

EXPERIMENT 4.1

IMPORTANT CASES HIGHLIGHTED

OUTPUT FOR ABT PROTOCOL

----- Stop and Wait Network Simulator Version 1.1 -----

Enter the number of messages to simulate: Enter packet loss probability [enter 0.0 for no loss]: Enter packet corruption probability [0.0 for no corruption]: Enter average time between messages from sender's layer5 [> 0.0]: Enter TRACE:
EVENT time: 1870.573975, type: 1, fromlayer5 entity: 0

in A_output
packet_to_send.payload aaaaaaaaaaaaaaaaaaaa#
Seq No : 0 Ack No : 0 Checksum : 1940

EVENT time: 1876.039062, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 0, Ack_No 0, Payload aaaaaaaaaaaaaaaaaaaa
Checksum 1940 Check_for_error 1940
Desired Packet with No Corruption
Sending message aaaaaaaaaaaaaaaaaaaa above
TOLAYER3: packet being corrupted // CORRUPTION

EVENT time: 1881.270630, type: 2, fromlayer3 entity: 0

In A_input
ACK_received Payload aaaaaaaaaaaaaaaaaaaa?B#
check_for_ack_error 1001939 , recv_checksum 1940
Acknowledgement is Corrupted
Need to retransmit // CORRUPTION CAPTURED

EVENT time: 1885.573975, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of aaaaaaaaaaaaaaaaaaaa#
TOLAYER3: packet being lost //PACKET LOSS

EVENT time: 1900.573975, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of aaaaaaaaaaaaaaaaaaaa#

TOLAYER3: packet being lost

EVENT time: 1915.573975, type: 0, timerinterrupt entity: 0

Timeout

Retransmission of aaaaaaaaaaaaaaaaaaaaaa# //RETRANSMISSION AFTER LOSS

EVENT time: 1924.818481, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 0, Ack_No 0, Payload aaaaaaaaaaaaaaaaaaaaaa

Checksum 1940 Check_for_error 1940

Non Desired Packet

Sending Acknowledgement TOLAYER3: packet being lost

EVENT time: 1930.573975, type: 0, timerinterrupt entity: 0

Timeout

Retransmission of aaaaaaaaaaaaaaaaaaaaaa#

EVENT time: 1932.052368, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 0, Ack_No 0, Payload aaaaaaaaaaaaaaaaaaaaaa

Checksum 1940 Check_for_error 1940

Non Desired Packet

Sending Acknowledgement

EVENT time: 1937.324585, type: 2, fromlayer3 entity: 0

In A_input

ACK_received Payload aaaaaaaaaaaaaaaaaaaaaa

check_for_ack_error 1940 , recv_checksum 1940

Desired ACK Received with No Corruption

ack_pck_received.payload aaaaaaaaaaaaaaaaaaaaaa??#<?#

EVENT time: 3512.483887, type: 1, fromlayer5 entity: 0

in A_output

packet_to_send.payload bbbbbbbbbbbbbbbbbbbb#

Seq No : 1 Ack No : 1 Checksum : 1962

EVENT time: 3518.513428, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 1, Ack_No 1, Payload bbbbbbbbbbbbbbbbbbbb#

Checksum 1962 Check_for_error 1962

Desired Packet with No Corruption

Sending message bbbbbbbbbbbbbbbbbbbb??#<?# above

TOLAYER3: packet being lost

EVENT time: 3527.483887, type: 0, timerinterrupt entity: 0

Timeout
Retransmission of bbbbbbbbbbbbbbbbbbb#
TOLAYER3: packet being corrupted

EVENT time: 3531.547607, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload Zbbbbbbbbbbbbbbbbbb#
Checksum 1962 Check_for_error 1954
Corrupted Packet Received
No Acknowledgement Sent

EVENT time: 3542.483887, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of bbbbbbbbbbbbbbbbbbb#
TOLAYER3: packet being corrupted

EVENT time: 3544.267822, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 999999, Payload bbbbbbbbbbbbbbbbbbb#
Checksum 1962 Check_for_error 1001960
Corrupted Packet Received
No Acknowledgement Sent

EVENT time: 3557.483887, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of bbbbbbbbbbbbbbbbbbb#

EVENT time: 3561.642578, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload bbbbbbbbbbbbbbbbbbb#
Checksum 1962 Check_for_error 1962
Non Desired Packet
Sending Acknowledgement TOLAYER3: packet being lost

EVENT time: 3572.483887, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of bbbbbbbbbbbbbbbbbbb#
TOLAYER3: packet being corrupted

EVENT time: 3578.321777, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload Zbbbbbbbbbbbbbbbbbb#
Checksum 1962 Check_for_error 1954
Corrupted Packet Received
No Acknowledgement Sent

EVENT time: 3587.483887, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of bbbbbbbbbbbbbbbbbbbb#

EVENT time: 3589.359131, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload bbbbbbbbbbbbbbbbbbbb#
Checksum 1962 Check_for_error 1962
Non Desired Packet
Sending Acknowledgement TOLAYER3: packet being lost

EVENT time: 3602.483887, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of bbbbbbbbbbbbbbbbbbbb#

EVENT time: 3603.790283, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload bbbbbbbbbbbbbbbbbbbb#
Checksum 1962 Check_for_error 1962
Non Desired Packet
Sending Acknowledgement TOLAYER3: packet being corrupted

EVENT time: 3609.368896, type: 2, fromlayer3 entity: 0

In A_input
ACK_received Payload Zbbbbbbbbbbbbbbbbbbb#
check_for_ack_error 1954 , recv_checksum 1962
Acknowledgement is Corrupted
Need to retransmit

EVENT time: 3617.483887, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of bbbbbbbbbbbbbbbbbbbb#
TOLAYER3: packet being corrupted

EVENT time: 3623.733887, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload Zbbbbbbbbbbbbbbbbbbb#
Checksum 1962 Check_for_error 1954
Corrupted Packet Received
No Acknowledgement Sent

EVENT time: 3632.483887, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of bbbbbbbbbbbbbbbbbbbb#

EVENT time: 3637.303223, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 1, Ack_No 1, Payload bbbbbbbbbbbbbbbbbbb#

Checksum 1962 Check_for_error 1962

Non Desired Packet

Sending Acknowledgement

EVENT time: 3646.699219, type: 2, fromlayer3 entity: 0

In A_input

ACK_received Payload bbbbbbbbbbbbbbbbbbb#

check_for_ack_error 1962 , recv_checksum 1962

Desired ACK Received with No Corruption

ack_pck_received.payload bbbbbbbbbbbbbbbbbbb#<#

EVENT time: 4948.687500, type: 1, fromlayer5 entity: 0

in A_output

packet_to_send.payload ccccccccccccccccc#

Seq No : 0 Ack No : 0 Checksum : 1980

TOLAYER3: packet being corrupted

EVENT time: 4957.598145, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 0, Ack_No 0, Payload Zcccccccccccccccc

Checksum 1980 Check_for_error 1971

Corrupted Packet Received

No Acknowledgement Sent

EVENT time: 4963.687500, type: 0, timerinterrupt entity: 0

Timeout

Retransmission of ccccccccccccccccc#

TOLAYER3: packet being corrupted

EVENT time: 4969.305176, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 0, Ack_No 0, Payload Zcccccccccccccccc

Checksum 1980 Check_for_error 1971

Corrupted Packet Received

No Acknowledgement Sent

EVENT time: 4978.687500, type: 0, timerinterrupt entity: 0

Timeout

Retransmission of ccccccccccccccccc#

TOLAYER3: packet being lost

EVENT time: 4993.687500, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ccccccccccccccccccc#
TOLAYER3: packet being lost

EVENT time: 5008.687500, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ccccccccccccccccccc#
TOLAYER3: packet being corrupted

EVENT time: 5010.493652, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 0, Ack_No 0, Payload Zcccccccccccccccccc
Checksum 1980 Check_for_error 1971
Corrupted Packet Received
No Acknowledgement Sent

EVENT time: 5023.687500, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ccccccccccccccccccc#
TOLAYER3: packet being lost

EVENT time: 5038.687500, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ccccccccccccccccccc#

EVENT time: 5041.704590, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 0, Ack_No 0, Payload ccccccccccccccccccc
Checksum 1980 Check_for_error 1980
Desired Packet with No Corruption
Sending message ccccccccccccccccccc##<## above

EVENT time: 5046.458496, type: 2, fromlayer3 entity: 0

In A_input
ACK_received Payload ccccccccccccccccccc
check_for_ack_error 1980 , recv_checksum 1980
Desired ACK Received with No Corruption
ack_pck_received.payload ccccccccccccccccccc##<##

EVENT time: 6308.438477, type: 1, fromlayer5 entity: 0

in A_output
packet_to_send.payload ddddddddddddddddddd#
Seq No : 1 Ack No : 1 Checksum : 2002

EVENT time: 6314.422363, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 1, Ack_No 1, Payload ddddddddddddddddddd#

Checksum 2002 Check_for_error 2002

Desired Packet with No Corruption

Sending message ddddddddddddddddddd##<## above

TOLAYER3: packet being corrupted

EVENT time: 6322.284180, type: 2, fromlayer3 entity: 0

In A_input

ACK_received Payload ddddddddddddddddddd?B#

check_for_ack_error 1002000 , recv_checksum 2002

Acknowledgement is Corrupted

Need to retransmit

EVENT time: 6323.438477, type: 0, timerinterrupt entity: 0

Timeout

Retransmission of ddddddddddddddddddd#

TOLAYER3: packet being lost

EVENT time: 6338.438477, type: 0, timerinterrupt entity: 0

Timeout

Retransmission of ddddddddddddddddddd#

EVENT time: 6346.396484, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 1, Ack_No 1, Payload ddddddddddddddddddd#

Checksum 2002 Check_for_error 2002

Non Desired Packet

Sending Acknowledgement

EVENT time: 6350.789062, type: 2, fromlayer3 entity: 0

In A_input

ACK_received Payload ddddddddddddddddddd#

check_for_ack_error 2002 , recv_checksum 2002

Desired ACK Received with No Corruption

ack_pck_received.payload ddddddddddddddddddd##<##

EVENT time: 6637.855469, type: 1, fromlayer5 entity: 0

in A_output

packet_to_send.payload eeeeeeeeeeeeeeeeeee#

Seq No : 0 Ack No : 0 Checksum : 2020

EVENT time: 6647.703613, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 0, Ack_No 0, Payload eeeeeeeeeeeeeeeeeee

Checksum 2020 Check_for_error 2020

Desired Packet with No Corruption

Sending message eeeeeeeeeeeeeeeeeee??#<?# above

EVENT time: 6650.448730, type: 2, fromlayer3 entity: 0

In A_input

ACK_received Payload eeeeeeeeeeeeeeeeeee

check_for_ack_error 2020 , recv_checksum 2020

Desired ACK Received with No Corruption

ack_pck_received.payload eeeeeeeeeeeeeeeeeee??#<?#

EVENT time: 7241.909668, type: 1, fromlayer5 entity: 0

in A_output

packet_to_send.payload ffffffffffffffffffff#

Seq No : 1 Ack No : 1 Checksum : 2042

EVENT time: 7248.525391, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 1, Ack_No 1, Payload ffffffffffffffffffff#

Checksum 2042 Check_for_error 2042

Desired Packet with No Corruption

Sending message ffffffffffffffffffff??#<?# above

TOLAYER3: packet being lost

EVENT time: 7256.909668, type: 0, timerinterrupt entity: 0

Timeout

Retransmission of ffffffffffffffffffff#

EVENT time: 7265.941406, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 1, Ack_No 1, Payload ffffffffffffffffffff#

Checksum 2042 Check_for_error 2042

Non Desired Packet

Sending Acknowledgement TOLAYER3: packet being corrupted

EVENT time: 7267.455566, type: 2, fromlayer3 entity: 0

In A_input

ACK_received Payload Zfffffffffffffffffff#

check_for_ack_error 2030 , recv_checksum 2042

Acknowledgement is Corrupted

Need to retransmit

EVENT time: 7271.909668, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ffffffff#
TOLAYER3: packet being corrupted

EVENT time: 7273.007812, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload Zfffffffff#
Checksum 2042 Check_for_error 2030
Corrupted Packet Received
No Acknowledgement Sent

EVENT time: 7286.909668, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ffffffff#

EVENT time: 7289.059082, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload ffffffff#
Checksum 2042 Check_for_error 2042
Non Desired Packet
Sending Acknowledgement TOLAYER3: packet being corrupted

EVENT time: 7290.643066, type: 2, fromlayer3 entity: 0

In A_input
ACK_received Payload Zfffffffff#
check_for_ack_error 2030 , rcv_checksum 2042
Acknowledgement is Corrupted
Need to retransmit

EVENT time: 7301.909668, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ffffffff#

EVENT time: 7307.156738, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload ffffffff#
Checksum 2042 Check_for_error 2042
Non Desired Packet
Sending Acknowledgement TOLAYER3: packet being corrupted

EVENT time: 7316.100586, type: 2, fromlayer3 entity: 0

In A_input
ACK_received Payload Zfffffffff#

check_for_ack_error 2030 , recv_checksum 2042
Acknowledgement is Corrupted
Need to retransmit

EVENT time: 7316.909668, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ffffffffffffffffffff#
TOLAYER3: packet being corrupted

EVENT time: 7326.231934, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload Zfffffffffffffffffff#
Checksum 2042 Check_for_error 2030
Corrupted Packet Received
No Acknowledgement Sent

EVENT time: 7331.909668, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ffffffffffffffffffff#

EVENT time: 7334.906250, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload ffffffffffffffffffff#
Checksum 2042 Check_for_error 2042
Non Desired Packet
Sending Acknowledgement TOLAYER3: packet being lost

EVENT time: 7346.909668, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ffffffffffffffffffff#
TOLAYER3: packet being corrupted

EVENT time: 7348.058594, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 999999, Payload ffffffffffffffffffff#
Checksum 2042 Check_for_error 1002040
Corrupted Packet Received
No Acknowledgement Sent

EVENT time: 7361.909668, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of ffffffffffffffffffff#

EVENT time: 7369.478027, type: 2, fromlayer3 entity: 1

in B_input

Packet: Seq_No 1, Ack_No 1, Payload ffffffffffffffffffff#
Checksum 2042 Check_for_error 2042
Non Desired Packet
Sending Acknowledgement
EVENT time: 7373.651855, type: 2, fromlayer3 entity: 0

In A_input
ACK_received Payload ffffffffffffffffffff#
check_for_ack_error 2042 , recv_checksum 2042
Desired ACK Received with No Corruption
ack_pck_received.payload ffffffffffffffffffff◆◆#<◆#

EVENT time: 8750.161133, type: 1, fromlayer5 entity: 0

in A_output
packet_to_send.payload ggggggggggggggggggggg#
Seq No : 0 Ack No : 0 Checksum : 2060

EVENT time: 8754.887695, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 0, Ack_No 0, Payload ggggggggggggggggggggg
Checksum 2060 Check_for_error 2060
Desired Packet with No Corruption
Sending message ggggggggggggggggggggg◆◆#<# above

EVENT time: 8759.788086, type: 2, fromlayer3 entity: 0

In A_input
ACK_received Payload ggggggggggggggggggggg
check_for_ack_error 2060 , recv_checksum 2060
Desired ACK Received with No Corruption
ack_pck_received.payload ggggggggggggggggggggg◆◆#<#

EVENT time: 9791.898438, type: 1, fromlayer5 entity: 0

in A_output
packet_to_send.payload hhhhhhhhhhhhhhhhhhhh#
Seq No : 1 Ack No : 1 Checksum : 2082

EVENT time: 9796.837891, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload hhhhhhhhhhhhhhhhhhhh#
Checksum 2082 Check_for_error 2082
Desired Packet with No Corruption
Sending message hhhhhhhhhhhhhhhhhhhh◆◆#<"# above
TOLAYER3: packet being lost

EVENT time: 9806.898438, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of hhhhhhhhhhhhhhhhhhhhh#
TOLAYER3: packet being corrupted

EVENT time: 9813.666992, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload Zhhhhhhhhhhhhhhhhhhhh#
Checksum 2082 Check_for_error 2068
Corrupted Packet Received
No Acknowledgement Sent

EVENT time: 9821.898438, type: 0, timerinterrupt entity: 0
Timeout
Retransmission of hhhhhhhhhhhhhhhhhhhhh#

EVENT time: 9825.616211, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 1, Ack_No 1, Payload hhhhhhhhhhhhhhhhhhhhh#
Checksum 2082 Check_for_error 2082
Non Desired Packet
Sending Acknowledgement
EVENT time: 9830.488281, type: 2, fromlayer3 entity: 0

In A_input
ACK_received Payload hhhhhhhhhhhhhhhhhhhhh#
check_for_ack_error 2082 , recv_checksum 2082
Desired ACK Received with No Corruption
ack_pck_received.payload hhhhhhhhhhhhhhhhhhhhh??#<"#

EVENT time: 10542.569336, type: 1, fromlayer5 entity: 0

in A_output
packet_to_send.payload iiiiiiiiiiiiiiiiii
Seq No : 0 Ack No : 0 Checksum : 2100

EVENT time: 10548.279297, type: 2, fromlayer3 entity: 1

in B_input
Packet: Seq_No 0, Ack_No 0, Payload iiiiiiiiiiiiiiiiii
Checksum 2100 Check_for_error 2100
Desired Packet with No Corruption
Sending message iiiiiiiiiiiiiiiiii??#<4# above

EVENT time: 10553.112305, type: 2, fromlayer3 entity: 0

In A_input

ACK_received Payload iiii
check_for_ack_error 2100 , recv_checksum 2100
Desired ACK Received with No Corruption
ack_pck_received.payload iiii

EVENT time: 12397.961914, type: 1, fromlayer5 entity: 0

in A_output
packet_to_send.payload j

Seq No : 1 Ack No : 1 Checksum : 2122
TOLAYER3: packet being lost

EVENT time: 12412.961914, type: 0, timerinterrupt entity: 0

Protocol : Alternating Bit
10 of Packets sent from Application Layer of Sender A
40 of Packets sent from Transport Layer of Sender A
33 of Packets received at Transport Layer of Receiver B
9 of Packets received at Application Layer of Receiver B
Total Time : 12412.961914 Time Units
Throughput = 0.000725 Packets /time units
Simulator terminated at time 12412.961914
after sending 10 msgs from layer5

OUTPUT FOR GOBACK-N PROTOCOL

----- Stop and Wait Network Simulator Version 1.1 -----

Enter the number of messages to simulate: Enter packet loss probability [enter 0.0 for no loss]:Enter packet corruption probability [0.0 for no corruption]:Enter average time between messages from sender's layer5 [> 0.0]:Enter TRACE:

EVENT time: 93.528702, type: 1, fromlayer5 entity: 0

in A_output

Sending Message : aaaaaaaaaaaaaaaaaa>

Seq No : 0 Ack No : 0 Checksum : 1940

STARTING TIMER AT 93.528702

NEXT TIMEOUT AT 133.528702

Vector has :

Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaa

EVENT time: 98.993797, type: 2, fromlayer3 entity: 1

in B_input

Waiting For 0 and Received 0

Packet: Payload aaaaaaaaaaaaaaaaaa

Desired packet with no corruption...Sending ACK
Sending message aaaaaaaaaaaaaaaaaaaaa> above
TOLAYER3: packet being corrupted
//CORRUPTION

EVENT time: 104.225410, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 0 and Received 0
ACK_received Payload aaaaaaaaaaaaaaaaaaaaa?B#
Corrupted ACK Received.
//CORRUPTION CAPTURED

EVENT time: 133.528702, type: 0, timerinterrupt entity: 0
TIMEOUT at 133.528702..RETRANSMITTING ALL THE PACKETS IN VECTOR
//RETRANSMISSION OF WINDOW
Sending all the packets in Vector :
Sending 0 aaaaaaaaaaaaaaaaaaaaa
TOLAYER3: packet being lost
//PACKET LOSS
NEXT TIMEOUT 173.528702

EVENT time: 173.528702, type: 0, timerinterrupt entity: 0
TIMEOUT at 173.528702..RETRANSMITTING ALL THE PACKETS IN VECTOR
//RETRANSMISSION AFTER TIMEOUT
Sending all the packets in Vector :
Sending 0 aaaaaaaaaaaaaaaaaaaaa
TOLAYER3: packet being lost
NEXT TIMEOUT 213.528702

EVENT time: 175.624207, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : bbbbbbbbbbbbbbbbbbaaaaaaaaaaaaa?B#
Seq No : 1 Ack No : 1 Checksum : 1962
Vector has :
Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaaaaa#
Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbbbbbbb
TOLAYER3: packet being corrupted

EVENT time: 180.091476, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 1 and Received 1
Packet: Payload Zbbbbbbbbbbbbbbbbbb#
Corrupted Packet Received...Not Sending ACK

EVENT time: 213.528702, type: 0, timerinterrupt entity: 0
TIMEOUT at 213.528702..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 0 aaaaaaaaaaaaaaaaaaaaa#
TOLAYER3: packet being lost

Sending 1 bbbbbbbbbbbbbbbbbbb
NEXT TIMEOUT 253.528702

EVENT time: 219.193970, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : cccccccccccccccccbbbbb#
Seq No : 2 Ack No : 2 Checksum : 1984
Vector has :
Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaa#
Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbbb#
Seq No : 2 Ack No : 2 Payload : ccccccccccccccc

EVENT time: 222.957123, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 1 and Received 1
Packet: Payload bbbbbbbbbbbbbbb#
Desired packet with no corruption...Sending ACK
Sending message bbbbbbbbbbbbbbccccÄ#<> above

EVENT time: 225.687363, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 0 and Received 1
ACK_received Payload bbbbbbbbbbbbbb#
ACK with no corruption received...Difference is : 1
Vector Before erasing
Vector has :
Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaa#
Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbb#
Seq No : 2 Ack No : 2 Payload : ccccccccccccccc
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 2 Ack No : 2 Payload : ccccccccccccccc#
TIMER RESTARTS.
NEXT TIMEOUT 265.687378

EVENT time: 227.159760, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 2 and Received 2
Packet: Payload ccccccccccccccc#
Desired packet with no corruption...Sending ACK
Sending message cccccccccccccccÄ#<> above

EVENT time: 229.526108, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 2 and Received 2
ACK_received Payload ccccccccccccccccccc#
ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 2 Ack No : 2 Payload : ccccccccccccccccccc#
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Nothing (Empty)
STOPPING TIMER AT 229.526108

EVENT time: 278.065247, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : dddddddddddddddddddcccccccccc#
Seq No : 3 Ack No : 3 Checksum : 2006
STARTING TIMER AT 278.065247
NEXT TIMEOUT AT 318.065247
Vector has :
Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#
TOLAYER3: packet being lost

EVENT time: 318.065247, type: 0, timerinterrupt entity: 0
TIMEOUT at 318.065247..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 3 ddddddddddddddddddd#
TOLAYER3: packet being lost
NEXT TIMEOUT 358.065247

EVENT time: 328.918579, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : eeeeeeeeeeeeeeeeecccccccccc#
Seq No : 4 Ack No : 4 Checksum : 2028
Vector has :
Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeee#

EVENT time: 333.077148, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 3 and Received 4
Packet: Payload eeeeeeeeeeeeeeeee#

Non Desired Packet Received...Sending Previous ACK 2
TOLAYER3: packet being lost

EVENT time: 358.065247, type: 0, timerinterrupt entity: 0
TIMEOUT at 358.065247..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 3 ddddddddddddddddddd#
TOLAYER3: packet being corrupted
Sending 4 eeeeeeeeeeeeeeeee#
NEXT TIMEOUT 398.065247

EVENT time: 363.903229, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 3 and Received 3
Packet: Payload Zdddddddddddddd#
Corrupted Packet Received...Not Sending ACK

EVENT time: 365.778412, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 3 and Received 4
Packet: Payload eeeeeeeeeeeeeeeee#
Non Desired Packet Received...Sending Previous ACK 2
TOLAYER3: packet being lost

EVENT time: 398.065247, type: 0, timerinterrupt entity: 0
TIMEOUT at 398.065247..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 3 ddddddddddddddd#
Sending 4 eeeeeeeeeeeeeeeee#
TOLAYER3: packet being corrupted
NEXT TIMEOUT 438.065247

EVENT time: 399.371643, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 3 and Received 3
Packet: Payload ddddddddddd#
Desired packet with no corruption...Sending ACK
Sending message ddddddddddd above
TOLAYER3: packet being corrupted

EVENT time: 404.950256, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 4 and Received 4
Packet: Payload Zeeeeeeeeeeee#
Corrupted Packet Received...Not Sending ACK

EVENT time: 405.621582, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 3 and Received 3

ACK_received Payload Zdddddddddddddddddd#
Corrupted ACK Received.

EVENT time: 427.103943, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : ffffffffffffffffffdddddddddd#
Seq No : 5 Ack No : 5 Checksum : 2050
Vector has :
Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff

EVENT time: 429.981781, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 4 and Received 5
Packet: Payload ffffffffffffffffff#
Non Desired Packet Received...Sending Previous ACK 3

EVENT time: 433.643555, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 3 and Received 3
ACK_received Payload ddddddddddddddddddd#
ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff#
TIMER RESTARTS.
NEXT TIMEOUT 473.643555

EVENT time: 459.375946, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : ggggggggggggggggggggdddddddddd#
Seq No : 6 Ack No : 6 Checksum : 2072
Vector has :
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff#

Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggggg

EVENT time: 460.653412, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 4 and Received 6
Packet: Payload gggggggggggggggggggggg#
Non Desired Packet Received...Sending Previous ACK 3
TOLAYER3: packet being corrupted

EVENT time: 466.271088, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 4 and Received 3
ACK_received Payload Zdddddddddddddddddd#
Corrupted ACK Received.

EVENT time: 473.643555, type: 0, timerinterrupt entity: 0
TIMEOUT at 473.643555..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 4 eeeeeeeeeeeeeeeeeee#
TOLAYER3: packet being lost
Sending 5 ffffffffffffffffffff#
TOLAYER3: packet being lost
Sending 6 gggggggggggggggggggggg
TOLAYER3: packet being corrupted
NEXT TIMEOUT 513.643555

EVENT time: 475.449890, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 4 and Received 6
Packet: Payload Zggggggggggggggggggggg#
Corrupted Packet Received...Not Sending ACK

EVENT time: 513.643555, type: 0, timerinterrupt entity: 0
TIMEOUT at 513.643555..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 4 eeeeeeeeeeeeeeeeeee#
TOLAYER3: packet being lost
Sending 5 ffffffffffffffffffff#
Sending 6 gggggggggggggggggggggg
NEXT TIMEOUT 553.643555

EVENT time: 516.660583, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 4 and Received 5
Packet: Payload ffffffffffffffffffff#
Non Desired Packet Received...Sending Previous ACK 3
TOLAYER3: packet being lost

EVENT time: 521.414612, type: 2, fromlayer3 entity: 1

in B_input
Waiting For 4 and Received 6
Packet: Payload gggggggggggggggggggg#
Non Desired Packet Received...Sending Previous ACK 3

EVENT time: 527.398743, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 4 and Received 3
ACK_received Payload dddddddddddddddddd#
ACK with no corruption received...Difference is : 99
Duplicate ACK No 3 received..Ignore it

EVENT time: 550.851074, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : hhhhhhhhhhhhhhhhhhhhhddddd#
Seq No : 7 Ack No : 7 Checksum : 2094
Vector has :
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff#
Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggg#
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhh

EVENT time: 552.555298, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 4 and Received 7
Packet: Payload hhhhhhhhhhhhhhhhhhhh#
Non Desired Packet Received...Sending Previous ACK 3
TOLAYER3: packet being lost

EVENT time: 553.643555, type: 0, timerinterrupt entity: 0
TIMEOUT at 553.643555..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 4 eeeeeeeeeeeeeeeee#
Sending 5 ffffffffffffffffff#
Sending 6 gggggggggggggggggggg#
Sending 7 hhhhhhhhhhhhhhhhhhhh
TOLAYER3: packet being corrupted
NEXT TIMEOUT 593.643555

EVENT time: 561.601440, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 4 and Received 4
Packet: Payload eeeeeeeeeeeeeeeee#
Desired packet with no corruption...Sending ACK
Sending message eeeeeeeeeeeeeeeee above

EVENT time: 565.993896, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 5 and Received 5

Packet: Payload ffffffffffffffffffff#
Desired packet with no corruption...Sending ACK
Sending message ffffffffffffffffffff above

EVENT time: 571.089600, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 4 and Received 4
ACK_received Payload eeeeeeeeeeeeeeeeeeee#
ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#
Seq No : 6 Ack No : 6 Payload : ggggggggggggggggggggg#
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhh
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#
Seq No : 6 Ack No : 6 Payload : ggggggggggggggggggggg#
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhh#
TIMER RESTARTS.
NEXT TIMEOUT 611.089600

EVENT time: 571.658936, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 6 and Received 6
Packet: Payload ggggggggggggggggggggg#
Desired packet with no corruption...Sending ACK
Sending message ggggggggggggggggggggg above

EVENT time: 573.594849, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 5 and Received 5
ACK_received Payload ffffffffffffffffffff#
ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#
Seq No : 6 Ack No : 6 Payload : ggggggggggggggggggggg#
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhh#
Adding to window from buffer
Buffer before

Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggggg#
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#
TIMER RESTARTS.
NEXT TIMEOUT 613.594849

EVENT time: 578.355774, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 7 and Received 7
Packet: Payload Zhhhhhhhhhhhhhhhhhhhh#
Corrupted Packet Received...Not Sending ACK

EVENT time: 579.854126, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 6 and Received 6
ACK_received Payload gggggggggggggggggggggg#
ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggggg#
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#
TIMER RESTARTS.
NEXT TIMEOUT 619.854126

EVENT time: 619.854126, type: 0, timerinterrupt entity: 0
TIMEOUT at 619.854126..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 7 hhhhhhhhhhhhhhhhhhhhh#
TOLAYER3: packet being lost
NEXT TIMEOUT 659.854126

EVENT time: 643.395691, type: 1, fromlayer5 entity: 0
in A_output

Sending Message : iiiiiiiiiiiiiiiiggggggggggggg#

Seq No : 8 Ack No : 8 Checksum : 2116

Vector has :

Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#

Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiii#

TOLAYER3: packet being corrupted

EVENT time: 649.296631, type: 2, fromlayer3 entity: 1

in B_input

Waiting For 7 and Received 8

Packet: Payload Zi iiiiiiiiiiiiiiiii#

Corrupted Packet Received...Not Sending ACK

EVENT time: 651.940247, type: 1, fromlayer5 entity: 0

in A_output

Sending Message : jjjjjjjjjjjjjjjjjjjjjjjjjjjjjj#

Seq No : 9 Ack No : 9 Checksum : 2138

Vector has :

Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#

Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiii

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj#

EVENT time: 654.089600, type: 2, fromlayer3 entity: 1

in B_input

Waiting For 7 and Received 9

Packet: Payload jjjjjjjjjjjjjjjjjjjj

Non Desired Packet Received...Sending Previous ACK 6

TOLAYER3: packet being corrupted

EVENT time: 655.673462, type: 2, fromlayer3 entity: 0

in A_input

Waiting For 7 and Received 6

ACK_received Payload Zggggggggggggggggggggg#

Corrupted ACK Received.

EVENT time: 659.854126, type: 0, timerinterrupt entity: 0

TIMEOUT at 659.854126..RETRANSMITTING ALL THE PACKETS IN VECTOR

Sending all the packets in Vector :

Sending 7 hhhhhhhhhhhhhhhhhhhhh#

Sending 8 iiiiiiiiiiiiiiiii

TOLAYER3: packet being corrupted

Sending 9 jjjjjjjjjjjjjjjjjjjj#

TOLAYER3: packet being corrupted

NEXT TIMEOUT 699.854126

EVENT time: 665.101257, type: 2, fromlayer3 entity: 1

in B_input

Waiting For 7 and Received 7

Packet: Payload hhhhhhhhhhhhhhhhhhhhh#

Desired packet with no corruption...Sending ACK
Sending message hhhhhhhhhhhhhhhhhhhhhhh above

EVENT time: 668.097656, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 7 and Received 7
ACK_received Payload hhhhhhhhhhhhhhhhhhhhh#
ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#
Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii
Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjj#
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii
Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjj
TIMER RESTARTS.
NEXT TIMEOUT 708.097656

EVENT time: 674.044983, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 8 and Received 8
Packet: Payload Ziiiiiiiiiiiiiiii#
Corrupted Packet Received...Not Sending ACK

EVENT time: 683.367432, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 8 and Received 9
Packet: Payload Zjjjjjjjjjjjjjjjjj
Corrupted Packet Received...Not Sending ACK

EVENT time: 708.097656, type: 0, timerinterrupt entity: 0
TIMEOUT at 708.097656..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 8 iiiiiiiiiiiiiiiiii
TOLAYER3: packet being lost
Sending 9 jjjjjjjjjjjjjjjjjj
TOLAYER3: packet being corrupted
NEXT TIMEOUT 748.097656

EVENT time: 709.246704, type: 2, fromlayer3 entity: 1

in B_input
Waiting For 8 and Received 9
Packet: Payload jjjjjjjjjjjjjjjjjjj
Corrupted Packet Received...Not Sending ACK

EVENT time: 714.220154, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : kkkkkkkkkkkkkkkkkkkkjjjjjjjjjjj
Seq No : 10 Ack No : 10 Checksum : 2160
Vector has :
Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiii
Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk#

EVENT time: 723.342834, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 8 and Received 10
Packet: Payload kkkkkkkkkkkkkkkkkkkk

Non Desired Packet Received...Sending Previous ACK 7

EVENT time: 731.288635, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 8 and Received 7
ACK_received Payload hhhhhhhhhhhhhhhhhhhhh#
ACK with no corruption received...Difference is : 99
Duplicate ACK No 7 received..Ignore it

EVENT time: 746.584229, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : lllllllllllllllllllllhhhhhhhhhhhh#
Seq No : 11 Ack No : 11 Checksum : 2182
Vector has :
Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiii
Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk#
Seq No : 11 Ack No : 11 Payload : lllllllllllllllll

EVENT time: 748.097656, type: 0, timerinterrupt entity: 0
TIMEOUT at 748.097656..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 8 iiiiiiiiiiiiiiiii
Sending 9 jjjjjjjjjjjjjjjjjjj

Sending 10 kkkkkkkkkkkkkkkkkkkk#
TOLAYER3: packet being lost
Sending 11 lllllllllllllllll

TOLAYER3: packet being corrupted
NEXT TIMEOUT 788.097656

EVENT time: 752.855896, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 8 and Received 11
Packet: Payload llllllllllllll#
Non Desired Packet Received...Sending Previous ACK 7

EVENT time: 756.574097, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 8 and Received 7
ACK_received Payload hhhhhhhhhhhhhhhhhhh#
ACK with no corruption received...Difference is : 99
Duplicate ACK No 7 received..Ignore it

EVENT time: 758.537354, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 8 and Received 8
Packet: Payload iiiiiiiiiiiiiiiii#
Desired packet with no corruption...Sending ACK
Sending message iiiiiiiiiiiiiiiiiy above

EVENT time: 763.408997, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 8 and Received 8
ACK_received Payload iiiiiiiiiiiiiiiii#
ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiii
Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk#
Seq No : 11 Ack No : 11 Payload : llllllllllllll#
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk#
Seq No : 11 Ack No : 11 Payload : llllllllllllll#
TIMER RESTARTS.

NEXT TIMEOUT 803.408997

EVENT time: 763.476562, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 9 and Received 9
Packet: Payload jooooooooooooooooo
Desired packet with no corruption...Sending ACK
Sending message jooooooooooooooooo above

EVENT time: 770.015808, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 9 and Received 9
ACK_received Payload jooooooooooooooooo
ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 9 Ack No : 9 Payload : jooooooooooooooooo

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk#
Seq No : 11 Ack No : 11 Payload : llllllllllllllll#
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk#
Seq No : 11 Ack No : 11 Payload : llllllllllllllll#
TIMER RESTARTS.
NEXT TIMEOUT 810.015808

EVENT time: 770.244995, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 10 and Received 11
Packet: Payload Zlllllllllllllll#
Corrupted Packet Received...Not Sending ACK

EVENT time: 810.015808, type: 0, timerinterrupt entity: 0
TIMEOUT at 810.015808..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 10 kkkkkkkkkkkkkkkkkkkk#
Sending 11 llllllllllllllll#
TOLAYER3: packet being corrupted
NEXT TIMEOUT 850.015808

EVENT time: 814.123535, type: 2, fromlayer3 entity: 1

```
EVENT time: 821.404968, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 11 and Received 11
Packet: Payload Zllllllllllllllll#
Corrupted Packet Received...Not Sending ACK
```

EVENT time: 853.432861, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : nnnnnnnnnnnnnnnnnnnnnllllllllll#
Seq No : 13 Ack No : 13 Checksum : 2226
Vector has :
Seq No : 11 Ack No : 11 Payload : lllllllllllllllll
Seq No : 12 Ack No : 12 Payload : mmmmmmmmmmmmmmmmmmmmm
Seq No : 13 Ack No : 13 Payload : nnnnnnnnnnnnnnnnnnnnn#

EVENT time: 854.577209, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 11 and Received 13
Packet: Payload nnnnnnnnnnnnnnnnnnnnn
Non Desired Packet Received...Sending Previous ACK 10

EVENT time: 856.995544, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 11 and Received 10
ACK_received Payload kkkkkkkkkkkkkkkkkkkkk

ACK with no corruption received...Difference is : 99
Duplicate ACK No 10 received..Ignore it

EVENT time: 860.628906, type: 0, timerinterrupt entity: 0
TIMEOUT at 860.628906..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 11 lllllllllllllllll
Sending 12 mmmmmmmmmmmmmmmmmmmmmmm
Sending 13 nnnnnnnnnnnnnnnnnnnnn#
TOLAYER3: packet being lost
NEXT TIMEOUT 900.628906

EVENT time: 863.643738, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 11 and Received 11
Packet: Payload lllllllllllllllll#
Desired packet with no corruption...Sending ACK
Sending message lllllllllllllllll above
TOLAYER3: packet being corrupted

EVENT time: 867.515076, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 11 and Received 11
ACK_received Payload Zllllllllllllllll#
Corrupted ACK Received.

EVENT time: 869.376770, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 12 and Received 12

```
Packet: Payload mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm
Desired packet with no corruption...Sending ACK
Sending message mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmÿ above
```

```
EVENT time: 873.501709, type: 2, fromlayer3 entity: 0  
in A_input  
Waiting For 11 and Received 12  
ACK_received Payload mmmmmmmmmmmmmmmmmmmmmmmmmmmmm  
ACK with no corruption received...Difference is : 1  
Vector Before erasing  
Vector has :  
Seq No : 11 Ack No : 11 Payload : llllllllllllllllll  
Seq No : 12 Ack No : 12 Payload : mmmmmmmmmmmmmmmmmmmmmmmmmmmmm  
Seq No : 13 Ack No : 13 Payload : nnnnnnnnnnnnnnnnnnnnnnnn#  
Adding to window from buffer  
Buffer before  
Vector has :  
Nothing (Empty)  
Buffer after erasing  
Vector has :  
Nothing (Empty)  
Vector after erasing and adding from buffer  
Vector has :  
Seq No : 13 Ack No : 13 Payload : nnnnnnnnnnnnnnnnnnnnnnnn  
TIMER RESTARTS.  
NEXT TIMEOUT 913.501709
```

EVENT time: 880.559937, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : oooooooooooooooooooooommmmmmmmmmmmm

```
Seq No : 14 Ack No : 14 Checksum : 2248
Vector has :
Seq No : 13 Ack No : 13 Payload : nnnnnnnnnnnnnnnnnnnnnnn#
Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo
```

```
EVENT time: 887.093079, type: 2, fromlayer3 entity: 1
    in B_input
    Waiting For 13 and Received 14
    Packet: Payload oooooooooooooooooooooo#
    Non Desired Packet Received...Sending Previous ACK 12
TOLAYER3: packet being lost
```

```
EVENT time: 907.384277, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : pppppppppppppppppppppoooooooooooooooo#
Seq No : 15 Ack No : 15 Checksum : 2270
Vector has :
Seq No : 13 Ack No : 13 Payload : nnnnnnnnnnnnnnnnnnnnnn#
```

Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#
TOLAYER3: packet being lost

EVENT time: 912.013489, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : qqqqqqqqqqqqqqqqqqqqqoooooooooooo#
Seq No : 16 Ack No : 16 Checksum : 2292
Vector has :
Seq No : 13 Ack No : 13 Payload : nnnnnnnnnnnnnnnnnnnnn#
Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#
Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq
TOLAYER3: packet being corrupted

EVENT time: 913.501709, type: 0, timerinterrupt entity: 0
TIMEOUT at 913.501709..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 13 nnnnnnnnnnnnnnnnnnnnn#
TOLAYER3: packet being lost
Sending 14 oooooooooooooooooooooo#
Sending 15 ppppppppppppppppppppp#
TOLAYER3: packet being lost
Sending 16 qqqqqqqqqqqqqqqqqqqq
TOLAYER3: packet being corrupted
NEXT TIMEOUT 953.501709

EVENT time: 914.117249, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 13 and Received 16
Packet: Payload Zqqqqqqqqqqqqqqqqqqq#
Corrupted Packet Received...Not Sending ACK

EVENT time: 915.654785, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 13 and Received 14
Packet: Payload oooooooooooooooooooooo#
Non Desired Packet Received...Sending Previous ACK 12
TOLAYER3: packet being lost

EVENT time: 921.336121, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 13 and Received 16
Packet: Payload qqqqqqqqqqqqqqqqqqqq#
Corrupted Packet Received...Not Sending ACK

EVENT time: 953.501709, type: 0, timerinterrupt entity: 0
TIMEOUT at 953.501709..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :

Sending 13 nnnnnnnnnnnnnnnnnnnnnnn#
TOLAYER3: packet being corrupted
Sending 14 oooooooooooooooooooooo#
TOLAYER3: packet being lost
Sending 15 pppppppppppppppppppppp#
Sending 16 qqqqqqqqqqqqqqqqqqqq
NEXT TIMEOUT 993.501709

EVENT time: 955.348877, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 13 and Received 13
Packet: Payload Znnnnnnnnnnnnnnnnnnnn
Corrupted Packet Received...Not Sending ACK

EVENT time: 964.062378, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 13 and Received 15
Packet: Payload ppppppppppppppppppppp#
Non Desired Packet Received...Sending Previous ACK 12
TOLAYER3: packet being lost

EVENT time: 966.190063, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 13 and Received 16
Packet: Payload qqqqqqqqqqqqqqqqqqqq#
Non Desired Packet Received...Sending Previous ACK 12
TOLAYER3: packet being corrupted

EVENT time: 973.364319, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 13 and Received 12
ACK_received Payload Zmmmmmmmmmmmmmmmmmmmm
Corrupted ACK Received.

EVENT time: 993.501709, type: 0, timerinterrupt entity: 0
TIMEOUT at 993.501709..RETRANSMITTING ALL THE PACKETS IN VECTOR
Sending all the packets in Vector :
Sending 13 nnnnnnnnnnnnnnnnnnnnnnn#
Sending 14 oooooooooooooooooooooo#
Sending 15 pppppppppppppppppppppp#
Sending 16 qqqqqqqqqqqqqqqqqqqq
NEXT TIMEOUT 1033.501709

EVENT time: 999.297241, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 13 and Received 13
Packet: Payload nnnnnnnnnnnnnnnnnnnnn
Desired packet with no corruption...Sending ACK
Sending message nnnnnnnnnnnnnnnnnnnnnÿ above

EVENT time: 1002.807312, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 13 and Received 13
ACK_received Payload nnnnnnnnnnnnnnnnnnnnn

ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 13 Ack No : 13 Payload : nnnnnnnnnnnnnnnnnnnnn#
Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#
Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#
Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#
TIMER RESTARTS.
NEXT TIMEOUT 1042.807373

EVENT time: 1002.832397, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : rrrrrrrrrrrrrrrrrnnnnnnnnnnnnnnnnnn
Seq No : 17 Ack No : 17 Checksum : 2314
Vector has :
Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#
Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrr

EVENT time: 1005.916138, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 14 and Received 14
Packet: Payload oooooooooooooooooooooo#
Desired packet with no corruption...Sending ACK
Sending message oooooooooooooooooooooorrrrÀË#<> above

EVENT time: 1010.230896, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 14 and Received 14
ACK_received Payload oooooooooooooooooooooo#

ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#
Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrr
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#
Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrr#
TIMER RESTARTS.
NEXT TIMEOUT 1050.230957

EVENT time: 1013.072571, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 15 and Received 15
Packet: Payload ppppppppppppppppppppp#
Desired packet with no corruption...Sending ACK
Sending message ppppppppppppppppppppprrrrÀË#<> above
TOLAYER3: packet being lost

EVENT time: 1017.249084, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 16 and Received 16
Packet: Payload qqqqqqqqqqqqqqqqqqqq#
Desired packet with no corruption...Sending ACK
Sending message qqqqqqqqqqqqqqqqqqqqrrrrÀË#<> above

EVENT time: 1022.835449, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 15 and Received 16
ACK_received Payload qqqqqqqqqqqqqqqqqqqq#
ACK with no corruption received...Difference is : 1
Vector Before erasing
Vector has :
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#
Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrr#
Adding to window from buffer
Buffer before

Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrr#
TIMER RESTARTS.
NEXT TIMEOUT 1062.835449

EVENT time: 1025.400757, type: 2, fromlayer3 entity: 1
in B_input
Waiting For 17 and Received 17
Packet: Payload rrrrrrrrrrrrrrrrr#
Desired packet with no corruption...Sending ACK
Sending message rrrrrrrrrrrrrrrrrrÀË#<> above

EVENT time: 1027.307617, type: 2, fromlayer3 entity: 0
in A_input
Waiting For 17 and Received 17
ACK_received Payload rrrrrrrrrrrrrrrrr#
ACK with no corruption received...Difference is : 0
Vector Before erasing
Vector has :
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrr#
Adding to window from buffer
Buffer before
Vector has :
Nothing (Empty)
Buffer after erasing
Vector has :
Nothing (Empty)
Vector after erasing and adding from buffer
Vector has :
Nothing (Empty)
STOPPING TIMER AT 1027.307617

EVENT time: 1054.088379, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : sssssssssssssssssssrrrrrrrrrr#
Seq No : 18 Ack No : 18 Checksum : 2336
STARTING TIMER AT 1054.088379
NEXT TIMEOUT AT 1094.088379
Vector has :
Seq No : 18 Ack No : 18 Payload : sssssssssssssssss#

EVENT time: 1063.273560, type: 2, fromlayer3 entity: 1
in B_input

Waiting For 18 and Received 18
Packet: Payload sssssssssssssssssss#
Desired packet with no corruption...Sending ACK
Sending message sssssssssssssssssss#<> above

EVENT time: 1065.665649, type: 1, fromlayer5 entity: 0
in A_output
Sending Message : tttttttttttttttttssssssssss#
Seq No : 19 Ack No : 19 Checksum : 2358
Vector has :
Seq No : 18 Ack No : 18 Payload : sssssssssssssssssss#
Seq No : 19 Ack No : 19 Payload : tttttttttttttttttt#

EVENT time: 1070.421875, type: 2, fromlayer3 entity: 0
Protocol : Go-Back N
20 of Packets sent from Application Layer of Sender A
66 of Packets sent from Transport Layer of Sender A
48 of Packets received at Transport Layer of Receiver B
19 of Packets received at Application Layer of Receiver B
Total Time : 1070.421875 Time Units
Throughput = 0.017750 Packets /time units
Simulator terminated at time 1070.421875
after sending 20 msgs from layer5

OUTPUT FOR SELECTIVE REPEAT PROTOCOL

----- Stop and Wait Network Simulator Version 1.1 -----

Enter the number of messages to simulate: Enter packet loss probability [enter 0.0 for no loss]:Enter packet corruption probability [0.0 for no corruption]:Enter average time between messages from sender's layer5 [> 0.0]:Enter TRACE:
EVENT time: 93.528702, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 93.528702
Sending Message : aaaaaaaaaaaaaaaaaa>

Seq No : 0 Ack No : 0 Checksum : 1940
STARTING TIMER AT 93.528702
Time_outs Vector has
0 123.528702
Window Vector
Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaaaaaa

EVENT time: 98.993797, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 98.993797
Packet: Payload aaaaaaaaaaaaaaaaaaaaaa
Expecting 0 and Received 0
Acceptable Seq_Nos are :
0 1 2 3 4 5 6 7 8 9
Sending ACK aaaaaaaaaaaaaaaaaaaaaa0#¥R:+..

TOLAYER3: packet being corrupted

////CORRUPTION

Packet with no corruption..
Diff 1 is 0 Diff 2 is 0
In the 1st condition
Elements to Delete is 1
Before

Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaaaaaa
Removing from Vector :
Sending message above aaaaaaaaaaaaaaaaaaaaaa

After

Nothing (Empty)

next_exp seq_no 1
Next Acceptable Seq_Nos are :
1 2 3 4 5 6 7 8 9 10

EVENT time: 104.225410, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 104.225410
ACK_received Payload aaaaaaaaaaaaaaaaaaaaaa?B#
Expecting 0 and Received 999999
Acceptable ACK_Nos are :
0
Corrupted ACK Received.
//CORRUPTION CAPTURED

EVENT time: 123.528702, type: 0, timerinterrupt entity: 0

TIMEOUT at 123.528702....RETRANSMISSION

//PACKET RETRANSMISSION IN CASE OF LOSS OR CORRUPTION

Updated Time Vector

0 153.528702

Sending aaaaaaaaaaaaaaaaaaaaaa again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 153.528702

EVENT time: 153.528702, type: 0, timerinterrupt entity: 0

TIMEOUT at 153.528702....RETRANSMISSION

Updated Time Vector

0 183.528702

Sending aaaaaaaaaaaaaaaaaaaaaa again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 183.528702

EVENT time: 175.624207, type: 1, fromlayer5 entity: 0

IN A_OUTPUT

LOCAL TIME 175.624207

Sending Message : bbbbbbbbbbbbbbbbbbaaaaaaaaaaa?B#

Seq No : 1 Ack No : 1 Checksum : 1962

Time_outs Vector has

0 183.528702

1 205.624207

Window Vector

Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaaa#

Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbbbbbbb

TOLAYER3: packet being corrupted

EVENT time: 180.091476, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 180.091476

Packet: Payload Zbbbbbbbbbbbbbbbbbb#

Expecting 1 and Received 1

Acceptable Seq_Nos are :

1 2 3 4 5 6 7 8 9 10

Corrupted Packet Received...Not Sending ACK

EVENT time: 183.528702, type: 0, timerinterrupt entity: 0

TIMEOUT at 183.528702....RETRANSMISSION

Updated Time Vector

0 213.528702

1 205.624207

Sending aaaaaaaaaaaaaaaaaaa# again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 205.624207

EVENT time: 205.624207, type: 0, timerinterrupt entity: 0

TIMEOUT at 205.624207....RETRANSMISSION

Updated Time Vector

0 213.528702

1 235.624207

Sending bbbbbbbbbbbbbbbbbbbb again

NEXT TIMEOUT AT 213.528702

EVENT time: 213.528702, type: 0, timerinterrupt entity: 0

TIMEOUT at 213.528702....RETRANSMISSION

Updated Time Vector

0 243.528702

1 235.624207

Sending aaaaaaaaaaaaaaaaaaaa# again

NEXT TIMEOUT AT 235.624207

EVENT time: 215.052628, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 215.052628

Packet: Payload bbbbbbbbbbbbbbbbbbbb#

Expecting 1 and Received 1

Acceptable Seq_Nos are :

1 2 3 4 5 6 7 8 9 10

Sending ACK bbbbbbbbbbbbbbbbbbb0#¥R:+..

TOLAYER3: packet being corrupted

Packet with no corruption..

Diff 1 is 0 Diff 2 is 0

In the 1st condition

Elements to Delete is 1

Before

Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbbbbbbbb

Removing from Vector :

Sending message above bbbbbbbbbbbbbbbbbbbb

After

Nothing (Empty)

next_exp seq_no 2

Next Acceptable Seq_Nos are :

2 3 4 5 6 7 8 9 10 11

EVENT time: 219.193970, type: 1, fromlayer5 entity: 0

IN A_OUTPUT

LOCAL TIME 219.193970

Sending Message : ccccccccccccccccbbbbbbbbbbbb#

Seq No : 2 Ack No : 2 Checksum : 1984

Time_outs Vector has

0 243.528702

1 235.624207

2 249.193970

Window Vector

Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaa#

Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbbbbbbb#

Seq No : 2 Ack No : 2 Payload : ccccccccccccccccc

TOLAYER3: packet being lost

EVENT time: 222.515549, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 222.515549

Packet: Payload aaaaaaaaaaaaaaaaaa

Expecting 2 and Received 0

Acceptable Seq_Nos are :

2 3 4 5 6 7 8 9 10 11

Sending ACK aaaaaaaaaaaaaaaaaa0#¥R:+. .

TOLAYER3: packet being corrupted

Not Acceptable Seq No..

Next Acceptable Seq_Nos are :

2 3 4 5 6 7 8 9 10 11

EVENT time: 224.071289, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 224.071289

ACK_received Payload Zbbbbbbbbbbbbbbbbbb#

Expecting 0 and Received 1

Acceptable ACK_Nos are :

0 1 2

Corrupted ACK Received.

EVENT time: 229.648087, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 229.648087

ACK_received Payload Zaaaaaaaaaaaaaaaaa

Expecting 0 and Received 0

Acceptable ACK_Nos are :

0 1 2

Corrupted ACK Received.

EVENT time: 235.624207, type: 0, timerinterrupt entity: 0

TIMEOUT at 235.624207....RETRANSMISSION

Updated Time Vector

0 243.528702

1 265.624207
2 249.193970
Sending bbbbbbbbbbbbbbbbbbb# again
NEXT TIMEOUT AT 243.528702

EVENT time: 241.873230, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 241.873230
Packet: Payload bbbbbbbbbbbbbbbbbbb#
Expecting 2 and Received 1
Acceptable Seq_Nos are :
2 3 4 5 6 7 8 9 10 11
Sending ACK bbbbbbbbbbbbbbbbbbb0#¥R:+..
Not Acceptable Seq No..
Next Acceptable Seq_Nos are :
2 3 4 5 6 7 8 9 10 11

EVENT time: 243.353867, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 243.353867
ACK_received Payload bbbbbbbbbbbbbbbbbbb#
Expecting 0 and Received 1
Acceptable ACK_Nos are :
0 1 2
Packet with no corruption..
Diff1 is 1 Diff2 is 1
In the 2nd condition
Diff is 1
Vector and timeout is
Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaa#
Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbbbbbbb#
Seq No : 2 Ack No : 2 Payload : cccccccccccccccccc
0 243.528702
1 265.624207
2 249.193970
Vector and timeout After is
Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaa#
Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbbbbbbb#
Seq No : 2 Ack No : 2 Payload : cccccccccccccccccc
0 243.528702
1 0.000000
2 249.193970

EVENT time: 243.528702, type: 0, timerinterrupt entity: 0

TIMEOUT at 243.528702....RETRANSMISSION
Updated Time Vector

0 273.528687
//TIMEOUT IS 30

1 0.000000

2 249.193970

Sending aaaaaaaaaaaaaaaaaaaaaa# again

NEXT TIMEOUT AT 249.193970

EVENT time: 246.159363, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 246.159363

Packet: Payload aaaaaaaaaaaaaaaaaaaaaa

Expecting 2 and Received 0

Acceptable Seq_Nos are :

2 3 4 5 6 7 8 9 10 11

Sending ACK aaaaaaaaaaaaaaaaaaaaaa0#¥R:+. .

Not Acceptable Seq No..

Next Acceptable Seq_Nos are :

2 3 4 5 6 7 8 9 10 11

EVENT time: 248.034561, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 248.034561

ACK_received Payload aaaaaaaaaaaaaaaaaaaaaa

Expecting 2 and Received 0

Acceptable ACK_Nos are :

0 1 2

Packet with no corruption..

Diff1 is 498 Diff2 is 0

In the 1st condition

Before Erasing first entry

Seq No : 0 Ack No : 0 Payload : aaaaaaaaaaaaaaaaaaaaaa#

Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbbbbbbbb#

Seq No : 2 Ack No : 2 Payload : cccccccccccccccccc

0 273.528687

1 0.000000

2 249.193970

After Erasing window and timeouts

Seq No : 1 Ack No : 1 Payload : bbbbbbbbbbbbbbbbbbbb#

Seq No : 2 Ack No : 2 Payload : cccccccccccccccccc#

0 0.000000

1 249.193970

Removing previously ACK Packets

Removing Time one by one

here

Removing Time one by one

Count 2

Adding to window from buffer

Vector Before
Seq No : 2 Ack No : 2 Payload : ccccccccccccccccccc#
Buffer before
Nothing (Empty)
Vector after adding
Seq No : 2 Ack No : 2 Payload : ccccccccccccccccccc#
Buffer after
Nothing (Empty)
Next expected ACK no 2

EVENT time: 249.193970, type: 0, timerinterrupt entity: 0

TIMEOUT at 249.193970....RETRANSMISSION
Updated Time Vector
0 279.193970
Sending ccccccccccccccccccc# again
TOLAYER3: packet being lost
NEXT TIMEOUT AT 279.193970

EVENT time: 253.234009, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 253.234009
Sending Message : ddddddddddddddddaaaaaaaaaaaaa
Seq No : 3 Ack No : 3 Checksum : 2006
Time_outs Vector has
0 279.193970
1 283.234009
Window Vector
Seq No : 2 Ack No : 2 Payload : ccccccccccccccccccc#
Seq No : 3 Ack No : 3 Payload : dddddddddddddddddd#
TOLAYER3: packet being lost

EVENT time: 279.193970, type: 0, timerinterrupt entity: 0

TIMEOUT at 279.193970....RETRANSMISSION
Updated Time Vector
0 309.193970
1 283.234009
Sending ccccccccccccccccccc# again
NEXT TIMEOUT AT 283.234009

EVENT time: 283.234009, type: 0, timerinterrupt entity: 0

TIMEOUT at 283.234009....RETRANSMISSION
Updated Time Vector
0 309.193970
1 313.234009
Sending dddddddddddddddddd# again

TOLAYER3: packet being lost
NEXT TIMEOUT AT 309.193970

EVENT time: 284.468079, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 284.468079
Packet: Payload ccccccccccccccccccc#
Expecting 2 and Received 2
Acceptable Seq_Nos are :
2 3 4 5 6 7 8 9 10 11
Sending ACK ccccccccccccccccccc0#¥R:+..

TOLAYER3: packet being lost
Packet with no corruption..
Diff 1 is 0 Diff 2 is 0
In the 1st condition
Elements to Delete is 1
Before

Seq No : 2 Ack No : 2 Payload : ccccccccccccccccccc
Removing from Vector :
Sending message above ccccccccccccccccccc

After
Nothing (Empty)
next_exp seq_no 3
Next Acceptable Seq_Nos are :
3 4 5 6 7 8 9 10 11 12

//THE OTHER ENTRIES IN THE ACCEPTABLE SEQ NO ARE ADDED BUT WILL NOT BE
RECEIVED AS THE SENDER WILL SEND NOT MORE THAN THE WINDOW SIZE

EVENT time: 307.074829, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 307.074829
Sending Message : eeeeeeeeeeeeeeeeecccccccccc#
Seq No : 4 Ack No : 4 Checksum : 2028
Time_outs Vector has
0 309.193970
1 313.234009
2 337.074829
Window Vector
Seq No : 2 Ack No : 2 Payload : ccccccccccccccccccc#
Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee
TOLAYER3: packet being corrupted

EVENT time: 308.830505, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 308.830505
Packet: Payload Zeeeeeeeeeeeeeeeeee#
Expecting 3 and Received 4
Acceptable Seq_Nos are :
3 4 5 6 7 8 9 10 11 12
Corrupted Packet Received...Not Sending ACK

EVENT time: 309.193970, type: 0, timerinterrupt entity: 0

TIMEOUT at 309.193970....RETRANSMISSION

Updated Time Vector

0 339.193970

1 313.234009

2 337.074829

Sending ccccccccccccccccccc# again

NEXT TIMEOUT AT 313.234009

EVENT time: 312.071808, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 312.071808
Packet: Payload ccccccccccccccccccc#
Expecting 3 and Received 2
Acceptable Seq_Nos are :
3 4 5 6 7 8 9 10 11 12
Sending ACK ccccccccccccccccc0#¥R:+..
Not Acceptable Seq No..
Next Acceptable Seq_Nos are :
3 4 5 6 7 8 9 10 11 12

EVENT time: 313.234009, type: 0, timerinterrupt entity: 0

TIMEOUT at 313.234009....RETRANSMISSION

Updated Time Vector

0 339.193970

1 343.234009

2 337.074829

Sending ddddddddddddddddddd# again

TOLAYER3: packet being corrupted

NEXT TIMEOUT AT 337.074829

EVENT time: 315.733582, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 315.733582
ACK_received Payload ccccccccccccccccccc#
Expecting 2 and Received 2
Acceptable ACK_Nos are :

2 3 4

Packet with no corruption..

Diff1 is 0 Diff2 is 0

In the 1st condition

Before Erasing first entry

Seq No : 2 Ack No : 2 Payload : ccccccccccccccccccc#

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

0 339.193970

1 343.234009

2 337.074829

After Erasing window and timeouts

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

0 343.234009

1 337.074829

Removing previously ACK Packets

Removing Time one by one

Count 1

Adding to window from buffer

Vector Before

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

Buffer before

Nothing (Empty)

Vector after adding

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

Buffer after

Nothing (Empty)

Next expected ACK no 3

EVENT time: 322.144806, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 322.144806

Packet: Payload Zdddddddddddddddddd#

Expecting 3 and Received 3

Acceptable Seq_Nos are :

3 4 5 6 7 8 9 10 11 12

Corrupted Packet Received...Not Sending ACK

EVENT time: 337.074829, type: 0, timerinterrupt entity: 0

TIMEOUT at 337.074829....RETRANSMISSION

Updated Time Vector

0 343.234009

1 367.074829

Sending eeeeeeeeeeeeeeeeeee# again

TOLAYER3: packet being corrupted
NEXT TIMEOUT AT 343.234009

EVENT time: 342.692505, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 342.692505
Packet: Payload Zeeeeeeeeeeeeeeeeeee#
Expecting 3 and Received 4
Acceptable Seq_Nos are :
3 4 5 6 7 8 9 10 11 12
Corrupted Packet Received...Not Sending ACK

EVENT time: 343.234009, type: 0, timerinterrupt entity: 0

TIMEOUT at 343.234009....RETRANSMISSION

Updated Time Vector

0 373.234009

1 367.074829

Sending ddddddddddddddddddd# again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 367.074829

EVENT time: 367.074829, type: 0, timerinterrupt entity: 0

TIMEOUT at 367.074829....RETRANSMISSION

Updated Time Vector

0 373.234009

1 397.074829

Sending eeeeeeeeeeeeeeeeeeee# again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 373.234009

EVENT time: 373.234009, type: 0, timerinterrupt entity: 0

TIMEOUT at 373.234009....RETRANSMISSION

Updated Time Vector

0 403.234009

1 397.074829

Sending ddddddddddddddddddd# again

TOLAYER3: packet being corrupted

NEXT TIMEOUT AT 397.074829

EVENT time: 375.040344, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 375.040344
Packet: Payload Zddddddddddddddddd#
Expecting 3 and Received 3

Acceptable Seq_Nos are :
3 4 5 6 7 8 9 10 11 12
Corrupted Packet Received...Not Sending ACK

EVENT time: 393.533264, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 393.533264
Sending Message : ffffffffffffffffffddddddddddd#
Seq No : 5 Ack No : 5 Checksum : 2050
Time_outs Vector has
0 403.234009
1 397.074829
2 423.533264
Window Vector
Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff

EVENT time: 396.550293, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 396.550293
Packet: Payload ffffffffffffffffff#
Expecting 3 and Received 5
Acceptable Seq_Nos are :
3 4 5 6 7 8 9 10 11 12
Sending ACK ffffffffffffffffff0#¥R:+..
Packet with no corruption..
Diff 1 is 2 Diff 2 is 2
In the 2nd condition
diff1 is 2
Before
Seq No : 3 Ack No : -1 Payload : ffffffffffffffffff#
Seq No : 3 Ack No : -1 Payload : ffffffffffffffffff#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff
Next Acceptable Seq_Nos are :
3 4 6 7 8 9 10 11 12 13

EVENT time: 397.074829, type: 0, timerinterrupt entity: 0

TIMEOUT at 397.074829....RETRANSMISSION
Updated Time Vector
0 403.234009
1 427.074829
2 423.533264
Sending eeeeeeeeeeeeeeeee# again
TOLAYER3: packet being lost
NEXT TIMEOUT AT 403.234009

EVENT time: 401.304352, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 401.304352

ACK_received Payload ffffffffffffffffffff#

Expecting 3 and Received 5

Acceptable ACK_Nos are :

3 4 5

Packet with no corruption..

Diff1 is 2 Diff2 is 2

In the 2nd condition

Diff is 2

Vector and timeout is

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff

0 403.234009

1 427.074829

2 423.533264

Vector and timeout After is

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff

0 403.234009

1 427.074829

2 0.000000

EVENT time: 403.234009, type: 0, timerinterrupt entity: 0

TIMEOUT at 403.234009....RETRANSMISSION

Updated Time Vector

0 433.234009

1 427.074829

2 0.000000

Sending ddddddddddddddddddd# again

NEXT TIMEOUT AT 427.074829

EVENT time: 405.896912, type: 1, fromlayer5 entity: 0

IN A_OUTPUT

LOCAL TIME 405.896912

Sending Message : ggggggggggggggggggggfffffffffff#

Seq No : 6 Ack No : 6 Checksum : 2072

Time_outs Vector has

0 433.234009

1 427.074829

2 0.000000

3 435.896912

Window Vector

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeee#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff#

Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggg

EVENT time: 409.218109, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 409.218109

Packet: Payload ddddddddddddddddddd#

Expecting 6 and Received 3

Acceptable Seq_Nos are :

3 4 6 7 8 9 10 11 12 13

Sending ACK ddddddddddddddddd0#¥R:+..

TOLAYER3: packet being lost

Packet with no corruption..

Diff 1 is 497 Diff 2 is 0

In the 1st condition

Elements to Delete is 1

Before

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 3 Ack No : -1 Payload : ffffffffffffffffff#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff

Removing from Vector :

Sending message above ddddddddddddddddddd#

After

Seq No : 3 Ack No : -1 Payload : ffffffffffffffffff#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffff#

next_exp seq_no 6

Next Acceptable Seq_Nos are :

4 6 7 8 9 10 11 12 13 14

EVENT time: 410.922333, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 410.922333

Packet: Payload gggggggggggggggggggg#

Expecting 6 and Received 6

Acceptable Seq_Nos are :

4 6 7 8 9 10 11 12 13 14

Sending ACK ggggggggggggggggggg0#¥R:+..

Packet with no corruption..

Diff 1 is 0 Diff 2 is 2

In the 2nd condition

diff1 is 2

Before

Seq No : 3 Ack No : -1 Payload : ffffffffffffffffff#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#
Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggg
Next Acceptable Seq_Nos are :
4 7 8 9 10 11 12 13 14 15

EVENT time: 418.880188, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 418.880188
ACK_received Payload gggggggggggggggggggg#
Expecting 6 and Received 6
Acceptable ACK_Nos are :
3 4 5 6
Packet with no corruption..
Diff1 is 0 Diff2 is 3
In the 2nd condition
Diff is 0
Vector and timeout is
Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#
Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggg
0 433.234009
1 427.074829
2 0.000000
3 435.896912
Vector and timeout After is
Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#
Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#
Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggg
0 433.234009
1 427.074829
2 0.000000
3 0.000000

EVENT time: 427.074829, type: 0, timerinterrupt entity: 0

TIMEOUT at 427.074829....RETRANSMISSION
Updated Time Vector
0 433.234009
1 457.074829
2 0.000000
3 0.000000
Sending eeeeeeeeeeeeeeeeeee# again
NEXT TIMEOUT AT 433.234009

EVENT time: 431.467285, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 431.467285
Packet: Payload eeeeeeeeeeeeeeeeeee#
Expecting 7 and Received 4
Acceptable Seq_Nos are :
4 7 8 9 10 11 12 13 14 15
Sending ACK eeeeeeeeeeeeeeeeeee0#¥R:+..
Packet with no corruption..
Diff 1 is 497 Diff 2 is 0
In the 1st condition
Elements to Delete is 3
Before

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#
Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#
Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggg
Removing from Vector :
Sending message above eeeeeeeeeeeeeeeeeee#
Sending message above ffffffffffffffffffff#
Sending message above gggggggggggggggggggg#

After
Nothing (Empty)
next_exp seq_no 7
Next Acceptable Seq_Nos are :
7 8 9 10 11 12 13 14 15 16

EVENT time: 433.234009, type: 0, timerinterrupt entity: 0

TIMEOUT at 433.234009....RETRANSMISSION
Updated Time Vector
0 463.234009
1 457.074829
2 0.000000
3 0.000000
Sending ddddddddddddddddddd# again
TOLAYER3: packet being corrupted
NEXT TIMEOUT AT 457.074829

EVENT time: 437.132324, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 437.132324
ACK_received Payload eeeeeeeeeeeeeeeeeee#
Expecting 7 and Received 4
Acceptable ACK_Nos are :
3 4 5 6
Packet with no corruption..
Diff1 is 497 Diff2 is 1
In the 3rd condition

Before Vector and timeout is

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#

Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggg

0 463.234009

1 457.074829

2 0.000000

3 0.000000

Vector and timeout After isSeq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#

Seq No : 6 Ack No : 6 Payload : gggggggggggggggggggg

0 463.234009

1 0.000000

2 0.000000

3 0.000000

EVENT time: 439.930847, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 439.930847

Packet: Payload Zdddddddddddddddddd#

Expecting 7 and Received 3

Acceptable Seq_Nos are :

7 8 9 10 11 12 13 14 15 16

Corrupted Packet Received...Not Sending ACK

EVENT time: 457.074829, type: 0, timerinterrupt entity: 0

TIMEOUT at 457.074829....RETRANSMISSION

Updated Time Vector

0 493.234009

1 0.000000

2 0.000000

3 0.000000

Sending ddddddddddddddddddd# again

NEXT TIMEOUT AT 493.234009

EVENT time: 466.563019, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 466.563019

Packet: Payload ddddddddddddddddddd#

Expecting 7 and Received 3

Acceptable Seq_Nos are :

7 8 9 10 11 12 13 14 15 16

Sending ACK ddddddddddddddd0#¥R:+. .

Not Acceptable Seq No..

Next Acceptable Seq_Nos are :
7 8 9 10 11 12 13 14 15 16

EVENT time: 469.068237, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 469.068237

ACK_received Payload ddddddddddddddddddd#

Expecting 7 and Received 3

Acceptable ACK_Nos are :

3 4 5 6

Packet with no corruption..

Diff1 is 496 Diff2 is 0

In the 1st condition

Before Erasing first entry

Seq No : 3 Ack No : 3 Payload : ddddddddddddddddddd#

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#

Seq No : 6 Ack No : 6 Payload : ggggggggggggggggggggg

0 493.234009

1 0.000000

2 0.000000

3 0.000000

After Erasing window and timeouts

Seq No : 4 Ack No : 4 Payload : eeeeeeeeeeeeeeeeeee#

Seq No : 5 Ack No : 5 Payload : ffffffffffffffffffff#

Seq No : 6 Ack No : 6 Payload : ggggggggggggggggggggg#

0 0.000000

1 0.000000

2 0.000000

Removing previously ACK Packets

Removing Time one by one

here

Removing Time one by one

here

Removing Time one by one

here

Count 4

Adding to window from buffer

Vector Before

Nothing (Empty)

Buffer before

Nothing (Empty)

Vector after adding

Nothing (Empty)

Buffer after

Nothing (Empty)

Next expected ACK no 7

EVENT time: 487.074829, type: 0, timerinterrupt entity: 0

TIMEOUT at 487.074829....RETRANSMISSION
Time Vector Empty

EVENT time: 498.441528, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 498.441528
Sending Message : hhhhhhhhhhhhhhhhhhhhhddddd#
Seq No : 7 Ack No : 7 Checksum : 2094
STARTING TIMER AT 498.441528
Time_outs Vector has
0 528.441528
Window Vector
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhh#
TOLAYER3: packet being corrupted

EVENT time: 506.221161, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 506.221161
Packet: Payload Zhhhhhhhhhhhhhhhhhh#
Expecting 7 and Received 7
Acceptable Seq_Nos are :
7 8 9 10 11 12 13 14 15 16
Corrupted Packet Received...Not Sending ACK

EVENT time: 528.441528, type: 0, timerinterrupt entity: 0

TIMEOUT at 528.441528....RETRANSMISSION
Updated Time Vector
0 558.441528
Sending hhhhhhhhhhhhhhhhhhh# again
TOLAYER3: packet being corrupted
NEXT TIMEOUT AT 558.441528

EVENT time: 534.342468, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 534.342468
Packet: Payload Zhhhhhhhhhhhhhhhhhh#
Expecting 7 and Received 7
Acceptable Seq_Nos are :
7 8 9 10 11 12 13 14 15 16
Corrupted Packet Received...Not Sending ACK

EVENT time: 558.441528, type: 0, timerinterrupt entity: 0

TIMEOUT at 558.441528....RETRANSMISSION
Updated Time Vector
0 588.441528
Sending hhhhhhhhhhhhhhhhhhhhh# again
TOLAYER3: packet being corrupted
NEXT TIMEOUT AT 588.441528

EVENT time: 567.264648, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 567.264648
Packet: Payload Zhhhhhhhhhhhhhhhhhhhh#
Expecting 7 and Received 7
Acceptable Seq_Nos are :
7 8 9 10 11 12 13 14 15 16
Corrupted Packet Received...Not Sending ACK

EVENT time: 587.682922, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 587.682922
Sending Message : iiiiiiiiiiiiiiiihhhhhhhhhhh#
Seq No : 8 Ack No : 8 Checksum : 2116
Time_outs Vector has
0 588.441528
1 617.682922
Window Vector
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#
Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiii#
TOLAYER3: packet being lost

EVENT time: 588.441528, type: 0, timerinterrupt entity: 0

TIMEOUT at 588.441528....RETRANSMISSION
Updated Time Vector
0 618.441528
1 617.682922
Sending hhhhhhhhhhhhhhhhhhhhh# again
TOLAYER3: packet being lost
NEXT TIMEOUT AT 617.682922

EVENT time: 617.682922, type: 0, timerinterrupt entity: 0

TIMEOUT at 617.682922....RETRANSMISSION
Updated Time Vector
0 618.441528
1 647.682922
Sending iiiiiiiiiiiiiiiii# again
TOLAYER3: packet being lost

NEXT TIMEOUT AT 618.441528

EVENT time: 618.441528, type: 0, timerinterrupt entity: 0

TIMEOUT at 618.441528....RETRANSMISSION

Updated Time Vector

0 648.441528

1 647.682922

Sending hhhhhhhhhhhhhhhhhhhhh# again

NEXT TIMEOUT AT 647.682922

EVENT time: 623.688660, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 623.688660

Packet: Payload hhhhhhhhhhhhhhhhhhhhh#

Expecting 7 and Received 7

Acceptable Seq_Nos are :

7 8 9 10 11 12 13 14 15 16

Sending ACK hhhhhhhhhhhhhhhhhhhhh0#¥R:+..

TOLAYER3: packet being corrupted

Packet with no corruption..

Diff 1 is 0 Diff 2 is 0

In the 1st condition

Elements to Delete is 1

Before

Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#

Removing from Vector :

Sending message above hhhhhhhhhhhhhhhhhhhhh#

After

Nothing (Empty)

next_exp seq_no 8

Next Acceptable Seq_Nos are :

8 9 10 11 12 13 14 15 16 17

EVENT time: 632.632385, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 632.632385

ACK_received Payload Zhhhhhhhhhhhhhhhhhhhh#

Expecting 7 and Received 7

Acceptable ACK_Nos are :

7 8

Corrupted ACK Received.

EVENT time: 647.682922, type: 0, timerinterrupt entity: 0

TIMEOUT at 647.682922....RETRANSMISSION

Updated Time Vector

0 648.441528

1 677.682922

Sending iiiiiiiiiiiiiiiiii# again

TOLAYER3: packet being corrupted

NEXT TIMEOUT AT 648.441528

EVENT time: 648.441528, type: 0, timerinterrupt entity: 0

TIMEOUT at 648.441528....RETRANSMISSION

Updated Time Vector

0 678.441528

1 677.682922

Sending hhhhhhhhhhhhhhhhhhhhh# again

NEXT TIMEOUT AT 677.682922

EVENT time: 651.916077, type: 1, fromlayer5 entity: 0

IN A_OUTPUT

LOCAL TIME 651.916077

Sending Message : jjjjjjjjjjjjjjjjjjjjhhhhhhhhhhhh#

Seq No : 9 Ack No : 9 Checksum : 2138

Time_outs Vector has

0 678.441528

1 677.682922

2 681.916077

Window Vector

Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#

Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii#

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjj#

TOLAYER3: packet being corrupted

EVENT time: 657.005371, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 657.005371

Packet: Payload Ziiiiiiiiiiiiiiii#

Expecting 8 and Received 8

Acceptable Seq_Nos are :

8 9 10 11 12 13 14 15 16 17

Corrupted Packet Received...Not Sending ACK

EVENT time: 660.001770, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 660.001770

Packet: Payload hhhhhhhhhhhhhhhhhhhhh#

Expecting 8 and Received 7

Acceptable Seq_Nos are :

8 9 10 11 12 13 14 15 16 17
Sending ACK hhhhhhhhhhhhhhhhhhhhh0#¥R:+..
Not Acceptable Seq No..
Next Acceptable Seq_Nos are :
8 9 10 11 12 13 14 15 16 17

EVENT time: 661.150818, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 661.150818
Packet: Payload jjjjjjjjjjjjjjjjjjjj
Expecting 8 and Received 9
Acceptable Seq_Nos are :
8 9 10 11 12 13 14 15 16 17
Corrupted Packet Received...Not Sending ACK

EVENT time: 664.732300, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 664.732300
Sending Message : kkkkkkkkkkkkkkkkkkkjjjjjjjjjjjj
Seq No : 10 Ack No : 10 Checksum : 2160
Time_outs Vector has
0 678.441528
1 677.682922
2 681.916077
3 694.732300
Window Vector
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#
Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii
Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

EVENT time: 667.570312, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 667.570312
ACK_received Payload hhhhhhhhhhhhhhhhhhhhh#
Expecting 7 and Received 7
Acceptable ACK_Nos are :
7 8 9 10
Packet with no corruption..
Diff1 is 0 Diff2 is 0
In the 1st condition
Before Erasing first entry
Seq No : 7 Ack No : 7 Payload : hhhhhhhhhhhhhhhhhhhhh#
Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii
Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

0 678.441528

1 677.682922

2 681.916077

3 694.732300

After Erasing window and timeouts

Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

0 677.682922

1 681.916077

2 694.732300

Removing previously ACK Packets

Removing Time one by one

Count 1

Adding to window from buffer

Vector Before

Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

Buffer before

Nothing (Empty)

Vector after adding

Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

Buffer after

Nothing (Empty)

Next expected ACK no 8

EVENT time: 672.678101, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 672.678101

Packet: Payload kkkkkkkkkkkkkkkkkkkkk

Expecting 8 and Received 10

Acceptable Seq_Nos are :

8 9 10 11 12 13 14 15 16 17

Sending ACK kkkkkkkkkkkkkkkkkkkkk0#¥R:+..

Packet with no corruption..

Diff 1 is 2 Diff 2 is 2

In the 2nd condition

diff1 is 2

Before

Seq No : 8 Ack No : -1 Payload : kkkkkkkkkkkkkkkkkkkk#

Seq No : 8 Ack No : -1 Payload : kkkkkkkkkkkkkkkkkkkk

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk

Next Acceptable Seq_Nos are :

8 9 11 12 13 14 15 16 17 18

EVENT time: 677.404907, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 677.404907

ACK_received Payload kkkkkkkkkkkkkkkkkkkk

Expecting 8 and Received 10

Acceptable ACK_Nos are :

8 9 10

Packet with no corruption..

Diff1 is 2 Diff2 is 2

In the 2nd condition

Diff is 2

Vector and timeout is

Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk

0 677.682922

1 681.916077

2 694.732300

Vector and timeout After is

Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk

0 677.682922

1 681.916077

2 0.000000

EVENT time: 677.682922, type: 0, timerinterrupt entity: 0

TIMEOUT at 677.682922....RETRANSMISSION

Updated Time Vector

0 707.682922

1 681.916077

2 0.000000

Sending iiii again
NEXT TIMEOUT AT 681.916077

EVENT time: 681.916077, type: 0, timerinterrupt entity: 0

TIMEOUT at 681.916077....RETRANSMISSION

Updated Time Vector

0 707.682922

1 711.916077

2 0.000000

Sending jjjjjjjjjjjjjjjjjjjj

again

NEXT TIMEOUT AT 707.682922

EVENT time: 682.583191, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 682.583191

Packet: Payload iiii#

Expecting 11 and Received 8

Acceptable Seq_Nos are :

8 9 11 12 13 14 15 16 17 18

Sending ACK iiii0#¥R:+..

Packet with no corruption..

Diff 1 is 497 Diff 2 is 0

In the 1st condition

Elements to Delete is 1

Before

Seq No : 8 Ack No : 8 Payload : iiii#

Seq No : 8 Ack No : -1 Payload : kkkkkkkkkkkkkkkkkkkk

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk

Removing from Vector :

Sending message above iiii#

After

Seq No : 8 Ack No : -1 Payload : kkkkkkkkkkkkkkkkkkkk

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkk

next_exp seq_no 11

Next Acceptable Seq_Nos are :

9 11 12 13 14 15 16 17 18 19

EVENT time: 684.857239, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 684.857239

ACK_received Payload iiii#

Expecting 11 and Received 8

Acceptable ACK_Nos are :

8 9 10

Packet with no corruption..

Diff1 is 497 Diff2 is 0

In the 1st condition

Before Erasing first entry

Seq No : 8 Ack No : 8 Payload : iiiiiiiiiiiiiiiiii

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

0 707.682922

1 711.916077

2 0.000000

After Erasing window and timeouts

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

0 711.916077

1 0.000000

Removing previously ACK Packets

Removing Time one by one

Count 1

Adding to window from buffer

Vector Before

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

Buffer before

Nothing (Empty)

Vector after adding

Seq No : 9 Ack No : 9 Payload : jjjjjjjjjjjjjjjjjjjj

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

Buffer after

Nothing (Empty)

Next expected ACK no 11

EVENT time: 692.321899, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 692.321899

Packet: Payload jjjjjjjjjjjjjjjjjjjj

Expecting 11 and Received 9

Acceptable Seq_Nos are :

9 11 12 13 14 15 16 17 18 19
Sending ACK jooooooooooooooooo0#¥R:+..
Packet with no corruption..
Diff 1 is 498 Diff 2 is 0
In the 1st condition
Elements to Delete is 2
Before

Seq No : 9 Ack No : 9 Payload : jooooooooooooooooo

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

Removing from Vector :
Sending message above jooooooooooooooooo

Sending message above kkkkkkkkkkkkkkkkkkkkk

After
Nothing (Empty)
next_exp seq_no 11
Next Acceptable Seq_Nos are :
11 12 13 14 15 16 17 18 19 20

EVENT time: 693.918396, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 693.918396
ACK_received Payload jooooooooooooooooo
Expecting 11 and Received 9
Acceptable ACK_Nos are :
9 10
Packet with no corruption..
Diff1 is 498 Diff2 is 0
In the 1st condition
Before Erasing first entry
Seq No : 9 Ack No : 9 Payload : jooooooooooooooooo

Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

0 711.916077
1 0.000000
After Erasing window and timeouts
Seq No : 10 Ack No : 10 Payload : kkkkkkkkkkkkkkkkkkkkk

0 0.000000
Removing previously ACK Packets
Removing Time one by one
here
Count 2

Adding to window from buffer
Vector Before
Nothing (Empty)
Buffer before
Nothing (Empty)
Vector after adding
Nothing (Empty)
Buffer after
Nothing (Empty)
Next expected ACK no 11

EVENT time: 704.048279, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 704.048279
Sending Message : |||||
Seq No : 11 Ack No : 11 Checksum : 2182
STARTING TIMER AT 704.048279
Warning: attempt to start a timer that is already started
Time_outs Vector has
0 734.048279
Window Vector
Seq No : 11 Ack No : 11 Payload : |||||

EVENT time: 707.682922, type: 0, timerinterrupt entity: 0

TIMEOUT at 707.682922....RETRANSMISSION
Updated Time Vector
0 764.048279
Sending |||||
again
NEXT TIMEOUT AT 764.048279

EVENT time: 712.478027, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 712.478027
Packet: Payload |||||
Expecting 11 and Received 11
Acceptable Seq_Nos are :
11 12 13 14 15 16 17 18 19 20
Sending ACK |||||0#¥R: +..
Packet with no corruption..
Diff 1 is 0 Diff 2 is 0
In the 1st condition
Elements to Delete is 1
Before
Seq No : 11 Ack No : 11 Payload : |||||

Removing from Vector :
Sending message above |||

After
Nothing (Empty)
next_exp seq_no 12
Next Acceptable Seq_Nos are :
12 13 14 15 16 17 18 19 20 21

EVENT time: 718.188110, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 718.188110
ACK_received Payload |||
Expecting 11 and Received 11
Acceptable ACK_Nos are :
11
Packet with no corruption..
Diff1 is 0 Diff2 is 0
In the 1st condition
Before Erasing first entry
Seq No : 11 Ack No : 11 Payload : |||

0 764.048279
After Erasing window and timeouts
Nothing (Empty)
Nothing (Empty)
STOPPING TIMER AT 718.188110
Removing previously ACK Packets
Count 1
Adding to window from buffer
Vector Before
Nothing (Empty)
Buffer before
Nothing (Empty)
Vector after adding
Nothing (Empty)
Buffer after
Nothing (Empty)
Next expected ACK no 12

EVENT time: 719.163452, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 719.163452
Packet: Payload |||
Expecting 12 and Received 11

Acceptable Seq_Nos are :
12 13 14 15 16 17 18 19 20 21
Sending ACK llllllllllllllllll0#¥R:+..
Not Acceptable Seq No..
Next Acceptable Seq_Nos are :
12 13 14 15 16 17 18 19 20 21

EVENT time: 723.996216, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 723.996216
ACK_received Payload llllllllllllllll#
Expecting 12 and Received 11
Acceptable ACK_Nos are :

Not Acceptable ACK

EVENT time: 768.835327, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 768.835327
Sending Message : mmmmmmmmmmmmmmmmmmmmmlllllllll#
Seq No : 12 Ack No : 12 Checksum : 2204
STARTING TIMER AT 768.835327
Time_outs Vector has
0 798.835327
Window Vector
Seq No : 12 Ack No : 12 Payload : mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm

TOLAYER3: packet being lost

EVENT time: 798.835327, type: 0, timerinterrupt entity: 0

TIMEOUT at 798.835327....RETRANSMISSION
Updated Time Vector
0 828.835327
Sending mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm
again
TOLAYER3: packet being lost
NEXT TIMEOUT AT 828.835327

EVENT time: 828.835327, type: 0, timerinterrupt entity: 0

TIMEOUT at 828.835327....RETRANSMISSION
Updated Time Vector
0 858.835327
Sending mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm
again
NEXT TIMEOUT AT 858.835327

EVENT time: 835.340698, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 835.340698

Packet: Payload mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm

Expecting 12 and Received 12

Acceptable Seq_Nos are :

12 13 14 15 16 17 18 19 20 21

Sending ACK mmmmmmmmmmmmmmmmmmmmmmmmmmmmm0#R:+

Packet with no corruption..

Diff 1 is 0 Diff 2 is 0

In the 1st condition

Elements to Delete is 1

Before

Seq No : 12 Ack No : 12 Payload : mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm

Removing from Vector :

Sending message above mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm

After

Nothing (Empty)

next_exp seq_no 13

Next Acceptable Seq_Nos are :

13 14 15 16 17 18 19 20 21 22

EVENT time: 836.746338, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 836.746338

ACK_received Payload mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm

Expecting 12 and Received 12

Acceptable ACK_Nos are :

12

Packet with no corruption..

Diff1 is 0 Diff2 is 0

In the 1st condition

Before Erasing first entry

Seq No : 12 Ack No : 12 Payload : mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm

0 858.835327

After Erasing window and timeouts

Nothing (Empty)

Nothing (Empty)

STOPPING TIMER AT 836.746338

Removing previously ACK Packets

1 956.474182

Window Vector

Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#

Seq No : 15 Ack No : 15 Payload : pppppppppppppppppppppp

EVENT time: 935.725891, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 935.725891

Packet: Payload pppppppppppppppppppppp#

Expecting 14 and Received 15

Acceptable Seq_Nos are :

14 15 16 17 18 19 20 21 22 23

Sending ACK pppppppppppppppppppppp0#¥R:+..

Packet with no corruption..

Diff 1 is 1 Diff 2 is 1

In the 2nd condition

diff1 is 1

Before

Seq No : 14 Ack No : -1 Payload : pppppppppppppppppppppp#

Seq No : 15 Ack No : 15 Payload : pppppppppppppppppppppp

Next Acceptable Seq_Nos are :

14 16 17 18 19 20 21 22 23 24

EVENT time: 939.655701, type: 0, timerinterrupt entity: 0

TIMEOUT at 939.655701....RETRANSMISSION

Updated Time Vector

0 969.655701

1 956.474182

Sending oooooooooooooooooooooo# again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 956.474182

EVENT time: 942.259033, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 942.259033

ACK_received Payload pppppppppppppppppppppp#

Expecting 14 and Received 15

Acceptable ACK_Nos are :

14 15

Packet with no corruption..

Diff1 is 1 Diff2 is 1

In the 2nd condition

Diff is 1

Vector and timeout is

Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp

0 969.655701
1 956.474182

Vector and timeout After is

Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp

0 969.655701
1 0.000000

EVENT time: 956.474182, type: 0, timerinterrupt entity: 0

TIMEOUT at 956.474182....RETRANSMISSION

Updated Time Vector

0 999.655701
1 0.000000

Sending oooooooooooooooooooooo# again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 999.655701

EVENT time: 986.474182, type: 0, timerinterrupt entity: 0

TIMEOUT at 986.474182....RETRANSMISSION

Updated Time Vector

0 1029.655762
1 0.000000

Sending oooooooooooooooooooooo# again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 1029.655762

EVENT time: 1010.712158, type: 1, fromlayer5 entity: 0

IN A_OUTPUT

LOCAL TIME 1010.712158

Sending Message : qqqqqqqqqqqqqqqqqqqppppppppppppp#

Seq No : 16 Ack No : 16 Checksum : 2292

Time_outs Vector has

0 1029.655762
1 0.000000

2 1040.712158

Window Vector

Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#

Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#

Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqq

TOLAYER3: packet being corrupted

EVENT time: 1012.815918, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 1012.815918
Packet: Payload Zqqqqqqqqqqqqqqqqqqq#
Expecting 16 and Received 16
Acceptable Seq_Nos are :
14 16 17 18 19 20 21 22 23 24
Corrupted Packet Received...Not Sending ACK

EVENT time: 1016.474182, type: 0, timerinterrupt entity: 0

TIMEOUT at 1016.474182....RETRANSMISSION
Updated Time Vector
0 1059.655762
1 0.000000
2 1040.712158
Sending oooooooooooooooooooooo# again
TOLAYER3: packet being lost
NEXT TIMEOUT AT 1040.712158

EVENT time: 1040.712158, type: 0, timerinterrupt entity: 0

TIMEOUT at 1040.712158....RETRANSMISSION
Updated Time Vector
0 1059.655762
1 0.000000
2 1070.712158
Sending qqqqqqqqqqqqqqqqqqqq
again
NEXT TIMEOUT AT 1059.655762

EVENT time: 1042.249634, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 1042.249634
Packet: Payload qqqqqqqqqqqqqqqqqqqq#
Expecting 16 and Received 16
Acceptable Seq_Nos are :
14 16 17 18 19 20 21 22 23 24
Sending ACK qqqqqqqqqqqqqqqqqqqq0#¥R:+..
TOLAYER3: packet being lost
Packet with no corruption..
Diff 1 is 0 Diff 2 is 2
In the 2nd condition
diff1 is 2
Before
Seq No : 14 Ack No : -1 Payload : ppppppppppppppppppppp#
Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#

Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq
Next Acceptable Seq_Nos are :
14 17 18 19 20 21 22 23 24 25

EVENT time: 1059.655762, type: 0, timerinterrupt entity: 0

TIMEOUT at 1059.655762....RETRANSMISSION

Updated Time Vector

0 1089.655762

1 0.000000

2 1070.712158

Sending ooooooooooooooooooooo# again

TOLAYER3: packet being corrupted

NEXT TIMEOUT AT 1070.712158

EVENT time: 1065.337036, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 1065.337036

Packet: Payload ooooooooooooooooooooo#

Expecting 17 and Received 14

Acceptable Seq_Nos are :

14 17 18 19 20 21 22 23 24 25

Corrupted Packet Received...Not Sending ACK

EVENT time: 1070.712158, type: 0, timerinterrupt entity: 0

TIMEOUT at 1070.712158....RETRANSMISSION

Updated Time Vector

0 1089.655762

1 0.000000

2 1100.712158

Sending qqqqqqqqqqqqqqqqqqqq
again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 1089.655762

EVENT time: 1089.655762, type: 0, timerinterrupt entity: 0

TIMEOUT at 1089.655762....RETRANSMISSION

Updated Time Vector

0 1119.655762

1 0.000000

2 1100.712158

Sending ooooooooooooooooooooo# again

TOLAYER3: packet being corrupted

NEXT TIMEOUT AT 1100.712158

EVENT time: 1091.502930, type: 2, fromlayer3 entity: 1

```
IN_B_INPUT
LOCAL TIME 1091.502930
Packet: Payload Zooooooooooooooooooooo#
Expecting 17 and Received 14
Acceptable Seq_Nos are :
14 17 18 19 20 21 22 23 24 25
Corrupted Packet Received...Not Sending ACK
```

EVENT time: 1100.712158, type: 0, timerinterrupt entity: 0

TIMEOUT at 1100.712158....RETRANSMISSION

Updated Time Vector

0 1119.655762

1 0.000000

2 1130.712158

Sending qqqqqqqqqqqqqqqqqqqq
again

TOLAYER3: packet being lost

NEXT TIMEOUT AT 1119.655762

EVENT time: 1101.531006, type: 1, fromlayer5 entity: 0

IN A OUTPUT

LOCAL TIME 1101.531006

Sending Message : rrrrrrrrrrrrrrrrrrrroooooooooooooo#

Seq No : 17 Ack No : 17 Checksum : 2314

Time outs Vector has

0 1119.655762

1 0.000000

2 1130.712158

3 1131.531006

Window Vector

Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#

```
Seq No : 15 Ack No : 15 Payload : pppppppppppppppppppppppppp#
```

Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqqqqq#

```
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrrrr
```

EVENT time: 1107.366089, type: 2, fromlayer3 entity: 1

IN B INPUT

LOCAL TIME 1107.366089

Packet: Payload rrrrrrrrrrrrrrrrrrr#

Expecting 17 and Received 17

Acceptable Seq Nos are :

14 17 18 19 20 21 22 23 24 25

Sending ACK rrrrrrrrrrrrrrrrrrrrrrrr0#¥R:+..

TOLAYER3: packet being lost

Packet with no corruption..

Diff 1 is 0 Diff 2 is 3
In the 2nd condition
diff1 is 3
Before

Seq No : 14 Ack No : -1 Payload : pppppppppppppppppppppp#
Seq No : 15 Ack No : 15 Payload : pppppppppppppppppppppp#
Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrr
Next Acceptable Seq_Nos are :
14 18 19 20 21 22 23 24 25 26

EVENT time: 1119.655762, type: 0, timerinterrupt entity: 0

TIMEOUT at 1119.655762....RETRANSMISSION

Updated Time Vector

0 1149.655762

1 0.000000

2 1130.712158

3 1131.531006

Sending oooooooooooooooooooooo# again

NEXT TIMEOUT AT 1130.712158

EVENT time: 1121.603638, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 1121.603638

Packet: Payload oooooooooooooooooooooo#

Expecting 18 and Received 14

Acceptable Seq_Nos are :

14 18 19 20 21 22 23 24 25 26

Sending ACK ooooooooooooooooooooo0#¥R:+..

Packet with no corruption..

Diff 1 is 496 Diff 2 is 0

In the 1st condition

Elements to Delete is 4

Before

Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#

Seq No : 15 Ack No : 15 Payload : pppppppppppppppppppppp#

Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#

Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrr

Removing from Vector :

Sending message above oooooooooooooooooooooo#

Sending message above pppppppppppppppppppppp#

Sending message above qqqqqqqqqqqqqqqqqqqq#

Sending message above rrrrrrrrrrrrrrrrrrrr#

After

Nothing (Empty)

next_exp seq_no 18

Next Acceptable Seq_Nos are :
18 19 20 21 22 23 24 25 26 27

EVENT time: 1123.968140, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 1123.968140

ACK_received Payload oooooooooooooooooooooo#

Expecting 16 and Received 14

Acceptable ACK_Nos are :

14 15 16 17

Packet with no corruption..

Diff1 is 498 Diff2 is 0

In the 1st condition

Before Erasing first entry

Seq No : 14 Ack No : 14 Payload : oooooooooooooooooooooo#

Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#

Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#

Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrr#

0 1149.655762

1 0.000000

2 1130.712158

3 1131.531006

After Erasing window and timeouts

Seq No : 15 Ack No : 15 Payload : ppppppppppppppppppppp#

Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#

Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrr#

0 0.000000

1 1130.712158

2 1131.531006

Removing previously ACK Packets

Removing Time one by one

here

Removing Time one by one

Count 2

Adding to window from buffer

Vector Before

Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#

Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrr#

Buffer before

Nothing (Empty)

Vector after adding

Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#

Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrrr#

Buffer after

Nothing (Empty)

Next expected ACK no 16

EVENT time: 1130.712158, type: 0, timerinterrupt entity: 0

TIMEOUT at 1130.712158....RETRANSMISSION

Updated Time Vector

0 1160.712158

1 1131.531006

Sending qqqqqqqqqqqqqqqqqqqq# again

NEXT TIMEOUT AT 1131.531006

EVENT time: 1131.531006, type: 0, timerinterrupt entity: 0

TIMEOUT at 1131.531006....RETRANSMISSION

Updated Time Vector

0 1160.712158

1 1161.531006

Sending rrrrrrrrrrrrrrrrrrr# again

NEXT TIMEOUT AT 1160.712158

EVENT time: 1136.507690, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 1136.507690

Packet: Payload qqqqqqqqqqqqqqqqqqqq#

Expecting 18 and Received 16

Acceptable Seq_Nos are :

18 19 20 21 22 23 24 25 26 27

Sending ACK qqqqqqqqqqqqqqqqqqqq0#¥R:+..

Not Acceptable Seq No..

Next Acceptable Seq_Nos are :

18 19 20 21 22 23 24 25 26 27

EVENT time: 1143.126587, type: 2, fromlayer3 entity: 1

IN B_INPUT

LOCAL TIME 1143.126587

Packet: Payload rrrrrrrrrrrrrrrrrrr#

Expecting 18 and Received 17

Acceptable Seq_Nos are :

18 19 20 21 22 23 24 25 26 27

Sending ACK rrrrrrrrrrrrrrrrrrr0#¥R:+..

Not Acceptable Seq No..

Next Acceptable Seq_Nos are :

18 19 20 21 22 23 24 25 26 27

EVENT time: 1143.664062, type: 2, fromlayer3 entity: 0

IN A_INPUT

LOCAL TIME 1143.664062

ACK_received Payload qqqqqqqqqqqqqqqqqqqq#

Expecting 16 and Received 16

Acceptable ACK_Nos are :
16 17
Packet with no corruption..
Diff1 is 0 Diff2 is 0
In the 1st condition
Before Erasing first entry
Seq No : 16 Ack No : 16 Payload : qqqqqqqqqqqqqqqqqqqq#
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrr#
0 1160.712158
1 1161.531006
After Erasing window and timeouts
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrr#
0 1161.531006
Removing previously ACK Packets
Removing Time one by one
Count 1
Adding to window from buffer
Vector Before
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrr#
Buffer before
Nothing (Empty)
Vector after adding
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrr#
Buffer after
Nothing (Empty)
Next expected ACK no 17

EVENT time: 1147.840576, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 1147.840576
ACK_received Payload rrrrrrrrrrrrrrrrrrr#
Expecting 17 and Received 17
Acceptable ACK_Nos are :
17
Packet with no corruption..
Diff1 is 0 Diff2 is 0
In the 1st condition
Before Erasing first entry
Seq No : 17 Ack No : 17 Payload : rrrrrrrrrrrrrrrrrrr#
0 1161.531006
After Erasing window and timeouts
Nothing (Empty)
Nothing (Empty)
STOPPING TIMER AT 1147.840576
Removing previously ACK Packets
Count 1
Adding to window from buffer
Vector Before

Nothing (Empty)
Buffer before
Nothing (Empty)
Vector after adding
Nothing (Empty)
Buffer after
Nothing (Empty)
Next expected ACK no 18

EVENT time: 1158.898193, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 1158.898193
Sending Message : sssssssssssssssssssrrrrrrrrrrr#
Seq No : 18 Ack No : 18 Checksum : 2336
STARTING TIMER AT 1158.898193
Time_outs Vector has
0 1188.898193
Window Vector
Seq No : 18 Ack No : 18 Payload : sssssssssssssssssss#

EVENT time: 1167.030762, type: 2, fromlayer3 entity: 1

IN B_INPUT
LOCAL TIME 1167.030762
Packet: Payload sssssssssssssssssss#
Expecting 18 and Received 18
Acceptable Seq_Nos are :
18 19 20 21 22 23 24 25 26 27
Sending ACK sssssssssssssssssss0#¥R:+..
Packet with no corruption..
Diff 1 is 0 Diff 2 is 0
In the 1st condition
Elements to Delete is 1
Before
Seq No : 18 Ack No : 18 Payload : sssssssssssssssssss#
Removing from Vector :
Sending message above sssssssssssssssssss#

After
Nothing (Empty)
next_exp seq_no 19
Next Acceptable Seq_Nos are :
19 20 21 22 23 24 25 26 27 28

EVENT time: 1175.182495, type: 2, fromlayer3 entity: 0

IN A_INPUT
LOCAL TIME 1175.182495

ACK_received Payload sssssssssssssssssss#
Expecting 18 and Received 18
Acceptable ACK_Nos are :
18
Packet with no corruption..
Diff1 is 0 Diff2 is 0
In the 1st condition
Before Erasing first entry
Seq No : 18 Ack No : 18 Payload : sssssssssssssssssss#
0 1188.898193
After Erasing window and timeouts
Nothing (Empty)
Nothing (Empty)
STOPPING TIMER AT 1175.182495
Removing previously ACK Packets
Count 1
Adding to window from buffer
Vector Before
Nothing (Empty)
Buffer before
Nothing (Empty)
Vector after adding
Nothing (Empty)
Buffer after
Nothing (Empty)
Next expected ACK no 19

EVENT time: 1240.590332, type: 1, fromlayer5 entity: 0

IN A_OUTPUT
LOCAL TIME 1240.590332
Sending Message : tttttttttttttttttssssssssss#
Seq No : 19 Ack No : 19 Checksum : 2358
STARTING TIMER AT 1240.590332
Time_outs Vector has
0 1270.590332
Window Vector
Seq No : 19 Ack No : 19 Payload : ttttttttttttttttt#
TOLAYER3: packet being corrupted

EVENT time: 1245.048950, type: 2, fromlayer3 entity: 1
Protocol : Selective Repeat
20 of Packets sent from Application Layer of Sender A
67 of Packets sent from Transport Layer of Sender A
44 of Packets received at Transport Layer of Receiver B
19 of Packets sent at Application Layer of Receiver B
Total Time : 1245.048950 Time Units
Throughput = 0.015260 Packets /time units
Simulator terminated at time 1245.048950

after sending 20 msgs from layer5
