Peer-Review 2: Protocol Documentation

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Gruppo 23

May 15, 2022

1 Messages

1.1 Acknowledgment

This message is sent from the server to the client when a generic message has been acknowledged.

Arguments

This message has no arguments

Possible responses

This message has no arguments

1.2 Login

This message is sent from the client to the server after establishing a connection to create a player session.

Arguments

Possible responses

- LoginSuccess: when the login is successful

- LoginFailure: when the login is failed. Connection failure

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1.3 LoginSuccess

This message is sent from the server to the client when a player session is created. The session is tied to the current TCP connection.

Arguments

- idClient: Id assigned from server to the client

Possible responses

This message has no arguments

1.4 LoginFailure

This message is sent from the server to the client when a player session could not be created.

Arguments

This message has no arguments

Possible responses

This message has no arguments

1.5 Intro

This message is sent from the server to the client when the player accesses the game session.

Arguments

This message has no arguments

Possible responses

This message has no arguments

1.6 NewGame

This message is sent from the client to the server when the player wants to start a new game with another player.

Arguments

1. PlayerName: the name of the player

2. PlayerNum: number of players planned to play with

3. idGame: game-room id for other player to connect to

4. ExpertGamemode: choose to play expert gamemode or not

5. ChatEnable: choose to play with chat or not

Possible responses

- Acknowledgment: the message has been received

1.7 LoadGame

This message is sent from the server to the client when a players have selected a correct created game.

Arguments

1. sPlayerName: check the name of the player

2. JoinNewGame: join new game using game-room id

Possible responses

- Acknowledgment: the message has been received

- LoadgameSuccess: when the game loading is successful

- LoadgameFailure: when the game loading is failed

1.8 LoadgameSuccess

This message is sent from the server to the client when the game was loaded correctly.

Arguments

This message has no arguments

Possible responses

This message has no arguments

1.9 LoadgameFailure

This message is sent from the server to the client when the game was not loaded correctly.

Arguments

This message has no arguments

Possible responses

This message has no arguments

1.10 GameboardUpdate

This message is sent from the server to the client when the state of the game's board has been updated.

Arguments

1. CurrentPlayer: the ID of the player which currently has the turn.

2. BoardState: the current state of the game board

Possible responses

- Acknowledgment: the message has been received

1.11   ActivateTurn

This message is sent from the server to the client when it is decided which player will take the first turn.

Arguments

This message has no arguments

Possible responses

- PlanTurn

1.12   PlanTurn

This message is sent from the client to the server when the player will start its turn.

Arguments

This message has no arguments

Possible responses

- GameboardUpdate: he message has been received and the board has been updated

1.13   UniqueCard

This message is sent from the client to the server when the player chooses to play the same card

Arguments

This message has no arguments

Possible responses

This message has no arguments

1.14 ChooseCard

This message is sent from the client to the server when the player chooses the assistant card to play.

Arguments

This message has no arguments

Possible responses

- UniqueCard: the message has been recevied and notifies that the same card is being played.

1.15 PlayCard

This message is sent from the client to the server when a card is played by the player.

Arguments

This message has no arguments

Possible responses

- GameboardUpdate: the message has been received and the board has been updated

1.16 StartPhase

This message is sent from the server to the client announcing the start of the planning phase.

Arguments

This message has no arguments

Possible responses

- Acknowledgment: the message has been received

1.17 ChooseStudent

This message is sent from the client to the server when choosing the stundents to move.

Arguments

1. StudentColor: choose the student color to move

Possible responses

This message has no arguments

1.18 MoveStudent

This message is sent from the client to the server when moving the chosen students.

Arguments

This message has no arguments

Possible responses

- GameboardUpdate: he message has been received and the board has been updated

1.19 ConfirmEndPhase

This message is sent from the server to the client announcing the end of the planning phase.

Arguments

This message has no arguments

Possible responses

- Acknowledgment: the message has been received

1.20 MoveMotherNature

This message is sent from the client to the server when moving Mother Nature to the decided Island

Arguments

1. IslanId: The ID of the island where Mother Nature will be on

Possible responses

- GameboardUpdate: he message has been received and the board has been updated

1.21 ControlInfluence

This message is sent from the server to the client to update the influence of the current island.

Arguments

This message has no arguments

Possible responses

This message has no arguments

1.22 SetTower

This message is sent from the server to the client when determining the influence of the current island.

Arguments

1. IslanId: The ID of the island where Mother Nature is on

2. TowerColor: set the tower color

Possible responses

- GameboardUpdate: he message has been received and the board has been updated

1.23   IslandUnion

This message is sent from the server to the client when unifying the adjacent island tiles.

Arguments

This message has no arguments

Possible responses

- GameboardUpdate: he message has been received and the board has been updated

1.24   ChooseCloudTile

This message is sent from the client to the server when choosing the cloud tile.

Arguments

This message has no arguments

Possible responses

This message has no arguments

1.25   CollectStundets

This message is sent from the client to the server when collecting the students form the cloud tile.

Arguments

This message has no arguments

Possible responses

- GameboardUpdate: he message has been received and the board has been updated

1.26   GameResult

This message is sent from the server to the client announcing the results of the created game.

Arguments

This message has no arguments

Possible responses

- Acknowledgment: the message has been received

1.27   GameEnd

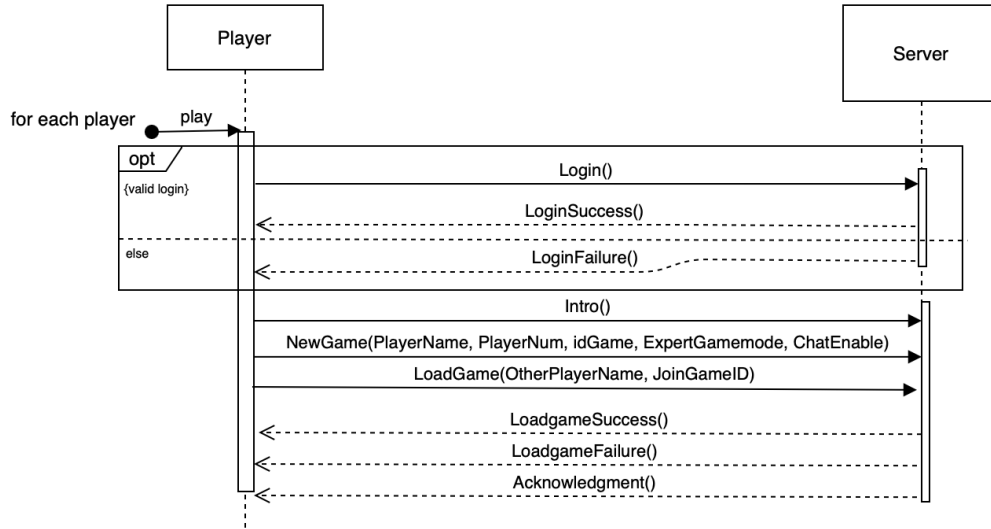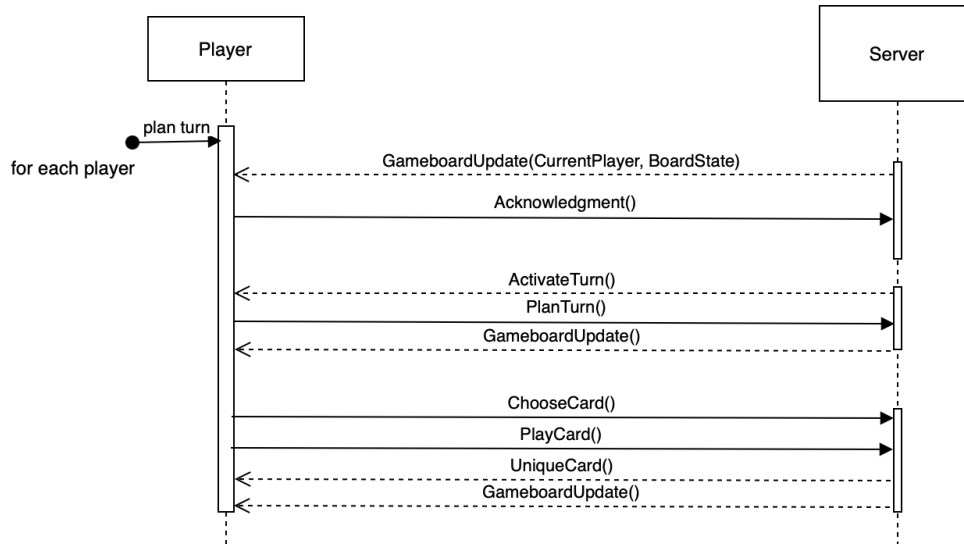This message is sent from the server to the client announcing the end of the created game.

Arguments

This message has no arguments

Possible responses

- Acknowledgment: the message has been received

2 Scenarios

2.1 Access Game

The Login message is sent to create a playable session. The server responds either with LoginSuccess or LoginFailure. If the server responds with Login-Success, we continue the planned message exchange: The Intro message is sent for the initial loading screen; the NewGame and LoadGame message in sent, respectively, to create and/or join the game. The server responds with LoadgameSuccess or LoadgameFailure, depending on the status of the game loading.

2.2 Planning Phase

The phase starts with an update of the game board from the server. ActivateTurn message is sent from the server to confirm which player will start, after the selected player client send the result of the move made by the player and the server respont with a GameboardUpdate. Same logic with PlayCard and ChooseCard, in response this time the server verify if the Card played is Unique and send an error UniqueCard if not.

2.3   Action Phase 1
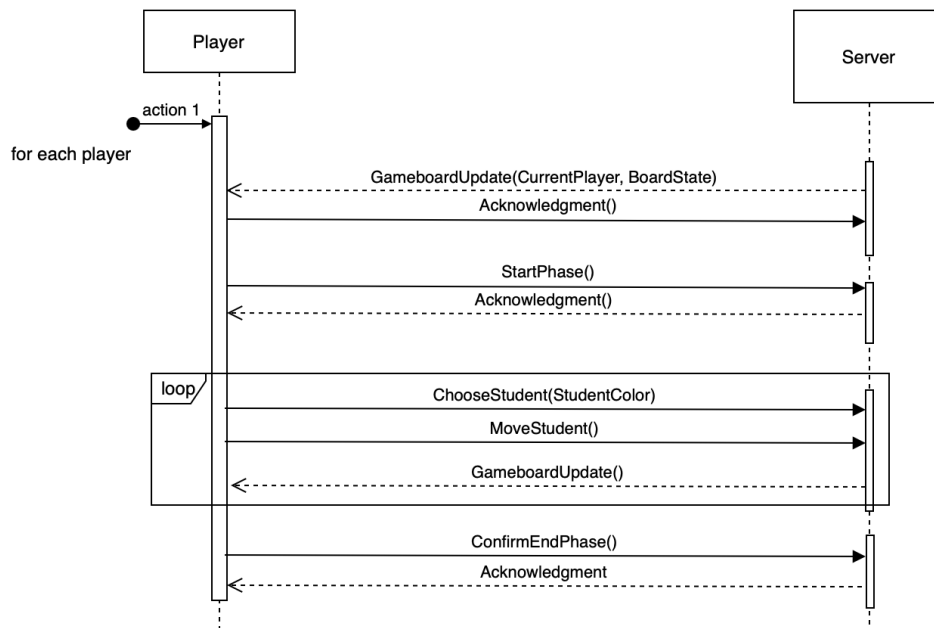
The phase starts with an update of the game board from the server. The server will send a StartPhase message to the right client initializing the first action phase, the client will respond to this acknowledging it. The client will message the chosen students to move for every students, and the server will update the game board. At this point the client will send a message confirming the end of the current phase.

2.4 Action Phase 2
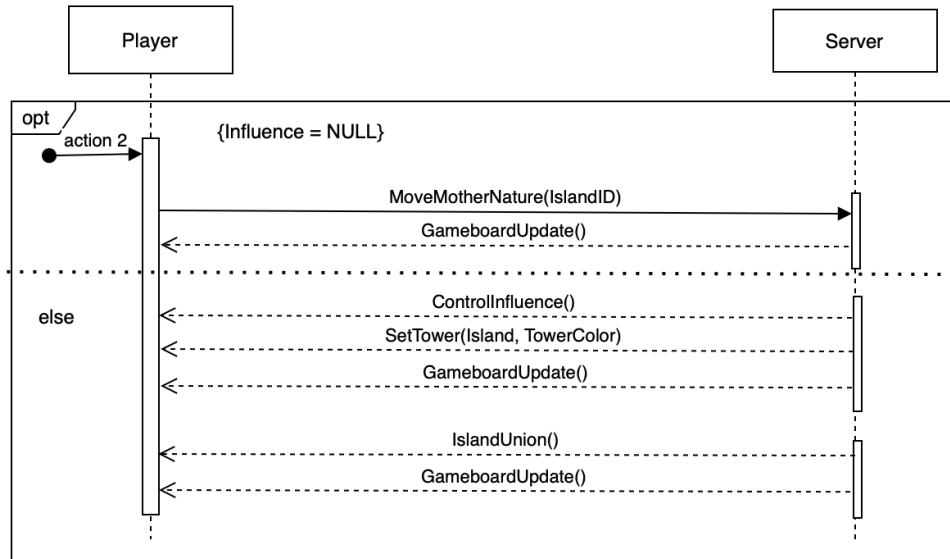
The server waits to update the game board for the client to send a Move-MotherNature message. If the influence is prevalent, a ControlInfluence and SetTower will be sent by the server and the server will send the updated game board. If towers adjacent the server states the IslandUnion to the client and send a GameboardUpdate message.

2.5 Action Phase 3
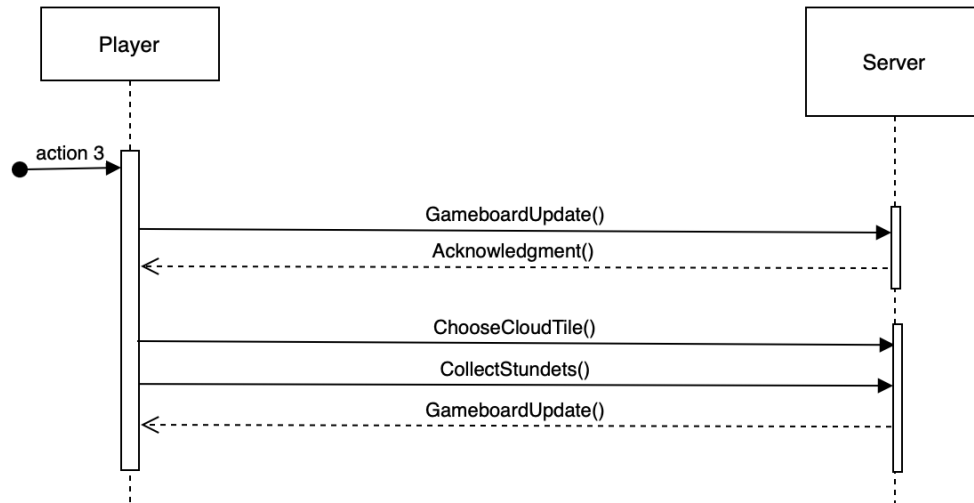
The phase starts with an update of the game board from the server. Then the server waits to update again the game board for the client to send a ChooseCloudTile and CollectStudents message.

2.6 End Game
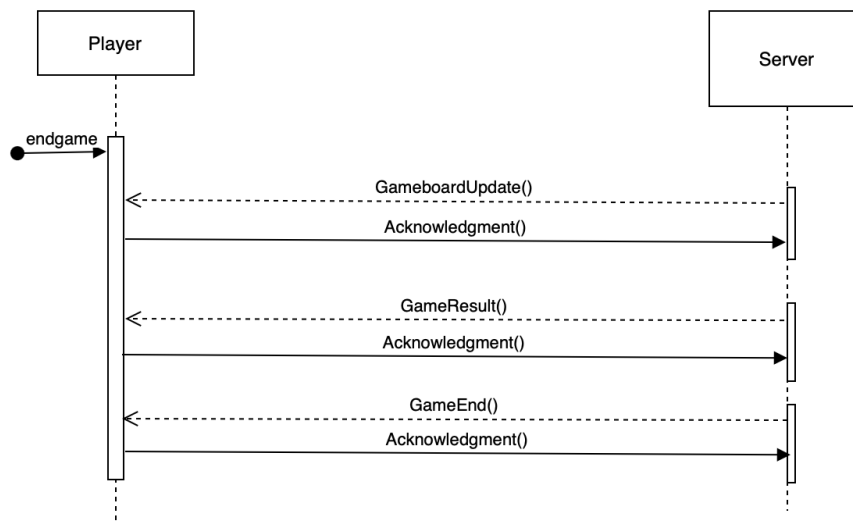
The phase starts with an update of the game board from the server. The

server will send a GameResult and GameEnd message for the client to acknowledge.