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**Instructions**

1)Open two terminal windows

2)Run LinkReceiver program

2a)Enter “ outfile.txt “ into text field

2b)Decide if you want

3)Run LinkSender program

2a)Enter either “Mission1.txt , Mission2.txt, Mission0.txt”

2b)Answer if you want trace on or off

2c)Answer if you want an Error rate

1)Enter error rate you want between 0 and 100.

\*Note if you don’t know how to run program in terminal follow these instructions\*

For MAC

Step 1) Save the folder to the desktop that contains the programs

Step 2) type cd: desktop

Step 3)type cd: cs313project (or the name of file it is saved as)

Step 4)type Javac LinkReceiver (this will compile)

Step 5) type Java LinkReceiver (this will run the file.)

Step 6) follow prompts.

Step 7) On new terminal repeat steps 1-3

Step 8) Repeat step 4-6, but change LinkReceiver to LinkSender.

**Analysis** Sent/Theo

10%- 58 /61.1 59/61.1 60/61.1 63/61.1 61/61.1

50%- 109/110 106/110 109/110 107/110 112/110

90%- crash 524/550 566/550 crash 465/110

Looking at this small bit of data, I would say that the theoretical is a good indication of an average estimate of how many actual frames will be sent. The data to me shows that very well. That formula is a good estimate of how many frames it will take if you know the an average damage rate might be for the data.

**Learned**

For me the biggest thing that I learned, was start small and work your way up. In terms of what does the program need first to run properly. In this case I needed to have a frame of my own that can handle at least one send, followed by the reuse of that same frame for multiple sends. As well as the importance of being able to read another person’s code. With the code you provided us I learned a lot just be reading it and understanding how your code works, while at the same time thinking of how to manipulate that code into what I need it to do.

**Obstacles**

Few issues that arise for me was not knowing exactly how the code worked that you send us. I’ve personally never dealt with ports, and having two terminals talk to each other. It took a lot of reading and using the code to understand what was happening.

Not knowing about the System.arraycopy function really held me back until Brian told me about it.

Other than those few issues it was just a slow crawl of testing ideas, and scraping ideas, until it worked.

**Comments**

This is definitely a great program, for a larger scale project. And a great way of teaching how two computers might talk to each other, and what programmers need to consider when dealing with networks.

**Known bugs**

Current known bugs, high error rate, may lead to a crash in the system.

When reading Mission2.txt the last field that gets read gets saved correct but off by one line.