

CONTAINMENT

You awaken dazed and confused. As you recover your senses you realise you are locked in the lab where you work and it is dark. The last thing you remember was performing some tests on your companies latest breakthrough, the world's first sentient AI.

TEAM LIGHTNING

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Game Overview

Concept

You are a scientist who has awoken to find themselves trapped in a scientific laboratory, locked in by FIBI , an AI synth who was created in the lab, gone rogue. The main power has been cut and there is very limited power remaining in the backup generators to power the remaining parts of the laboratory. Your goal is to solve various puzzles in order to find a way to escape and if you choose to, discover what went wrong in the process that led up to current events and the reason FIBI was able to escape.

Themes

- Exploration
- AI
- Escape
- Mystery

Features

- Puzzle Solving
- Multiple Escape Routes
- Story
- Lore Collecting

Genre

2D, Top Down, Puzzle Adventure

Setting

Near Future, Science-Fiction, Laboratory/Robotic facility.

Target Audience

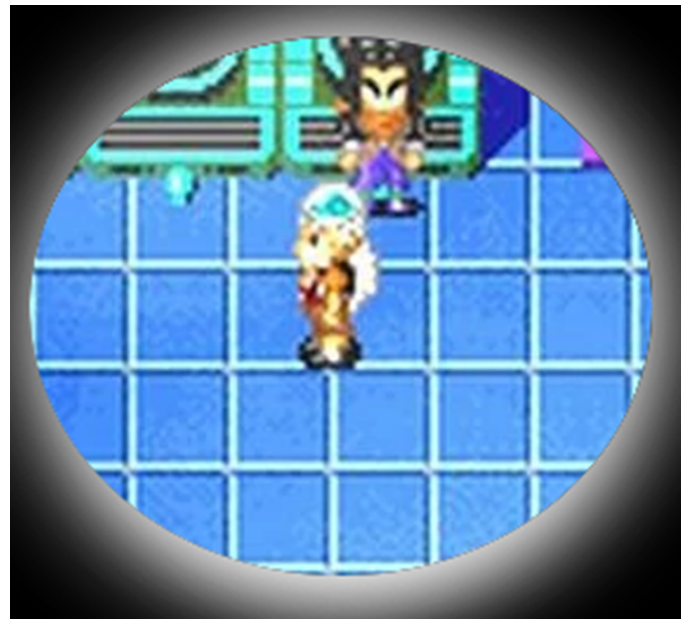
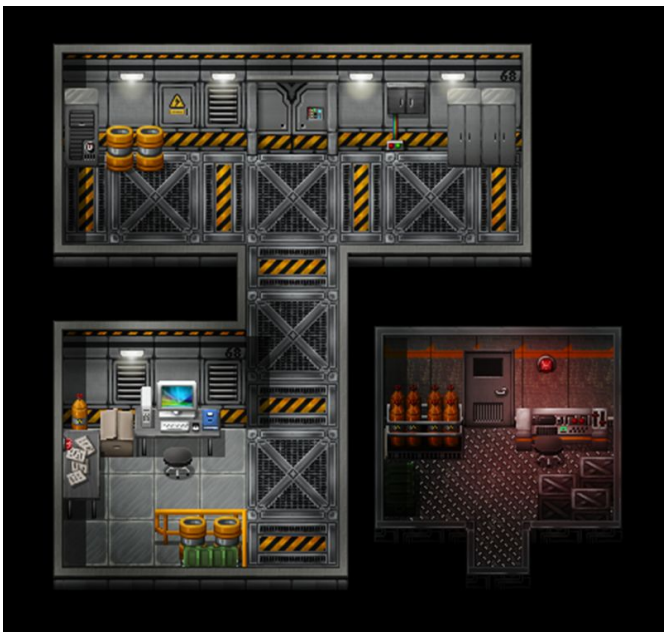
We are hoping to aim for a diversified audience as we feel this game does not appeal to a single audience type. The puzzle aspect appeal to a broad spectrum of players with a 42/58% split between the gender of players who play casual puzzle games (Statista, 2018). The Near Future Science-Fiction setting is proven to appeal to a wider audience, typically, but not exclusively, older males. We also feel the retro aspect of the game will take well to older gamers/those who grew up with or just appreciate 8 bit style graphical games.

Game Flow Summary

The player will move through the facility room by room, discovering clues to puzzles and information, in the form of documentation, regarding the Rogue AI's development and subsequent uprising, all whilst attempting to escape the laboratory by solving puzzles, to progress through the facility and locate one of the exits.

Aesthetics

ContAInment will feature a retro 8 bit graphic style, viewed in a 2d top down viewport. Below are examples of styles of existing game art that we took inspiration from and helped to start developing our own game.



Gameplay and Mechanics

Gameplay

Game progression

The facility will have multiple routes through which the player can traverse. In order to progress through certain areas, the player will have to solve a puzzle to open a door or move objects blocking the path. The game will also feature clues scattered around the facility that can be gathered and affect which ending the player will see when they escape the facility.

Puzzle structure

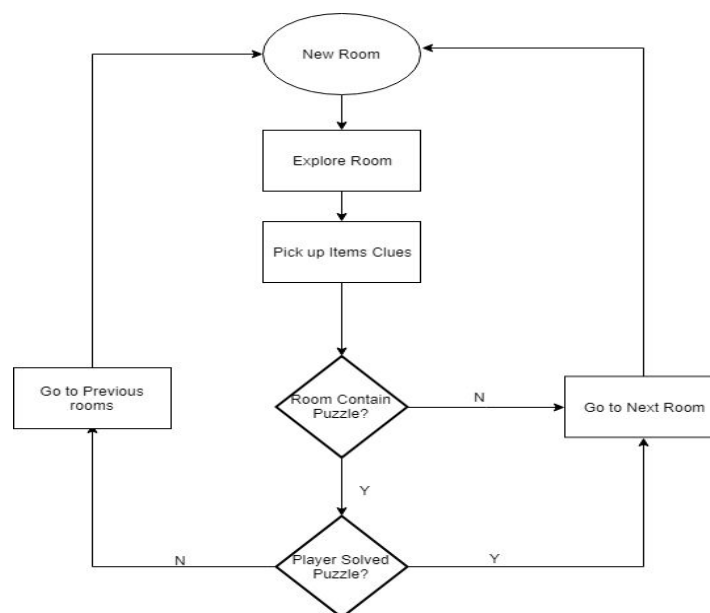
Puzzles will consist of various elements which can be used individually or in any combination. These include an array of switches and their target states, an array of movable objects and their target positions, a required item such as a key, a required clue such as a safe code and a requirement for the facility to be powered such as when using keycards. The puzzle is usually used for unlocking an exit but can be used for other events such as repowering the facility.

Objectives

The main objective of the game is to escape the facility. The secondary objective is to discover all the clues about what reason 1597 had to escape. A third objective is to complete all the puzzles in the game.

Play Flow

As shown in the flow diagram below the player will enter a new room and then search it for items and clues. If the room has a puzzle the player must solve it to progress through the facility. The puzzle may require an item or clue which the player may not possess in which case the player must keep exploring the facility in order to find what they need to complete the puzzle.



Mechanics

Physics

The game world is 2d top down so there will only be 2d physics and the only moving objects will be the player, who will be constrained to movement on a 2d plane and will not be able to collide with objects such as doors, walls and furniture, and some items such as a movable crate which will be pushed by the player again confined to a 2d plane and unable to collide or move through objects such as walls, doors and furniture.

Movement in Game

The player will be able to move on the x and y axis of the game world by using the WASD keys. The game will be 2d top down and so these will be the only dimensions in the game. The player will not be able to jump.

Objects

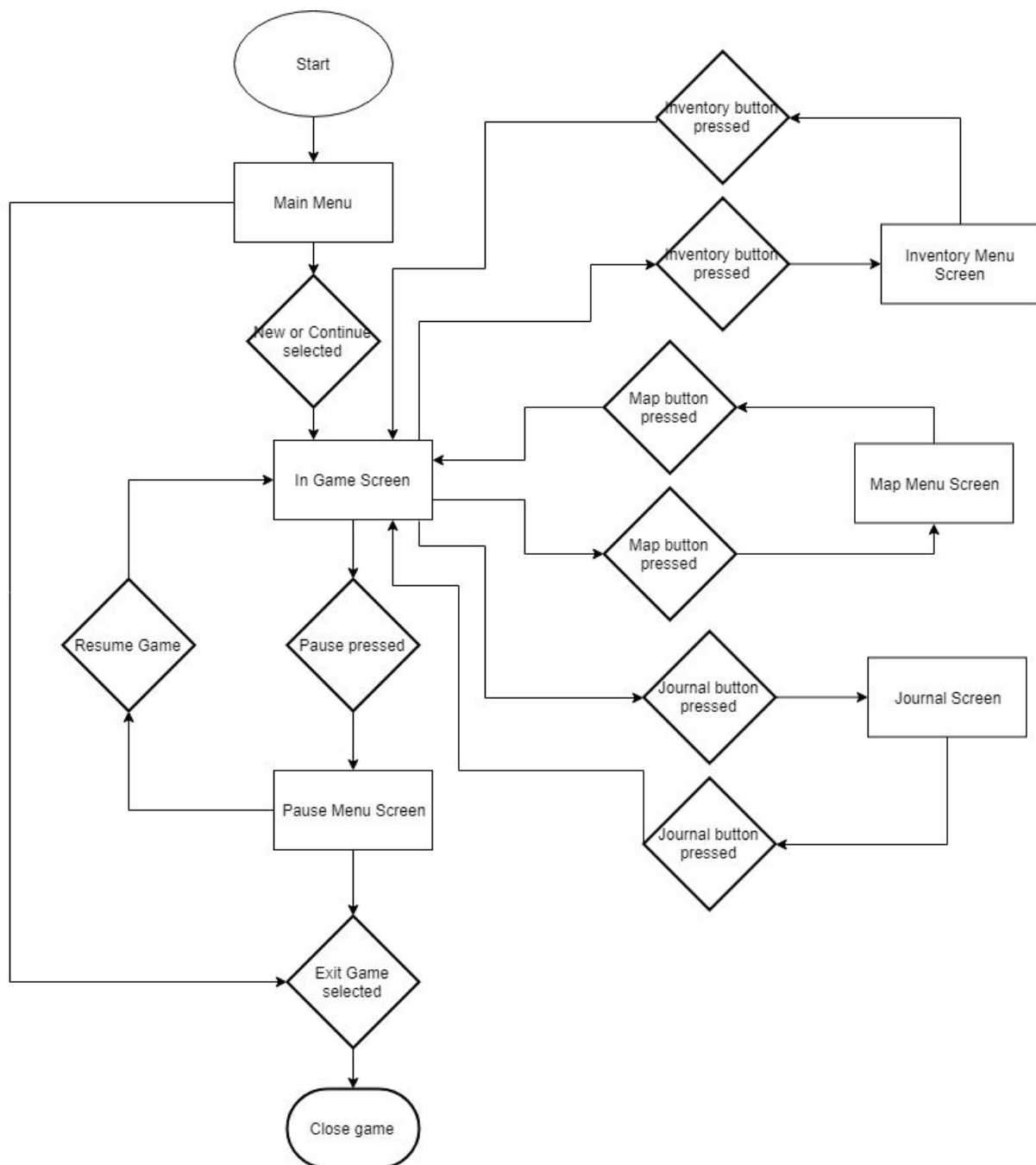
The player can pick up an object by pressing the space bar when the player is next to the object. The player must be in a grid cell next to the object in order to be able to pick it up. The player will have limited space in their inventory and so if it is full they must first drop an object in their inventory in order to free up some space. To drop an object the player must open the inventory menu and then select the item to drop by clicking on it or using the arrow keys to highlight the item they wish to drop and then pressing the D key.

ContAInment

Team Lightning

TASK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Core Mechanics																		
Splash Screen																		
Menu																		
Player Movement																		
Room Render																		
Room Barriers																		
Puzzles																		
Basic Room Puzzle																		
Traversing Between Rooms																		
Object Interactable																		
Lore Notes																		
Exits Display End Screen																		
Publish																		
Final Edits																		
Publish																		

Screen Flow



Game Options

There will be no game options for the player such as difficulty, key binding or graphics settings.

Replaying and Saving

The game will feature several different ways for the player to escape allowing for replay ability.

The player will be able to save the game via the pause menu in game. The player can choose to load a game from the main menu. There will be one save file for the game.

Story, Setting and Characters

Story and Narrative

The player awakes alone in the facility knowing only that the AI they were testing has escaped. Through exploring the facility the player can discover that the AI was constructed using the player's dead wife's brain. This has corrupted the AI who has become obsessed with the player and wants to run away with them. The player can leave the facility through one of three exits and depending on if they found enough clues the player will destroy the AI or if the player does not find enough clues the AI will kill the player as the player rejects the AI as his wife regardless of if it is discovered before they leave the facility or not.

Endings

Exit 1- Atrium tunnel:

You emerge from the Atrium and escape through the emergency tunnel. You know that something has gone horribly wrong with FIBI's programming. The revelation that she has changed her appearance to mimic your dead wife no doubt due to having her brain mean it must be destroyed. You set the isolated facility to self destruct using the Password you found earlier on your way out knowing that this will take out both FIBI and all the research into her creation.

Exit 2- Waste disposal chute(Did not find all Clues):

Dragging yourself out of the waste pile, you take a moment to contemplate. Believing that FIBI is long gone you set off to report that the AI has escaped. After no sightings of FIBI for two weeks suddenly FIBI arrives at your home in the middle of the night. She has changed her appearance to mimic your dead wife. She keeps repeating. Why don't you want me? But before you can answer she stabs you through the heart and escapes into the night forever.

Exit 2- Waste disposal chute(Did find all Clues):

Dragging yourself out of the waste pile, you take a moment to contemplate. You know that something has gone horribly wrong with FIBI's programming. The revelation that she has changed her appearance to mimic your dead wife no doubt due to having her brain. It must be destroyed. You set the isolated facility to self destruct using the Password you found earlier on your way out knowing that this will take out both FIBI and all the research into her creation.

Exit 3- Reception (found All Clues + Has Hammer):

You emerge from Reception in to the night. Just as you think you are alone you feel the air move behind you. You are prepared and composed. You say hello to FIBI who then runs to you. You catch her by surprise attacking her main motor controls with the hammer. FIBI looks at you in shock as continue to hammer away until you are certain that it cannot

recover. You shut the remains inside the facility which you set to Self destruct an hour after you exit using the Password you found earlier.

Exit 3- Reception(Did find all Clues + does not have Hammer):

You emerge from Reception in to the night. Just as you think you are alone you feel the air move behind you. You are prepared and composed. You say hello to FIBI who then runs to you. With no other way to destroy FIBI you had set the facility to Self Destruct one minute after your exit using the Password you found earlier. The resultant blast destroys both you and FIBI.

Exit 3- Reception(Did not find all Clues):

You emerge from Reception in to the night. Just as you think you are alone you feel the air move behind you. It's FIBI but she has the appearance of your wife. As your confusion mounts FIBI sees the horror on your face and attacks. Unprepared for the attack you are killed. FIBI escapes into the night who knows what it will do now.

Game World

General look and feel if the world

The game is set in the near future in a lab facility and so the game world will feature different rooms that have different purposes that would be required in the production of robotics and AI programming / testing. The power has been cut and as such the whole lab will be dimly lit with emergency lighting, or not lit at all requiring the player to use a torch to be able to see which would also only cast a dim light. The facility would be in good repair otherwise with clean surfaces and lots of glass and metal materials as well as various consoles and servers around.

Characters

The Player

The player character is a scientist hired to perform a Turing test on FIBI. They have been flown to a top-secret facility and have been working with FIBI for several weeks before the escape.

FIBI

FIBI is the AI that has escaped. She has changed her appearance to be the same as the player's wife. This is due to a corruption in her programming due to the use of a human brain as the main processor for the AI. The brain used in this case belonged to the player's dead wife. Due to being in close contact with the player the brains memories corrupted FIBI's programming causing her to believe she was the player's dead wife. This conflict with her programmed identity made her unstable.

Maps

Rooms

All rooms will be 5x5 unless specified otherwise.

1 First Office

The player wakes up in a room alone, the layout is a basic office space with four walls and a desk/computer on the north side. Upon interacting with this it is found to be broken. Along the west wall is a work bench, various tools and synth parts can be seen. The exit is on the east side, when attempting to open the player will find it locked. The player will have to use the screwdriver on the workbench to pry open the door.

Item id 0 Screwdriver

Clue id 0 Power is off

Puzzle id 0 requires screwdriver in inventory to open door

Doors:

East- Atrium

2 Atrium (Exit 1)

The next room will be an atrium, along the north side is a vault door that leads to an underground tunnel to the outside world. The door cannot be opened it requires a **red keycard** and the player must find a way to restore power to the facility in order to progress. Along the east side is a door leading to a cafeteria.

puzzle id 1:

requires power to the facility, an emergency password (clue 3) and red keycard to open exit.

Doors:

East-Cafeteria

West-First Office

North-Exit

3 Cafeteria

In the centre of the room is a lunch table. North side shows a fridge, sink, oven. The South side has a TV against the wall. The player will be able to get a clue in the form of a note left on the table, it reads ("There's a spare fuse in the lab coat in the garden, did you leave it there on purpose?") The east side has a door that leads to a lounge area.

Clue id 1 There's a spare fuse in the lab coat in the garden, did you leave it there on purpose?

item ID 5 lunch box (junk item).

item ID 6 can (junk item).

Doors:

East-Lounge

West-Atrium

4 Lounge

This room contains a sofa along the north side, a coffee table in the centre and a set of chairs on either side. The South side has a TV and bookshelf. The east door opens to a [dormitory](#)

Doors:

East-Dorms

West-Cafeteria

5 Dorms

The dorm room contains beds and draws, Along the north and east side. The south leads to [garden](#).

Doors:

South-Garden

West-Lounge

6 Garden

The garden is open from the sky, allowing light to reach the plants. The South side is lined with a flower bed, something can be seen here, a lab coat which contains a fuse. To the west is a door leading to a [gym](#).

Puzzle id 2

First movable object puzzle. Move crate out of the way of the door.

item ID 1 fuse required to power facility.

item ID 4 can drink (junk item).

Doors:

North-Dorms

West-Gym

7 Gym

In the gym will be sets of equipment in the centre, on the north side will be a note on the floor, this will be a combination for a safe (8197) found in the [lead technicians office](#). The south door leads to the [corridor](#). West door leads to the [locker room](#).

clue id 2 8197

Doors:

West-Locker Room

South-Corridor

East-Garden

8 Locker Room

Lockers lining north and south walls. One open will have a **note** in (“IMPORTANT: In case of an Emergency password is “SANE”). To the west is a door leading to **M toilets**.

Clue id 3 IMPORTANT: In case of an Emergency password is “SANE”

Doors:

West-M toilets

East-Gym

9 Toilets/Showers (M)

Shower stalls on north side, toilets on south. South door leads to the **library**. **Green Keycard** can be seen in the 2nd sink from the top. Used to access waste disposal.

Item: Green **keycard** to Waste disposal.

Doors:

South-Library

East-Locker room

10 Toilets/showers (F)

Shower stalls on west side, toilets on east side. **Clue** on the mirror written in lipstick.

Clue id 4: Meet me in reception hun ;)

Item id 2: Yellow keycard to unlock labs

Doors:

South-Waste disposal

11 Waste disposal (Exit 2)

The room has a pile of waste bags in the centre, on the west side is a chute which leads to the outside. North door leads to **F toilets**. East door leads to **Library**.

Puzzle id 3 requires one switch to be set correctly, the facility to be powered and a movable crate to be moved to allow access to the switch. unlocks exit to the world through the waste disposal chute.

Doors:

North-F toilets

East-Library

West-Exit

12 Library

Bookshelves and desks fill the room, one book is open and a **clue** (regarding nature of being alive and what it means. It reads{What is life really? How different is a computer that thinks for itself vs a human that thinks for themselves? Do you think for yourself or do you just think you think for yourself?}) can be found on this page. West door leads to [waste disposal](#).

puzzle id 6 requires power and green keycard

clue id 5 :What is life really? How different is a computer that thinks for itself vs a human that thinks for themselves? Do you think for yourself or do you just think you think for yourself?

Doors:

North-M toilets

East-Supply room

West-Waste disposal

13 Supply Room

The supply room has shelves with boxes on the north and south side. The east door leads to the [corridor](#).

Doors:

East-Corridor

West-library

14 Corridor

The corridor has 6 doors, 2 East, 2 West, 1 South and 1 North. The south door will lead to the [lead techs office](#). East door one will lead to [lab 001](#), the second to [lab 002](#). The first west door will lead to [supply room](#), the second will lead to [waste disposal](#).

Puzzle id 5: requires power and yellow keycard to unlock lab doors.

Doors:

North-Gym

East 1-Lab 001(locked)

East 2-Lab 002(locked)

South- lead techs office

West 1-Supply room

West 2-Observation room

15 lab 001

This lab will work to produce the synthetic skin. Vats and drying racks in the centre, and assorted chemistry equipment around the north, east and south sides. **Clue** on one of the synth body mold machine that is broken.

Clue id 6 : This has been used recently, could it be? FIBI?

Doors:

West-Corridor

16 lab 002

This is a computer lab, used to create the software that is used by the 'brain' of the synths. Computers around the north and east side and 3D printers in the centre. A Blue **Keycard** can be found on a desk.

Clue ID 7 : What is this? fbi understands emotions, no no no, this can't be happening!

item id 3: Blue Keycard: for Reception

Doors:

West-Corridor

17 Observation

From this room the staff will watch the progress of synths in the testing room, desks and monitors will cover the north and south sides.

Doors:

East-Corridor

West-Testing

18 Testing

maze puzzle with movable objects

Doors:

East-Observation

West-Server room

19 Server room

This is where all the information is stored, in this maze of servers with a hidden **red keycard** in the top left hand corner of the room.

Item id 10 RED keycard to atrium exit

Doors:

East-Testing

20 Reactor

Reactors line West wall with five switches next to them which the player must set in the correct order in order to power the facility.

Puzzle id 4: 5 switches to activate power. plus the fuse item in inventory.

Doors:East-Workshop

21 Workshop

Puzzle 7 requires key to reactor room

Item id 8 hammer (junk)

Item id 9 pliers (junk)

Item id 10 magnifying glass (junk)

Doors:

East-Infirmmary

West-Reactor

22 Infirmmary

Beds and surgical equipment line the north and south walls.

Doors:

East-Lead techs office

West-Workshop

23 Lead Tech Office

This room includes a large desk on the east side with a computer, a note can be found on this reading ('Power continues to cut out, I'm starting to think it is no coincidence, I shall keep the key to the reactor inside my safe until the issue is resolved')

Clue id 8: Power continues to cut out, i'm starting to think it is no coincidence, I shall keep the key to the reactor inside my safe until the issue is resolved

Item id 7 key to reactor in safe player must have read clue with the code to open.

Doors:

North-Corridor

East-Security room

West-Infirmmary

24 Security Room

clue: the player figures out his 'wife' was the ai impersonating her, if they continue to the through to the reception and complete the puzzle, they will be killed by teh ai upon exiting.

This room has a bunch of monitors layed out north side facing the player with a desk in front, this is one of the endings that gets activated if you enter this room with a **BLUE reception keycard** and use a **security desk key card** which can be found in the the server room. An image of your wife shows up amidst the screens and she says "Come to the reception, I'm waiting for you to uncage me.". You think to yourself "How could this be? You aren't meant to be..." as it clicks in your head it's a code SANITY, the AI understands human emotions and has a false human body. It CANNOT escape no matter what!

Door:

South-Reception

West-Lead tech office

25 Reception (Exit 3)

Puzzle id requires power to facility and blue keycard to exit the game.

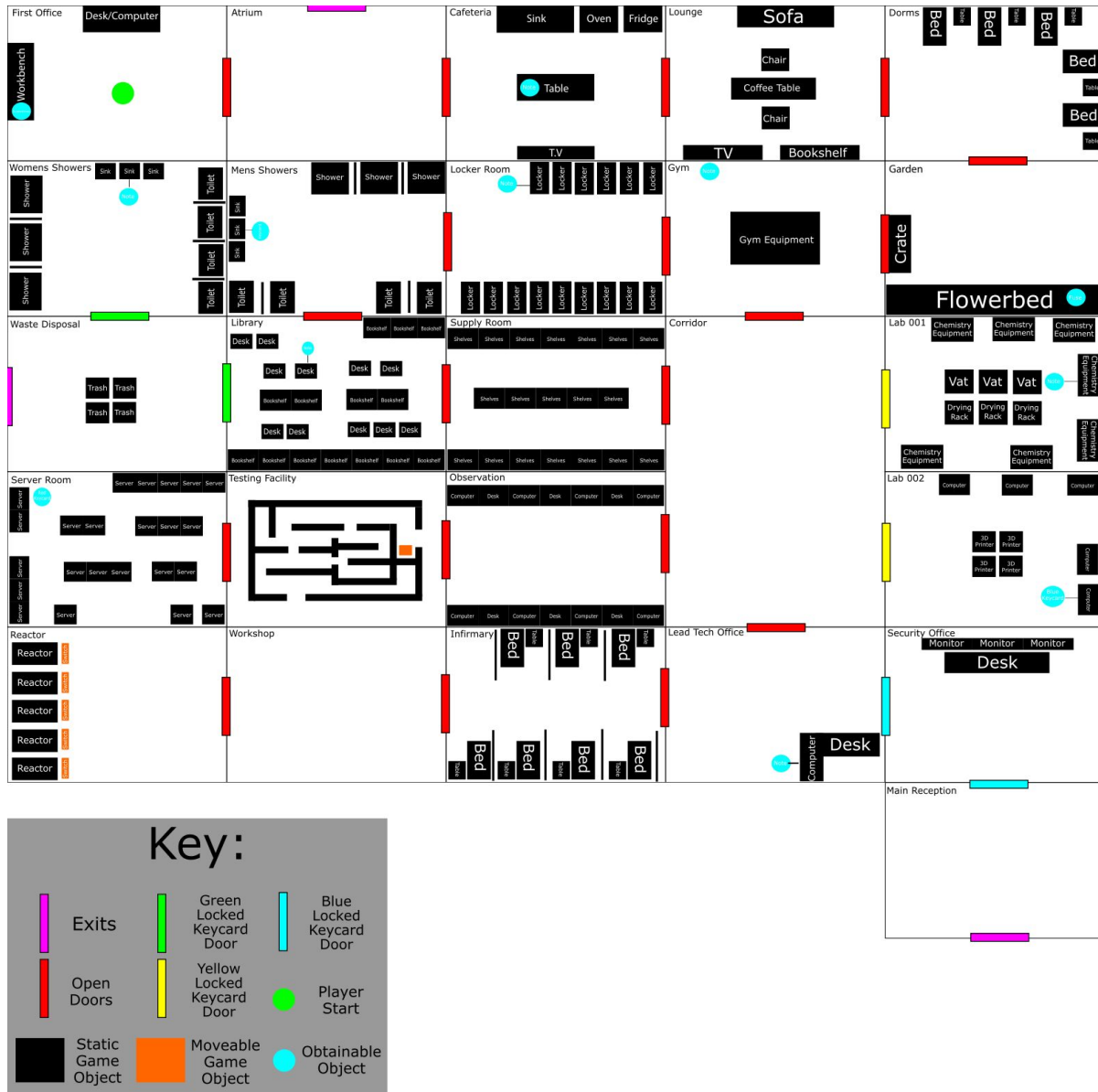
Doors:

North-Security room

South-Exit

Map

As shown below the map will show the layout and room names of the facility.

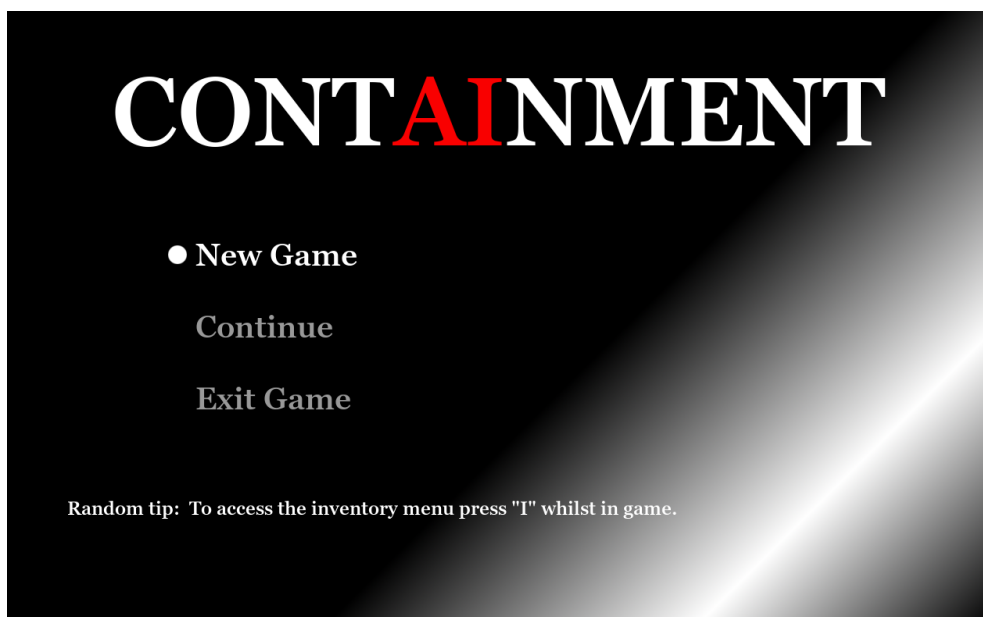


Interface

Visual System

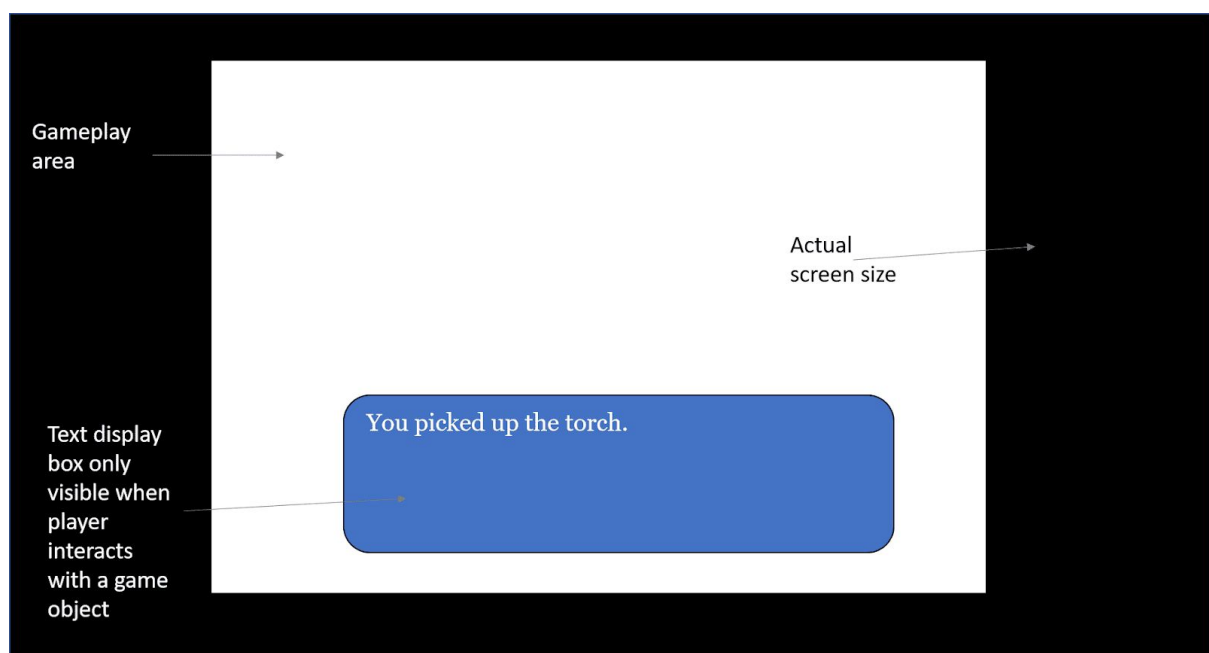
Main Menu

As shown below the main menu will feature the games name prominently along the top. There will be three options available to the player. The first will be highlighted to show it is the currently selected option and will be used to start a new game. the second and third option will be greyed out to show that they are not selected. The second option will be to continue the current save and will only be available if a save game file is available. The third option will be to exit the game. The main menu will also display a random gameplay tip to remind players of controls and what to look for in game.



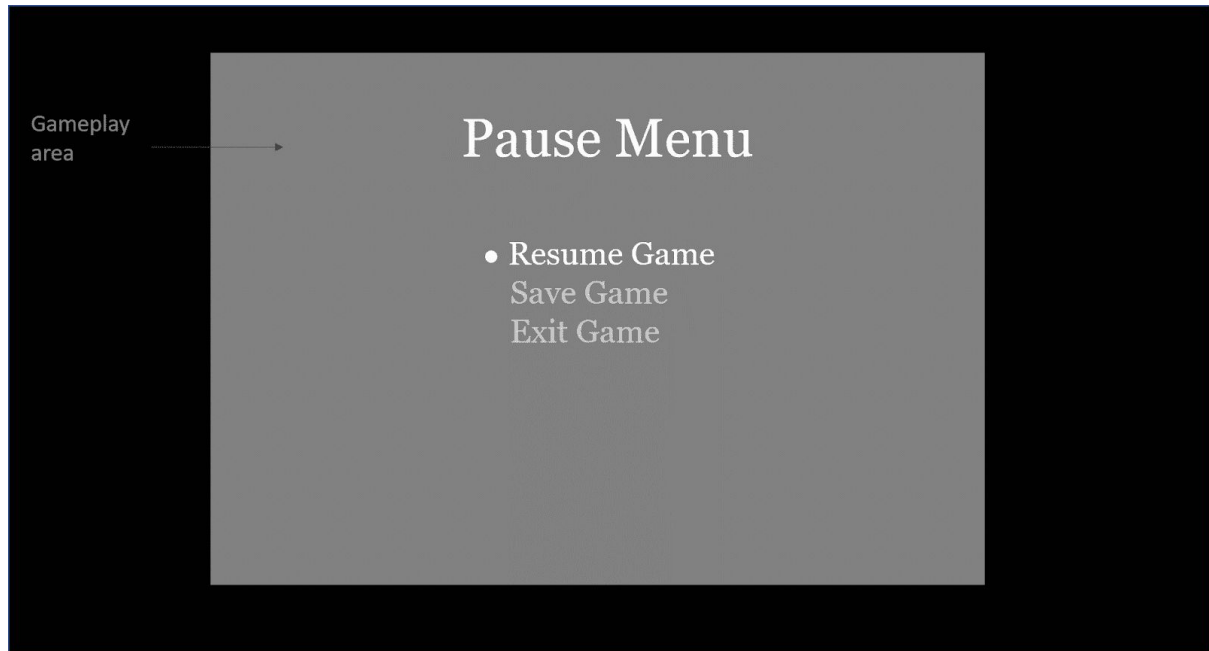
HUD/In Game

There will be no in game HUD as the player explores the map. As shown below the only interface other than for the pause, inventory and crafting menus will be a text display which will appear along the bottom of the screen to provide feedback when the player picks up an item, drops an item, crafts an item, interacts with a game object or one of the clues.



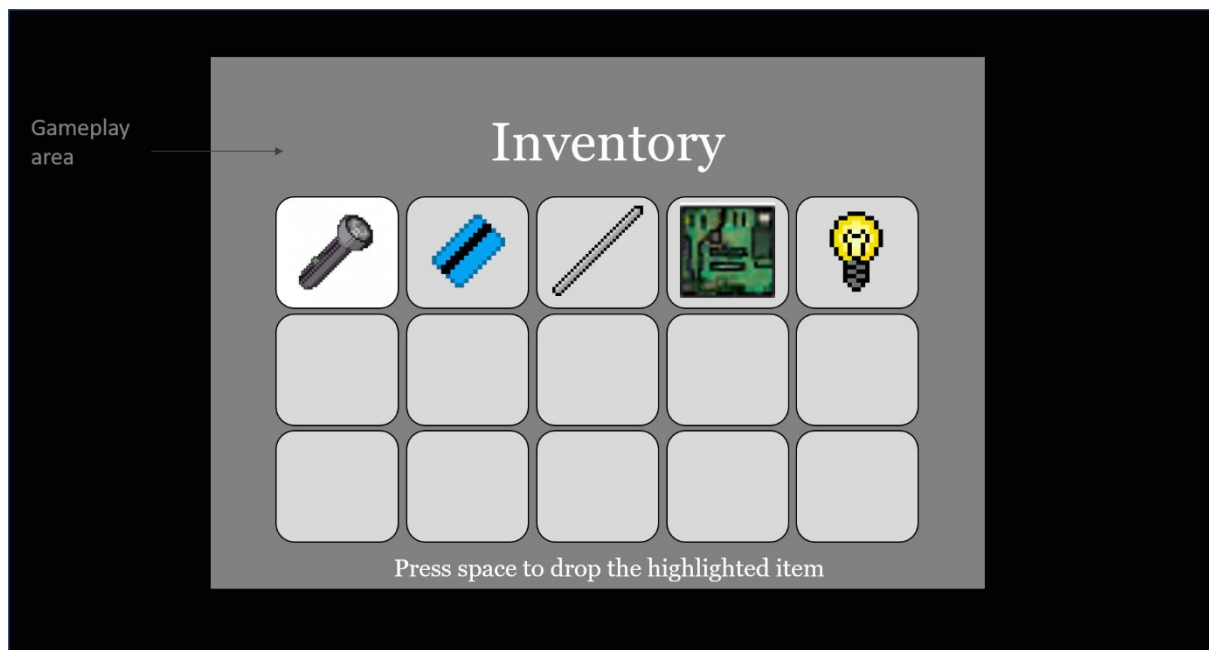
Pause Menu

When the pause menu is displayed, the game screen will be visible in the background with a transparent grey texture overlaying. Three options will be visible with the selected option highlighted with a white dot to the left indicating the location. The remaining two options will be greyed out when not selected.



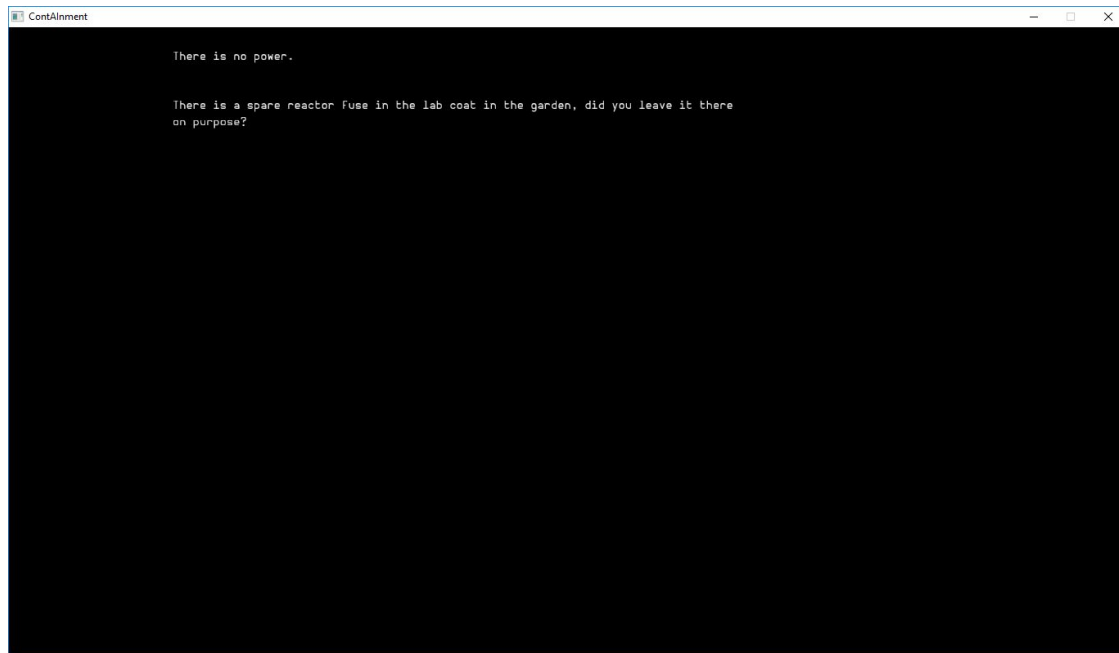
Inventory

As shown below the inventory menu will overlay the main game screen, showing all available slots.



Journal

The image below shows how the journal will display clues the player has found throughout the facility.



Control System

Main Menu

The main menu will have 3 options for the player to choose from. Option 1 will be a new game, option 2 will be continue and will only be selectable if a save is available, and option 3 which will be exit.

Main Game

In the main game the player will be able to move through the current map by using the WASD keys to move up, left, down and right. The player can interact with objects by pressing the space bar. This will bring up a text window that will communicate to the player what the outcome is of the interaction such as an item is picked up or a button is pressed. The player can bring up the Pause menu at any time by pressing the P button on the keyboard. The player can open the Inventory, Journal and Map menus by pressing I, J and M respectively.

Pause Menu

The pause menu will have three options and will be accessible in game by pressing P to pause the game. Option 1 will be to return to the game, option 2 will be to save the game and option 3 will be to exit the game.

Inventory

The inventory menu will be accessible by pressing the I key and will pause the game in the background whilst the player looks through their inventory. Items in the inventory will be selectable with the mouse by clicking on an inventory slot or by using the WASD keys to highlight

the inventory item that the player wishes to select. The player will have the option to drop the item by pressing space bar. To exit the inventory menu the player can again press I to toggle the menu off.

Journal Menu

The journal menu will have no options and will be accessible in game by pressing J to open the game. To exit the inventory menu the player can again press J, SPACE or ENTER to toggle the menu off.

Map Menu

The map menu will have no options and will be accessible in game by pressing J to open the game. To exit the inventory menu the player can again press J, SPACE or ENTER to toggle the menu off.

Audio, music, sound effects

We will use the soloud audio library to add sounds to the game, for example on the start up loading screen there will be an audio file which announces the name of the game.

The main menu and pause menu will feature the same background music. The game will have a looping soundtrack which will be different to the menu music.

The player character will have a footstep sound which will play every step the player makes.

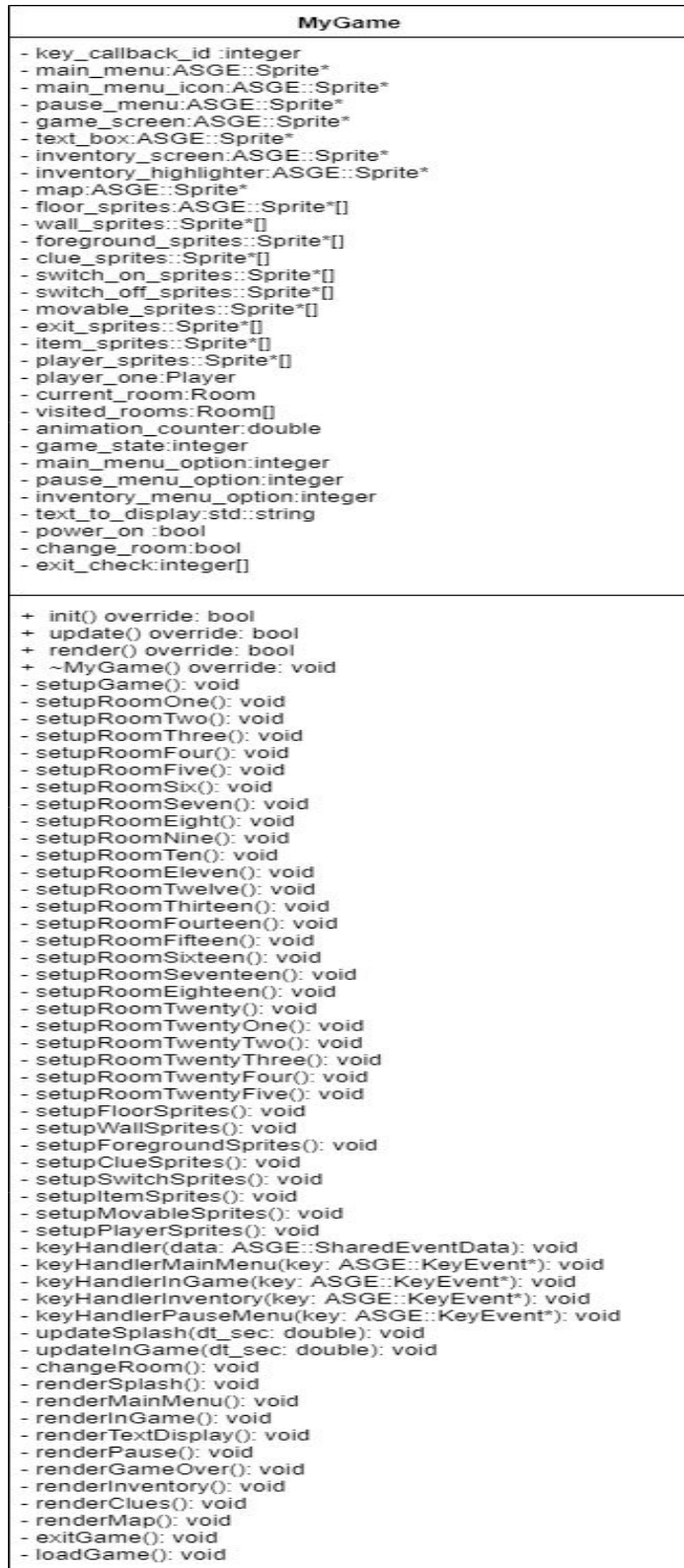
The menus in the game will use a sound to provide feedback to the player when they switch between options.

The menus will also have an opening and closing sound effect in game.

Technical

Class Diagrams

Game



GameObject

GameObject
- my_sprite_id: int - location: ASGE::Point2D
+() : GameObject +(my_sprite_id : int, location : Point2D) : GameObject + getMySpriteID(): int + setMySprite(new_sprite_id: int): void + getMyLocation(): ASGE::Point2D + setMyLocation(new_loc ASGE::Point2D): void + isBetween(value : float, min : float , max : float) : bool + isInside(other_x : float , other_y : float) : bool + collisionCheck(player_location : Point2D, player_direction : int, double_distance : bool) : bool

Item

Item
- my_gameobject: GameObject - item_id: integer
+() : Item +(new_gameobject : GameObject new_item_id : integer) : Item + getMyGameObject(): GameObject + setMyGameObject(new_game_object: GameObject): void + getItemID(): integer + setItemID(new_id: integer): void + addItemToInventory(): Item

Clue

Clue
- my_gameobject: GameObject - clue_id: integer
+() : Clue +(new_gameobject : GameObject new_item_id : integer) : Clue + getMyGameObject(): GameObject + setMyGameObject(new_game_object: GameObject): void + getClueID(): integer + setClueID(new_id: integer): void + addClueToPlayer(clues_found: integer, index : integer): void

Room

Room
<ul style="list-style-type: none">- room_id: integer- my_background: GameObject*- my_foreground: GameObject*- my_walls: GameObject*- number_items: integer- my_items: Item*- number_clues: integer- my_clues: Clue*- my_puzzle: Puzzle- number_exits: integer- exits: Exit*- my_gridsize_x: integer- my_gridsize_y: integer
<ul style="list-style-type: none">+ getMyBackground(): GameObject*+ setMyBackground(new_background: GameObject*): void+ getMyForeground(): GameObject*+ setMyForeground(new_foreground: GameObject*): void+ getMyItems(): Item*+ setMyItems(new_items: Item*): void+ getMyClues(): Clue*+ setMyClues(new_clues: Clue*): void+ getMyPuzzle(): Puzzle*+ setMyPuzzle(new_puzzle: Puzzle*): void+ getRoomID(): integer+ setRoomID(new_id: integer): void+ getMyExits(): Exit*+ setMyExits(new_exits: Exit*): void+ removeItem(item_id: integer): void+ addItem(item_id: integer): void+ getMyGridsizeX(): integer+ setMyGridsizeX(new_gridsize_x: integer): void+ getMyGridsizeY(): integer+ setMyGridsizeY(new_gridsize_y: integer): void+ getNumberClues(): integer+ setNumberClues(number_of_clues: integer): void+ getNumberItems(): integer+ setNumberItems(number_of_items: integer): void+ getNumberExits(): integer+ setNumberExits(number_of_exits: integer): void+ moveRoom(player: Player*): void+ checkCollisions(player: Player*, add_item_check: bool): bool+ checkMovableCollisions(player: Player*, add_item_check: bool): bool+ resetRoomPosition(distance: Point2D): void+ saveRoom(): void+ loadRoom(): void+ setupFloorStandard(): void+ setupWalls(): void+ checkForInteractables(player: Player*, text_to_display: string*, power_on: bool*): bool+ checkForInteractables(player: Player*, text_to_display: string*, game_state: int*, power_on: bool, exit_check: int*): bool

Puzzle

Puzzle
<ul style="list-style-type: none"> - puzzle_id: integer - number_linked_exits: integer - linked_exits: integer* - my_movable: GameObject* - number_movable: integer - my_movable_targets: Point2D* - number_switches: integer - my_switches: Switch* - my_switch_targets: bool* - item_required_id: integer - clue_required_id: integer - power_on_required: bool - puzzle_solved_message : std::string
<pre> +() : Puzzle + setPuzzleID(new_id: integer): void + getLinkedExits(): integer* + setLinkedExits(new_exits: integer*): void + getMyMovable(): GameObject* + setMyMovable(new_movable: GameObject*): void + getMySwitches(): Switch* + setMySwitches(new_switches: Switch*): void + getNumberLinkedExits(): integer + setNumberLinkedExits(new_number_linked_exits: integer):void + setRequiredItemID(new_required_item_id : integer) : void + setRequiredClueID(new_required_clue_id: integer) : void + getNumberMovable(): integer + setNumberMovable(new_number_movable: integer):void + getNumberSwitches(): integer + setNumberSwitches(new_number_switches: integer):void + getTargetMovableLocations(): Point2D* + setTargetMovableLocations(new_number_switches: Point2D*):void + setTargetSwitchStates(new_number_switches: bool*):void + setPowerRequired(power_required: bool):void + getPuzzleSolvedMessage(): std::string + setPuzzleSolvedMessage(new_puzzle_solved_message: std::string):void + checkPuzzleCompleted(player : Player*, power_on : bool*): bool </pre>

Switch

Switch
<ul style="list-style-type: none"> - my_on_gameobject: GameObject - my_off_gameobject: GameObject - on: bool
<pre> +() : Switch +(new_on_gameobject : GameObject , new_off_gameobject : GameObject, new_on : bool) : Switch + getMyOnGameObject(): GameObject + setMyOnGameObject(new_on_gameobject: GameObject): void + getMyOffGameObject(): GameObject + setMyOffGameObject(new_off_gameobject: GameObject): void + isOn(): bool + setOn(new_on: bool): void </pre>

Exit

Exit
<ul style="list-style-type: none">- my_exit_gameobject: GameObject- exit_id: integer- connected_room_id: integer- connected_exit_id: integer- locked: bool
<ul style="list-style-type: none">+() : Exit+ (new_gameobject : GameObject , new_exit_id : integer, new_connected_room_id : integer, new_connected_exit_id: integer) : Exit+ getMyGameObject(): GameObject+ setMyGameObject(new_game_object: GameObject): void+ getExitID(): integer+ getLocked(): bool+ setLocked(new_locked: bool): void+ getConnectedRoomID(): integer+ getConnectedExitID(): integer

Player

Player
<ul style="list-style-type: none">- player_gameobject: GameObject- inventory: integer[15]- clues_found: integer*- number_clues_found: integer- direction: integer- moving: bool- sprite_index: integer
<ul style="list-style-type: none">+() : Player+ getPlayerGameObject(): GameObject+ setPlayerGameObject(new_game_object: GameObject): void+ getInventory(index: integer): Item+ addToInventory(item_id: integer, index: integer): void+ getCluesFound(): integer*+ setCluesFound(new_clues_found: integer*): void+ getDirection(): integer+ setDirection(new_direction: integer): void+ isMoving(): bool+ setMoving(new_moving: bool): void+ getSpriteIndex(): integer+ getNumberCluesFound(): integer+ addToClues(new_clue: integer, index: integer): void+ savePlayerData(): void+ loadPlayerData(): void+ setupPlayer(): void+ movePlayer(animation_counter: double): void+ getClueFound(index: integer): integer+ hasItem(item_id: integer): bool

Essential Data

Rooms

Id	Name	No. Items	Item Ids	No. Clues	Clue Ids	Puzzle ID	Number of Exits	Connected Room Ids
0	Office	1	0	1	0	0	1	1
1	Atrium					1	3	0,2,25
2	Cafeteria	2	5, 6	1	1		2	1,3
3	Lounge						2	2,4
4	Dorms						2	3,5
5	Garden	2	1, 4			2	2	4,6
6	Gym			1	2		3	5,7,13
7	Lockers			1	3		2	6,8
8	Toilets M	1	11				2	7,11
9	Toilets F	1	2	1	4		1	10
10	Waste Disposal					3	3	9,11,25
11	Library			1	5	6	3	10,8,12
12	Supply Room					-1	2	11,13
13	Corridor					5	6	6,12,14,15,16, 22
14	Synth Lab			1	6		1	13
15	Brain Lab	1	3	1	7		1	13
16	Observation						2	13,17
17	Testing					-1	2	16,18
18	Server Room	1	10				1	17
19	Reactor					4	1	20
20	Workshop	3	8,9,12			7	2	19,21
21	Infirmary						2	20,22
22	Lead Tech Office	1	7	1	8		3	21,13,23
23	Security			1	9		2	22,24
24	Reception					8	2	24,25

Items

Item Name	Item Id	Room Id
Screwdriver	0	0
Fuse	1	5
Yellow Keycard	2	9
Blue Keycard	3	15
Can	4	5
Lunch Box	5	2
Can	6	2
Key	7	22
Hammer	8	20
Pliers	9	20
Red Keycard	10	18
Green Keycard	11	8
Magnifying Glass	12	20

Target Hardware

Min specs

**Process
or
(CPU):** Intel Core i3-3xxx or equivalent

**Operating
System:** Microsoft windows 7 or above / Linux / OSX

Memory: 4 GB RAM

Storage: 500 MB

Recommended specs

**Process
or
(CPU):** Intel Core i3-3xxx or equivalent

**Operating
System:** Microsoft windows 7 or above / Linux / OSX

Memory: 4 GB RAM

Storage: 500 MB

Dev Hardware

Min Specs

**Process
or
(CPU):** Intel Core i3-3xxx or equivalent

**Operating
System:** Microsoft windows 7 or above / Linux / OSX

Memory: 4 GB RAM

Storage: 500 MB

Software

JetBrains C-Lion 2018.1, C-Make, MinGW, Windows 10.

Game Engine

We will be using the ASGE as our game engine for this project.

Network Requirements

None

Localisation

The game will not be localised in any other language. The game will work on OSX, Windows and Linux operating Systems.

Game Art

Assets

