

Network Data Diagram

The messages within the network protocol are divided into 3 categories: Requests, Updates and Sets. The first two kinds are generated within the server and sent downstream to the client, whereas the latter is created within the view and sent upstream to the server. Hereunder all the exchanged messages are listed and below actual sequence models are illustrated.

The receivers of the messages are defined within the brackets.

Requests:

- ChosenBlockTypeRequestMessage (@CurrentPlayer)
- ChosenCardRequestMessage (@All)
- ChosenPositionRequestMessage (@CurrentPlayer)
- FirstPlayerRequestMessage (@MostGodLikePlayer)
- InGameCardsRequestMessage (@MostGodLikePlayer)
- InitialPawnPositionRequestMessage (@All)
- NicknameRequestMessage (@All)
- NumberOfPlayersRequestMessage (@FirstConnectedPlayer)
- SelectPawnRequestMessage (@All)

Updates:

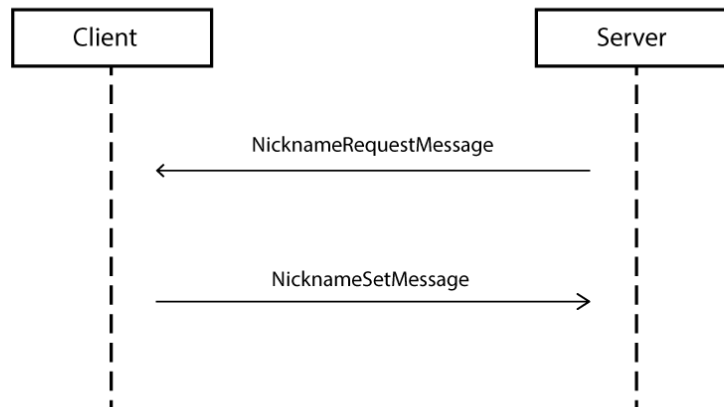
- CellUpdateMessage (@All)
- ChosenCardUpdateMessage (@All)
- DoublePawnPositionUpdateMessage (@All)
- GameStartedAndYouAreNotSelectedMessage (@ExcedingPlayer/s)
- GameStartMessage (@NotGodLikePlayer/s)
- PawnPositionUpdateMessage (@All)
- PawnRemoveUpdateMessage (@All)
- SelectedPawnUpdateMessage (@CurrentPlayer)
- TurnEndedMessage (@CurrentPlayer)
- YouLostAndSomeoneWonMessage (@Looser/s)
- YouLostMessage (@All)
- YouWonMessage (@Winner)

Sets:

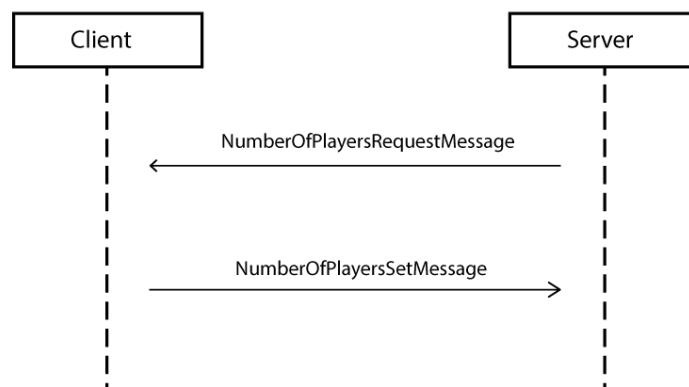
- ChosenBlockTypeSetMessage
- ChosenCardSetMessage
- ChosenPositionSetMessage
- FirstPlayerSetMessage
- InGameCardsSetMessage
- InitialPawnPositionSetMessage
- NicknameSetMessage
- NumberOfPlayersSetMessage
- SelectedPawnSetMessage

1. Game setup phase

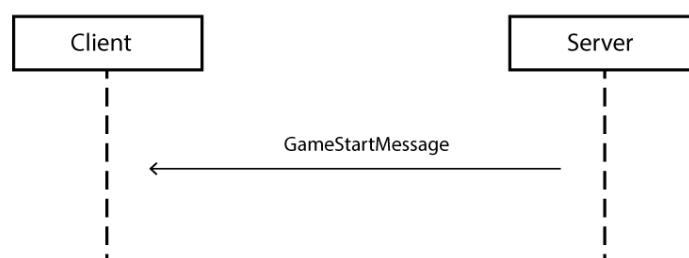
1. The client connects to the server and provides a nickname
 - NicknameSetMessage contains the nickname



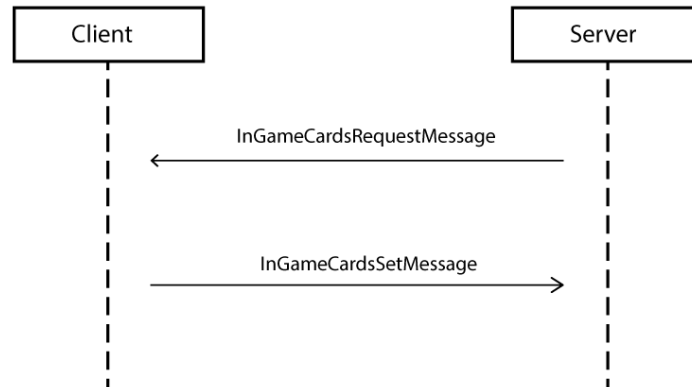
2. One client chooses how many players he wants to play with
 - NumberOfPlayersSetMessage contains the number of players



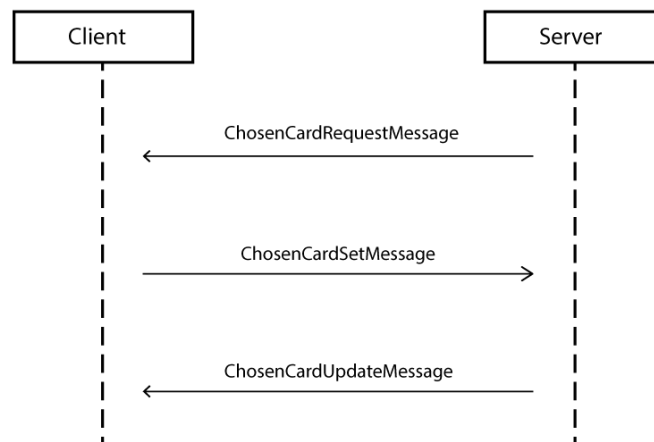
3. When the selected number of players is reached the server starts the game and updates the clients
 - GameStartMessage contains a list of the players



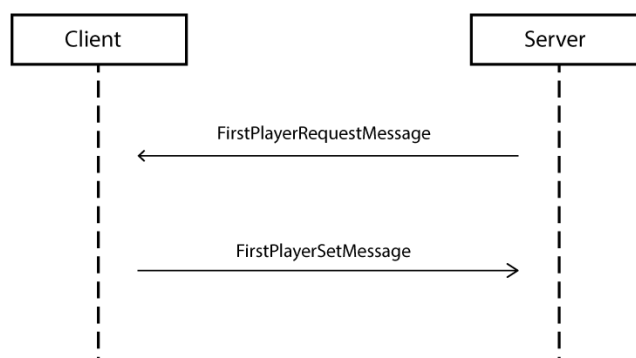
4. The server asks the most “god-like” player to select the cards that will be used throughout the match
- InGameCardsRequestMessage contains the loaded cards to choose from and the players
 - InGameCardsSetMessage contains the selected cards



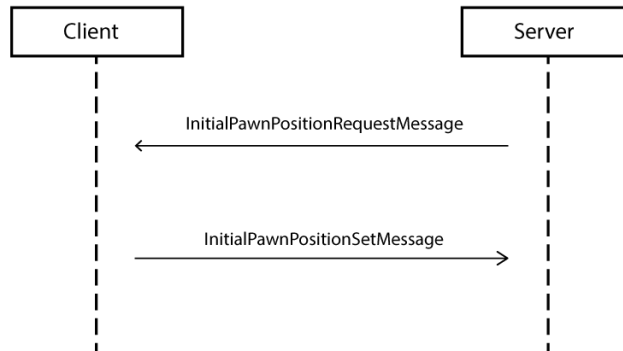
5. Each player chooses a card from the available ones
- ChosenCardRequestMessage contains the available cards to choose from
 - ChosenCardSetMessage contains the selected card



6. The server asks the most “god-like” player to select the player that will start to play first
- FirstPlayerSetMessage contains the nickname of the selected player

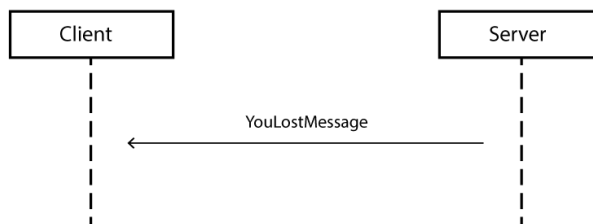


7. Every player chooses the initial positions for his pawns, starting from the player selected in the previous step
 - InitialPawnPositionRequestMessage contains the available positions to choose from
 - InitialPawnPositionSetMessage contains the two selected positions

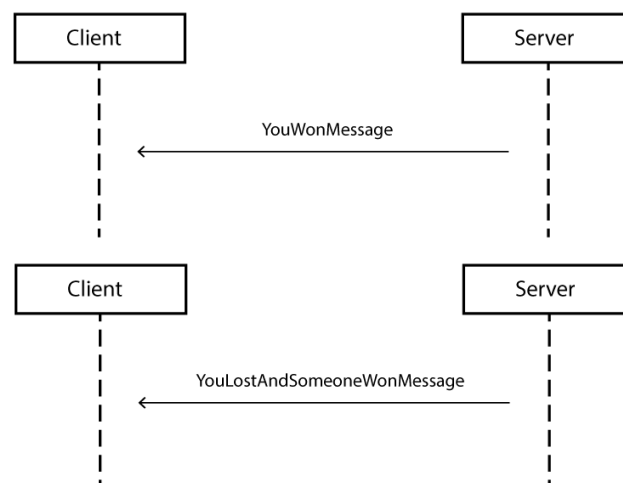


2. End game interactions

1. A single player has lost, but the game goes on
 - YouLostMessage contains loser name



2. Someone won and therefore the game ends
 - YouWonMessage
 - YouLostAndSomeoneWonMessage contains the name of the winner



3. Turn interactions

1. Standard turn, no extra actions available

- SelectPawnRequestMessage contains the available positions to choose from
- SelectPawnSetMessage contains the selected pawn position
- SelectedPawnUpdateMessage contains the pawn id
- ChosenPositionRequestMessage contains the available positions to choose from for the current action
- ChosenPositionSetMessage contains the selected position
- PawnPositionUpdateMessage contains the pawn id and the new position
- ChosenBlockTypeRequestMessage contains the available block types to choose from
- ChosenBlockTypeSetMessage contains the selected block type
- CellUpdateMessage contains the position and the block type to add

