```
---- Stop and Wait Network Simulator Version 1.1 ------
Enter the number of messages to simulate: 5
Enter PiggyBacking: 0
Enter packet loss probability [enter 0.0 for no loss]:0.2
Enter packet corruption probability [0.0 for no corruption]:0.3
Enter average time between messages from sender's layer5 [ > 0.0]:500
Enter TRACE:2
Initializing *A*
Initializing *B*
EVENT time: 46.784874, type: 1, fromlayer5 entity: 1
*****B_output****
******Data aaa waiting to to be sent****
----B_output----
Type--->0
Seq_numb--->0
Ack_numb--->-1
Checksum--->290
Data--->aaa
```

EVENT time: 50.875423, type: 2, fromlayer3 entity: 0
A_input
Type>0
Seq_numb>0
Ack_numb>-1
Data>Zaa
packet.Checksum>290
A_side.Checksum>283
**A_input**
Sending Negative Acknowledgement Packet(NACK) to *B* as Corrupted Packet was received!!!
TOLAYER3: packet being corrupted
EVENT time: 56.964447, type: 2, fromlayer3 entity: 1
B_input
Type>1
Seq_numb>0
Ack_numb>0
Data>7

```
packet.Checksum--->1
B_side.Checksum--->91
**B_input**
Corrupted Acknowledgement Packet received!!
Will retransmit in the TIMER_INTERRUPT method after timeout.....
EVENT time: 66.784874, type: 0, timerinterrupt entity: 1
B_timerinterrupt
Time is up....Retransmitting packet in INTERRUPT method!!
Type--->0
Seq_numb--->0
Ack_numb--->-1
Data--->aaa
packet.Checksum--->290
EVENT time: 72.221565, type: 2, fromlayer3 entity: 0
----A_input----
Type--->0
Seq_numb--->0
Ack_numb--->-1
Data--->aaa
```

```
packet.Checksum--->290
```

- 1. Packet 0 received at A successfully!!
- 2. Acknowledgement Packet 0 sent to B!!

EVENT time: 80.461227, type: 2, fromlayer3 entity: 1

----B\_input----

Type--->1

Seq\_numb--->0

Ack\_numb--->0

Data--->Zaa

packet.Checksum--->292

B\_side.Checksum--->285

\*\*B\_input\*\*

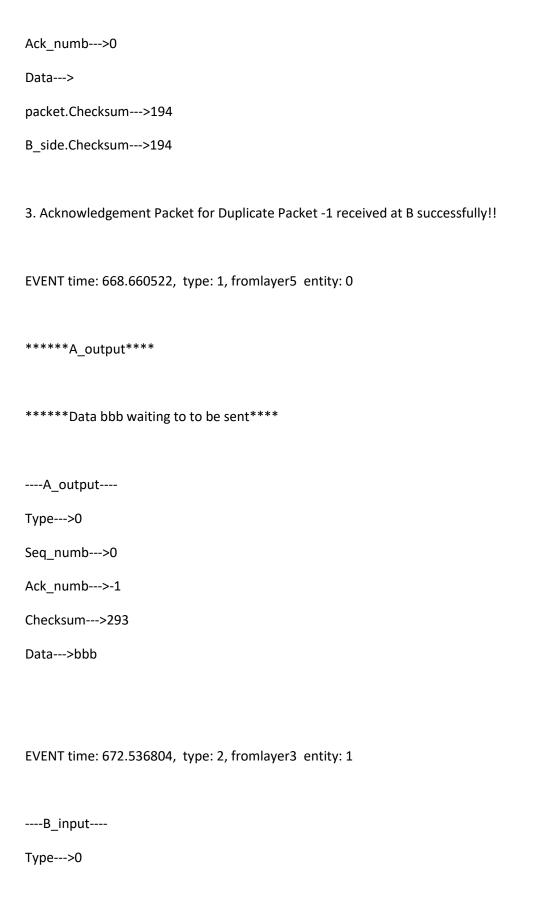
Corrupted Acknowledgement Packet received!!

Will retransmit in the TIMER\_INTERRUPT method after timeout.....

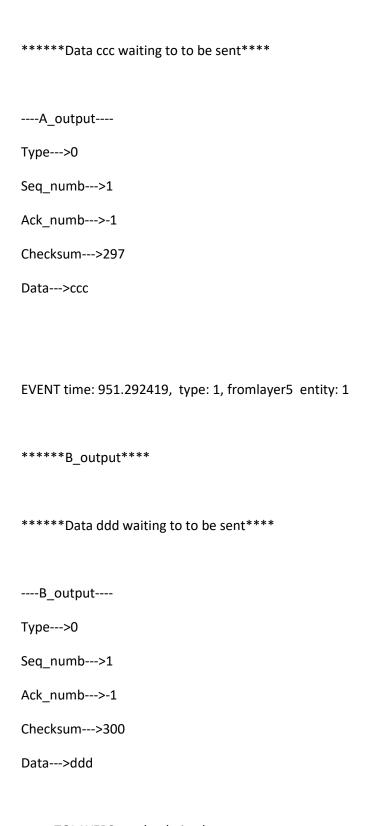
EVENT time: 86.784874, type: 0, timerinterrupt entity: 1

B\_timerinterrupt

Time is upRetransmitting packet in INTERRUPT method!!
Type>0
Seq_numb>0
Ack_numb>-1
Data>aaa
packet.Checksum>290
EVENT time: 89.669914, type: 2, fromlayer3 entity: 0
A_input
Type>0
Seq_numb>0
Ack_numb>-1
Data>aaa
packet.Checksum>290
A_side.Checksum>290
<ol> <li>Packet 0 received at A successfully!!</li> <li>Acknowledgement Packet for Duplicate packet 0 sent to B!!</li> </ol>
EVENT time: 96.556297, type: 2, fromlayer3 entity: 1
B_input
Type>1
Seq_numb>-1



```
Seq_numb--->0
Ack_numb--->-1
Data--->bbb
packet.Checksum--->293
B_side.Checksum--->293
1. Packet 0 received at B successfully!!
2. Acknowledgement Packet 0 sent at A!!
EVENT time: 678.098206, type: 2, fromlayer3 entity: 0
----A_input----
Type--->1
Seq_numb--->0
Ack_numb--->0
Data--->bbb
packet.Checksum--->295
A_side.Checksum--->295
3. Acknowledgement Packet 0 received at A successfully!!
EVENT time: 944.914063, type: 1, fromlayer5 entity: 0
******A_output****
```



TOLAYER3: packet being lost

EVENT time: 954.249084, type: 2, fromlayer3 entity: 1
B_input
Туре>0
Seq_numb>1
Ack_numb>-1
Data>ccc
packet.Checksum>297
B_side.Checksum>297
1. Packet 1 received at B successfully!!
2. Acknowledgement Packet 1 sent at A!!
TOLAYER3: packet being corrupted
EVENT time: 958.828003, type: 2, fromlayer3 entity: 0
A_input
Type>1
Seq_numb>1
Ack_numb>1
Data>Zcc
packet.Checksum>300

A\_side.Checksum--->291

\*\*A\_input\*\*

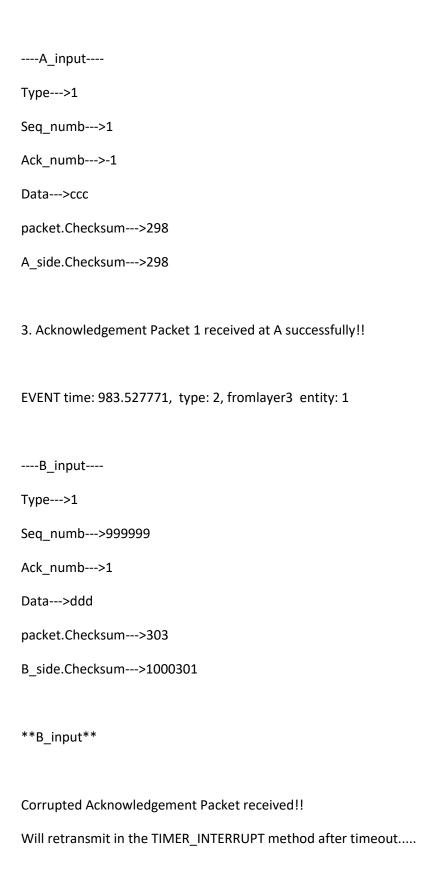
Corrupted Acknowledgement Packet received!! Will retransmit in the TIMER\_INTERRUPT method after timeout..... EVENT time: 964.914063, type: 0, timerinterrupt entity: 0 A\_timerinterrupt Time is up....Retransmitting packet in INTERRUPT method!! TOLAYER3: packet being corrupted EVENT time: 971.292419, type: 0, timerinterrupt entity: 1 **B\_timerinterrupt** Time is up....Retransmitting packet in INTERRUPT method!! Type--->0 Seq\_numb--->1 Ack\_numb--->-1 Data--->ddd packet.Checksum--->300 EVENT time: 973.212280, type: 2, fromlayer3 entity: 0 ----A\_input----

Type--->0

Seq\_numb--->1

```
Ack_numb--->-1
Data--->ddd
packet.Checksum--->300
A_side.Checksum--->300
1. Packet 1 received at A successfully!!
2. Acknowledgement Packet 1 sent to B!!
     TOLAYER3: packet being corrupted
EVENT time: 973.892822, type: 2, fromlayer3 entity: 1
----B_input----
Type--->0
Seq_numb--->1
Ack_numb--->-1
Data--->Zcc
packet.Checksum--->297
B_side.Checksum--->288
**B_input**
Sending Negative Acknowledgement Packet(NACK) to *A* as Corrupted Packet was received!!!
```

EVENT time: 979.974182, type: 2, fromlayer3 entity: 0



EVENT time: 991.292419, type: 0, timerinterrupt entity: 1 **B\_timerinterrupt** Time is up....Retransmitting packet in INTERRUPT method!! Type--->0 Seq\_numb--->1 Ack\_numb--->-1 Data--->ddd packet.Checksum--->300 EVENT time: 995.844116, type: 2, fromlayer3 entity: 0 ----A\_input----Type--->0 Seq\_numb--->1 Ack\_numb--->-1 Data--->ddd packet.Checksum--->300 A\_side.Checksum--->300

- 1. Packet 1 received at A successfully!!
- 2. Acknowledgement Packet for Duplicate packet 1 sent to B!!

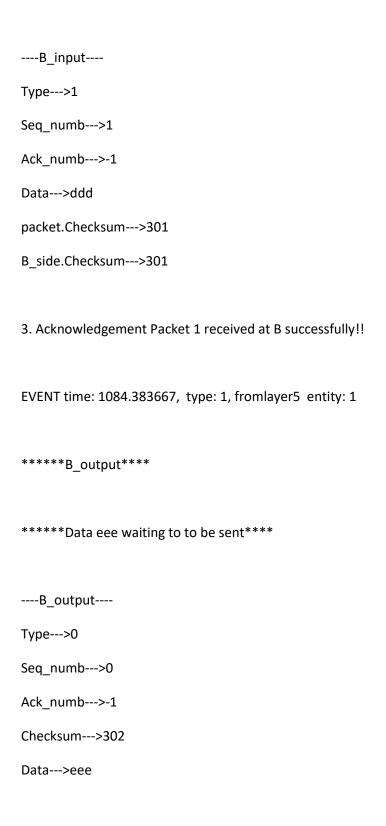
TOLAYER3: packet being lost

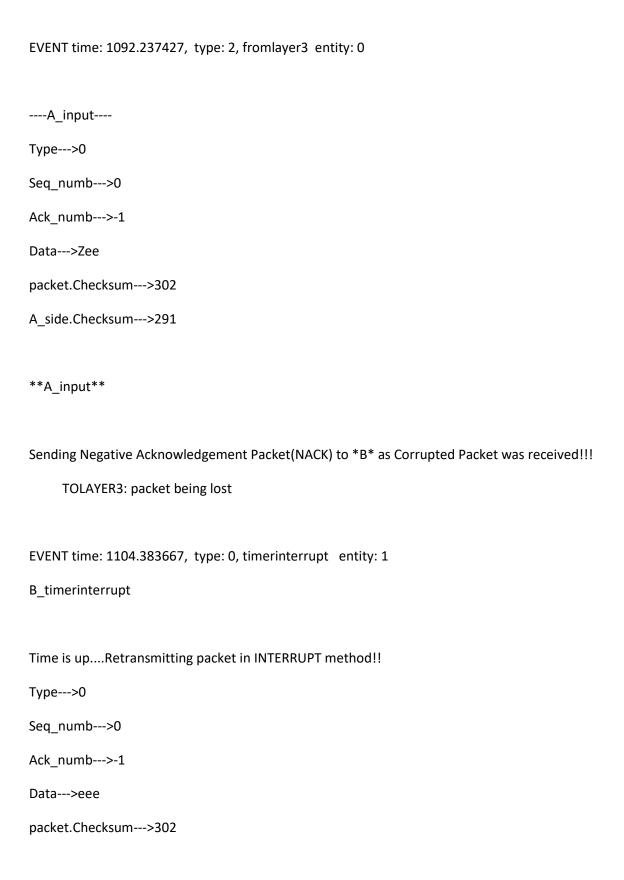
EVENT time: 1011.292419, type: 0, timerinterrupt entity: 1

**B\_timerinterrupt** 

Time is up....Retransmitting packet in INTERRUPT method!! Type--->0 Seq\_numb--->1 Ack\_numb--->-1 Data--->ddd packet.Checksum--->300 TOLAYER3: packet being corrupted EVENT time: 1019.004150, type: 2, fromlayer3 entity: 0 ----A\_input----Type--->0 Seq\_numb--->1 Ack\_numb--->-1 Data--->Zdd packet.Checksum--->300 A\_side.Checksum--->290 \*\*A\_input\*\* Sending Negative Acknowledgement Packet(NACK) to \*B\* as Corrupted Packet was received!!!

EVENT time: 1024.699829, type: 2, fromlayer3 entity: 1





EVENT time: 1113.907349, type: 2, fromlayer3 entity: 0
A_input
Type>0
Seq_numb>0
Ack_numb>-1
Data>Zee
packet.Checksum>302
A_side.Checksum>291
**A_input**
Sending Negative Acknowledgement Packet(NACK) to *B* as Corrupted Packet was received!!!
TOLAYER3: packet being lost
EVENT time: 1124.383667, type: 0, timerinterrupt entity: 1
B_timerinterrupt
Time is upRetransmitting packet in INTERRUPT method!!
Type>0
Seq_numb>0
Ack_numb>-1
Data>eee

packet.Checksum--->302

TOLAYER3: packet being lost

EVENT time: 1144.383667, type: 0, timerinterrupt entity: 1

 $B\_timerinterrupt$ 

Time is up....Retransmitting packet in INTERRUPT method!!

Type--->0

Seq\_numb--->0

Ack\_numb--->-1

Data--->eee

packet.Checksum--->302

EVENT time: 1145.544312, type: 2, fromlayer3 entity: 0

----A\_input----

Type--->0

Seq\_numb--->0

Ack\_numb--->-1

Data--->eee

packet.Checksum--->302

A\_side.Checksum--->302

- 1. Packet 0 received at A successfully!!
- 2. Acknowledgement Packet 0 sent to B!!

EVENT time: 1149.740601, type: 2, fromlayer3 entity: 1
B_input
Type>1
Seq_numb>0
Ack_numb>0
Data>Zee
packet.Checksum>304
B_side.Checksum>293
**B_input**
Corrupted Acknowledgement Packet received!!
Will retransmit in the TIMER_INTERRUPT method after timeout
EVENT time: 1164.383667, type: 0, timerinterrupt entity: 1
B_timerinterrupt
Time is upRetransmitting packet in INTERRUPT method!!
Type>0
Seq_numb>0
Ack_numb>-1
Data>eee

packet.Checksum--->302

TOLAYER3: packet being lost

EVENT time: 1184.383667, type: 0, timerinterrupt entity: 1

 $B\_timerinterrupt$ 

Time is up....Retransmitting packet in INTERRUPT method!!

Type--->0

Seq\_numb--->0

Ack\_numb--->-1

Data--->eee

packet.Checksum--->302

EVENT time: 1185.927246, type: 2, fromlayer3 entity: 0

----A\_input----

Type--->0

Seq\_numb--->0

Ack\_numb--->-1

Data--->eee

packet.Checksum--->302

A\_side.Checksum--->302

- 1. Packet 0 received at A successfully!!
- 2. Acknowledgement Packet for Duplicate packet 0 sent to B!!

### TOLAYER3: packet being lost

EVENT time: 1204.383667, type: 0, timerinterrupt entity: 1

B\_timerinterrupt

Time is up....Retransmitting packet in INTERRUPT method!!

Type--->0

Seq\_numb--->0

Ack\_numb--->-1

Data--->eee

packet.Checksum--->302

EVENT time: 1210.301514, type: 2, fromlayer3 entity: 0

----A\_input----

Type--->0

Seq\_numb--->0

Ack\_numb--->-1

Data--->eee

packet.Checksum--->302

A\_side.Checksum--->302

- 1. Packet 0 received at A successfully!!
- 2. Acknowledgement Packet for Duplicate packet 0 sent to B!!

----B\_input----Type--->1 Seq\_numb--->-1 Ack\_numb--->0 Data--->Zee packet.Checksum--->202 B\_side.Checksum--->292 \*\*B\_input\*\* Corrupted Acknowledgement Packet received!! Will retransmit in the TIMER\_INTERRUPT method after timeout..... EVENT time: 1224.383667, type: 0, timerinterrupt entity: 1 B\_timerinterrupt Time is up....Retransmitting packet in INTERRUPT method!! Type--->0 Seq\_numb--->0 Ack\_numb--->-1 Data--->eee packet.Checksum--->302

EVENT time: 1217.696289, type: 2, fromlayer3 entity: 1

### TOLAYER3: packet being lost

EVENT time: 1244.383667, type: 0, timerinterrupt entity: 1 B\_timerinterrupt Time is up....Retransmitting packet in INTERRUPT method!! Type--->0 Seq\_numb--->0 Ack\_numb--->-1 Data--->eee packet.Checksum--->302 EVENT time: 1249.066406, type: 2, fromlayer3 entity: 0 ----A\_input----Type--->0 Seq\_numb--->0 Ack\_numb--->-1 Data--->eee packet.Checksum--->302 A\_side.Checksum--->302

- 1. Packet 0 received at A successfully!!
- 2. Acknowledgement Packet for Duplicate packet 0 sent to B!!

EVENT time: 1252.034912, type: 2, fromlayer3 entity: 1
B_input
Type>1
Seq_numb>-1
Ack_numb>0
Data>
packet.Checksum>202
B_side.Checksum>202
3. Acknowledgement Packet for Duplicate Packet -1 received at B successfully!!
Simulator terminated at time 1252.034912
after sending 5 msgs from layer5
Process returned 0 (0x0) execution time: 17.421 s
Press any key to continue.