## CASE 1 - No loss and no error scenario

Enter the number of messages to simulate: 10

Enter packet loss probability [enter 0.0 for no loss]: 0

Enter packet corruption probability [enter 0.0 for no corruption]: 0

Enter average time between messages from sender's layer5 [ > 0.0]: 5

Enter TRACE: 0

A\_init: initialization for sender A.

B\_init: initialization for receiver B.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A output: message received from layer5.

A output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

Simulator terminated at time 47.591816

after sending 10 msgs from layer5

## CASE 2 - 30 percent loss and no error scenario

Enter the number of messages to simulate: 50

Enter packet loss probability [enter 0.0 for no loss]:0.3

Enter packet corruption probability [0.0 for no corruption]:0

Enter average time between messages from sender's layer5 [ > 0.0]:10

Enter TRACE:0

A\_init: initialization for sender A.

B\_init: initialization for receiver B.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A output: message received from layer5.

A output: packet passed to layer3.

B\_input: packet received from layer3.

B input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A output: message received from layer5.

A output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

B input: packet received from layer3.

B\_input: packet seqnum mismatched. NACK passed to layer3.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

B\_input: packet received from layer3.

B\_input: packet seqnum mismatched. NACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A output: message received from layer5.

A output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A output: packet passed to layer3.

A output: message received from layer5.

A output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A output: message received from layer5.

A\_output: another message in transit. dropping this message.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

B\_input: packet seqnum mismatched. NACK passed to layer3.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

B\_input: packet received from layer3.

B input: packet segnum mismatched. NACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

A timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A output: message received from layer5.

A\_output: another message in transit. dropping this message.

B input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

B\_input: packet received from layer3.

B\_input: packet seqnum mismatched. NACK passed to layer3.

A timerinterrupt: A's timer went off. retransmitting packet.

A timerinterrupt: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet segnum mismatched. NACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A output: another message in transit. dropping this message.

B\_input: packet received from layer3.

B input: packet segnum mismatched. NACK passed to layer3.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A output: packet passed to layer3.

A output: message received from layer5.

A output: another message in transit. dropping this message.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

Simulator terminated at time 507.020447

after sending 50 msgs from layer5

## CASE 3 - No loss and 30 percent corruption scenario

Enter the number of messages to simulate: 10

Enter packet loss probability [enter 0.0 for no loss]:0

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

Enter average time between messages from sender's layer5 [ > 0.0]:10

Enter TRACE:0

A\_init: initialization for sender A.

B\_init: initialization for receiver B.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B input: packet corrupted. NACK passed to layer3.

A input: packet received from layer3.

A input: packet acknum mismatched. ACK dropped.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

B input: packet received from layer3.

B\_input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B input: packet received from layer3.

B input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

A input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

B\_input: packet received from layer3.

B\_input: packet segnum mismatched. NACK passed to layer3.

A\_input: packet received from layer3.

A input: packet acknum mismatched. ACK dropped.

Simulator terminated at time 117.520515

after sending 10 msgs from layer5

## CASE 4 - 30 percent loss and 30 percent corruption scenario

Enter the number of messages to simulate: 10

Enter packet loss probability [enter 0.0 for no loss]:0.3

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

Enter average time between messages from sender's layer5 [ > 0.0]:10

Enter TRACE:0

A\_init: initialization for sender A.

B\_init: initialization for receiver B.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B input: packet segnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet corrupted. NACK passed to layer3.

A\_input: packet received from layer3.

A\_input: packet acknum mismatched. ACK dropped.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A timerinterrupt: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

A\_output: message received from layer5.

A\_output: packet passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet corrupted. NACK passed to layer3.

A\_input: packet received from layer3.

A\_input: packet acknum mismatched. ACK dropped.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum matched. message passed to layer5. ACK passed to layer3.

A\_output: message received from layer5.

A\_output: another message in transit. dropping this message.

A\_input: packet received from layer3.

A\_input: packet corrupted. ACK dropped.

A\_timerinterrupt: A's timer went off. retransmitting packet.

A\_timerinterrupt: packet passed to layer3.

B\_input: packet received from layer3.

B\_input: packet seqnum mismatched. NACK passed to layer3.

A\_input: packet received from layer3.

A\_input: packet acknum matched. ACK accepted.

Simulator terminated at time 120.300537

after sending 10 msgs from layer5