

CISC866 Lab Report

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1 Encryption Mode: ECB vs. CBC

1.1 Display both encrypted image files

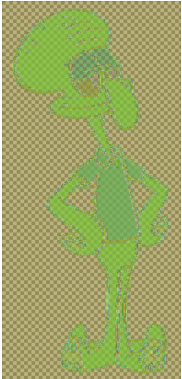
Note: I chose to use the following method to get rid of the header issue:

```
$ head -c 54 original1.bmp > header
$ tail -c +55 encrypted1.bmp > body
$ cat header body > new1.bmp
```

Encryption command for ECB mode (Note: iv not used by this cipher):

```
$ openssl enc -aes-128-ecb -e -in pic_original1.bmp -out pic_1_ecb_enc.bmp -K 00112233445566778889
aabbccddeeff
```

Picture look like this:



Encryption command for CBC mode:

```
$ openssl enc -aes-128-cbc -e -in pic_original1.bmp -out pic_1_cbc_enc.bmp -K 00112233445566778889
aabbccddeeff -iv 0102030405060708090a0b0c0d0e0f10
```