

## CSE 364 Home Work Project 2

*Assigned: Tue, Feb 8*

*Due: Tues, Mar 01, 9:30AM*

*Late submissions will not be accepted*

*Group (of two) effort*

### **Goal:**

The goal of this project is to implement the sliding window protocol to reliably transmit a large file. You will send a large file (four megabytes long) from a server to a client. The server and client will use the sliding window protocol to send the file reliably. You will use UDP for transmitting the frames. Each UDP packet cannot be more than 512 bytes (you will split the large file into multiple 512 byte packets). At the client, you will write the received data *in order* to the disk; only the acknowledged data are written to the disk. You will calculate the time it took to transmit your file. The data transfer time depends on the sliding window parameters; the key is to measure the effects of the sliding window. For this project, you will choose two different parameters (your choice; justify your reason to choose the particular measurement). to your sliding window implementation and present your results. You will implement your system across two planetlab machines; one in Asia/Europe/Australia and the other one in the US.

Your report should discuss the sliding window parameters that you chose for experimentation. You will report the end-to-end time it took to send the whole file reliably. You may find the system call *setitimer()* and *getitimer()* useful to setup timers for timeouts.