CS 5220 Project

Fall 2012

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# Compilation and Execution

## Test script

The program may be built and tested by running

sh run.sh

in the top-level "CS5220" directory. This script produces summary logs in the CS5220/tcpTest and CS5220/udpTest directory.

## Manual compilation

Enter the either the “CS5220/TCPFileServer/Release” or the “CS5220/UDPFileServer/Release” directory and run:

make

## Manual execution

The program is built at CS5220/TCPFileServer/Release/TCPFileServer or CS5220/UDPFileServer/Release/UDPFileServer.

**The usage information for the TCP file server is as follows:**

Usage:- Client (./TCPFileServer):

-c #Act as client

-p portNumber #Use this port

<Remote Server Name> <File Name>

Usage:- Server (./TCPFileServer):

-s #Act as server

-p portNumber #Use this port

Client Example:

>./TCPFileServer -c -p 1234 127.0.0.1 MyFile.txt

Server Example:

>./TCPFileServer -s -p 1234

**The usage information for the UDP file server is as follows:**

Usage:- Client (UDPFileServer/Release/UDPFileServer):

-c # Act as client

-p portNumber # Use this port

-t <ARQ-Type> #1 - Stop and Wait, 3 - Selective Repeat

-d <dropPercentage> #Integer percentage of packets to drop

-o <trace out file> #The file to print the trace with #Seq, #Ack,…

<Remote Server Name> <File Name>

Usage:- Server (UDPFileServer/Release/UDPFileServer):

-s # Act as server

-p portNumber # Use this port

-t <ARQ-Type> # 1 - Stop and Wait, 3 - Selective Repeat

-d <dropPercentage> #Integer percentage of packets to drop

-o <trace out file> #The file to print the trace with #Seq, #Ack,…

Client Example:

>UDPFileServer/Release/UDPFileServer -c -p 1234 -t1 –o out.txt 192.168.0.10 MyFile.txt

Server Example:

>UDPFileServer/Release/UDPFileServer -s -p 1234 -t1 –o out.txt

# Test Results

The included test script runs stop and wait, and selective repeat tests with 15% packet loss. The results are reproduced below.

## Stop-and-wait

Client - UDP Socket Created.

Client - Server Name: 127.0.0.1 Server Port: 2860

Client - Filename sent to server: file.pdf

Client - Received file size of 131094

Client - Received data.

Creating output file: file.pdf

File Received. Done.

file.pdf MD5 verified

## Selective repeat

Client - UDP Socket Created.

Client - Server Name: 127.0.0.1 Server Port: 2860

Client - Filename sent to server: file.pdf

Client - Received file size of 131094

Client - Received data.

Creating output file: file.pdf

File Received. Done.

file.pdf MD5 verified

# Team Evaluation – Default (50%-50%)