



DC Programming Assignment

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Overview

We have written a program in C++ to generate a random data sequence first then a function to detect longest palindromic sequence in the generated data and then implemented one of the line coding schemes as opted by the user then if user opt for AMI and scrambling then it has to select one among two scrambling techniques and that will get implemented.

Libraries used

1. Graphics.h (one additional library i.e. WinBGIm graphics library will be required to run it)
2. bits/stdc++.h

Steps to run the code

- First of all, the user needs to install any graphics library to support graphics included in the program. For that he/she can install WinBGIm and complete the further setup in the code editor.
- Then after hitting run the program will generate a random bit sequence then user have to enter a digit b/w 1 to 5 in order to select the respective encoding scheme.
- Then if the user chooses AMI, then the program will ask whether the user wants to implement it using scrambling so the user has to enter y/n.
- If the user chooses yes, then he/she has to choose one scrambling technique among HDB3 and B8ZS.
- Then encoded output will be generated as per selected technique/scheme.

References

- I. <https://www.geeksforgeeks.org/difference-between-unipolar-polar-and-bipolar-line-coding-schemes/>
- II. Class notes
- III. Help taken from classmates and seniors.