

Assignment 2: Stop-and-Wait 3.0

Receiver Datagram contains a inet socket address with a destination address and a receiver port to find the data sent by the sender. A buffer datagram packet is given size of 1000 bytes to receive the items being sent. The packet that returns the ACK is given the byte version of the ACK and the size of the bytes. It also binds the address that needs to receive the ACK and the sender socket's port.

Sender Datagram has an address and the sender socket port binded to it. The datagram then sends a packet with the values of the files sent as a buffer with a byte size specific to the item sent through the address and the receiver socket's port. It waits for a packet to be received and is given a buffer of byte size 1000.

Receiver has default values to provide easier testing although these values can be changed. It used ip localhost (127.0.0.1), receiver 4455, 3321.

Here are the estimated transmission times for the following files and settings on my machine. Each file was tested 4-10 times per MDS in reliable mode and unreliable mode was run once because it took so long. Measured in microseconds. Anomalies were ignored and timeout delay was set to 2000 for small file and 20 for large file to see delays.

MDS	SMALL FILE (2 KB)	LARGE FILE (1 MB)
100	8-9	1700-1900
200	5-7	950-1050
400	4-5	540-570
100 (UNRELIABLE)	4014-4038	32800
200 (UNRELIABLE)	2014-2015	16438
400 (UNRELIABLE)	2013-2015	8200