Schism of the Mind

Game Design Document

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P2681678

Contents

PEGI rating:

PEGI 16. Use of drugs (though not illegal) and bad language. Whilst there is no inherent violence within the game, psychological effects of gameplay may instill discomfort or concern in younger users. (Pan European Game Information, 2017)

Target age rating:

16+

Unique Selling Points (USPs):

- A realistic interpretation of non-visible disabilities
- 3D spatial audio, including subtitles for gameplay accessibility
- Immersive and educational experience (game for good)

Story:

You are "Blank". You have recently been diagnosed with schizophrenia and are coming to terms with this news. It is around midday on an average Saturday and you are doing some household chores. As you begin to undertake your next task, you suddenly feel a wave of suspicion wash over you, like something is watching your every move. Your eyes dart around but you see nothing. The feeling subsides a little, but it's still there and there's a low whisper:

"I seeeee you."

You look around, but you can't see a person; a soul. But there's something different, something odd.

It's... unsettling.

Genre:

'Schism of the Mind' is a 3D puzzle game with a realistic approach to non-visible disabilities and considered a "Game for Good". It is intended for use on virtual reality devices.

Game Summary:

In 'Schism of the Mind', the player will take on the role of "Blank", an individual who has recently been diagnosed with schizophrenia and has had mild schizophrenic episodes up until this point. The player will complete simple puzzles, whilst simultaneously experiencing a realistic interpretation of schizophrenia that someone may experience in real life. Throughout the game, the player will locate objects to remind them of their therapy sessions and the end will result in

the location of their medicine. Once consumed, this will bring the symptoms to a manageable outcome, but not cured.

Controls:

Users will make use of a virtual reality headset and controllers.

Regarding the headset, the user will be able to move their head/body independently of the smooth locomotion (forward, backward, left and right as well as rotation) which is assigned to the controllers.

The controllers will utilize the hands and allow the user to grab objects using the back trigger, whilst smooth locomotion uses the left joystick and rotation on the right joystick. As mentioned previously, the player can move and rotate independently of the head movement. Additionally, the user will be able to make use of the menu button on the left controller to bring up the in game menu and use the right controller/joystick to move and select options.
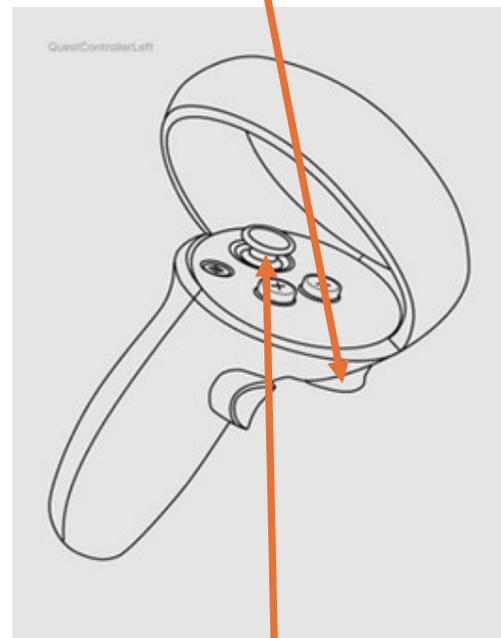
Left grip trigger for left hand to pick up objects that have a Grip Component attached.

Right grip trigger for right hand to pick up objects that have a Grip Component attached.
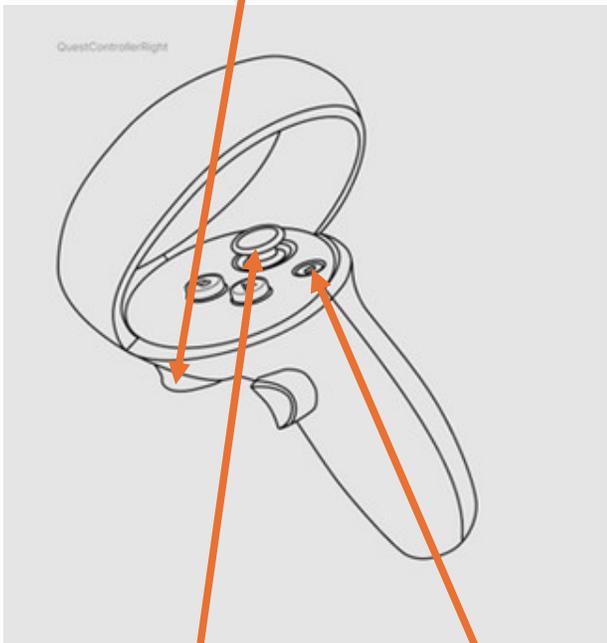
Left joystick for movement.

Menu button to bring up game menu.

Right joystick to rotate the character. (Mateo8421. (2023))

Player character:

The player character is an unnamed individual who has recently been diagnosed with schizophrenia and is coming to terms with their diagnosis, as well as coming to an understanding the non-visible disability which they have.

From a visual perspective, the player character will be a pair of hands which can interact with the world; picking up objects, opening doors, etc.

The character is voiced with dialogue pertaining to their activities, but also in response to the voices and hallucinations which can be seen around the level. There will be elements of joy in the character's narrative, such as small objects which might spark joy in them but will mostly be in distress, producing both verbal and non-verbal sounds (by this, I mean grunts, exasperated inhaling, etc.)

NPCs:

The NPCs can be divided into two categories: visible and non-visible.

Firstly, the visible hallucinations that the character will see can be classed as non-playable characters. Security cameras, eyes and other objects that might "watch" someone will spawn throughout the house as the player progresses through the level. To begin with, they will be small and vaguely unnoticeable but will become more intrusive/obvious as time passes. These will not produce any verbal audio, but may include things such as a squelch noise if the player touches an eye, whirring gizmo like audio for security cameras moving and so on.

Secondly, the voices that the player can hear as they progress through the game. The voices do not have a corporeal form, as they are audible only cues that are attached to the player and will be heard throughout the game. There will be moments where they can be heard at a whisper volume and others where the player is bombarded by a cacophony of voices. The voices will provide encouraging, disparaging and chaotic dialogue. The voices will be edited versions of the player's voice (deeper voice, higher pitched, distorted, etc.).

Game World:

The game world will consist of a house (garage, different rooms within the house, etc.) I have opted for a more realistic game world, because I wanted the interpretation of schizophrenia to be as realistic as possible.

A screenshot of the mesh to be used for the game level house.

The tutorial level will take place in a smaller location (the garage), so that the player can get used to the controls, movement and interaction with occasional voices being heard. The full interpretation of schizophrenia symptoms will be left for the main game loop.

Mechanics:

- Object interaction – the player will be able to interact with objects in the world, to pick up and use to complete objectives. As the idea is that the player will be undertaking household chores, they will be able to pick up items using the VR hands and transfer them to other locations. For example, they could pick up a used mug and move it towards the sink to be cleaned
- Cassette tapes – the player can collect cassette tapes which will act as therapy session recordings between the patient and their therapist, providing a reprieve from the effects of schizophrenia, but not completely, as to remove the main focus of the game. When collected, whilst the player may still be able to hear the sounds that will be associated with this particular instance of schizophrenia, they will be quietened by the cassette tape audio playing for the user
- Unsettling audio/visuals – unsettling voices will be heard by the player, which will be a similar voice to the character, but manipulated with effects such as whispering, echoes, etc. The player will need to endure this audio whilst they play the game. There will be different visual effects that will also unsettle the player, however, with minimal impact as to reduce motion sickness, etc. Whilst it does not affect the outcome of the game, some users may find it difficult to endure but can subdue the effects for a length of time by collecting cassette tapes

Main gameplay:

The main gameplay consists of the player completing their chores for the day. These can be things as simple as moving one item from one place to another, to finding a hidden item around the house to unlock a door. The main goal is to locate the character's medication, which they have misplaced and cannot remember where they left it last.

Simultaneously, the player will be experiencing realistic symptoms of schizophrenia and attempting to complete the tasks. Due to the variation in symptoms, there will be easier and harder periods throughout the game.

Game experience:

Overall, the game will provide the player with an unsettling experience with few moments of what people may consider joy or relief. As schizophrenia is not something which can be inherently "cured", individuals are constantly maintaining a healthy balance of medication, therapy, and wellness (body and mind) to help relieve its symptoms.

There will be moments where symptoms are not affecting the player; allowing the player to have some time where they are not experiencing symptoms and to make each "episode" more poignant and not just a constant assault on the sense.

Music will be haunting, but not to the point of being considered scary, but more otherworldly. Music will be dedicated to the main menu, as there will already be a large number of audio cues within the game, without the need for music to also interfere with it.

Difficulty curve:

Whilst gameplay will be simple for the player, without a degree of any real increase in difficulty, the overall experience itself could be seen as progressively getting more difficult. To explain further, the progression of the symptoms for schizophrenia will make the experience harder to complete tasks, as you will be both trying to complete chores around the house, whilst also dealing with the distractions/uncomfortableness of the hallucinations and audio. This will start off slow and less intrusive, but as the level progresses and up until the player locates and takes their medication, become more and more intrusive.

Tutorials:

A self-contained room will be used for the tutorial. It will include instructions on how to interact with objects of different types (keys, opening a door, collecting a cassette tape, etc.) This will include both verbal and written instructions on what buttons/triggers/joysticks are used for certain tasks. The tutorial will be at the beginning of the game and will continue onto the main level, once it is completed. I have chosen to integrate the tutorial into the game, as opposed to standalone, because not all users will be familiar or comfortable using a VR device straight away.

A screenshot of the garage which will be used for the tutorial level.

Quests:

The main quest of the game is locate the character's medication for their schizophrenia. In order to find the medication, the player will need to guide the character around their house to locate it (they cannot currently remember where they left the medication) and by completing some household chores, which need to be done in the character's eyes, providing clues/objects which are required to locate the medicine.

A side quest is to collect the cassette tapes, which will also provide insight into schizophrenia and lessen the symptoms whilst the game is playing. These will take the form of therapy tapes between the character and their therapist. There will be a total of four tapes, including the one in the tutorial level. As highlighted in the "Collectables" section, these are not integral to the gameplay, but will provide information and affect the gameplay.

Collectables:

Collectables will take the form of cassette tapes, which will take the player through the therapy sessions between the character and their therapist. They will start off on the first and second days and then take a time jump, to see how the length of having the disability may affect some individuals.

Whilst these are not critical to the outcome of the game, they can provide information on schizophrenia, but also the stigma of therapy, dealing with a non-visible disability and so on.

They will, however, provide a reprieve from symptoms and allow the user to listen to the therapy session before. Some may stop it for a while, and others may only stop it for as long as the tape is playing.

Screens:

Main menu – this will consist of an interactable menu that hovers in the centre vision of the player character and can be interacted with to start the game, review the disclaimer again, settings or quit the game.

Pause menu – the player will have the option to pause the game and a menu will be presented before them. It will allow them to resume or quit the game, as well as basic settings options such as adjusting the volume of the audio.

Accessibility:

Due to the nature of Schism of the Mind, a screen will be implemented prior to the main menu appearing, which will indicate that the game contains features which are based on real world issues and that some users may find this disturbing. This will include the age rating for the game.

Similarly, a second warning will appear to indicate that some features of the game may cause epileptic seizures and users who suffer from these should seek guidance before playing the game, should they suffer from these. Whilst the aim is to include an option to turn off some of the visual features which could initiate a seizure, the warning will be implemented regardless.

The games uses audio for both dialogue and non-verbal audio. As some users may be hard of hearing, deaf or feel more comfortable with this option, I will aim to include a subtitles option which can be toggle on and off. The user will be unable to interact with the text in the game and will be positioned in a non-invasive location in the player's UI.

Appendices:

Appendix One: Research notes on schizophrenia, including an overview of symptoms, diagnosis and treatment, as well as case studies.

Schizophrenia:

Overview:

Schizophrenia is a long-term mental health condition, which can cause a number of different psychological symptoms. Doctors would consider this a type of psychosis, which means the person may not always be able to distinguish their own ideas and thoughts from reality. (NHS. (2023))

Symptoms:

Symptoms can include the following (NHS. (2023)):-

- Hallucinations (the hearing or seeing of things that do not exist outside of the mind). To expand further, this can be sounds or voices that nobody else can hear, seeing things that are not corporeal such as objects, shapes, lights or people. Feel / touch / movement in the body that is not real, such as your arms being on fire or your internal organs moving around. Smelling things that do not exist. Tasting things that only the individual can feel, which are strange or unpleasant. Think that your body is moving, such as flying or floating, which are physically impossible on their own
- Delusions – unusual beliefs not based on reality
- Speech and thoughts which can be muddled, based on the hallucinations or delusions the individual is experiencing
- Losing interest in daily activities
- Losing interest in looking after yourself and your needs, such as personal hygiene, eating, etc.
- Wanting to avoid people, including friends
- Feeling disconnected from your emotions or feelings

Treatment (NHS. (2023)):

- Treatment for schizophrenia can be a culmination of therapy and medicines
- In the UK, the majority of individuals with schizophrenia are treated by a community mental health team (CMHT). The goal of a CHMT it to provide day-to-day support and treatment, which ensuring that the individual has as much independence as possible
- A CHMT can be made up of a combination of any of the following: social workers, mental health nurses (specialized training in mental health conditions), occupational therapists, pharmacists, counsellors and psychotherapists, psychologists and psychiatrists
- Depending on the individual's needs, they may be in regular contact with just 1 or 2 team members or may need the entire CMHT

Diagnosis (NHS. (2023)):

- There is no single test which can be used to determine if someone has schizophrenia. The conditions is normally diagnosed after an assessment by a mental health specialist
- It might not always be clear if an individual has schizophrenia, as there are other mental health conditions which can exhibit similar symptoms. Some of these include bipolar disorder and schizoaffective disorder (which can be described as a form of schizophrenia, but is its own mental health illness)
- To make a diagnosis, most mental healthcare professionals will use a diagnostic checklist
- Schizophrenia can usually be diagnosed by checking that the individual as symptoms associated with it, but also making sure that they are not being caused by some other condition. Other things which may be tested against are PTSD, depression, anxiety and substance abuse

Living with it (NHS. (2023)):

- Most people make a recovery, but can sometimes have relapses where the symptoms return
- Caring for your own mental health can help in treating the condition, help reduce anxiety, depression and fatigue. It improve your quality of life, through being more active and helping with your independence
- Some self-care which can help is good physical and mental health, preventing illness and accidents and effectively dealing with ailments, both short and long term

Signs to look out for an acute episode:

- Feeling suspicious or fearful
- Worrying about the motives of others
- Hearing quiet voices every so often
- Finding it difficult to concentrate on things

It is worth asking someone whom you do trust, if they notice any changes in your behaviour.

Non-visible disabilities as a whole:

- Stigma of disabled parking spaces in car parks; people can challenge individuals if they do not have a visible disability
- People will say things like "You don't look disabled" which could be considered a hollow compliment and not

First-hand account notes:

Me, Myself and Them (Snyder, K., et al. (2007)):

- The individual believed that they were under constant surveillance, 24 hours a day, by some unseen group of people. Individual believe that their whole life was manufactured by some type of virtual reality machine, operated by aliens

- Slight remarks such as "Did the customer see me make a mistake? Ware they watching me now? Maybe they don't think I'm a good worker." Individual was self-aware that they did not believe it was happening, but they wondered if they might, which caused anxiety and the uncertainty was more disturbing that if it was actually happening

Valdo Calocane (Lowbridge, C. (2024)):

- Individual believed that, during their University studies, they were being closely observed by their housemates and by MI6, believing that their family was under threat
- Prescribed anti-psychotic medication but stopped taking it, which led to further psychological decline
- Individual became confrontational, in so far as to approach MI5 to try and stop them from controlling him. There was evidence of the individual asking to be arrested at the time, before the fatal incident
- Individual was diagnosed with paranoid schizophrenia but did not seem to receive the support that was required, leading to the killings
- Individual was perhaps aware of their diagnosis, but did not seem to be aware that they were affected by the non-visible disability

Appendix Two: Notes on games of a similar nature to Schism of the Mind, involving non-visible disabilities.

Depression Quest (The Quinnspiracy. (2014)):

- Game mentions that it is one of many representation of depression. In a similar way, I could say that this is one interpretation of how schizophrenia is interpreted in games and this is not the only one
- It provides a message to say if you are dealing with any sort of depression or are feeling suicidal, to contact suicide prevention. I could take a similar approach and advise that the game takes on a realistic approach and if it is too much, to stop playing and seek help
- A reminder at the end that it isn't something which can be cured and maybe to take consideration for others
- Not all choices are "perfect". I liked that some were blocked out, which would be the perfect answer, but there was a lot of risk taking with the game about things that I thought would be good for the character. As there are many different scenarios in the game, it allows you to experience different levels of depression. On my playthrough, I went for what -I- thought was best, but other people may make different choices. The most difficult decision I thought was who to contact in your support network (Mother, Brother or Girlfriend) I chose the Brother as he seemed to be the only person who the character interacted with who didn't seem judgmental to the character and asked them how they were, not that the girlfriend was judgmental, but the character thought she might be, but they had a better experience later in the game.

Hellblade: Senua's Sacrifice (Ninja Theory. (2017)):

- Audio whispers (both good and bad) which the player hears. They do not sound like the main character, although most are female voices with the occasional male voice, as well. The voices can encourage, discourage or be ambivalent to the player. Voices tend to be used at theatric moments (no combat at the time, but not necessarily a cutscene)
- Extensive visual effects are mainly left for the cutscenes, but can be thematically hard to watch. Whilst I liked the cinematic nature of the cutscenes, I do not have the technical knowledge to create something of a similar nature, although I do like the use of blur effects when the character is "talking in their own head" which I may look to use

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The Quinnspiracy. (2014) *Depression Quest*. Available at: https://store.steampowered.com/app/270170/Depression_Quest/ (Accessed on: 11.04.2025)

Schism of the Mind

Technical Design Document

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Contents

Overview:

In 'Schism of the Mind', the player will take on the role of "Blank", an individual who has recently been diagnosed with schizophrenia and has had mild schizophrenic episodes up until this point. The player will complete simple puzzles, whilst simultaneously experiencing a realistic interpretation of schizophrenia that someone may experience in real life. Throughout the game, the player will locate objects to remind them of their therapy sessions and the end will result in the location of their medicine. Once consumed, this will bring the symptoms to a bearable result.

The purpose of this document is to outline the requirements for:

- Game engine
- Target platform
- Audio
- UI/UX

The document is aimed at:

- Technical leads
- Developers
- Audio design team
- UI/UX implementation

Technical Requirements:

Target Platforms: Meta Quest 2

Game Engine: Unreal Engine 5.3.2

Programming Languages: C++ and Unreal Engine Blueprints

Third-party libraries / SDKs: Wwise, Android SDK, OpenXR/OculusXR

Development Tools: Visual Studio, Git, Pro Tools, recording studio (see Appendix A for recording studio images which have been utilized for voice recording sessions)

System Architecture:

System Architecture	Responsibility
Input Manager	Handles input from controllers. Passes events to the UI and Game Managers.
Game Manager / Loop	Controls overall game flow (menus, main level, tutorial and transitions). Manages state changes.
Scene Manager	Loads and transitions between different scenes: splash, menus, tutorial, main level.
Audio Manager	Manages sound playback, hallucination effects, spatial audio, layering and triggers.
Visual FX Manager	Triggers and synchronises screen distortions, post-processing effects and hallucinations.
UI Manager	Manages in-game HUD, menus.
Narrative System	Coordinates tutorial messages, hallucination events and store/dialogue triggers.
Data Manager	Save settings (accessibility), tracks player progress and handles player preferences.

System interaction diagram:
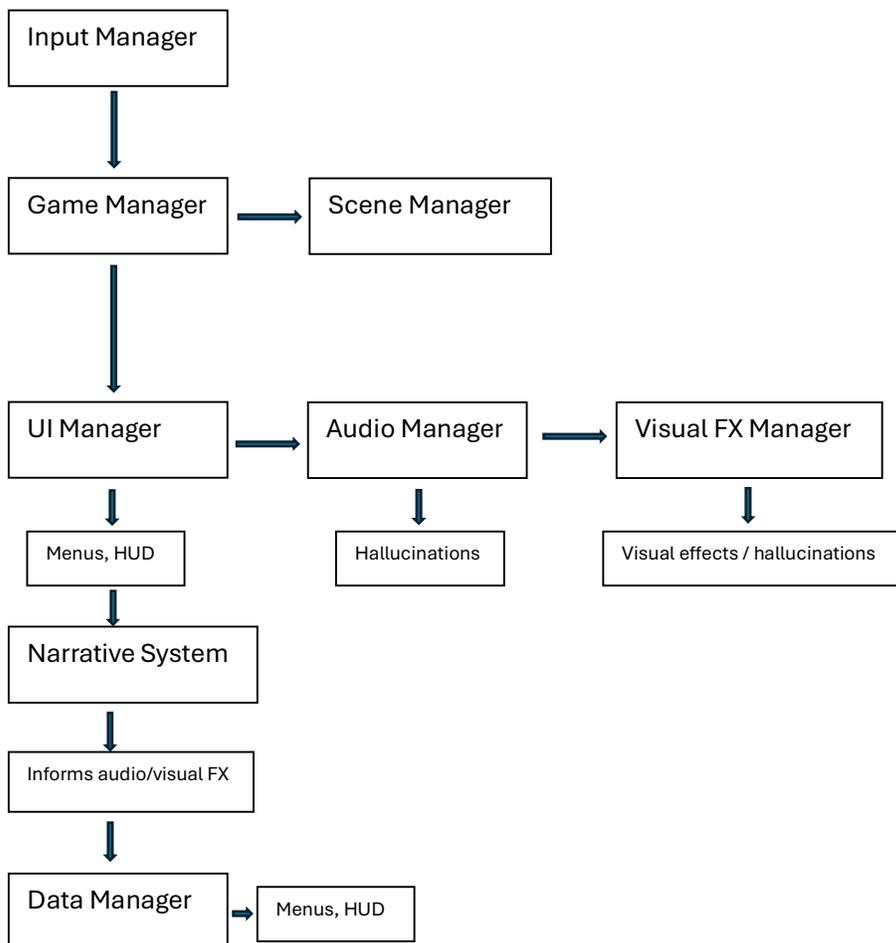
Subsystem Designs:

Audio System

Purpose:

To deliver immersive audio feedback and simulate auditory symptoms that one might endure during a schizophrenic episode, using layered, spatial audio cues.

Responsibilities:

- Load and manage audio assets via Wwise
- Play 3D audio which is triggered by events, such as cassette tapes, hallucinatory triggers, etc.
- Crossfade background tracks based on the mental state of the character / overlapping audio
- Adjust (increase or decrease the volume) audio for users who are sensitive to the audio

Architecture:

- AudioManager: central controller for audio
- HallucinationAudioController: trigger sounds on specific cues related to auditory hallucination cues

Dependency:

- NarrativeSystem: tells the AudioManager when to play a voiceline
- GameManager: Pauses and resumes global audio when gameplay is paused/transitions from one scene to another
- AccessibilitySettings: Adjusts volume for users

Update Cycle:

- AudioManager uses event based triggers
- HallucinationAudioController uses timers/coroutines to run general hallucinatory audio throughout the game

Visual FX Manager

Purpose:

To deliver visual effects which simulate visual symptoms that may occur during a schizophrenic episode.

Responsibilities:

- Play visual effects which are triggered by events, such as hallucinatory triggers, etc.
- Load correct visual which relates to a piece of audio which is playing
- Alter the level of screen distortion to vary at different instances of the visual effect being played

Architecture:

- VFXManager: central controller for VFX
- HallucinationVFXController: trigger visual effects on specific cues related to visual hallucination cues

Dependency:

- GameManager: pauses and resume VFX when gameplay is paused/transitions from one scene to another
- AccessibilitySettings: turn off cues in the event that the user does not want to see them/may affect them medically
- AudioManager: plays a visual effect when certain audio cues are played (audio does not depend on the VFXManager, as audio is what will trigger the VFX)

Update Cycle:

- VFXManager uses event based triggers
- HallucinationVFXController uses event based triggers

UI Manager

Purpose:

To manage the menu systems (main and pause), display subtitles if the user has them turned on and to update any UI during gameplay, such as cassette tape collection score, etc.

Responsibility:

- To manage the main and pause menus and any setting changes that occur with them
- To update any in game UI, such as updating the score for the number of collected cassette tapes, objectives during gameplay (quest like log), etc.
- To produce subtitles to the screen in conjunction with audio
- To produce screens relating to warnings (including trigger warnings)/age rating

Architecture:

- UIManager: central controller for the UI
- PauseMenu: manages specific functions related to pausing the game, such as pausing audio, gameplay, etc.
- MainMenu: manages anything specific to the user interacting with the main menu, such as loading the game
- SubtitleManager: manages the subtitles displayed during gameplay, as well as whether they will be on or off at the player's discretion
- WarningManager: manages the screens used to inform users about trigger warnings, epilepsy, etc.

Dependency:

- GameManager: pause game, adjust settings (subtitles) and pause gameplay

- InputManager: allows the user to interact with the menus to start the game, change settings, etc.
- SceneManager: ensures that correct information is displayed during the warning screens,

Update Cycle:

- SubtitleManager: uses timers/coroutines to run through the subtitles as the dialogue progresses, but also event based triggers for non-verbal cues

Narrative System

Purpose:

To manage the narrative cues in conjunction with the story progression and to ensure that the correct information is depicted, depending on outcomes/trigger events in the game.

Responsibility:

- To manage the narrative flow of the game and make sure everything is output at a reasonable pace

Architecture:

- NarrativeManager: central controller for the narrative system

Dependency:

- UIManager: make sure that the correct subtitles are applied to the audio being played and that there is a seamless transition between each output
- AudioManager: make sure the audio runs at the same time as the appropriate subtitles and visual effects
- VFXManager: make sure the visual effects run at the same time as the appropriate audio and subtitles

Update cycle:

- NarrativeManager: will use trigger events to activate certain combinations of audio/VFX/subtitles and timers to do the same thing

Data Manager

Purpose:

To ensure that any data which needs to be transferred through scenes is managed correctly to the user's specification (settings changes), as well as any changes in UI.

Responsibility:

- To manage any data which is transferred through the different scenes/screens used in the game
- To store data which is used to update the UI

Architecture:

- DataManager: central controller for the data system

Dependency:

- UIManager: to ensure that the correct data is output to the UI when objectives change value, such as cassette tape counter, etc.
- GameManager: to ensure that the correct settings are applied to the game, such as audio volume, subtitles being on or off, etc.

Update Cycle:

- DataManager: will be updated by trigger events that occur during the game

Data Management:

File Structure:

Asset Type	Subfolder(s)
Scripts	Managers Gameplay
Art	Sprites Materials
Audio	Music SFX
Scenes	MainMenu Level01 (including tutorial)
Prefabs	Characters UI

Version Control:

Github repository: https://github.com/Bluhzies/GameDevProject.git

Branches: main is to be used for stable builds, more to be added later.

.gitignore includes /Binaries/, /Build/, /Saved/, /Intermediate/, /Plugins/.

Performance Goals:

Target Platform: Meta Quest 2

Engine Version: Unreal Engine 5.3.2 (Forward Renderer, Mobile HDR Off)

Metric	Target
Frame Rate	72 FPS minimum (locked)
Resolution	1440/1600 per eye (with FFR enabled)
Texture Memory	<= 512 MB
App Load Time	<= 10 seconds
Scene Load Time	<= 5 seconds (using async loading)
Input Latency	<= 20 ms
Draw Calls	<= 1000 per frame
RAM Usage	<= GB total (leave 1+ GB headroom)
GPU Budget	<= 75% sustained load
Haptic Feedback Time	<= 30 ms

Build and Deployment Pipeline:

Build types:

- Development: this includes console logs and uncompressed assets for faster iteration
- Shipping: Optimized, debug alerts removed and uses the ASTC texture compression

Packaging:

- Output format: .apk (under 1GB)
- Uses Android_ASTC configuration for Meta Quest 2

Deployment:

- Installed via adb install during development (using Meta Quest Developer Hub)
- Final shipping via Meta Quest Developer Hub (for final submission)

Validation:

- QA checklist: frame rate stability, input lag, hallucination synchronization

Testing and Debugging:

Testing strategy:

- Smoke testing to occur after changes have been made to the project, to ensure that key functions still work (build successfully, movement is correct, audio cues still operate, etc.)
- Bi-weekly playtesting sessions to focus on the emotional pacing, hallucination timings and scene clarity

Debugging Tools:

- UE5 output logs for tracking runtime warnings and errors

Bug tracking:

- Bugs tracked within Trello, tagged by relevant category (separate to the planning Trello)
- Each card will include steps to reproduce the error, the expected and actual result and screenshots if applicable
- Bugs will be checked twice weekly (before and after supervisory meeting)

Playtesting:

- Internal testers (those associated with DMU (students, staff, etc.)) to use pre-filled Google forms after sessions, rating intensity of hallucinatory effects and comfort
- External testers (those not associated with DMU (non-gamers, etc.)) to provide feedback on navigation clarity and hallucinatory effects with a less technical Google form

Risks and Technical Challenges:

- Movement in VR may cause some issues with building the project in C++. For the time being, until this can be remedied, movement has been added via blueprint. (smooth locomotion, rotation and hand grab)
- I have not yet attempted to integrate Wwise audio using C++ and will initially, for the prototype, elect to use blueprints and C++ for the final iteration. The challenge will be getting this to operate correctly, with enough time (after the first deliverable) similarly to the C++ movement in VR
- Asset quality (audio and objects) may be too demanding for the hardware and so it may be difficult to find a good balance between having them at an appropriate quality but not losing too much of their definition during gameplay

Appendices:

Appendix A: Recording booth and Pro Tools images from recording studio for voice recording session.

Image of wall mounted XLR jack and XLR cable.

Image of microphone stand, pop filter (used to remove plosive sounds) and a Neumann C414 condenser microphone.

Image of the entire setup in the recording studio booth.

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Prototype Description

Project Name: Schism of the Mind
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(500 words)

1. Project Overview

In 'Schism of the Mind', the player will take on the role of "Blank", an individual who has recently been diagnosed with schizophrenia and has had mild schizophrenic episodes up until this point. The player will complete simple puzzles, whilst simultaneously experiencing a realistic interpretation of schizophrenia that someone may experience in real life. Considered a game for good, it provides an educational experience for users on one example of what schizophrenia might be like for someone. Throughout the game, the player will locate objects to remind them of their therapy sessions and the end will result in the location of their medicine. Once consumed, this will bring the symptoms to a bearable result.

2. Core Features

- 3D spatial audio – whispers around the player's head and can pick up the cassette tape which, when held next to the boombox in the garage, will start a therapy session recording. Whispers aim to provide a building block for future hallucinations as part of the schizophrenia angle
- VR movement – player is able to move around the map with the controller joysticks and use the rear triggers to pick up items, such as hammers, wrenches and a cassette tape

3. Technical Implementation

Currently, the game is used building blueprints for the player controls and the audio which plays. This is due to time constraints for the prototype to be completed and pre-existing knowledge on how to complete the functions.

ProTools was used, along with the recording studios on DMU Leicester campus, to record the whispered audio and the cassette tape audio.

4. Limitations & Future Development

Identify any known issues or limitations and propose next steps for future iterations.

Issues and Limitations:

- An attempt was made to create a VR character using C++, however, issues arose in that when movement was added for the joystick controllers (hands had already been added and were working), the game would no longer run. I spoke with my supervisor who advised that, whilst it would be good to implement this, to use blueprints for the meantime and return to this later in the development pipeline

- My own knowledge is limited with implementing Wwise audio in C++ as opposed to blueprints. For the future, I will look to have it implemented in C++ instead, as this is what was documented in my original proposal, but blueprints were used to save time
- Some meshes do not appear correctly in the built version of the game (objects which can be picked up and the boombox). I will look to fix this issue by the next iteration, as none of the objects (except for the wrench) look realistic
- I will look to automate the audio bus structure in Wwise before the next iteration, so that whispers are quietened and have less bass than the therapy tapes when they play at the same time