

HW2 of Introduction to Information Security 2017

1. Implement DES. (Please don't call the existing library, implement it by yourself!)
2. Use your DES as the **encryption and decryption (加解密都要)** in ECB, CBC, OFB and CTR modes. **Do the cipher on both R.G.B arrays separately and continuously (1.將 RGB 分開後，各自加解密; 2.不管 RGB，將讀入的資料連續取 64bit 來加解密).** **Please ignore the header information (標頭檔不用加解密).** Test your code with the bmp file attached in moodle and save the results (bmp file) of the block cipher modes. (That means you have to learn how to read/write bmp file.) In addition, record the execution time of each block cipher modes. This website may help you with handling bmp files <http://olife.iteye.com/blog/1028198>

Student assistant will test your code with the following parameters:

KEY: 1010101110101011101010111010101110101011101010111010101110101011
(10101011*8)

IV: 1111101111111011111110111111101111111011111110111111011111110111111011111110111111011 (11111011*8)
and the attached bmp file.