

Author: Dhrubomoy Das Gupta

Setup Instruction:

Loading the project:

1. Open eclipse-java.
2. Select **File > Import**.
3. Select **General > Existing Projects into Workspace**, and click **next**.
4. Make sure that **Select Archive File** is checked and browse for **L3G1_project_it2.zip**.
5. Click **Finish**.

Running the program:

1. For running multiple programs simultaneously in Eclipse, right click on each source file (Client.java, Host.java and Server.java) and choose: "Run As >> Java Application". (Ensure that each program runs in a separate console window.)

See <https://stackoverflow.com/a/5453914>

2. Run "**Server.java**" (Under "tftp" package).
3. Run "**ErrorSimulator.java**" (Under "tftp" package).
 - For normal operation enter '0'
 - To lose a packet enter
1 [Block #] [DATA or ACK]
(e.g. '1 2 DATA', '1 3 ACK' etc.)
 - To delay a packet enter
2 [Block #] [DATA or ACK] [How much delay (in milliseconds)]
(e.g. '2 2 DATA 7000', '2 3 ACK 8500' etc.)
 - To duplicate a packet enter:
3 [Block #] [DATA or ACK] [Space between duplicates ((in milliseconds))]
e.g. '3 2 DATA 7000', '3 3 ACK 8500' etc.
 - To simulate invalid TFTP opcode on RRQ or WRQ:
4
 - Simulate invalid mode:
5

4. **Run "Client.java"** (Under "tftp" package)

- Enter '1' to send an RRQ OR '2' to send a WRQ.
- Type and enter the filename you want to read (e.g. enter 'server_big.txt' for RRQ or 'client_big.txt' for WRQ).

*** **NOTE:**

For RRQ: the file must reside in "test_files/server" folder. (e.g 'server_big.txt')

For WRQ: the file must reside in "test_files/client" folder. (e.g 'client_big.txt')

5. For RRQ: The file now should be transferred to the 'test_files/client' folder from server.
6. For WRQ: The file should be transferred to the 'test_files/server' folder from client.
7. On the server console enter 'exit' to shut down server OR enter 'c' to continue.
Note: Must enter 'c' to continue transferring file.
8. On the client console either enter 'exit' to shut down client.