Emre KÖSE -
150130037

BLG337E: Principles of Computer Communications Homework #1 - REPORT

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(IMPORTANT): Program is running in cmd like that:

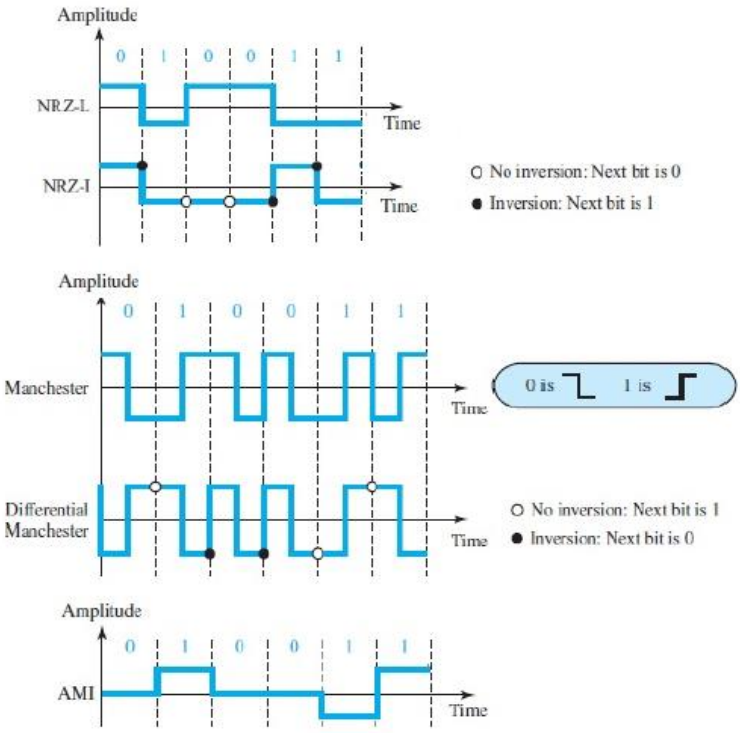
Program.exe sender_file_name.txt receiver_file_name.txt line_code_scheme

(IMPORTANT): Program is running in cmd like that(After the compilation):

./a.out sender_file_name.txt receiver_file_name.txt line_code_scheme

In this homework the program is expected as taking a line from file "*sender_file_name.txt"* and then, with the encoding it will be converted signals which consists P, N or Z according to their converting line code schemes. These are:

- ➔ NRZ_L: Non-Return-to-Zero scheme in which voltage Level determines the value of the bit.
- ➔ NRZ_I: Non-Return-to-Zero scheme in which change (i.e., Inversion) or lack of change in the voltage level determines the value of the bit.
- ➔ MANCH: Manchester scheme which uses first and second halves of the signal to represent a bit.
- ➔ D_MANCH: Differential Manchester scheme.
- ➔ AMI: Alternate Mark Inversion scheme.



After the encoding the line, it is written to array in program. In NRZ_I and D_MANCH schemes, there is a little different converting technique is used in code. Namely, in first according to 1s and 0s the array is formed which consists ‘w’ (means white) and ‘b’ (means black) characters and then this array converted to link file.

Finally, the encoded file is read from file and converted again to digital data which has same content with the initial file.

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