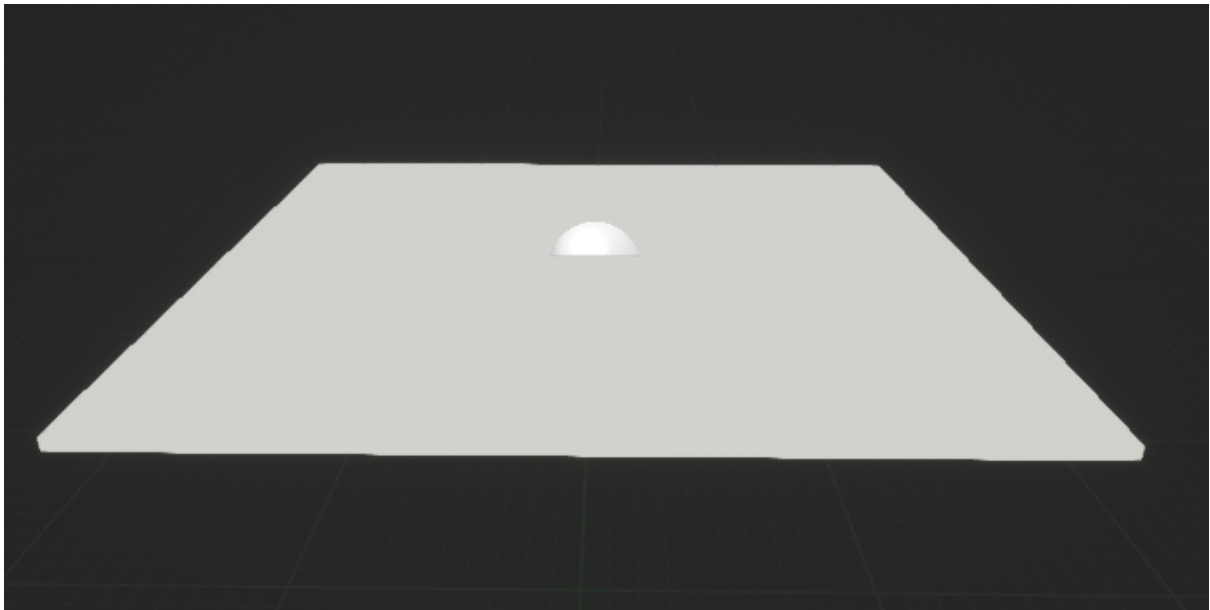


This is my current progress on my placeholder menu system to start my game.

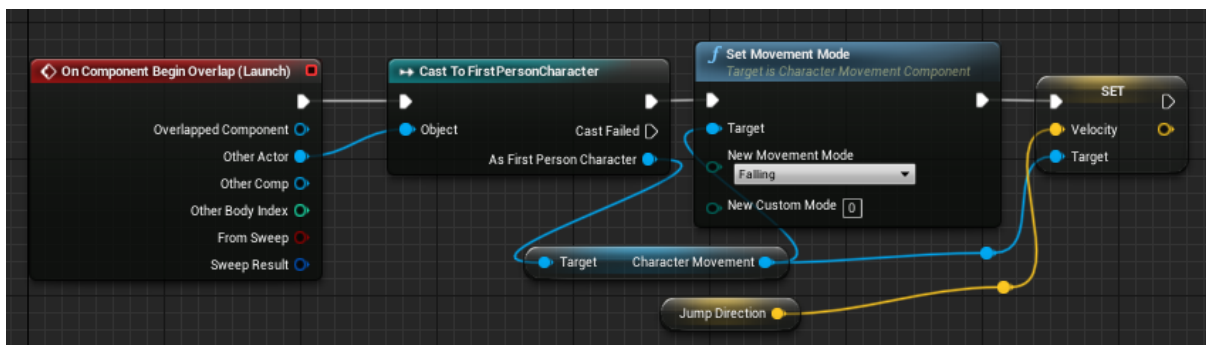


I then started work on a jump pad system. This was not relevant to my game idea on its own but I thought I could use this as mechanics based experience to gain knowledge on how to correctly manipulate player movement using directional velocity.

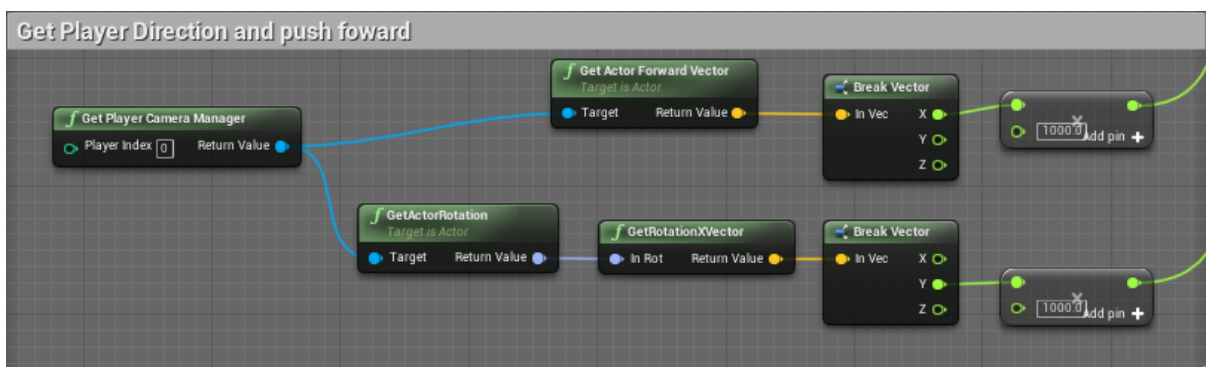
First I created a simple static mesh for a cube and changed its collision presets to overlap all so that it could be used as a makeshift collision box for simplicity.



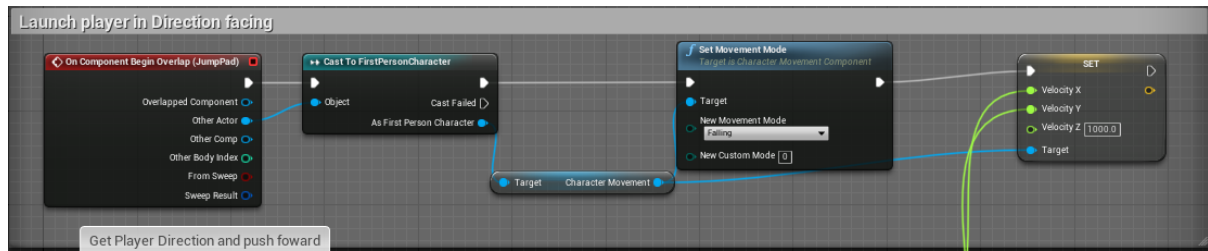
I then setup an overlap event that is triggered when the player walks into the pad that collects the character movement built into the first person character and changes its velocity to values I can manually change to follow different axis. This is mostly designed for jump pads that are to launch a player into a specific place giving them minimal control and always launching them into the same specific location or direction.



I then created a variation of this jump pad that had the same functions except it collected the direction that the player was facing and set this as the forward vector so that the player would be launched in the direction that they were facing.



Once this was complete I then recreated the overlap event from earlier with this new velocity as the set velocity rather than a manually imputed value.



Once complete I started to work on my project itself and creating an environment that fit the story aspects that I created earlier.

Task 2 – Creating my Game – Environment Creation – Lighting and Environmental Objects

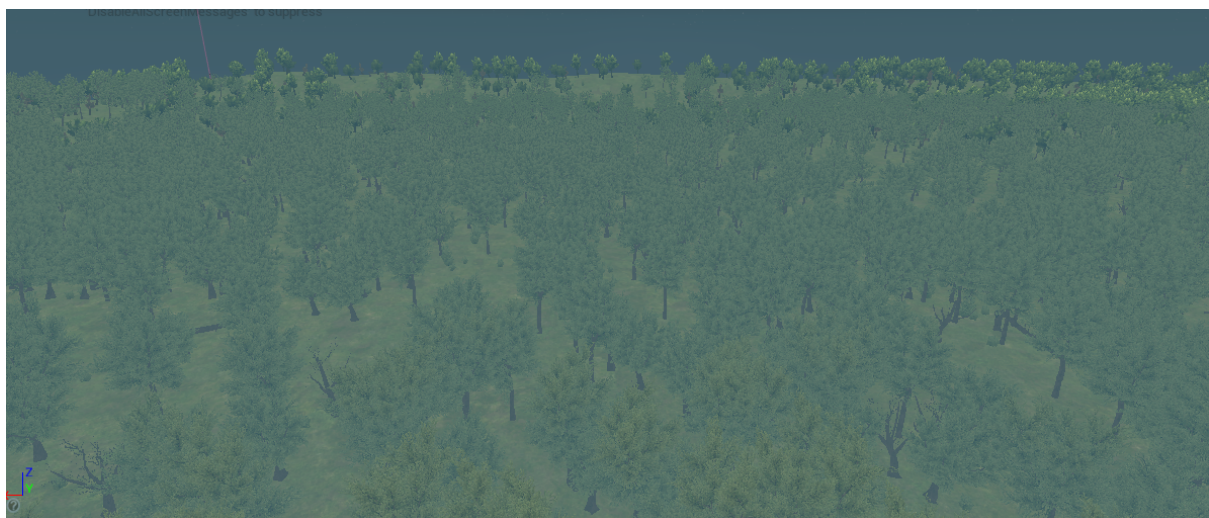
In this section I will focus on the production of an environment that will fit the story elements I created and allow me to develop the necessary mechanics for my game idea. This will be the beginning of my level and allow me to properly start experimenting within the game engine.

For the moment, I have downloaded a low poly nature pack from the unreal engine marketplace so that I can create a large environment to fit my level within. I opted for this as I would like to focus entirely on the mechanics and atmosphere of the environment rather than the individual models and parts of the game. This is based entirely on functionality for the completion of this unit.



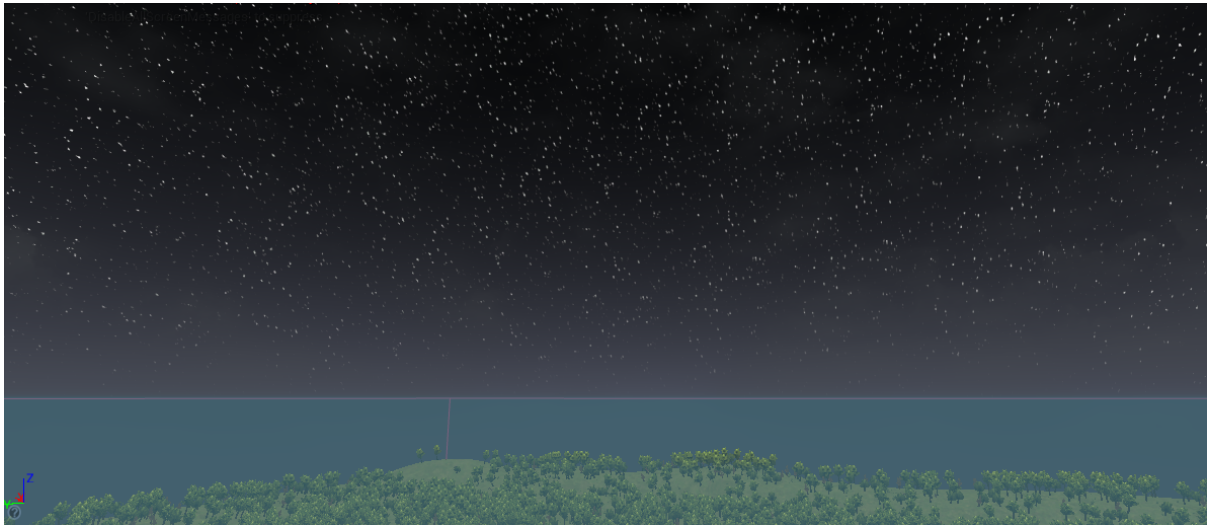
This allowed me to start work immediately on how my environment would look overall on a large scale rather than having to create 20 or so models for one small section of my level. Of course I am creating dedicated models such as a car for the initial cutscene within the start of the game but for now I would just like to create the overall feel and environmental look to the game.

I created the environment below using the asset pack above with a foliage tool and some variations to the spawn rate of different objects such as: trees, bushes, branches and tree trunks to create a more random and realistic look to the environment.



I then worked on the nighttime skybox that was a simple set of changes I made to the existing skybox. This involved changing the light intensity of the skybox and completely removing the sun

from the skybox so that there was no light source within my game whatsoever that could affect the entire environment. This also involved changing the overall colour and star brightness because I wanted a near pitch black environment and only having a limited number of light sources such as the flashlight held by the character.



Once I had done this, I was then ready to build the lighting and test the lighting while creating and modifying a light sources for the player to hold.



Once this was complete I began work on a varied intensity light that the player could hold. This took a lot of time and editing because I wanted a source of light that could actively allow the player to see the area around them but could only see objects clearly through the focused location being the center of their light source. This allowing the player to still see the background faintly so they can see the large span of the level but not clearly enough to avoid the requirement to move towards the objects. This showing the player a lot of faint silhouettes of the background without providing them any specific details.



Task 2 – Creating my Game – Environment Creation – Environmental Effects and Atmospheric Modifiers

In this section, I will focus on the general environmental factors that would affect the entire level as a whole. This includes: fog, rain (if I choose to do this), limited sight range or visibility and the beginnings of adding a new pack of more horror like tree variants.

Here I have now used the built in atmospheric fog modifying and added an exponential height fog modifier so that I can magnify the level of fog within my level. I changed the colour of the fog to be a dark blue like colour because having no light sources within my level made the fog apply any colour it had been set to towards any object within my level. This meaning having any sort of lighter colour for the fog like a light blue or white would then light up the environment and apply this bright colour to the terrain therefore removing the horror like aspect.

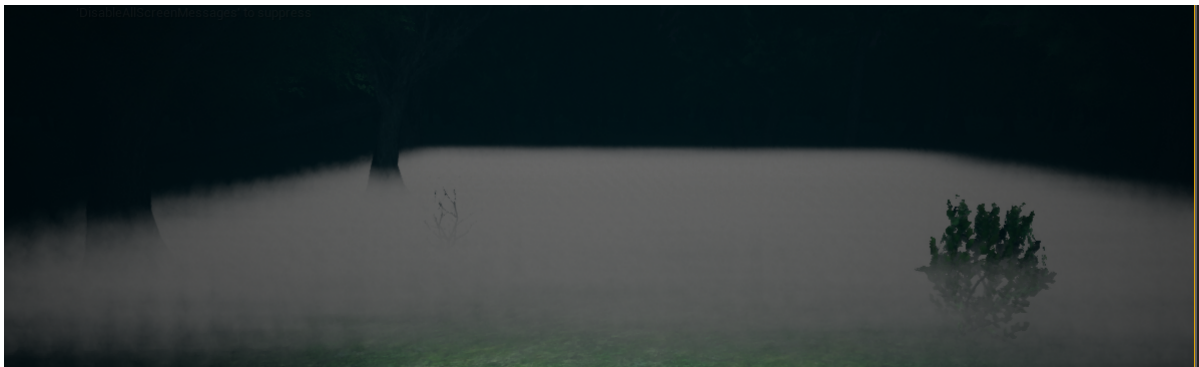
I spent a large amount of time changing the density and falloff ranges for the fog while changing the opacity of the fog and interchanging the way light flows through the fog to allow for a realistic fog that didn't move.



My first idea was to modify an effect I created that linked a fog effect emitter to the character to minimise usage so that only the immediate area around the player was changed.



I would have preferred to make this fog effect fit rather than using exponential height and atmospheric fog because I could allow the fog to travel around the map rather than being a solid effect. Unfortunately the only way to make the fog thick enough to be realistic and not be obvious spheres was to change this into a GPU particle effect. This was unable to work as I used 12 different images to create the varied fog shown above and blended them together into one single fog portion that could be used. Once I changed this into a GPU effect, it started to show all 12 images inside of a grid and looked highly unrealistic.



As for this issue, I couldn't find a proper work around for this and decided to use the exponential fog instead as I am focusing on the mechanics more so than the looks of the level to save time.



Task 2 – Creating my Game – Project Creation – Menu System Continuation

In this section, I will be focusing on the finer aspects of my menu system including: animations, pause menus, pause game implementation and varied menu system screens. Here I will be filling in the blanks between my menus so that I can have an options screen, a help screen and the ability for the player to quit mid game. My main focus of this section is to fully create and implement the immersive menu system idea I created and mentioned earlier to make the menu fit into the game.

To briefly explain this concept, I will be creating a menu that fits into the mind of the character so that the menu is acting like it's something that the character sees in their own mind within the game. This is as opposed to having a menu that simply is placed onto the players screen.

First, I would like to work on the transition between gameplay and pause menu. This has to be realistic in some way to contribute to the immersive atmosphere I would like to create. The idea I would like to use is based around my game idea itself. The idea of the game being the entire environment and gameplay area are all placed within the characters mind and are altered as so. This would mean that a separate screen or location such as the pause screen would be distinctly separate from the reality within the characters mind.

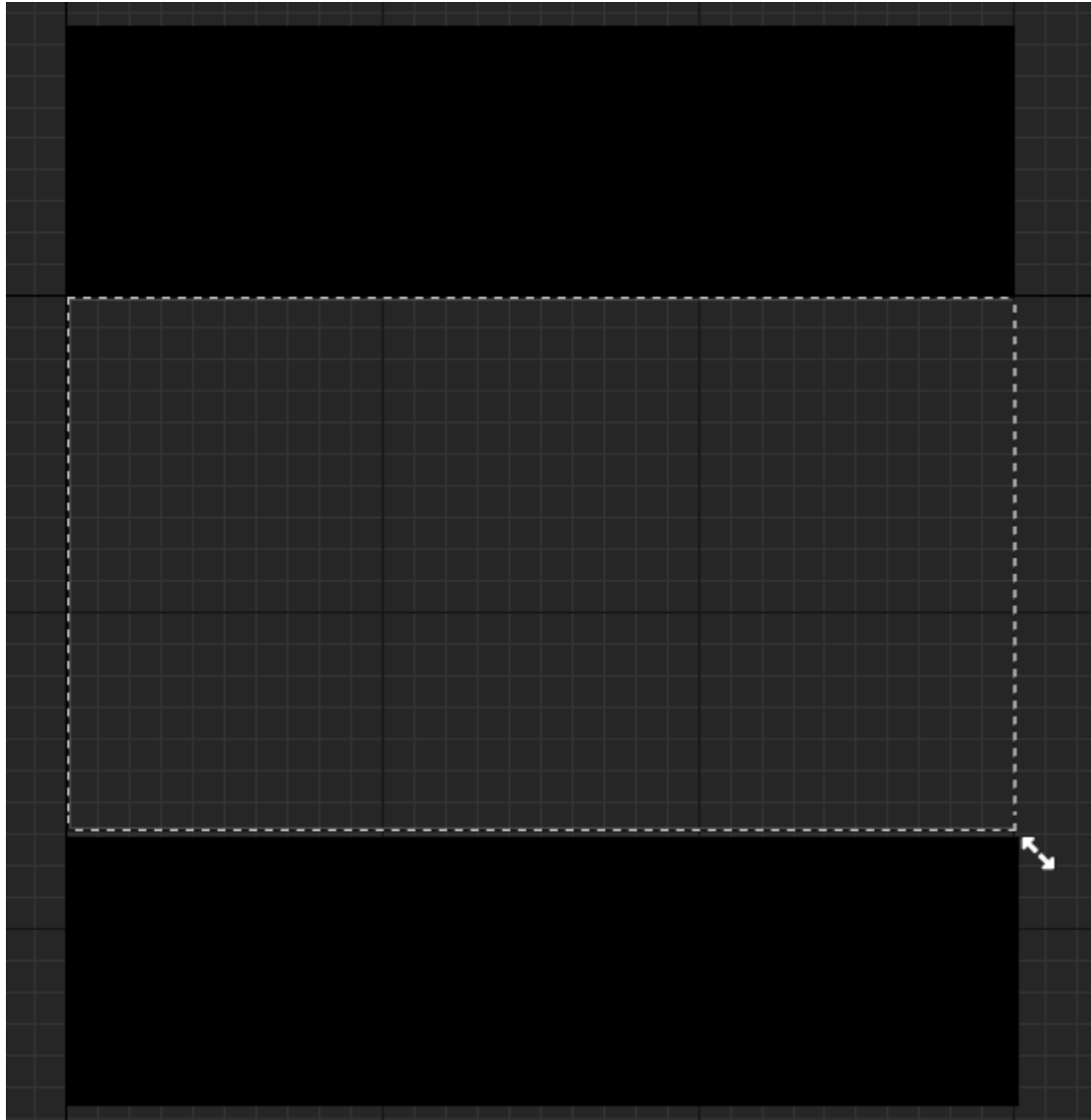
As for this realistic distinction, I would like to implement the pause menu into a blink mechanic this meaning that for the character, whenever they blink, their vision and how they process thoughts due to the loss of vision changes. Without the ability to see, the mind processes information based on other senses such as smell or sound. This means that the character would realistically feel this distinction and I am likely, if possible, to create a powerful absence of sound when the character blinks. As for this, when the character blinks, this is when the player has pressed the pause button. The character would blink and would be in a 'different' place being the pause screen. When the game is un-paused, the sound would return and the game would un-pause and I would like to have some sort of relief or a sudden weight lifted type of sound come from the character.

To create this I would have to start off with some sort of way to create a blinking mechanic. I thought about multiple different options for this including: objects placed directly onto the first person character that, when directed to do so by an event, would close over the players camera viewpoint and act as if they have just blinked. They would then return to their original positions after the player exits the pause menu and look like the character opens their eyes.

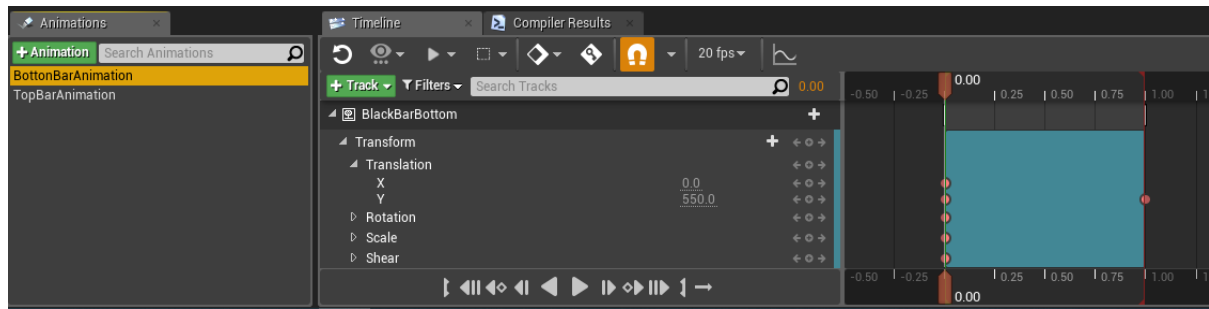
Another option I considered was some kind of fade effect that faded the screen rapidly to black to simulate a less realistic blinking effect that simple faded the entire screen to black at once. This was the fastest and most efficient option to choose but I chose to avoid this option since the whole idea for my game is based entirely around immersion and the feeling of realism and fear or anxiety.

Finally I found a mix between these. I chose to implement the blinking system directly into the menu system so that I could have a smooth transition between the blinking and the pause menu that would appear for the player. This Also allowed me to maintain the immersive feeling by keeping a 'realistic' blinking mechanic that acted as two square boxed animated to come from the top and bottom of the menu to cover the screen.

As shown below, this started with a simple set of black boxed that were ready to be animated to come from the top and bottom of the screen to simulate blinking.



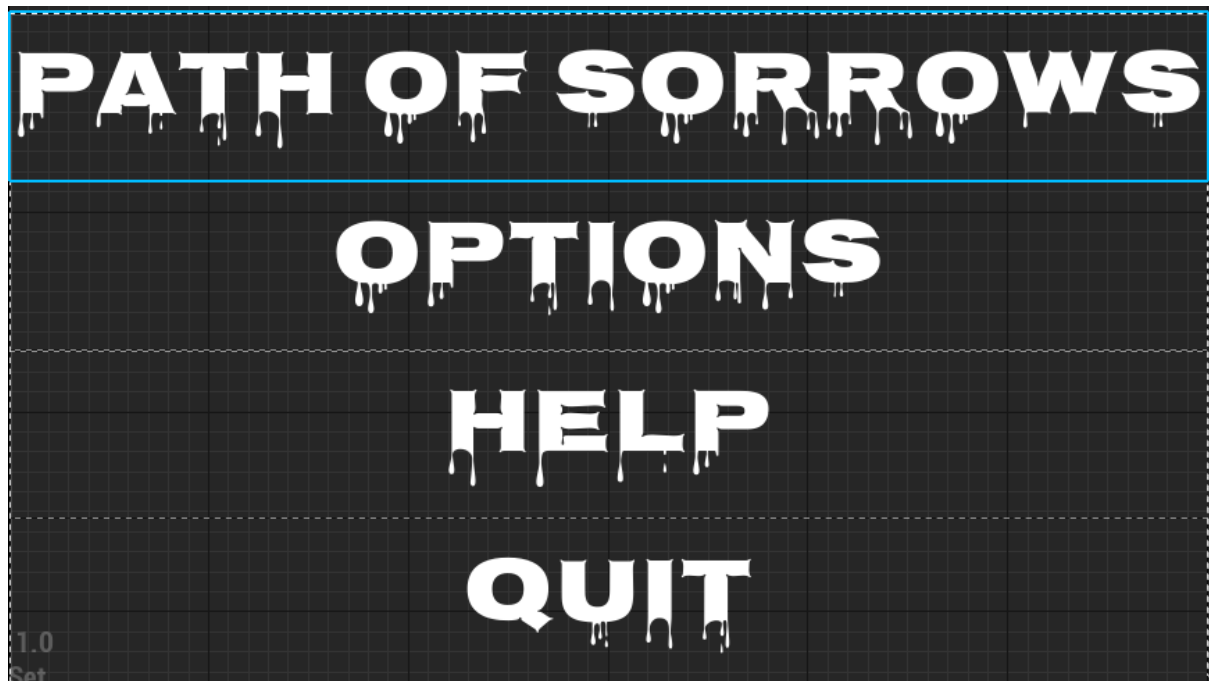
I then started work on the animation within the menu widget. In the simplest form, I created two animations, one for each of the black bars. I placed them by default outside of the edges of the menu system so that I could animate them to move into position. I animated them so that, over the time spam of 1 second, they would move directly towards the centre and meet covering the entire menu.



I then worked on the pause menu that would appear after the blinking animation has taken place. This would be simple and straightforward to follow the provided criteria and used as a simple way to quit out of the game early or to change the options within the game.

I followed the same theme and style as the main menu shown earlier and also added the title into this options page, I may decide to remove the game title from the pause menu at some point.

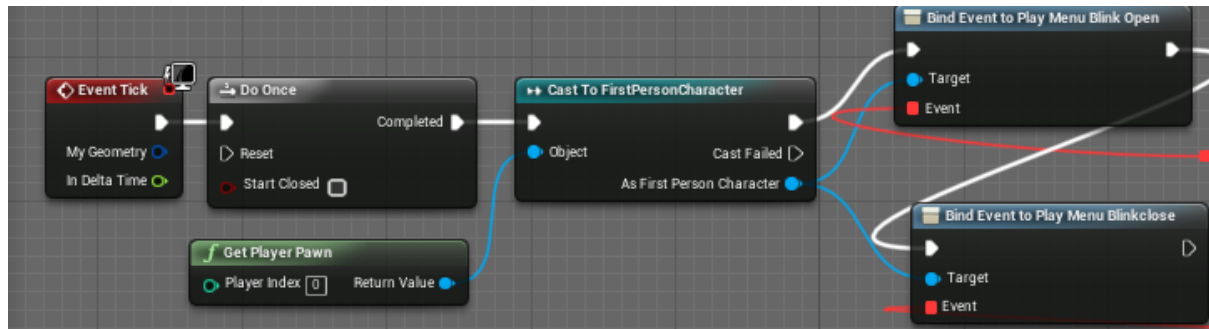
These are also buttons that are ready to add blueprint implementation towards to allow proper functionality. I then begun work on the functionality for all of these menu system aspects.



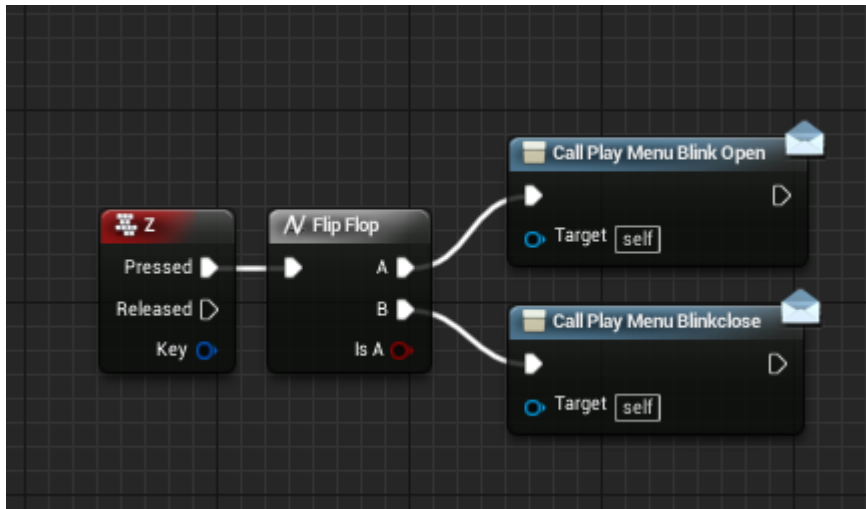
Task 2 – Creating my Game – Project Creation – Menu System Continuation – Functionality and Blueprints

Within this section, I will be focusing entirely on the functionality of my menu system and its ability to interact with the level blueprint and its ability to be implemented directly into the game. This will also include the implementation of the pause menu as well as the blinking pause mechanic.

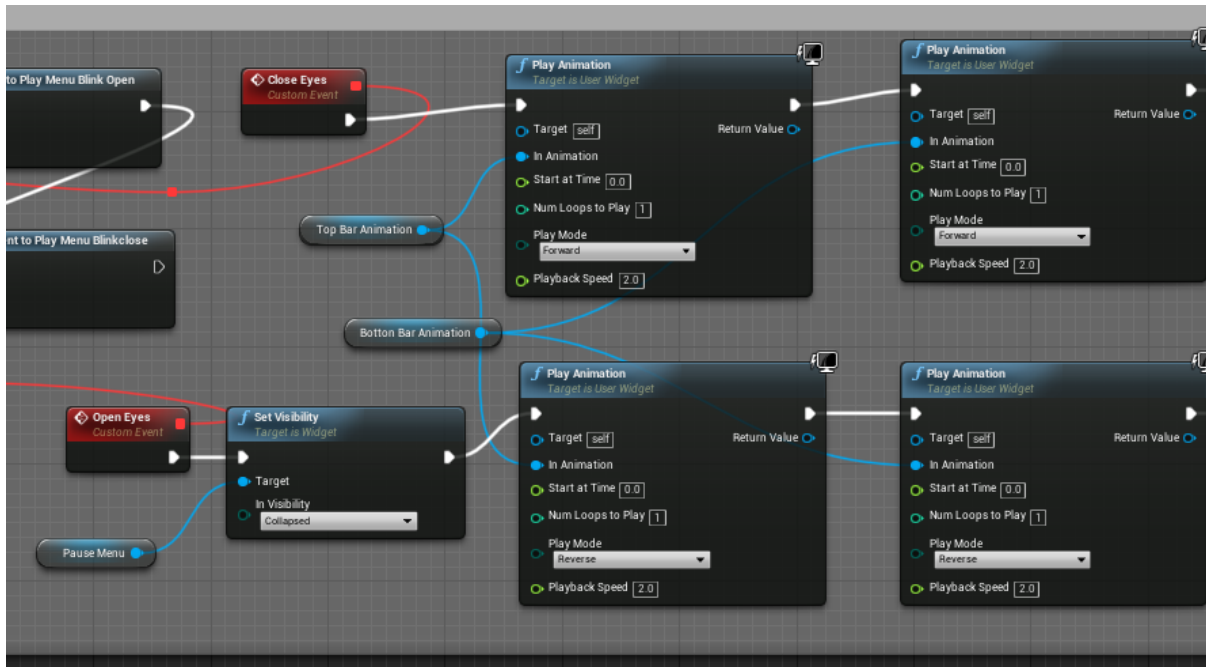
First I used the event tick within the menu system's event graph combined with a 'do once' node to simulate an 'event begin play' and asked the first person character using event dispatchers to search for an event created within the character.



Very simply, the only additions towards the first person character I made were around this specific mechanic to simply assign the blinking mechanic towards a specific key. I could have placed this change within the project settings itself but I would like to be able to easily change this whenever necessary and this was the quickest test option.



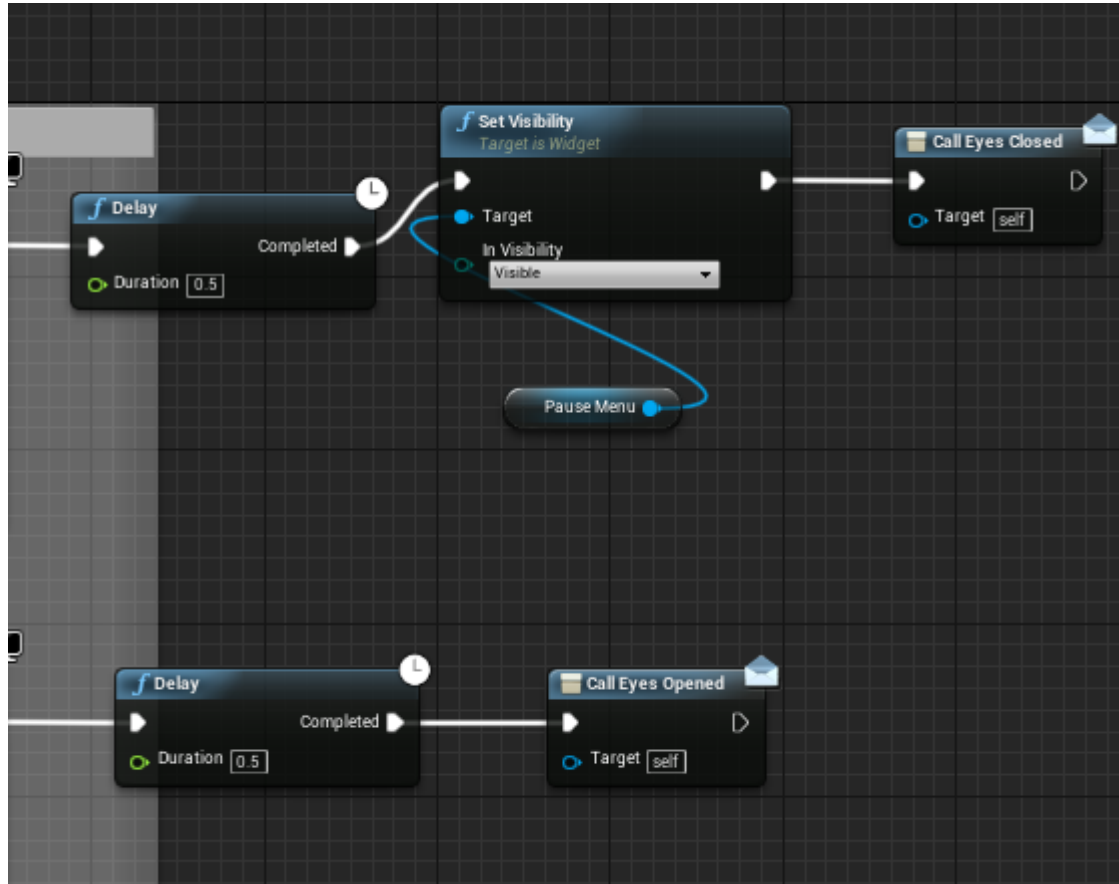
I then created the blueprint to start the animations for my blinking mechanic. I linked these to custom events for ease of access. This chain is designed to play the animation for both bars to close over the screen at the same time. Also on the open eyes event which is when the pause menu is closed, I placed a visibility collapse node so that it would turn the pause menu screen shown earlier to turn off before the animation takes place for the sake of immersion.



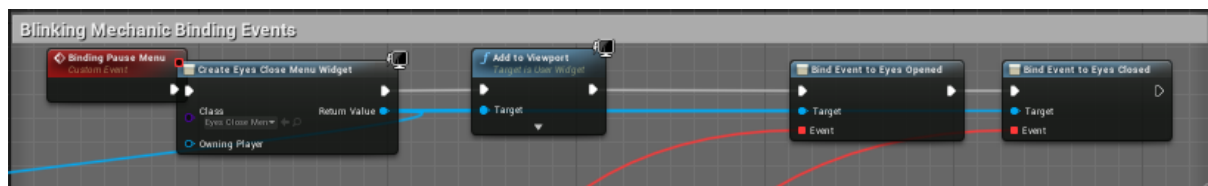
I then added a small delay to each of these matching the time for the animations to take place so that the pause menu would not appear before the animation has taken place and before the screen has fully turned black. I then added another visibility node to allow for the pause menu to be placed onto the players screen after the blinking animation is complete. I also added two event dispatchers

to the end of these animations for future use as I will be changing many different: options, sounds and gameplay aspects during the pause game that would require the level blueprint.

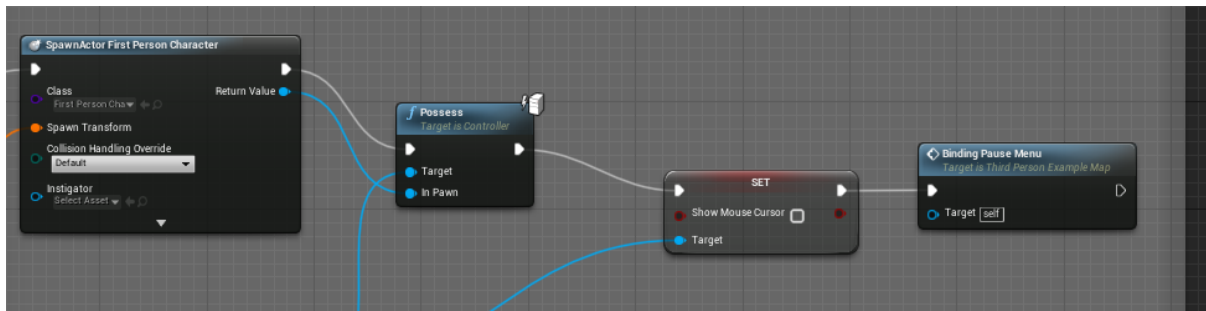
Once complete, I began work on the addition of this to the player's viewport and the full implementation of this into the current project.



I started this by creating the new blinking mechanic menu system labelled as 'Eyes Close' and added this to the viewport, at this point the animated bars simulating blinking were by default set to visible and the pause menu set to collapsed, this will be changed elsewhere.

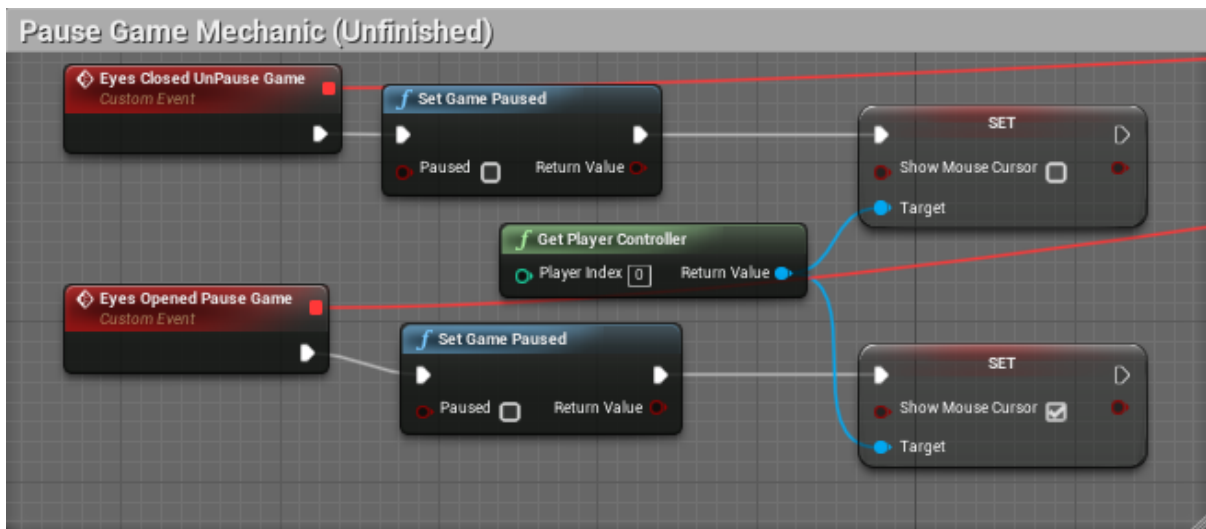


I also set this to be bound after the character is spawned into the world because of a few issues I had with the blueprint being unable to bind the events at the same time as the main menu.



I then worked on a simple pause system so that the game would be fully paused during the transition into the menu and would be un-paused when the player presses the chosen button a second time.

Currently this is not working as I am having issues with the game continuing to be paused and is unable to be un-paused within the game. This is likely a simple fix that I will be working on in the future alongside any other issues I am having.



Task 2 – Creating my Game – Project Creation – Menu System Continuation – Blink Menu and Help System

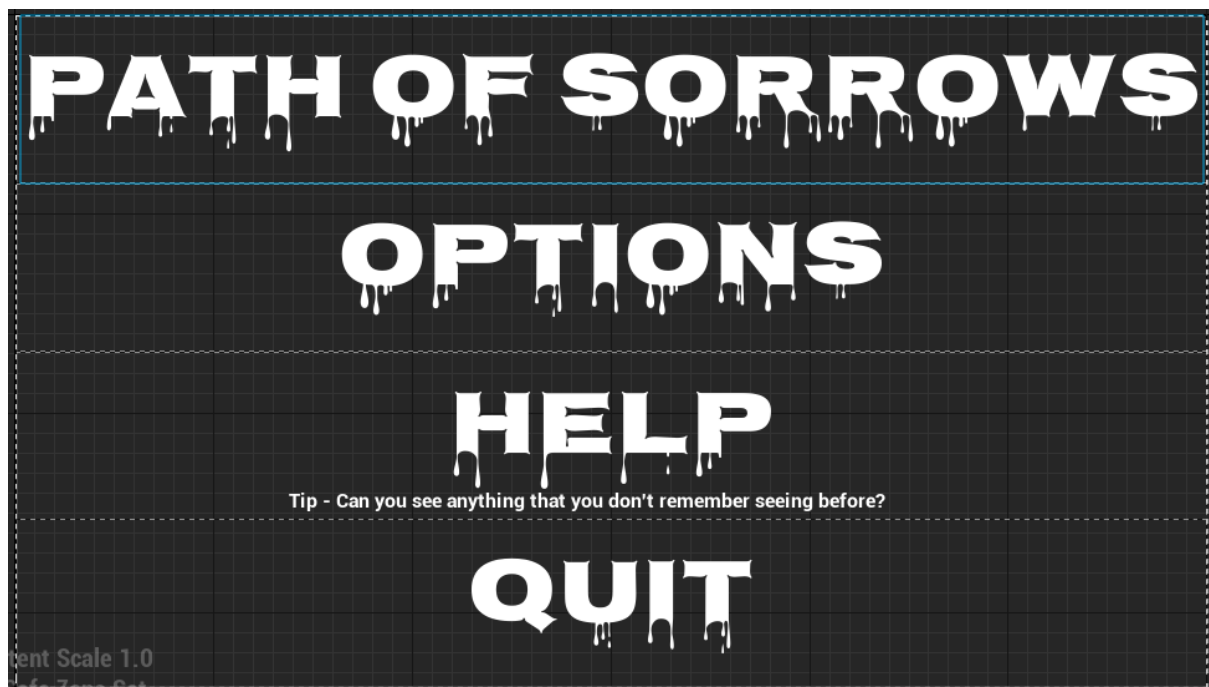
In this section, I will be focusing on the continuation of my pause menu and a help system that is ready to show different tips to help the player if they are stuck within my storyline. This will also contain my future prospects for this system and what I plan on adding further to this menu.

First, I worked on the completion of my previous project allowing the pause menu to pause the game and allow the player to continue with the game after pausing and allowing them to un-pause and close the menu without being trapped on the menu.

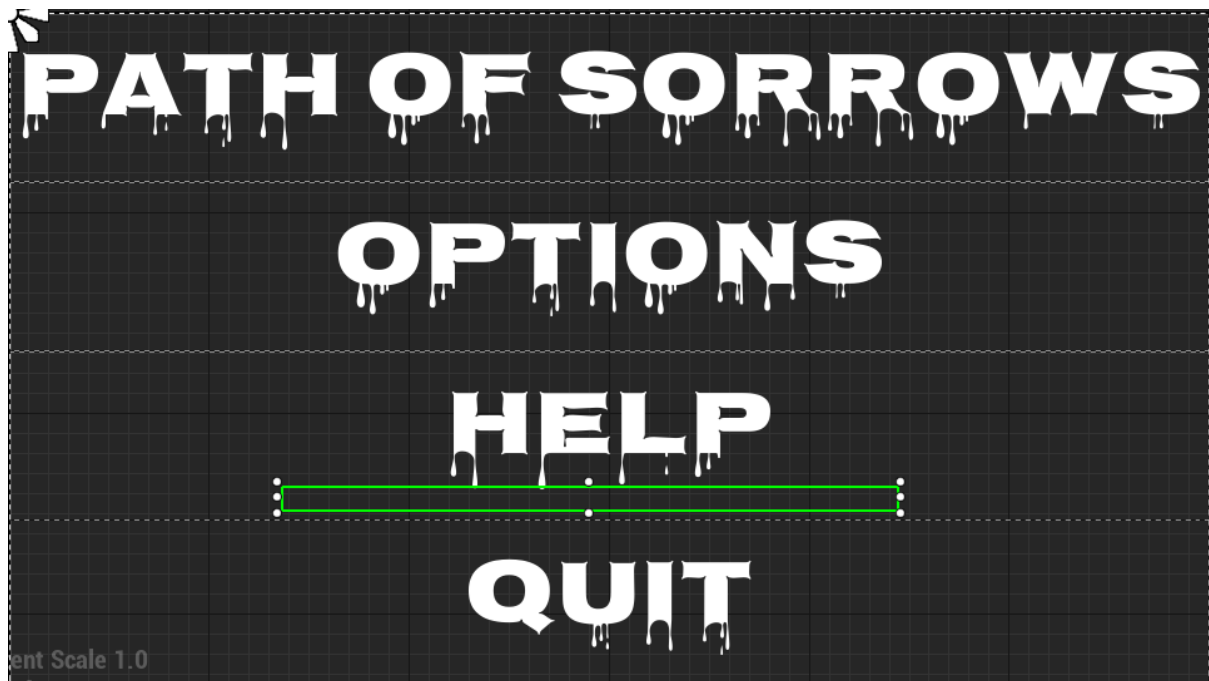
This was mostly a simple fix, I had to go into the pause game node settings and enable the ability for the blueprint to continue after the pause menu is used. This meant that the game was able to wait for the player to toggle the pause menu. Previously the menu system would correctly pause the game when the pause menu has opened but would pause the entire game including the blueprints. This is good because the enemy would be unable to end the players game during the pause menu. Unfortunately, the blueprint contained the ability to un-pause the game meaning the player was unable to move.

In the future I will likely fine tune this so that only that specific blueprint is un-paused so that any blueprints that are on timers can also be paused without continuing.

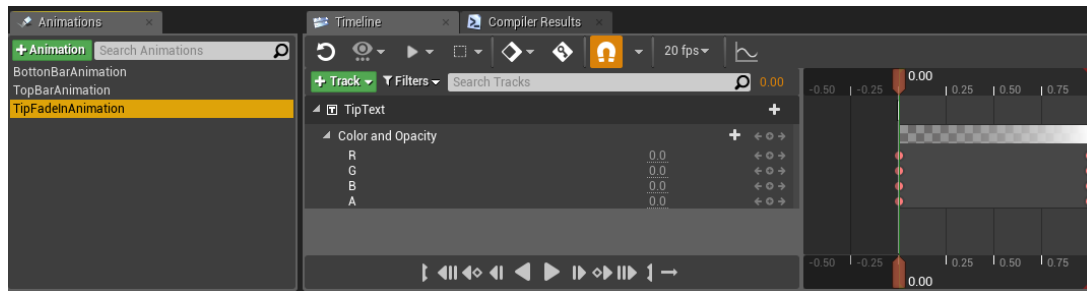
Next, I wanted to add a system that allowed the player to be given tips or help if they were unable to complete or progress the game in some way. I have already created a help button within the pause menu so this is ready for implementation.



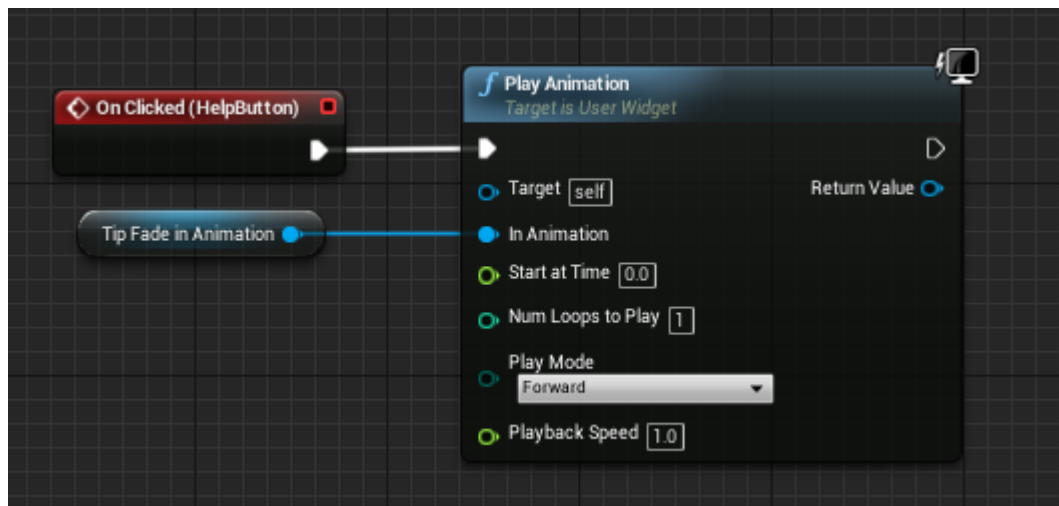
This tip that I added to the pause menu would act as a test run to allow tips to be placed onto the menu only if the player chose to click the help button and want these tips to be active.



I then lowered the opacity of this to zero so that it was completely invisible on the menu. I used this and decided to create a fade in animation for this rather than the tip just appearing on the menu.



This was as simple as creating an animation that set the opacity of the tip to zero and over one second would then set the opacity back to 1 being fully visible.



Once complete I then created a simple blueprint that played the fade in animation when the help button is clicked. Below are the results of this.

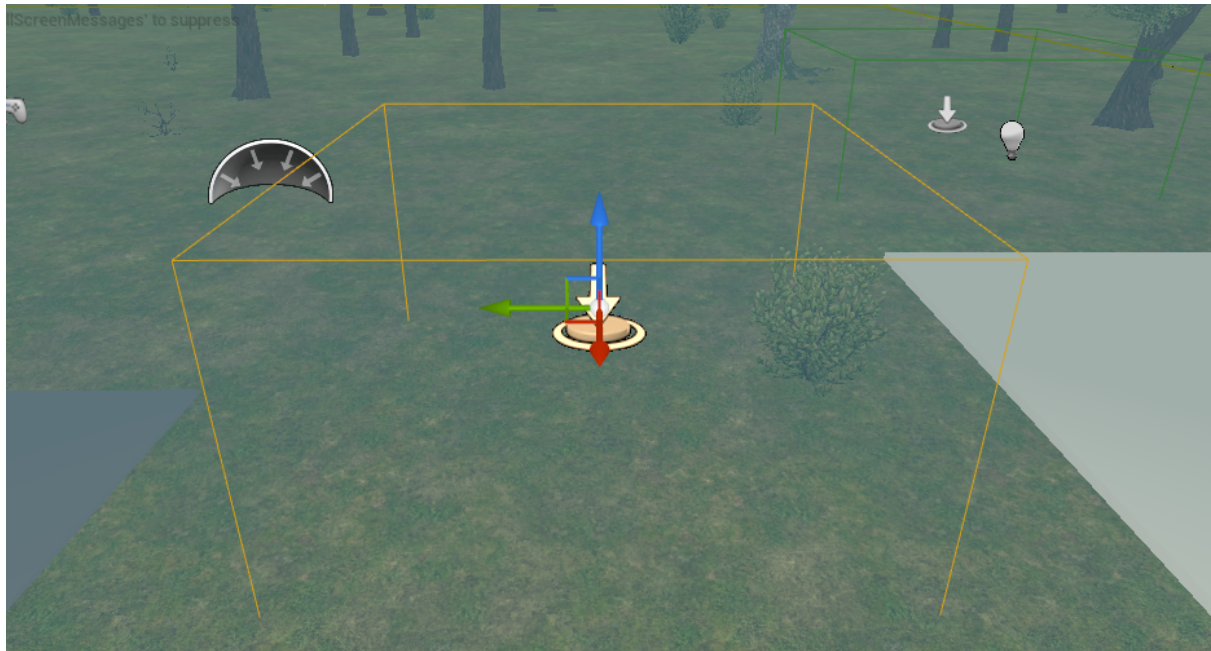


Blinking Menu
SystemTip Popup V

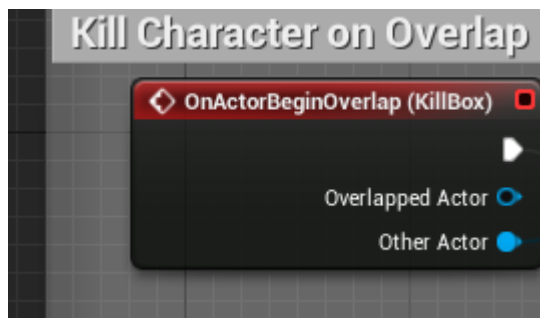
Task 2 – Creating my Game – Project Creation – Further Work and Ragdoll/Death and Respawn System Implementation

In this section, I will be working on small projects I have started on previously while creating a basic death and respawn system. This is mostly for test and experience development purposes as my game is likely to not include a respawn system because it is a linear story with small sections of gameplay placed within.

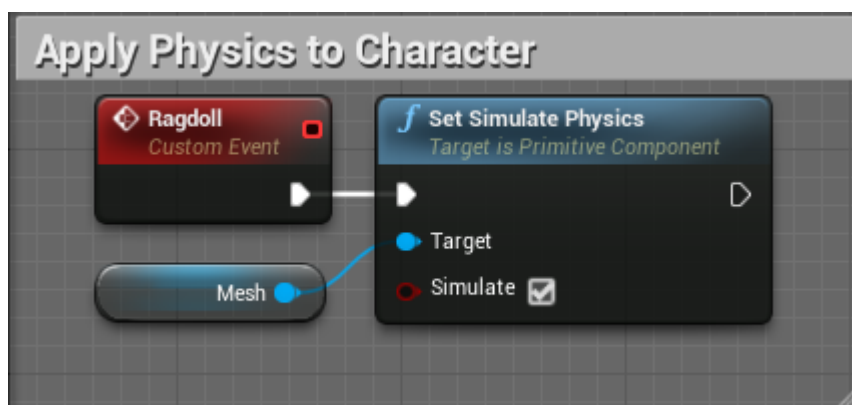
First, I created a simple collision box and renamed it to killbox.



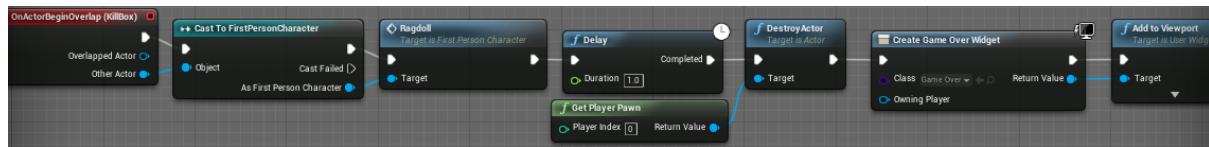
I then created an overlap event and changed the collision pre-sets to allow my character to trigger the event.



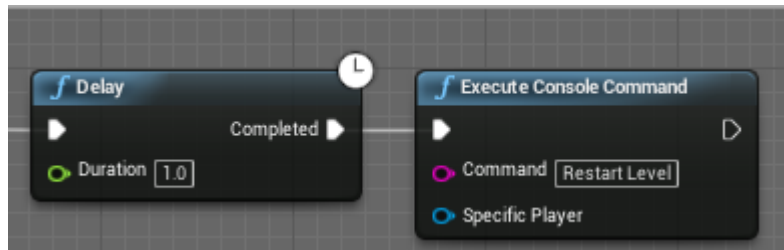
Next, I created a Ragdoll custom event within the first-person character to simulate physics with the character mesh when the event is triggered.



I then casted for this from the level blueprint, this continues to ragdoll the character for a designated delay before destroying the actor and creating a game over widget.

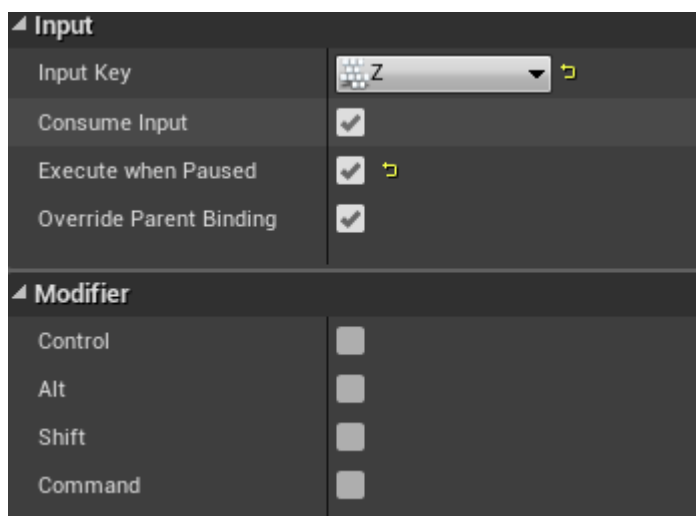


After this, a restart level console command was triggered to allow for the game to reset.



I could have gone further with this to create some sort of checkpoint system and to allow for the character to be replaced into the level correctly and in a designated location but as I said I will likely be avoiding using this mechanic within my project so I would like to spend my time elsewhere.

As for this I decided to look into my pause menu that I attempted to create. After my recent issues I had with my pause system, I realised that the issue I was having was that pausing the game was causing unreal to pause all inputs from the blueprints into the project. This meaning, pressing Z a second time to un-pause the game, the input would not make it into the project from the character. This turned out to be a simple fix as to change the settings of the input node to allow for inputs while the game is paused.



Task 2 – Creating my Game – Project Creation – Enemy Mechanics and Features – Idea Generation and Initial Expectations

In this section, I will be explaining my core ideas behind my enemy within the game and how it will function at different sections of the game. I will be explaining my intentions, my progress and my results up to this point of the creation of my enemy and the mechanics that follow through.

Within my level, my enemy currently resides as a normal sphere as a placeholder mesh. I have done this specifically because I would like to focus entirely on the mechanics and functions of the level. As previously mentioned, spending an amount of time to create a nice-looking character would take a

large amount of time away from the mechanics and function of the level and would be good but unnecessary for this unit. I am also personally using this as a method to improve my blueprint skills and my ability to navigate unreal engine with animations and creating a functional level.



My idea for this specific enemy is that it will be the main point of fear for the player. This will be the enemy that is designed to specifically to chase down and hunt the player constantly. This will be on a timer to constantly check if the player can see it. If the player is currently unable to see this enemy, then the enemy will move location and teleport to a location closer to the player. If the player is able to see the enemy, this will stop the movement of the enemy, this will also built up their fear level.

When fear reaches 100 then the player is killed and the game ends. When the player is looking at the enemy the fear level will rise by 3 points per second. This will be a constant calculation that will continue throughout the game and will not reset unless the game ends. Any time that the player is not looking at the enemy, the fear level will lower by 2 points every 2 seconds. This means that if the player can avoid seeing the enemy then their fear level will slowly decrease but still slower than the rise rate so that there is always some background fear that is active at any given time.

I would like the enemy to be able to teleport randomly around the player. This means avoiding any main locations or set values and allowing for random values to be chosen. I would also like to have functions to show that the enemy knows when you are looking at it and will react differently if so.

I have already made a start to this when created my fear system previously as the fear only rises if the player is looking at the enemy. I would like to tie this into the teleport system so that the enemy will not teleport unless the player is looking away from the enemy. This forcing the player to move around and avoid the enemy visually as well as directly and punishing players for freezing up.

I would like to have this in place so that players cannot just stand still and the enemy will stay away and only occasionally appear in front of the player as a result of the random location. This would also be a good form of constant fear for the player as well as the character because they need to constantly be watching and making sure that the enemy doesn't enter their field of view otherwise they will gain fear and it will continue unless they avoid the enemy further.

In the future I would also like to have some sort of fade effect or visual cue to when the enemy moves so that it doesn't just disappear and reappear in different locations. In my mind currently, I would like to create some sort of dark radiance or black mist that constantly surrounds the enemy, this would then envelope the entire enemy when moving and in the new location the black mist would fade back towards the bottom of the enemy and continue to persist and repeat for all movement actions the enemy takes.

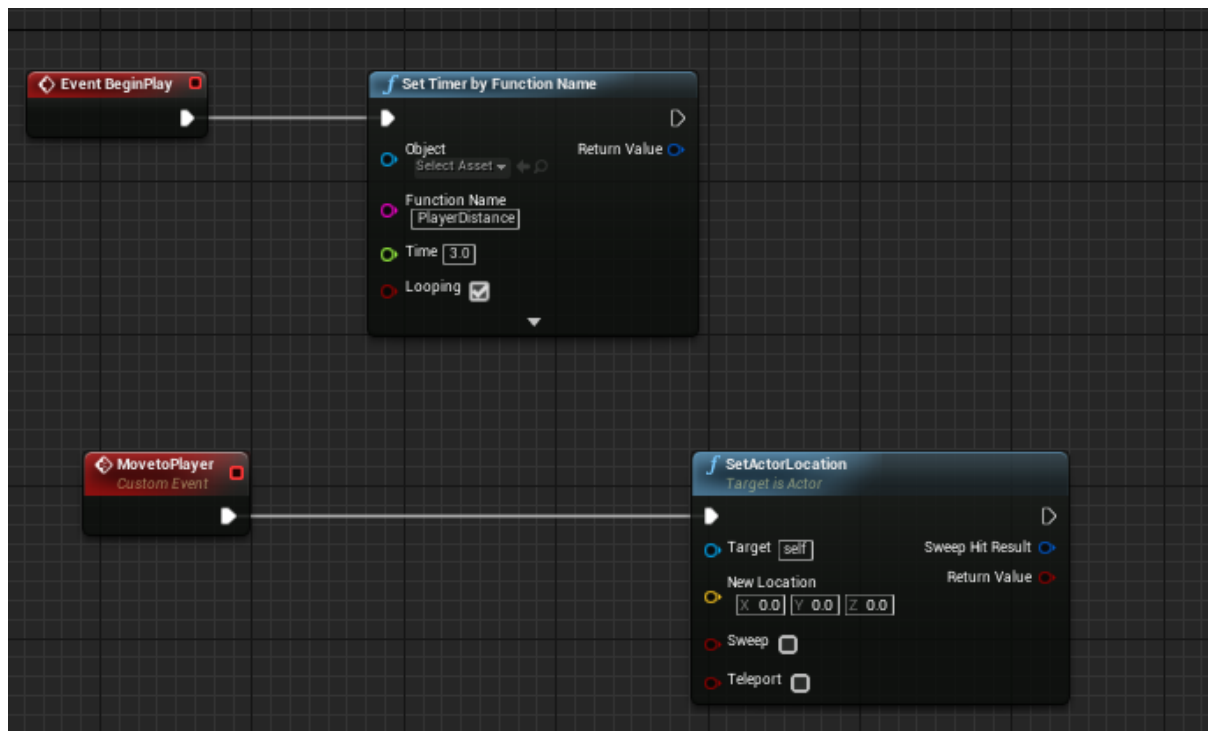
This visual effect is aesthetic at its core and provides little to no mechanics or functionality so this may be left out or completed later once the enemy is functional and ready for implementation.

This now marks the end of my explanation and idea generation for my enemy idea and I will now move onto the production and mechanics of the enemy. The next area will focus entirely on creation and functionality.

Task 2 – Creating my Game – Project Creation – Enemy Mechanics and Features – Functionality and Blueprint Construction

In this section, I will be using my previous ideas and concepts to create a functional enemy that will actively hunt down the player and cause a genuine threat to the player within the game. This functionality will also be linked to the previously made game over sequence but I am planning on changing that so the screen fades to black and the main menu is replaced onto the player's screen while resetting the level. This is following the idea that the player will not have a 'death' screen but more so of a sudden loss of consciousness and the character awakens back at the starting position.

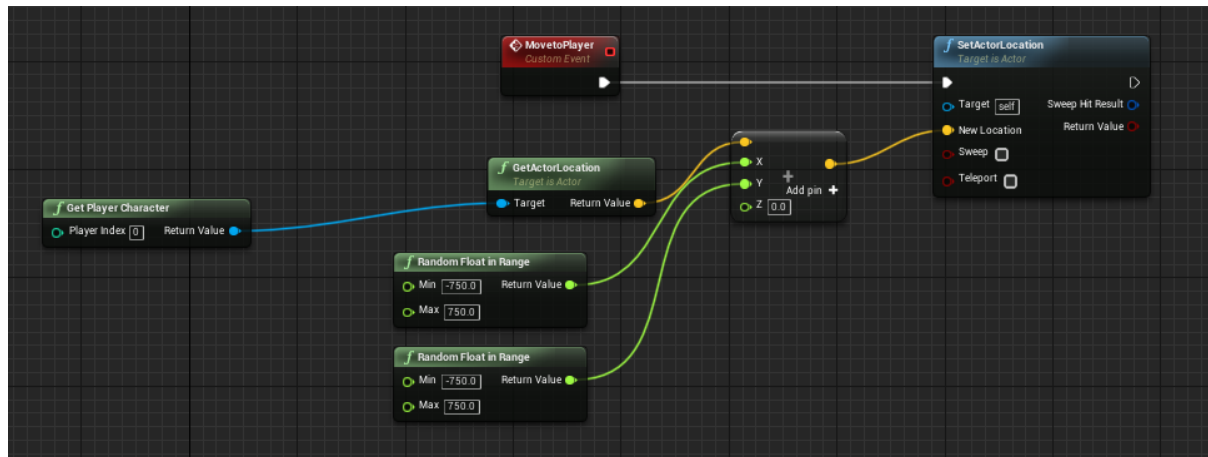
To start this, I created a simple function for player distance and created a timer that would start looping a distance check every 3 seconds after the game starts once the function is fully created. I also created a custom event that would be called at the end of that function once it was completed.



I then created a simple system that found the location of the player and combined this with a random value so that the enemy could gain the ability to find a random location around the player. I then attached this to the set actor location so that this random location around the player would be

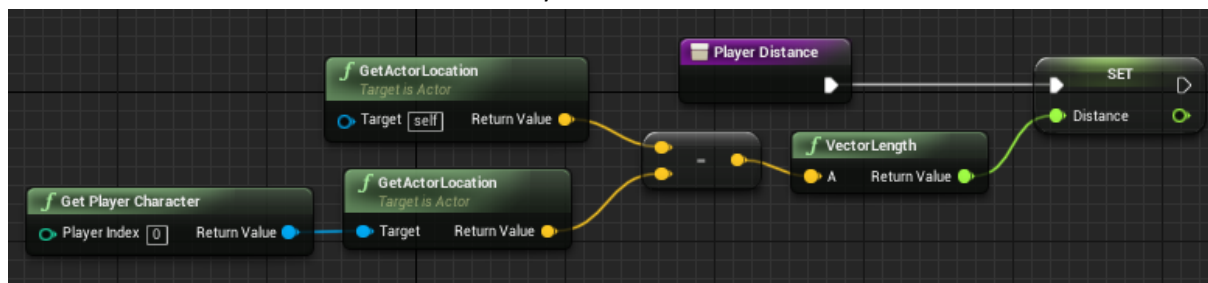
the new location that the enemy is placed. As this will be attached to the player distance check function, this will be repeated every 3 seconds or any time value that I choose to set once the function is complete.

Once I have completed the distance check function, this should allow the enemy to choose a new location and teleport towards that location every 3 seconds based on the players location.

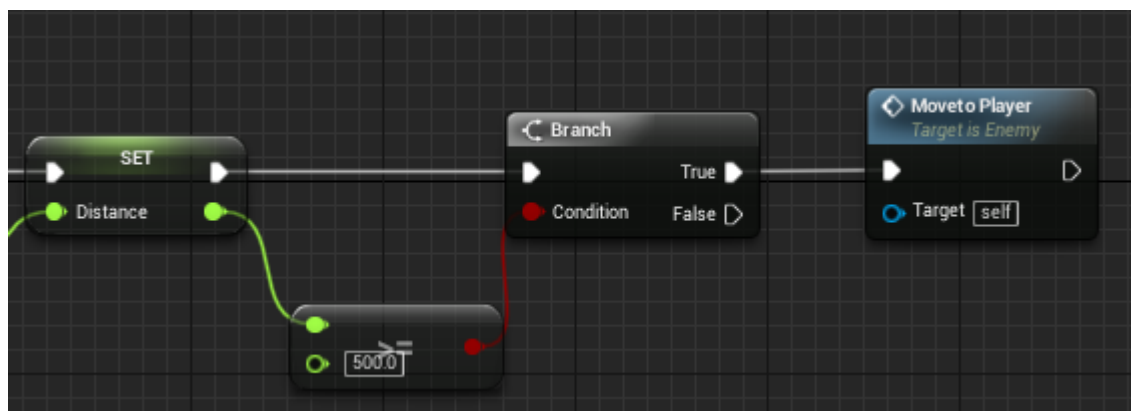


Now that the enemy is functional and ready to be given instruction by the distance check function, I now need to create the function so that the enemy can determine the distance the player is currently from it to determine if it will then find a new location or not.

First, I created a small blueprint to compare the location of the player and the character. This would then subtract these from each other and provide me the distance between the two and I can then set this as a variable and use this to constantly check the distance.



Once complete, I setup a simple check system, if the enemy is larger than or equal to 500 metres from the player, the move to player custom event created earlier will be called and the enemy will then choose a new location closer to the player.



Now with the functionality complete and enemy is able to move and has the ability to track the player, the enemy is ready to start hunting the player. My current results are displayed in the video below.



Enemy Mechanics
Video.mp4

Task 2 – Creating my Game – Project Creation – Level Streaming and Spawn Optimization

This section will contain my progress towards a stable level streaming system that is designed to optimise my level and work alongside the gameplay. This will also be used to have separate modes within my game in the future if at all possible. I would like to have a dedicated level for story and dialogue purposes, this being the main section of the game, while also having a separate mode for a simple survival mode that is fully gameplay and mechanics focused with minimal story elements and a higher difficulty.

I would like to also have a separate level or levels for all of the cutscenes and cinematics within my project as there are many different assets that I may show within cutscenes that will not be present within my game world for the player to see. This will also be used for optimisation heavily for situations where high upkeep blueprints will not be used but will still be running constantly.

As an example: I have many different distance checks and constant calculations for fear level and changes in these variables every 2 seconds. This currently is not an issue but if I were to create a larger level with more assets and animations, having this many unnecessary calculations would be a hinderance to the player and the level and may cause framerate or performance issues. I would likely use this currently with my story level I plan on making as the gameplay section starts a large amount of time after the player has started the game, this means that for this entire time, the gameplay calculations are completely unnecessary and I could likely link all of these calculations directly to a level that specifically holds the combat and survival locations happening throughout my game.

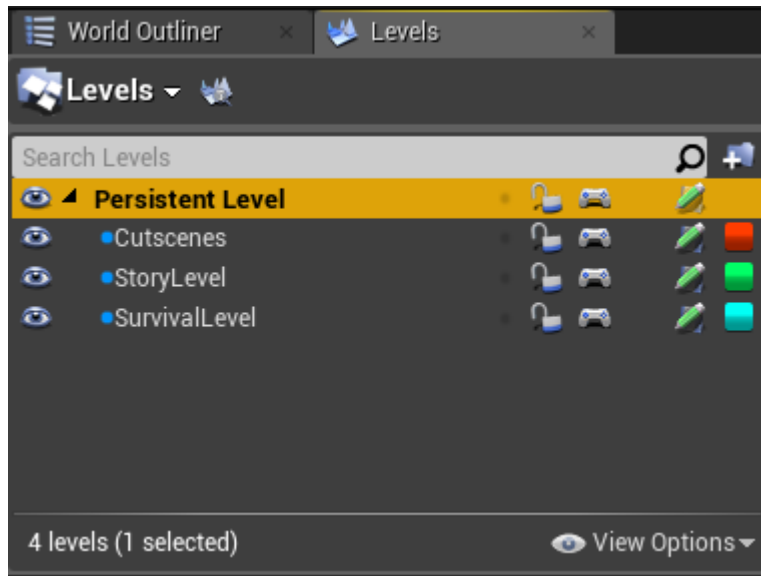
I will likely be using level streaming further for my different scenes within my game created within my storyline overview displayed below.



Generic Storyboard
Overview Plan.docx

As shown in the story document, I will have many different objects and effects that will be appearing and disappearing from the players view. I could do this in many different ways, one is to change the visibility of the object and its opacity but I could also have these objects constantly switching between different levels and have a singular level dedicated to objects that are temporarily invisible so that these objects are no longer placing any strain on the level the player is currently residing inside.

I have made a brief start to this so that I can have the separate modes separated initially and I can have levels that can be classes as 'sub levels' that are only loaded if the master level is loaded. As an example, any levels dedicated to cutscenes and dialogue options will only be loaded if the story level is loaded, if not then the survival level will be loaded instead to force the unnecessary levels to not spawn.



Currently I cannot easily implement these into my project as I don't have any cutscenes ready or starting sets for any of my areas but I can make an initial start towards the streaming system once I have updated my menu system to have a level select system.

Task 2 – Creating my Game – Project Creation – Road Construction and Introduction Preparation

In this section, I will be showing my progress on my cinematic location within my level. I will be focusing on my plans for my introduction cinematic that I plan to have at the start of my level. I will be setting up a basic location for where the cutscene will take place and begin preparing the environment for the cutscene to be built.

For my introduction cutscene, I plan on creating a scene where the character is driving down a road through the forest. I would like the character to look back towards the back seats within the car. In the future I would like some sort of second character there and sitting inside the passenger's seat. These being the characters wife and daughter.

When the character looks back towards the road, some kind of effect will be played on the players screen signifying pain or confusion and will restrict the characters ability to see. This will cause the character to swerve the car and crash into a tree on the edge of the road. The player will then fall out of the driver's seat (if possible) and regain their balance on the grass. They will then turn around and see the flaming car and the player will be given control.

I plan on having this as a cutscene that is played in the middle of the game. As stated inside my storyline overview document and within my storyboard document, of which I will place below this section of text, the character starts sitting inside the passenger's seat at the beginning of the story, for the purposes of this unit, I will have the main character initially driving as I don't currently have a model for the other character that will be driving the car.

Below are the documents I have used to create this story and can be read separately to gain insight into my plan.



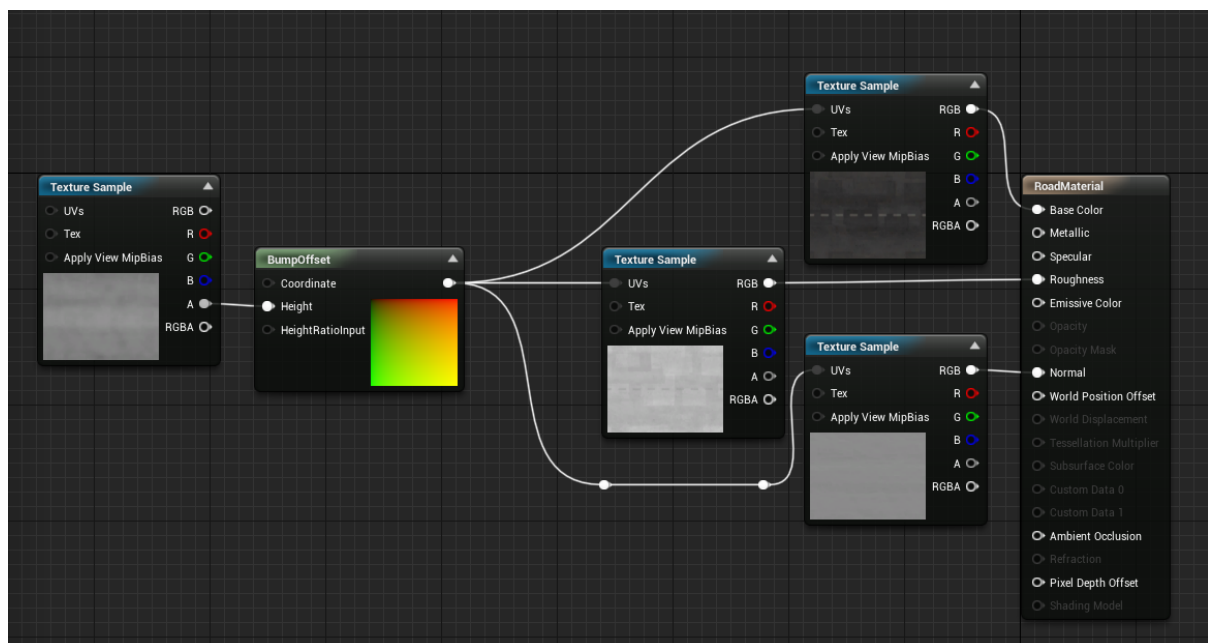
Generic Storyboard
Overview Plan.docx



Initial Idea Generation and Pro

I have now begun work on my initial cutscene and the environment it will be placed. Currently, I plan on having the environment that the cutscene is played to be the same environment that the game is played within. This is because the character realistically would not have moved because he gets out of the car after it crashes.

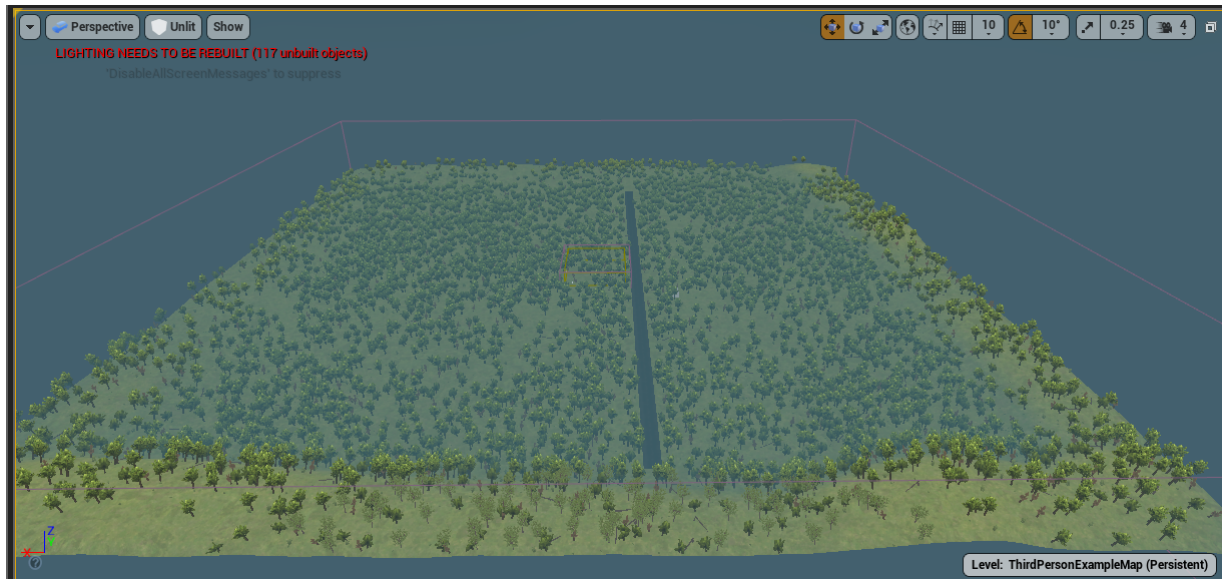
First, I added the environmental features to accommodate the cutscene. This included the road that I was placing the car that the player would be driving. I collected a basic road texture online and modified it with a bump offset height map allowing it to look more realistic.



Once done I applied this to a simple plane as a placeholder item for the road so I could plan out my environment for the cutscene cinematic.



I then added multiple of these and chained them together throughout my level to keep the texture quality and avoid stretching. I used this to create a simple straight road that would follow through my entire level. This would likely not be the finished product of my level but as a placeholder this is effective.



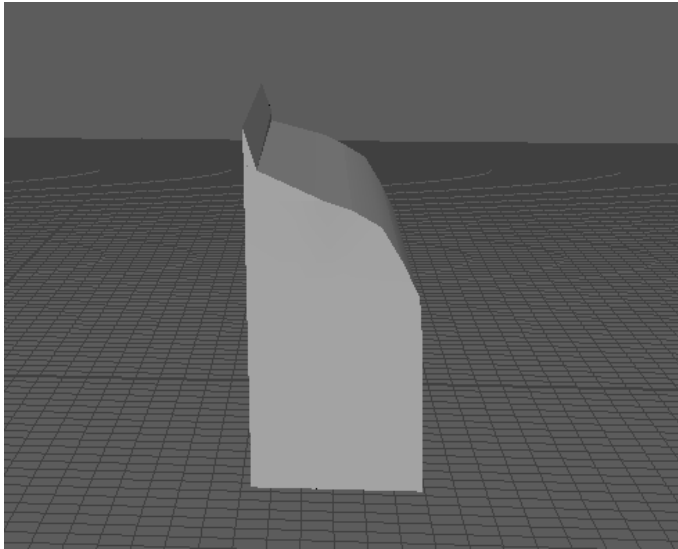
This now allowed me to have an environment where my cutscene would fit into place. I can now begin work on the main asset within the environment, this being the car that the character would be driving.

Task 2 – Creating my Game – Project Creation – Car Construction and Placeholder Cutscene Location

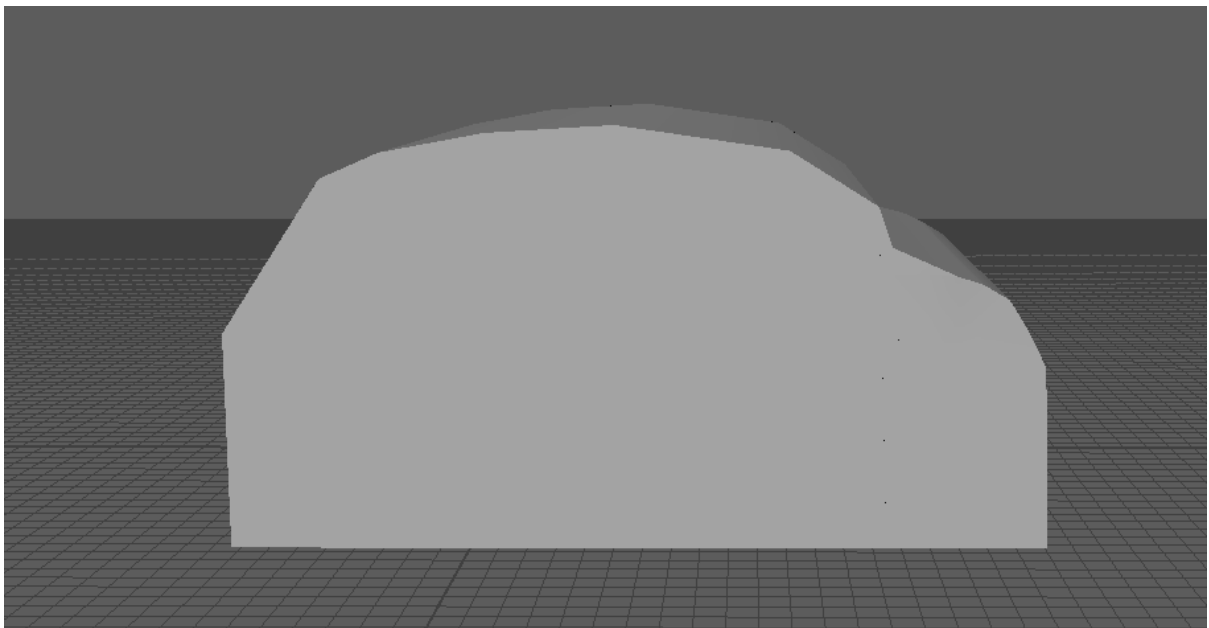
In this section I will be focusing on the aspects of my car model I will be creating for this cutscene. This will also be a prominent point within my story and gameplay throughout the project. I will be documenting my thought process throughout and showing my progress during certain points during its creation.

I will also display my tests and implementation into unreal engine.

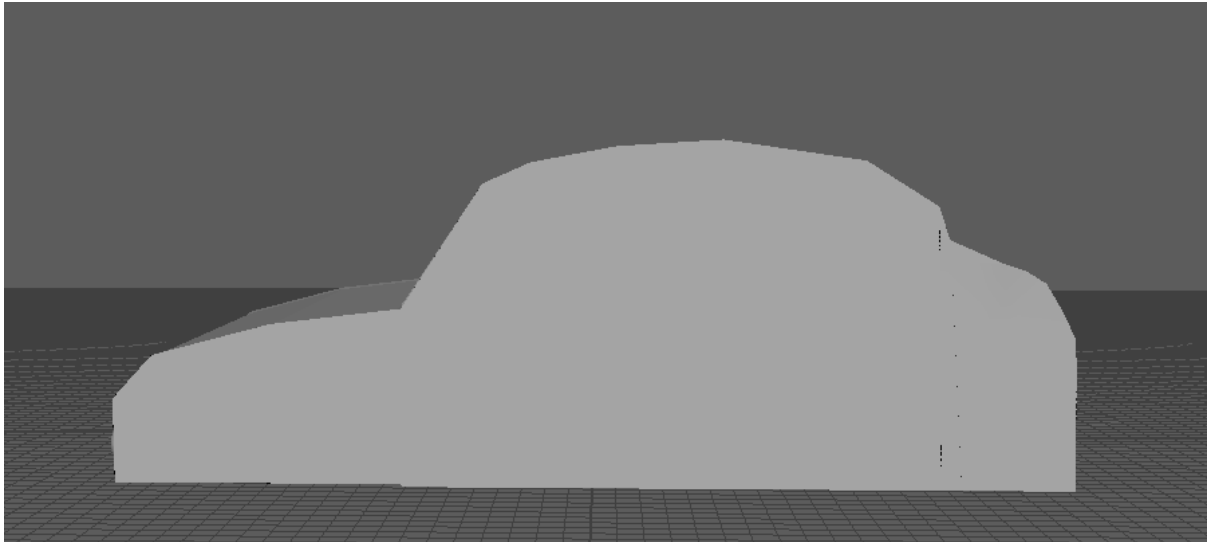
First, I started with the creation of my car in segments for future use.



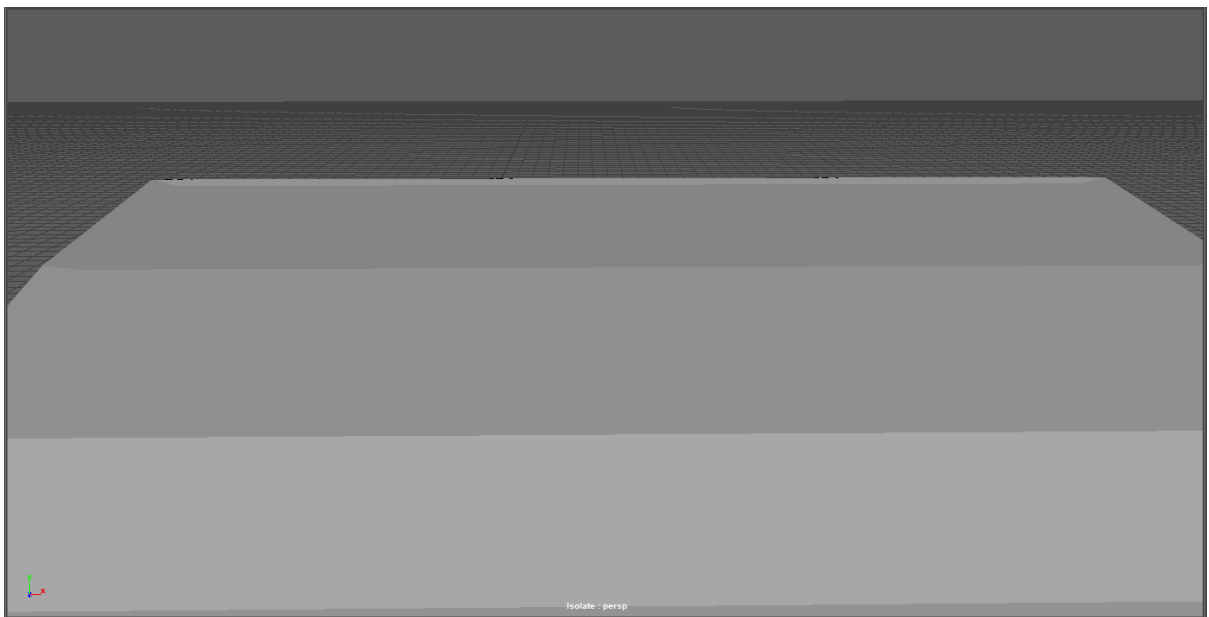
This was the back segment of the car. This will likely be expanded in the future but at the moment, the back section of the car will be aesthetic and mostly unused and unseen so I created this as a temporary placeholder for testing purposes.



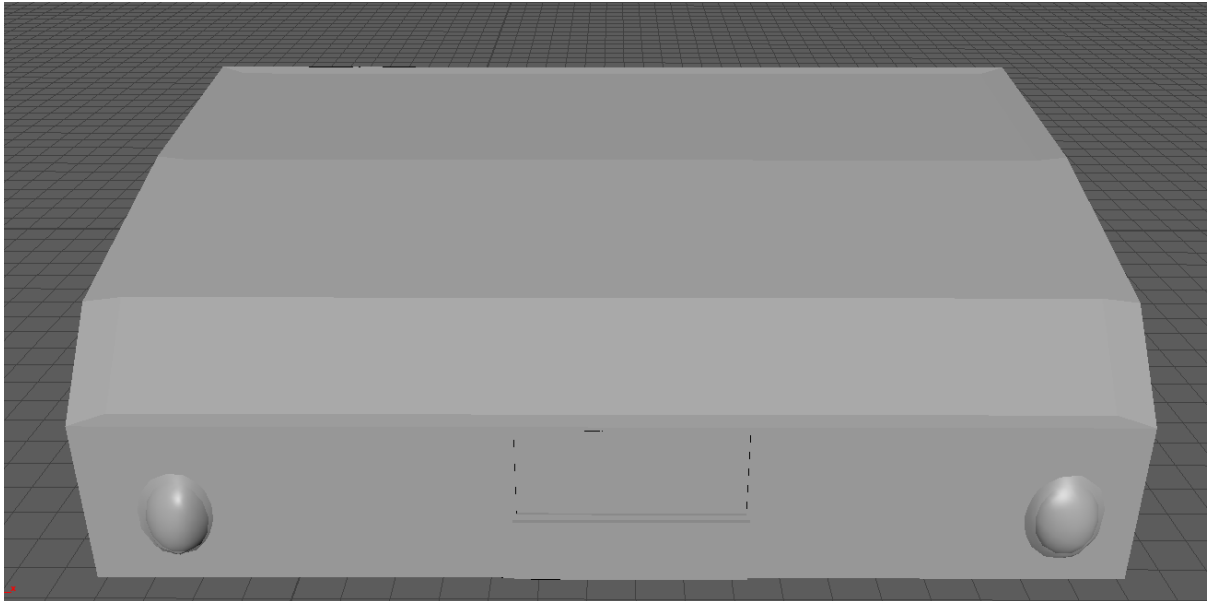
I then created the main section and connected it to the back section I previously created. My reasoning segmenting my model will be explained when I have the base placeholder complete. I built this section with space in mind for windows, wheels and indentation for doors and handles. I do not have these ready yet and may not get them done currently as I would like to start creating the cutscene as soon as possible.



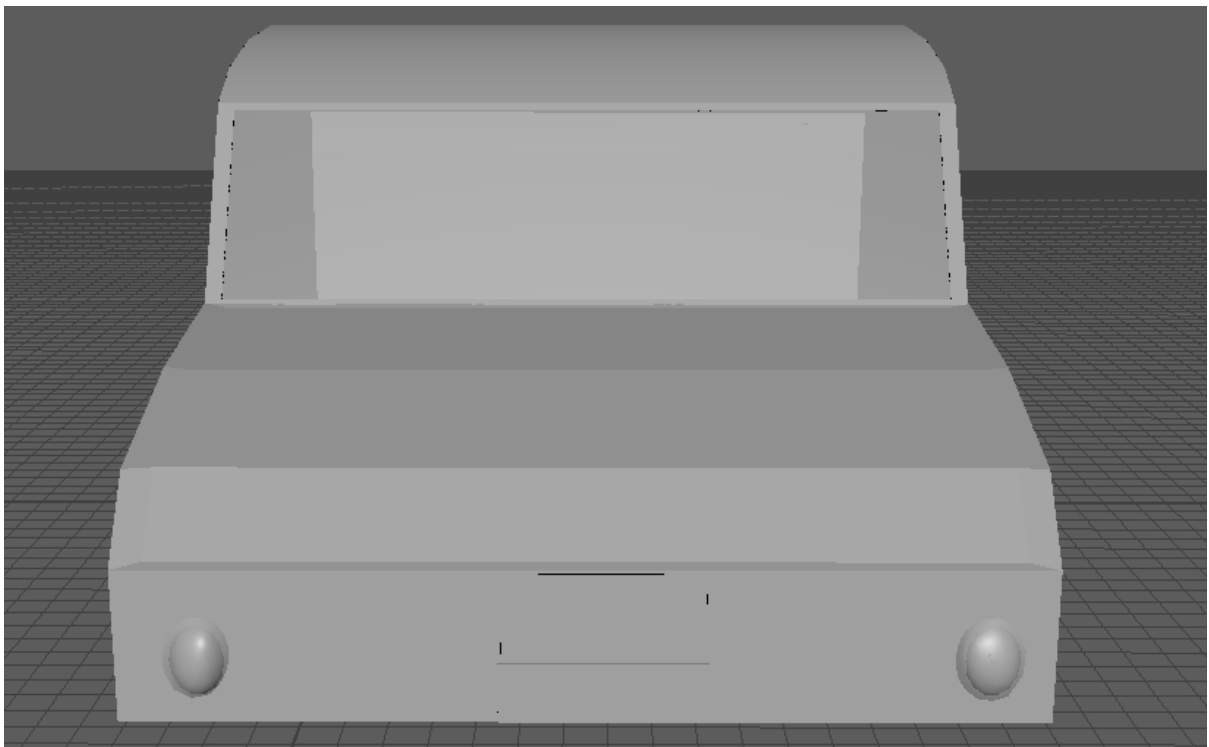
I then created the front section and connected this to the rest of the car. This had many slight indentations on top and on the front of the segment which I will display in the next section. This was to add some minor detail to allow for headlights to be placed on the front of the car.



I added detail to the front with slight indentations to allow the idea of a hood on the front of the car. This was built in mind with my story as the project begins with a car crash and the cutscene may have a fully intact car but the crashed car will likely be damaged and may not be fully intact. This slight modification allows this to be easily added in the future.



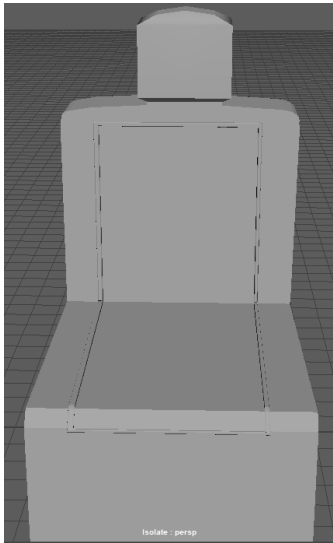
I then added some detail to the front of the car. This is to allow space for a licence plate on the front of the car along with headlights that will be active for a small duration of the game.



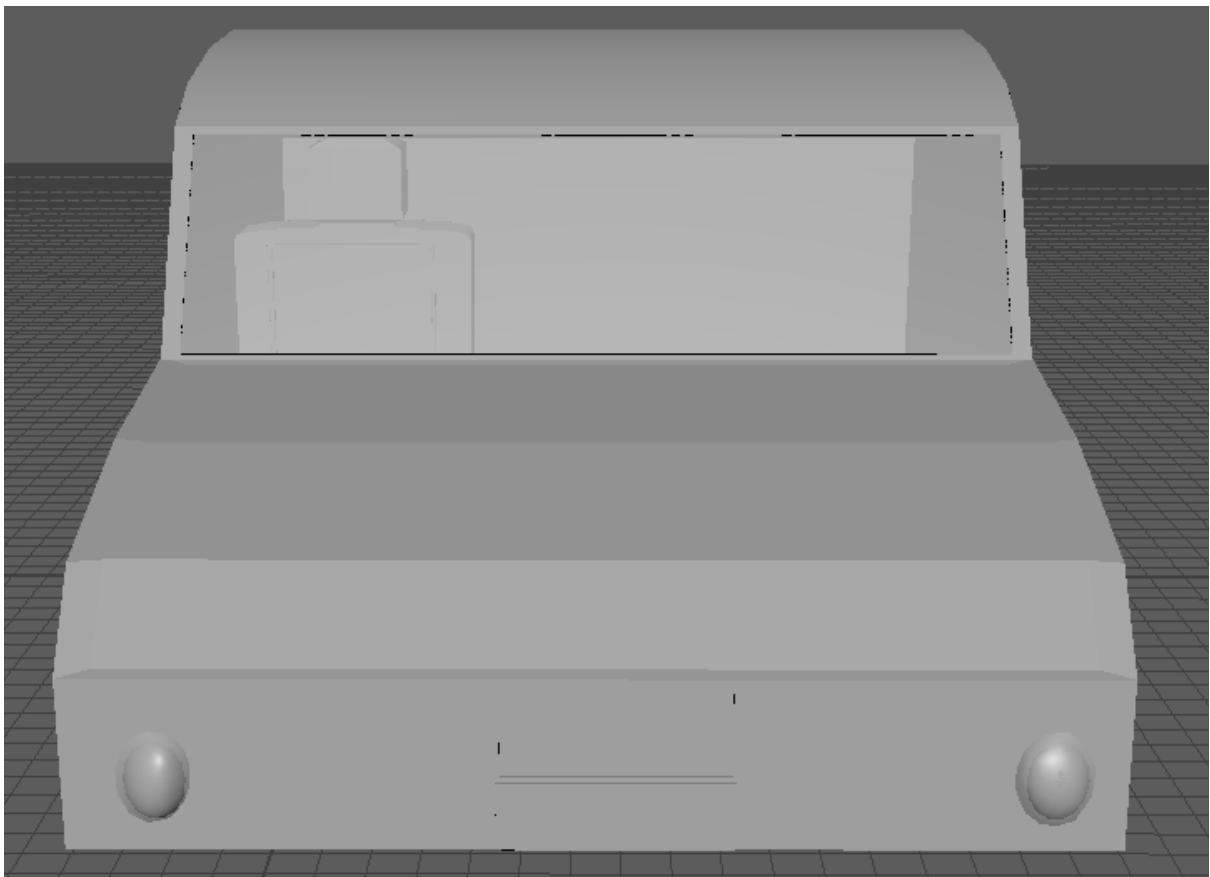
I continued to work on the inside of the car by assigning a new material to the front of the car and lowering the overall opacity of this material to allow for a glass like material. This allowed me to get a view into the car itself and imagine the space requirement for seats, driving wheel, armrest and so on.

I then began work on a seat that I will place inside the car to allow for an object that the character will be sitting on top of. This was necessary as the car crash will lead to the character exiting the car and this allowing the player to look into the car and see these seats. This is also as the planned cutscene will have the character turning around and looking into the back seat of the car. This means

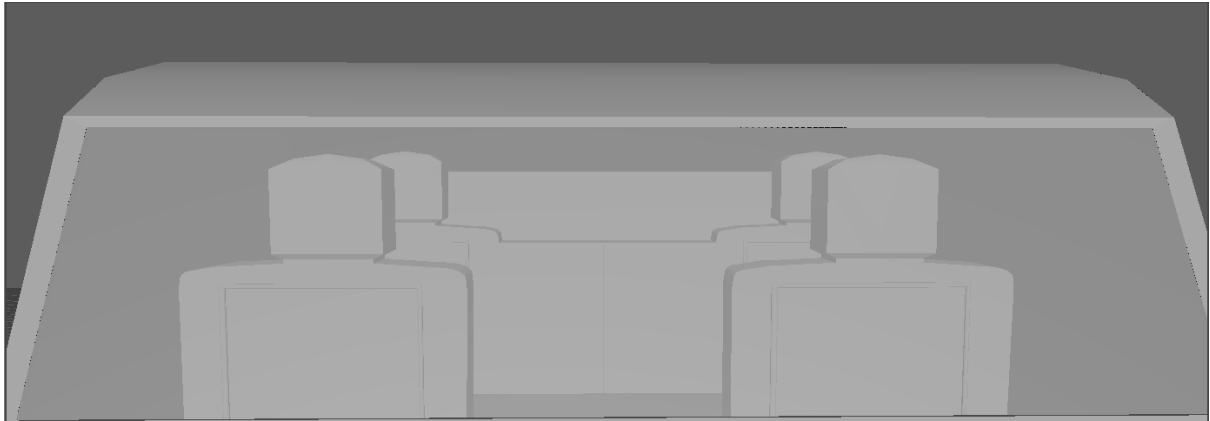
that the characters vision will be slightly obscured by the drivers seat and the character will be able to see the back seats within the car.



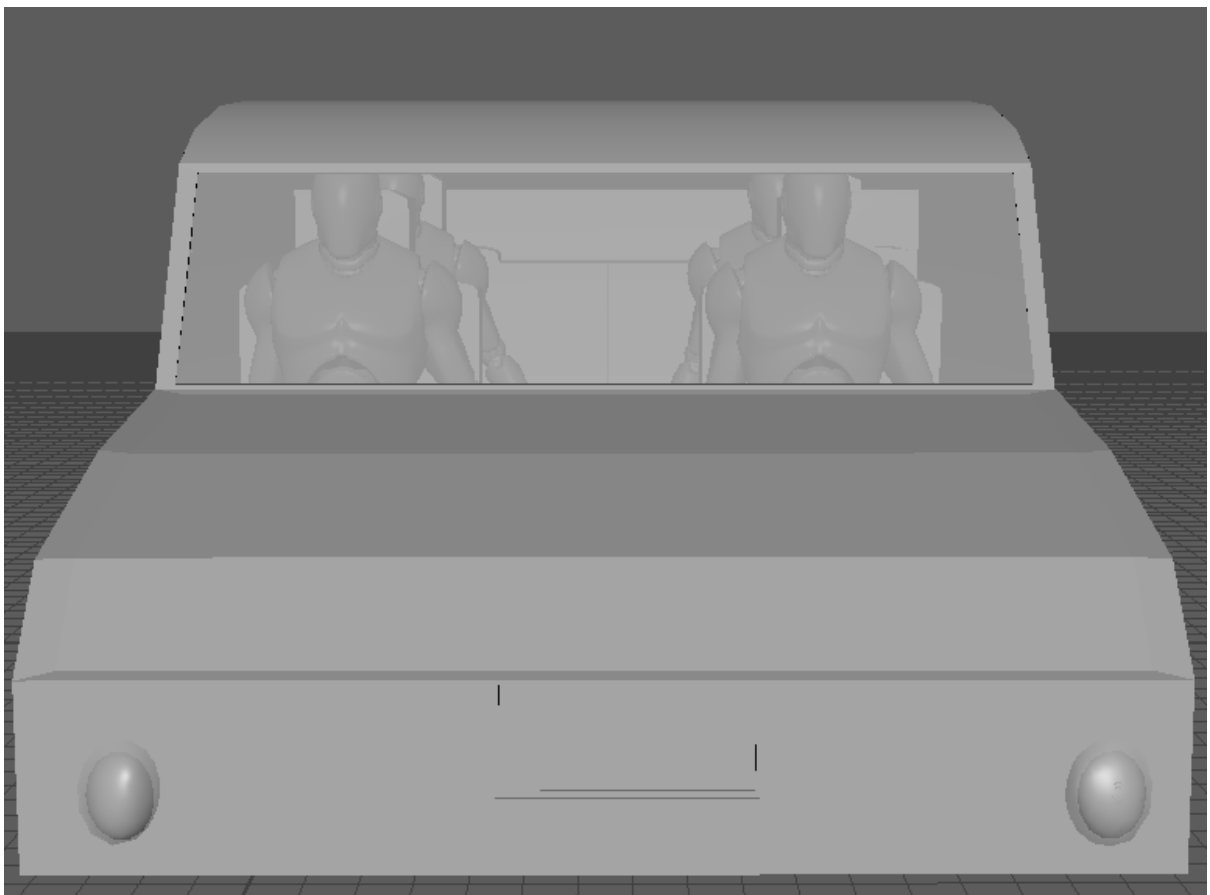
I added some detail to allow a clear distinction between the different materials that will be placed onto the seats. This being the seat frame and the cushion segments of the seat. This also to allow for a sense of realism when the player looks back towards the other seats.



I then placed the seat into the car and made some changes to scale and size within the car and for the car itself to allow for a realistic scale from the perspective of the character. I then started to work on the remainder of the seats within the car.

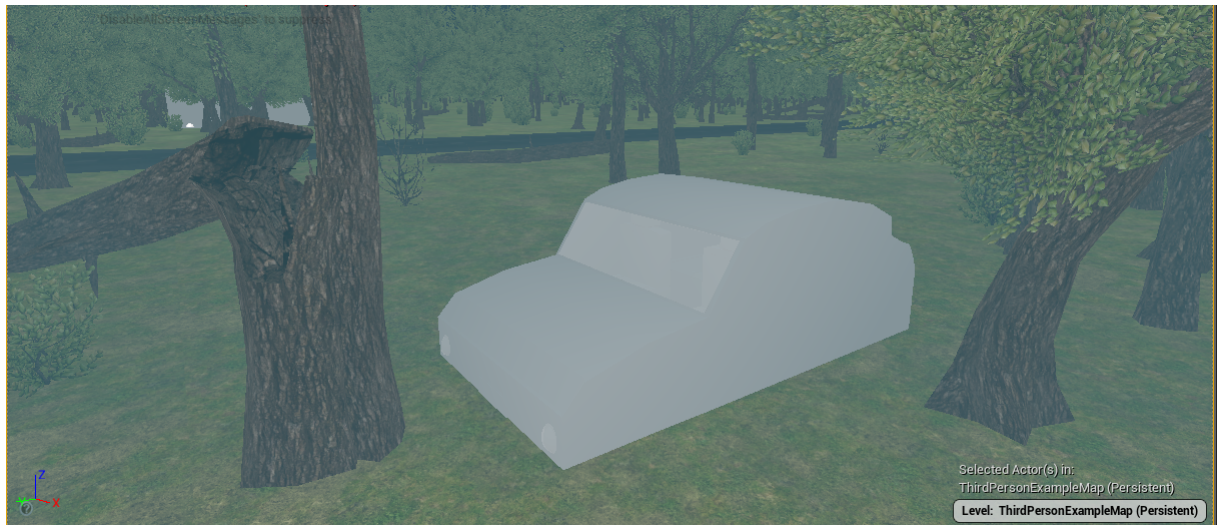


For the passenger's seat I simply duplicated the driver's seat and made some minor changes on the bottom that would only be present on the passenger's seat. For the back seats, I created a variant of the initial seat with a connection in between. I have plans to place a headrest in the centre as well but I am currently working on rescaling the car and the seats to allow for the Unreal Engine basic third person model. This would be the likely model I would use within Unreal Engine when testing and creating my cutscene cinematic.



I made some adjustments to the size and spacing between the seats and inside the car itself to allow for the space to place models within the car. I would only have 3 different models within the car for other characters, these being the main characters wife and daughter. I placed the fourth character in for space comparison to make sure that the model was evenly spaced in the back section of the car.

I then used this model as a placeholder to place into the current project within Unreal Engine 4 so that I could begin work on the cutscene. This would be the harder part and now that I have the placeholder created, I could simply modify this model and apply the changes within Unreal Engine without affecting the cutscene mechanically and only changing textures and visual aspects.

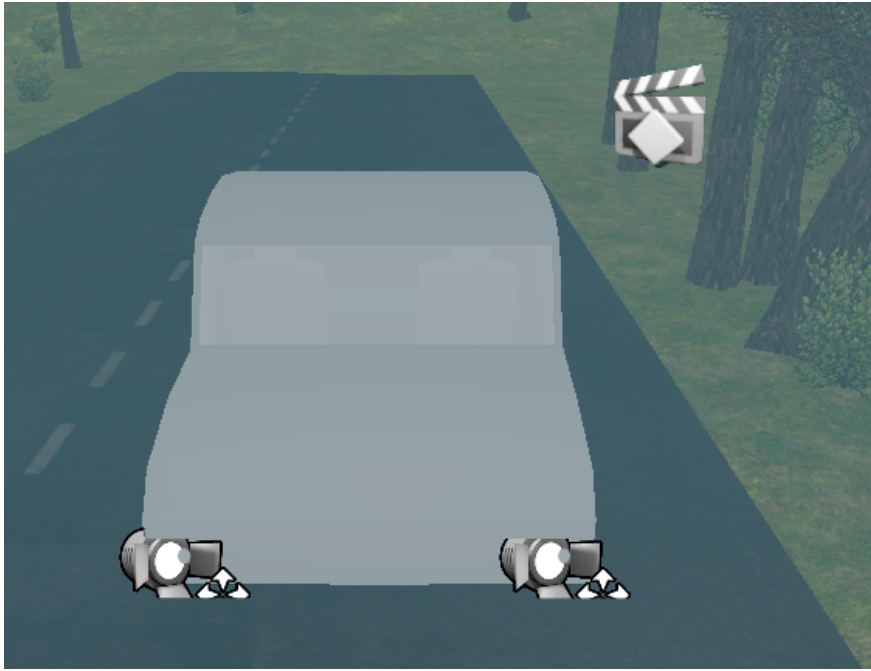


Now that I have the model placed into Unreal Engine I can now begin work on integrating this into a cutscene and constructing the cinematic to begin my project.

Task 2 – Creating my Game – Project Creation – Cutscene Creation and Blueprint Construction

In this section, I will be displaying my thoughts and progress on my work towards a functional cinematic sequence at the beginning of my project. I will be explaining reasoning and progress throughout the sections while I improve the sequence. I will be demonstrating what I am constructing while explaining any issues I would come across.

First, I created a new duplicate of the car placeholder model I previously made and moved it to the location where the cutscene would begin. I also created the level sequence that would be used to create the animations.



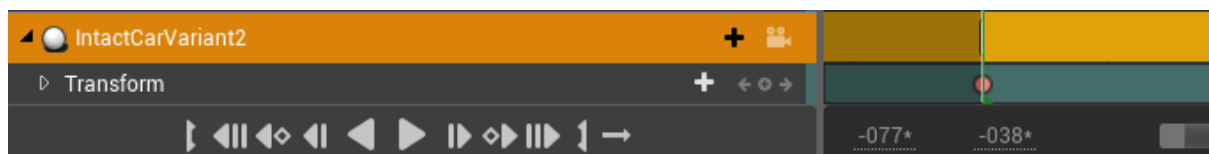
I then placed the camera that I would be using as the players view within the car. I placed a single light inside the car to allow the player to see the inside of the car.



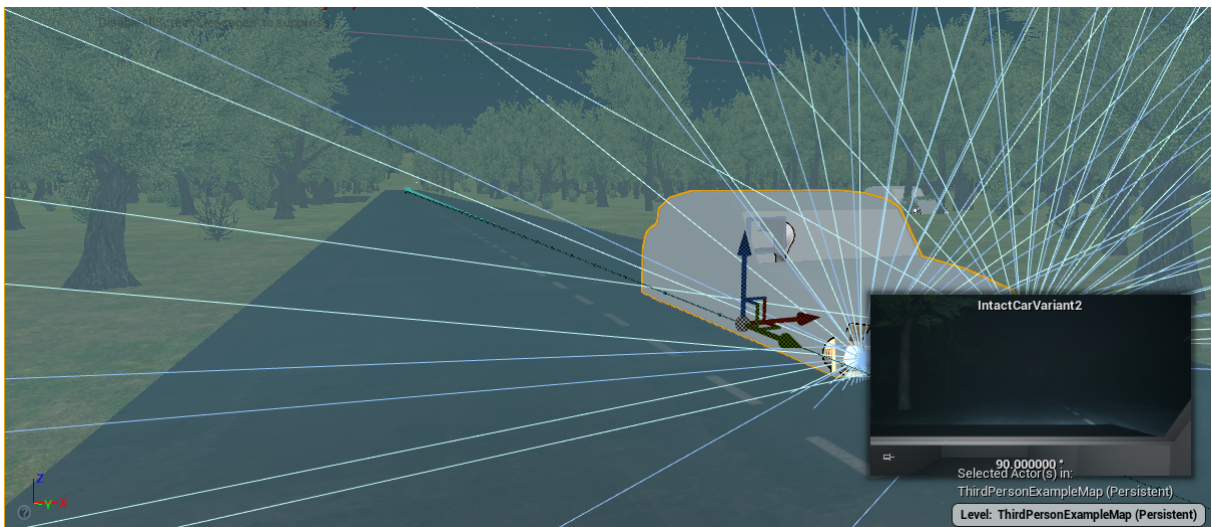
This was my initial placement and was a test run to create some kind of framework to allow for the initial animations to be added. Below is the current view from the players camera.



Once these items were placed I could begin on the level sequence to begin the animation.



I placed a transform track onto the car model and set its initial location within the world as the starting point for the animation.



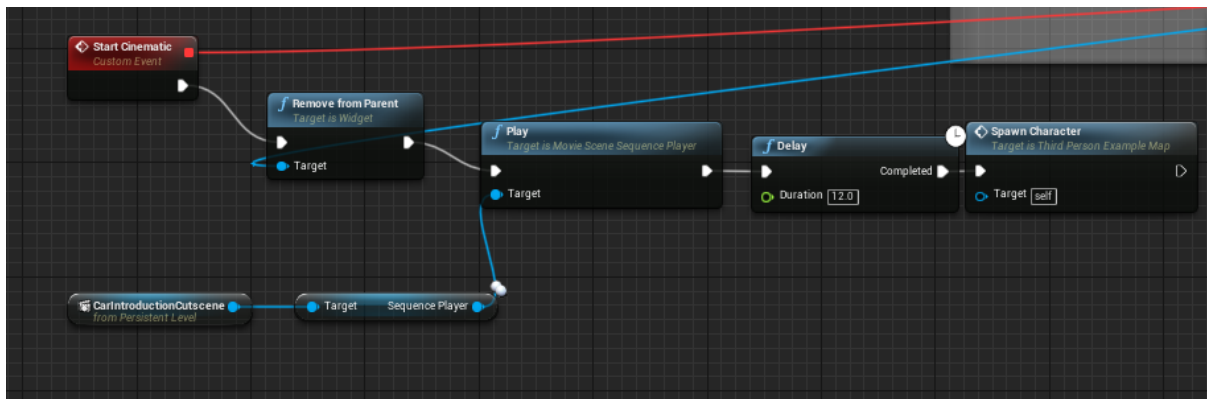
I then moved the pin 10 seconds ahead and placed a new key. I moved the car to the point just before the car is planned to crash into a tree and set this as the new location. I used this to generate a straight path for the car to follow. I plan on adding some sort of animation during this time. Within my story, I have planned to have the player's camera moved to look back towards the back seat of the car. This would be to look at the main character's daughter and then look back to the road.



I proceeded to then move another location more rapidly towards a tree nearby. I added some simple rotation to the car during this time so that the car seemed to swerve towards the tree off the road. I also had to add multiple key locations during this section as the movement was over 3 seconds and the car seemed to unrealistically drift across the road rather than suddenly turn. To remedy this, I created a key where the car moves slightly forward while rapidly rotating. The car would then proceed to travel the remainder of the way as shown below.



At this point, the cinematic framework was now complete and ready for implementation.

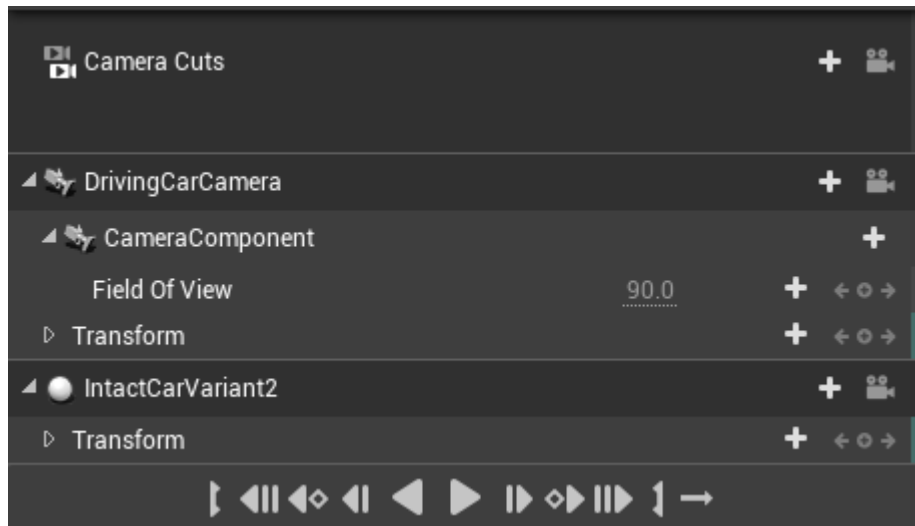


I then created a small blueprint that was triggered after my survival mode button was clicked. This would act as the initial cutscene to begin the cinematic then proceeding to start the game. Below is my current progress.

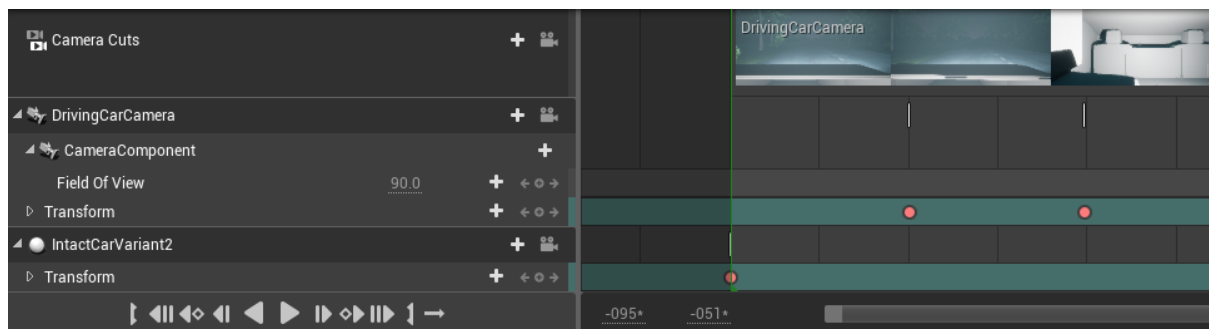


Car Initial Cinematic
Video Demonstratio

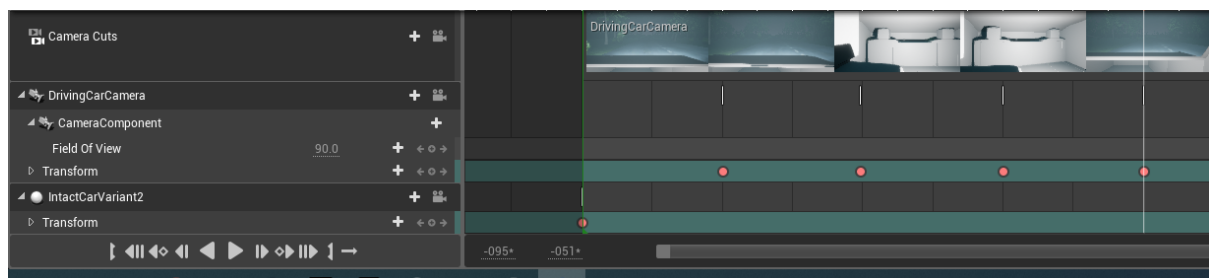
Once this was ready I then begun to add camera movements to compliment well with the story I planned previously. I began by adding a transform track to the camera to allow me to move the camera during the animation.



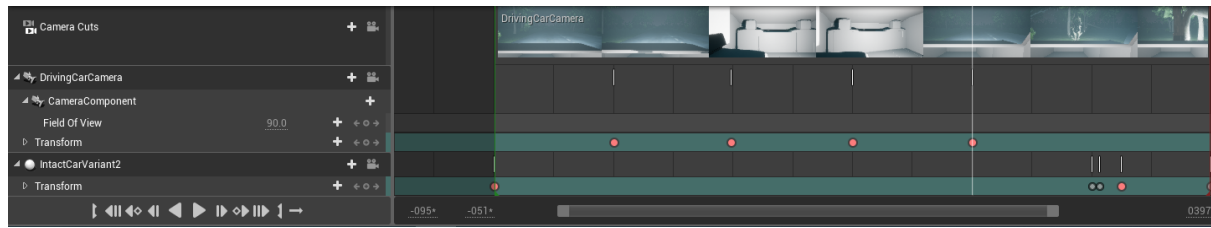
I then created a key so that the camera would remain on its position within the car until two seconds within the cutscene. After this, I rotated the camera and made slight adjustments to allow the camera to have a clear view of the back seat within the car as shown below.



I continued to then place a new key that would rotate the camera back to its original position. This was all happening while the car movement animation was still taking place. I would have preferred to have a model that the player would look at during this time but as a test for the moment, the player would simply see the back seat of the car.



After the camera was back to its original position, I had placed the movements of the camera in a way that meant the player would continue looking at the road for two seconds while still moving before the car would swerve and crash into the tree as shown previously.



Once complete, my framework animation was complete and ready for improvement and further development. This will likely include sounds, textured objects and hopefully a placeholder character that I could begin working on for the main characters daughter that would be sitting in the back seat.

Below is another video demonstration of my current progress and where I will currently end my work on my cinematic to begin work on sound effects and ambiance within my level. I will be improving this cinematic throughout production and will hopefully have a new cinematic created for when the player stumbles out of the car and onto the ground where they will proceed to shakily get up off the ground and the game would begin there. This idea is currently not implemented but is a future project to work on within my world.



Cinematic
Framework Complet

Task 3 – Unit Completion Analysis and Evaluation Based on Unit 5 Assignment Brief

For this section, I will be analysing my overall goals and expectations throughout this unit. I will be outlining the key points I made throughout my project and exactly where I completed my objectives provided by the brief and how I completed these objectives.

I will be giving a brief overview of my level as a result of the separate brief provided being the game brief to talk specifically about my level and its features and mechanics.

Task 3 – Unit Objectives and Instructions Provided by the Unit 5 Assignment Brief

Task 1 – Create a report explaining the requirements of working to a brief (2000 Words)

Your Research MUST include types of briefs used within the games industry:

Contractual

Negotiated

Formal

Informal

Commission

Tender

Cooperative

Competitive

Connor Hatton-Holt

Deadline 20/1/20

Personal Expectations and Objectives – D1 Criteria – Comprehensively explain the requirements of working to a brief with elucidated examples

[Task 2 – You are required to create a planning document where you will consider ways in which you are going to develop your obstacle course.](#)

Minimum Requirements:

Introduction Page

Options Page

Help Page

2 Level Load Buttons

Commented Blueprint

Level Size Limit:

1 x Landscape – 63 x 63 quads – My Personal Choice

3 x Landscape – 15 x 15 quads

5 x Landscape – 7 x 7 quads

Help Button

Information Page

Minimum of 5 blueprint procedures

Deadline 24/2/20

Personal Expectations and Objectives D2 Criteria – Plan a response to a brief to near-professional standards showing creativity and flair and working independently to professional expectations.

[Task 3 Level Production and Project Development](#)

You must now start to produce what is required within the brief.

Remember this is a prototype. Marketplace assets can be used however it is not essential to purchase anything! There are free assets available. Please be careful.

Deadline 16/3/20

[Task 3 Second Section – Self assessment and Evaluation](#)

Create a self-assessment document where you will evaluate your work upon completion of your level in response to the requirements of the brief

Requirements:

Screenshots of finished level – Video and Screenshots available

Evaluation of completion

Analysis of the brief

Assessment Document

Deadline 30/3/20

Task 3 – Initial Analysis of These Objectives

Task 1 – This seems to be a research document designed to inform me about obligations throughout the games industry and to teach me the different ways in which my objectives will be provided to me when working within the games industry.

Task 2 – This seems to be a planning document that shows thought and inspiration into the creation of my personal project. This includes pre-production, theme, story, genre and in general any ideas I come up with to match my level.

Task 3 First Section – Production of the level that has been planned and the implementation of stated objectives into my own ideas. This includes: menu systems, blueprint mechanics, environmental aspects, character creation and story implementation into theme and design of the level.

Task 3 – Second Section – Analysis of objectives and overall evaluation of the unit and my progress throughout.

Task 3 – Overall Evaluation of Objectives

Task 1 – Research into obligations within the games industry (2000 Words with 10% Allocation)

During this section, I spend a large amount of time initially looking through information from a variety of sources. These obligations are displayed in slightly different ways depending on the industry type, employer, customer range and workers within the project. This meant I felt the need to spend significantly more time to verify information to make sure that these obligations were correct to my highest ability.

For each section of the task, these being the different forms of obligations, I allocated 250 words with a slight allocation above or below. This meant that by the end of the task I would have slightly above or below 2000 words which was the requirement allocated by the brief with a 10% allowance above or below the requirement. I made full use of this allowance as the requirement was moved up to 2200 maximum and allowed me to be more thorough with my explanations.

The only situations where I allocated more or less words to an explanation were when I came towards the Cooperative and Competitive briefs. This is simply as a result of the Cooperative brief being earlier explained partially within other briefs while Competitive briefs being a longer concept to explain.

After completing this task, I proceeded to place the main links that I linked back towards multiple times to my reference list at the bottom of the allocated location for Unit 5 within my development blog.

Task 2 – You are required to create a planning document where you will consider ways in which you are going to develop your obstacle course.

With this specific section of the brief, I added a massive amount of explanation throughout all of my units, these being units 74, 73 and 5 explaining and expanding my idea. Most of these were summarized within units 5 and 74 and then added to unit 5 as my main unit.

I added an extreme amount of detail to the story of my game. I focused on the atmosphere and sound within my game and based my concept from a small sketch I made based on this idea.

I created a story for the main character within the game and created a scene and environment where his wife and child within the game would be held. I explained about the connection these family members have within the game and how they interact with the environment and the combat system within the game.

I explained how I pushed the aspect of fear within my level and how fear would affect the character and actively change the way the player interacts and sees the environment and level. I focused on the psychological fear and the ability to change the way the player feels with emotional story and deep depth towards the story allowing players who wish to know more about the game to have the ability to delve as deep into the game as they desire.

I based my game idea from the old silent hill and slender games. In this I used the idea of looking at an enemy would affect the player mentally and visibly in some way. I also used the idea of having Severely reduced vision. Within these older games, they mostly used darkness and forest like environments to lower the players vision, I chose to use fog and atmospheric effects to reduce vision.

During this time, I spent the most significant portion debating between my main choices of story. I had one idea based solely on the ability to create a sense of fear and anxiety within the player and to create a simulated adrenaline rush within the player. This pushes the player to act out of fear rather than thinking which means that if the player avoids thinking then they may not realize that they are within the game and not in the real world.

I built my idea solely around this aspect because I personally believe that, in most cases, a solid sense of immersion that effects the player so deeply that they don't think they are fully immersed into the game because they forget they are playing a game. This form of psychology is designed to fully simulate a real-life experience within a game project and to place this onto a player and give them the ability to constantly be active and feeling rather than thinking and understanding.

I wanted to find a way to gain all of these different aspects and ideas into a solid plan. I used these ideas with a small story I came up with to create my initial idea. This is where I came up with the main character and his family. I used this to come up with the environment and the idea for a car crash. These slowly combined and using the idea that the character is terrified of what he did to cause the death of his family as a catalyst to create the deeper story. The deeper story being that he is actually in a coma and someone who in the narrative is described as the 'therapist' is using some kind of device to speak to him while he is in the coma. This explaining the way the world will change around the player.

Once I had the main story outlined and I finished planning on how to implement this into the gameplay, I began planning my active mechanics and features such as: combat, movement, first or third person, beginning middle and ending to gameplay scenes and environmental aspects as to what the game would look like visually.

I planned the map to be fear related as the story determines and went for a dark fog like environment that restricted the players vision to their immediate area. I also thought about completely removing any light throughout the map other than the flashlight that the player is holding. This meant that the players vision would be less so in their immediate area and more realistically in a cone of vision where they aim their cursor.

This allowing the idea that figures could be hiding just outside of the players field of vision and be watching.

I planned to have a large forest like environment that the player could easily be lost inside while making the fog and dark scene more realistically natural rather than some dark void. I did also plan to have this dark void like area around the map as the story dictates that the players gameplay location is within the mind of the character and unrealistic occurrences are prone to happen.

I also planned to have some kind of road or path that a car would be driving over to fit the car crash idea into the environment. This meant making a way for the player to see this car and made me think about the characters such as the main characters wife and daughter.

Task 3 First Section – You are required to now start to produce what is required within the Assignment Brief.

In this task, I begun the creation of my project and the implementation of the plans I created within task 2. Initially I created a simple grassy landscape and started work immediately on my environmental effects and the dark atmosphere I planned on creating. The first section involved creating a night skybox that would simulate a realistic night effect.

At first I planned on using a custom skybox from a realistic weather pack I found on the Unreal Engine 4 marketplace but when implementing this I noticed that the stars were overly bright and applying a dim lighting effect to the entire environment meaning that the player would be able to see a large distance further than the planned cone of vision.

As a fix for this, I scrapped the idea and begun to actively change the starting skybox from the third person template. I removed the skylight and the sun from the skybox altogether, I also removed the directional light from the level leaving the entire environment completely dark other than the sky. I then changed the settings from the skybox to simulate the sky as if the sun was below the landscape. This fixed any further issues I found with the lighting.

I then started to use a fog like effect to create an atmosphere to stop the players ability to see dark silhouettes of objects in the distance. This was caused by the skybox being seen behind objects allowing the player to see the edges of objects. I made a temporary fix to this by raising the landscape at the edge of the map stopping this issue.

When implementing the fog effect I planned within task 2 I had two initial ideas, the first was to use a fog particle effect that I created during my first-year particle effects creation unit. When I implemented this into my project, I found that the fog effect was not even close to the desired effect. This was simply because the fog effect wasn't thick enough to act as a solid fog that would add some sort of impairment to the players vision.

When trying to resolve this issue, I tried options such as using GPU focused effects, the issue with the fog being too light was caused by the particle effect limitations only allowing a maximum of 1000 of each individual particle. GPU effects relied entirely on the limitations of the device and allowed a plentiful number of particles. I then came across another issue with the creation of this particle effect.

When creating this effect, to allow for a better result of realism, I created a grid of 48 different visuals for these effects and had them blended using Unreal Engine. This meant that all of the particles were unique and the player is less likely to notice repeating factors. When using GPU sprite effects, for

unknown reasons, these blending options were unavailable and I am unable to use the same technique meaning that the particles looked less like fog and more like image grids.

After this point I chose to change my direction and start using environmental fog and exponential Height fog provided by Unreal Engine 4. I used this to create a deep and thick fog effect that spanned over the entire project environment. I made many alterations and spent a large amount of time to get a realistic fog effect for my level. Once complete I gained access to a low poly natural model pack that allowed me to create a naturally populated environment that was full of trees, bushes, stumps and forest like environment additions.

I then begun work on adding a road like structure through the middle of my project to make a suitable location and storyline reason for the car crash location.

I begun work on a cinematic level sequence that would play at the beginning of the level and act as a cutscene to introduce the player into the level. This would introduce the player into the level and give the player a brief introduction to the story of the game.

The introduction to the story that the player would receive is built into the level sequence. During the cutscene, the player will be traveling down the road previously created and would be in the position of the driver's seat. This deviates slightly from the story but as a demo this would be the best option to introduce the player into the game.

The player will be driving down the road with no control over the character. The character will then turn around and look towards the back seat of the car. This currently has no object placed in the back seat other than a placeholder third person character. This would be replaced with an animated character being the main characters daughter, she is planned to be drawing on a notepad or a piece of paper, the daughter would ask for the pen on the dashboard of the car. The character would then look towards the front of the car and there is planned to be a visual effect of red or simulation of pain. The car would then swerve to the left and hit a tree. This would then fade to black and when fading back to reality and vision begins to return the character will see an animation where they push themselves shakily up from the ground and regains their balance as the game starts.

I then begun work on the enemy within the game. This enemy was designed so that it would actively seek out the player. This enemy would be constantly checking, currently every 2 seconds, if they are close to the player, if they are close then they will stay where they are, if they are further than a stated distance from the player then they would teleport to a new location around the player. This teleportation is the designed mode of transport for the enemy.

I planned for the enemy to have some sort of void like mist engulf the enemy and recede once the enemy has moved to simulate the enemy sinking into the shadows and reappearing elsewhere but I have yet to reach this point as I wanted to finalise the demo as best I could before the provided deadline.

This enemy works from a blueprint system that is constantly checking for the location of the enemy. This works from a pawn sensing system that is linked to the character which constantly checks for the enemy and sends out different responses to the blueprint depending if the enemy is in view or not.

At any point throughout the game, if the enemy is not in view of the player then the fear progress bar would go down by two points with a minimum value of 0. If the enemy is in view of the player then the value will increase by 3 and continue to increase by 3 for every second that the enemy is in view of the player.

If the enemy is not in view of the player, then this value will be reduced by 2 points every 2 seconds. This is designed so that the player is punished for failing to avoid the enemy, as an example, if the player looks at the enemy for 10 seconds, it will then take 20 seconds to get back to the previous value.

Task 3 First Section – You are required to create a prototype game demo. Your demo will be a simple obstacle course game.

When I was provided this brief, I immediately asked about the requirements of this brief, I found that even though the brief asked for a simple obstacle course, as long as I added all of the required mechanics and interactions, I was able to produce a fully functioning game as I had planned without going against the brief even though it was technically not an obstacle course. This section was approved by my tutors for multiple different units.

Within the game I created an initial menu system that allowed for event driven access to my environment and level. This was designed to be simple and to change between scenes slowly and with a slight curve such as fade-in mechanics and to avoid looking like one screen immediately switching to another.

As this of this being a game demo, I was able to create large amounts of these fade-in effects throughout my level, but I also had many other requirements dictated by the different briefs provided for this unit. I decided to temporarily leave these sections out to finish the menu system and to create functional mechanics throughout my project.

The menu system requirements dictated by the brief asked first for an introduction page that would explain the goal of the game. I enquired about this with my tutor as for the story of elements of my game focusing on a sense of realism contradicting the idea of having a n introduction page within my level. During this enquiry, I was informed by my tutor that it would be alright to avoid having an introduction page within my project so long as there was a constant sense of direction for the player to follow to reach the next segment of the game.

Once I was told this, I begun work on creating visual cues and planning for certain sounds and occurrences that would lead the player to the next segment of the level to make up for the lack of introduction page. As this was a requirement however, I created a pause menu system that could be accessed at any time by the player. This menu included a help system that would select and display to the player any out of a variety of tips and objectives that would direct a lost player to the desired location.

This was then completing the required help widget for the next section of the brief and this would allow the player to gain direction within the level at any time and can pause the game in situations where this is required.

The next section was providing the requirements for blueprint interactions within the level. The minimum requirements for this unit was a minimum of 5 blueprint interactions that would change the players environment or effect the player in some way.

My first blueprint interaction was based on the cinematic I placed within my level initially and would then start to affect the character, the environment and the ending of the game. Initially within the cutscene, the blueprint is on a timer, once the timer for the cutscene is finished playing, the main character will be spawned outside the car and the player will be disconnected from the cinematic blueprint and take possession of the first person character where the player can begin.

Before all of this with the cutscene however, multiple widgets will be created and some will be displayed to the character. The player will initially see a menu system with the ability to quit or begin, if the player picks begin then they will be greeted with two options, survival or story. At the moment the story element and survival are built into one but this is designed so that the gameplay aspects of the game can be immediately accessed by the player without going through the story if they desire.

This main menu is created and along side this will be the Fear Progress Bar that is created in the background and is likely not to be displayed to the player unless I decide to link the visual effects that will become visible when the progress reaches certain points above 0. These blueprints are the second set of blueprint interactions within the project.

Specifically, within the fear progress bar, this leads to the third blueprint interaction within the project. This progress bar is connected to a system that is constantly checking the 'Fear' level of the character throughout the game. Unless the player dies then this interaction will continue indefinitely.

This interaction dictates how close the player is to death. This progress bar will be looking for the current enemy within the game. When the enemy is in view of the player, this value will increase rapidly, when the enemy is not in view of the player, the value will slowly decrease. If this value reaches 100 then the player dies and they are pushed back to the beginning of the game with the main menu.

The fourth blueprint interaction within my game is the pause system that I worked on. This pause menu is available at any point in the game and gives the player an option to resume the current game, quit the game or get a tip to help them complete the game. Currently I don't have a variety of tips added but the system is ready and will be improved upon when the when the gameplay aspects that the tips will be assisting the player to complete are ready.

This pause menu is created during the start of the game and is always present under the players UI that they cannot see. This pause menu is tied into an animation sequence, created within the menu widget itself, that, when triggered, will start an animation that moves two black boxes from the top and bottom of the screen to converge in the centre, completely covering the screen with a black cover. This is then reversed if the game is resumed or if the pause button is pressed once more.

This menu and its animation were designed in a way that simulated a blinking mechanic within the game. This was created to link directly with the story within the game. Within the story the pause menu is described as blinking. During dream states or lucid dreams that have been researched and people have realistically had, they have no recollection of ever blinking or feeling the need to blink.

Within my game, the entire environment takes place within the mind of the character while he is in a coma. The machine within the story that allows the narrator to speak to the character placed him into a dream like state where his mind controls the environment. In this environment, if he blinked, he would no longer be thinking for that split second about the environment and all sounds, actions, environmental features and vision would stop and the player has control, when the player un-pauses, the game continues.

As for the 5th blueprint interaction within my project, I currently do not have another large mechanic that drastically impacts a core point within my game. Other than the mechanics and interactions I have mentioned previously, I have a few more minor interactions within my game that do not have larger effects over the environment but are interactions that are constantly checked and played until the player interacts with these objects.

One of these is the headlights on the front of the car. During the cutscene, these headlights are lighting up the road ahead so that the player can see. This is as a result of the character within the car that the player possesses to see the cutscene being a different character to the one that is controlled when the player is in-game. This also includes the small point light within the car that gives the player the ability to inside of the car.

When the cutscene completes, these lights are on a delay that, when the cutscene finishes and the player looks towards the car, these headlights and the point light will be turned off. This is to follow the story with the only light being the one that the character holds to see where they are. This story idea is in position because of the fact that the player is inside of the mind of the character and in terms of psychology, within the mind of a person, if they do not think about an object, then that object will not exist or persist inside of their field of vision and therefore not exist at all.

The story is focusing around the light being what the player can see. I have objects like these lights and plan to have more that interact differently if the player shines their light on these objects. This same interaction is present with a small light placed onto the placeholder cabin that I placed within my project. This cabin is only incomplete as I preferred to get the level as a whole functional as I have some issues with leaving ideas and will spend much longer than necessary or required on one idea without looking at the entire location.

Another minor interaction is a blueprint system that constantly checks the players distance from the edge of the map. If the player moves too close to the edge, which they can no longer walk off and end the game based on feedback from peer assessment, their speed will slowly be lowered and stop them from reaching the edge until they turn around and go back. This is simply designed to push the player back to the centre of the map without straying too far and getting lost.

There are also many other smaller interactions that I created during the creation of this project that are still functional and being checked but I have decided to remove them as I had no place currently to put these interactions within my level that followed the story I created.

The first of these is an ice like floor effect that removes the friction physics from the player and restricts their ability to control their movement. If I created a location within my level to have a frozen lake of some sort or location where this interaction could be used, these ideas I did consider and chose to leave them out, but this would require some further implementation of cold or snow of some kind which I chose to focus on the rest of the project first. I may choose to re-apply these in the future and therefore why the blueprints for this and the next few I will explain are still functional and placed within my blueprint but for now they are interactions that are functional and un-used.

Another of these un-used interactions is a jump pad mechanic and a modified jump pad mechanic that allowed the player to control the direction in which the jump pad would launch the player. I decided to leave these out of my project as a result of the sense of immersion and realism I am building my level around. I could not easily find a way to implement these jump pads into the story I have created without changing the outcome of the story that I would like to implement.

Finally, the last minor blueprint interaction that I have created but have excluded from my current level is a fire particle effect. As part of my task 2 plan, I talked about the variants of a car model that I created for this project. I wanted to create a fully intact variant of this that is displayed during the cutscene and when the cutscene finishes and the car has crashed, another variant of this car is replacing the initial one. This one would be modified to have visible damage to the front and different areas of the car. Currently, I have excluded this fire interaction from my current level. As I do not have the damaged variant of the car model in place and see no real reason to have this fire

particle effect placed within my level. This fire effect is fully functional, realistic and ready to be implemented into my level, the only remaining requirement is the damaged variant of the car that I will be attaching the fire particle effect to.

As a disclaimer, any instance where I mention a blueprint interaction that is not fully implemented or placed within my level has a specific meaning. If I have mentioned this about any mechanic, feature or blueprint interaction then this means that the blueprint is fully created and implemented into my level and can be activated at any time. The only part of these blueprints that are un-implemented or non-functional is the fact that they no longer spawn the objects that would be activated. If I placed the collision boxes or objects related to these then they would be immediately fully functional and a part of my level.

References

<https://alexandermoriarty.weebly.com/year-2/working-to-a-brief>

<http://wikifoundryattachments.com/XRLp5RYXwfpeiOjbM63ZrA289806>

Unit 73 – Sound for Computer Games

This development blog will include the overall progression of my personal projects and tasks provided by the assignment brief. This blog will include insight into my thought process and concepts throughout this unit and will include critical evaluations of my ideas and my research during and at the end of this unit.

Throughout this unit, I am striving to learn how to create professional standard sounds, music and effects that I could create and use within my own game ideas and be able to immerse players into a specific atmosphere and create a burning feeling within my players that pushes them into a state of mind that would fit the genre of game I am planning on creating.

I want to learn how to truly immerse a player into a game and captivate the player with an interesting set of tracks that pulls the attention of the player away from the world around them and fully into the digital world they are experiencing. I am going into this unit with no knowledge of music, effects, sound and immersion methods and learning a completely new concept with this unit so I hope to gain the ability to use the force of sound to improve my game ideas tenfold.

Task 1 – Understanding Sounds within Games

In this task I will be providing my personal opinions on sound and effects within games. This including my opinions on how useful sound is within games and how important it is while explaining how my opinion of different types of sounds change the way these sounds are important.

I will also be stating a separate copy of this but based solely on research and ideas found on outside opinions to more professional standards.

Task 1 – Understanding Sounds within Games – My personal Opinions and Ideas

What are music/effects for games?

Music and effects are additions to games that are created prior to or separately during the games development. These are likely to be created with outside software and are not created within the game engine itself.

Music and effects for games are different sections of sounds that can be played and triggered at different times to create a sense of immersion. This is likely as most people struggle to play or enjoy games that are without sounds and most games require these sounds in order to be properly played.

Music and effects can mean a variety of different aspects. Some of these aspects are as follows: realism, this to imitate sounds that would realistically be heard during specific interactions or movements. The sound of running water for example. Feedback, these are sounds or effects that are played because of something that has been triggered or done. These include grunts or sounds of concentration or struggle that would happen if a player was to jump for example. Ambiance, this being a background source of sound that is constantly playing or is playing for an extended period of time to provide the player with an atmosphere that changes their state of mind while playing the game. This includes sounds and effects such as; birdsong, background music, animal noises, environmental aspects like running water etc.

<http://www.amplifon.ie/resources/playing-with-your-mind/>

Why is sound important for games?

Sound within games is a vital portion of the games development and could make up any real portion of the games production. This could be between a game that relies entirely on sound cues and listening for movements or specific sounds to general ambiance that is placed throughout a game to keep the player occupied and in a specific state of mind or atmosphere.

Most games require the use of sound to be effective, although these games can be played without sound, the game aspects and gameplay features are likely to be designed with sounds in mind. These games are likely to have realistic sound cues for movement or sound cues that are triggered when a certain event is triggered within a game such as being spotted by an NPC or when an interface is used to interact with an object.

When developers are creating a game, they don't just come up with a concept or an idea and visualize a 2D or 3D image within their mind to portray to a group. It is almost certain that the developers would have some kind of sound or effect in mind or playing in the back of their head that relates to this idea. This is shown when some developers create a game without sound but cannot figure out why their idea looks as they would expect but doesn't quite feel right.

These choices in sound and ambiance are heavily reliant on the depth of the sounds and how they are displayed, a sound with a lowered pitch or amplitude will make a completely different impression on the same sound with a higher pitch background variant. These can be edited considerably to change the feeling portrayed by the music depending highly on the wavelength or sound pressure and intensity that is chosen. These ideas are highly important to development as high frequencies or louder sounds can push players away from games if they aren't modified correctly.

<https://www.anarapublishing.com/the-importance-of-music-in-video-games/>

What types of sound would you expect to hear?

The sounds that I expect to hear within a game depends mostly on the type of game following its: genre, type of displayed playstyle, general feel to the game and what the developer was trying to get the player to feel when playing their game. As an example of this, a sci-fi game that is played in space with combat using futuristic energy weapons to fight enemies would have a wildly different set of sounds and music throughout the game than an realistic simulation of a forest walk which may use

animal sounds or water flowing, leaves and birds in the wind and the sound of grass being crunched as the player takes a step.

In my mind, there are different categories of sounds that are played and mixed between different games compared to sounds that are made for specific genres or with specific games in mind. These categories include: ambient sounds/background sounds or music (these being sounds that are played constantly or are played solely to indicate a change in the environment or world), feedback/reaction/after effect sounds (these being reaction effects such as: grunts, footsteps, button clicks, breathing, shooting/gunshots, door closes etc.), event/large scale actions (these include large events such as: weather changes, world changes, terraforming or environment changes, large or small scale combat, loading or unloading levels/worlds, spawning or creation of objects etc.), menu/UI effects and actions (these include: reaction effects when clicking buttons or changing pages, opening a piece of paper or a tablet/console, a fade from background or in game sound into a paused state, sounds indicating large changes such as graphics quality etc.)

<https://blog.landrr.com/audio-effects-plugins-guide/>

How can sounds be created?

Sounds can be created in a variety of ways. Some of these ways are: using software to record sounds created in real life, editing created or previously created sounds to change the way they are heard, created with instruments and may be distorted to sound slightly different, created by mouth to create unique sounds that are harder to replicate with instruments or software, etc.

These will be recorded so that they can be played at different portions of a games development and throughout a game. These may also be additionally edited within recording software to distort or change different aspects of sound.

Sound can also be created using software that creates sound through mathematical or programming algorithms that will generate a specific sound through a program and this is used mostly at professional industry locations as these kind of complex algorithms require extensive programming knowledge to edit and create sounds that are unique and not ordinary in any way.

<https://beebom.com/best-audio-editing-software/>

<https://www.edmprod.com/music-production-software-the-definitive-guide-2019/>

<http://www.rote.com/blog/all/a-quick-guide-to-recording-foley-effects>

Task 1 – Understanding Sounds within Games –Discoveries Based on Further Research

The previous section based on my opinion includes research but is influenced by my own opinion, the area below is dedicated to areas that I didn't entirely explain due to my own opinion. As for this it will not include all of the categories of questions and acts as a researched expansion on my previous explanations.

What are music/effects for games?

Sound within the games industry is used as a psychological trick played against the players mind to change the way they think and feel by playing a specific type of sound/music that is naturally linked to a specific state of mind or emotion that a person would feel. One of the most common uses of this are pentatonic or pentatonix. These are a series of tones that are played with the fourth and seventh tones omitted, these are a powerful form of psychological manipulation as it pushes the listener to feel a specific way that the tones are imitating or attempting to show.

Definition of pentatonic – ‘consisting of five tones specifically: being or relating to a scale in which the tones are arranged like a major scale with the fourth and seventh tones omitted.’

This is the basis that most sounds and music tracks created for various games are following. Excluding some reaction or sound effects such as trauma sounds, most audio tracks or sound cues within games are created with the listener’s state of mind as the focus. Games that force the player into a state of mind such as fear or exhilaration/excitement will use sounds that relate to the common person emotionally in a deep way.

This affects different people in many different ways, some people who have experienced a large amount of fear in their life may not react as visibly as someone who is rarely fearing anything. This means that different forms of psychological audio manipulation will have varied effects on different people who have had different experiences.

To combat this, a more complex form of this psychological audio manipulation is adaptive music. This form of music is widely used within the games industry, commonly when entering combat phases of games or to indicate changes in the pace or gameplay that are serving as warnings or preparation to what is about to arrive or start.

This kind of music changes with the gameplay itself and is integrated to the type of game played, fast paced games may start a rapid drumming or high speed up-beat track that acts as an adrenaline increase for the player putting them into the state of mind similar to fight or flight. These are used in many games, commonly within open world games that allow for the player to explore peacefully one moment while meeting an enemy in the next and a rapid change in pace is required to make the player feel closer to their character or game.

Effects are a different form of sounds and music within the games industry, this form is specifically based on the ways sounds are distorted or edited and changed to sound unique and different to other forms of natural or linear sounds. These follow forms of audio effects such as: modulation, Time-Based, Spectral, Dynamic (which has been explained further within ‘Importance of sound’) and filters.

All of these complex concepts started with a common idea that Leonardo DaVinci discovered the idea of sound waves in the year 1500 but there are many speculations as to who truly discovered sound in its ‘wave’ form as Galileo Galilei discovered further into the properties of sound and how pitch effects this in 1660. You can even go deeper as to think about a roman philosopher names Seneca who discovered sound waves within the first century AD, this is however speculation as, while being discovered in this time, it was dismissed as a minor discovery and was not looked into further until DaVinci.

<https://www.enotes.com/homework-help/who-discovered-sound-wave-when-126763>

<https://www.theguardian.com/technology/2016/jan/11/sound-secrets-behind-perfect-video-gane>

<http://www.aquinn.co.uk/wordpress/7>

<https://www.edmprod.com/music-production-software-the-definitive-guide-2019/>

Why is sound important for games?

Music and sounds are vital in the successful production of games within the games industry and is almost necessary for the production of a highly successful game. Although most games allow the

player the option to turn off sounds and music, most developers built their entire game around the aspect of the sounds that would be heard within that section of the game.

The music in collaboration with the sounds within a game are used to set an overall pace for the game, it is not only used to set the pace that the player should play the game but also to set a pace that the player thinks they should be at which is by far the most important part.

Influencing the way a player processes information and chooses to react within a game is vital to placing the game in a specific genre or category and completely changes the way the player chooses to play or react to actions within the game. This is especially prominent within the horror genre.

The horror genre is a great example of the psychology of sound within games as this genre relies mostly on this to change the way the player feels and to push them into a fearful/fight or flight situation that really makes a horror game feel truly terrifying. Without the sound, this genre of game would be nothing more than a shell of interesting gameplay and jump scares of objects appearing around the player.

<https://www.anarapublishing.com/the-importance-of-music-in-video-games/>

<https://www.sound-ideas.com/Page/what-is-foley.aspx>

How can sounds be created?

There is a variety of different software, each with their own pros and cons, for both audio and music creation and also editing and manipulation.

Specifically for editing, there is a variety of software such as: Adobe Audition which is a great piece of software for small pieces of sound and voices but requires a paid subscription and is not designed for beginners, Logic Pro X which is an easy to use software with plenty of plugins and tutorials but is; unfriendly to beginners, very expensive (\$199) and is only available on mac, Audacity which is a completely free software that is very beginner friendly and easy to learn features with a booming community, this software does not however, have a very effective UI and crashes at times while using mac, it also has the inconvenience of not recognizing new microphones after the software is started, requiring restart.

As for audio creation software there are pieces such as: FL Studio an easy to understand and beginner friendly piece of software that follows a well-designed UI and is on the cheaper side of the audio creation software. It lacks in its manageable live performance options and is confined to a specific workflow making it difficult for highly experienced users.

Logic Pro X as stated before also doubles as a music creation software that is expensive but a one-time payment with a traditional workflow suited to users with past experience with the older software and is adept at mixing, recording, film scoring and editing. The downsides include having no trial so this software is all or nothing and is limited to mac devices only. It also has a very limited supply of tutorials and educational assistance. Cubase which is a more professional piece of software that has great vocal comping and processes this to a high standard while having a manageable amount of plugins and tutorials. While its price is significantly high even for a one off payment, varying from \$310 to \$559 depending on chosen version, its main issue is its user interface and beginner or bedroom producer orientation as the software is designed for large studio and performance.

Sounds can also be created using a form of sound creation called 'Foley Sounds'. This form of sound creation is used for the everyday objects that would produce sounds within a scene, which can be done with recording within the scene, Foley can be used to separately record these individual sounds such as: walking, creaking, tapping, clicking, birdsong, etc. and be able to fully control the; pitch, frequency, volume and other variables to edit the sound to be exactly how you want it to be.

This would require a Foley Artist or someone with experience in sound engineering to have a small area dedicated to the storing and recording of individual objects. These objects would need to be flexibly used requiring the object to be actually within the scene and therefore requiring the object to be bought. As for equipment, this requires large amounts of varying everyday objects such as: planks of wood, gravel, sound producers (for sound that is hard to replicate) a sound insulated room, drapery placed to absorb excess sound and a room that has little to no echo or sound travel time for the best quality of sound.

<https://beebom.com/best-audio-editing-software/>

<http://www.rode.com/blog/all/a-quick-guide-to-recording-foley-effects>

<https://www.edmprod.com/music-production-software-the-definitive-guide-2019/>

Task 2 – Sound Design and Production

In this section, I would like to create an environment that attempts to rely mostly on the sound and audio to plan out the creation of an immersive sound track that fits well with a game of my own design. I am currently throwing ideas around in my head but currently I have a few different ideas to work with that will be explained below.

Task 2 – Sound Design and Production – Pre-Production and Planning - Initial Ideas and Environment

First initial idea and Concept – Short Term Amnesia and Environmental or Ambient Panic

The ideas below are completely intuition and inspiration generated and currently are without research to back these ideas up. This is simply another method of idea generation that I prefer by making stories and concepts from my mind and directly creating an experience through thought and directed emotion.

The first idea that I have for the production of my own sounds and audio within my game is following through from an old game idea that I came up with in a previous unit based entirely around the simulated experience of someone with an aggressive form of short-term amnesia. I was unable to finish this idea in the past because of a simple lack of experience within unreal engine and an abundance of ideas with no real ability to make them functional.

My reason for wanting to choose this is because I have a clear idea in my mind about how I can use sound and ambient music to push this game idea in the direction I want and to make a game that focuses immensely (to a point where it could almost be dependent on) distortion and sound combined with visual effects such as fog and other effects that influence the way a player feels within the game.

Another main point for why I would like to choose this idea is because I would like to use this unit as a spearhead for my experience into the creation of sound design and atmospheric architecture within the mind. I would like to create a game that touches the player deeply giving them an in-depth thought about their choices within the game and a feeling of a connection to the characters and the environment they traverse.

As this is my goal, starting with an idea that has a clear idea and concept of production means I can simply adapt my previous idea to fit this new concept while keeping the general pre-production mostly intact. This giving me full freedom to experiment and create immersive sounds and music tracks to push my player deep into the game design without them even knowing they are being directed at all.

Second initial idea and Concept – Emotional and Anxiety Inducing Slow Rising Fear

Another idea I am considering is a short sight based horror game that pulls away from the jump scares and sudden rushes of adrenaline that players experience within these games. I would like to create a horror game that follows an old concept used by the older games such as silent hill and the old slender games. These games in my eyes control the player's emotional state of mind and the idea of fear through slow implementation of fear and the idea of a silent eerie quiet that instils a low level and slowly rising fear rather than something that immediately shows a player that they are supposed to be scared.

These games I previously mentioned had distorted and long distance figures within the fog or within dark environments that were designed to add a feeling of something being wrong or 'not right' that creates an anxiety effect within the player. This is the form of pace I would like to set within this game. This is to greatly scare the player and deeply without them actively realising they are scared, as I said to instil an emotional state of anxiety leading to a much more intense form of fear as the figures in the darkness get closer and more real without them directly confronting the player.

This game would rely entirely on its environmental effects and audio effects with ambient sounds to entirely set the pace and emotional state that the player would be throughout the game. This would be indirectly changing the way the player thinks and enacting a deep sense of fear indirectly with small almost unperceivable objects and invoking a sort of sixth sense within the player that people only seem to use when something doesn't seem quite right. The kind of psychological fear based game that truly scares a player and gives them a true adrenaline rush that gives the player an almost impossible to reach sense of reprieve and safety when the player reaches a 'safe' location.

This game is a new concept for me and would push my level of environment design to a level that I believe I don't currently have the skills to create but would be an amazing passion project that I would truly love to create and experiment with. This would also require a complete recreation of a new environment and set of assets and objects that I would have to create from scratch which I fear would take up too much time from the experience of learning the sound creation but would be something I would love to work towards as these kinds of games just don't seem to be around anymore as players find easier ways to make jump scares and fast paced horror games that give the player an adrenaline rush simulating fear but this then dies down after the scene and the player may feel like this rush won't be present further in the game.

In my mind, the key to creating a truly immersive, fear and anxiety to find a 'true' horror game relies entirely on the long and heavily drawn out growth of fear within the player that scales with a slow growth of increasing risk the player's character that leads to the whole experience being a fearful and a slow going game that crushes the player under the weight of their emotions slowly leading up to a dramatic but eerie story based ending that gives the players a sense of confusion just enough to make them want to know more but giving them enough information to feel a sense of unimaginable relief and accomplishment for getting through to the end of the game rather than an sense of completing a goal.

Task 2 – Sound Design and Production – Pre-Production and Planning – What sounds I Plan on Adding

For either of my game ideas shown above, one of the major contributors to reach my goal would be shared heavily among ambiance and background noise or the absence of sound necessary to create an eerie or un-nerving feeling within the player. I currently don't have any experience in creating or editing sound or music so any assumptions or ideas I have may be scrapped or unable to be used but I have a few ideas for the way I want to make my sounds within my game ideas.

First of all is the type of sounds I would like to create for my ideas to help understand my initial choices of how I want to create these sounds. My games are focused heavily on ambiance and background noise as stated above, this means I need sound or set of sounds that are capable of looping continuously without causing sound discrepancies or without easily being able to notice that the sound is looping.

This means I need some kind of looping background sound that is separate to my main track, this may be playing at the same time or linked to a more complex track but will act as a background for other sounds. A kind of environmental sound that the player gets used to hearing at all times, this is important because it is necessary to create a constant that the player will always hear without noticing so that they will unconsciously notice the absence of sound that I would like to use within my game idea.

This sound could be one of many variable options. One of these could be a low pitch and soft background noise such as a small breeze that can be heard or the quiet sound of leaves rolling over each other on the ground. It could also be a low level buzzing or constant vibrational sound that is barely noticeable to the listener/player but is always present unless the absence of sound is required. This following a more psychological form of sound rather than a physical sound that the player may hear or notice.

As a first thought of how I could achieve this, I would likely use Foley sounds to create this, as for the rustling of leaves, this could be simulated digitally or have a recording of physical leaves that are lightly rustled and moved. This could then be replicated and edited to act as a sound played to the player when they are walking over leaves within the environment.

This could also be used to create the wind. This would be more complex to create with Foley sounds but simply requires a small amount of creativity. I imagine I could create the sound I am looking for by creating a small sound tunnel or restrict the movement of air with something of similar shape to cardboard or a tinfoil barrier and something along the lines of a desk fan or access to outside sources of wind. I would do this by forcing the wind into a smaller more pressurised area (such as a wind tunnel) and allowing the air to only exit on one side of the tunnel (being the exit). This theoretically causing an increase of pressure creating a sound similar to wind passing between trees as the air is pushed through at a higher speed.

These are experimental ideas for me as I don't have experience in this area, this definitely includes the next idea which is the creation of the ambient sound I mentioned that would be barely noticeable or a sound that is constant throughout gameplay. I have the idea of using a tuning fork or similar types of instruments and recording the use of different strengths of this instrument to create a constant sound that I can take into editing software.

This would almost certainly require a loop and significant editing as tuning forks tend to create a highly noticeable and highly audible ringing sound that would have to have a lowered frequency or amplitude to achieve the level of sound that I am searching for. This would likely involve recording

the full time of a tuning fork being used using one of two methods to finding a loop-able section of sound.

The first being only using a single or small group of frames of the sound and replicating this constantly to create a barely audible sound that is completely constant and is un-changing in its varied pitches and frequencies over time.

The second is to use the full recording of a tuning fork and having larger sections or one large section that is stretch and extended to be longer and heavily edited to avoid the ability for the player to notice the sound changing over time. I mentioned a group of larger more subsequent sections because this would be used within a game. This game would have different paces within the game where different sound tracks would likely be used and some might be better to be shorter or at different pitches or amplitude to create a clear difference between a calmer area within the game and a much more fast faced and high speed part of the game (likely during a running or escape scene).

Within my game I would also like to have sound effects that are more repeatable such as a grunt or snapping sound as the player steps onto a stick or twig and for sections where the player may be walking under a tree and the sound of stepping on leaves might be replaced with the cracking sounds of stepping on twigs or branches. This would likely be another sound created using Foley sounds. Although many variants of this sound can more than likely be found on the internet or on different pieces of software/engines, I may attempt to create this using Foley as a test run to guarantee that at least some of the sounds within my game are fully created and edited by myself and to gain experience in creating sounds and tracks for future use.

Other sounds that I may use that would likely not be created using Foley sound creation for different reasons may be things like bird chirping sounds or owl hoots. This is because simulating these sounds in real life isn't exactly common to be able to do and these sounds are generalised with many different variations all over the internet that I could use to manipulate and edit my own.

Throughout my game, I would also like to have an almost inaudible but constant sound that, in my mind, is tied between a constant sound of a heartbeat that gets louder and deeper the more the character is strained during running or sprinting situations and similarly a constant sound of breathing that starts off barely audible or completely inaudible altogether and may only start to surface when the player beings to or continues to run/sprint for extended periods of time.

This type of sound would integrate very well into my different game ideas as heart rate and breathing would likely increase dramatically within both game environments.

Within my first initial game idea based on amnesia, when the character realises (led by the player) that they are forgetting things rapidly and a panicked state sets in, a high heart rate or rapid and deep breathing may overtake and drown out many other sounds within the game.

Inside of my second initial game idea, the horror genre is, of course, based primarily around adrenaline and fear based responses from the player and character within the game alike. This is prominent as the player may start to panic or start unintentionally breathing heavily and enter a panicked or 'on-edge' like state if the character is displaying these characteristics. This would require a high level of immersion but if the player is deeply connected with the game and their character, they may experience the same or similar feelings to the feelings the character within the game is displaying.

I believe these kinds of concepts are vital in the production of immersive and emotional or psychological based games because the emotional state and feeling of the player is entirely controlled by the pace and creation of the: game environment, sounds and atmosphere and the games success and ability to function the way they are intended is dependent on the player successfully feeling the way the developer has intended and being able to place the player in the desired state of mind.

Task 2 – Sound Design and Production – Pre-Production and Planning – Current Thought Process and Idea Conclusion

Currently I have been throwing ideas around based around the horror game I came up with previously in this blog (Emotional and Anxiety Inducing Slow Rising Fear can be found above). I have expanded on this idea further in my head including a small amount of story and dialogue while focusing on the environmental factors and how the game is going to play out for the player. Again this is an experimental idea and may take some time to create and may fail or be incomplete for this unit but I am willing to attempt this for both unit 73 here for sound effects and possibly to tie this into my Unit 74 for story and dialogue development.

My idea currently revolves around a person who was involved in a traumatic car crash where his wife and daughter were killed and he was the sole survivor. The game focuses around this man being inside of a hospital like building being interviewed in a therapy like environment. This man will act as the main character within this game and the game is designed to be an experience or exploratory/walk through story type of game. This game will be focused around the main character and how he is dealing with his situation, the most important part is how he remembers his experience which is the whole world that my game will be placed inside.

Within this game, the player is going to be led through an almost straight path with the ability to explore but there will be very few things to find while exploring as it's a story based experience. While following this path, the player will be led through the same area multiple times or areas that seem similar but will have considerable changes based on the 'narrator' of the story which would be the therapist/doctor that is speaking with the character. Each time the fully goes through an area, the next time they go through they will be able to get a small bit further leading to the eventual end of the game.

While the player goes through the various levels within the game, they will be asked questions by the 'narrator' and the character will respond with a set dialogue, during their conversation, the 'narrator' will contradict the character in many ways and attempt to change the way the character is thinking. This is vital to the direction the game travels through as the game is based within the mind of this character. The player will likely never see the room or the therapist in any way and will be within cutscenes or dialogue that is playing during gameplay depending on my ability to create a proper cutscene if I am able.

As the character is contradicted, the world that the player is in will become more unstable and will change based on the current emotional state of the character and these contradictions will directly and physically change the world that the player is moving throughout. As an example, the character believes he was a passenger within the car during the crash, the car that the player sees will have the body of the wife in the driver's seat but when the 'narrator' explains that he was actually the driver the world may appear to be in a static or distorted state and when the player moves closer to the car,

the wife is in the passenger seat and the player enters the level by leaving through the driver's seat rather than the passenger's.

The environment that the game will be set within will change in minor ways but the main idea is to be within a forest like environment with a dark background that will either be a form of night time skybox or possibly a pitch black background that covers the entire map making it impossible to see anything that is not within a light source, these being in only the most vital of places such as around the player and possibly the car lights as the car is an important story point within the game.

This environment will be covered in leaves, trees, bushes, twigs but will be devoid of all animals or sounds until these are mentioned by the 'narrator' and will then become audible/visible within the level. The environment will slowly fill out and become more realistic as the player progresses and the character remembers. The character will start the game next to their crashed car coming out of the passenger's seat and will start to walk out into a 'safe' place within their mind and until specific parts of the game, the player will be unable to reach this location on their own. This will be the player's main reference to noticing that the world is changing as they traverse the environment and learn more about the story.

As an attempt to make this game more replay-able, I would like to add a section or if possible multiple sections of this game where the player is forced into an open world survival like mini-game where the player is chased by the 'remnants' of this memory as they return. These situations will only arrive when the character's emotional state reaches a breaking point where the 'narrator' will mention that they will continue later and speak to an unknown individual to 'sedate' the character. During these times his memories that are rapidly returning will haunt him as he starts to understand the reality of his situation. During this time, the memories that are haunting the character will actively seek out the player until the sedation wears off or the character falls asleep.

These will be combat situations where the player has no way of defeating or escaping the 'enemies' around them and the goal is to last long enough although there will be no timer and during this game there will 'technically' be no way to die as there is no losing in this part. This is because I would like the player to not get stuck on this area if they cannot survive and allow the players to continue but I would like to create a separate level specifically including this game with a small amount of story but focused on the survival situation allowing the player to go directly to this part of the game without a full replay. This option may be unlocked after the game's completion or I may add a recommendation to complete the main story first before starting this mode but allowing them to use this feature if this is what they want.

These two versions will be different in minor ways as in the story the game will continue even if the player dies within the level. This will be different because in the alternate mode that is not story based, the player can die and they will be ejected back into the initial menu which I plan to have some kind of animation that starts from the menu directly into the game. This may involve a scene where the menu is inside of the car on a digital screen and when the player selects the mode they would like to play, the character will leave the car and the options chosen by the player would then take effect.

Within the story based survival location. The player will be haunted and chased by the different memories that have surfaced over their time playing and as I plan on having two or even three of these survival scenes within the whole of the game, these will be progressively harder as the character becomes more unstable and remembers more and more about the tragedy he was involved in.

Within the optional survival that is designed for the player to go through as many times as they want repetitively, the amount of enemies or different situations that the player has to avoid may be selected by difficulty or it may be a harder and more complex copy of the third and final survival situation from the story. This will have all of the story elements from the initial story revealed already so may contain spoilers for the story if played before.

Throughout the story element of the game, things will be changing and the main constant that is increasing and decreasing throughout the game would be the heart rate of the player, I would like to add an increase in breathing rate as well if I have the ability to do this effectively, which will be adversely effected by the events that are 'changing' or being remembered in different ways throughout the game. This will increase as the character and the player both learn more about the story and the world around them starts to fall apart.

All of these ideas are important for my sound design unit being Unit 73 as I would like to make sounds that relate to the world around the player rather than the basic sound creation requirement for the completion of the unit. Now that I have a stable and well thought out (to my knowledge) game idea, I can start to put a deeper focus into the sounds that I would require for these specific aspects and create a fully ready project complete with sounds, story and mechanics.

Task 2 – Sound Design and Production – Pre-Production and Planning – Sounds and Audio Relation to the Deeper Concept

Most of the sound ideas I am planning on adding are found above in my initial explanation of sound development and my initial ideas followed by my method of choice to create these sounds. Here will likely be a shorter expansion on some of the finer sounds that I may use that aren't likely to be found on hand and will have to be created/edited specifically for my idea.

I may have to find a sound that is based around a car crash or some kind of close by accident that will allow me to simulate my own car crash. This will likely not be shown within the game as an actual area and more of a sound that implies to the player that a car crash has happened to further strengthen the story of not knowing how things are going to change. This would have to be a full file that I am able to fully edit and distort in any way I require because this specific scene may be replayed multiple times throughout the game with minor changes and it is likely to become repetitive without editing.

I explained earlier about my requirement for a heart rate type of sound that I could play throughout my level but I would like to mention it here because I believe it will be a lot more complex than I initially thought. The sound of the heart rate gets louder and stronger depending on the adrenaline levels within the person having this experience and I accounted for this aspect which is why I explained how I needed a larger track of this that I could edit and place within my level as and when required at different levels of sound.

This was the reason I wrote about it earlier but what I didn't account for when creating my 'somewhat' realistic experience of this situation was the fact that, during intense forms of fear or 'fight or flight' responses, most people say how they didn't even notice how strong their heart was beating or how increasingly fast it was rising until they stood idle for a time and thought about this for a moment. This would mean that (to reach the level of immersion I would like) I would have to also have some kind of system or if necessary a set of blueprints that determines the heart rate and sends off a ping to say if this is at a rate that would require some sort of distortion.

This is so that if the player is running from something or is in a situation that they are thinking about a large amount of things at once, the player realistically would not be in a situation where they would be able to hear their own heart beat as they have plenty to worry about around them. This meaning that I would have to have a version of the heart rate edited to be much quieter and softer that is still present within the background but is barely audible to the player and if possible will either slowly gain in volume and intensity as the player rests for longer periods of time.

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Unit 74 – Computer Game Story Development

Throughout this unit, I aim to have the ability to professionally and effectively create dialogue and story for a project and to use this as a method to create a fully functional game in all aspects including story and dialogue options.

From this unit, I am hoping to gain a deeper understanding into the requirements for an immersive story and learn how to effectively integrate a story into the development of a game. Personally I believe I am already confident in my ability to create a story and implement this into a game idea or environment but I have very rarely thought about the dialogue options within my game and have no knowledge of the creation of cut-scenes and other options to portray a story to the player.

I am very interested in this unit because atmosphere and immersion is, in my opinion, vital to the production of a high quality experience within a game. In my opinion, most games that are complex in any way and are designed to influence the emotions and feelings of a player require these deep story and dialogue options that I hope to learn from this unit.

Task 1 – Elements of Storytelling for Games – Research and Informative Plan

In this location, I will be focused on placing down any research and information that I have discovered about storytelling within the games industry. This task is not required for the unit but acts as a storage location for information and gives me the ability to write down all of the necessary information visually before I attempt to condense this into an infographic.

Not all games require story and dialogue aspects to be functional or effective in their own way, games such as: Flappy Bird, Bejeweled and Mario cart are focused around gameplay loops and core mechanics that are repetitive and simple requiring little to no story and minimal dialogue options. These kinds of games are limited however to a simple design and psychological impact on the players and cannot function as effective 'Complex' games without some kind of story or dialogue.

Story is vital to the plot of a game and the pace that the game is set within. Large amounts of story and dialogue lead to the progression of some kind of conflict or objective for the character and in turn provide the player with a steady rise of objective or pace that allows a buildup towards some kind of end resolution that gives the player a sense of accomplishment and in some cases relief when completed. Without this form of growth through story, games may feel flat or simplistic without change and progression which can cause a large amount of discontent and loss of enthusiasm for players within the game.

This is further shown and is most important initially at the start of a game as these first few minutes are likely the most important and success deciding moments of a games history. These would be the first moments when the player starts up the game enthusiastic for a new game or idea that they would like to be drawn into and pulled in directions that they may not expect. This is classed as a conflict story and is what sets a place for the game within the players mind to keep them interested and engaged with the characters and the game giving the player the impression that they want to continue with the game.

Characters should be developed in tandem with other characters and with other characters reactions and emotions in mind. This is to create an invisible connection between the characters that links them throughout the gameplay and allows the player to see deeper into the story and understand the character, possibly even developing an emotional connection to the character. These aspects are commonly states as the: Protagonist, Antagonist and the catalyst. These are not required to all be characters as they can also be aspects of motivation or justification for a character and act as a growing 'character' in the form of emotional connection and justification for actions good or bad. As an example: a superhero could be a protagonist and the antagonist is not required to be a 'villain' against the superhero but could also be the 'urge' to do something that is uncharacteristic of a superhero such as an 'evil' act and the catalyst could be a large crowd of people that are not displayed by any individual character but as the overall opinion of the masses.

People are made up of all of their experiences, good and bad, and decisions that they have made throughout their life that slowly and methodically merge to form a 'personality' and the person as a whole is determined by these experiences and are constantly affected and are likely to make different choices, again good or bad, because of this personality that is formed.

Characters within a game are digital recreations or a person that is in the mind of the creators or developers of the game, in light of this aspect, the character requires these experiences and past decisions to form a personality of their own that the player can notice and relate to or justify actions from the character based on this past creation of as personality. This would be constant throughout all main characters within the game and would likely be intertwined in some way between characters such as the protagonist and antagonist. This is used to develop a creative, developing story that the player can understand and expand on outside of the game to continue to interest them within the story.

Stories are very rarely defined by graphics and the way they look at first glance, even though a player's first reaction to a game is based on how the game looks visually, the way a game looks will

only captivate the player for a small amount of time before they need another reason to want to continue through the game. This meaning that a game could look unenjoyable at first glance but if the game has a captivating story right from the start, this is commonly enough to keep a players interest into a game alone.

Stories are commonly built are a singular or a small variety of ventral themes and concepts. These will be the core aspects of a game such as the end game objective of the game that is slowly built up towards or a characters ability to do a specific task efficiently and different aspects of the story is built up and expanded from these core aspects with a few variations. As another advantage of building a story from these foundations, a story that is easy to explain without spoiling the story in a small sentence means that the game will likely reach large audiences as more players will learn about the game without spoiling any major story elements required to explain the games core aspects.

These could be depicted as the 'rules' of a games story development but these can be broken so long as the developer can explain why they were broken and they aren't broken often enough to feel random to the player. As an example: a game and its story can go through its entire lifetime without an antagonist being within their game or its story and this is able to be done so long as the developer or writer is able to explain why there is no antagonist and what advantage is gained from not having this antagonist. This is an incredibly complex way to create a story but can also create a rare form of curiosity towards a story from the players because they want to know the deeper understanding that can only be found through playing the game to its conclusion.

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