HMY 360
Εργαστηριακή Άσκηση 5
Υλοποίηση του Πρωτοκόλλου Παύσης και Αναμονής

Σκοπός της άσκησης αυτής είναι να υλοποιήσετε το πρωτόκολλο παύσης και αναμονής (Stop and Wait protocol) στην γλωσσά προγραμματισμού ansi C και προγραμματισμό sockets. You will need to implement the Transmitter and Receiver processes that will be communicating through an unreliable channel (the channel process will be provided). Specifically, the transmitter will continuously read character strings from the keyboard and will send them (one character at a time) to the receiver through the channel. The receiver will simply display the correctly received characters on the screen (i.e., it should ignore duplicates).

Ο Transmitter (Socket τύπου Client – non blocking mode) θα συνδέεται με το κανάλι (channel) στο port 4610 (server port = 4610) και το κανάλι channel θα συνδέεται με τον Receiver (Socket τύπου Server – non blocking mode)) στο port 4613. (Receiver port =4613).

The transmitter will read a string from the keyboard and will send them to the channel character by character. The transmitted frames will be of length 2 characters. The first character will be a sequence number (0 or 1) while the second one will a character read from the keyboard. Π.χ ένα μήνυμα προς αποστολή μπορεί να έχει το ακόλουθο format pkt0={0, ch} or pkt1={1, ch} όπου ch είναι ένας χαρακτήρας.

The channel can do one of two things. It can either drop the frame or it can delay it for some time and then deliver it unaltered to the receiver (in other words, you do not need to implement any CRC). The maximum delay by the channel is 1.2 seconds.

The receiver simply displays the corrected message that was entered at the transmitter (of course it also responds with the appropriate acknowledgement (ACK)).