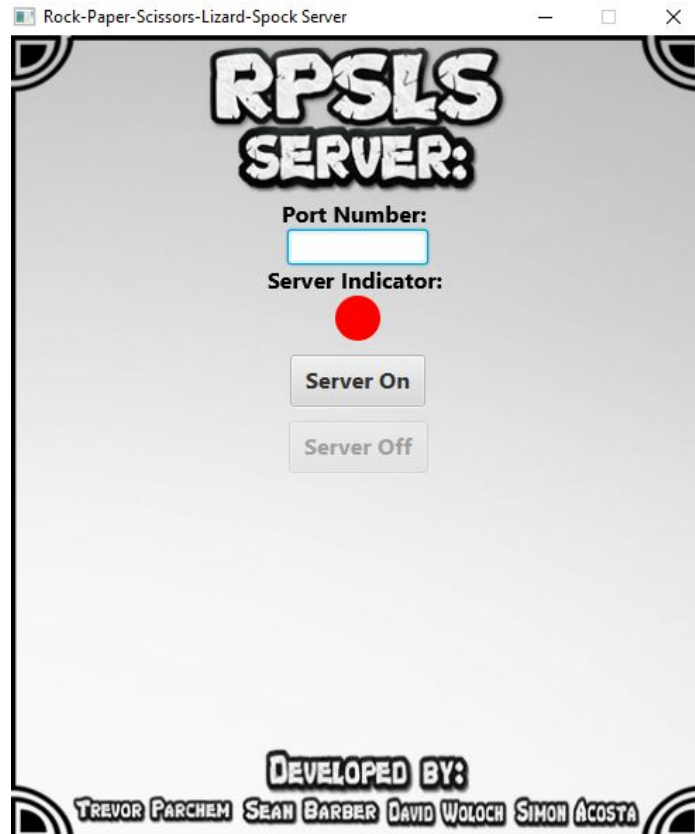


# Project #4 RPSLS Version 2.0

## Team 22

### 11 AM Section



#### Developed By:

Trevor Parchem - ([tparch3@uic.edu](mailto:tparch3@uic.edu))

Simon Acosta - ([sacost6@uic.edu](mailto:sacost6@uic.edu))

Sean Barber - ([sbarbe2@uic.edu](mailto:sbarbe2@uic.edu))

David Woloch - ([dwoloc2@uic.edu](mailto:dwoloc2@uic.edu))

# Documentation:

## GUI Overhaul:

- Overall refreshed GUI with updates to layout constraints in regards to resizing window
- Made a more user friendly interface
- Added alerts and pop-up alerts for when a player challenges another player
- Added Client list that shows all clients connected via server side using an arraylist that detects when a socket is created and connected to the server socket
- Updated font and sizing of GUI
- Created a custom background for both the server and the clients windows
- Implemented menu bar with an options tab for each client with an option to easily exit
- Pop-up alerts when invalid inputs such as trying to start server with blank port

## Server Code Changes:

- Added new CommandType Client and its corresponding logic into existing codebase in order to deal with multiple clients
- Adapted code from earlier version to be more modular to handle multiple clients
- Added new details such as the arraylist of players and different messages to be sent back and forth between the clients so the clients can be sent the updated information from the server
- Added function that finds targeted player in clientThreads arraylist and send them a challenge
- Added handling of ACCEPT and DECLINE CommandTypes for when a player declines/accepts the challenge
- Implemented an invitation system that allows for players to see a list of clients connected and challenge them to a round of the game
- Implemented sending messages between the two challenging clients and keeping track
- Updated messages class to contain the new relevant info for only one round of gameplay

## Client Code Changes:

- Allowed multiple clients to be connected by removing the hard coded logic for only two players from version one
- Added each player to a player array in the ClientSelectGUI so the player can see a list of all the players connected and that are available to challenge
- Updated the way messages are sent to the server and the relevant information that is sent back and forth via that communication channel
- Updated play methods to accomodate for one round of gameplay
- Added alert window backend code for challenges
- Updated CommandTypes and added a function to send back the user's decision

# Instructions:

- 1) Launch the Server Client from the server program and enter the port number in the following field and turn on the server by pressing the 'Server On' Button.
  - a) If the server turns on, the Server Indicator LED will turn green, else an error alert will pop up
  - b) To turn the server off, simply click the 'Server Off' Button
- 2) Launch X amount of clients from the client program. For each client enter in a unique username followed by their IP Address and the Port they want to connect to.
  - a) If any field is empty, an alert will pop up telling you to make sure you have entered all fields correctly
- 3) Click Start Client on each client
- 4) A challenge screen is brought up showing the list of clients that are connected to the server that are able to be challenged.
- 5) Click on a player to challenge and click the 'Challenge' Button where a pop-up alert will be displayed on the challengers screen if they want to accept/decline your invitation to a round of RPSLS
- 6) If the challenger accepts, a new scene will be displayed with your gameplay options where you will be able to click on the buttons to decide your input for the game.
- 7) If the challenger declines, challenge another player or the client has the option to quit the game and disconnect from the server.

