initialization:

ws=3

loss probability=0

node0 starts at 0 s

//the errors and the trailer here are not realistic, they are just examples

// use this just as a guideline "with a grain of salt", as it is not a computer generated file.

input file

0000 aaaa

0000 b$bbb

0000 ccc$$c

0000 d/$ddd

0000 $eeee$

0100 aa

1000 bb

0000 cc

0001 dd

0100 ee

0000 ta

0000 tb

0000 tc

0011 fa

0010 fb

1100 fc

expected log file – the trailer calculations are not accurate

At [0] , Node [0] , Introducing channel error with code =[0000]
At time [0.5], Node[0] [sent] frame with seq_num=[0] and payload=[$aaaa$] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[aaaa] and seq_num =[0] to the network layer
At time[2.0], Node[1] Sending [ACK] with number [1] , loss [No]

At [0.5] , Node [0] , Introducing channel error with code =[0000]
At time [1], Node[0] [sent] frame with seq_num=[1] and payload=[$b/$bbb$] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[b$bbb] and seq_num =[1] to the network layer
At time[2.5], Node[1] Sending [ACK] with number [2] , loss [No]

At [1] , Node [0] , Introducing channel error with code =[0000]
At time [1.5], Node[0] [sent] frame with seq_num=[2] and payload=[$ ccc/$/$c$] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[ccc$$c] and seq_num =[2] to the network layer
At time[3.0], Node[1] Sending [ACK] with number [3] , loss [No]

At [1.5] , Node [0] , Introducing channel error with code =[0000]
At time [2.0], Node[0] [sent] frame with seq_num=[3] and payload=[$d///$ddd$] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[d/$ddd] and seq_num =[3] to the network layer
At time[3.5], Node[1] Sending [ACK] with number [0] , loss [No]

At [3.0] , Node [0] , Introducing channel error with code =[0000]
At time [3.5], Node[0] [sent] frame with seq_num=[0] and payload=[$/$eeee/$$] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[$eeee$] and seq_num =[0] to the network layer
At time[5.0], Node[1] Sending [ACK] with number [1] , loss [No]

At [3.5] , Node [0] , Introducing channel error with code =[0100]
At time [4.0], Node[0] [sent] frame with seq_num=[1] and payload=[aa] and trailer=[0000] , Modified [-1] , Lost [yes], Duplicate [0], Delay [0].

At [4.0] , Node [0] , Introducing channel error with code =[1000]
At time [4.5], Node[0] [sent] frame with seq_num=[2] and payload=[bg] and trailer=[0001] , Modified [1] , Lost [No], Duplicate [0], Delay [0].

At [4.5] , Node [0] , Introducing channel error with code =[0000]
At time [5.0], Node[0] [sent] frame with seq_num=[3] and payload=[cc] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

At [6.0] , Node [0] , Introducing channel error with code =[0001]
At time [6.5], Node[0] [sent] frame with seq_num=[0] and payload=[dd] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [4].

Time out event at time [14], at Node[0] for frame with seq_num=[1]

At time [14.5], Node[0] [sent] frame with seq_num=[1] and payload=[aa] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[aa] and seq_num =[1] to the network layer
At time[16], Node[1] Sending [ACK] with number [2] , loss [No]

At [14.5] , Node [0] , Introducing channel error with code =[1000]
At time [15], Node[0] [sent] frame with seq_num=[2] and payload=[bg] and trailer=[0001] , Modified [1] , Lost [No], Duplicate [0], Delay [0].

At time[16.5], Node[1] Sending [NACK] with number [2] , loss [No]

At [15] , Node [0] , Introducing channel error with code =[0000]
At time [15.5], Node[0] [sent] frame with seq_num=[3] and payload=[cc] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

At [15.5] , Node [0] , Introducing channel error with code =[0001]
At time [16], Node[0] [sent] frame with seq_num=[0] and payload=[dd] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [4].

At time [18], Node[0] [sent] frame with seq_num=[2] and payload=[bb] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[bb] and seq_num =[2] to the network layer
At time[19], Node[1] Sending [ACK] with number [3] , loss [No]

At [18] , Node [0] , Introducing channel error with code =[0000]
At time [18.5], Node[0] [sent] frame with seq_num=[3] and payload=[cc] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[cc] and seq_num =[3] to the network layer
At time[19.5], Node[1] Sending [ACK] with number [0] , loss [No]

At [18.5] , Node [0] , Introducing channel error with code =[0001]
At time [19], Node[0] [sent] frame with seq_num=[0] and payload=[dd] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [4].

At [19] , Node [0] , Introducing channel error with code =[0100]
At time [19.5], Node[0] [sent] frame with seq_num=[1] and payload=[ee] and trailer=[0000] , Modified [-1] , Lost [yes], Duplicate [0], Delay [0].

At [20], Node [0] , Introducing channel error with code =[0000]
At time [20.5], Node[0] [sent] frame with seq_num=[2] and payload=[ta] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

At [20.5] , Node [0] , Introducing channel error with code =[0000]
At time [21], Node[0] [sent] frame with seq_num=[3] and payload=[tb] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[dd] and seq_num =[0] to the network layer
At time[24.5], Node[1] Sending [ACK] with number [1] , loss [No]

Time out event at time [29.5], at Node[0] for frame with seq_num=[1]

At time [30], Node[0] [sent] frame with seq_num=[1] and payload=[ee] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[ee] and seq_num =[1] to the network layer
At time[31.5], Node[1] Sending [ACK] with number [2] , loss [No]

At [30] , Node [0] , Introducing channel error with code =[0000]
At time [30.5], Node[0] [sent] frame with seq_num=[2] and payload=[ta] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[ta] and seq_num =[2] to the network layer
At time[32], Node[1] Sending [ACK] with number [3] , loss [No]

At [30.5] , Node [0] , Introducing channel error with code =[0000]
At time [31], Node[0] [sent] frame with seq_num=[3] and payload=[tb] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[tb] and seq_num =[3] to the network layer
At time[32.5], Node[1] Sending [ACK] with number [0] , loss [No]

At [31] , Node [0] , Introducing channel error with code =[0000]
At time [31.5], Node[0] [sent] frame with seq_num=[0] and payload=[tc] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[tc] and seq_num =[0] to the network layer
At time[33], Node[1] Sending [ACK] with number [1] , loss [No]

At [31.5] , Node [0] , Introducing channel error with code =[0011]

At time [32], Node[0] [sent] frame with seq_num=[1] and payload=[fa] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [1], Delay [4].

At time [32.1.], Node[0] [sent] frame with seq_num=[1] and payload=[fa] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [2], Delay [4].

Uploading payload=[fa] and seq_num =[1] to the network layer
At time[37.5], Node[1] Sending [ACK] with number [2] , loss [No]

At [32.5] , Node [0] , Introducing channel error with code =[0010]

At time [33], Node[0] [sent] frame with seq_num=[2] and payload=[fb] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [1], Delay [0].

At time [33.1], Node[0] [sent] frame with seq_num=[2] and payload=[fb] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [2], Delay [0].

Uploading payload=[fb] and seq_num =[2] to the network layer
At time[34.5], Node[1] Sending [ACK] with number [3] , loss [No]

At [33.5] , Node [0] , Introducing channel error with code =[1100]

At time [34], Node[0] [sent] frame with seq_num=[3] and payload=[fm] and trailer=[0001] , Modified [1] , Lost [Yes], Duplicate [0], Delay [0].

At time[35], Node[1] Sending [NACK] with number [3] , loss [No]

At time [36.5], Node[0] [sent] frame with seq_num=[3] and payload=[fc] and trailer=[0000] , Modified [-1] , Lost [No], Duplicate [0], Delay [0].

Uploading payload=[fc] and seq_num =[3] to the network layer
At time[38], Node[1] Sending [ACK] with number [0] , loss [No]