

Testcase	Pass/Fail
Testcase 2001 Server startup check with default arguments Instructions: <ol style="list-style-type: none"> 1. Start the EchoServer program Expected result: <ol style="list-style-type: none"> 1. The server reports that it is listening for clients by displaying the following message: <i>Server listening for clients on port 5555</i> 2. The server console waits for user input. Cleanup: Terminate the server program.	Pass
Testcase 2002 Client startup check without a login Instructions: <ol style="list-style-type: none"> 1. Start the Client program without specifying the loginID as an argument. Expected result: <ol style="list-style-type: none"> 1. The client reports it cannot connect without a login by displaying: ERROR - No login ID specified. Connection aborted. 2. The client terminates. Cleanup: (if client is still active) Terminate the client program.	Pass
Testcase 2003 Client startup check with a login and without a server Instructions: <ol style="list-style-type: none"> 1. Start the Client program while specifying loginID as an argument. Expected result: <ol style="list-style-type: none"> 1. The client reports it cannot connect to a server by displaying: <i>Cannot open connection. Awaiting command.</i> 2. The client waits for user input Cleanup: Terminate the client program.	Pass
Testcase 2004 Client connection with default arguments Instructions: <ol style="list-style-type: none"> 1. Start a server (Testcase 2001, instruction 1) 2. On the same computer, start a client (Testcase 2003, instruction 1) Expected results: <ol style="list-style-type: none"> 1. The server displays the following messages in sequence: <i>A new client is attempting to connect to the server.</i> <i>Message received: #login <loginID> from null.</i> <i><loginID> has logged on.</i> Note: the server specifies that it received a message from null as this is the first message received from this client. It will record the loginID of this client for later messages. Hence, for later messages, it should display: <i>Message received: <user input> from <loginID></i> 	Pass

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<p>Where <user input> is the content of the message received and <loginID> is the loginID of the sending client.</p> <ol style="list-style-type: none"> The client displays message: <i><loginID> has logged on.</i> The client and the server wait for user input. <p>Cleanup: (unless proceeding to Testcase 2005) Terminate the client program. Terminate the server program.</p>	
<p>Testcase 2005 Client Data transfer and data echo Instructions:</p> <ol style="list-style-type: none"> Start a server and a client on the same computer and connect using default arguments (Testcase 2004 instructions). Once connected, type in data on the client console and press ENTER. <p>Expected results:</p> <ol style="list-style-type: none"> The message is echoed on the client side, but is preceded by the sender's loginID and the greater than symbol (">"). The server displays a message similar to the following: <i>Message received: <user input> from <loginID></i> <p>Cleanup: (unless proceeding to Testcase 2006) Terminate the client program. Terminate the server program.</p>	Pass
<p>Testcase 2006 Multiple local connections Instructions:</p> <ol style="list-style-type: none"> Start a server and multiple clients with DIFFERENT loginIDs and connect them to the server using default arguments. (Testcase 2005 instructions). Start typing on all the client consoles AND the server console, pressing ENTER to send each message. <p>Expected results:</p> <ol style="list-style-type: none"> All client messages are echoed as in Testcase 2005. All messages from the server console are echoed on the server console and to all clients, but are preceded by "SERVER MESSAGE> ". <p>Cleanup: Terminate the clients. Terminate the server program.</p>	Pass
<p>Testcase 2007 Server termination command check Instructions:</p> <ol style="list-style-type: none"> Start a server (Testcase 2001 instruction 1) using default arguments. Type "#quit" into the server's console. <p>Expected result:</p> <ol style="list-style-type: none"> The server quits. <p>Cleanup (If the server is still active): Terminate the server program.</p>	Pass

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Testcase 2008 Server close command check Instructions: <ol style="list-style-type: none"> 1. Start a server and connect a client to it. (Testcase 2004) 2. Stop the server using the #stop command. 3. Type "#close" into the server's console. Expected result: <ol style="list-style-type: none"> 1. Server displays in sequence: <i>Server has stopped listening for connections.</i> <i><loginID> has disconnected.</i> 2. The client displays: <i>WARNING - The server has stopped listening for connections</i> <i>SERVER SHUTTING DOWN! DISCONNECTING!</i> <i>Abnormal termination of connection.</i> and then waits for input. Cleanup: (Unless proceeding to Testcase 2009) Terminate the client program. Terminate the server program.	Pass
Testcase 2009 Server restart Instructions: <ol style="list-style-type: none"> 1. Start a server, connect a client, and close the server. (Testcase 2008) 2. Type "#start" into the server's console. 3. Attempt to connect a client. Expected result: <ol style="list-style-type: none"> 1. The server closes, restarts and then displays: <i>Server listening for connections on port 5555.</i> 2. The client connects normally as described in Testcase 2004. Cleanup: (Unless proceeding to Testcase 2010) Terminate the client program. Type #quit to kill the server.	Pass
Testcase 2010 Client termination command check Instructions: <ol style="list-style-type: none"> 1. Start a client (Testcase 2002, instruction 1). 2. Type "#quit" into the client's console. Expected result: <ol style="list-style-type: none"> 1. Client terminates. Cleanup: (If client is still active) Terminate the client program.	Pass
Testcase 2011 Client logoff check Instructions: <ol style="list-style-type: none"> 1. Start a server (Testcase 1001, instruction 1), and then connect a single local client to this server. 2. Type "#logoff" into this client's console. Expected results:	Pass

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1. Client disconnects and displays Connection closed. Cleanup: (Unless proceeding to Testcase 2012) Type "#quit" to kill the client.	
Testcase 2012 Client host and port setup commands check Instructions: <ol style="list-style-type: none"> 1. Start a client but no servers. 2. At the client's console, type "#sethost <newhost>" . 3. At the client's console, type "#setport 1234". Expected result: <ol style="list-style-type: none"> 1. The client displays <i>Host set to: <newhost></i> <i>port set to: 1234.</i> Cleanup: Type #quit to kill the client.	Pass
Testcase 2013 Starting a server on a non-default port Instructions: <ol style="list-style-type: none"> 1. Start a server while specifying port 1234 as an argument. Expected result: <ol style="list-style-type: none"> 1. The server displays <i>Server listening for connections on port 1234.</i> Cleanup (Unless proceeding to Testcase 2014) Type #quit to kill the server.	Pass
Testcase 2014 Connecting a client to a non-default port Instructions: <ol style="list-style-type: none"> 1. Start a server on port 1234 (Testcase 2013) 2. Start a client with the arguments: <loginID> <host> 1234 (replace the parameters by appropriate values). Expected Result: <ol style="list-style-type: none"> 1. The connection occurs normally. 	Pass
Testcase 2015 Multiple remote clients disconnections and reconnections Instructions: <ol style="list-style-type: none"> 1. Start a server (Testcase 2001, instruction 1). 2. Start several clients and connect them to the server. 3. Exchange data. 4. Close the server using the #close command. 5. Change the server's port by typing "#setport <newport>" 6. Restart the server using the #start command. 7. Change the ports of each clients using the #setport command. 8. Reconnect the clients to the server by using the #login <loginID> command. 9. close the server by using the #quit command. Expected results: <ol style="list-style-type: none"> 1. The first set of connections occur normally. 	Pass

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<ol style="list-style-type: none"> 2. When the server is closed, all clients are disconnected. 3. The server displays the following message when the #setport command is used: <i>port set to: <newport>.</i> 4. The server restarts and displays: <i>Server listening for connections on port <newport>.</i> 5. The clients change port as in Testcase 2012. 6. The clients reconnect normally. 7. The clients are disconnected when the server quits. <p>Cleanup: Type #quit to kill the clients Type #quit to kill the server (if still active)</p>	
<p>Testcase 2016 Client quitting or logging off a server with multiple connections</p> <p>Instructions:</p> <ol style="list-style-type: none"> 1. Start a server and connect multiple (at least 3) clients. 2. In one client's console, type "#quit". 3. In a second client's console type "#logoff". <p>Expected results:</p> <ol style="list-style-type: none"> 1. In both cases, all remaining clients and the server get the following message: <i><loginID> has disconnected.</i> 2. The clients display: <i>Connection Closed.</i> 	Pass