

**Name: Jie Zhou**  
**CS-1652 Project2 sample output**

**Stop and Wait Sample Output:**

Corrupted packet is denoted in **Yellow**,  
Lost packet is denoted in **Red**,  
Correction/Retransmission is denoted in **Blue**,  
Time out is denoted in **Grey**,  
Successful receipt is denoted in **Green**,

```
Jies-MBP-2:project2 jay$ ./stopwait
----- 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: 696.571045, type: 1, fromlayer5 entity: 0
Sent from A: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa
```

```
EVENT time: 701.979919, type: 2, fromlayer3 entity: 1
Received at B: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa
Accpeted at B: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa
ACK sent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,
TOLAYER3: packet being corrupted
```

```
EVENT time: 706.738098, type: 2, fromlayer3 entity: 0
Received at A: seq = 0, ack = 0, isACK = 1, checksum = fffe, Z
Corrupted ACK/NACK, Resent at A: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa
```

```
EVENT time: 716.266235, type: 2, fromlayer3 entity: 1
Received at B: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa
Wrong Packet, ACK Resent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,
```

```
EVENT time: 725.969482, type: 2, fromlayer3 entity: 0
Received at A: seq = 0, ack = 0, isACK = 1, checksum = fffe,
```

```
EVENT time: 1966.186157, type: 1, fromlayer5 entity: 0
Sent from A: seq = 1, ack = 0, isACK = 0, checksum = 2827, bbbbbbbbbbbbbbbbbbbb
```

```
EVENT time: 1975.974609, type: 2, fromlayer3 entity: 1
Received at B: seq = 1, ack = 0, isACK = 0, checksum = 2827, bbbbbbbbbbbbbbbbbbbb
Accpeted at B: seq = 1, ack = 0, isACK = 0, checksum = 2827, bbbbbbbbbbbbbbbbbbbb
ACK sent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,
TOLAYER3: packet being lost
```

```
EVENT time: 1990.186157, type: 0, timerinterrupt entity: 0
Resent at A: seq = 1, ack = 0, isACK = 0, checksum = 2827, bbbbbbbbbbbbbbbbbbbb
```

```
EVENT time: 1997.139526, type: 2, fromlayer3 entity: 1
Received at B: seq = 1, ack = 0, isACK = 0, checksum = 2827, bbbbbbbbbbbbbbbbbbbb
Wrong Packet, ACK Resent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,
```

```
EVENT time: 1998.153198, type: 2, fromlayer3 entity: 0
Received at A: seq = 0, ack = 1, isACK = 1, checksum = fffd,
```

```
EVENT time: 3866.870605, type: 1, fromlayer5 entity: 0
Sent from A: seq = 0, ack = 0, isACK = 0, checksum = 1e1e, cccccccccccccccccc
```

```
EVENT time: 3876.321533, type: 2, fromlayer3 entity: 1
Received at B: seq = 0, ack = 0, isACK = 0, checksum = 1e1e, cccccccccccccccccc
```

Accepted at B: seq = 0, ack = 0, isACK = 0, checksum = 1e1e, ccccccccccccccccc

ACK sent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,

EVENT time: 3877.538330, type: 2, fromlayer3 entity: 0

Received at A: seq = 0, ack = 0, isACK = 1, checksum = fffe,

EVENT time: 5315.140625, type: 1, fromlayer5 entity: 0

Sent from A: seq = 1, ack = 0, isACK = 0, checksum = 1413, ddddddddddddddddd

TOLAYER3: packet being corrupted

EVENT time: 5325.117676, type: 2, fromlayer3 entity: 1

Received at B: seq = 1, ack = 0, isACK = 0, checksum = 1413, Zdddddddddddddddd

Checksum error at B: seq = 1, ack = 0, isACK = 0, checksum = 1413, Zdddddddddddddddd

NAK Sent from B: seq = 1967115008, ack = -1, isACK = 1, checksum = 941,

EVENT time: 5333.584961, type: 2, fromlayer3 entity: 0

Received at A: seq = 1967115008, ack = -1, isACK = 1, checksum = 941,

NAK Received, Resent at A: seq = 1, ack = 0, isACK = 0, checksum = 1413, ddddddddddddddddd

EVENT time: 5336.868164, type: 2, fromlayer3 entity: 1

Received at B: seq = 1, ack = 0, isACK = 0, checksum = 1413, ddddddddddddddddd

Accepted at B: seq = 1, ack = 0, isACK = 0, checksum = 1413, ddddddddddddddddd

ACK sent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,

TOLAYER3: packet being corrupted

EVENT time: 5339.273438, type: 2, fromlayer3 entity: 0

Received at A: seq = 999999, ack = 1, isACK = 1, checksum = fffd,

Corrupted ACK/NAK, Resent at A: seq = 1, ack = 0, isACK = 0, checksum = 1413, ddddddddddddddddd

EVENT time: 5340.633301, type: 2, fromlayer3 entity: 1

Received at B: seq = 1, ack = 0, isACK = 0, checksum = 1413, ddddddddddddddddd

Wrong Packet, ACK Resent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,

EVENT time: 5347.940430, type: 2, fromlayer3 entity: 0

Received at A: seq = 0, ack = 1, isACK = 1, checksum = fffd,

EVENT time: 6415.539551, type: 1, fromlayer5 entity: 0

Sent from A: seq = 0, ack = 0, isACK = 0, checksum = a0a, eeeeeeeeeeeeeeeee

EVENT time: 6424.482422, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 0, isACK = 0, checksum = a0a, eeeeeeeeeeeeeeeee

Accepted at B: seq = 0, ack = 0, isACK = 0, checksum = a0a, eeeeeeeeeeeeeeeee

ACK sent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,

TOLAYER3: packet being lost

EVENT time: 6439.539551, type: 0, timerinterrupt entity: 0

Resent at A: seq = 0, ack = 0, isACK = 0, checksum = a0a, eeeeeeeeeeeeeeeee

EVENT time: 6447.713379, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 0, isACK = 0, checksum = a0a, eeeeeeeeeeeeeeeee

Wrong Packet, ACK Resent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,

TOLAYER3: packet being corrupted

EVENT time: 6449.033691, type: 2, fromlayer3 entity: 0

Received at A: seq = 0, ack = 0, isACK = 1, checksum = fffe, Z

Corrupted ACK/NAK, Resent at A: seq = 0, ack = 0, isACK = 0, checksum = a0a, eeeeeeeeeeeeeeeee

TOLAYER3: packet being lost

EVENT time: 6473.033691, type: 0, timerinterrupt entity: 0

Resent at A: seq = 0, ack = 0, isACK = 0, checksum = a0a, eeeeeeeeeeeeeeeee

EVENT time: 6479.981934, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 0, isACK = 0, checksum = a0a, eeeeeeeeeeeeeeeee

Wrong Packet, ACK Resent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,

EVENT time: 6487.168945, type: 2, fromlayer3 entity: 0

Received at A: seq = 0, ack = 0, isACK = 1, checksum = fffe,

EVENT time: 6560.355957, type: 1, fromlayer5 entity: 0

Sent from A: seq = 1, ack = 0, isACK = 0, checksum = fffe, ffffffff

EVENT time: 6564.231934, type: 2, fromlayer3 entity: 1  
Received at B: seq = 1, ack = 0, isACK = 0, checksum = fffe, ffffffff  
Accpeted at B: seq = 1, ack = 0, isACK = 0, checksum = fffe, ffffffff  
ACK sent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,  
TOLAYER3: packet being corrupted

EVENT time: 6573.921875, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 1, isACK = 1, checksum = fffd, Z  
Corrupted ACK/NACK, Resent at A: seq = 1, ack = 0, isACK = 0, checksum = fffe, ffffffff

EVENT time: 6580.329102, type: 2, fromlayer3 entity: 1  
Received at B: seq = 1, ack = 0, isACK = 0, checksum = fffe, ffffffff  
Wrong Packet, ACK Resent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,

EVENT time: 6584.241699, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 1, isACK = 1, checksum = fffd,

EVENT time: 6833.072266, type: 1, fromlayer5 entity: 0  
Sent from A: seq = 0, ack = 0, isACK = 0, checksum = f5f5, gggggggggggggggggg

EVENT time: 6837.543457, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 0, isACK = 0, checksum = f5f5, gggggggggggggggggg  
Accpeted at B: seq = 0, ack = 0, isACK = 0, checksum = f5f5, gggggggggggggggggg  
ACK sent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,

EVENT time: 6845.238281, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 0, isACK = 1, checksum = fffe,

EVENT time: 7057.309082, type: 1, fromlayer5 entity: 0  
Sent from A: seq = 1, ack = 0, isACK = 0, checksum = ebea, hhhhhhhhhhhhhhhhh  
TOLAYER3: packet being corrupted

EVENT time: 7058.700195, type: 2, fromlayer3 entity: 1  
Received at B: seq = 1, ack = 999999, isACK = 0, checksum = ebea, hhhhhhhhhhhhhhhhh  
Checksum error at B: seq = 1, ack = 999999, isACK = 0, checksum = ebea, hhhhhhhhhhhhhhhhh  
NAK Sent from B: seq = 1967115008, ack = -1, isACK = 1, checksum = 941,  
TOLAYER3: packet being corrupted

EVENT time: 7068.648926, type: 2, fromlayer3 entity: 0  
Received at A: seq = 999999, ack = -1, isACK = 1, checksum = 941,  
Corrupted ACK/NACK, Resent at A: seq = 1, ack = 0, isACK = 0, checksum = ebea, hhhhhhhhhhhhhhhhh

EVENT time: 7072.824219, type: 2, fromlayer3 entity: 1  
Received at B: seq = 1, ack = 0, isACK = 0, checksum = ebea, hhhhhhhhhhhhhhhhh  
Accpeted at B: seq = 1, ack = 0, isACK = 0, checksum = ebea, hhhhhhhhhhhhhhhhh  
ACK sent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,

EVENT time: 7080.700195, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 1, isACK = 1, checksum = fffd,

EVENT time: 7549.153809, type: 1, fromlayer5 entity: 0  
Sent from A: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiii  
TOLAYER3: packet being lost

EVENT time: 7573.153809, type: 0, timerinterrupt entity: 0  
Resent at A: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiii  
TOLAYER3: packet being corrupted

EVENT time: 7579.957031, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 0, isACK = 0, checksum = e1e1, Ziiiiiiiiiiiiiii  
Checksum error at B: seq = 0, ack = 0, isACK = 0, checksum = e1e1, Ziiiiiiiiiiiiiii  
NAK Sent from B: seq = 1967115008, ack = -1, isACK = 1, checksum = 941,  
TOLAYER3: packet being corrupted

EVENT time: 7587.611816, type: 2, fromlayer3 entity: 0  
Received at A: seq = 1967115008, ack = -1, isACK = 1, checksum = 941, Z  
Corrupted ACK/NACK, Resent at A: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiii

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TOLAYER3: packet being corrupted

EVENT time: 7588.657715, type: 2, fromlayer3 entity: 1
Received at B: seq = 0, ack = 999999, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii
Checksum error at B: seq = 0, ack = 999999, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii
NAK Sent from B: seq = 1967115008, ack = -1, isACK = 1, checksum = 941,

EVENT time: 7592.919434, type: 2, fromlayer3 entity: 0
Received at A: seq = 1967115008, ack = -1, isACK = 1, checksum = 941,
NAK Received, Resent at A: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii
TOLAYER3: packet being lost

EVENT time: 7616.919434, type: 0, timerinterrupt entity: 0
Resent at A: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii
TOLAYER3: packet being corrupted

EVENT time: 7625.765137, type: 2, fromlayer3 entity: 1
Received at B: seq = 0, ack = 999999, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii
Checksum error at B: seq = 0, ack = 999999, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii
NAK Sent from B: seq = 1967115008, ack = -1, isACK = 1, checksum = 941,

EVENT time: 7631.895996, type: 2, fromlayer3 entity: 0
Received at A: seq = 1967115008, ack = -1, isACK = 1, checksum = 941,
NAK Received, Resent at A: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii

EVENT time: 7638.419434, type: 2, fromlayer3 entity: 1
Received at B: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii
Accpeted at B: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii
ACK sent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,
TOLAYER3: packet being corrupted

EVENT time: 7647.895508, type: 2, fromlayer3 entity: 0
Received at A: seq = 0, ack = 0, isACK = 1, checksum = fffe, Z
Corrupted ACK/NACK, Resent at A: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii

EVENT time: 7653.931641, type: 2, fromlayer3 entity: 1
Received at B: seq = 0, ack = 0, isACK = 0, checksum = e1e1, iiiiiiiiiiiiiiiii
Wrong Packet, ACK Resent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,

EVENT time: 7660.193359, type: 2, fromlayer3 entity: 0
Received at A: seq = 0, ack = 0, isACK = 1, checksum = fffe,

EVENT time: 9466.698242, type: 1, fromlayer5 entity: 0
Sent from A: seq = 1, ack = 0, isACK = 0, checksum = d7d6, jjjjjjjjjjjjjjjjjjjj
TOLAYER3: packet being corrupted

EVENT time: 9468.742188, type: 2, fromlayer3 entity: 1
Simulator terminated at time 9468.742188
after sending 10 msgs from layer5
Jies-MBP-2:project2 jay$

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## Go Back N Sample Output:

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Jies-MBP-2:project2 jay$ gcc -o gbn project2_gbn.c
Jies-MBP-2:project2 jay$ ./gbn
----- Network Simulator Version 1.1 -----

Enter the number of messages to simulate: 90
Enter packet loss probability [enter 0.0 for no loss]:0.2
Enter packet corruption probability [0.0 for no corruption]:0.2
Enter average time between messages from sender's layer5 [ > 0.0]:10
Enter TRACE:2

EVENT time: 6.965711, type: 1, fromlayer5 entity: 1
Packet saved at index 0:
Saved: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa

```

Sent from B: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa

EVENT time: 11.168114, type: 1, fromlayer5 entity: 0

Packet saved at index 0:

Saved: seq = 0, ack = 0, isACK = 0, checksum = 2828, bbbbbbbbbbbbbbbbbbb

Sent from A: seq = 0, ack = 0, isACK = 0, checksum = 2828, bbbbbbbbbbbbbbbbbbb

EVENT time: 13.216425, type: 2, fromlayer3 entity: 0

Received at A: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa

Accpeted at A: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa

Next A as receiver is expecting packet 1

Ack sent from A: seq = 0, ack = 0, isACK = 1, checksum = fffe,

TOLAYER3: packet being lost

EVENT time: 13.858004, type: 1, fromlayer5 entity: 0

Packet saved at index 1:

Saved: seq = 1, ack = 0, isACK = 0, checksum = 1e1d, cccccccccccccccccc

Sent from A: seq = 1, ack = 0, isACK = 0, checksum = 1e1d, cccccccccccccccccc

EVENT time: 20.696243, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 0, isACK = 0, checksum = 2828, bbbbbbbbbbbbbbbbbbb

Accpeted at B: seq = 0, ack = 0, isACK = 0, checksum = 2828, bbbbbbbbbbbbbbbbbbb

Next B as receiver is expecting packet 1

Ack sent from B: seq = 0, ack = 0, isACK = 1, checksum = fffe,

EVENT time: 21.850939, type: 2, fromlayer3 entity: 0

Received at A: seq = 0, ack = 0, isACK = 1, checksum = fffe,

Now base is at 1

Seq\_expect\_send\_A is 2

still packets inflight, restart timer

EVENT time: 25.316151, type: 2, fromlayer3 entity: 1

Received at B: seq = 1, ack = 0, isACK = 0, checksum = 1e1d, cccccccccccccccccc

Accpeted at B: seq = 1, ack = 0, isACK = 0, checksum = 1e1d, cccccccccccccccccc

Next B as receiver is expecting packet 2

Ack sent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,

EVENT time: 30.965710, type: 0, timerinterrupt entity: 1

Sent from B: seq = 0, ack = 0, isACK = 0, checksum = 3232, aaaaaaaaaaaaaaaaaa

TOLAYER3: packet being lost

timer started

EVENT time: 31.485765, type: 2, fromlayer3 entity: 0

Received at A: seq = 0, ack = 1, isACK = 1, checksum = fffd,

Now base is at 2

Seq\_expect\_send\_A is 2

All Ack received, timer stopped

EVENT time: 33.198532, type: 1, fromlayer5 entity: 1

Packet saved at index 1:

Saved: seq = 1, ack = 0, isACK = 0, checksum = 1413, dddddddddddddddddd

Sent from B: seq = 1, ack = 0, isACK = 0, checksum = 1413, dddddddddddddddddd

EVENT time: 42.649467, type: 2, fromlayer3 entity: 0

Received at A: seq = 1, ack = 0, isACK = 0, checksum = 1413, dddddddddddddddddd

Accpeted at A: seq = 1, ack = 0, isACK = 0, checksum = 1413, dddddddddddddddddd

Next A as receiver is expecting packet 2

Ack sent from A: seq = 0, ack = 1, isACK = 1, checksum = fffd,

EVENT time: 43.866299, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 1, isACK = 1, checksum = fffd,

Now base is at 2

seq\_exxpect\_send\_B is 2

timer stopped

EVENT time: 45.046837, type: 1, fromlayer5 entity: 1

Packet saved at index 2:

Saved: seq = 2, ack = 0, isACK = 0, checksum = a08, eeeeeeeeeeeeeeeeeee

Sent from B: seq = 2, ack = 0, isACK = 0, checksum = a08, eeeeeeeeeeeeeeeeeee

EVENT time: 46.070732, type: 2, fromlayer3 entity: 0  
Received at A: seq = 2, ack = 0, isACK = 0, checksum = a08, eeeeeeeeeeeeeeeeeee  
Accpeted at A: seq = 2, ack = 0, isACK = 0, checksum = a08, eeeeeeeeeeeeeeeeeee  
Next A as receiver is expecting packet 3  
Ack sent from A: seq = 0, ack = 2, isACK = 1, checksum = fffc,

EVENT time: 54.537804, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 2, isACK = 1, checksum = fffc,  
Now base is at 3  
seq\_exxpect\_send\_B is 3  
timer stopped

EVENT time: 56.050827, type: 1, fromlayer5 entity: 0  
Packet saved at index 2:  
Saved: seq = 2, ack = 0, isACK = 0, checksum = fffd, ffffffffffffffffff  
Sent from A: seq = 2, ack = 0, isACK = 0, checksum = fffd, ffffffffffffffffff  
TOLAYER3: packet being corrupted

EVENT time: 63.538921, type: 2, fromlayer3 entity: 1  
Received at B: seq = 2, ack = 0, isACK = 0, checksum = fffd, Zfffffffffffffffff  
Checksum error at B: seq = 2, ack = 0, isACK = 0, checksum = fffd, Zfffffffffffffffff  
Nak sent from B: seq = 2, ack = -1, isACK = 1, checksum = 5327, @??  
TOLAYER3: packet being corrupted

EVENT time: 67.921181, type: 1, fromlayer5 entity: 0  
Packet saved at index 3:  
Saved: seq = 3, ack = 0, isACK = 0, checksum = f5f2, gggggggggggggggggggg  
Sent from A: seq = 3, ack = 0, isACK = 0, checksum = f5f2, gggggggggggggggggggg

EVENT time: 69.572853, type: 2, fromlayer3 entity: 1  
Received at B: seq = 3, ack = 0, isACK = 0, checksum = f5f2, gggggggggggggggggggg  
Resend last Ack sent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,  
TOLAYER3: packet being corrupted

EVENT time: 70.553047, type: 2, fromlayer3 entity: 0  
Received at A: seq = 2, ack = -1, isACK = 1, checksum = 5327, Z@??  
Corrupted Ack, ignore.

EVENT time: 75.919876, type: 1, fromlayer5 entity: 1  
Packet saved at index 3:  
Saved: seq = 3, ack = 0, isACK = 0, checksum = ebe8, hhhhhhhhhhhhhhhhhhhh  
Sent from B: seq = 3, ack = 0, isACK = 0, checksum = ebe8, hhhhhhhhhhhhhhhhhhhh

EVENT time: 76.846428, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 1, isACK = 1, checksum = fffd, Z  
Corrupted Ack, ignore.

EVENT time: 78.166771, type: 2, fromlayer3 entity: 0  
Received at A: seq = 3, ack = 0, isACK = 0, checksum = ebe8, hhhhhhhhhhhhhhhhhhhh  
Accpeted at A: seq = 3, ack = 0, isACK = 0, checksum = ebe8, hhhhhhhhhhhhhhhhhhhh  
Next A as receiver is expecting packet 4  
Ack sent from A: seq = 0, ack = 3, isACK = 1, checksum = fffb,  
TOLAYER3: packet being lost

EVENT time: 80.050827, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 2, ack = 0, isACK = 0, checksum = fffd, ffffffffffffffffff  
TOLAYER3: packet being lost  
timer started  
Sent from A: seq = 3, ack = 0, isACK = 0, checksum = f5f2, gggggggggggggggggggg

EVENT time: 86.999268, type: 2, fromlayer3 entity: 1  
Received at B: seq = 3, ack = 0, isACK = 0, checksum = f5f2, gggggggggggggggggggg  
Resend last Ack sent from B: seq = 0, ack = 1, isACK = 1, checksum = fffd,

EVENT time: 91.861206, type: 1, fromlayer5 entity: 0  
Packet saved at index 4:  
Saved: seq = 4, ack = 0, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiiii  
Sent from A: seq = 4, ack = 0, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiiii

TOLAYER3: packet being corrupted

EVENT time: 94.186089, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 1, isACK = 1, checksum = fffd,  
Now base is at 2  
Seq\_expect\_send\_A is 5  
still packets inflight, restart timer

EVENT time: 94.588371, type: 1, fromlayer5 entity: 1  
Packet saved at index 4:  
Saved: seq = 4, ack = 0, isACK = 0, checksum = d7d3, jjjjjjjjjjjjjjjjjj  
Sent from B: seq = 4, ack = 0, isACK = 0, checksum = d7d3, jjjjjjjjjjjjjjjjjj

EVENT time: 95.895355, type: 2, fromlayer3 entity: 1  
Received at B: seq = 4, ack = 999999, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiii  
Checksum error at B: seq = 4, ack = 999999, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiii  
Nak sent from B: seq = 4, ack = -1, isACK = 1, checksum = fffb,

EVENT time: 96.682190, type: 1, fromlayer5 entity: 1  
Packet saved at index 5:  
Saved: seq = 5, ack = 0, isACK = 0, checksum = cdc8, kkkkkkkkkkkkkkkkkkkkk  
Sent from B: seq = 5, ack = 0, isACK = 0, checksum = cdc8, kkkkkkkkkkkkkkkkkkkkk

EVENT time: 98.924561, type: 1, fromlayer5 entity: 0  
Packet saved at index 5:  
Saved: seq = 5, ack = 0, isACK = 0, checksum = c3be, llllllllllllllllllll  
Sent from A: seq = 5, ack = 0, isACK = 0, checksum = c3be, llllllllllllllllllll  
TOLAYER3: packet being corrupted

EVENT time: 99.919876, type: 0, timerinterrupt entity: 1  
Sent from B: seq = 3, ack = 0, isACK = 0, checksum = ebe8, hhhhhhhhhhhhhhhhhhhhh  
timer started  
Sent from B: seq = 4, ack = 0, isACK = 0, checksum = d7d3, jjjjjjjjjjjjjjjjjj  
TOLAYER3: packet being lost  
Sent from B: seq = 5, ack = 0, isACK = 0, checksum = cdc8, kkkkkkkkkkkkkkkkkkkkk

EVENT time: 100.995392, type: 2, fromlayer3 entity: 0  
Received at A: seq = 4, ack = 0, isACK = 0, checksum = d7d3, jjjjjjjjjjjjjjjjjj  
Accpeted at A: seq = 4, ack = 0, isACK = 0, checksum = d7d3, jjjjjjjjjjjjjjjjjj  
Next A as receiver is expecting packet 5  
Ack sent from A: seq = 0, ack = 4, isACK = 1, checksum = fffa,

EVENT time: 101.876984, type: 2, fromlayer3 entity: 1  
Received at B: seq = 5, ack = 0, isACK = 0, checksum = c3be, Zlllllllllllllllllll  
Checksum error at B: seq = 5, ack = 0, isACK = 0, checksum = c3be, Zlllllllllllllllllll  
Nak sent from B: seq = 5, ack = -1, isACK = 1, checksum = 9073, ?{??D?  
TOLAYER3: packet being corrupted

EVENT time: 104.907913, type: 2, fromlayer3 entity: 0  
Received at A: seq = 4, ack = -1, isACK = 1, checksum = fffb,  
Nack Received, Resend the window from A: seq = 2, ack = 0, isACK = 0, checksum = fffd, ffffffffffffffffffff  
timer started  
Nack Received, Resend the window from A: seq = 3, ack = 0, isACK = 0, checksum = f5f2, ggggggggggggggggggggg  
Nack Received, Resend the window from A: seq = 4, ack = 0, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiii  
TOLAYER3: packet being corrupted  
Nack Received, Resend the window from A: seq = 5, ack = 0, isACK = 0, checksum = c3be, llllllllllllllllllll

EVENT time: 109.959801, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 4, isACK = 1, checksum = fffa,  
Now base is at 5  
seq\_exxpect\_send\_B is 6  
still packets inflight, restart timer

EVENT time: 111.445923, type: 2, fromlayer3 entity: 0  
Received at A: seq = 5, ack = 0, isACK = 0, checksum = cdc8, kkkkkkkkkkkkkkkkkkkkk  
Accpeted at A: seq = 5, ack = 0, isACK = 0, checksum = cdc8, kkkkkkkkkkkkkkkkkkkkk  
Next A as receiver is expecting packet 6  
Ack sent from A: seq = 0, ack = 5, isACK = 1, checksum = fff9,

EVENT time: 113.221428, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 2, ack = 0, isACK = 0, checksum = fffd, ffffffff  
 Accepted at B: seq = 2, ack = 0, isACK = 0, checksum = fffd, ffffffff  
 Next B as receiver is expecting packet 3  
 Ack sent from B: seq = 0, ack = 2, isACK = 1, checksum = fffc,

EVENT time: 113.801506, type: 1, fromlayer5 entity: 1  
 Packet saved at index 6:  
 Saved: seq = 6, ack = 0, isACK = 0, checksum = b9b3, mmmmmmmmmmmmmmmmmmmmm  
 Sent from B: seq = 6, ack = 0, isACK = 0, checksum = b9b3, mmmmmmmmmmmmmmmmmmmmm

EVENT time: 118.667793, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 3, ack = 0, isACK = 0, checksum = ebe8, hhhhhhhhhhhhhhhhhhh  
 Packet already received, ignore.

EVENT time: 120.876129, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 3, ack = 0, isACK = 0, checksum = f5f2, gggggggggggggggggggg  
 Accepted at B: seq = 3, ack = 0, isACK = 0, checksum = f5f2, gggggggggggggggggggg  
 Next B as receiver is expecting packet 4  
 Ack sent from B: seq = 0, ack = 3, isACK = 1, checksum = fffb,

EVENT time: 127.290482, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 4, ack = 0, isACK = 0, checksum = e1dd, Ziiiiiiiiiiiiiii  
 Checksum error at B: seq = 4, ack = 0, isACK = 0, checksum = e1dd, Ziiiiiiiiiiiiiii  
 Nak sent from B: seq = 4, ack = -1, isACK = 1, checksum = fffb,  
 TOLAYER3: packet being lost

EVENT time: 127.890984, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 5, ack = 0, isACK = 0, checksum = cdc8, kkkkkkkkkkkkkkkkkkk  
 Packet already received, ignore.

EVENT time: 128.907913, type: 0, timerinterrupt entity: 0  
 Sent from A: seq = 2, ack = 0, isACK = 0, checksum = fffd, ffffffff  
 timer started  
 Sent from A: seq = 3, ack = 0, isACK = 0, checksum = f5f2, gggggggggggggggggggg  
 Sent from A: seq = 4, ack = 0, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiiii  
 Sent from A: seq = 5, ack = 0, isACK = 0, checksum = c3be, llllllllllllllllllll  
 TOLAYER3: packet being lost

EVENT time: 133.502304, type: 1, fromlayer5 entity: 1  
 Packet saved at index 7:  
 Saved: seq = 7, ack = 0, isACK = 0, checksum = afa8, nnnnnnnnnnnnnnnnnnnnn  
 Sent from B: seq = 7, ack = 0, isACK = 0, checksum = afa8, nnnnnnnnnnnnnnnnnnnnn  
 TOLAYER3: packet being lost

EVENT time: 133.959808, type: 0, timerinterrupt entity: 1  
 Sent from B: seq = 5, ack = 0, isACK = 0, checksum = cdc8, kkkkkkkkkkkkkkkkkkk  
 timer started  
 Sent from B: seq = 6, ack = 0, isACK = 0, checksum = b9b3, mmmmmmmmmmmmmmmmmmmmm  
 Sent from B: seq = 7, ack = 0, isACK = 0, checksum = afa8, nnnnnnnnnnnnnnnnnnnnn  
 TOLAYER3: packet being corrupted

EVENT time: 135.589142, type: 1, fromlayer5 entity: 1  
 Packet saved at index 8:  
 Saved: seq = 8, ack = 0, isACK = 0, checksum = a59d, oooooooooooooooooooooo  
 Sent from B: seq = 8, ack = 0, isACK = 0, checksum = a59d, oooooooooooooooooooooo

EVENT time: 136.785172, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 5, ack = 0, isACK = 0, checksum = c3be, llllllllllllllllllll  
 Resend last Ack sent from B: seq = 0, ack = 3, isACK = 1, checksum = fffb,  
 TOLAYER3: packet being lost

EVENT time: 137.519943, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 999999, ack = -1, isACK = 1, checksum = 9073, ???D?  
 Corrupted Ack, ignore.

EVENT time: 138.010269, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 0, ack = 5, isACK = 1, checksum = fff9,  
 Now base is at 6



seq\_expect\_send\_B is 9

still packets inflight, restart timer

EVENT time: 138.648972, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 2, isACK = 1, checksum = fffc,  
Now base is at 3

Seq\_expect\_send\_A is 6

still packets inflight, restart timer

EVENT time: 142.594193, type: 1, fromlayer5 entity: 1  
Packet saved at index 9:  
Saved: seq = 9, ack = 0, isACK = 0, checksum = 9b92, ppppppppppppppppppppp  
Sent from B: seq = 9, ack = 0, isACK = 0, checksum = 9b92, ppppppppppppppppppppp

TOLAYER3: packet being lost

EVENT time: 144.708725, type: 2, fromlayer3 entity: 1  
Received at B: seq = 2, ack = 0, isACK = 0, checksum = fffd, ffffffff  
Packet already received. Ignore.

EVENT time: 147.929947, type: 1, fromlayer5 entity: 1  
Packet saved at index 10:  
Saved: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
Sent from B: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq

TOLAYER3: packet being corrupted

EVENT time: 148.197998, type: 2, fromlayer3 entity: 1  
Received at B: seq = 3, ack = 0, isACK = 0, checksum = f5f2, gggggggggggggggggggg  
Packet already received. Ignore.

EVENT time: 148.224121, type: 2, fromlayer3 entity: 0  
Received at A: seq = 6, ack = 0, isACK = 0, checksum = b9b3, mmmmmmmmmmmmmmmmmmmmm  
Accpeted at A: seq = 6, ack = 0, isACK = 0, checksum = b9b3, mmmmmmmmmmmmmmmmmmmmm  
Next A as receiver is expecting packet 7  
Ack sent from A: seq = 0, ack = 6, isACK = 1, checksum = fff8,

EVENT time: 152.798630, type: 1, fromlayer5 entity: 0  
Packet saved at index 6:  
Saved: seq = 6, ack = 0, isACK = 0, checksum = 8781, rrrrrrrrrrrrrrrrrrrr  
Sent from A: seq = 6, ack = 0, isACK = 0, checksum = 8781, rrrrrrrrrrrrrrrrrrrr

TOLAYER3: packet being lost

EVENT time: 153.668137, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 3, isACK = 1, checksum = fffb,  
Now base is at 4  
Seq\_expect\_send\_A is 7

still packets inflight, restart timer

EVENT time: 156.102036, type: 2, fromlayer3 entity: 1  
Received at B: seq = 4, ack = 0, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiiii  
Accpeted at B: seq = 4, ack = 0, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiiii  
Next B as receiver is expecting packet 5  
Ack sent from B: seq = 0, ack = 4, isACK = 1, checksum = fffa,

EVENT time: 157.962708, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 6, isACK = 1, checksum = fff8,  
Now base is at 7

seq\_expect\_send\_B is 11

still packets inflight, restart timer

EVENT time: 162.817108, type: 2, fromlayer3 entity: 0  
Received at A: seq = 5, ack = 0, isACK = 0, checksum = cdc8, kkkkkkkkkkkkkkkkkkkk  
Packet already received, ignonre.

EVENT time: 166.092667, type: 2, fromlayer3 entity: 0  
Received at A: seq = 6, ack = 0, isACK = 0, checksum = b9b3, mmmmmmmmmmmmmmmmmmmmm  
Packet already received, ignonre.

EVENT time: 168.512878, type: 2, fromlayer3 entity: 0  
Received at A: seq = 7, ack = 0, isACK = 0, checksum = afa8, Znnnnnnnnnnnnnnnnnnnn

Checksum error at A: seq = 7, ack = 0, isACK = 0, checksum = afa8, Znnnnnnnnnnnnnnnnnnnn  
Nak sent from A: seq = 7, ack = -1, isACK = 1, checksum = edf8,

EVENT time: 168.809052, type: 1, fromlayer5 entity: 0  
Packet saved at index 7:  
Saved: seq = 7, ack = 0, isACK = 0, checksum = 7d76, sssssssssssssssssss  
Sent from A: seq = 7, ack = 0, isACK = 0, checksum = 7d76, sssssssssssssssssss  
TOLAYER3: packet being lost

EVENT time: 173.764954, type: 2, fromlayer3 entity: 1  
Received at B: seq = 7, ack = -1, isACK = 1, checksum = edf8,

Nack Received, Resent the window from B: seq = 7, ack = 0, isACK = 0, checksum = afa8, nnnnnnnnnnnnnnnnnnnnn  
timer started  
Nack Received, Resent the window from B: seq = 8, ack = 0, isACK = 0, checksum = a59d, oooooooooooooooooooooo  
TOLAYER3: packet being corrupted  
Nack Received, Resent the window from B: seq = 9, ack = 0, isACK = 0, checksum = 9b92, ppppppppppppppppppppp  
Nack Received, Resent the window from B: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq

EVENT time: 176.643600, type: 2, fromlayer3 entity: 0  
Received at A: seq = 8, ack = 0, isACK = 0, checksum = a59d, oooooooooooooooooooooo  
Resend last Aak sent from A: seq = 0, ack = 6, isACK = 1, checksum = fff8,

EVENT time: 177.668137, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 4, ack = 0, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiiii  
timer started  
Sent from A: seq = 5, ack = 0, isACK = 0, checksum = c3be, llllllllllllllllll  
Sent from A: seq = 6, ack = 0, isACK = 0, checksum = 8781, rrrrrrrrrrrrrrrrrrrr  
TOLAYER3: packet being lost  
Sent from A: seq = 7, ack = 0, isACK = 0, checksum = 7d76, sssssssssssssssssss

EVENT time: 179.572250, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 6, isACK = 1, checksum = fff8,  
Now base is at 7  
seq\_expect\_send\_B is 11  
still packets inflight, restart timer

EVENT time: 184.011368, type: 2, fromlayer3 entity: 1  
Received at B: seq = 4, ack = 0, isACK = 0, checksum = e1dd, iiiiiiiiiiiiiiiiii  
Packet already received. Ignore.

EVENT time: 186.332581, type: 2, fromlayer3 entity: 0  
Received at A: seq = 999999, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
Checksum error at A: seq = 999999, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
Nak sent from A: seq = 999999, ack = -1, isACK = 1, checksum = 4e2a, ?{??D?

EVENT time: 188.445847, type: 1, fromlayer5 entity: 1  
Packet saved at index 11:  
Saved: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt  
Sent from B: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt

EVENT time: 191.272507, type: 2, fromlayer3 entity: 1  
Received at B: seq = 5, ack = 0, isACK = 0, checksum = c3be, llllllllllllllllll  
Accpeted at B: seq = 5, ack = 0, isACK = 0, checksum = c3be, llllllllllllllllll  
Next B as receiver is expecting packet 6  
Ack sent from B: seq = 0, ack = 5, isACK = 1, checksum = fff9,

EVENT time: 191.813263, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 4, isACK = 1, checksum = fffa,  
Now base is at 5  
Seq\_expect\_send\_A is 8  
still packets inflight, restart timer

EVENT time: 197.077194, type: 2, fromlayer3 entity: 0  
Received at A: seq = 7, ack = 0, isACK = 0, checksum = afa8, nnnnnnnnnnnnnnnnnnnnn  
Accpeted at A: seq = 7, ack = 0, isACK = 0, checksum = afa8, nnnnnnnnnnnnnnnnnnnnn  
Next A as receiver is expecting packet 8  
Ack sent from A: seq = 0, ack = 7, isACK = 1, checksum = fff7,

EVENT time: 200.679001, type: 2, fromlayer3 entity: 1  
Received at B: seq = 7, ack = 0, isACK = 0, checksum = 7d76, sssssssssssssssss  
**Resend last Ack sent from** B: seq = 0, ack = 5, isACK = 1, checksum = fff9,

EVENT time: 203.138168, type: 1, fromlayer5 entity: 1  
Packet saved at index 12:  
Saved: seq = 12, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuuuu  
Sent from B: seq = 12, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuuuu

EVENT time: 203.265335, type: 2, fromlayer3 entity: 1  
Received at B: seq = 999999, ack = -1, isACK = 1, checksum = 4e2a, {??D?  
**Nack Received, Resent the window from** B: seq = 7, ack = 0, isACK = 0, checksum = afa8, nnnnnnnnnnnnnnnnnnnnn  
timer started  
**Nack Received, Resent the window from** B: seq = 8, ack = 0, isACK = 0, checksum = a59d, oooooooooooooooooooooo  
**Nack Received, Resent the window from** B: seq = 9, ack = 0, isACK = 0, checksum = 9b92, ppppppppppppppppppppp  
**TOLAYER3: packet being corrupted**  
**Nack Received, Resent the window from** B: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
**Nack Received, Resent the window from** B: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt  
**Nack Received, Resent the window from** B: seq = 12, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuuuu  
**TOLAYER3: packet being lost**

EVENT time: 204.916870, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 7, isACK = 1, checksum = fff7,  
Now base is at 8  
seq\_expect\_send\_B is 13  
**still packets inflight, restart timer**

EVENT time: 206.916092, type: 2, fromlayer3 entity: 0  
Received at A: seq = 8, ack = 0, isACK = 0, checksum = a59d, Zooooooooooooooooooooo  
**Checksum error at A:** seq = 8, ack = 0, isACK = 0, checksum = a59d, Zooooooooooooooooooooo  
**Nak sent from A:** seq = 8, ack = -1, isACK = 1, checksum = fff7,  
**TOLAYER3: packet being corrupted**

EVENT time: 213.786087, type: 2, fromlayer3 entity: 0  
Received at A: seq = 9, ack = 0, isACK = 0, checksum = 9b92, ppppppppppppppppppppp  
Resend last Aak sent from A: seq = 0, ack = 7, isACK = 1, checksum = fff7,

EVENT time: 215.813263, type: 0, **timerinterrupt** entity: 0  
Sent from A: seq = 5, ack = 0, isACK = 0, checksum = c3be, llllllllllllllllll  
**TOLAYER3: packet being corrupted**  
timer started

Sent from A: seq = 6, ack = 0, isACK = 0, checksum = 8781, rrrrrrrrrrrrrrrrrrrr  
Sent from A: seq = 7, ack = 0, isACK = 0, checksum = 7d76, ssssssssssssssssssss

EVENT time: 216.242508, type: 2, fromlayer3 entity: 1  
Received at B: seq = 999999, ack = -1, isACK = 1, checksum = fff7,  
**Corrupted Ack, ignore.**

EVENT time: 221.504013, type: 2, fromlayer3 entity: 0  
Received at A: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
Resend last Aak sent from A: seq = 0, ack = 7, isACK = 1, checksum = fff7,

EVENT time: 221.910080, type: 1, fromlayer5 entity: 1  
Packet saved at index 13:  
Saved: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvv  
Sent from B: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvv  
**TOLAYER3: packet being corrupted**

EVENT time: 222.345078, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 7, isACK = 1, checksum = fff7,  
Now base is at 8  
seq\_expect\_send\_B is 14  
**still packets inflight, restart timer**

EVENT time: 223.596741, type: 2, fromlayer3 entity: 0  
Received at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt  
Resend last Aak sent from A: seq = 0, ack = 7, isACK = 1, checksum = fff7,  
**TOLAYER3: packet being lost**



Received at A: seq = 8, ack = 0, isACK = 0, checksum = a59d, oooooooooooooooooooooo

Accepted at A: seq = 8, ack = 0, isACK = 0, checksum = a59d, oooooooooooooooooooooo

Next A as receiver is expecting packet 9

Ack sent from A: seq = 0, ack = 8, isACK = 1, checksum = fff6,

EVENT time: 252.137405, type: 2, fromlayer3 entity: 0

Received at A: seq = 999999, ack = 0, isACK = 0, checksum = 9b92, ppppppppppppppppppppp

Checksum error at A: seq = 999999, ack = 0, isACK = 0, checksum = 9b92, ppppppppppppppppppppp

Nak sent from A: seq = 999999, ack = -1, isACK = 1, checksum = bdb1,

TOLAYER3: packet being corrupted

EVENT time: 256.026672, type: 0, timerinterrupt entity: 0

Sent from A: seq = 6, ack = 0, isACK = 0, checksum = 8781, rrrrrrrrrrrrrrrrrrrr

timer started

Sent from A: seq = 7, ack = 0, isACK = 0, checksum = 7d76, sssssssssssssssssssss

TOLAYER3: packet being corrupted

Sent from A: seq = 8, ack = 0, isACK = 0, checksum = 554d, wwwwwwwwwwwwwwwwwwwww

EVENT time: 256.370361, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 8, isACK = 1, checksum = fff6,

Now base is at 9

seq\_expect\_send\_B is 15

still packets inflight, restart timer

EVENT time: 258.876801, type: 1, fromlayer5 entity: 0

Packet saved at index 9:

Saved: seq = 9, ack = 0, isACK = 0, checksum = 4138, yyyyyyyyyyyyyyyyyyyy

Sent from A: seq = 9, ack = 0, isACK = 0, checksum = 4138, yyyyyyyyyyyyyyyyyyyy

EVENT time: 261.658600, type: 2, fromlayer3 entity: 1

Received at B: seq = 999999, ack = -1, isACK = 1, checksum = bdb1,

Nack Received, Resent the window from B: seq = 9, ack = 0, isACK = 0, checksum = 9b92, ppppppppppppppppppppp

timer started

Nack Received, Resent the window from B: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq

Nack Received, Resent the window from B: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt

TOLAYER3: packet being corrupted

Nack Received, Resent the window from B: seq = 12, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuuu

Nack Received, Resent the window from B: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvv

Nack Received, Resent the window from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx

EVENT time: 262.052704, type: 2, fromlayer3 entity: 0

Received at A: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq

Resend last Aak sent from A: seq = 0, ack = 8, isACK = 1, checksum = fff6,

EVENT time: 263.295868, type: 1, fromlayer5 entity: 1

Packet saved at index 15:

Saved: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz

Sent from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz

TOLAYER3: packet being lost

EVENT time: 264.033417, type: 2, fromlayer3 entity: 0

Received at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt

Resend last Aak sent from A: seq = 0, ack = 8, isACK = 1, checksum = fff6,

EVENT time: 268.979889, type: 2, fromlayer3 entity: 1

Received at B: seq = 6, ack = 0, isACK = 0, checksum = 8781, rrrrrrrrrrrrrrrrrrrr

Packet already received. Ignore.

EVENT time: 269.708252, type: 2, fromlayer3 entity: 0

Received at A: seq = 13, ack = 0, isACK = 0, checksum = 5f52, Zvvvvvvvvvvvvvvvvvvv

Checksum error at A: seq = 13, ack = 0, isACK = 0, checksum = 5f52, Zvvvvvvvvvvvvvvvvvvv

Nak sent from A: seq = 13, ack = -1, isACK = 1, checksum = ec98, hD???

TOLAYER3: packet being lost

EVENT time: 275.965637, type: 2, fromlayer3 entity: 1

Received at B: seq = 7, ack = 0, isACK = 0, checksum = 7d76, Zssssssssssssssssss

Checksum error at B: seq = 7, ack = 0, isACK = 0, checksum = 7d76, Zssssssssssssssssss

Nak sent from B: seq = 7, ack = -1, isACK = 1, checksum = ec9e, hD???

Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaaaa

Nack Received, Resend the window from A: seq = 9, ack = 0, isACK = 0, checksum = 4138, yyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyy

Packet already received. Ignore.

Corrupted Ack, ignore.

window full.

Ack sent from B: seq = 0, ack = 9, isACK = 1, checksum = fff5,

Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaaaa

```
Resend last Aak sent from A: seq = 0, ack = 8, isACK = 1, checksum = fff6,
```

```
still packets inflight, restart timer
```

```
seq_expect_send_n is 10
still packets inflight, restart timer
```

window full.

Received at A: seq = 9, ack = 0, isACK = 0, checksum = 9b92, ppppppppppppppppppppppp

Accepted at A: seq = 9, ack = 0, isACK = 0, checksum = 9b92, pppppppppppppppppppp  
Next A as receiver is expecting packet 10  
Ack sent from A: seq = 0, ack = 9, isACK = 1, checksum = fff5,

EVENT time: 298.517365, type: 1, fromlayer5 entity: 1  
Packet saved at index 19:  
Saved: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd  
window full.

EVENT time: 300.029663, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 8, isACK = 1, checksum = fff6,  
Now base is at 9  
seq\_expect\_send\_B is 17  
still packets inflight, restart timer

EVENT time: 301.661774, type: 2, fromlayer3 entity: 1  
Received at B: seq = 6, ack = 0, isACK = 0, checksum = 8781, rrrrrrrrrrrrrrrrrrr  
Packet already received. Ignore.

EVENT time: 303.158020, type: 2, fromlayer3 entity: 0  
Received at A: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
Accepted at A: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
Next A as receiver is expecting packet 11  
Ack sent from A: seq = 0, ack = 10, isACK = 1, checksum = fff4,  
TOLAYER3: packet being lost

EVENT time: 307.232147, type: 1, fromlayer5 entity: 0  
Packet saved at index 10:  
Saved: seq = 10, ack = 0, isACK = 0, checksum = a00, eeeeeeeeeeeeeeeeeee  
Sent from A: seq = 10, ack = 0, isACK = 0, checksum = a00, eeeeeeeeeeeeeeeeeee

EVENT time: 311.362549, type: 2, fromlayer3 entity: 1  
Received at B: seq = 7, ack = 0, isACK = 0, checksum = 7d76, sssssssssssssssssss  
Packet already received. Ignore.

EVENT time: 311.883026, type: 2, fromlayer3 entity: 0  
Received at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, Ztttttttttttttttttt  
Checksum error at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, Ztttttttttttttttttt  
Nak sent from A: seq = 11, ack = -1, isACK = 1, checksum = 1c61, ??D?

EVENT time: 317.223053, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 9, ack = 0, isACK = 0, checksum = 4138, yyyyyyyyyyyyyyyyyyy  
timer started  
Sent from A: seq = 10, ack = 0, isACK = 0, checksum = a00, eeeeeeeeeeeeeeeeeee

EVENT time: 317.767456, type: 2, fromlayer3 entity: 1  
Received at B: seq = 8, ack = 0, isACK = 0, checksum = 554d, wwwwwwwwwwwwwwwwwwwww  
Packet already received. Ignore.

EVENT time: 319.083466, type: 2, fromlayer3 entity: 0  
Received at A: seq = 12, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuu  
Resend last Aak sent from A: seq = 0, ack = 10, isACK = 1, checksum = fff4,

EVENT time: 322.070038, type: 2, fromlayer3 entity: 1  
Received at B: seq = 9, ack = 0, isACK = 0, checksum = 4138, yyyyyyyyyyyyyyyyyyy  
Packet already received. Ignore.

EVENT time: 323.677887, type: 2, fromlayer3 entity: 0  
Received at A: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvv  
Resend last Aak sent from A: seq = 0, ack = 10, isACK = 1, checksum = fff4,

EVENT time: 324.029663, type: 0, timerinterrupt entity: 1  
Sent from B: seq = 9, ack = 0, isACK = 0, checksum = 9b92, pppppppppppppppppppp  
timer started  
Sent from B: seq = 10, ack = 0, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
Sent from B: seq = 11, ack = 0, isACK = 0, checksum = 7368, ttttttttttttttttttt  
Sent from B: seq = 12, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuu  
Sent from B: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvv  
Sent from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxxx





Nack Received, Resent the window from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
TOLAYER3: packet being lost

EVENT time: 347.117188, type: 2, fromlayer3 entity: 1  
Received at B: seq = 9, ack = 0, isACK = 0, checksum = 4138, yyyyyyyyyyyyyyyyyyyy  
Packet already received. Ignore.

EVENT time: 348.244202, type: 1, fromlayer5 entity: 1  
Packet saved at index 20:  
Saved: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
window full.

EVENT time: 349.297821, type: 2, fromlayer3 entity: 0  
Received at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaa  
Resend last Aak sent from A: seq = 0, ack = 10, isACK = 1, checksum = fff4,

EVENT time: 352.576202, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 9, isACK = 1, checksum = fff5,  
Now base is at 10  
Seq\_expect\_send\_A is 13  
still packets inflight, restart timer

EVENT time: 353.524475, type: 2, fromlayer3 entity: 1  
Received at B: seq = 10, ack = 0, isACK = 0, checksum = a00, eeeeeeeeeeeeeeeeeeee  
Packet already received. Ignore.

EVENT time: 358.358795, type: 1, fromlayer5 entity: 1  
Packet saved at index 21:  
Saved: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii  
window full.

EVENT time: 360.045166, type: 2, fromlayer3 entity: 0  
Received at A: seq = 9, ack = 0, isACK = 0, checksum = 9b92, pppppppppppppppppppp  
Packet already received, ignore.

EVENT time: 360.107300, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 10, isACK = 1, checksum = fff4,  
Now base is at 11  
seq\_expect\_send\_B is 18  
still packets inflight, restart timer  
Sent from buffer: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc

EVENT time: 363.772308, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 10, isACK = 1, checksum = fff4,  
Now base is at 11  
seq\_expect\_send\_B is 19  
still packets inflight, restart timer

EVENT time: 368.168854, type: 2, fromlayer3 entity: 0  
Received at A: seq = 10, ack = 999999, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
Checksum error at A: seq = 10, ack = 999999, isACK = 0, checksum = 9187, qqqqqqqqqqqqqqqqqqqq  
Nak sent from A: seq = 10, ack = -1, isACK = 1, checksum = fff5,

EVENT time: 371.933441, type: 2, fromlayer3 entity: 0  
Received at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt  
Accpeted at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt  
Next A as receiver is expecting packet 12  
Ack sent from A: seq = 0, ack = 11, isACK = 1, checksum = fff3,  
TOLAYER3: packet being corrupted

EVENT time: 372.157501, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 10, isACK = 1, checksum = fff4,  
Now base is at 11  
seq\_expect\_send\_B is 19  
still packets inflight, restart timer

EVENT time: 372.941315, type: 1, fromlayer5 entity: 0  
Packet saved at index 13:  
Saved: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj

Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj

EVENT time: 376.576202, type: 0, timerinterrupt entity: 0

Sent from A: seq = 10, ack = 0, isACK = 0, checksum = a00, eeeeeeeeeeeeeeeeeee

TOLAYER3: packet being lost

timer started

Sent from A: seq = 11, ack = 0, isACK = 0, checksum = fff4, ffffffffffffffffff

Sent from A: seq = 12, ack = 0, isACK = 0, checksum = f5e9, gggggggggggggggggggg

Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj

EVENT time: 377.428619, type: 2, fromlayer3 entity: 1

Received at B: seq = 10, ack = 0, isACK = 0, checksum = a00, Zeeeeeeeeeeeeeeeeee

Checksum error at B: seq = 10, ack = 0, isACK = 0, checksum = a00, Zeeeeeeeeeeeeeeeeee

Nak sent from B: seq = 10, ack = -1, isACK = 1, checksum = 906e, {??D?

TOLAYER3: packet being lost

EVENT time: 381.622437, type: 2, fromlayer3 entity: 0

Received at A: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvv

Resend last Aak sent from A: seq = 0, ack = 11, isACK = 1, checksum = fff3,

TOLAYER3: packet being corrupted

EVENT time: 383.120941, type: 2, fromlayer3 entity: 1

Received at B: seq = 11, ack = 0, isACK = 0, checksum = fff4, ffffffffffffffffff

Accpeted at B: seq = 11, ack = 0, isACK = 0, checksum = fff4, ffffffffffffffffff

Next B as receiver is expecting packet 12

Ack sent from B: seq = 0, ack = 11, isACK = 1, checksum = fff3,

EVENT time: 385.381287, type: 2, fromlayer3 entity: 0

Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx

Resend last Aak sent from A: seq = 0, ack = 11, isACK = 1, checksum = fff3,

EVENT time: 386.651733, type: 2, fromlayer3 entity: 0

Received at A: seq = 999999, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz

Checksum error at A: seq = 999999, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz

Nak sent from A: seq = 999999, ack = -1, isACK = 1, checksum = 4e2a, {??D?

EVENT time: 388.573273, type: 2, fromlayer3 entity: 1

Received at B: seq = 12, ack = 0, isACK = 0, checksum = f5e9, gggggggggggggggggggg

Accpeted at B: seq = 12, ack = 0, isACK = 0, checksum = f5e9, gggggggggggggggggggg

Next B as receiver is expecting packet 13

Ack sent from B: seq = 0, ack = 12, isACK = 1, checksum = fff2,

EVENT time: 388.619507, type: 2, fromlayer3 entity: 0

Received at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa

Resend last Aak sent from A: seq = 0, ack = 11, isACK = 1, checksum = fff3,

EVENT time: 390.136475, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 10, isACK = 1, checksum = fff4,

Now base is at 11

seq\_exxpect\_send\_B is 19

still packets inflight, restart timer

EVENT time: 390.914673, type: 1, fromlayer5 entity: 1

Packet saved at index 22:

Saved: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkkk

window full.

EVENT time: 392.365051, type: 1, fromlayer5 entity: 1

Packet saved at index 23:

Saved: seq = 23, ack = 0, isACK = 0, checksum = c3ac, llllllllllllllllll

window full.

EVENT time: 396.124969, type: 2, fromlayer3 entity: 0

Received at A: seq = 9, ack = 0, isACK = 0, checksum = 9b92, pppppppppppppppppppp

Packet already received, ignore.

EVENT time: 396.912811, type: 2, fromlayer3 entity: 1

Received at B: seq = 10, ack = -1, isACK = 1, checksum = fff5,

Nack Received, Resent the window from B: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt

[illegible]

Nack Received, Resent the window from B: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvvvv

[illegible]

TOLAYER3: packet being lost

TOLAYER3: packet being corrupted

\_\_\_\_\_

Sent from A: seq = 10, ack = 0, isACK = 0, checksum = a00, eeeeeeeeeeeeeeeeeeeeeee

Sent from A: seq = 11, ack = 0, isACK = 0, checksum = fff4, ffffffff ffffffff ffffffff

Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjjjj

EVENT time: 400.978729, type: 2, fromlayer3 entity: 0

Packet already received, ignore.

Saved: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm

TOLAYER3: packet being corrupted

Received at B: seq = 0, ack = 11, isACK = 1, checksum = fff3, Z

Corrupted Ack, ignore.

Received at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, ttttttttttttttttttttt

Packet already received, ignore.

[illegible][illegible]

Next A as receiver is expecting packet 13

Ack sent from A: seq = 0, ack = 12, isACK = 1, checksum = fff2,

TOLAYER3: packet being lost

Received at B: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjjjj

**Accpeted at B:** seq = 13, ack = 0, isACK = 0, checksum = d7ca, 

Next B as receiver is expecting packet 14

Ack sent from B: seq = 0, ack = 13, isACK = 1, checksum = fff1,

TOLAYER3: packet being lost

Packet saved at index 24:

Saved: seq = 24, ack = 0, isACK = 0, checksum = af97, nnnnnnnnnnnnnnnnnnnnnnnnnnnnnn

window full.

Received at B: seq = 11, ack = 0, isACK = 0, checksum = fff4, ffffffffffffffffffffffff

Packet already received. Ignore.

Received at A: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvvvvvvvv

**Accpeted at A:** seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvvvvvvvv

Next A as receiver is expecting packet 14

Ack sent from A: seq = 0, ack = 13, isACK = 1, checksum = fff1,

Packet saved at index 15:

Saved: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo

EVENT time: 420.682678, type: 2, fromlayer3 entity: 0  
Received at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaa  
Resend last Aak sent from A: seq = 0, ack = 13, isACK = 1, checksum = fff1,  
**TOLAYER3: packet being lost**

EVENT time: 420.912811, type: 0, **timerinterrupt** entity: 1  
Sent from B: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt  
timer started  
Sent from B: seq = 12, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuuu  
**TOLAYER3: packet being corrupted**  
Sent from B: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvv  
**TOLAYER3: packet being lost**  
Sent from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxxx  
**TOLAYER3: packet being corrupted**  
Sent from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz  
**TOLAYER3: packet being lost**  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaa  
**TOLAYER3: packet being corrupted**  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
**TOLAYER3: packet being lost**  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc

EVENT time: 422.351257, type: 1, fromlayer5 entity: 0  
Packet saved at index 16:  
Saved: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, pppppppppppppppppppp  
Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, pppppppppppppppppppp

EVENT time: 423.157043, type: 1, fromlayer5 entity: 0  
Packet saved at index 17:  
Saved: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq

EVENT time: 424.572845, type: 2, fromlayer3 entity: 1  
Received at B: seq = 12, ack = 0, isACK = 0, checksum = f5e9, gggggggggggggggggggg  
**Packet already received.** Ignore.

EVENT time: 424.576202, type: 0, **timerinterrupt** entity: 0  
Sent from A: seq = 10, ack = 0, isACK = 0, checksum = a00, eeeeeeeeeeeeeeeeeeee  
timer started  
Sent from A: seq = 11, ack = 0, isACK = 0, checksum = fff4, ffffffffffffffffffff  
Sent from A: seq = 12, ack = 0, isACK = 0, checksum = f5e9, gggggggggggggggggggg  
Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjjjj  
Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm  
Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, pppppppppppppppppppp  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
**TOLAYER3: packet being lost**

EVENT time: 426.551270, type: 1, fromlayer5 entity: 0  
Packet saved at index 18:  
Saved: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr  
**window full.**

EVENT time: 426.822479, type: 2, fromlayer3 entity: 1  
Received at B: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjjjj  
**Packet already received.** Ignore.

EVENT time: 427.031799, type: 2, fromlayer3 entity: 0  
Received at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
Resend last Aak sent from A: seq = 0, ack = 13, isACK = 1, checksum = fff1,  
**TOLAYER3: packet being lost**

EVENT time: 432.363007, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 10, isACK = 1, checksum = fff4,  
Now base is at 11  
Seq\_expect\_send\_A is 18

still packets inflight, restart timer

Sent from buffer: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrrr

EVENT time: 432.986786, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 999999, isACK = 1, checksum = fff3,

Corrupted Ack, ignore.

EVENT time: 434.223328, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 11, isACK = 1, checksum = fff3,

Now base is at 12

seq\_expect\_send\_B is 19

still packets inflight, restart timer

Sent from buffer: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd

TOLAYER3: packet being lost

EVENT time: 438.422546, type: 2, fromlayer3 entity: 1

Received at B: seq = 999999, ack = -1, isACK = 1, checksum = 4e2a, ?{??D?

Nack Received, Resent the window from B: seq = 12, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuuuu

TOLAYER3: packet being corrupted

timer started

Nack Received, Resent the window from B: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvvvv

TOLAYER3: packet being lost

Nack Received, Resent the window from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxxx

TOLAYER3: packet being lost

Nack Received, Resent the window from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzzz

Nack Received, Resent the window from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaaaa

TOLAYER3: packet being lost

Nack Received, Resent the window from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbbbb

TOLAYER3: packet being corrupted

Nack Received, Resent the window from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccccc

Nack Received, Resent the window from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd

EVENT time: 440.514832, type: 1, fromlayer5 entity: 0

Packet saved at index 19:

Saved: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, ssssssssssssssssssss

window full.

EVENT time: 440.612030, type: 2, fromlayer3 entity: 0

Received at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, Ztttttttttttttttttt

Checksum error at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, Ztttttttttttttttttt

Nak sent from A: seq = 11, ack = -1, isACK = 1, checksum = 1261,

??D?

TOLAYER3: packet being corrupted

EVENT time: 444.046448, type: 2, fromlayer3 entity: 0

Received at A: seq = 999999, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuuuu

Checksum error at A: seq = 999999, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuuuu

Nak sent from A: seq = 999999, ack = -1, isACK = 1, checksum = d01d,

??D?

EVENT time: 445.018829, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 11, isACK = 1, checksum = fff3,

Now base is at 12

seq\_expect\_send\_B is 20

still packets inflight, restart timer

EVENT time: 451.223358, type: 2, fromlayer3 entity: 0

Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, Zxxxxxxxxxxxxxxxxxxx

Checksum error at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, Zxxxxxxxxxxxxxxxxxxx

Nak sent from A: seq = 14, ack = -1, isACK = 1, checksum = 125e,

??D?

TOLAYER3: packet being lost

EVENT time: 451.570221, type: 2, fromlayer3 entity: 1

Received at B: seq = 10, ack = 0, isACK = 0, checksum = a00, eeeeeeeeeeeeeeeeeeee

Packet already received. Ignore.

EVENT time: 455.511200, type: 2, fromlayer3 entity: 0

Received at A: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzzz

Resend last Aak sent from A: seq = 0, ack = 13, isACK = 1, checksum = fff1,

**TOLAYER3: packet being lost**

EVENT time: 456.363007, type: 0, **timerinterrupt** entity: 0

Sent from A: seq = 11, ack = 0, isACK = 0, checksum = fff4, ffffffffffffffffff

**TOLAYER3: packet being corrupted**

timer started

Sent from A: seq = 12, ack = 0, isACK = 0, checksum = f5e9, gggggggggggggggggggg

Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj

Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm

**TOLAYER3: packet being corrupted**

Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo

**TOLAYER3: packet being lost**

Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppppp

Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq

**TOLAYER3: packet being lost**

Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr

**TOLAYER3: packet being corrupted**

EVENT time: 456.976562, type: 2, fromlayer3 entity: 1

Received at B: seq = 11, ack = 0, isACK = 0, checksum = fff4, ffffffffffffffffff

**Packet already received.** Ignore.

EVENT time: 457.551392, type: 1, fromlayer5 entity: 1

Packet saved at index 25:

Saved: seq = 25, ack = 0, isACK = 0, checksum = 735a, tttttttttttttttttt

**window full.**

EVENT time: 461.163635, type: 2, fromlayer3 entity: 0

Received at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, Zaaaaaaaaaaaaaaaaaaa

**Checksum error at A:** seq = 16, ack = 0, isACK = 0, checksum = 3222, Zaaaaaaaaaaaaaaaaaaa

**Nak sent from A:** seq = 16, ack = -1, isACK = 1, checksum = ffef,

EVENT time: 461.432526, type: 2, fromlayer3 entity: 1

Received at B: seq = 12, ack = 0, isACK = 0, checksum = f5e9, gggggggggggggggggggg

**Packet already received.** Ignore.

EVENT time: 467.987793, type: 2, fromlayer3 entity: 1

Received at B: seq = 14, ack = 0, isACK = 0, checksum = b9ab, Zmmmmmmmmmmmmmmmmmmmm

**Checksum error at B:** seq = 14, ack = 0, isACK = 0, checksum = b9ab, Zmmmmmmmmmmmmmmmmmmmm

**Nak sent from B:** seq = 14, ack = -1, isACK = 1, checksum = fff1,

**TOLAYER3: packet being lost**

EVENT time: 469.018829, type: 0, **timerinterrupt** entity: 1

Sent from B: seq = 12, ack = 0, isACK = 0, checksum = 695d, uuuuuuuuuuuuuuuuuuuu

**TOLAYER3: packet being lost**

timer started

Sent from B: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvv

Sent from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxxx

Sent from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz

Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaa

Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb

Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc

Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddd

EVENT time: 469.049225, type: 2, fromlayer3 entity: 0

Received at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc

Resend last Aak sent from A: seq = 0, ack = 13, isACK = 1, checksum = fff1,

**TOLAYER3: packet being lost**

EVENT time: 471.358521, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 13, isACK = 1, checksum = fff1,

Now base is at 14

seq. expect send B is 20

**still packets inflight, restart timer**

Sent from buffer: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh

Sent from buffer: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

**TOLAYER3: packet being lost**



EVENT time: 495.223602, type: 2, fromlayer3 entity: 0  
Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx  
**Accpeted at A:** seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx  
Next A as receiver is expecting packet 15  
Ack sent from A: seq = 0, ack = 14, isACK = 1, checksum = fff0,

EVENT time: 495.358521, type: 0, **timerinterrupt** entity: 1  
Sent from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx  
timer started  
Sent from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaa  
**TOLAYER3: packet being corrupted**  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddd  
Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

EVENT time: 497.522919, type: 0, **timerinterrupt** entity: 0  
Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj  
timer started  
Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmm  
**TOLAYER3: packet being corrupted**  
Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppppp  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr  
Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, ssssssssssssssssssss  
**TOLAYER3: packet being lost**  
Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuuu  
**TOLAYER3: packet being lost**

EVENT time: 500.202576, type: 1, fromlayer5 entity: 1  
Packet saved at index 28:  
Saved: seq = 28, ack = 0, isACK = 0, checksum = 371b, zzzzzzzzzzzzzzzzzzzz  
**window full.**

EVENT time: 500.578674, type: 2, fromlayer3 entity: 0  
Received at A: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz  
**Accpeted at A:** seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz  
Next A as receiver is expecting packet 16  
Ack sent from A: seq = 0, ack = 15, isACK = 1, checksum = ffef,

EVENT time: 501.233337, type: 2, fromlayer3 entity: 1  
Received at B: seq = 11, ack = 0, isACK = 0, checksum = fff4, ffffffff  
**Packet already received.** Ignore.

EVENT time: 507.370575, type: 2, fromlayer3 entity: 0  
Received at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, Zbbbbbbbbbbbbbbbbbb  
**Checksum error at A:** seq = 17, ack = 0, isACK = 0, checksum = 2817, Zbbbbbbbbbbbbbbbbbb  
**Nak sent from A:** seq = 17, ack = -1, isACK = 1, checksum = ffee,

EVENT time: 508.870270, type: 1, fromlayer5 entity: 1  
Packet saved at index 29:  
Saved: seq = 29, ack = 0, isACK = 0, checksum = 3215, aaaaaaaaaaaaaaaaaaaa  
**window full.**

EVENT time: 510.672852, type: 2, fromlayer3 entity: 1  
Received at B: seq = 12, ack = 0, isACK = 0, checksum = f5e9, gggggggggggggggggggg  
**Packet already received.** Ignore.

EVENT time: 511.117523, type: 2, fromlayer3 entity: 0  
Received at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
Resend last Aak sent from A: seq = 0, ack = 15, isACK = 1, checksum = ffef,  
**TOLAYER3: packet being lost**

EVENT time: 517.851196, type: 2, fromlayer3 entity: 0  
Received at A: seq = 11, ack = 0, isACK = 0, checksum = 7368, tttttttttttttttttt



Packet already received, ignore.

EVENT time: 519.228943, type: 2, fromlayer3 entity: 1  
Received at B: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj  
Packet already received. Ignore.

EVENT time: 519.358521, type: 0, timerinterrupt entity: 1  
Sent from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx  
timer started  
Sent from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzz  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddd  
Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhh  
Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

EVENT time: 521.522949, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj  
timer started  
Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmm  
Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, ooooooooooooooooooooo  
Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppp  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqq  
TOLAYER3: packet being corrupted  
Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrr  
Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, ssssssssssssssssss  
TOLAYER3: packet being corrupted  
Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuu  
TOLAYER3: packet being lost

EVENT time: 522.638184, type: 2, fromlayer3 entity: 0  
Received at A: seq = 12, ack = 0, isACK = 0, checksum = 695d, Zuuuuuuuuuuuuuuuuu  
Checksum error at A: seq = 12, ack = 0, isACK = 0, checksum = 695d, Zuuuuuuuuuuuuuuuuu  
Nak sent from A: seq = 12, ack = -1, isACK = 1, checksum = c60, ??D?  
TOLAYER3: packet being corrupted

EVENT time: 524.011292, type: 2, fromlayer3 entity: 1  
Received at B: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmm  
Accpeted at B: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmm  
Next B as receiver is expecting packet 15  
Ack sent from B: seq = 0, ack = 14, isACK = 1, checksum = fff0,  
TOLAYER3: packet being lost

EVENT time: 524.651978, type: 1, fromlayer5 entity: 0  
Packet saved at index 23:  
Saved: seq = 23, ack = 0, isACK = 0, checksum = 2811, bbbbbbbbbbbbbbbbbbbb  
window full.

EVENT time: 526.790894, type: 2, fromlayer3 entity: 1  
Received at B: seq = 15, ack = 0, isACK = 0, checksum = a596, ooooooooooooooooooooo  
Accpeted at B: seq = 15, ack = 0, isACK = 0, checksum = a596, ooooooooooooooooooooo  
Next B as receiver is expecting packet 16  
Ack sent from B: seq = 0, ack = 15, isACK = 1, checksum = ffe0,  
TOLAYER3: packet being lost

EVENT time: 531.099243, type: 2, fromlayer3 entity: 0  
Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, Zxxxxxxxxxxxxxxxxxxx  
Checksum error at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, Zxxxxxxxxxxxxxxxxxxx  
Nak sent from A: seq = 14, ack = -1, isACK = 1, checksum = 125e,  
??D?  
TOLAYER3: packet being corrupted

EVENT time: 533.072205, type: 2, fromlayer3 entity: 1  
Received at B: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppp  
Accpeted at B: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppp  
Next B as receiver is expecting packet 17  
Ack sent from B: seq = 0, ack = 16, isACK = 1, checksum = fee0,  
TOLAYER3: packet being lost

EVENT time: 533.106567, type: 2, fromlayer3 entity: 0  
Received at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, Zaaaaaaaaaaaaaaaaa  
Checksum error at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, Zaaaaaaaaaaaaaaaaa  
Nak sent from A: seq = 16, ack = -1, isACK = 1, checksum = 125c,  
??D?

TOLAYER3: packet being lost

EVENT time: 534.772583, type: 2, fromlayer3 entity: 1  
Received at B: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrr  
Resend last Ack sent from B: seq = 0, ack = 16, isACK = 1, checksum = ffee,

EVENT time: 536.171509, type: 1, fromlayer5 entity: 0  
Packet saved at index 24:  
Saved: seq = 24, ack = 0, isACK = 0, checksum = 1e06, ccccccccccccccccccc  
window full.

EVENT time: 536.993896, type: 2, fromlayer3 entity: 0  
Received at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, ccccccccccccccccccc  
Resend last Aak sent from A: seq = 0, ack = 15, isACK = 1, checksum = ffee,

EVENT time: 539.462708, type: 2, fromlayer3 entity: 1  
Received at B: seq = 999999, ack = -1, isACK = 1, checksum = 1261,  
??D?  
Corrupted Ack, ignore.

EVENT time: 543.358521, type: 0, timerinterrupt entity: 1  
Sent from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx  
timer started  
Sent from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzz  
TOLAYER3: packet being corrupted  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
TOLAYER3: packet being lost  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, ccccccccccccccccccc  
Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddddd  
Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

EVENT time: 543.837769, type: 2, fromlayer3 entity: 1  
Received at B: seq = 999999, ack = -1, isACK = 1, checksum = d01d,  
??D?  
Nack Received, Resent the window from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx  
timer started  
Nack Received, Resent the window from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzz  
TOLAYER3: packet being lost  
Nack Received, Resent the window from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
TOLAYER3: packet being lost  
Nack Received, Resent the window from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
TOLAYER3: packet being lost  
Nack Received, Resent the window from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, ccccccccccccccccccc  
TOLAYER3: packet being corrupted  
Nack Received, Resent the window from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddddd  
TOLAYER3: packet being lost  
Nack Received, Resent the window from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
Nack Received, Resent the window from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

EVENT time: 545.522949, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj  
TOLAYER3: packet being lost  
timer started  
Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm  
Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
TOLAYER3: packet being corrupted  
Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppppp  
TOLAYER3: packet being lost  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
TOLAYER3: packet being lost  
Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr

Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss

TOLAYER3: packet being lost

Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuuu

TOLAYER3: packet being lost

EVENT time: 546.345886, type: 1, fromlayer5 entity: 0

Packet saved at index 25:

Saved: seq = 25, ack = 0, isACK = 0, checksum = 13fb, ddddddddddddddddddd

window full.

EVENT time: 546.885803, type: 2, fromlayer3 entity: 0

Received at A: seq = 12, ack = 0, isACK = 0, checksum = 695d, Zuuuuuuuuuuuuuuuuuuu

Checksum error at A: seq = 12, ack = 0, isACK = 0, checksum = 695d, Zuuuuuuuuuuuuuuuuuuu

Nak sent from A: seq = 12, ack = -1, isACK = 1, checksum = 1260,

??D?

TOLAYER3: packet being corrupted

EVENT time: 548.603577, type: 1, fromlayer5 entity: 0

Packet saved at index 26:

Saved: seq = 26, ack = 0, isACK = 0, checksum = 9f0, eeeeeeeeeeeeeeeeeee

window full.

EVENT time: 551.785767, type: 2, fromlayer3 entity: 1

Received at B: seq = 11, ack = 0, isACK = 0, checksum = fff4, Zfffffffffffffffffff

Checksum error at B: seq = 11, ack = 0, isACK = 0, checksum = fff4, Zfffffffffffffffffff

Nak sent from B: seq = 11, ack = -1, isACK = 1, checksum = 1261,

??D?

TOLAYER3: packet being corrupted

EVENT time: 552.111328, type: 2, fromlayer3 entity: 0

Received at A: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz

Packet already received, ignore.

EVENT time: 552.986450, type: 1, fromlayer5 entity: 0

Packet saved at index 27:

Saved: seq = 27, ack = 0, isACK = 0, checksum = ffe4, ffffffffffffffffffff

window full.

EVENT time: 553.548889, type: 2, fromlayer3 entity: 0

Received at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, Zbbbbbbbbbbbbbbbbbbbb

Checksum error at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, Zbbbbbbbbbbbbbbbbbbbb

Nak sent from A: seq = 17, ack = -1, isACK = 1, checksum = 125b,

??D?

EVENT time: 558.070679, type: 2, fromlayer3 entity: 1

Received at B: seq = 12, ack = 0, isACK = 0, checksum = f5e9, gggggggggggggggggggg

Packet already received. Ignore.

EVENT time: 562.334167, type: 2, fromlayer3 entity: 1

Received at B: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj

Packet already received. Ignore.

EVENT time: 562.488525, type: 2, fromlayer3 entity: 0

Received at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc

Resend last Aak sent from A: seq = 0, ack = 15, isACK = 1, checksum = ffef,

EVENT time: 563.464478, type: 1, fromlayer5 entity: 0

Packet saved at index 28:

Saved: seq = 28, ack = 0, isACK = 0, checksum = f5d9, gggggggggggggggggggg

window full.

EVENT time: 566.184143, type: 2, fromlayer3 entity: 0

Received at A: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd

Resend last Aak sent from A: seq = 0, ack = 15, isACK = 1, checksum = ffef,

TOLAYER3: packet being lost

EVENT time: 567.837769, type: 0, timerinterrupt entity: 1

Sent from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx

timer started

Sent from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzzz  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaaaa  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbbbb  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccccc

**TOLAYER3: packet being lost**

Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddddd  
Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhhhh

**TOLAYER3: packet being lost**

Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

EVENT time: 569.522949, type: 0, timerinterrupt entity: 0

Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjjjj

timer started

Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm

**TOLAYER3: packet being corrupted**

Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo

**TOLAYER3: packet being lost**

Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppppp

Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq

Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr

Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, ssssssssssssssssssss

**TOLAYER3: packet being corrupted**

Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuuuu

EVENT time: 569.561401, type: 2, fromlayer3 entity: 1

Received at B: seq = 14, ack = 999999, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm

Checksum error at B: seq = 14, ack = 999999, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm

Nak sent from B: seq = 14, ack = -1, isACK = 1, checksum = 906a, ??D?

**TOLAYER3: packet being corrupted**

EVENT time: 569.977173, type: 2, fromlayer3 entity: 0

Received at A: seq = 13, ack = 0, isACK = 0, checksum = 5f52, vvvvvvvvvvvvvvvvvvvv

Packet already received, ignore.

EVENT time: 573.269592, type: 1, fromlayer5 entity: 1

Packet saved at index 30:

Saved: seq = 30, ack = 0, isACK = 0, checksum = ebcd, hhhhhhhhhhhhhhhhhhhhhh

window full.

EVENT time: 575.189514, type: 2, fromlayer3 entity: 0

Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxxx

Packet already received, ignore.

EVENT time: 576.632629, type: 1, fromlayer5 entity: 0

Packet saved at index 29:

Saved: seq = 29, ack = 0, isACK = 0, checksum = e1c4, iiiiiiiiiiiiiiiiii

window full.

EVENT time: 577.948425, type: 2, fromlayer3 entity: 1

Received at B: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppppp

Packet already received. Ignore.

EVENT time: 583.971069, type: 2, fromlayer3 entity: 0

Received at A: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzzz

Packet already received, ignore.

EVENT time: 585.408203, type: 2, fromlayer3 entity: 0

Received at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaaaa

Accepted at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaaaa

Next A as receiver is expecting packet 17

Ack sent from A: seq = 0, ack = 16, isACK = 1, checksum = ffee,

**TOLAYER3: packet being lost**

EVENT time: 586.555603, type: 2, fromlayer3 entity: 1

Received at B: seq = 999999, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr

Checksum error at B: seq = 999999, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr

Nak sent from B: seq = 999999, ack = -1, isACK = 1, checksum = d01d,

??D?

**TOLAYER3: packet being lost**

EVENT time: 588.217957, type: 2, fromlayer3 entity: 0  
Received at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
Accpeted at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
Next A as receiver is expecting packet 18  
Ack sent from A: seq = 0, ack = 17, isACK = 1, checksum = ffed,  
TOLAYER3: packet being corrupted

EVENT time: 589.868652, type: 1, fromlayer5 entity: 1  
Packet saved at index 31:  
Saved: seq = 31, ack = 0, isACK = 0, checksum = d7b8, jjjjjjjjjjjjjjjjjj  
window full.

EVENT time: 590.919250, type: 1, fromlayer5 entity: 1  
Packet saved at index 32:  
Saved: seq = 32, ack = 0, isACK = 0, checksum = cdad, kkkkkkkkkkkkkkkkkkk  
window full.

EVENT time: 591.837769, type: 0, timerinterrupt entity: 1  
Sent from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxxx  
timer started  
Sent from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz  
TOLAYER3: packet being lost  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaa  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
TOLAYER3: packet being corrupted  
Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddd  
TOLAYER3: packet being corrupted  
Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
TOLAYER3: packet being lost  
Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

EVENT time: 593.522949, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj  
timer started  
Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmm  
Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, pppppppppppppppppppp  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
TOLAYER3: packet being corrupted  
Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr  
TOLAYER3: packet being lost  
Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, ssssssssssssssssssss  
Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuuu

EVENT time: 593.626404, type: 2, fromlayer3 entity: 1  
Received at B: seq = 16, ack = -1, isACK = 1, checksum = ffef,  
Nack Received, Resent the window from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxxx  
TOLAYER3: packet being corrupted  
timer started  
Nack Received, Resent the window from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz  
Nack Received, Resent the window from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaa  
Nack Received, Resent the window from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
TOLAYER3: packet being lost  
Nack Received, Resent the window from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
Nack Received, Resent the window from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddd  
TOLAYER3: packet being lost  
Nack Received, Resent the window from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
Nack Received, Resent the window from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

EVENT time: 596.011414, type: 2, fromlayer3 entity: 0  
Received at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
Accpeted at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
Next A as receiver is expecting packet 19  
Ack sent from A: seq = 0, ack = 18, isACK = 1, checksum = ffec,  
TOLAYER3: packet being lost

EVENT time: 598.487976, type: 2, fromlayer3 entity: 1

Received at B: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss  
Resend last Ack sent from B: seq = 0, ack = 16, isACK = 1, checksum = ffee,

EVENT time: 600.291809, type: 2, fromlayer3 entity: 0  
Received at A: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd  
Accpeted at A: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd  
Next A as receiver is expecting packet 20  
Ack sent from A: seq = 0, ack = 19, isACK = 1, checksum = ffeb,

EVENT time: 601.112305, type: 1, fromlayer5 entity: 1  
Packet saved at index 33:  
Saved: seq = 33, ack = 0, isACK = 0, checksum = c3a2, llllllllllllllllll  
window full.

EVENT time: 602.918396, type: 2, fromlayer3 entity: 0  
Received at A: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhh  
Accpeted at A: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhh  
Next A as receiver is expecting packet 21  
Ack sent from A: seq = 0, ack = 20, isACK = 1, checksum = ffea,

EVENT time: 605.079407, type: 2, fromlayer3 entity: 1  
Received at B: seq = 12, ack = -1, isACK = 1, checksum = edf3,

Nack Received, Resent the window from B: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx  
timer started  
Nack Received, Resent the window from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzz  
TOLAYER3: packet being corrupted  
Nack Received, Resent the window from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
Nack Received, Resent the window from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
Nack Received, Resent the window from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
TOLAYER3: packet being corrupted  
Nack Received, Resent the window from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd  
TOLAYER3: packet being lost  
Nack Received, Resent the window from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhh  
TOLAYER3: packet being lost  
Nack Received, Resent the window from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

EVENT time: 605.455872, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 999999, isACK = 1, checksum = fff1,  
Corrupted Ack, ignore.

EVENT time: 608.892639, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 14, isACK = 1, checksum = fff0,  
Now base is at 15  
seq\_exxpect\_send\_B is 22  
still packets inflight, restart timer  
Sent from buffer: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkk

EVENT time: 612.203125, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 13, isACK = 1, checksum = fff1,  
Now base is at 14  
Seq\_expect\_send\_A is 21  
still packets inflight, restart timer  
Sent from buffer: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwwwwwwwwwwwwwwwwww

EVENT time: 612.755615, type: 2, fromlayer3 entity: 1  
Received at B: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj  
Packet already received. Ignore.

EVENT time: 617.682617, type: 1, fromlayer5 entity: 1  
Packet saved at index 34:  
Saved: seq = 34, ack = 0, isACK = 0, checksum = b997, mmmmmmmmmmmmmmmmmmm  
window full.

EVENT time: 620.982971, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 13, isACK = 1, checksum = fff1,  
Now base is at 14  
Seq\_expect\_send\_A is 22  
still packets inflight, restart timer

EVENT time: 621.203796, type: 2, fromlayer3 entity: 1  
Received at B: seq = 14, ack = 0, isACK = 0, checksum = b9ab, Zmmmmmmmmmmmmmmmmmmmm  
**Checksum error at B:** seq = 14, ack = 0, isACK = 0, checksum = b9ab, Zmmmmmmmmmmmmmmmmmmmm  
**Nak sent from B:** seq = 14, ack = -1, isACK = 1, checksum = fff1,

EVENT time: 625.443237, type: 1, fromlayer5 entity: 1  
Packet saved at index 35:  
Saved: seq = 35, ack = 0, isACK = 0, checksum = af8c, nnnnnnnnnnnnnnnnnnnnn  
**window full.**

EVENT time: 627.073853, type: 2, fromlayer3 entity: 0  
Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxx  
**Packet already received,** ignore.

EVENT time: 630.197388, type: 2, fromlayer3 entity: 1  
Received at B: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
**Packet already received.** Ignore.

EVENT time: 632.892639, type: 0, **timerinterrupt** entity: 1  
Sent from B: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz  
**TOLAYER3: packet being lost**  
timer started  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaaaa  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbbbb  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccccc  
Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddddd  
**TOLAYER3: packet being lost**  
Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
**TOLAYER3: packet being lost**  
Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii  
Sent from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkkk

EVENT time: 636.195435, type: 2, fromlayer3 entity: 0  
Received at A: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz  
**Packet already received,** ignore.

EVENT time: 637.810364, type: 2, fromlayer3 entity: 1  
Received at B: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, pppppppppppppppppppp  
**Packet already received.** Ignore.

EVENT time: 641.244507, type: 1, fromlayer5 entity: 1  
Packet saved at index 36:  
Saved: seq = 36, ack = 0, isACK = 0, checksum = a581, oooooooooooooooooooooo  
**window full.**

EVENT time: 641.777161, type: 2, fromlayer3 entity: 1  
Received at B: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
**Accpeted at B:** seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
Next B as receiver is expecting packet 18  
Ack sent from B: seq = 0, ack = 17, isACK = 1, checksum = ffed,

EVENT time: 644.490967, type: 2, fromlayer3 entity: 0  
Received at A: seq = 16, ack = 0, isACK = 999999, checksum = 3222, aaaaaaaaaaaaaaaaaaaaaa  
**Checksum error at A:** seq = 16, ack = 0, isACK = 999999, checksum = 3222, aaaaaaaaaaaaaaaaaaaaaa  
**Nak sent from A:** seq = 16, ack = -1, isACK = 1, checksum = ffef,

EVENT time: 644.982971, type: 0, **timerinterrupt** entity: 0  
Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm  
**TOLAYER3: packet being corrupted**  
timer started  
Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, pppppppppppppppppppp  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr  
Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, ssssssssssssssssssss  
**TOLAYER3: packet being lost**  
Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuuu  
Sent from A: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwwwwwwwwwwwwwwwwww

EVENT time: 645.590759, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrr  
 Accpeted at B: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrr  
 Next B as receiver is expecting packet 19  
 Ack sent from B: seq = 0, ack = 18, isACK = 1, checksum = ffec,

EVENT time: 648.909424, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
 Packet already received, igonre.

EVENT time: 649.132996, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 0, ack = 15, isACK = 1, checksum = ffef,  
 Now base is at 16  
 seq.exxpect\_send\_B is 23  
 still packets inflight, restart timer  
 Sent from buffer: seq = 23, ack = 0, isACK = 0, checksum = c3ac, llllllllllllllllll

EVENT time: 655.537354, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
 Packet already received, igonre.

EVENT time: 656.038818, type: 1, fromlayer5 entity: 0  
 Packet saved at index 30:  
 Saved: seq = 30, ack = 0, isACK = 0, checksum = 9b7d, pppppppppppppppppppp  
 window full.

EVENT time: 658.236755, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 17, ack = -1, isACK = 1, checksum = ffee,  
 Nack Received, Resent the window from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaa  
 timer started  
 Nack Received, Resent the window from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
 Nack Received, Resent the window from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
 Nack Received, Resent the window from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddddd  
 TOLAYER3: packet being corrupted  
 Nack Received, Resent the window from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
 Nack Received, Resent the window from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii  
 Nack Received, Resent the window from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkkk  
 TOLAYER3: packet being lost  
 Nack Received, Resent the window from B: seq = 23, ack = 0, isACK = 0, checksum = c3ac, llllllllllllllllll

EVENT time: 660.213379, type: 1, fromlayer5 entity: 0  
 Packet saved at index 31:  
 Saved: seq = 31, ack = 0, isACK = 0, checksum = 9172, qqqqqqqqqqqqqqqqqqqq  
 window full.

EVENT time: 660.408875, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddddd  
 Packet already received, igonre.

EVENT time: 660.740601, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj  
 Packet already received. Ignore.

EVENT time: 662.975342, type: 1, fromlayer5 entity: 0  
 Packet saved at index 32:  
 Saved: seq = 32, ack = 0, isACK = 0, checksum = 8767, rrrrrrrrrrrrrrrrrrr  
 window full.

EVENT time: 668.982971, type: 0, timerinterrupt entity: 0  
 Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm  
 TOLAYER3: packet being corrupted  
 timer started  
 Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
 TOLAYER3: packet being corrupted  
 Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppppp  
 TOLAYER3: packet being lost  
 Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
 Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrr



TOLAYER3: packet being corrupted

Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss  
Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuu  
Sent from A: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwwwwwwwwwwwwwwwwww

TOLAYER3: packet being lost

EVENT time: 670.140747, type: 2, fromlayer3 entity: 0  
Received at A: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhh  
Packet already received, ignore.

EVENT time: 670.522461, type: 2, fromlayer3 entity: 1  
Received at B: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmm  
Packet already received. Ignore.

EVENT time: 674.846680, type: 2, fromlayer3 entity: 0  
Received at A: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiii  
Accpeted at A: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiii  
Next A as receiver is expecting packet 22  
Ack sent from A: seq = 0, ack = 21, isACK = 1, checksum = ffe9,

EVENT time: 674.890503, type: 1, fromlayer5 entity: 1  
Packet saved at index 37:  
Saved: seq = 37, ack = 0, isACK = 0, checksum = 7d58, sssssssssssssssssss  
window full.

EVENT time: 678.567688, type: 2, fromlayer3 entity: 1  
Received at B: seq = 15, ack = 0, isACK = 0, checksum = a596, ooooooooooooooooooooo  
Packet already received. Ignore.

EVENT time: 682.236755, type: 0, timerinterrupt entity: 1  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaaa  
TOLAYER3: packet being lost  
timer started  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, ccccccccccccccccccc  
Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd  
TOLAYER3: packet being lost  
Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhh  
TOLAYER3: packet being lost  
Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiii  
Sent from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkk  
Sent from B: seq = 23, ack = 0, isACK = 0, checksum = c3ac, lllllllllllllllllll

EVENT time: 682.948608, type: 2, fromlayer3 entity: 0  
Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxx  
Packet already received, ignore.

EVENT time: 685.922424, type: 2, fromlayer3 entity: 0  
Received at A: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzz  
Packet already received, ignore.

EVENT time: 686.482788, type: 1, fromlayer5 entity: 1  
Packet saved at index 38:  
Saved: seq = 38, ack = 0, isACK = 0, checksum = 734d, ttttttttttttttttt  
window full.

EVENT time: 688.516052, type: 2, fromlayer3 entity: 1  
Received at B: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppp  
Packet already received. Ignore.

EVENT time: 691.599121, type: 2, fromlayer3 entity: 1  
Received at B: seq = 17, ack = 999999, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqq  
Checksum error at B: seq = 17, ack = 999999, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqq  
Nak sent from B: seq = 17, ack = -1, isACK = 1, checksum = ffee,

EVENT time: 692.982971, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmm  
timer started  
Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, ooooooooooooooooooooo

TOLAYER3: packet being corrupted  
 Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppp  
 Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqq  
 TOLAYER3: packet being corrupted  
 Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrr  
 TOLAYER3: packet being lost  
 Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss  
 Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuu  
 Sent from A: seq = 21, ack = 0, isACK = 0, checksum = 5540, vvvvvvvvvvvvvvvvvvvvvvv  
 TOLAYER3: packet being lost

EVENT time: 693.133362, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrr  
 Packet already received. Ignore.

EVENT time: 694.967712, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 999999, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss  
 Checksum error at B: seq = 999999, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss  
 Nak sent from B: seq = 999999, ack = -1, isACK = 1, checksum = ca1d, ??D?

EVENT time: 695.094788, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
 Packet already received, ignore.

EVENT time: 701.119019, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbb  
 Packet already received, ignore.

EVENT time: 701.980225, type: 1, fromlayer5 entity: 0  
 Packet saved at index 33:  
 Saved: seq = 33, ack = 0, isACK = 0, checksum = 6948, uuuuuuuuuuuuuuuuuuu  
 window full.

EVENT time: 703.089294, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 12, ack = 999999, isACK = 1, checksum = c60, ??D?  
 Corrupted Ack, ignore.

EVENT time: 704.187805, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
 Packet already received, ignore.

EVENT time: 706.236755, type: 0, timerinterrupt entity: 1  
 Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
 timer started  
 Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbb  
 TOLAYER3: packet being lost  
 Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
 Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd  
 Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
 Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii  
 Sent from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkk  
 TOLAYER3: packet being lost  
 Sent from B: seq = 23, ack = 0, isACK = 0, checksum = c3ac, llllllllllllllllll

EVENT time: 706.623901, type: 2, fromlayer3 entity: 0  
 Received at A: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd  
 Packet already received, ignore.

EVENT time: 708.048279, type: 2, fromlayer3 entity: 1  
 Received at B: seq = 14, ack = -1, isACK = 999999, checksum = 125e,  
 ??D?  
 Checksum error at B: seq = 14, ack = -1, isACK = 999999, checksum = 125e,  
 ??D?  
 Nak sent from B: seq = 14, ack = -1, isACK = 1, checksum = 906a, {??D?  
 TOLAYER3: packet being corrupted

EVENT time: 712.793335, type: 1, fromlayer5 entity: 1  
 Packet saved at index 39:  
 Saved: seq = 39, ack = 0, isACK = 0, checksum = 5f38, vvvvvvvvvvvvvvvvvvv

window full.

EVENT time: 715.729492, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 15, isACK = 1, checksum = ffef,  
Now base is at 16  
seq\_expect\_send\_B is 24

still packets inflight, restart timer

EVENT time: 716.070862, type: 2, fromlayer3 entity: 0  
Received at A: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhh  
Packet already received, ignore.

EVENT time: 716.982971, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm  
timer started  
Sent from A: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
Sent from A: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppppp  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr  
TOLAYER3: packet being corrupted  
Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, ssssssssssssssssssss  
Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuuu  
Sent from A: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwwwwwwwwwwwwwwwwww  
TOLAYER3: packet being lost

EVENT time: 717.041321, type: 2, fromlayer3 entity: 1  
Received at B: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmmm  
Packet already received. Ignore.

EVENT time: 717.590576, type: 2, fromlayer3 entity: 0  
Received at A: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii  
Packet already received, ignore.

EVENT time: 720.066650, type: 1, fromlayer5 entity: 0  
Packet saved at index 34:  
Saved: seq = 34, ack = 0, isACK = 0, checksum = 5533, wwwwwwwwwwwwwwwwwwwww  
window full.

EVENT time: 723.634766, type: 2, fromlayer3 entity: 0  
Received at A: seq = 0, ack = 16, isACK = 1, checksum = ffee,  
Now base is at 17  
Seq\_expect\_send\_A is 22  
still packets inflight, restart timer  
Sent from buffer: seq = 22, ack = 0, isACK = 0, checksum = 4b35, xxxxxxxxxxxxxxxxxxxx  
Sent from buffer: seq = 23, ack = 0, isACK = 0, checksum = 2811, bbbbbbbbbbbbbbbbbbbb  
Sent from buffer: seq = 24, ack = 0, isACK = 0, checksum = 1e06, cccccccccccccccccc

EVENT time: 725.245361, type: 2, fromlayer3 entity: 1  
Received at B: seq = 999999, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
Checksum error at B: seq = 999999, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
Nak sent from B: seq = 999999, ack = -1, isACK = 1, checksum = d01d,  
??D?

EVENT time: 731.244507, type: 2, fromlayer3 entity: 1  
Received at B: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr  
Packet already received. Ignore.

EVENT time: 732.480530, type: 2, fromlayer3 entity: 0  
Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx  
Packet already received, ignore.

EVENT time: 732.848145, type: 1, fromlayer5 entity: 1  
Packet saved at index 40:  
Saved: seq = 40, ack = 0, isACK = 0, checksum = 4b23, xxxxxxxxxxxxxxxxxxxx  
window full.

EVENT time: 739.729492, type: 0, timerinterrupt entity: 1  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
timer started

Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb

TOLAYER3: packet being lost

Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc

Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddd

TOLAYER3: packet being lost

Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh

Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

TOLAYER3: packet being corrupted

Sent from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkkk

TOLAYER3: packet being lost

Sent from B: seq = 23, ack = 0, isACK = 0, checksum = c3ac, llllllllllllllllll

EVENT time: 740.944153, type: 2, fromlayer3 entity: 1

Received at B: seq = 12, ack = -1, isACK = 1, checksum = 1260, Z

??D?

Corrupted Ack, ignore.

EVENT time: 741.282715, type: 2, fromlayer3 entity: 0

Received at A: seq = 15, ack = 0, isACK = 0, checksum = 3728, Zzzzzzzzzzzzzzzzzzzz

Checksum error at A: seq = 15, ack = 0, isACK = 0, checksum = 3728, Zzzzzzzzzzzzzzzzzzzz

Nak sent from A: seq = 15, ack = -1, isACK = 1, checksum = 9069, ?{??D?

EVENT time: 744.162537, type: 2, fromlayer3 entity: 0

Received at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb

Packet already received, ignore.

EVENT time: 744.261536, type: 1, fromlayer5 entity: 0

Packet saved at index 35:

Saved: seq = 35, ack = 0, isACK = 0, checksum = 411e, yyyyyyyyyyyyyyyyyyyy

window full.

EVENT time: 747.241699, type: 2, fromlayer3 entity: 1

Received at B: seq = 17, ack = -1, isACK = 1, checksum = 125b,

??D?

Nack Received, Resent the window from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaaaa

TOLAYER3: packet being lost

timer started

Nack Received, Resent the window from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb

Nack Received, Resent the window from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc

Nack Received, Resent the window from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddd

Nack Received, Resent the window from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh

TOLAYER3: packet being corrupted

Nack Received, Resent the window from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

Nack Received, Resent the window from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkk

Nack Received, Resent the window from B: seq = 23, ack = 0, isACK = 0, checksum = c3ac, llllllllllllllllll

EVENT time: 747.634766, type: 0, timerinterrupt entity: 0

Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqq

timer started

Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrr

TOLAYER3: packet being corrupted

Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss

Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuu

TOLAYER3: packet being lost

Sent from A: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwwwwwwwwwwwwwwww

Sent from A: seq = 22, ack = 0, isACK = 0, checksum = 4b35, xxxxxxxxxxxxxxxxxxxx

Sent from A: seq = 23, ack = 0, isACK = 0, checksum = 2811, bbbbbbbbbbbbbbbbbbbb

Sent from A: seq = 24, ack = 0, isACK = 0, checksum = 1e06, cccccccccccccccccc

EVENT time: 747.762329, type: 2, fromlayer3 entity: 0

Received at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc

Packet already received, ignore.

EVENT time: 748.312073, type: 1, fromlayer5 entity: 1

Packet saved at index 41:

Saved: seq = 41, ack = 0, isACK = 0, checksum = 370e, zzzzzzzzzzzzzzzzzzzz

window full.

EVENT time: 753.357727, type: 2, fromlayer3 entity: 1

Received at B: seq = 0, ack = 15, isACK = 1, checksum = ffef,

Now base is at 16

seq\_expect\_send\_B is 24

still packets inflight, restart timer

EVENT time: 754.806824, type: 2, fromlayer3 entity: 0

Received at A: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd

Packet already received, ignore.

EVENT time: 755.037048, type: 2, fromlayer3 entity: 1

Received at B: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj

Packet already received, Ignore.

EVENT time: 757.223206, type: 2, fromlayer3 entity: 1

Received at B: seq = 14, ack = 0, isACK = 0, checksum = b9ab, Zmmmmmmmmmmmmmmmmmmmm

Checksum error at B: seq = 14, ack = 0, isACK = 0, checksum = b9ab, Zmmmmmmmmmmmmmmmmmmmm

Nak sent from B: seq = 14, ack = -1, isACK = 1, checksum = fff1,

EVENT time: 762.212585, type: 1, fromlayer5 entity: 0

Packet saved at index 36:

Saved: seq = 36, ack = 0, isACK = 0, checksum = 320e, aaaaaaaaaaaaaaaaaaaaa

window full.

EVENT time: 763.528442, type: 2, fromlayer3 entity: 0

Received at A: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhhh

Packet already received, ignore.

EVENT time: 765.809998, type: 1, fromlayer5 entity: 0

Packet saved at index 37:

Saved: seq = 37, ack = 0, isACK = 0, checksum = 2803, bbbbbbbbbbbbbbbbbbbbbb

window full.

EVENT time: 766.122131, type: 2, fromlayer3 entity: 1

Received at B: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppppp

Packet already received, Ignore.

EVENT time: 768.534790, type: 2, fromlayer3 entity: 0

Received at A: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii

Packet already received, ignore.

EVENT time: 771.634766, type: 0, timerinterrupt entity: 0

Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq

TOLAYER3: packet being lost

timer started

Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr

Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, ssssssssssssssssssss

TOLAYER3: packet being corrupted

Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuuu

Sent from A: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwwwwwwwwwwwwwwwwww

Sent from A: seq = 22, ack = 0, isACK = 0, checksum = 4b35, xxxxxxxxxxxxxxxxxxxxxx

Sent from A: seq = 23, ack = 0, isACK = 0, checksum = 2811, bbbbbbbbbbbbbbbbbbbb

TOLAYER3: packet being lost

Sent from A: seq = 24, ack = 0, isACK = 0, checksum = 1e06, cccccccccccccccccc

EVENT time: 773.667419, type: 1, fromlayer5 entity: 1

Packet saved at index 42:

Saved: seq = 42, ack = 0, isACK = 0, checksum = 1df4, cccccccccccccccccc

window full.

EVENT time: 773.821350, type: 2, fromlayer3 entity: 1

Received at B: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq

Packet already received, Ignore.

EVENT time: 775.799744, type: 1, fromlayer5 entity: 1

Packet saved at index 43:

Saved: seq = 43, ack = 0, isACK = 0, checksum = 13e9, dddddddddddddddddd

window full.

EVENT time: 777.013428, type: 2, fromlayer3 entity: 0

Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxx  
Packet already received, ignore.

EVENT time: 777.357727, type: 0, timerinterrupt entity: 1

Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa

TOLAYER3: packet being lost

timer started

Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbb

TOLAYER3: packet being lost

Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, ccccccccccccccccc

Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, ddddddddddddddddddd

Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhh

Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiii

TOLAYER3: packet being corrupted

Sent from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkk

TOLAYER3: packet being lost

Sent from B: seq = 23, ack = 0, isACK = 0, checksum = c3ac, lllllllllllllllll

TOLAYER3: packet being corrupted

EVENT time: 777.685791, type: 2, fromlayer3 entity: 1

Received at B: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrr

Packet already received. Ignore.

EVENT time: 781.213623, type: 2, fromlayer3 entity: 0

Received at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, Zcccccccccccccccc

Checksum error at A: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, Zcccccccccccccccc

Nak sent from A: seq = 18, ack = -1, isACK = 1, checksum = 9066, ???D?

EVENT time: 783.116455, type: 2, fromlayer3 entity: 1

Received at B: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, Zssssssssssssssssss

Checksum error at B: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, Zssssssssssssssssss

Nak sent from B: seq = 19, ack = -1, isACK = 1, checksum = 9065, ???D?

TOLAYER3: packet being corrupted

EVENT time: 788.849792, type: 2, fromlayer3 entity: 0

Received at A: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhh

Packet already received, ignore.

EVENT time: 788.953369, type: 2, fromlayer3 entity: 1

Received at B: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuu

Resend last Ack sent from B: seq = 0, ack = 18, isACK = 1, checksum = ffec,

TOLAYER3: packet being lost

EVENT time: 790.020935, type: 1, fromlayer5 entity: 1

Packet saved at index 44:

Saved: seq = 44, ack = 0, isACK = 0, checksum = 9de, eeeeeeeeeeeeeeeeeee

window full.

EVENT time: 794.920105, type: 2, fromlayer3 entity: 1

Received at B: seq = 999999, ack = 17, isACK = 1, checksum = ffed,

Corrupted Ack, ignore.

EVENT time: 795.634766, type: 0, timerinterrupt entity: 0

Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqq

TOLAYER3: packet being corrupted

timer started

Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrr

TOLAYER3: packet being lost

Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss

Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuu

TOLAYER3: packet being corrupted

Sent from A: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwwwwwwwwwwwwwwww

TOLAYER3: packet being lost

Sent from A: seq = 22, ack = 0, isACK = 0, checksum = 4b35, xxxxxxxxxxxxxxxxxxxx

Sent from A: seq = 23, ack = 0, isACK = 0, checksum = 2811, bbbbbbbbbbbbbbbbbbb

Sent from A: seq = 24, ack = 0, isACK = 0, checksum = 1e06, ccccccccccccccccc

EVENT time: 796.827393, type: 2, fromlayer3 entity: 0

Received at A: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiii

Packet already received, ignore.

EVENT time: 799.541504, type: 2, fromlayer3 entity: 1  
Received at B: seq = 13, ack = 0, isACK = 0, checksum = d7ca, jjjjjjjjjjjjjjjjjj  
Packet already received. Ignore.

EVENT time: 801.357727, type: 0, timerinterrupt entity: 1  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
timer started  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbbb  
TOLAYER3: packet being lost  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccccc  
TOLAYER3: packet being corrupted  
Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddddd  
Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii  
TOLAYER3: packet being corrupted  
Sent from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkkk  
Sent from B: seq = 23, ack = 0, isACK = 0, checksum = c3ac, llllllllllllllllllll  
TOLAYER3: packet being lost

EVENT time: 802.801575, type: 2, fromlayer3 entity: 0  
Received at A: seq = 11, ack = -1, isACK = 1, checksum = 1261, Z  
??D?  
Corrupted Ack, ignore.

EVENT time: 803.029846, type: 2, fromlayer3 entity: 1  
Received at B: seq = 14, ack = 0, isACK = 0, checksum = b9ab, mmmmmmmmmmmmmmmmmmmm  
Packet already received. Ignore.

EVENT time: 804.214783, type: 2, fromlayer3 entity: 1  
Received at B: seq = 15, ack = 0, isACK = 0, checksum = a596, oooooooooooooooooooooo  
Packet already received. Ignore.

EVENT time: 805.711670, type: 1, fromlayer5 entity: 1  
Packet saved at index 45:  
Saved: seq = 45, ack = 0, isACK = 0, checksum = ffd2, ffffffffffffffffffff  
window full.

EVENT time: 806.108887, type: 2, fromlayer3 entity: 1  
Received at B: seq = 16, ack = 0, isACK = 0, checksum = 9b8b, ppppppppppppppppppppp  
Packet already received. Ignore.

EVENT time: 810.524231, type: 2, fromlayer3 entity: 0  
Received at A: seq = 14, ack = 0, isACK = 0, checksum = 4b3d, xxxxxxxxxxxxxxxxxxxxxx  
Packet already received, ignore.

EVENT time: 811.807861, type: 2, fromlayer3 entity: 1  
Received at B: seq = 17, ack = 0, isACK = 0, checksum = 9180, Zqqqqqqqqqqqqqqqqqqq  
Checksum error at B: seq = 17, ack = 0, isACK = 0, checksum = 9180, Zqqqqqqqqqqqqqqqqqqq  
Nak sent from B: seq = 17, ack = -1, isACK = 1, checksum = ffee,  
TOLAYER3: packet being corrupted

EVENT time: 813.053406, type: 2, fromlayer3 entity: 0  
Received at A: seq = 15, ack = 0, isACK = 0, checksum = 3728, zzzzzzzzzzzzzzzzzzzz  
Packet already received, ignore.

EVENT time: 819.634766, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqqq  
timer started  
Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrrr  
Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, ssssssssssssssssssss  
TOLAYER3: packet being lost  
Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuuu  
TOLAYER3: packet being corrupted  
Sent from A: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwwwwwwwwwwwwwwwwwww  
Sent from A: seq = 22, ack = 0, isACK = 0, checksum = 4b35, xxxxxxxxxxxxxxxxxxxxxx  
Sent from A: seq = 23, ack = 0, isACK = 0, checksum = 2811, bbbbbbbbbbbbbbbbbbbb  
Sent from A: seq = 24, ack = 0, isACK = 0, checksum = 1e06, cccccccccccccccccc

TOLAYER3: packet being corrupted

EVENT time: 819.742676, type: 1, fromlayer5 entity: 1  
Packet saved at index 46:  
Saved: seq = 46, ack = 0, isACK = 0, checksum = f5c7, gggggggggggggggggggg  
window full.

EVENT time: 820.694946, type: 2, fromlayer3 entity: 1  
Received at B: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss  
Accpeted at B: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss  
Next B as receiver is expecting packet 20  
Ack sent from B: seq = 0, ack = 19, isACK = 1, checksum = ffeb,  
TOLAYER3: packet being lost

EVENT time: 822.829102, type: 2, fromlayer3 entity: 1  
Received at B: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuu  
Accpeted at B: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuu  
Next B as receiver is expecting packet 21  
Ack sent from B: seq = 0, ack = 20, isACK = 1, checksum = ffea,

EVENT time: 822.896790, type: 2, fromlayer3 entity: 0  
Received at A: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
Packet already received, ignore.

EVENT time: 825.357727, type: 0, timerinterrupt entity: 1  
Sent from B: seq = 16, ack = 0, isACK = 0, checksum = 3222, aaaaaaaaaaaaaaaaaa  
timer started  
Sent from B: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbb  
Sent from B: seq = 18, ack = 0, isACK = 0, checksum = 1e0c, cccccccccccccccccc  
TOLAYER3: packet being lost  
Sent from B: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddd  
TOLAYER3: packet being lost  
Sent from B: seq = 20, ack = 0, isACK = 0, checksum = ebd7, hhhhhhhhhhhhhhhhhhhh  
TOLAYER3: packet being corrupted  
Sent from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiiii  
Sent from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkk  
TOLAYER3: packet being corrupted  
Sent from B: seq = 23, ack = 0, isACK = 0, checksum = c3ac, llllllllllllllllll

EVENT time: 828.435181, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 19, isACK = 1, checksum = ffeb,  
Now base is at 20  
seq\_exxpect\_send\_B is 24  
still packets inflight, restart timer  
Sent from buffer: seq = 24, ack = 0, isACK = 0, checksum = af97, nnnnnnnnnnnnnnnnnnn  
Sent from buffer: seq = 25, ack = 0, isACK = 0, checksum = 735a, tttttttttttttttt  
TOLAYER3: packet being corrupted  
Sent from buffer: seq = 26, ack = 0, isACK = 0, checksum = 5f45, vvvvvvvvvvvvvvvvvvv  
Sent from buffer: seq = 27, ack = 0, isACK = 0, checksum = 4126, yyyyyyyyyyyyyyyyyyy

EVENT time: 828.876099, type: 2, fromlayer3 entity: 0  
Received at A: seq = 17, ack = 0, isACK = 0, checksum = 2817, bbbbbbbbbbbbbbbbbbb  
Packet already received, ignore.

EVENT time: 830.011658, type: 2, fromlayer3 entity: 1  
Received at B: seq = 0, ack = 20, isACK = 1, checksum = ffea,  
Now base is at 21  
seq\_exxpect\_send\_B is 28  
still packets inflight, restart timer  
Sent from buffer: seq = 28, ack = 0, isACK = 0, checksum = 371b, zzzzzzzzzzzzzzzzzzz

EVENT time: 830.241577, type: 2, fromlayer3 entity: 0  
Received at A: seq = 19, ack = 0, isACK = 0, checksum = 1401, dddddddddddddddddd  
Packet already received, ignore.

EVENT time: 831.073425, type: 1, fromlayer5 entity: 1  
Packet saved at index 47:  
Saved: seq = 47, ack = 0, isACK = 0, checksum = ebbc, hhhhhhhhhhhhhhhhhhhh  
window full.



EVENT time: 832.738525, type: 1, fromlayer5 entity: 0  
Packet saved at index 38:  
Saved: seq = 38, ack = 0, isACK = 0, checksum = e1bb, iiiiiiiiiiiiiiiii  
window full.

EVENT time: 837.529541, type: 2, fromlayer3 entity: 1  
Received at B: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwww  
Accpeted at B: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwww  
Next B as receiver is expecting packet 22  
Ack sent from B: seq = 0, ack = 21, isACK = 1, checksum = ffe9,

EVENT time: 838.378662, type: 1, fromlayer5 entity: 1  
Packet saved at index 48:  
Saved: seq = 48, ack = 0, isACK = 0, checksum = d7a7, jjjjjjjjjjjjjjjj  
window full.

EVENT time: 839.777588, type: 2, fromlayer3 entity: 0  
Received at A: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiii  
Packet already received, ignore.

EVENT time: 842.277527, type: 2, fromlayer3 entity: 0  
Received at A: seq = 14, ack = -1, isACK = 1, checksum = 906a, Z?{??D?  
Corrupted Ack, ignore.

EVENT time: 842.346680, type: 1, fromlayer5 entity: 1  
Packet saved at index 49:  
Saved: seq = 49, ack = 0, isACK = 0, checksum = cd9c, kkkkkkkkkkkkkkkkkkk  
window full.

EVENT time: 842.571289, type: 2, fromlayer3 entity: 1  
Received at B: seq = 16, ack = -1, isACK = 1, checksum = ffef,  
Nack Received, Resent the window from B: seq = 21, ack = 0, isACK = 0, checksum = e1cc, iiiiiiiiiiiiiiiii  
timer started  
Nack Received, Resent the window from B: seq = 22, ack = 0, isACK = 0, checksum = cdb7, kkkkkkkkkkkkkkkkkkk  
Nack Received, Resent the window from B: seq = 23, ack = 0, isACK = 0, checksum = c3ac, llllllllllllllllllll  
Nack Received, Resent the window from B: seq = 24, ack = 0, isACK = 0, checksum = af97, nnnnnnnnnnnnnnnnnnnn  
Nack Received, Resent the window from B: seq = 25, ack = 0, isACK = 0, checksum = 735a, tttttttttttttttttt  
Nack Received, Resent the window from B: seq = 26, ack = 0, isACK = 0, checksum = 5f45, vvvvvvvvvvvvvvvvvvvv  
TOLAYER3: packet being lost  
Nack Received, Resent the window from B: seq = 27, ack = 0, isACK = 0, checksum = 4126, yyyyyyyyyyyyyyyyyyyy  
TOLAYER3: packet being corrupted  
Nack Received, Resent the window from B: seq = 28, ack = 0, isACK = 0, checksum = 371b, zzzzzzzzzzzzzzzzzzzz

EVENT time: 843.634766, type: 0, timerinterrupt entity: 0  
Sent from A: seq = 17, ack = 0, isACK = 0, checksum = 9180, qqqqqqqqqqqqqqqqqqq  
timer started  
Sent from A: seq = 18, ack = 0, isACK = 0, checksum = 8775, rrrrrrrrrrrrrrrrrrr  
TOLAYER3: packet being corrupted  
Sent from A: seq = 19, ack = 0, isACK = 0, checksum = 7d6a, sssssssssssssssssss  
TOLAYER3: packet being corrupted  
Sent from A: seq = 20, ack = 0, isACK = 0, checksum = 6955, uuuuuuuuuuuuuuuuuuu  
TOLAYER3: packet being corrupted  
Sent from A: seq = 21, ack = 0, isACK = 0, checksum = 5540, wwwwww  
Sent from A: seq = 22, ack = 0, isACK = 0, checksum = 4b35, xxxxxxxxxxxxxxxxxxxxx  
TOLAYER3: packet being corrupted  
Sent from A: seq = 23, ack = 0, isACK = 0, checksum = 2811, bbbbbbbbbbbbbbbbbbbb  
Sent from A: seq = 24, ack = 0, isACK = 0, checksum = 1e06, cccccccccccccccccc

EVENT time: 848.169617, type: 1, fromlayer5 entity: 0  
Packet saved at index 39:  
Saved: seq = 39, ack = 0, isACK = 0, checksum = c39c, llllllllllllllllllll  
window full.

EVENT time: 849.934082, type: 2, fromlayer3 entity: 1  
Simulator terminated at time 849.934082  
after sending 90 msgs from layer5  
Jies-MBP-2:project2 jay\$