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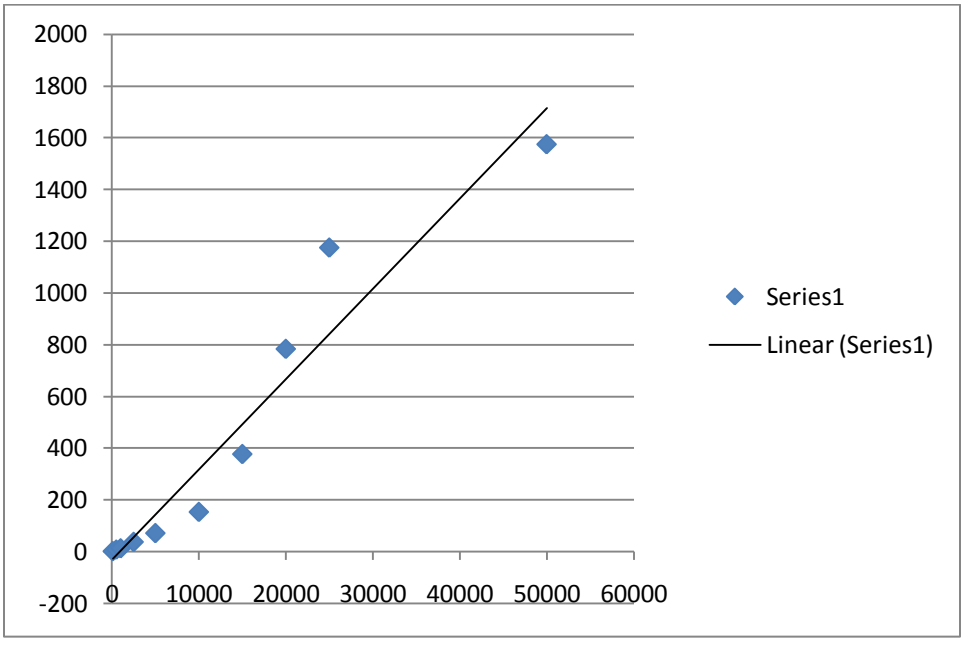
File Size vs. Duration of Transfer

Parameter	Nominal Value
File Size	x
Server-To-Client Loss Rate	5%
Client-To-Server Loss Rate	5%
Segment Size	1000 bytes

File Size (bytes)	Time (seconds)
100000	1
500000	7
1000000	12
2500000	37
5000000	71
10000000	153
25000000	377
50000000	784
75000000	1176
100000000	1576

My parameters for the experiment are listed above in the left table. The Here is the data involving the length of file size and the amount of time it took to transfer in seconds. As one would expect, the more bytes there are to transfer at a particular segment size, the longer it will take to transfer the file over. I didn't have any problems with this function. Below is the graph of the data, it is very linear.

I didn't have any complications with this particular function.



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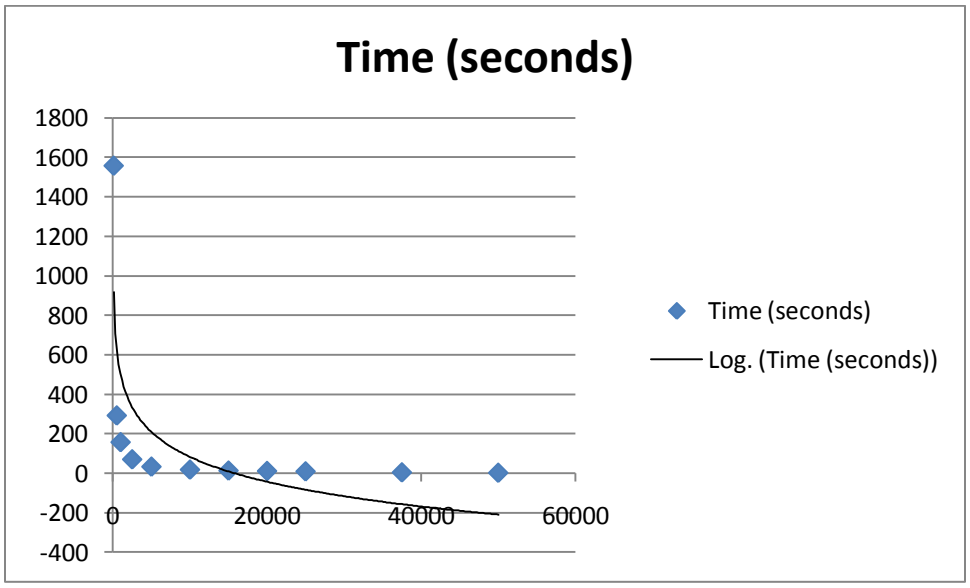
Segment Size Serve vs. Duration of Transfer

Parameter	Nominal Value
File Size	10000000B
Server-To-Client Loss Rate	5%
Client-To-Server Loss Rate	5%
Segment Size	X

File Size (bytes)	Time (seconds)
100	1557
500	293
1000	158
2500	71
5000	34
10000	19
15000	14
20000	12
25000	10
37500	5
50000	3

My parameters for the experiment are listed above in the left table. Here is the data involving the size of the segment and the amount of time it took to transfer in seconds. This wasn't exactly what I predicted, but it makes a lot of sense. You need significantly less packets to transfer as the size increases and increases. It turned out to be a very logarithmic graph. Below is a graph of the data.

I was doing well with this particular function until I approached large x because of memory allocation issues.



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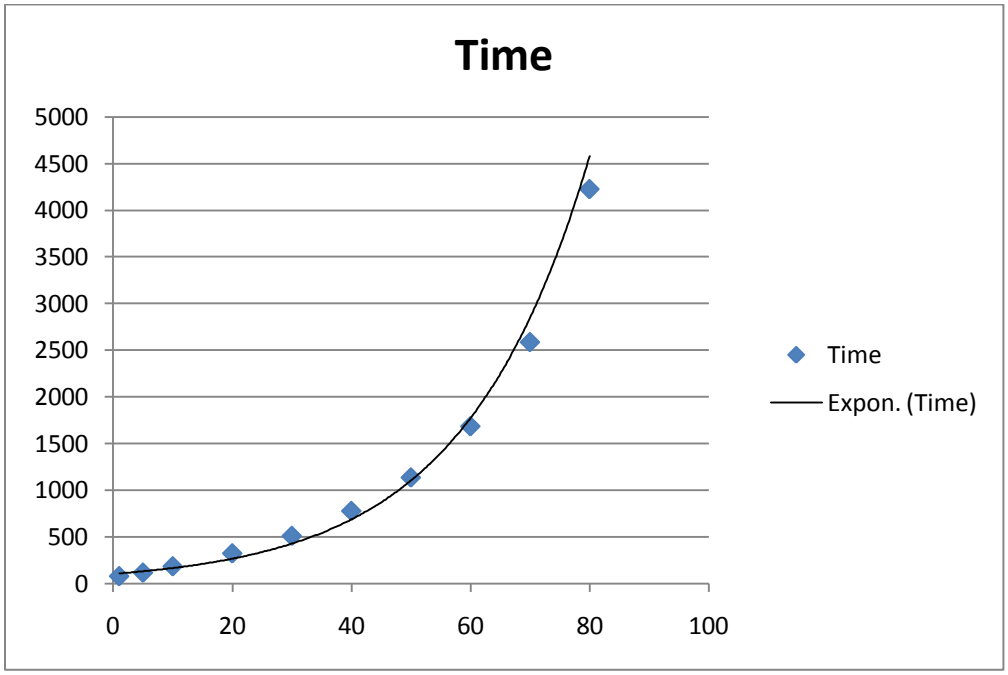
Server-To-Client Loss vs. Duration of Transfer

Parameter	Nominal Value
File Size	10000000B
Server-To-Client Loss Rate	x%
Client-To-Server Loss Rate	5%
Segment Size	1000B

Server-Client Drop Rate Test	Time (seconds)
1	79
5	117
10	185
20	324
30	511
40	778
50	1137
60	1686
70	2588
80	4228

My parameters for the experiment are listed above in the left table. Here is the data involving % of data loss from server to client and the amount of time it took to transfer in seconds. The data turned out to be exponential which makes a lot of sense. The more and more packets start dropping, it builds up very quickly.

I had some trouble with this function as x approaches 80.



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Client-To-Server Loss vs. Duration of Transfer

Parameter	Nominal Value
File Size	10000000
Server-To-Client Loss Rate	5%
Client-To-Server Loss Rate	x%
Segment Size	1000

Client-Server Drop Rate Test	Time (seconds)
1	72
5	119
10	187
20	345
30	550
40	790
50	1201
60	1703
70	2612
80	4320

This data was almost identical to the previous set of data. Because I handled client and server equally when sending information, I would have expected them to be the same.

Again, I had some trouble with this function as x approaches 80.