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CPSC 471 File Transfer Protocol Design

**General**

For each packet sent between the client and the server, whether in the command channel or the data channel, there will be a 10 byte header which, when read as decimal string, indicates the size of the subsequent message.

Right-facing blue arrows indicate the client sending a message or data, left-facing orange arrows indicate the server sending a message or data.

Data

Header

In the case of ls, get, and set, the server will create a new socket on an ephemeral port to send data across and sends that port number to the client. Once a connection has been established on the new data socket, the data is transferred. Once the transfer is complete the data socket is closed.

**get <filename>**

<file data>

get ok port <num>

Create data socket

get <filename>

Error <msg>

**set <filename>**

<file data>

Create data socket

Error <msg>

set ok port <num>

set <filename>

**ls <options>**

<ls data>

Error <msg>

ls ok port <num>

ls <options>

Create data socket

**quit**

quit ok

quit

Close sockets