Report

The whole client.cpp is inside an if-else which is for child process(dataserver) and parent (client). There is a getopt function at the beginning of client part which identifies the types of user input command. On the other hand, there are 4 part in the file. In the first part, it deals with the single data point. Secondly, it handles that the user requests the whole file as lots of data points. Next, the file deals with user request the whole file as binary types. Finally, a new channel is opened and tested by sending a request for a single data point.

Here are the demonstrations for comparing the original file with transferred file using FC tool.

```
C:\Users\Yingjian\Desktop>fc /B 1.csv x1.csv
Comparing files 1.csv and X1.CSV
FC: no differences encountered
```

```
C:\Users\Yingjian\Desktop>fc /B 1.csv y1.csv
Comparing files 1.csv and Y1.CSV
FC: no differences encountered
```

The time difference between text file transfer and binary file.
Text:

```
[wang19485]@compute ~/wang19485/313_PA2> (20:44:38 10/03/19)
[:: ./client -p 1
Transfer all points finished
Time taken: 77.967798sec
Server terminated
```

Binary:

```
Server received request for file BIMDC/1.csv
Server received request for file BIMDC/1.csv
Server received request for file BIMDC/1.csv
Transfer file finished
Time taken: 4.366117sec
Server terminated
```

Here are screenshot of request of data point and request of new channel.

```
[wang19485]@compute ~/wang19485/313_PA2> (20:39:25 10/03/19)
[:: ./client -c
Test new channel:
-0.115
Server terminated
```