

Tutorial:

Setting Up a Game of RoboCup Soccer

1. Visit <http://www.nmai.ca>.
2. Click on “Research Projects” on the left side bar on the main page, followed by *Software Agent Imitation* → <Downloads>.
3. Download and install:
 - a. If you are running Windows, scroll down to the boxed category “*RoboCup Soccer Simulation* → *Other Programs*” and download “*RoboCup Soccer Simulation Server + Monitor (Windows)*”. Extract the zipped file.
 - b. If you are running Linux, download “*RoboCup Soccer Simulation Server + Monitor (Linux Code)*”. Extract the zipped file.
4. Go back to the *Software Agent Imitation* page, and scroll down to the list of Data Sets. Listed on the left side are the agents that can be used to play in the game.
5. Click on any agent and you will get a description of what properties the player has. Click on “*Krislet*” and download the “*Agent Code* → *Krislet(Java Source)*”. Extract the zipped file.

Starting a Game in Windows:

1. The RoboCup Soccer Simulation will be a folder called RCSS-9.1.5-WIN. Start the server by double-clicking on "rcssserver.exe" within the folder.
2. Double-click on "monitor.exe", which will provide a graphical view of the game.
3. To connect to the server, click on the circled button to open the "Server connection setup" dialog, as shown in the figures 1 and 2. Enter the appropriate values in the dialog and press "OK".

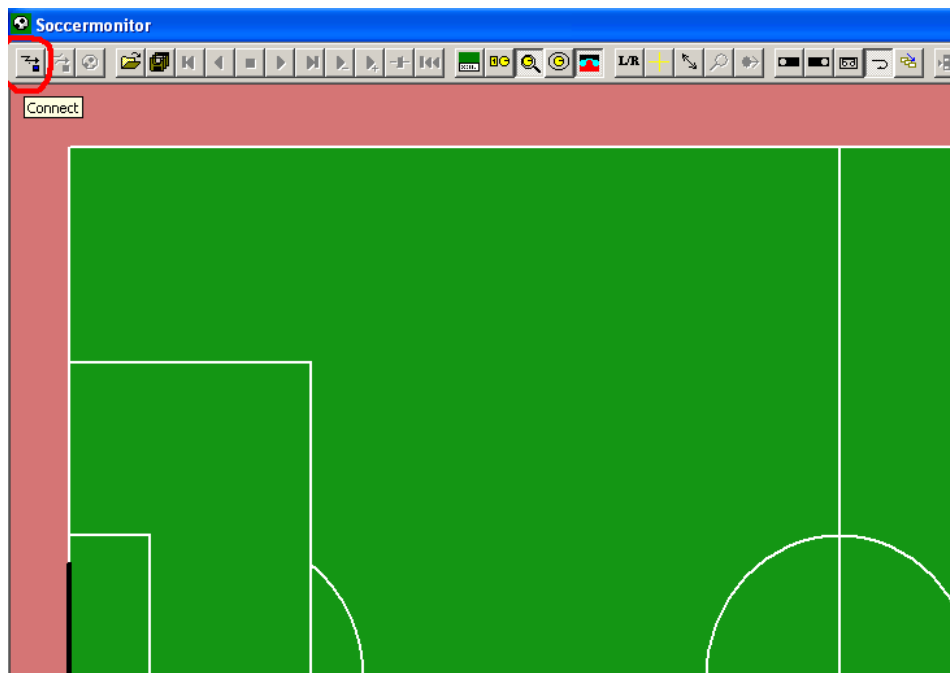


Figure 1: Button to press to connect to server

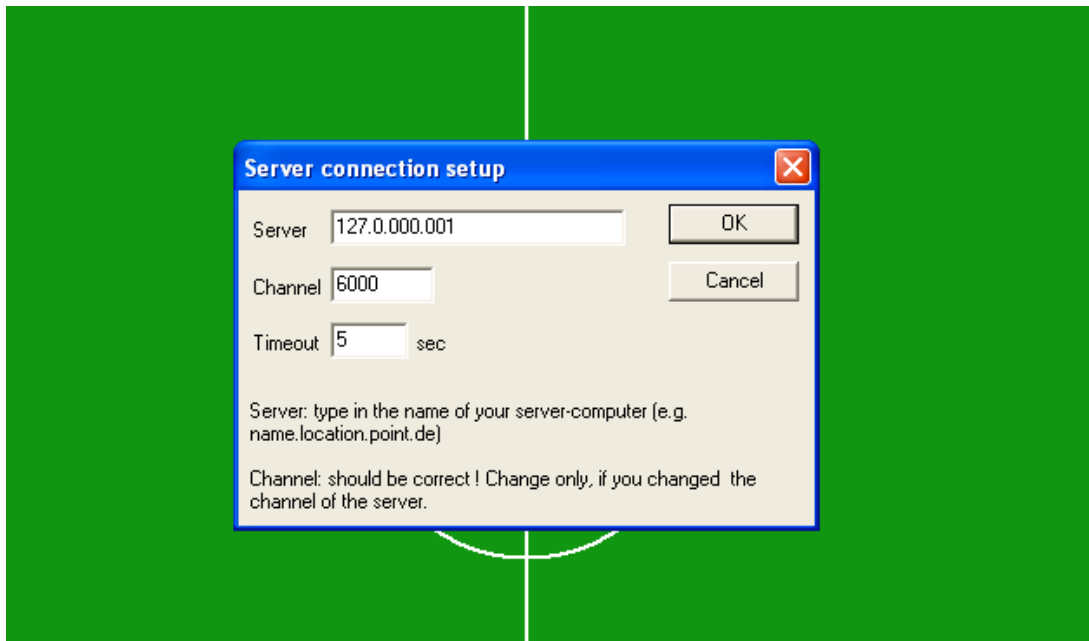


Figure 2: Server connection default

4. Compile the Java Source code for the Krislet Agent (Figure 3):
 - Using command prompt, change the directory to match the location of the Krislet agent folder.
 - Use the “javac” program to compile the source code (as shown in Figure 3). If you do not have the javac program you will need to download the Java SDK (www.java.com).
5. Run the Krislet agent using the “java Krislet” command. Alternatively, start multiple agents by entering the command “start java Krislet” several times (Figure 4).
6. To add a second team, run the start the Krislet team again but with a different team name. For example, in Figure 4 the command “start java Krislet -team Blue” is used to start some agents on a team named Blue and “start java Krislet -team Red” is used to start some agents on a team named Red.
7. Once both teams have been connected to the server, press the soccer ball icon on the monitor screen (Figure 5).

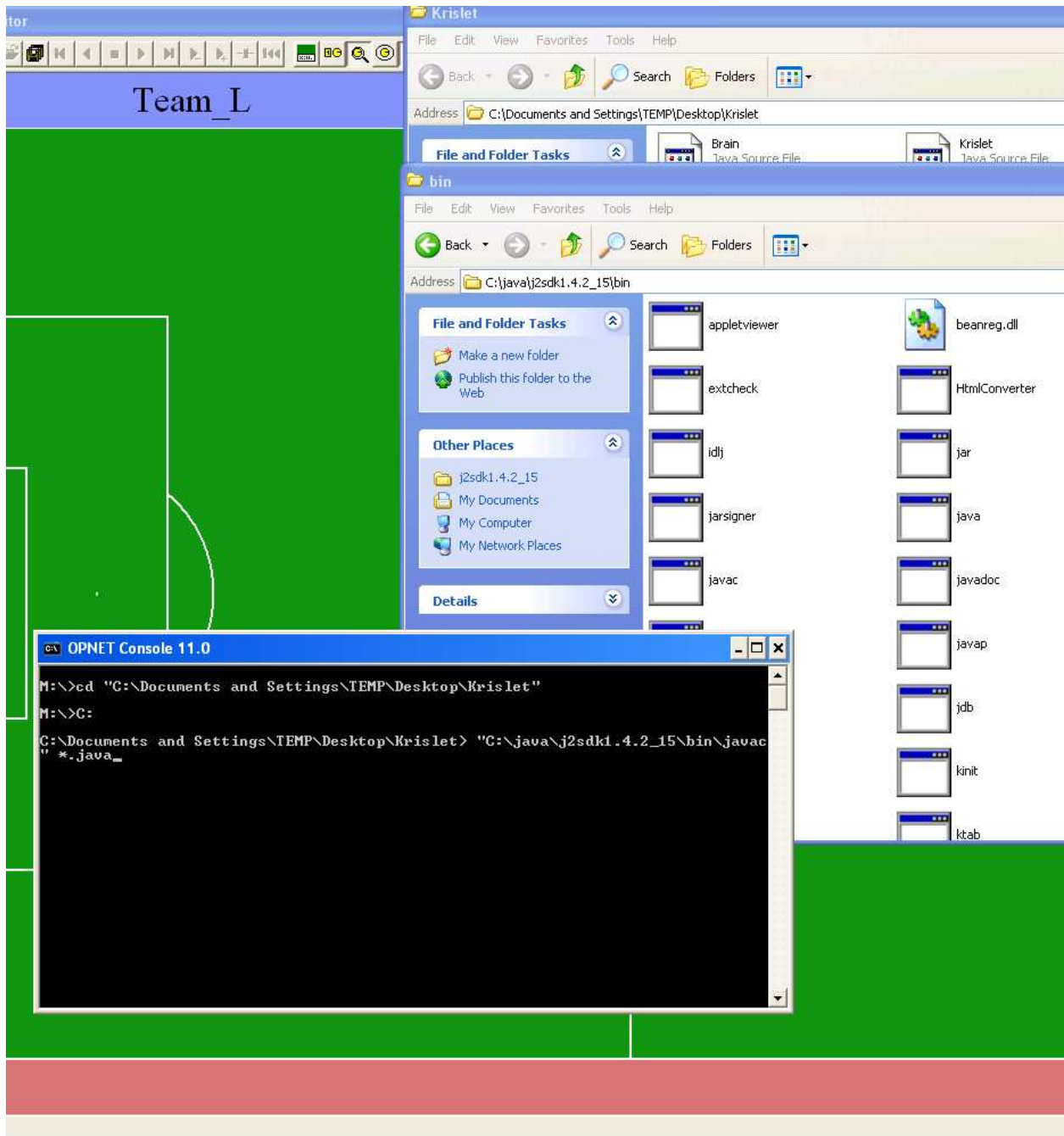


Figure 3: Compiling Krislet source code

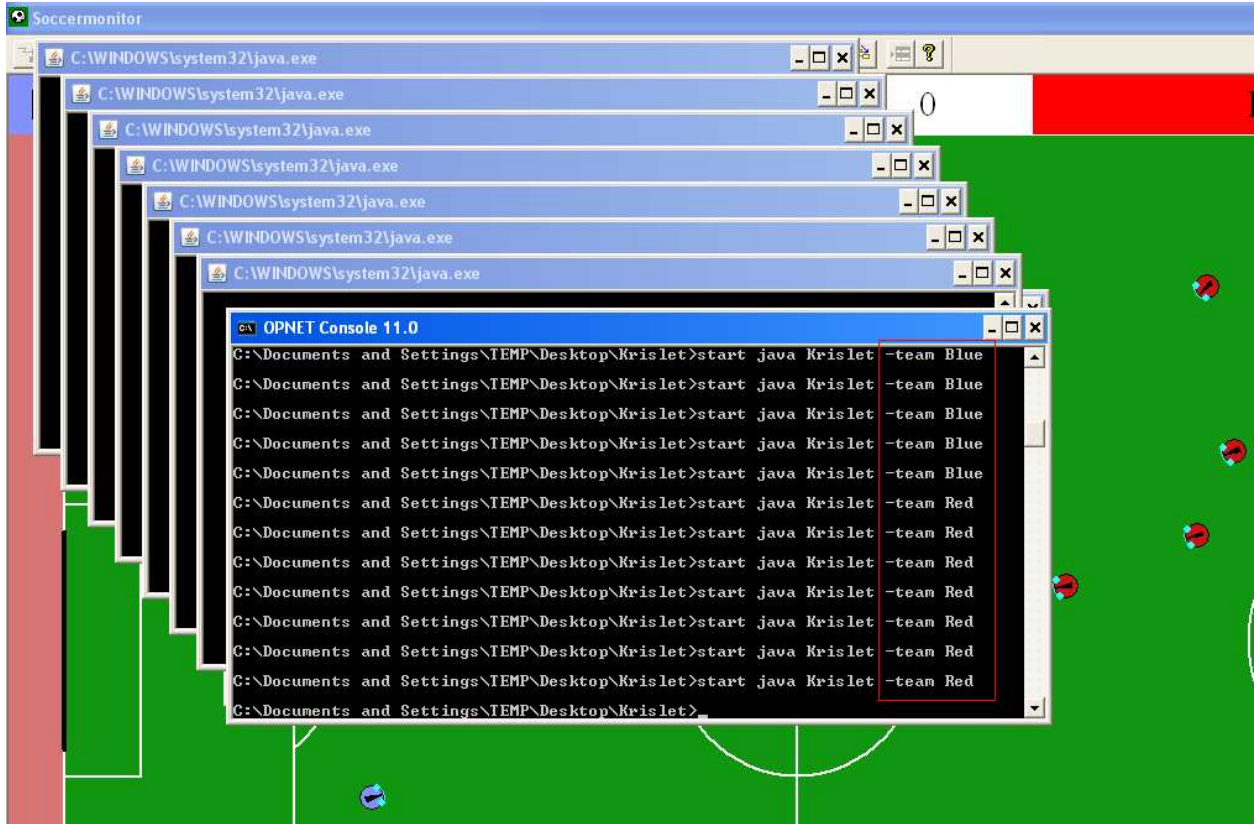


Figure 4: To delegate teams, enter “start java Krislet – team name”.

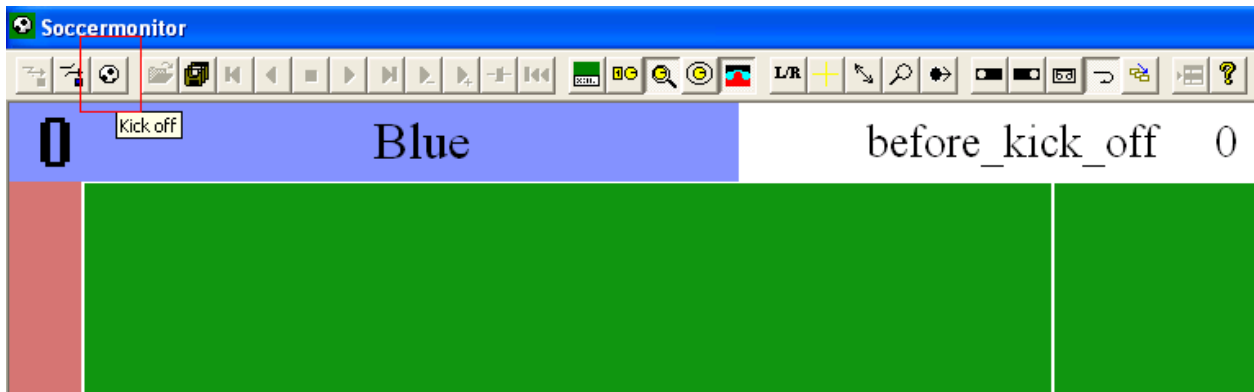


Figure 5: Kick-off to start the game!!

Connecting to the Server on One Computer, Running the Agents on Another:

1. On one computer, run the server (Figure 6). On another computer run the monitor and click on the “connect to server” button.
2. In the “Server” textbox, enter the name of the computer running the server or its IP address (Figure 7).
3. Compile the agents that will be used to play (see *Starting a Game in Windows*: step 4).
4. Use command prompt to create Krislet agents. To connect to the server on computer the first computer, add “-host *computername*” to the Krislet start command, where “*computername*” is the name or IP address of the server computer (Figure 8).
5. If the agents have connected properly they should appear on the monitor program. Once all players have connected press the soccer ball icon to start the game.

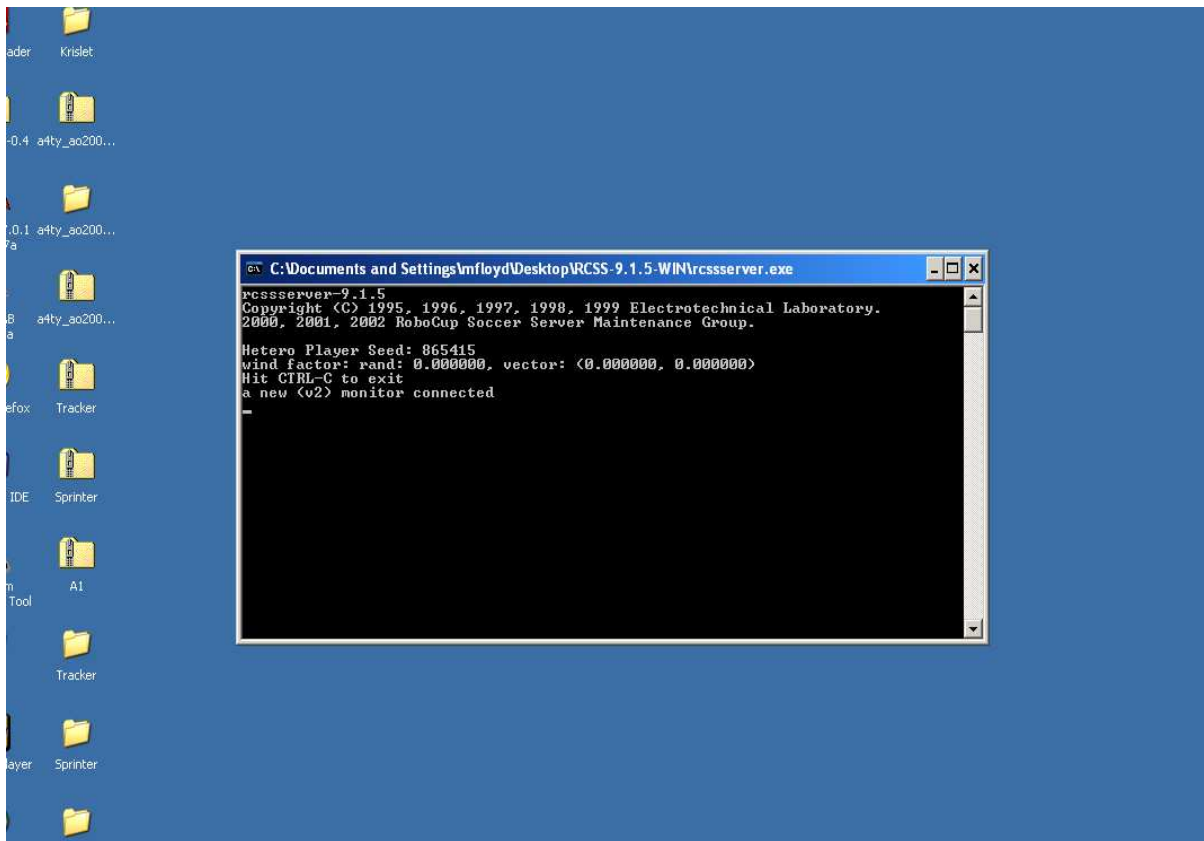


Figure 6: Server running on a computer named AA0508-PC08

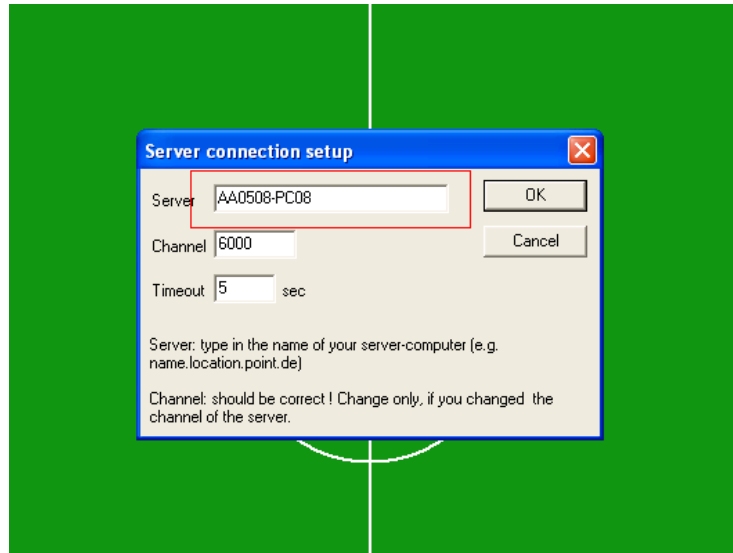


Figure 7: Monitor run on a second computer: Server text is the name or IP address of the server computer.

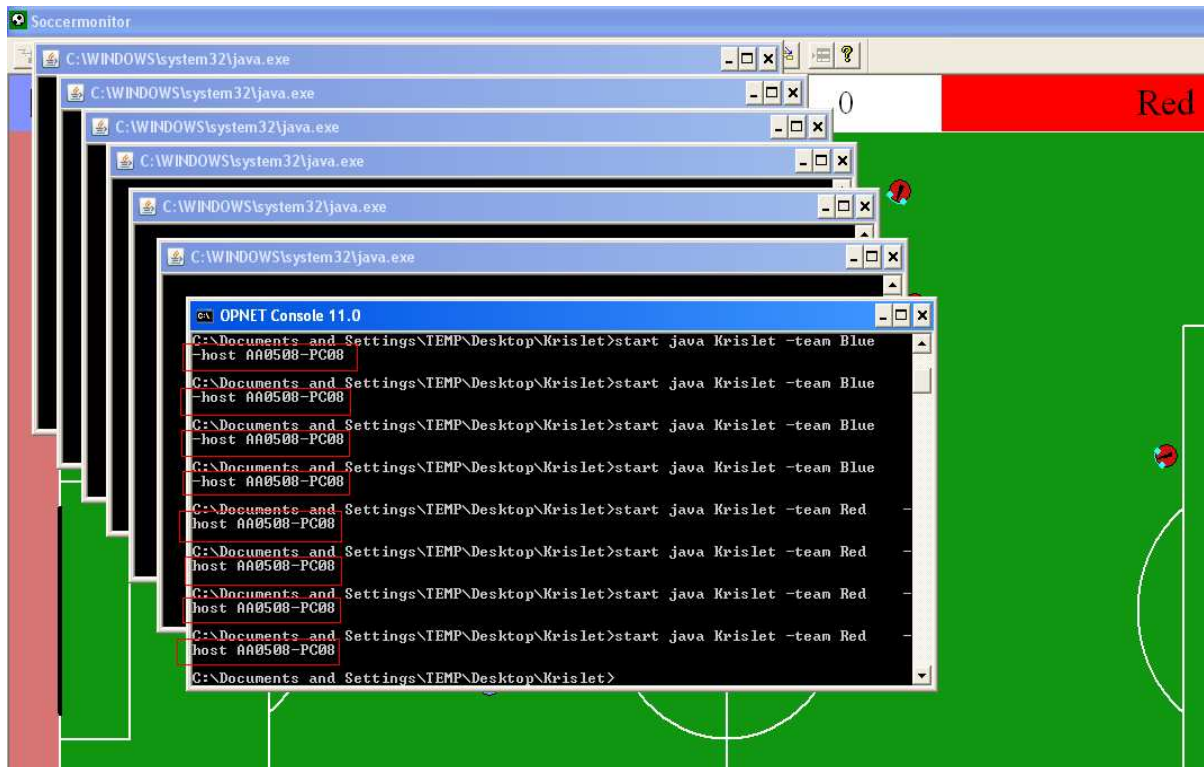


Figure 8: Connecting the Krislet agents to the server