# Flash Point Environment Model

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November 2018

## 1 Environment Model

# 1.1 Input Messages

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• Pre-Game Processes:
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- login(credentials : String)
- replyHostGame()
- replyJoinGame(gameIdentifier : String)
- replyLoadExistingGame()
- replyChooseSavedGame(gameId : String)
- replyCreateNewGame(numberOfPlayers: Integer)
- replyChooseDifficultyLevel(game: Game, difficulty: DifficultyLevel)
- replyChooseBoardType(boardType : BoardType, game : Game)
- replySelectRoleType(role: RoleType)
- replyChooseStartingLocation(t : Tile)
- replyChooseVehicleLocations(a: AmbulanceParkingSpot, e: EngineParkingSpot)
- readyToPlay()

#### • In-game:

- saveGame()
- endTurn()
- quitGame()
- replyChooseRespawnLocation(a: AmbulanceParkingSpot)
- replyToCommandRequest(accepted : Boolean, otherPlayer : Player)
- replyRemoveOrFlipFire(r : boolean)
- replyChooseHazmatResolve(hm : Hazmat)

#### • Basic Moves:

- movePlayer(t : Tile)
- openDoor(door : Door)
- closeDoor(door : Door)

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- chopWall(wall: Wall)
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- moveVictim(v : Victim, t:Tile)
- carryHazMat(h : HazMat)
- extinguishFireOrSmoke(t : Tile)
- swapRole(r: RoleType)
- flipPOI(location : Tile, poi : PointOfInterest)

#### • Special Moves:

- removeHazMat(h: HazMat)
- resuscitateVictim(v : Victim)
- fireTheDeckGun()
- replyReroll(b: boolean)
- replySecondReroll(b: boolean)
- initiateCommandOtherPlayer(otherPlayer: Player, dest: Tile)
- initiateDriveVehicle(v : Vehicle, newSpot : ParkingSpot)
- -replyRideVehicle(vehicle : Vehicle, spot : ParkingSpot, m: MultiStepMove)

### • Communication processes:

- createChatMessage(text : String)

# 1.2 Output Messages

- Game Lobby
  - promptHostOrJoin()
  - promptNewOrLoadExistingGame()
  - promptChooseSavedGame(gameId : Set{String})
  - promptSelectRoleType(roleType : set{RoleType})
  - promptSelectDifficultyLevel()
  - promptChooseBoardType()
  - promptChooseStartingLocation()
  - promptChooseVehicleLocations()
  - gameLost()
  - gameWon()
  - gameState()

#### • In Game

- currentGameBoard()
- informTurn()
- promptChooseRespawnSpot()
- promptRemoveOrFlipFire(m : MultiStepMove)
- promptReroll(m : MultiStepMove)
- promptSecondReroll(m : MultiStepMove)
- waitForOtherPlayers()

- $\ promptRideVehicle(m:MultiStepMove)\\$
- $\ promptCommandOtherPlayerRequest(m:MultiStepMove)\\$
- commandRequestDeclined()
- promptReturnToLobby()
- $-\ promptChooseHazmatResolve()$

# ullet Communication

- displayChatHistory()