Client to Server interaction sequence

Client | **AppServer** | **ServerInterface** | **ServerController** | **GameManagerController** | **GameBuilder**

- connect(Client)
- new
- run() → PingThread
- connect(Client)
- new → User
- return
- return ServerInterface
- createGame(Client,NewGameInfo)
- createGame(Client,NewGameInfo)
- createGame(NewGameInfo)
- build(NewGameInfo)
- new → Game
- return Game
- new (Game) → LobbyController
- new (Game) → GameController
- return LobbyController
- return
- return
- joinGame(Client,LoginInfo)
- joinGame(Client,JoinInfo)
- joinPlayer(Client,playerId)
- Modify the model
- Attach observers to Client
- return
- return
- getGame(gameID)
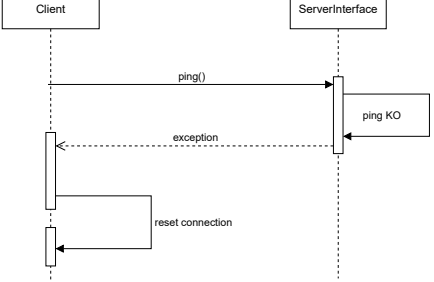- return GameController
- return
- doPlayerMove(Client,PlayerMove)
- doPlayerMove(Client,PlayerMove)
- Modify the model
- return
- return
- sendMessage(Client, Message)
- sendMessage(Client,Message)
- Modify the model
- return
- return
- leaveGame(Client)
- leaveGame(Client)
- leaveGame(Client)
- Modify the model
- Detach observers from Client
- return
- return
- return
- disconnect(Client)
- try to leaveGame(Client)
- destroy
- return

Server to Client interaction sequence

Model | **Observable** | **ClientInterface** | **ViewCollection** | **Graphics**

- Modify the model
- notifyObservers()
- update(ModelView, Event)
- update(ModelView, Event)
- update()
- return
- return
- return
- return

Ping Functionality: Ping Ok

Client | **ServerInterface** | **Ping Thread**

- ping()
- ping OK
- reset ping timeout
- return

Ping Functionality: Ping KO

Client | **ServerInterface**
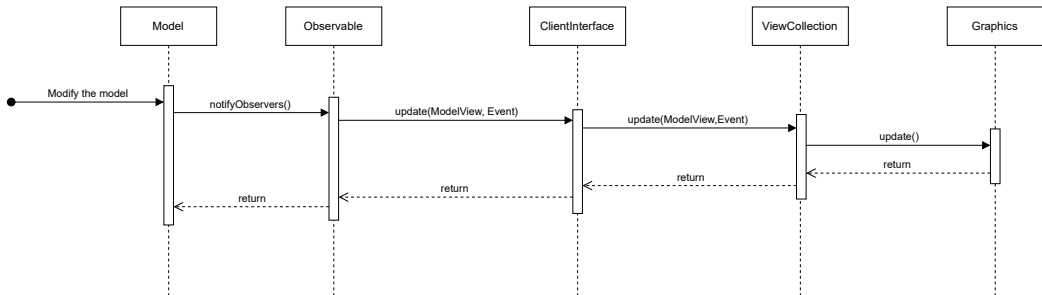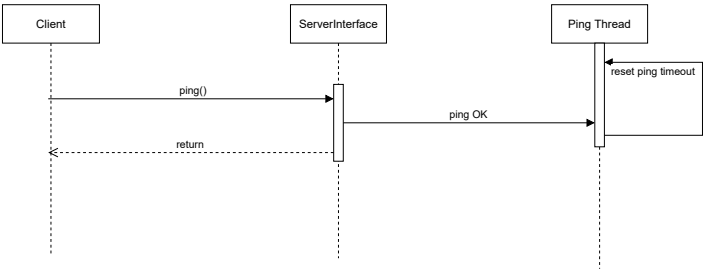
- ping()
- ping KO
- exception
- reset connection

Ping Functionality: Ping Timeout

Client | **ServerInterface** | **Ping Thread**

- on timeout destroy connection
- ping()
- ping KO
- exception
- reset connection
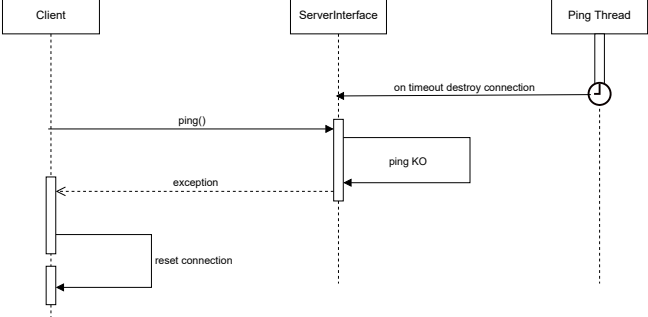
Socket Object Functionality Client to Server (same on reverse)

Client | **ClientSocketHandler** | **ServerSocketHandler** | **ServerInterface**

- SocketHandler
- SocketHandler
- call A on ServerInterface
- wait for receive
- construct SocketObject[A]
  send (SocketObject)
- Serialize and send
- reconstruct SocketObject → SocketObject
- interact()
- call A
- return
- return
- return
- return