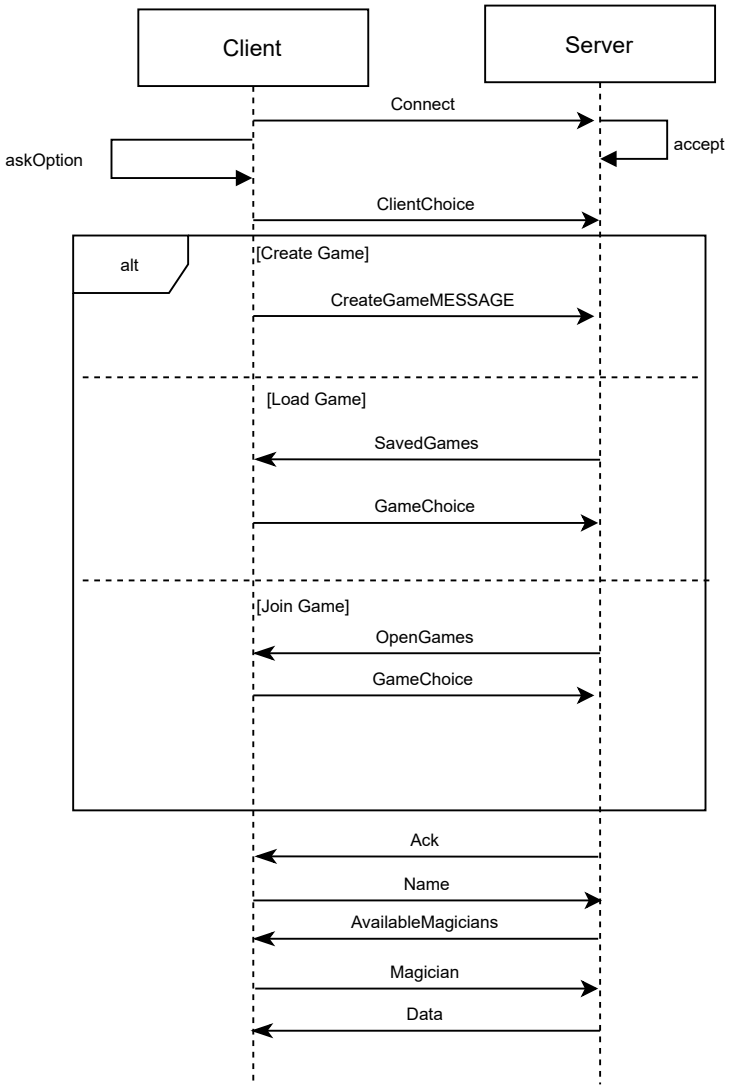
Eriantys Protocol Documentation

Filippo Gandini, Federico Mazzucato, Nazzareno Messinò
Group 44

May 2, 2022

1 Scenarios

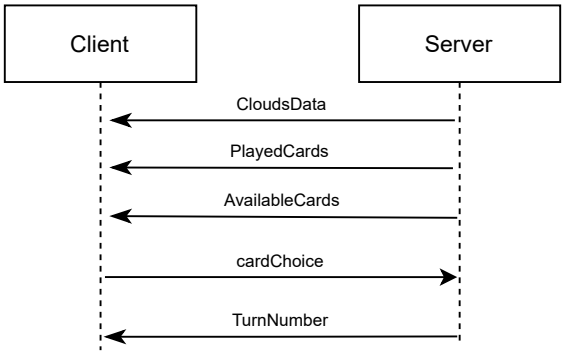
1.1 Access



The client connects to the server, communicates whether he wants to create, join or load a game. When the correct amount of clients are in the game, the client receives an ack. Then, the client chooses a nickname and sets his

identifier (Magician).
Finally, the server sends the game's data to draw the starting GUI.

1.2 Plan

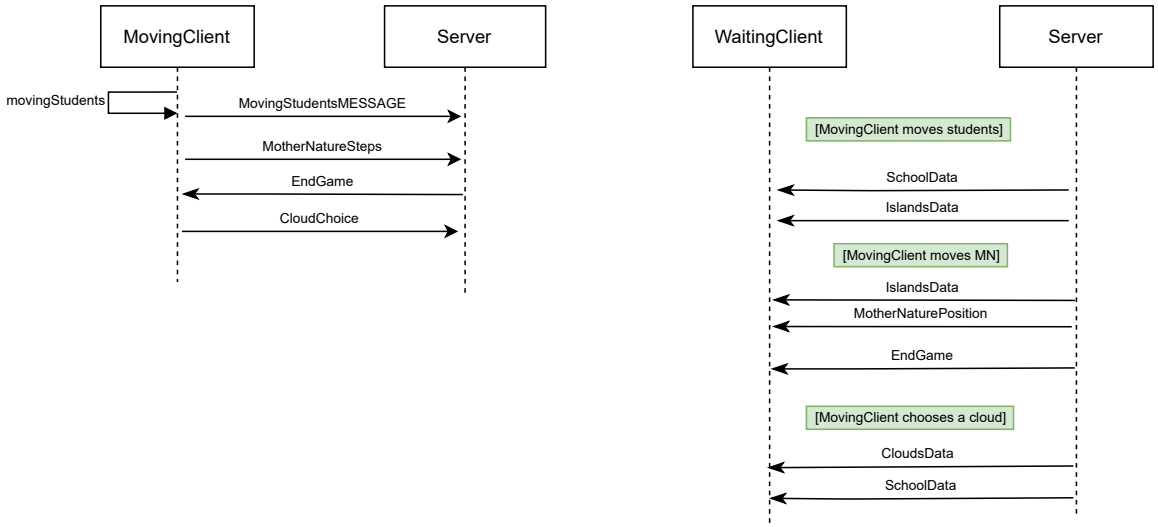


The client receives the information needed to play a card and then sends his choice. Finally when all the players have sent their card, each client receives his turn of play.

1.3 Move

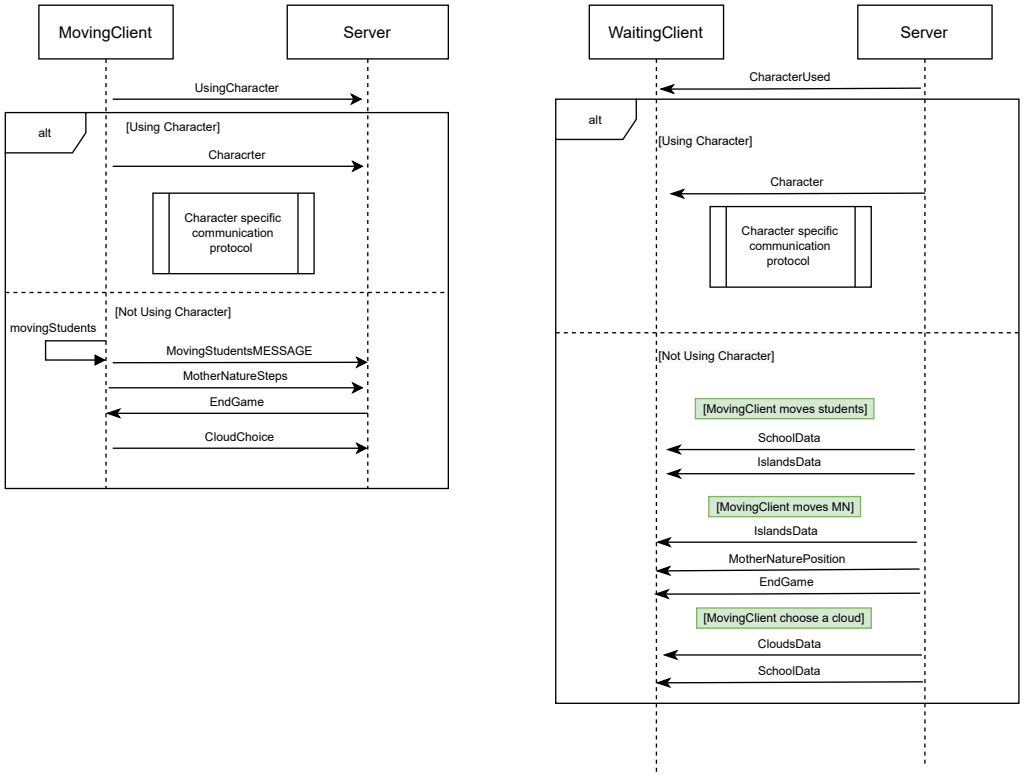
In this phase the protocol is different whether the client is moving or is watching other player moving (because he is waiting for his turn to move or he has already moved).

1.3.1 Standard Mode



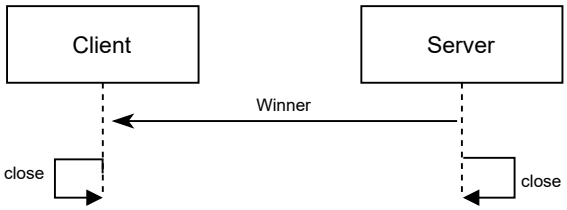
The moving client sends the information about his moves and receives a message communicating if the game has ended. He sees the updates of the GUI locally.
The other clients, who are waiting to play or have already played their turn, receive the updates of the game and the EndGame message.

1.3.2 Expert Mode



The moving client declares if he wants to use a character during his turn. If he chooses to not use it, the protocol is the same of the Standard Mode. If he chooses to use a character he communicates the character he choose. Then, the protocol is specific for each character (character-specific protocols aren't defined in this general document).

1.4 End



The server sends to the client who are the magicians who won the game.

2 Messages

2.1 From Server to Client

2.1.1 SavedGames

A map of strings and game modes which communicates the saved games.

2.1.2 OpenGames

A map of strings and game modes which communicates the open games waiting for players to join.

2.1.3 Ack

A boolean value which indicates if the game was joined correctly.

2.1.4 AvailableMagicians

A list of the magicians that haven't already been chosen.

2.1.5 Data

An object which contains a numerical description of the game enabling to create/update the GUI.

1. BoardData: an object containing the position of mother nature and the information of the characters used in the game.
2. List<SchoolData>: a list of objects containing a numerical description of a school and of the related player money.
3. IslandsData: an object containing a numerical description of the islands.
4. CloudsData: an object containing a numerical description of the clouds.

2.1.6 PlayedCards

A map of the cards and magicians representing the cards played from the other players in the current planning phase.

2.1.7 AvailableCards

A list of the player's cards not already played in the previous planning phases.

2.1.8 CharacterUsed

A boolean value which communicates if the client who is moving choose to use a character.

2.1.9 Character

An integer which communicates the id of the character choose form the client who is moving.

2.1.10 MotherNaturePosition

An integer which communicates the id of the island on which there is mother nature.

2.1.11 EndGame

A boolean value which communicates is the game has ended.

2.1.12 Winner

A string which communicates the magicians who won.

2.2 From Client to Server

2.2.1 ClientChoice

An instance of the enum ClientChoice which communicates whether the client wants to create,join or load a game.

2.2.2 CreateGameMESSAGE

An object with the necessary information to create a game.

1. GameMode: instance of the enum GameMode which defines the type of game to create (standard,expert - players,teams..).
2. Name: string defining the name of the game which must be unique since it is the identifier.

2.2.3 GameChoice

A string which communicates the game the client wants to join/load.

2.2.4 Name

A string setting the nickname of the client.

2.2.5 Magician

An instance of the enum Magician which communicates the magician chosen from the player.

2.2.6 MovingStudnetsMESSAGE

An object which communicates where the player wants to move the students in the action phase.

1. movingStudents: array of colors of the students moved.
2. movinOnIsland: array of booleans communicating if the corresponding student in movingStudent has been moved on the islands or in the school.
3. islandId: array of integers communicating on which island the corresponding student in movingStudents has been moved (if the movingOnIsland corresponding value is true).

2.2.7 MotherNatureSteps

An integer which communicates the number of steps for mother nature chosen by the client.

2.2.8 CloudChoice

An integer which communicates the id of the cloud chosen by the client.

2.2.9 UsingCharacter

A boolean value which communicates if the client wants to use a character during the action phase.

2.2.10 Character

An integer which communicates the id of the character the client wants to use.