

If an ACK arrives from the server at the same moment a timeout occurs, the packet will still be retransmitted. The ACK will then be acknowledged by the client and the next packet will be created and sent with the sequence number that the server is expecting.

With my implementation, there will be an extra packet sent to the server in the case where an ACK arrives at the same time that a timeout occurs. However, the server will ignore the duplicate packet and there will be no problem with the file transfer.