

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

Enter the number of messages to simulate: 25

Enter packet loss probability [enter 0.0 for no loss]:0.1

Enter packet corruption probability [0.0 for no corruption]:0.3

Enter average time between messages from sender's layer5 [ > 0.0]:1000

Enter TRACE:2

EVENT time: 696.571045, type: 1, fromlayer5 entity: 1

packet sent from B with message aaaaaaaaaaaaaaaaaa and seq number 0  
checksum B is 940

EVENT time: 702.821777, type: 2, fromlayer3 entity: 0

received packet from B with message aaaaaaaaaaaaaaaaaa  
at A, packet with message aaaaaaaaaaaaaaaaaa and sequence number 0 sent to layer 5 i.e.  
application layer  
ack sent from A with acknum 0

EVENT time: 707.863037, type: 2, fromlayer3 entity: 1

correctly received acknowledgment from A with acknum 0

EVENT time: 1116.811401, type: 1, fromlayer5 entity: 0

packet sent from A with message bbbbbbbbbbbbbbbbbbb and seq number 0  
checksum A is 960

EVENT time: 1126.514648, type: 2, fromlayer3 entity: 1

received packet from A with message bbbbbbbbbbbbbbbbbbb  
at B, packet with message bbbbbbbbbbbbbbbbbbb and sequence number 0 sent to layer 5 i.e.  
application layer  
ack sent from B with acknum 0

EVENT time: 1131.134521, type: 2, fromlayer3 entity: 0

correctly received acknowledgment from B with acknum 0

EVENT time: 3011.951660, type: 1, fromlayer5 entity: 1

packet sent from B with message ccccccccccccccccc and seq number 1  
checksum B is 981

EVENT time: 3018.905029, type: 2, fromlayer3 entity: 0

received packet from B with message ccccccccccccccccc  
at A, packet with message ccccccccccccccccc and sequence number 1 sent to layer 5 i.e.  
application layer  
ack sent from A with acknum 1

EVENT time: 3019.918701, type: 2, fromlayer3 entity: 1  
correctly received acknowledgment from A with acknum 1

EVENT time: 4817.867676, type: 1, fromlayer5 entity: 0  
packet sent from A with message ddddddddddddddddddd and seq number 1  
checksum A is 1001

EVENT time: 4824.742676, type: 2, fromlayer3 entity: 1  
received packet from A with message ddddddddddddddddddd  
at B, packet with message ddddddddddddddddddd and sequence number 1 sent to layer 5 i.e.  
application layer  
ack sent from B with acknum 1  
TOLAYER3: packet being lost

EVENT time: 4837.867676, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message ddddddddddddddddddd and seq number 1  
TOLAYER3: packet being corrupted

EVENT time: 4843.819336, type: 2, fromlayer3 entity: 1  
corrupt packet detected at B

EVENT time: 4857.867676, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message ddddddddddddddddddd and seq number 1  
TOLAYER3: packet being lost

EVENT time: 4877.867676, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message ddddddddddddddddddd and seq number 1

EVENT time: 4884.547852, type: 2, fromlayer3 entity: 1  
received packet from A with message ddddddddddddddddddd  
nack sent from B with nacknum 1  
TOLAYER3: packet being corrupted

EVENT time: 4890.889648, type: 2, fromlayer3 entity: 0  
corrupt packet detected at A

EVENT time: 4897.867676, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message ddddddddddddddddddd and seq number 1  
TOLAYER3: packet being corrupted

EVENT time: 4900.272949, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

EVENT time: 4917.867676, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message ddddddddddddddddddd and seq number 1

EVENT time: 4919.227539, type: 2, fromlayer3 entity: 1

received packet from A with message ddddddddddddddddddd

nack sent from B with nacknum 1

EVENT time: 4926.534668, type: 2, fromlayer3 entity: 0

correctly received acknowledgment from B with acknum 1

EVENT time: 6266.137695, type: 1, fromlayer5 entity: 1

packet sent from B with message eeeeeeeeeeeeeeeeeee and seq number 0

checksum B is 1020

TOLAYER3: packet being corrupted

EVENT time: 6272.431152, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 6286.137695, type: 0, timerinterrupt entity: 1

timeout happened at B

packet sent from B with message eeeeeeeeeeeeeeeeeee and seq number 0

EVENT time: 6289.840332, type: 2, fromlayer3 entity: 0

received packet from B with message eeeeeeeeeeeeeeeeeee

at A, packet with message eeeeeeeeeeeeeeeeeee and sequence number 0 sent to layer 5 i.e. application layer

ack sent from A with acknum 0

TOLAYER3: packet being lost

EVENT time: 6306.137695, type: 0, timerinterrupt entity: 1

timeout happened at B

packet sent from B with message eeeeeeeeeeeeeeeeeee and seq number 0

TOLAYER3: packet being corrupted

EVENT time: 6307.901367, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 6326.137695, type: 0, timerinterrupt entity: 1

timeout happened at B

packet sent from B with message eeeeeeeeeeeeeeeeeee and seq number 0



TOLAYER3: packet being corrupted

EVENT time: 7059.572754, type: 2, fromlayer3 entity: 0  
corrupt packet detected at A

EVENT time: 7078.181641, type: 0, timerinterrupt entity: 1  
timeout happened at B  
packet sent from B with message gggggggggggggggggggg and seq number 0  
TOLAYER3: packet being corrupted

EVENT time: 7088.130371, type: 2, fromlayer3 entity: 0  
corrupt packet detected at A

EVENT time: 7098.181641, type: 0, timerinterrupt entity: 1  
timeout happened at B  
packet sent from B with message gggggggggggggggggggg and seq number 0

EVENT time: 7102.356934, type: 2, fromlayer3 entity: 0  
received packet from B with message gggggggggggggggggggg  
at A, packet with message gggggggggggggggggggg and sequence number 0 sent to layer 5 i.e.  
application layer  
ack sent from A with acknum 0

EVENT time: 7110.232910, type: 2, fromlayer3 entity: 1  
correctly received acknowledgment from A with acknum 0

EVENT time: 8745.603516, type: 1, fromlayer5 entity: 0  
packet sent from A with message hhhhhhhhhhhhhhhhhhhh and seq number 0  
checksum A is 1080  
TOLAYER3: packet being corrupted

EVENT time: 8752.407227, type: 2, fromlayer3 entity: 1  
corrupt packet detected at B

EVENT time: 8765.603516, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message hhhhhhhhhhhhhhhhhhhh and seq number 0  
TOLAYER3: packet being corrupted

EVENT time: 8773.257812, type: 2, fromlayer3 entity: 1  
corrupt packet detected at B

EVENT time: 8785.603516, type: 0, timerinterrupt entity: 0  
timeout happened at A

packet sent from A with message hhhhhhhhhhhhhhhhhhhh and seq number 0  
TOLAYER3: packet being corrupted

EVENT time: 8786.649414, type: 2, fromlayer3 entity: 1  
corrupt packet detected at B

EVENT time: 8805.603516, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message hhhhhhhhhhhhhhhhhhhh and seq number 0

EVENT time: 8809.865234, type: 2, fromlayer3 entity: 1  
received packet from A with message hhhhhhhhhhhhhhhhhhhh  
at B, packet with message hhhhhhhhhhhhhhhhhhhh and sequence number 0 sent to layer 5 i.e.  
application layer  
ack sent from B with acknum 0  
TOLAYER3: packet being lost

EVENT time: 8825.603516, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message hhhhhhhhhhhhhhhhhhhh and seq number 0  
TOLAYER3: packet being corrupted

EVENT time: 8834.449219, type: 2, fromlayer3 entity: 1  
corrupt packet detected at B

EVENT time: 8845.603516, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message hhhhhhhhhhhhhhhhhhhh and seq number 0

EVENT time: 8851.734375, type: 2, fromlayer3 entity: 1  
received packet from A with message hhhhhhhhhhhhhhhhhhhh  
nack sent from B with nacknum 0

EVENT time: 8858.257812, type: 2, fromlayer3 entity: 0  
correctly received acknowledgment from B with acknum 0

EVENT time: 10663.148438, type: 1, fromlayer5 entity: 0  
packet sent from A with message iiiiiiiiiiiiiiiii and seq number 1  
checksum A is 1101

EVENT time: 10670.825195, type: 2, fromlayer3 entity: 1  
received packet from A with message iiiiiiiiiiiiiiiii  
at B, packet with message iiiiiiiiiiiiiiiii and sequence number 1 sent to layer 5 i.e. application  
layer

ack sent from B with acknum 1  
TOLAYER3: packet being corrupted

EVENT time: 10678.551758, type: 2, fromlayer3 entity: 0  
corrupt packet detected at A

EVENT time: 10683.148438, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message iiiiiiiiiiiiiiiiii and seq number 1

EVENT time: 10691.052734, type: 2, fromlayer3 entity: 1  
received packet from A with message iiiiiiiiiiiiiiiiii  
nack sent from B with nacknum 1

EVENT time: 10692.992188, type: 2, fromlayer3 entity: 0  
correctly received acknowledgment from B with acknum 1

EVENT time: 11650.706055, type: 1, fromlayer5 entity: 1  
packet sent from B with message jjjjjjjjjjjjjjjjjj and seq number 1  
checksum B is 1121

EVENT time: 11658.483398, type: 2, fromlayer3 entity: 0  
received packet from B with message jjjjjjjjjjjjjjjjjj  
at A, packet with message jjjjjjjjjjjjjjjjjj and sequence number 1 sent to layer 5 i.e. application layer  
ack sent from A with acknum 1

EVENT time: 11663.725586, type: 2, fromlayer3 entity: 1  
correctly received acknowledgment from A with acknum 1

EVENT time: 11829.674805, type: 1, fromlayer5 entity: 1  
packet sent from B with message kkkkkkkkkkkkkkkkkk and seq number 0  
checksum B is 1140

EVENT time: 11833.827148, type: 2, fromlayer3 entity: 0  
received packet from B with message kkkkkkkkkkkkkkkkkk  
at A, packet with message kkkkkkkkkkkkkkkkkk and sequence number 0 sent to layer 5 i.e. application layer  
ack sent from A with acknum 0  
TOLAYER3: packet being corrupted

EVENT time: 11841.958008, type: 2, fromlayer3 entity: 1  
corrupt packet detected at B





EVENT time: 12341.799805, type: 2, fromlayer3 entity: 1  
received packet from A with message mmmmmmmmmmmmmmmmmmmmmmmmmmmmm  
at B, packet with message mmmmmmmmmmmmmmmmmmmmmmmmmmmmm and sequence number 1 sent  
to layer 5 i.e. application layer  
ack sent from B with acknum 1  
TOLAYER3: packet being corrupted

EVENT time: 12351.638672, type: 2, fromlayer3 entity: 0  
corrupt packet detected at A

EVENT time: 12356.536133, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message mmmmmmmmmmmmmmmmmmmmmmmmmmmmm and seq number 1

EVENT time: 12363.406250, type: 2, fromlayer3 entity: 1  
received packet from A with message mmmmmmmmmmmmmmmmmmmmmmmmmmmmm  
nack sent from B with nacknum 1

EVENT time: 12371.124023, type: 2, fromlayer3 entity: 0  
correctly received acknowledgment from B with acknum 1

EVENT time: 13889.720703, type: 1, fromlayer5 entity: 0  
packet sent from A with message nnnnnnnnnnnnnnnnnnnnnnn and seq number 0  
checksum A is 1200

EVENT time: 13892.877930, type: 2, fromlayer3 entity: 1  
received packet from A with message nnnnnnnnnnnnnnnnnnnnnnn  
at B, packet with message nnnnnnnnnnnnnnnnnnnnnnn and sequence number 0 sent to layer 5 i.e.  
application layer  
ack sent from B with acknum 0

EVENT time: 13897.288086, type: 2, fromlayer3 entity: 0  
correctly received acknowledgment from B with acknum 0

EVENT time: 14707.024414, type: 1, fromlayer5 entity: 0  
packet sent from A with message oooooooooooooooooooooo and seq number 1  
checksum A is 1221

EVENT time: 14716.430664, type: 2, fromlayer3 entity: 1  
received packet from A with message oooooooooooooooooooooo  
at B, packet with message oooooooooooooooooooooo and sequence number 1 sent to layer 5 i.e.  
application layer  
ack sent from B with acknum 1



EVENT time: 16825.615234, type: 2, fromlayer3 entity: 0  
received packet from B with message qqqqqqqqqqqqqqqqqqq  
at A, packet with message qqqqqqqqqqqqqqqqqqq and sequence number 1 sent to layer 5 i.e.  
application layer  
ack sent from A with acknum 1  
TOLAYER3: packet being corrupted

EVENT time: 16831.376953, type: 2, fromlayer3 entity: 1  
corrupt packet detected at B

EVENT time: 16844.453125, type: 0, timerinterrupt entity: 1  
timeout happened at B  
packet sent from B with message qqqqqqqqqqqqqqqqqqq and seq number 1

EVENT time: 16854.369141, type: 2, fromlayer3 entity: 0  
received packet from B with message qqqqqqqqqqqqqqqqqqq  
nack sent from A with nacknum 1

EVENT time: 16856.349609, type: 2, fromlayer3 entity: 1  
correctly received acknowledgment from A with acknum 1

EVENT time: 18739.820312, type: 1, fromlayer5 entity: 1  
packet sent from B with message rrrrrrrrrrrrrrrrr and seq number 0  
checksum B is 1280

EVENT time: 18741.888672, type: 2, fromlayer3 entity: 0  
received packet from B with message rrrrrrrrrrrrrrrrr  
at A, packet with message rrrrrrrrrrrrrrrrr and sequence number 0 sent to layer 5 i.e.  
application layer  
ack sent from A with acknum 0

EVENT time: 18747.992188, type: 2, fromlayer3 entity: 1  
correctly received acknowledgment from A with acknum 0

EVENT time: 18776.828125, type: 1, fromlayer5 entity: 1  
packet sent from B with message ssssssssssssssssss and seq number 1  
checksum B is 1301

EVENT time: 18783.126953, type: 2, fromlayer3 entity: 0  
received packet from B with message ssssssssssssssssss  
at A, packet with message ssssssssssssssssss and sequence number 1 sent to layer 5 i.e.  
application layer  
ack sent from A with acknum 1

TOLAYER3: packet being lost

EVENT time: 18796.828125, type: 0, timerinterrupt entity: 1  
timeout happened at B  
packet sent from B with message ssssssssssssssssss and seq number 1

EVENT time: 18800.839844, type: 2, fromlayer3 entity: 0  
received packet from B with message ssssssssssssssssss  
nack sent from A with nacknum 1

EVENT time: 18809.068359, type: 2, fromlayer3 entity: 1  
correctly received acknowledgment from A with acknum 1

EVENT time: 20026.324219, type: 1, fromlayer5 entity: 0  
packet sent from A with message tttttttttttttttt and seq number 1  
checksum A is 1321

EVENT time: 20032.513672, type: 2, fromlayer3 entity: 1  
received packet from A with message tttttttttttttttt  
at B, packet with message tttttttttttttttt and sequence number 1 sent to layer 5 i.e.  
application layer  
ack sent from B with acknum 1  
TOLAYER3: packet being lost

EVENT time: 20046.324219, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message tttttttttttttttt and seq number 1

EVENT time: 20048.054688, type: 2, fromlayer3 entity: 1  
received packet from A with message tttttttttttttttt  
nack sent from B with nacknum 1

EVENT time: 20056.759766, type: 2, fromlayer3 entity: 0  
correctly received acknowledgment from B with acknum 1

EVENT time: 21332.669922, type: 1, fromlayer5 entity: 1  
packet sent from B with message uuuuuuuuuuuuuuuuuuuu and seq number 0  
checksum B is 1340

EVENT time: 21335.107422, type: 2, fromlayer3 entity: 0  
received packet from B with message uuuuuuuuuuuuuuuuuuuu  
at A, packet with message uuuuuuuuuuuuuuuuuuuu and sequence number 0 sent to layer 5 i.e.  
application layer  
ack sent from A with acknum 0

TOLAYER3: packet being corrupted

EVENT time: 21344.812500, type: 2, fromlayer3 entity: 1  
corrupt packet detected at B

EVENT time: 21352.669922, type: 0, timerinterrupt entity: 1  
timeout happened at B  
packet sent from B with message uuuuuuuuuuuuuuuuuuuuu and seq number 0

EVENT time: 21355.238281, type: 2, fromlayer3 entity: 0  
received packet from B with message uuuuuuuuuuuuuuuuuuuuu  
nack sent from A with nacknum 0

EVENT time: 21356.464844, type: 2, fromlayer3 entity: 1  
correctly received acknowledgment from A with acknum 0

EVENT time: 21746.427734, type: 1, fromlayer5 entity: 0  
packet sent from A with message vvvvvvvvvvvvvvvvvvv and seq number 0  
checksum A is 1360

EVENT time: 21752.396484, type: 2, fromlayer3 entity: 1  
received packet from A with message vvvvvvvvvvvvvvvvvvv  
at B, packet with message vvvvvvvvvvvvvvvvvvv and sequence number 0 sent to layer 5 i.e.  
application layer  
ack sent from B with acknum 0

EVENT time: 21762.392578, type: 2, fromlayer3 entity: 0  
correctly received acknowledgment from B with acknum 0

EVENT time: 22781.031250, type: 1, fromlayer5 entity: 0  
packet sent from A with message wwwwwwwwwwwwwww and seq number 1  
checksum A is 1381

TOLAYER3: packet being lost

EVENT time: 22801.031250, type: 0, timerinterrupt entity: 0  
timeout happened at A  
packet sent from A with message wwwwwwwwwwwwwww and seq number 1

EVENT time: 22808.718750, type: 2, fromlayer3 entity: 1  
received packet from A with message wwwwwwwwwwwwwww  
at B, packet with message wwwwwwwwwwwwwww and sequence number 1 sent to  
layer 5 i.e. application layer  
ack sent from B with acknum 1

EVENT time: 22818.427734, type: 2, fromlayer3 entity: 0  
correctly received acknowledgment from B with acknum 1

EVENT time: 23629.306641, type: 1, fromlayer5 entity: 0  
packet sent from A with message xxxxxxxxxxxxxxxxxxxx and seq number 0  
checksum A is 1400

EVENT time: 23633.566406, type: 2, fromlayer3 entity: 1  
received packet from A with message xxxxxxxxxxxxxxxxxxxx  
at B, packet with message xxxxxxxxxxxxxxxxxxxx and sequence number 0 sent to layer 5 i.e.  
application layer  
ack sent from B with acknum 0

EVENT time: 23639.675781, type: 2, fromlayer3 entity: 0  
correctly received acknowledgment from B with acknum 0

EVENT time: 23782.011719, type: 1, fromlayer5 entity: 0  
packet sent from A with message yyyyyyyyyyyyyyyyyyyy and seq number 1  
checksum A is 1421

EVENT time: 23785.884766, type: 2, fromlayer3 entity: 1  
Simulator terminated at time 23785.884766  
after sending 25 msgs from layer5

Simulation Results:

Protocol: Alternating Bit Protocol

14 of packets sent from the Application Layer of Sender A

32 of packets sent from the Transport Layer of Sender A

43 packets received at the Transport layer

13 packets received at the Application layer

Total time: 23785.884766 time units

Throughput = 0.000547 packets/time units