



CRC assignment

Names:

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Description:



- We try to implement an error-detection mechanism using the standard CRC algorithm.
- We Wrote three programs:
- generator, verifier and alter.
- The generator program reads from a simple ordinary text file containing 2 lines.
- One containing an m -bit message consisting of a string of 0s and 1s.
- The second line is the k -bits polynomial, also consisting of a string of 0s and 1s.
- It outputs a simple ordinary text file containing 2 lines:
- One with $(m+k)$ 0s and 1s representing the message to be transmitted.
- The second line is the polynomial, just as it reads.
- The verifier program reads in the output of the generator program and outputs a message indicating whether it is correct or not on the command line.
- Finally the alter program, that inverts 1 bit on the first line depending on its argument (the bit number counting the leftmost bit as 1) but copies the rest of the two lines correctly .

STEPS:

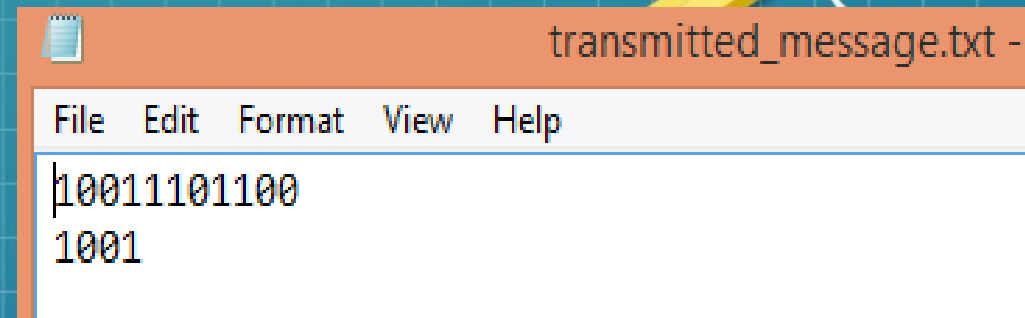
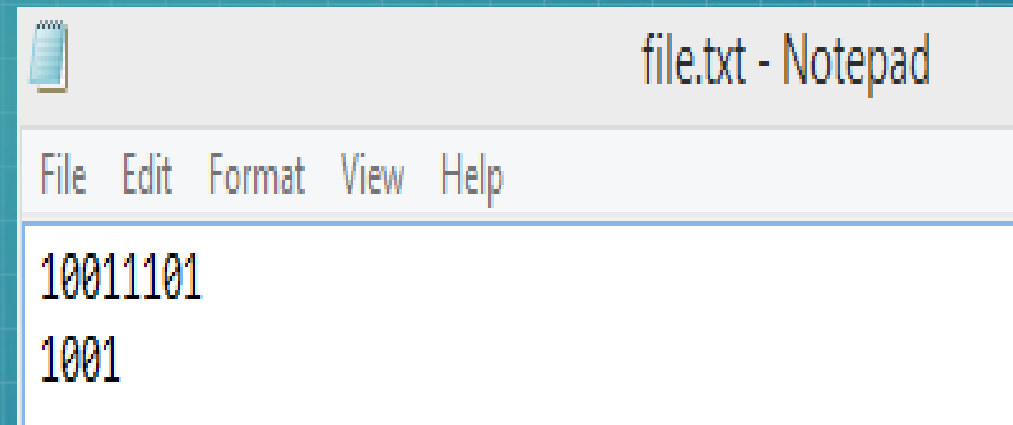


1. Download all the files from github

https://github.com/HajarELbadawy/Network_Project1

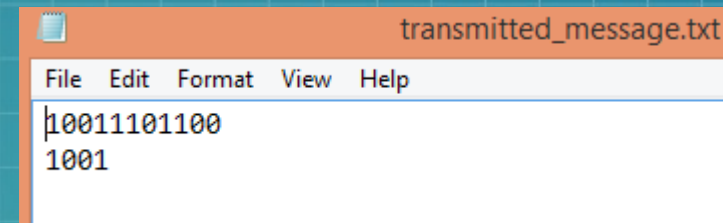
Steps 2:

- 1.put your message in an input file name it (“input.txt”)in the same directory with (“generator.exe”)
- 2.run (“generator.exe”)

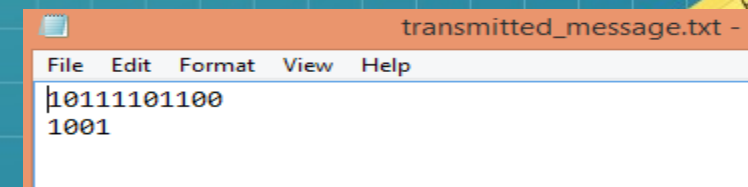


Steps 3:

- To put noise on some bit :
- 1. enter the bit number you what to change
- (“in the same folder with the transmitted_message.txt”)
- 3. run (“alter.exe”)



```
File Edit Format View Help
10011101100
1001
```



```
File Edit Format View Help
10011101100
1001
```



Step 4:

- To verify the message :
- 1.if you used (“alter.txt”)this will be the output

```
message is not correct  
Press any key to continue . . .
```

- 1.if you didn't use (“alter.txt”) this will be the output

```
message is correct  
Press any key to continue . . .
```