

F.A.S.T

GAME DESIGN DOCUMENT (GDD)

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Written by

Pierre Chanliau
Nicolas Masson

Template by

Pierre Chanliau

TEAM MEMBERS

Names	Student ID
Jelmer Lukkien (Team Lead)	140236
Pierre Chanliau (Design Lead)	141832
Jelle van der Gulik (Programming Lead)	140252
Tiia van Lokven (Art Lead)	141287
Machteld Beukers (D&P)	142266
Nicolas Masson (D&P)	141985
Melvin Poos (P)	140564
Peter Schets (P)	141280
Rachel Buijs (A)	140859
Jeroen Kerkhof (A)	140467
Kim ter Schure (A)	140615
Irini Wiersma (A)	141996
Tom Somers (IGD)	140244

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1. Design History/Changelist

2.1. Version 0.01

September 11th, 2015

- The core gameplay was reevaluated and discussed by the designers
 - Character actions and control schemes
 - Discussing whether or not a health system would be included in the final game
 - Inclusion of additional mechanics
- Artists began to work on mood boards and finding an appropriate art style
 - In addition they have begun debating a camera angle
- Programmers began to familiarize themselves with the Unreal Engine
- Jelmer Lukkien applies a Scrum agile process to the development of F.A.S.T and for the team to follow

September 15th, 2015

- Paper prototyping
 - Dynamic fire spreading and differing attributes to objects
 - Timing of fire spreading system
- Final art style finalized
 - Modeling environmental objects

2.2. Version 0.1

September 17th, 2015

- GDD template finished
 - Began filling with available information
- Player character's design finalized
 - Player character modeled
- Procedurally generated apartment complex changed to procedurally generated house
- Code of Conduct written by Jelmer Lukkien

2.2. Version 0.5

September 23th, 2015

- Fire spreading system partially implemented

September 27th, 2015

- Fog of war system completed
 - Not integrated into prototype build
- Pathfinding completed and implemented
- Dynamic fire system completed and implemented
- Prototype completed and usable on specified hardware

2.2. Version 0.8

October 9th, 2015
asdasdasd

2. Game Overview

2.1. Game Concept

Firefighter assist and search team (F.A.S.T) is the operation in which a team of firefighters are sent into a burning to save a fellow firefighter. Unfortunately time is of the essence and only one firefighter can go into the burning building alone to save their fellow firefighter before the burning building collapses.

2.2. Theme

Realism is the theme of *F.A.S.T* as shown through its realistic graphics, dynamic fire spreading, and grounded world and concept.

2.3. Genre

3D, top-down, multidirectional, score attack game.

2.4. Target Audience

The **intended** target audience for *F.A.S.T* is **men and women between the ages of 13 and 35**.

This is justified through research conducted by the Entertainment Software Association that shows more than half of all gamers being within this age range, along with close to half of all gamers identifying as female (Entertainment Software Association, 2015). The concept and subject matter of *F.A.S.T* should appeal to a broad audience without alienating any specific audience.

The **intended** Pan-European Games Information (PEGI) rating for *F.A.S.T* would be **PEGI 12+** as *F.A.S.T* contains scenes that may show violence of a slightly more graphic nature towards human-looking characters as some civilians may catch fire and die from the player's inaction. This is justified by Electronic Arts' *The Sims 4* receiving a **PEGI 12+** rating despite the characters being able to die in a multitude of manners, which includes burning to death (OfficialBraydoz, 2014). In addition, due to the dangerous environment of the burning building, some younger children may find *F.A.S.T* to be too scary.

The **intended** Entertainment Software Rating Board (ESRB) rating for *F.A.S.T* would be **TEEN 13+** for similar reasoning for the PEGI rating.

2.5. Look and Feel

F.A.S.T is inspired by minimalistic, low-poly artwork with the colors being muted and the fire being more prominent in the environment, giving off a perilous and scalding atmosphere. Taking place at night, the fire would stand out even more to the player as they explore the burning building.

3. Gameplay, Mechanics, and Systems

3.1. Gameplay

3.1.1. Objectives

Primary Objective

The player is to escape the burning building before the timer runs out.

Secondary Objective

The player is to save as many civilians as possible before the timer runs out.

Tertiary Objective

The player is to not injure themselves while exploring the environment and saving civilians.

3.1.2. Obstacles

Fires

This is the most common obstacle the player will encounter while exploring the environment. It has the potential to block paths and kill or injure civilians and the player character.

Doors

While a door isn't on fire, the player can open and close doors freely. The player is unable to walk through closed doors.

Windows

While a window isn't closed shut, the player can escort civilians to these windows and get them to safety; otherwise the player will be forced to smash the window open before escorting civilians out the window.

3.1.3. Win Condition

The win condition for the player is to escape the burning building before the timer runs out, while also accumulating as many points as possible from saving civilians and remaining uninjured.

3.1.4. Lose Condition

The lose condition for the player is if they are still in the burning building when the timer runs out or dying from standing in fire for too long.

3.2. Mechanics

The player can move around and interact with the environment in a variety of ways.

3.2.1. Movement

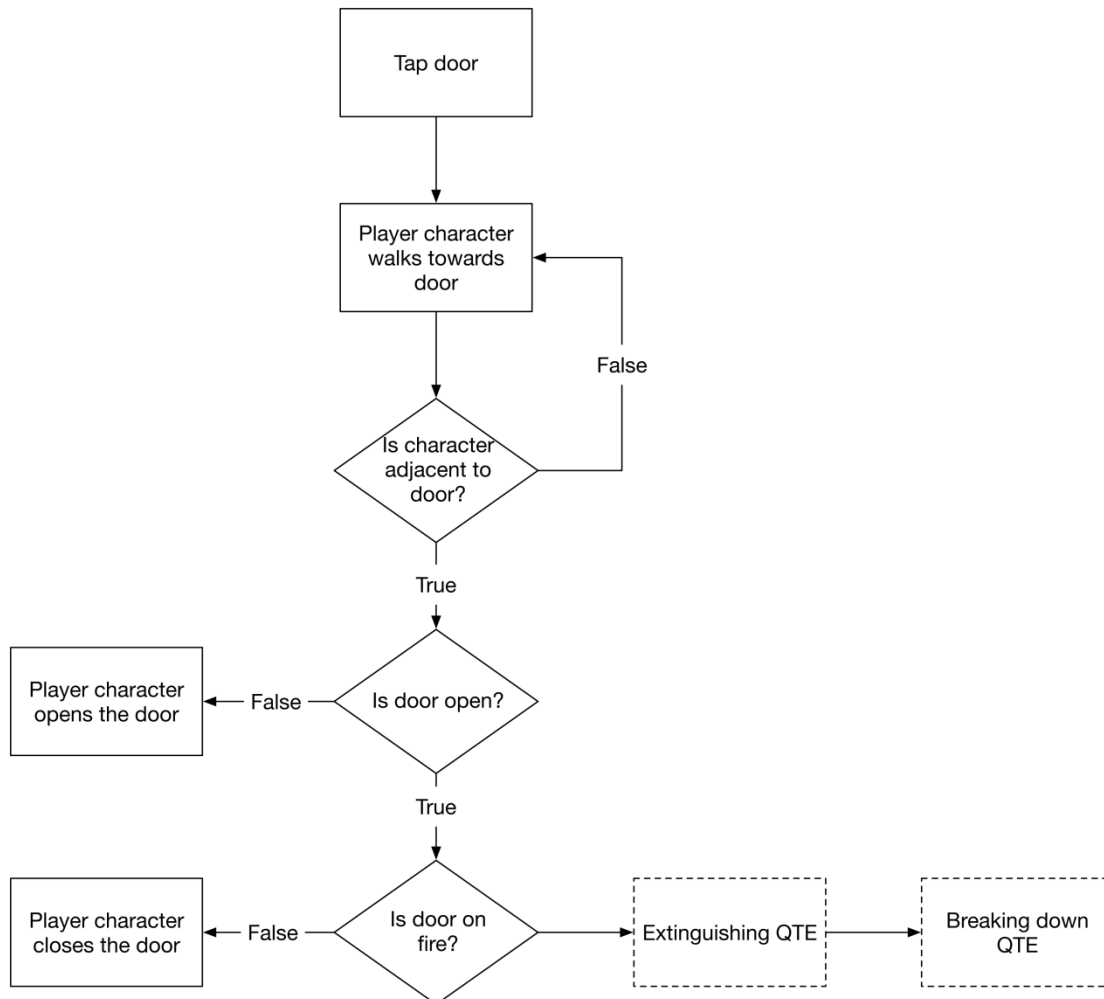
The player's movement and actions are entirely dependent on interaction with the tablet touch screen. When the player taps any part of the screen and holds it on the screen, the player

character will jog towards that point. The player can move their finger across the screen and the player character will continue to follow until the player lifts their finger from the screen.

3.2.2. Objects

When the player taps on an interactive object that the player character is standing directly adjacent to; the player will interact with that object.

Doors



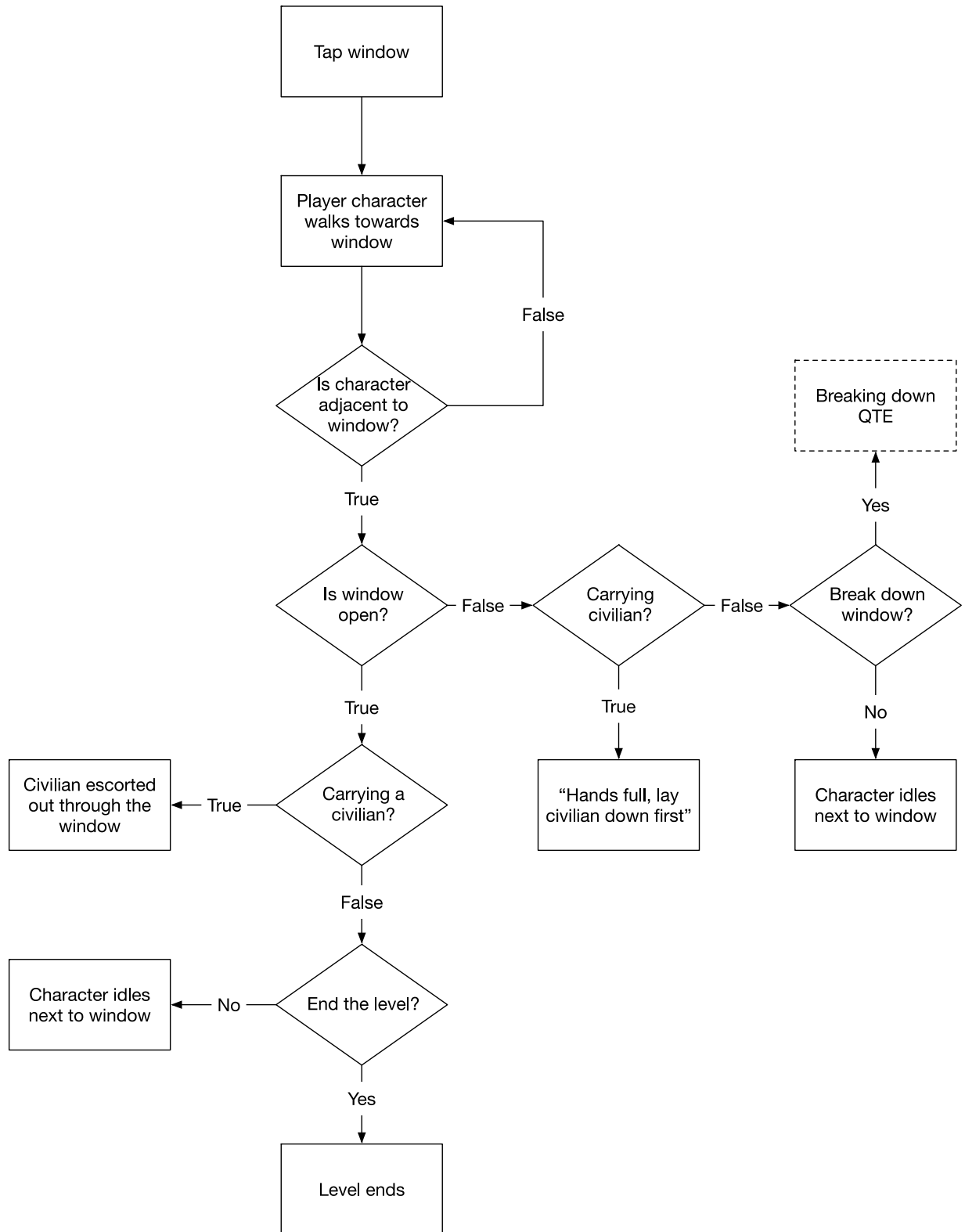
Undamaged

When doors are undamaged and not on fire the player can interact with them by tapping them. When the player character has jogged to the door and is adjacent to it, not leaving the room and depending on the door's current state, they will either open or close it.

On Fire

When doors are on fire the player can interact with them by tapping them. When the player character has jogged to the burning door a prompt will appear above their head indicating that they must use the fire extinguisher. After the player has done the appropriate action, they will have to tap the door again to use the fire axe. Once the player have done the appropriate action, the door will be smashed open and become damaged; no longer being able to be closed and will remain in a permanent open state.

Windows



Windows will be in two primary states: Open and closed. When a window is closed, the player must either open them or smash them open, as it is the only means of escorting civilians out of the burning building and for the player to exit and end the level.

Open

While a window is open and the player are carrying a civilian, if they tap on the window the player character (as they're carrying the civilian) will walk to the window. When they reach the window, they will escort the civilian to safety and will no longer be carrying them.

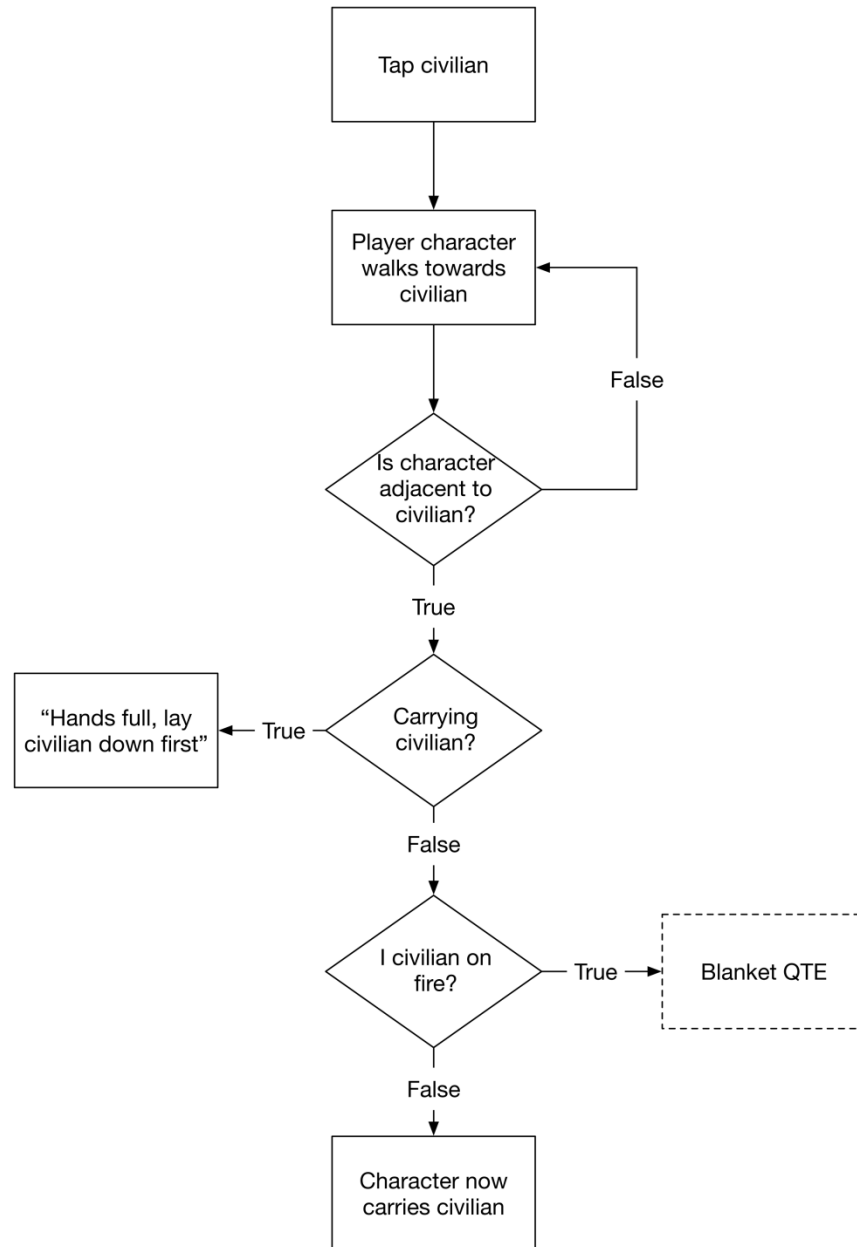
If the player is not carrying a civilian, the player character will jog to the window and a prompt will appear to confirm with the player that they want to leave and end the level. If they confirm and say "yes" then they will leave and the level will end. If they do not, then the prompt will disappear and the player character will stay idle next to the window.

Closed

While a window is closed (jammed shut) the player will be forced to smash the window open.

When a window is jammed, it is closed and the player cannot use it to escort civilians or exit and end the level.

Civilians



cffff

Fire Extinguishers

Fire extinguishers can be found throughout the level that the player can pick up by tapping them. The player character will jog to them and when they are directly adjacent to them they will pick them up, replacing the player character's current fire extinguisher; refilling the extinguisher meter.

3.2.3. Actions

Once the player character has jogged to the specified object the player wish to interact with the player character will initiate the following actions:

Fire Extinguisher

As long as the player's extinguisher meter is not empty, they will be able to use it. To perform actions with the fire extinguisher, the player either have to tap burning debris or doors. When the player character jogs to these objects a prompt will appear indicating that the player must perform a specified action.

This action involves the player having to tap the screen and holding their finger on the screen for a certain amount of time before they have to release it; otherwise they will overload the fire extinguisher and will have to try again.

This works the same for burning debris and doors.

Fire Axe

After objects like debris and doors have been extinguished, the player can tap them again to smash them with the fire axe.

This action involves the player tapping the screen at the right time, which will be indicated by the axe swinging animation. The player will have to tap the screen when the player character has the axe raised to the highest point. If the player misses the timing, the door will not immediately be destroyed and the player will have to try again, but if they miss the timing again, the debris or door will be destroyed regardless.

3.3. Systems**3.3.1. Health**

The player can be damaged by touching fire, but fire will only begin hurting them if they are touching it for a prolonged period of time. If the player continues touching fire, they will eventually die from being continuously injured by it. The player can regenerate their health when they are no longer being injured.

3.3.2. Fire

Fire affects all objects adjacent from it. Each object has a certain amount of health that fire slowly drains; when the health of these objects reaches zero, they will catch fire and continue the process with all objects adjacent to them.

3.3.3. Timer

Every game will have a timer counting down. Letting the timer reach 0 will result in a game over for the player. There are no means to affect the timer during a game, positively and negatively.

3.3.4. Score

Positive	Negative
----------	----------

Rescuing civilian:	+750	Fire damage taken	-50/tick
Completing level	+500	Civilian left behind	-500
Extinguisher pickup	+50		
No damage taken bonus	+300		
Speed multiplier <i>based on time remaining</i>	$x (1+0,5\%)/1,5\text{sec}$		

Actions players take will add or subtract points to their final score, grading their performance. Score gain or loss will not be visible at any point during a play-through. Here is a table indicating how the actions affect the player's score:

The final score will be displayed to the players at the end of a game, giving them an estimate on their performance.

3.4. Game Flow

Turn on tablet
Open application/game
Tap Start

3.5. Game Progression

The player begins the game with all their primary items: the fire axe, fire blanket, and fire extinguisher. However, the player only has a limited amount of uses for their fire extinguisher and must find and use others placed in the environment.

4. Interface

Refer to the *HUD & Interaction Design Document* for further details regarding this section.

4.1. Visual System

4.1.1. HUD



The HUD needs to be easily readable to the player at all times. This is especially important as the player needs to make split second decisions and having overtly complicated HUD elements would be counter-intuitive to the design.

For this we make use of mimesis and icons appropriate for each HUD element. Each element is represented as follows:

Timer

The timer is represented by an abstract, red analog clock.

Extinguisher Icon

We will give the meter the shape of an actual fire extinguisher to help the player identify this HUD element right away. Continuing to be consistent the color of the fire extinguisher icon is red like the timer. The icon will indicate to the player when their extinguisher is about to run out.

This HUD element is located on the left of the screen in order to avoid overcrowding the top of the screen.

Rescue Indicator

Located on the top-left part of the screen this HUD element is represented numerically (#/#) accompanied by an icon similar to what is seen on exit signs. This is in order to help indicate the importance of these numbers to the player.

4.1.2. Camera

When the level begins, the camera will briefly be overlooking the general layout for the player to examine. After a few seconds the camera will pan down to center on the player character. The camera is then at a fixed angle while following the player character; never changing during gameplay.

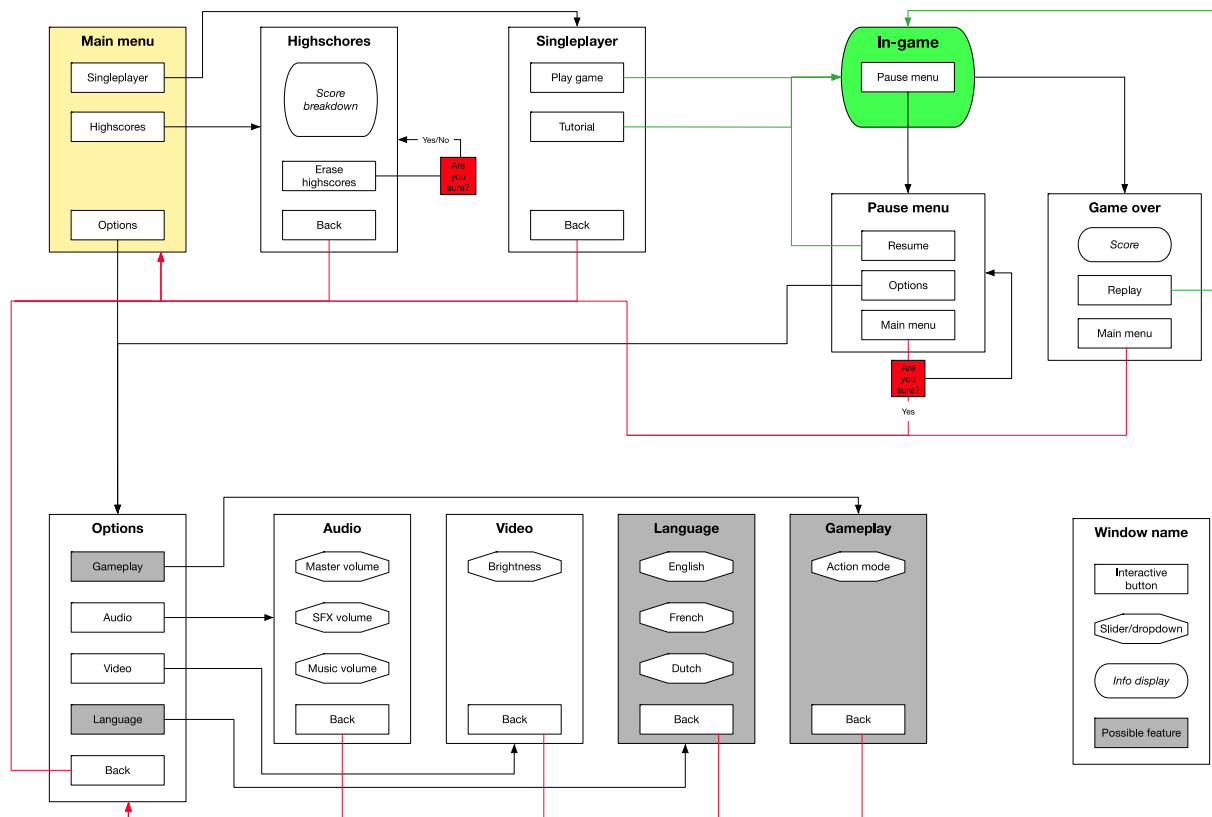
The camera is placed so as to allow the player to see the whole room they're in, while still having an idea about the general layout and whereabouts of adjacent rooms.

4.2. Control System

[Add]

5. Screen Flow

5.1. Screen Flow Chart



5.2. Screen Descriptions

5.2.1. Main Menu Screen

The menus will be simplistic in design considering we are making *F.A.S.T* specifically for tablets. Buttons only need a “pressed” sprite on top of their default one. Transitions between screens will be done through fading.

5.2.2. Options Screen

Being designed for a specific platform, players will only ever need to adjust audio volumes or screen brightness. To this end, the option screens will only amount to three total.

It was not deemed necessary to give any gameplay options to the players with the currently planned features.

If time allows it, different languages can be implemented, adding an option screen.

5.2.3. High Score Screen

The high scores screen will display the local best scores of the players. It will be very traditional in how it is displayed in that it will be very similar to how arcade booths showed high scores.

On that same screen in one of the corners opposite to the “back” button, players will have the option to erase their current high scores from the device. A prompt will ask to confirm, as it is a destructive process.

6. Story, Setting, and Characters

6.1. Story and Narrative

F.A.S.T is the story of a firefighter who is desperately trying to save a fellow firefighter trapped and injured in a burning building at the dead of night. As they’re traversing this dangerous structure, they will find other trapped civilians that will need help. It is then whether they decided to risk the life of his fellow firefighter in order to save these helpless people.

6.2. Characters

The player progresses by exploring the building; saving civilians and the firefighter along the way before it collapses. While the player will have all of their equipment before entering the building, they will need to restock their fire extinguisher from ones found in the level.

6.2. Game World

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7. Risk Assessment

8. Bibliography

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