Turtle Server and Client

CS460: Computer Networks

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12/01/16

Protocol Specification

The protocol we have used for sending commands to the whiteboard server is a simple one. Client keeps connection to the server after a command was sent. The port used for sending messages is **21995**.

Upon connection to the server the client may send multiple commands with direction, length and pen status to the server. Delimiter for the commands is “:”. Please refer to the table below for the message specification.

|  |  |
| --- | --- |
| **Message** | **[direction]:[length]:[status]** |
| Direction | N – North  E – East  S – South  W - West |
| length | Specified by user (Integer value) |
| status | up – indicates pen up  down – indicates pen down |
| : | Field-delimiter |

An example message is “N:15:up” to move the pen 15 pixels North. All other messages are deemed invalid.

Running The Program

No special libraries are required to compile and run this program. The main server source file is “ServerDrawing.java” and the client source is “ClientDrawingControlUI.java”.

A compiled .jar file for the Server and the Client are also included, named “TurtleServer.jar” and “TurtleClient.jar” respectively.

To connect to the server, start the server and the client. In the client type the address (e.g. **127.0.0.1** or **localhost**) in the server IP box, and **21995** in the client box. Then press connect and use the client GUI to draw on the whiteboard.