Server Control

# 1 Starting up the server

Server is contained within a headless server.jar file, which is to be opened from a console.

Upon opening, the server should be ready to send and receive all requests from local and remote clients (Default port 8002).

## 1.1 Server Properties file

Server loads and stores some of its properties into a **server.properties** file situated next to the executable. In case no file is present on server start, a new one is created automatically containing all .

## 1.2 Connecting from outside local network

For the server to be accessible from outside of your network, you need to set up your router to **port-forward** (Default **8002**) to your computer's **IP address**.

If you are running another server on the same **PORT**, the game will throw an **“Address already in use: bind”** exception. To resolve this, close the conflicting application and restart the game server. The game will by default output your public IP address on start. Clients will connect to this IP when outside of your network.

## 1.3 Windows CMD Color Display Issues

On windows platforms prior to newer Windows 10 versions the CMD does not allow for colorized output. Run the jar file with -**noColor** argument or directly set **enableColoredOutput** in server.properties property to false to remove ANSI color codes or use a different console like PowerShell.

Some Windows 10 systems have colored output disabled by default. Running the included batch file **server.cmd** as admin **will override the registry setting**, enabling colored output on CMD consoles.

## 1.4 Using custom PORT number In case you require a different PORT than default 8002, you can define your port in server.properties.

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# 2 Creating and starting a game session

Before the players can join, we need to **create or load** a game session using the “**newGame”** command. This will create a new **game lobby** so that the players can join.

## 2.1 Adding players

Players should always join by calling the **“addPlayer”** command **from their respective client instances**. Controlling more players from a single instance is possible but not supported as some breaking changes to the client may surface alongside development.  
Be advised that calling **“addPlayer”** from the server-side console will create a player with sessionID 0. **We cannot play as this player using the server console directly**. If you wish to assign a client, call the same command on a client and sessionID will be assigned automatically.

## 2.2 Skipping waiting for players

The game will automatically start when 5 players join in. We can skip waiting for players by executing the **“forceStart”** command.

## 2.3 What happens afterwards

The game will **shuffle** all cards in deck and **give 4 cards to each player**. Then the remaining **top card** of the deck will be picked and transferred to the “top”. The game will then assign all necessary gameplay variables and proceed to the **main game loop**. **More technical information available in the Technical Overview document.**

# Server commands

## Command-Breaking Characters

**Do not use any of the following characters in your commands as they are used for internal serialization and network malformation detection during merged requests: []**

[Following commands are executed server-side]

|  |  |  |
| --- | --- | --- |
| **Command** | **Arguments** | **Description** |
| newGame |  | Creates a new game session |
| gameStatus |  | Prints game status |
| forceStart |  | **Skips waiting for players** and force starts the game lobby under the condition that at least 2 players are connected and a game session is present. |
| addPlayer | playerName, playerSecret  **playerName:** The name of the player  **playerSecret:** Player password used for authentication | **Adds a player** to the game session as long as the game is in a state which allows it. Can be also used to re-login and reassign **sessionID** in case a player disconnected mid-game.  This command should be only called **once by each client instance**. |
| getPlayer |  | *Deprecated* |
| makeTurn | Integer option | Called by a player on turn to select valid turn action(s). |
| broadcast | Message  **Message:** The message to be sent to clients | Sends a message to all connected clients. |
| echo | Message  **Message:** The message to be printed to console | Used to **print** messages into the console. When called by the server on a client, this will be printed on a client. |

Headless Client Usage

# 1 Starting up and connecting to game lobby

Currently the client is only operating on text I/O. An additional GUI interface may be added at a later date. Keep in mind the current text-controls are there for **prototyping** rather than active playing and will be replaced in the future with more user-friendly messages. Open the **client.cmd** or **client.jar** using the console to begin. Before executing any commands, please read the [Commands](#_91l5plmb5czb) section.

## 1.1 Connecting to a game server

The game server manages and distributes the entire game loop. Therefore it's important to have one set up as defined in [**Server Control Section 1**](#_fznjdpb1tbml). To connect to a local server, execute the **“connect”** command. To connect to a server outside of your local network, add an IP address next to the command (example: **“connect 127.0.0.1”**).

Client will welcome you with an “Connected.” If you are having issues connecting in, make sure the server is operating on the same port as the client (default 8002 ) and [port forwarding](#_3o1lsh5udv7t) is properly set up.

## 1.2 Adding yourself into the game

Use the **“addPlayer”** command appended by your username and password to add yourself into a game session (example: “addPlayer Prokop password1234”).

## 1.3 Connecting to an existing game

In case you disconnected mid-game, you can still connect back and control your player by executing the **“addPlayer”** command with your name and password you used prior to disconnecting. The server will automatically assign the player your network **sessionID** and you will be in control again.

# 2 Playing the game

## 2.1