

CS258 Computer Communication Systems- TCP Sliding Window

Output Screenshots:

Server:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL
Received 9962000 packets...
Received 9962000 packets...
Time so far: 623.9386825561523
Received 9976300 packets...
Received 9985400 packets...
Received 9989000 packets...
Time so far: 626.143223285675
Received 9989100 packets...
Received 9990200 packets...
Received 9991300 packets...
Received 9992400 packets...
Received 9994700 packets...
Received 9995600 packets...
Received 9997200 packets...
Received 9997300 packets...
Received 9998700 packets...
Execution Completed
Server IP: 10.0.0.123
Packets received: 10000000
Average Good Put: 0.974704215850076
Runtime: 627.9872100353241
```

The above screenshot shows:

- 1) Number of Packets Received
- 2) Server IP Address
- 3) Average Good Put

Client:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
10000/20 packets sent...
10069010 packets sent...
10069570 packets sent...
10069740 packets sent...
10070500 packets sent...
10073020 packets sent...
10081890 packets sent...
10082000 packets sent...
10083510 packets sent...
10088560 packets sent...
10091010 packets sent...
10093110 packets sent...
10096530 packets sent...
10098550 packets sent...
10099060 packets sent...
10101080 packets sent...
Execution Completed
Client IP: 10.0.0.47
Packets sent: 10101345
Number of Retransmissions: 1: 100345 2: 989 3: 11 4: 0
Runtime: 629.0385248661041
```

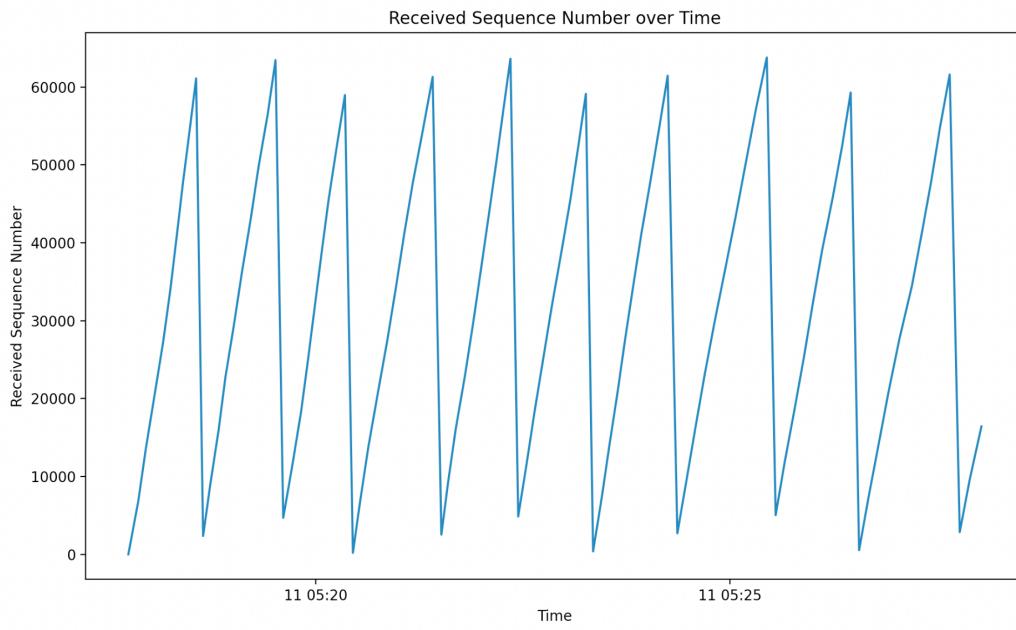
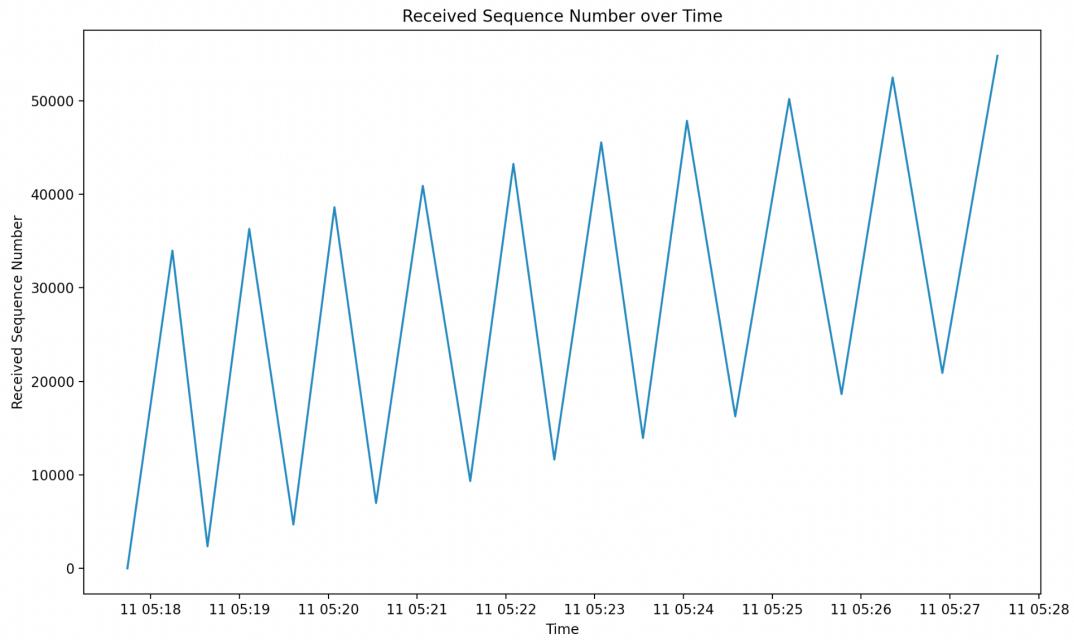
The above screenshot shows:

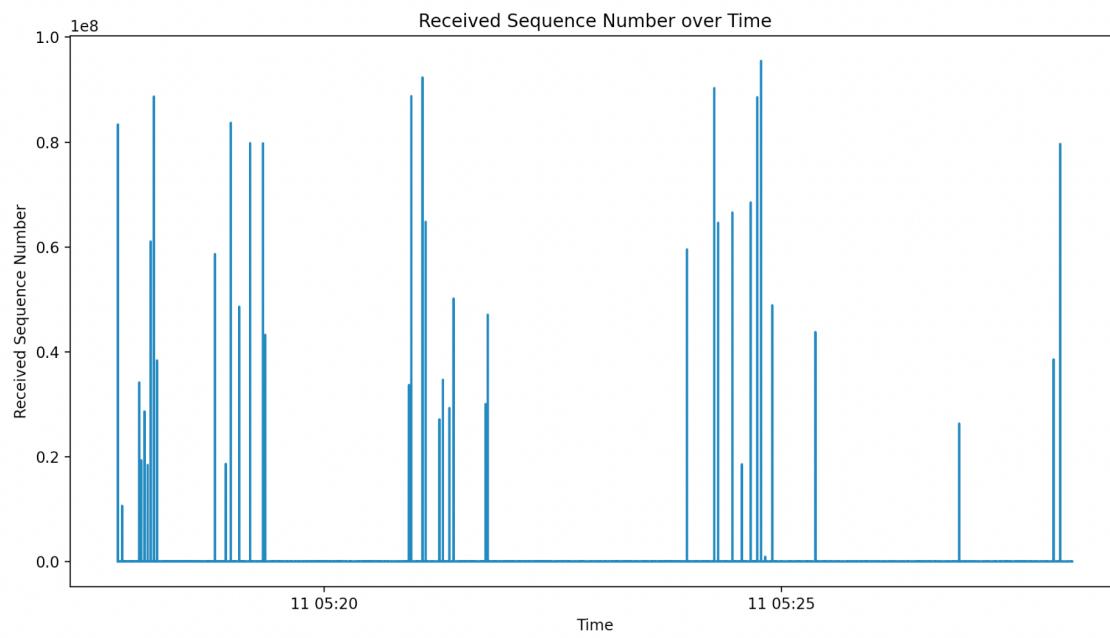
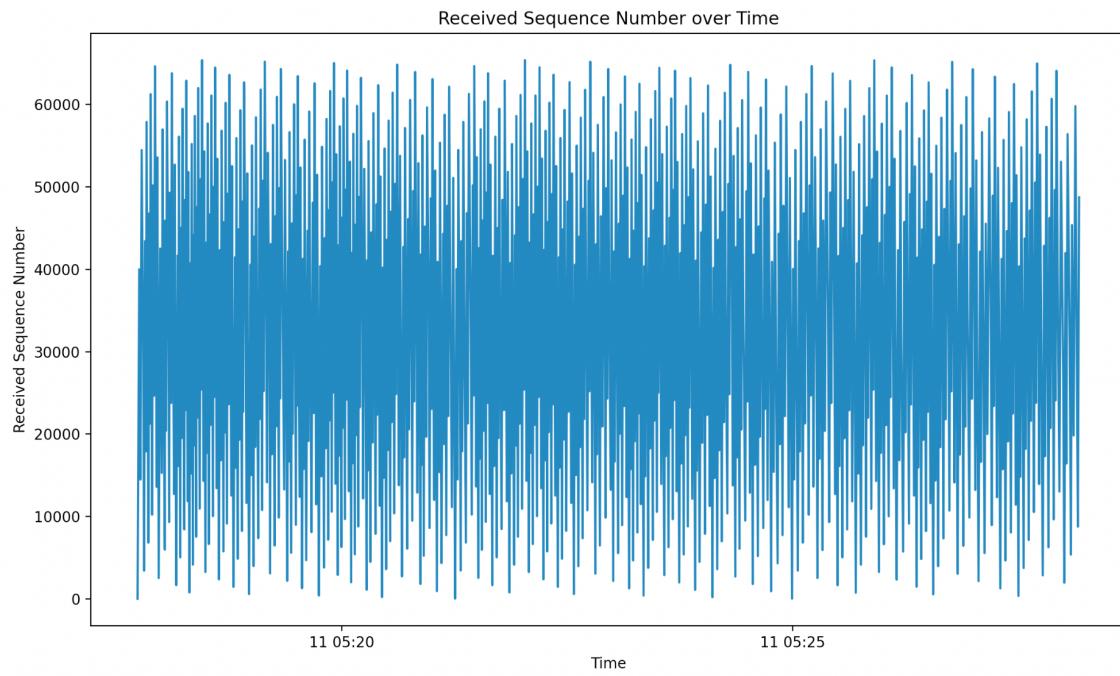
- 1) Number of Packets Sent
- 2) Client IP Address
- 3) Number of Retransmissions

Graphs:

Sequence number received against time:

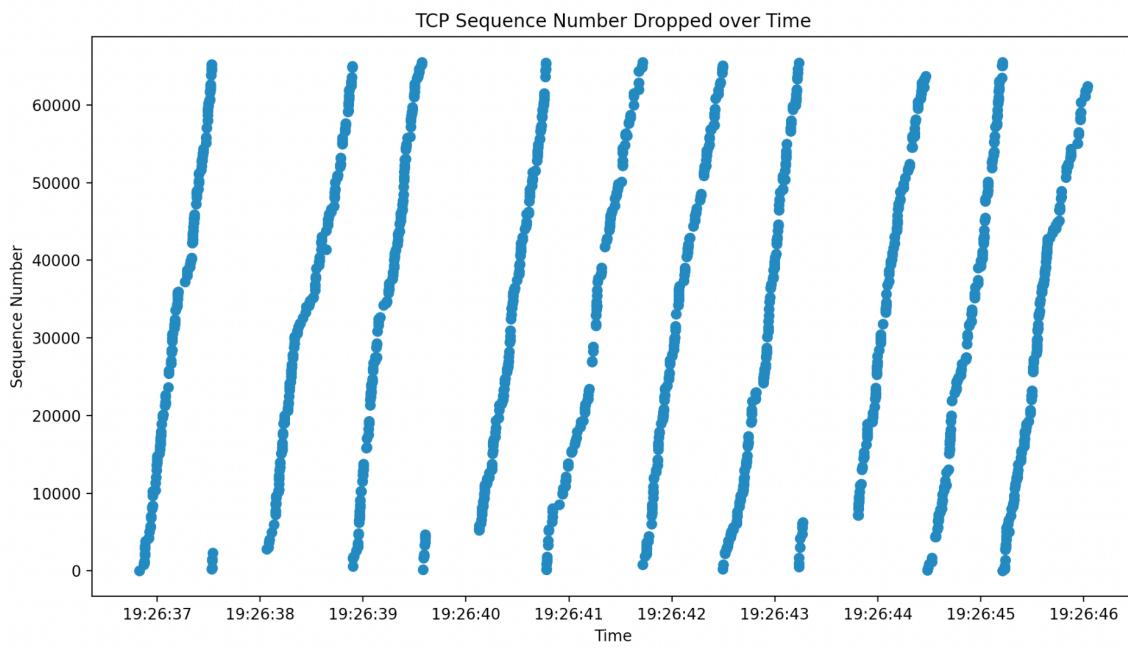
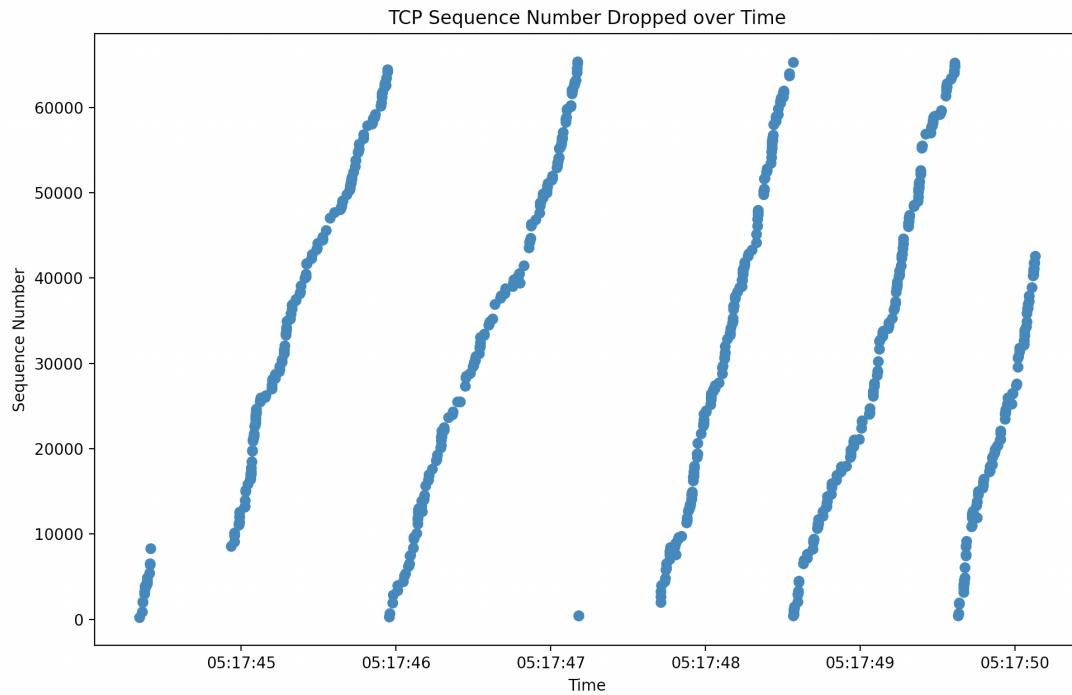
Note: These graphs display a number of packets in ascending order, with Graph 1 representing a small fraction of the data and Graph 4 showing all the data.

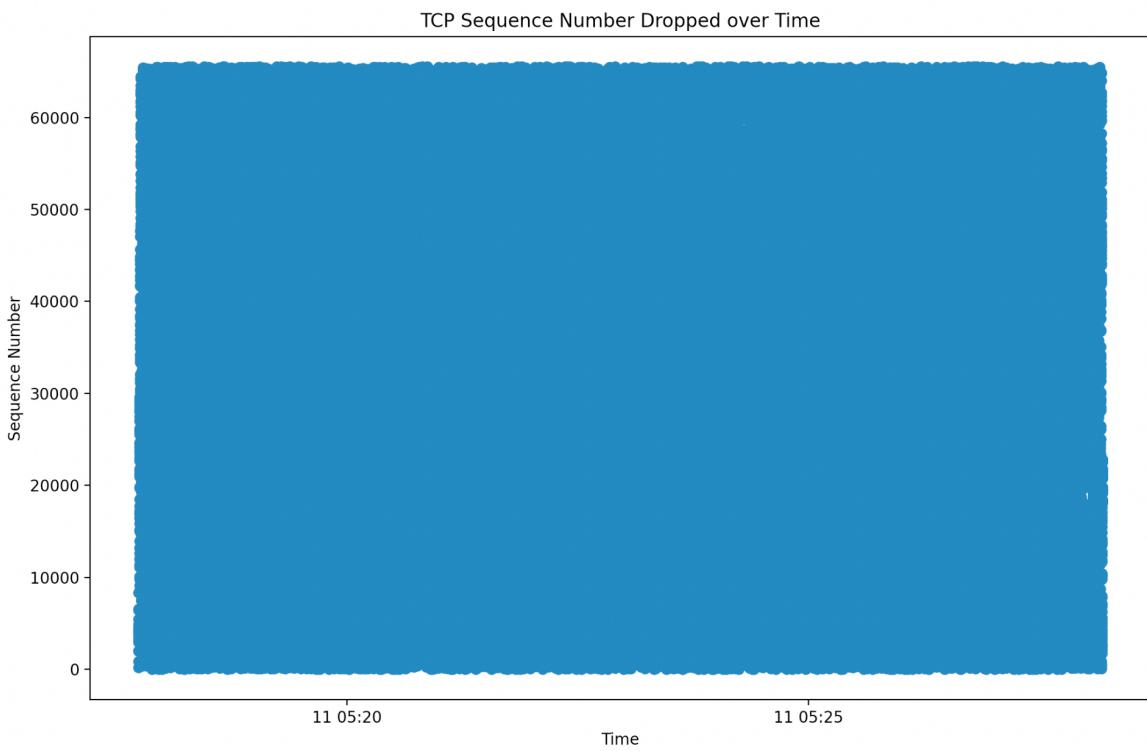
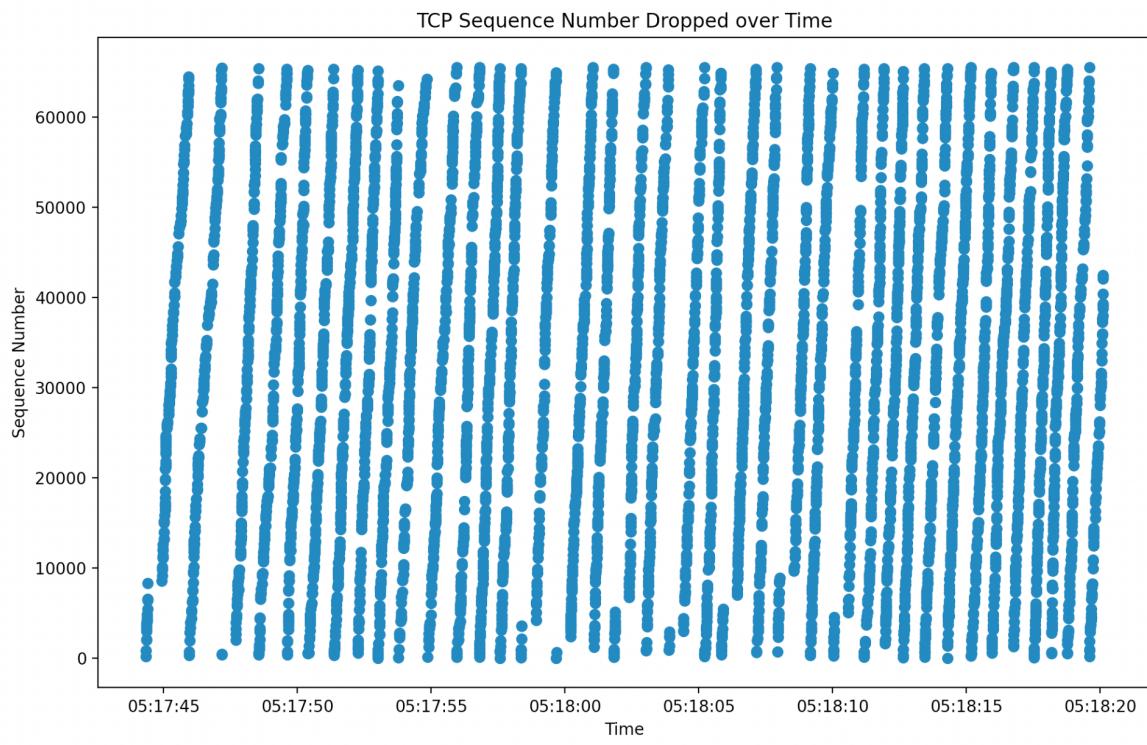




Dropped packets over time:

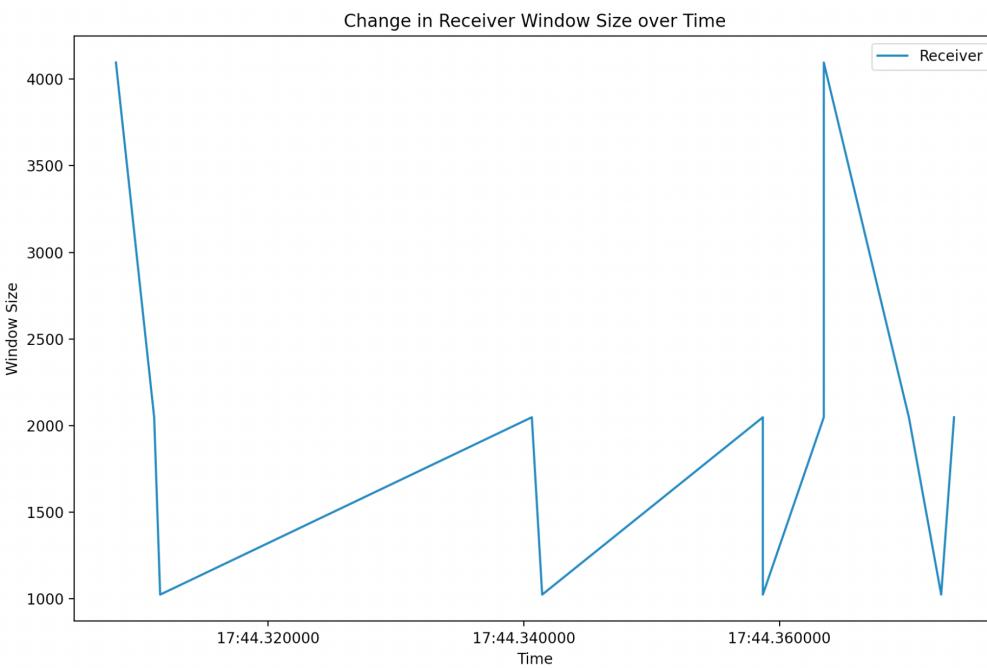
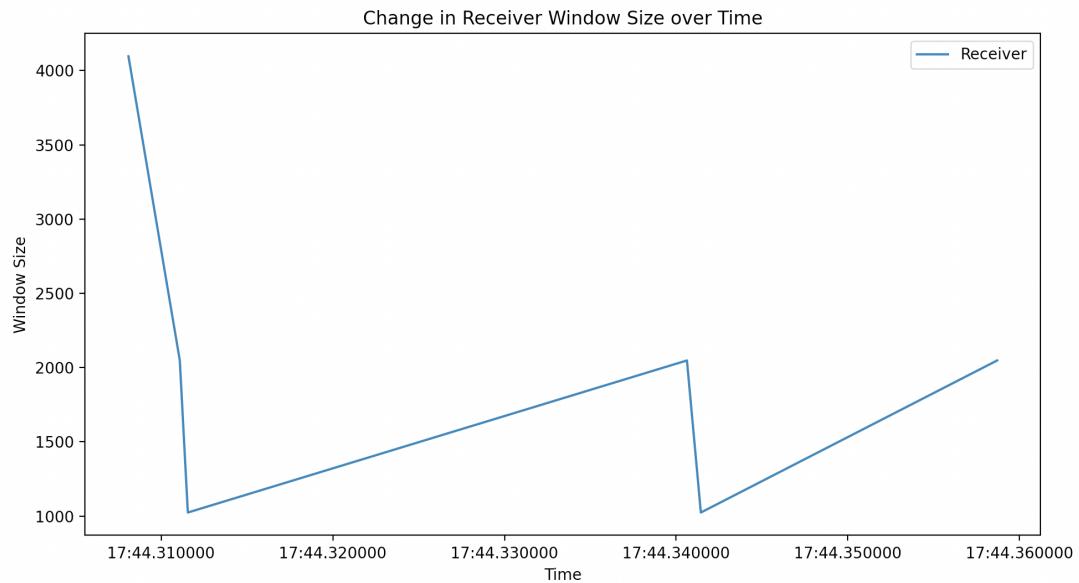
Note: These graphs display a number of packets in ascending order, with Graph 1 representing a small fraction of the data and Graph 4 showing all the data.

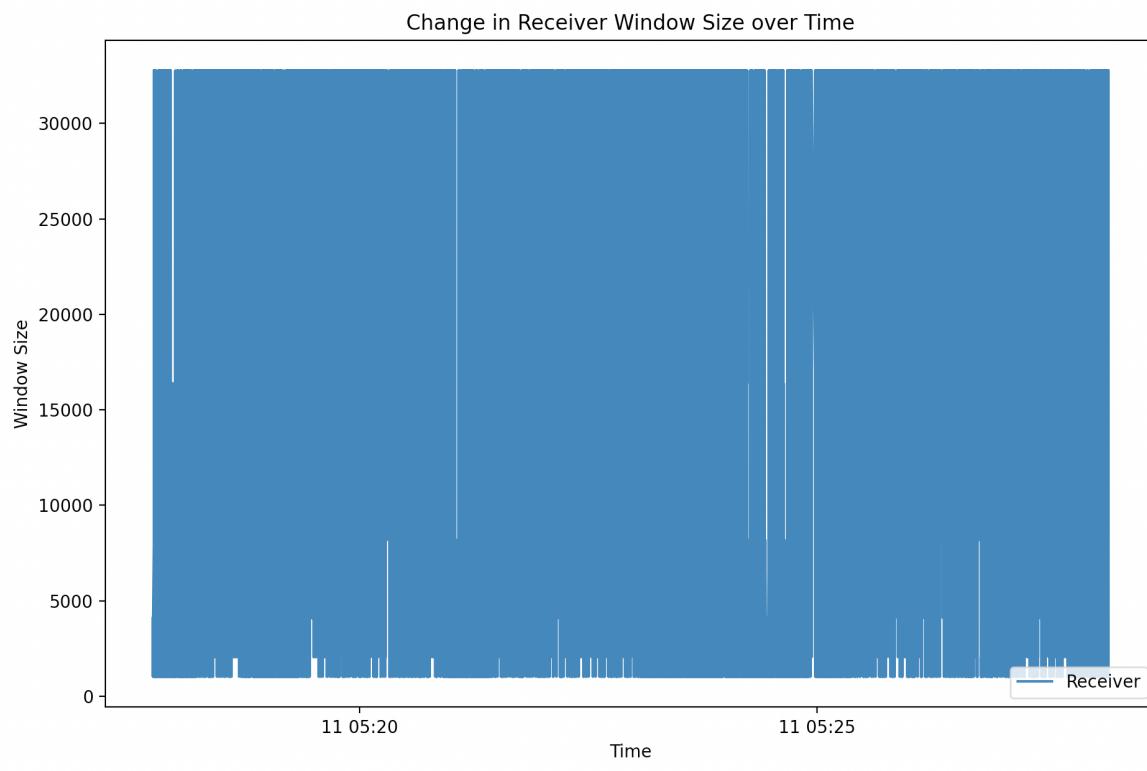
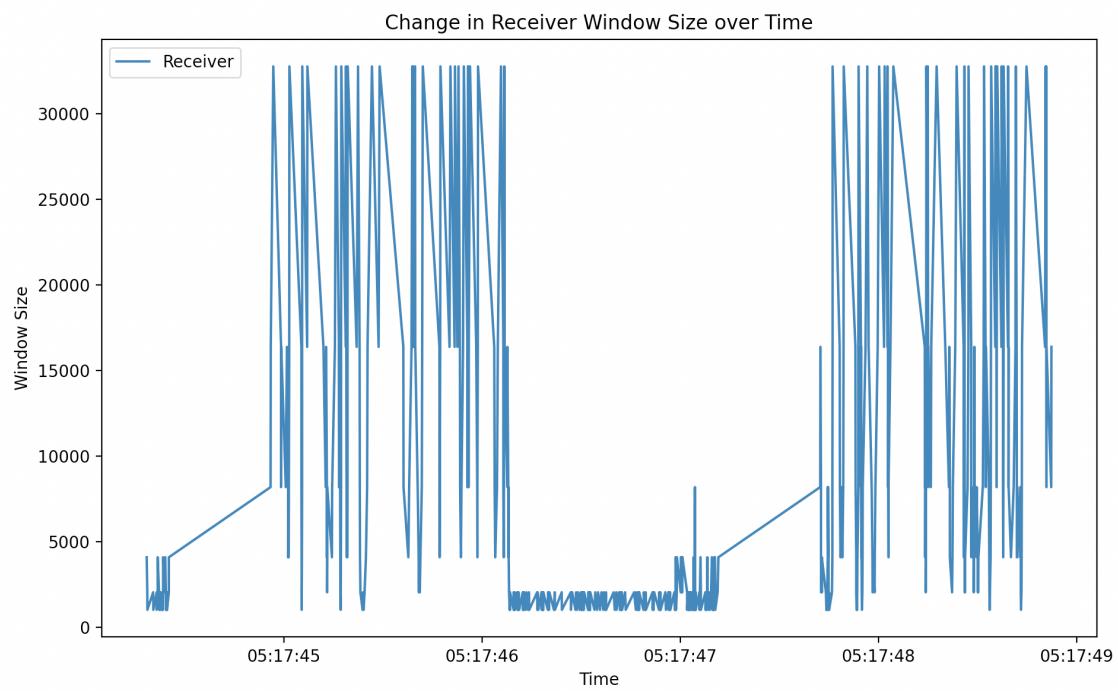




Window size change over time - Receiver:

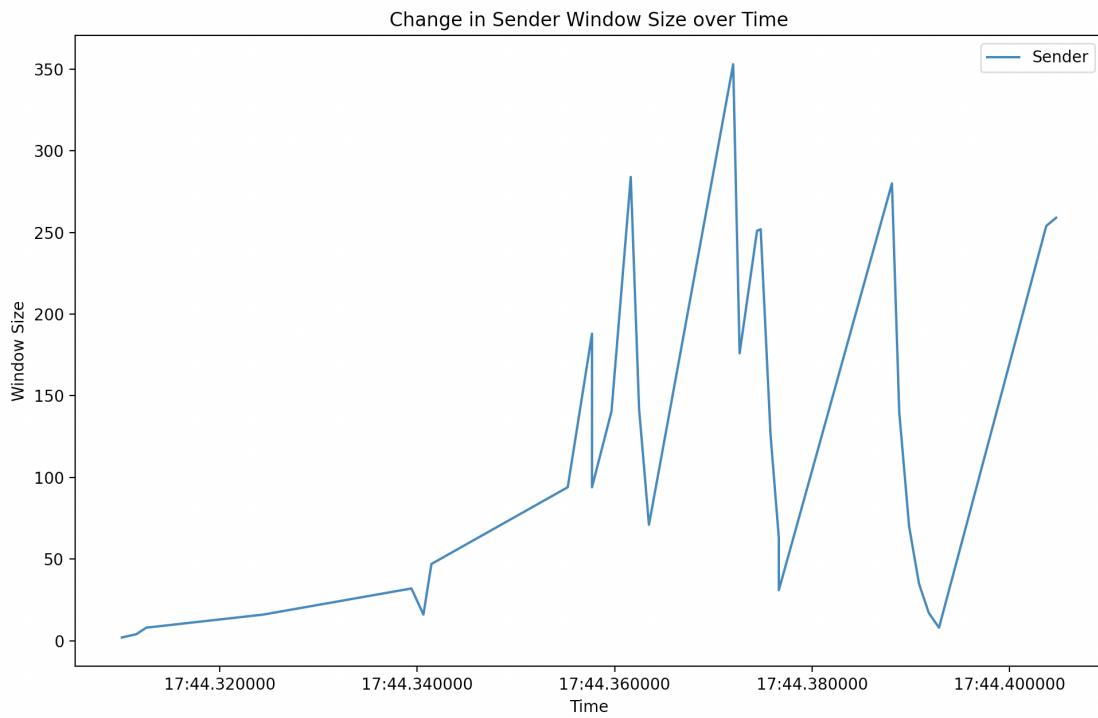
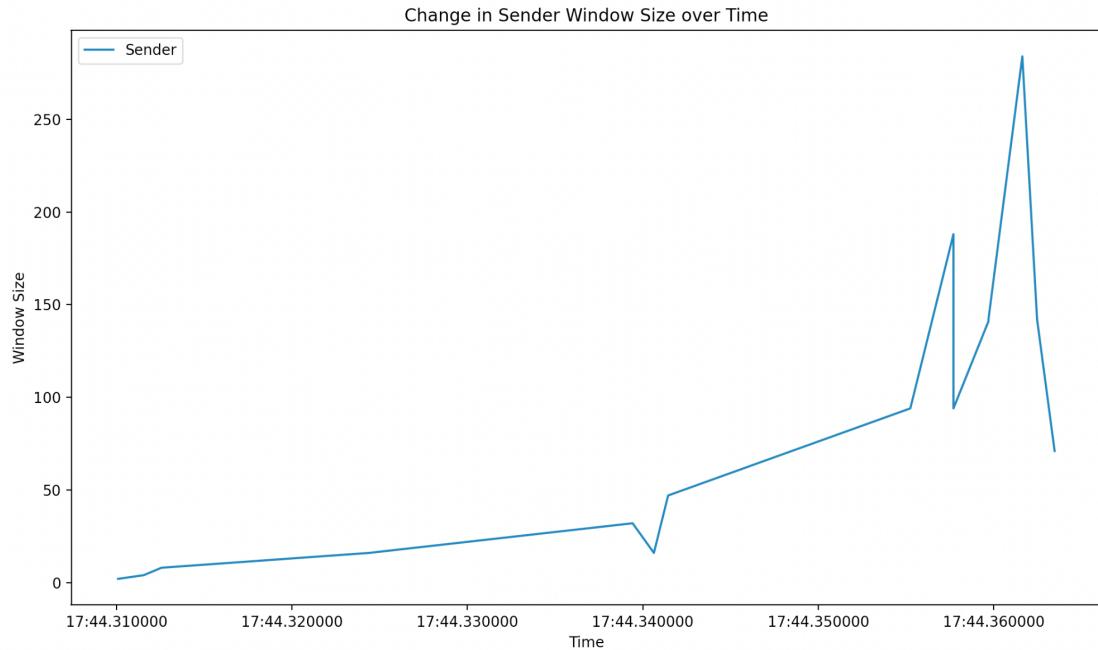
Note: These graphs display a range of time in ascending order, with Graph 1 representing a short time period and Graph 4 showing the entire duration.





Window size change over time - Sender:

Note: These graphs display a range of time in ascending order, with Graph 1 representing a short time period and Graph 4 showing the entire duration.



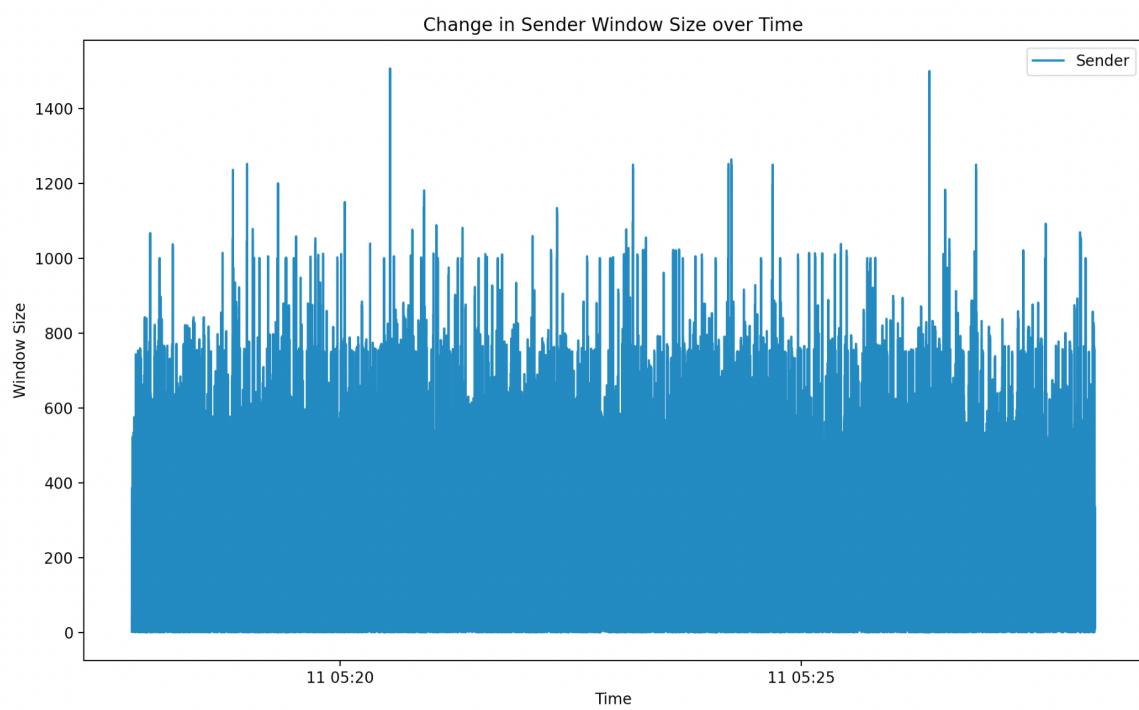
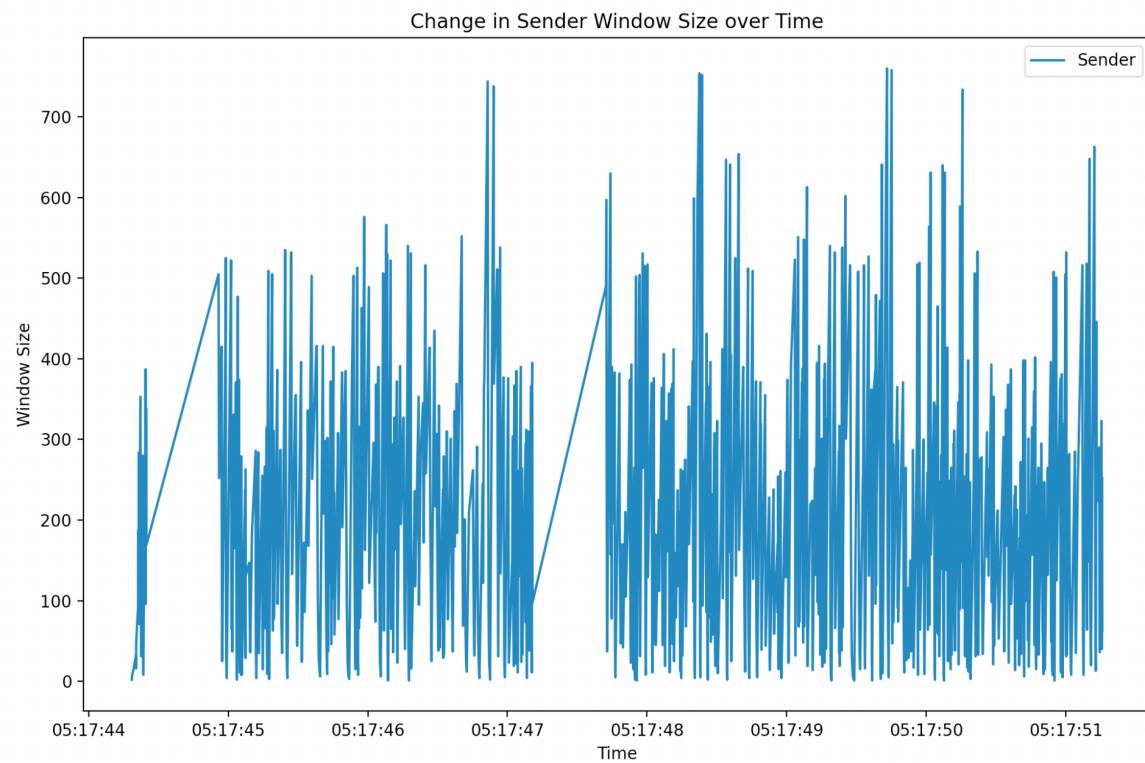


Table for retransmissions:

# of retransmissions	# of packets
1	100345
2	989
3	11
4	0

This screenshot is a part of the client output, showing the results in the table:

```
10101080 packets sent...
Execution Completed
Client IP: 10.0.0.47
Packets sent: 10101345
Number of Retransmissions: 1: 100345 2: 989 3: 11 4: 0
Runtime: 629.0385248661041
```