User Guide

This is the user guide for a client/server application created in C for systems programming coursework. All the required functionality has been implemented.

Server

The server does not have any commands, upon being started it will wait for new clients to connect, spinning up a new thread to handle each of them. Upon sending the interrupt command CTRL+C, the server closes the listen connection and then displays the total execution time of the server. All replies from the server are prefixed with the characters ">>".

Client

On starting the program, you will be presented with a menu with the following options:

1. Get student ID – query the server for the server's IP address and the ID of the student who completed the coursework.
2. Get server time – query the server for the current date and time.
3. Get uname info – query the server for its host machine's uname information.
4. Get file list – query the server for a list of files contained in the server 'upload' directory. If this directory does not exist it is created.
5. Get file transfer – request the transfer of a file from the server's upload directory to the client's current directory. The command asks for the name of a file and requests that this is sent from the server. The file is then transferred in chunks and the output shows how many bytes has been transferred in each chunk until the transfer is complete. The following error conditions can present themselves:
    a. Server file not found
    b. Server file has incorrect permissions
    c. Server file cannot be opened
    d. Client file already in local directory
    e. Client local directory has incorrect permissions
6. Quit – exit the client and disconnect from the server.