

This is version 1.0 of Circuit's Cryptography Program.

main.c is the source code. Crypto is the compiled executable for OS X.
testfile.txt is a sample file that you can use to test the program.
Unfortunately, no Windows version is included, because I couldn't get it to work correctly on Windows.

How it works:

The program passes over a file 4 times, using a slightly different function each time. Each function is a variant of Vigenere encryption, which is a classical substitution cipher. Every amateur cryptographer thinks they "invented" Vigenere encryption, including Blaise De Vigenere himself (it was actually invented by an Italian man hundreds of years before him), so this isn't really impressive. But I made mine different and interesting by using the ASCII charset instead of the alphabet, by using bitwise rotations in conjunction with character rotations, and by performing both types of rotations on adjacent bits between byte addresses.

Some notes:

You need to put your plaintext/ciphertext file in the current working directory, which by default is /Users/(yourusername) on OS X. The program can't navigate to other folders yet.

The program can encrypt and decrypt all kinds of files, not just text. It doesn't know the difference.

The filenames and passwords must be less than 255 characters.

A file's size must not be greater than the amount of available RAM, because the program needs to load the entire file into memory. This is bad, and if I update the program in the future, I will definitely try to change this.

This program is nowhere near professional-grade, and it shouldn't be used to protect sensitive data. I wrote it for the fun of it, and you should have the same attitude when using it.