**Play Flash Point**

**Use Case:** Play Flash Point

**Scope:** Flash Point

**Level:** User Goal

**Intention in Context:** The intention of the *Player* is to play a game of flash point with his/her team mates.

**Multiplicity:** Multiple players can play flash point concurrently. A given player is not allowed to play multiple games simultaneously.

**Primary Actor:** *Player*

**Secondary Actors:** *Player (who play the roles of team mates).*

**Main Success Scenario:**

1. Player enters game menu.
2. Player chooses to either Join/Load/Create a game.

*Step 3 is executed after room owner starts the game.*

1. Player chooses initial position for firefighters.
2. Take turns.

*Step 4 is repeated until players win/lose.*

1. System informs player if they won/lost the game.

**Extension:**

2a. If the game is a saved game, step 4 is executed.

2b. If the player is not able to join, create, or load the game, repeat step 2.

3a. If the player is playing in experienced mode, player also choose together initial position to place fire engine and ambulance.

4a. If enough players want to continue to get a perfect win, the game continues.

**JoinExistingGame**

**Use Case:** JoinExistingGame

**Scope:** FlashPoint

**Level:** Subfunction

**Intention in Context:** The intension of the Player is to join a server that someone else created and is not started yet.

**Primary Actor:** Player

**Secondary Actor:** Other Players, Server Owner

**Main Success Scenario:**

1. Player informs System that he wish to join in a specific server.

2. System presents game lobby to Player.

3. Player chooses a character informs System that he is ready to begin the game.

4. Player waits all other players to ready and the server owner start the game.

**Extensions:**

2a. Player informs System that he wishes to exit this lobby. Use case ends in failure.

4a. If server owner exits the lobby, player exits as well. Use case end in failure.

**Load Game**

**Use Case:** Load game

**Scope:** Flash Point

**Level:** subfunction

**Intention in Context:** load the game that early saved

**Multiplicity:** Multiple players can load the same game concurrently. A single player can load different game.

**Primary Actor:** Player

**Main Success Scenario:**

1. System presents the Player a list of saved games.

2. Player chooses the desired game to load.

3. System shows player the game lobby.

4. System detects if the game is ready to be started.

5. Player informs the system to start the game.

**Extensions:**

2a. The saved game file is damaged; use case ends in failure.

(3-5)a. Player changes his mind and doesn’t want to play anymore, he can exit; use case ends in failure.

**CreateNewGame**

**Use Case:** CreateNewGame

**Scope:** FlashPoint

**Level:** Subfunction

**Intention in context:** The intention of the player is to start a new game from scratch.

**Primary Actor:** Player

**Main Success Scenario:**

1. Player informs the system to create a new game for x number of players.

2. System presents details of games for players to choose. (Map, difficulties, fire etc.).

3. Player informs System the detail of game settings.

4. System presents the player the created game lobby.

5. System detects if the game is ready to be started.

6. Player informs the system to start the game.

**Extension:**

2a: Time is limited for player to choose types. if player does not finish, system will automatically choose one mode.

3a: When ready bottom is not pressed within limited time, system will set it ready. Use case continues at step 2

(2-6)a : Player informs Systems that he/she wishes to cancel game creation. Use case ends in failure.

**Place Starting Positions**

**Use Case:** Place Starting Positions

**Scope:** Flash Point

**Level:** Subfunction

**Intention in Context:** The intention of the Players is to Place their starting firefighter and vehicle positions.

**Primary Actor:** Player

**Secondary Actors:** Other players (teammates).

**Main Success Scenario:**

1. System places initial game objects (fire, hotspot, etc).
2. System informs Player to place their starting position on any of the board spaces outside of the building.
3. Player informs System the position he wishes to place.
4. System informs players to vote for vehicle initial positions.
5. System informs Player of new game states.

**Extension:**

3a. If the position Player chooses is not valid *(Occupied, Wrong Scope, etc.)*

3a.1 System informs Player of invalid placement.

3a.2 System informs Player to place a firefighter on a required position.

**Communication**

**Use case:** Communication

**Scope:** Flash point

**Level:** subfunction

**Intention in context:** Player to communicate with his teammates

**Primary actor:** Player

**Secondary actors:** Other players (Teammates)

**Multiplicity:** several users can communicate simultaneously

**Main success scenario:**

1. Current player performs one of the following:

- A text communication,

- A voice communication.

2. System publishes the message to all players

**TextCommunication**

**Use case:** TextCommunication

**Scope:** Flash point

**Level:** subfunction

**Intention in context:** Player to communicate with his teammates in text message

**Primary actor:** Player

**Main success scenario:**

1. Player enters the text message

2. System receives the message

**Extensions:**

1a. Player enters empty string, use case ends.

1b. Player enters mature text, the text is replaced by “\*” (extra feature)

**VoiceCommunication**

**Use case:** VoiceCommunication

**Scope:** Flash point

**Level:** subfunction

**Intention in context:** Player to communicate with his teammates in voice.

**Primary actor:** Player

**Main success scenario:**

1. Player speaks to the microphone.

2. System receives the voice

**Extensions:**

1a. If no recording device is detected, use case ends

**Take-Turn**

**Use Case:** Take-Turn

**Scope:** Flash Point

**Level:** Subfunction

**Intention in Context:** The intention of the player is to play his turn.

**Primary Actor:** *Player*

**Secondary Actor:** Other player (player’s team mates).

**Main Success Scenario:**

1. System informs the *Player* that it is his turn.
2. The player takes action.

*Step 2 can be repeated as many times as the player wants.*

1. System informs player the updated game state after the player’s action.
2. Current *Player* informs the system to ends his/her turn.
3. System performs advance fire.
4. System replenishes POI on the map.
5. System checks the action point. System changes the Player’s action point to 4 if it exceeded 4.

**Extension:**

2a. If the turn time is up, then step 5 is executed regardless of the player’s remaining action points.

2b. If the player chooses to skip (saving his/her action point), step 5 is executed.

2c. If after taking action the game is over, the system pause/terminates the game and informs players if they won/lose.

5a. If the advance fire causes the house to collapse, the system informs players if they won/lose.

6a. If there is no more POI to be replenished, skip this step.

6b. If there is no more POI to be replenished and no POI are on the map, the system informs players if they won/lost.

**Take Action**

**Use Case:** Take Action

**Scope:** Flash Point

**Level:** Subfunction

**Intention in Context:** The intention of the player is to perform action to cooperate with his/her team mates.

**Primary Actor:** *Player*

**Secondary Actor:** Other player (player’s team mates).

**Main Success Scenario:**

1. *Player* chooses one of the following actions to perform.

* The player moves to an adjacent position (data: the position to move to).
* The player chops a block of wall (data: which block of wall the player wants to chop).
* The player opens/closes a door (data: which door the player wants to open/close).
* The player extinguishes smoke/fire on a position (data: which fire the player wants to extinguish).
* The player carries/drops a victim/hazmat (data: which item the player wants to carry up).
* The player uses his/her special ability (data: the target to use the special ability on if any). (This only exists in experienced mode).
* The player uses the fire engine to travel/extinguish fire (data: player to travel with and destination location).
* The player uses the ambulance to travel (data: player to travel with and destination location).

1. System informs players the updated *Player* status.
2. System informs players the updated game state.

**Extension:**

1a. *Player* does not have enough action point to perform the desired action.

1a.1. System informs the *Player* about insufficient action point.

1a.2. The action is omitted; the use case ends in failure.

1b. *Player* tries to perform an action on an invalid target.

1b.1. System informs *Player* about invalid target of action.

1b.2. The action is omitted; the use case ends in failure.

1c. *Player* moves to a place where POI is placed.

1c.1. System reveals the POI.

1c.2. System updates the overview list of POI.

1c.3. System removes the POI if it is a false alarm; use case continues at step 2.

1d. *Player* carries a victim to safe position (ambulance in experienced mode).

1d.1. System removes the victim from the *Player’s* inventory.

1d.2. System adds the victim to the list of rescued victims.

1d.3. System updates the overview list of POI, use case continues at step 3.

(1-3)a. If the time runs up during any steps, the taken action is performed before turn goes to next player; use case continues until all steps are done.

**Advance Fire**

**Use Case:** Advance Fire

**Scope:** Flash Point

**Level:** Subfunction

**Intention in Context:** The system will proceed the game by adding more fire.

**Primary Actor:** *System*

**Main Success Scenario:**

1. The system randomly picks a random position on map to advance fire. The following are the possible cases of advancing fire.

* A smoke is placed on an empty tile.
* A fire is replacing a smoke.
* Adjacent smokes are lighted up.
* An explosion occurs.

1. The system detects if any *Player* is affected by the advanced fire
2. The system detects if any POI is affected by the advanced fire and remove the POI.
3. The system detects the damage level of the house.

**Extension:**

1a. If the position of advanced fire has a hotspot, repeat step 1.

1b. If the position of advanced fire contains hazmat and fire, a new hotspot is placed; use case continues at step 2.

1c. When fire advanced on multiple hazmat.

1c.1. The system informs *Player* to choose order of hazmat explosion.

1c.2. The *Player* informs the system of their choice of order.

1c.3. System performs explosions in *Player* desired order; use case continues at step 2.

1c.4. System performs explosions in random order if the player does not pick order of explosion on time; use case continues at step2.

1d. If the explosion happens near walls/doors.

1d.1. The wall/door is destroyed by the system.

1d.2. The system increases damage level of house; use case continues at step 2.

2a. Player(s) is on a location with fire on.

2a.1. The system asks the player to choose a valid location to respawn.

2a.2. The system respawns the player on the location they choose/ on a random valid location if the player does not choose location to respawn in a given time; use case continues at step 3.

3a. Removing POI will result in failure to rescue victims.

3a.1. System detects a victim involved in the fire, and removing the victim will fail the rescue operation.

3a.2. System informs players they lost the game; use case ends in success (game over).

4a. The house is destroyed due to too much damage taken.

4a.1. System detects the level of damage is above maximum.

4a.2. System informs players if they won/lost the game; use case ends in success (game over).

**Replenish POI**

**Use Case:** Replenish POI

**Scope:** Flash Point

**Level:** Subfunction

**Intention in Context:** The system will proceed the game by replenishing POI.

**Primary Actor:** *System*

**Main Success Scenario:**

1. System randomly generates a position for placing the POI.
2. System places the POI to the location.
3. System informs all players the updated map and POI status (list of POI not yet put into the map).

**Extension:**

1a. If the randomly chosen position has fire, the POI is placed to a new location without fire following the trace on the map.

2a. The POI is placed on the same location of a *Player*.

2a.1. The POI is immediately revealed to players by the system.

2a.2. System discards the POI immediately if the POI is a false alarm and repeat step 1.

2a.3. System updates the list of POI.