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

Enter the number of messages to simulate: 10
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: 1870.573975,  type: 1, fromlayer5  entity: 0
[A] ------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1940
          TOLAYER3: packet being corrupted
=================================================

EVENT time: 1876.039062,  type: 2, fromlayer3  entity: 1
[B] ------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1940
--> Compute checksum: 1933
--> Receive CORRUPTED packet
--> Send NAK
--> Send packet with: seqnum: 0; acknum: -2; checksum: -2
=================================================

EVENT time: 1878.220703,  type: 2, fromlayer3  entity: 0
[A] ------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: -2; checksum: -2
--> Compute checksum: -2
--> Receive CORRUPTED packet
=================================================

EVENT time: 1885.573975,  type: 0, timerinterrupt   entity: 0
[A] ------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1940
=================================================

EVENT time: 1887.594482,  type: 2, fromlayer3  entity: 1
[B] ------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1940
--> Compute checksum: 1940
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
          TOLAYER3: packet being corrupted
=================================================

EVENT time: 1892.061768,  type: 2, fromlayer3  entity: 0
[A] ------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 90
--> Receive CORRUPTED packet
```

```
==================================================

EVENT time: 1900.573975,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1940
          TOLAYER3: packet being lost
==================================================

EVENT time: 1915.573975,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1940
==================================================

EVENT time: 1925.002441,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1940
--> Compute checksum: 1940
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
==================================================

EVENT time: 1930.573975,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1940
          TOLAYER3: packet being corrupted
==================================================

EVENT time: 1932.465332,  type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 0
--> Receive correct packet
==================================================

EVENT time: 1939.592651,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1940
--> Compute checksum: 1933
--> Receive CORRUPTED packet
--> Send NAK
--> Send packet with: seqnum: 0; acknum: -2; checksum: -2
          TOLAYER3: packet being corrupted
==================================================

EVENT time: 1941.958984,  type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: -2; checksum: -2
--> Compute checksum: 88
```

```
--> Receive CORRUPTED packet
===================================================

EVENT time: 3512.483887,  type: 1, fromlayer5  entity: 0
[A] -------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 1; acknum: 0; checksum: 1961
          TOLAYER3: packet being lost
===================================================

EVENT time: 3527.483887,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 1; acknum: 0; checksum: 1961
===================================================

EVENT time: 3533.732910,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 1; acknum: 0; checksum: 1961
--> Compute checksum: 1961
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 1; checksum: 1
===================================================

EVENT time: 3535.213623,  type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 1; checksum: 1
--> Compute checksum: 1
--> Receive correct packet
===================================================

EVENT time: 3686.689209,  type: 1, fromlayer5  entity: 0
[A] -------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
===================================================

EVENT time: 3693.049805,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1980
--> Compute checksum: 1980
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
          TOLAYER3: packet being lost
===================================================

EVENT time: 3701.689209,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
```

```
==================================================

EVENT time: 3702.747559,  type: 2, fromlayer3  entity: 1
[B] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1980
--> Compute checksum: 1980
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
          TOLAYER3: packet being lost
==================================================

EVENT time: 3716.689209,  type: 0, timerinterrupt   entity: 0
[A] ---------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
==================================================

EVENT time: 3721.963379,  type: 2, fromlayer3  entity: 1
[B] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1980
--> Compute checksum: 1980
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
          TOLAYER3: packet being lost
==================================================

EVENT time: 3731.689209,  type: 0, timerinterrupt   entity: 0
[A] ---------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
==================================================

EVENT time: 3740.470459,  type: 2, fromlayer3  entity: 1
[B] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1980
--> Compute checksum: 1980
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
          TOLAYER3: packet being lost
==================================================

EVENT time: 3746.689209,  type: 0, timerinterrupt   entity: 0
[A] ---------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
          TOLAYER3: packet being lost
==================================================

EVENT time: 3761.689209,  type: 0, timerinterrupt   entity: 0
```

```
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
         TOLAYER3: packet being corrupted
=================================================

EVENT time: 3766.508545,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1980
--> Compute checksum: 1971
--> Receive CORRUPTED packet
--> Send NAK
--> Send packet with: seqnum: 0; acknum: -2; checksum: -2
=================================================

EVENT time: 3770.170410,  type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: -2; checksum: -2
--> Compute checksum: -2
--> Receive CORRUPTED packet
=================================================

EVENT time: 3776.689209,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
         TOLAYER3: packet being corrupted
=================================================

EVENT time: 3785.600098,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1980
--> Compute checksum: 1971
--> Receive CORRUPTED packet
--> Send NAK
--> Send packet with: seqnum: 0; acknum: -2; checksum: -2
         TOLAYER3: packet being corrupted
=================================================

EVENT time: 3791.217773,  type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: -2; checksum: -2
--> Compute checksum: 88
--> Receive CORRUPTED packet
=================================================

EVENT time: 3791.689209,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
         TOLAYER3: packet being corrupted
=================================================
```

```
EVENT time: 3793.720947,  type: 2, fromlayer3  entity: 1
[B] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1980
--> Compute checksum: 1971
--> Receive CORRUPTED packet
--> Send NAK
--> Send packet with: seqnum: 0; acknum: -2; checksum: -2
          TOLAYER3: packet being corrupted
===================================================

EVENT time: 3801.463867,  type: 2, fromlayer3  entity: 0
[A] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: -2; checksum: -2
--> Compute checksum: 88
--> Receive CORRUPTED packet
===================================================

EVENT time: 3806.689209,  type: 0, timerinterrupt   entity: 0
[A] ---------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
===================================================

EVENT time: 3813.380615,  type: 2, fromlayer3  entity: 1
[B] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1980
--> Compute checksum: 1980
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
          TOLAYER3: packet being corrupted
===================================================

EVENT time: 3818.853271,  type: 2, fromlayer3  entity: 0
[A] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 90
--> Receive CORRUPTED packet
===================================================

EVENT time: 3821.689209,  type: 0, timerinterrupt   entity: 0
[A] ---------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 1980
===================================================

EVENT time: 3827.076172,  type: 2, fromlayer3  entity: 1
[B] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 1980
--> Compute checksum: 1980
--> Receive correct packet
```

```
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
===================================================

EVENT time: 3828.780518,  type: 2, fromlayer3  entity: 0
[A] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 0
--> Receive correct packet
===================================================

EVENT time: 4761.793945,  type: 1, fromlayer5  entity: 0
[A] ---------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 1; acknum: 0; checksum: 2001
===================================================

EVENT time: 4769.751953,  type: 2, fromlayer3  entity: 1
[B] ---------------------------------------------------
--> Receive packet with: seqnum: 1; acknum: 0; checksum: 2001
--> Compute checksum: 2001
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 1; checksum: 1
===================================================

EVENT time: 4774.144531,  type: 2, fromlayer3  entity: 0
[A] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 1; checksum: 1
--> Compute checksum: 1
--> Receive correct packet
===================================================

EVENT time: 4878.173340,  type: 1, fromlayer5  entity: 0
[A] ---------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2020
===================================================

EVENT time: 4888.021484,  type: 2, fromlayer3  entity: 1
[B] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2020
--> Compute checksum: 2020
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
===================================================

EVENT time: 4890.766602,  type: 2, fromlayer3  entity: 0
[A] ---------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 0
```

```
--> Receive correct packet
===================================================

EVENT time: 5482.227539,  type: 1, fromlayer5  entity: 0
[A] -------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 1; acknum: 0; checksum: 2041
===================================================

EVENT time: 5488.843262,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 1; acknum: 0; checksum: 2041
--> Compute checksum: 2041
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 1; checksum: 1
===================================================

EVENT time: 5492.150391,  type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 1; checksum: 1
--> Compute checksum: 1
--> Receive correct packet
===================================================

EVENT time: 6990.478516,  type: 1, fromlayer5  entity: 0
[A] -------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2060
          TOLAYER3: packet being corrupted
===================================================

EVENT time: 6991.992676,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2060
--> Compute checksum: 2047
--> Receive CORRUPTED packet
--> Send NAK
--> Send packet with: seqnum: 0; acknum: -2; checksum: -2
          TOLAYER3: packet being corrupted
===================================================

EVENT time: 6993.090820,  type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: -2; checksum: -2
--> Compute checksum: 88
--> Receive CORRUPTED packet
===================================================

EVENT time: 7005.478516,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
```

```
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2060
==================================================

EVENT time: 7007.627930,  type: 2, fromlayer3  entity: 1
[B] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2060
--> Compute checksum: 2060
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
          TOLAYER3: packet being corrupted
==================================================

EVENT time: 7009.211914,  type: 2, fromlayer3  entity: 0
[A] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 90
--> Receive CORRUPTED packet
==================================================

EVENT time: 7020.478516,  type: 0, timerinterrupt   entity: 0
[A] --------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2060
==================================================

EVENT time: 7025.725586,  type: 2, fromlayer3  entity: 1
[B] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2060
--> Compute checksum: 2060
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
          TOLAYER3: packet being corrupted
==================================================

EVENT time: 7034.669434,  type: 2, fromlayer3  entity: 0
[A] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 90
--> Receive CORRUPTED packet
==================================================

EVENT time: 7035.478516,  type: 0, timerinterrupt   entity: 0
[A] --------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2060
          TOLAYER3: packet being corrupted
==================================================

EVENT time: 7044.800781,  type: 2, fromlayer3  entity: 1
[B] --------------------------------------------------
```

```
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2060
--> Compute checksum: 2047
--> Receive CORRUPTED packet
--> Send NAK
--> Send packet with: seqnum: 0; acknum: -2; checksum: -2
          TOLAYER3: packet being corrupted
==================================================

EVENT time: 7047.797363,  type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: -2; checksum: -2
--> Compute checksum: 88
--> Receive CORRUPTED packet
==================================================

EVENT time: 7050.478516,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2060
          TOLAYER3: packet being corrupted
==================================================

EVENT time: 7051.627441,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 999999; checksum: 2060
--> Compute checksum: 1002059
--> Receive CORRUPTED packet
--> Send NAK
--> Send packet with: seqnum: 0; acknum: -2; checksum: -2
==================================================

EVENT time: 7059.195801,  type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: -2; checksum: -2
--> Compute checksum: -2
--> Receive CORRUPTED packet
==================================================

EVENT time: 7065.478516,  type: 0, timerinterrupt   entity: 0
[A] -------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2060
==================================================

EVENT time: 7069.652344,  type: 2, fromlayer3  entity: 1
[B] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2060
--> Compute checksum: 2060
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
==================================================
```

```
EVENT time: 7077.254395,  type: 2, fromlayer3  entity: 0
[A] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 0
--> Receive correct packet
==================================================

EVENT time: 8159.206055,  type: 1, fromlayer5  entity: 0
[A] --------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 1; acknum: 0; checksum: 2081
==================================================

EVENT time: 8164.106445,  type: 2, fromlayer3  entity: 1
[B] --------------------------------------------------
--> Receive packet with: seqnum: 1; acknum: 0; checksum: 2081
--> Compute checksum: 2081
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 1; checksum: 1
==================================================

EVENT time: 8173.845215,  type: 2, fromlayer3  entity: 0
[A] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 1; checksum: 1
--> Compute checksum: 1
--> Receive correct packet
==================================================

EVENT time: 9330.692383,  type: 1, fromlayer5  entity: 0
[A] --------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2100
==================================================

EVENT time: 9336.634766,  type: 2, fromlayer3  entity: 1
[B] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2100
--> Compute checksum: 2100
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
          TOLAYER3: packet being lost
==================================================

EVENT time: 9345.692383,  type: 0, timerinterrupt   entity: 0
[A] --------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2100
==================================================
```

```
EVENT time: 9352.523438,  type: 2, fromlayer3  entity: 1
 [B] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2100
--> Compute checksum: 2100
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
==================================================

EVENT time: 9360.692383,  type: 0, timerinterrupt   entity: 0
 [A] --------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2100
==================================================

EVENT time: 9361.723633,  type: 2, fromlayer3  entity: 0
 [A] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 0
--> Receive correct packet
==================================================

EVENT time: 9370.041992,  type: 2, fromlayer3  entity: 1
 [B] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2100
--> Compute checksum: 2100
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
==================================================

EVENT time: 9373.303711,  type: 2, fromlayer3  entity: 0
 [A] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 0
--> Receive correct packet
Warning: unable to cancel your timer. It wasn't running.
==================================================

EVENT time: 9388.303711,  type: 0, timerinterrupt   entity: 0
 [A] --------------------------------------------------
--> Timeout
--> Send packet with: seqnum: 0; acknum: 0; checksum: 2100
==================================================

EVENT time: 9395.104492,  type: 2, fromlayer3  entity: 1
 [B] --------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 2100
--> Compute checksum: 2100
--> Receive correct packet
--> Send ACK
--> Send packet with: seqnum: 0; acknum: 0; checksum: 0
```

```
==================================================

EVENT time: 9397.592773, type: 2, fromlayer3  entity: 0
[A] -------------------------------------------------
--> Receive packet with: seqnum: 0; acknum: 0; checksum: 0
--> Compute checksum: 0
--> Receive correct packet
==================================================

EVENT time: 9846.638672,  type: 1, fromlayer5  entity: 0
[A] -------------------------------------------------
--> Put packet received from Layer 5 in buffer.
--> Send packet with: seqnum: 1; acknum: 0; checksum: 2121
         TOLAYER3: packet being corrupted
==================================================

EVENT time: 9850.653320,  type: 2, fromlayer3  entity: 1
 Simulator terminated at time 9850.653320
 after sending 10 msgs from layer5
base: 1; nextseg: 0; receiver: 9
```