Implementation

How do we demonstrate encryption?

How can we test encryption?

Download Research

Project Roadmap

IDEA

Compare encryption algorithms.

ENCRYPTION

Identify encryption algorithms.

OBJECTIVES

Create encyption tests.

TESTS

Performs tests for data.

DISCOVERIES

Present findings & comparisons.

CONCLUSION

Determine the best encryption.

Steps to Implement

AES and RSA.

1. **Create Data**
   - Using python, I will create a program that takes in a small text file to create 3 separate files of varying size. I also created a python program to count the data and confirm the expected file's size for accuracy.

2. **Create Algorithms**
   - Using Cryptography and Cryptodome modules in python I will create a program to use AES and a program to use RSA and encrypt each file. The programs will record the start and end time to determin the time-lapse for analysis.

3. **Create Results**
   - Within the algorithms, I record the times in a result.txt file labeled for AES and RSA, respectively. The results files are then used to create the charts for measuring speed of encryption.

Types of Comparison

Encryption Speed and Encryption Strength.

1. **Encryption Speed**
   - I will perform 50 tests for each encryption algorithm to determine speed efficiency. Each test takes in three files of differing sizes and encrypts the files while recording the start and end time.

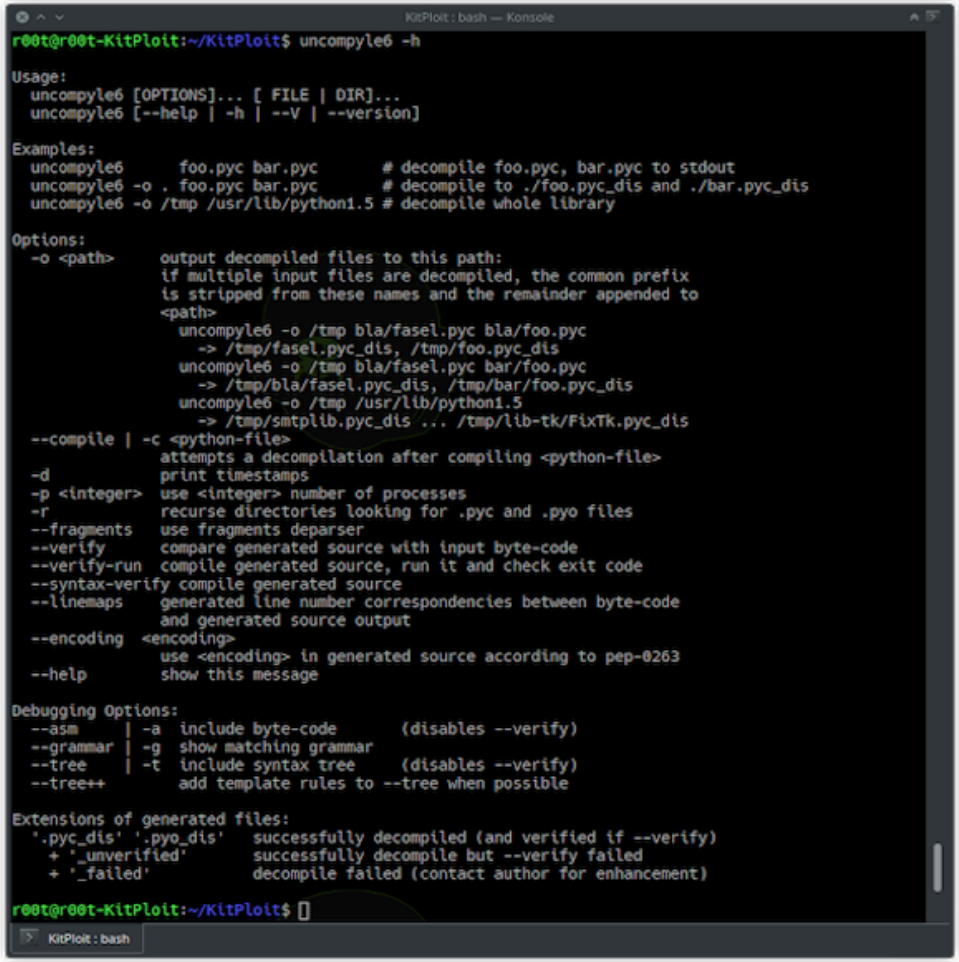
2. **Encryption Stength**
   - For these same tests and results I will determin strength of the encrypted algorithm. Without a better metric, I chose to compare the size of the encrypted files created to gauge strength.

Metrics

Number of Tests 100	Speed Simulation 
Pass/Fail Tests 	Accuracy 90%
 Compare Results	 Examine Hypothesis
 Record Conclusions	 Publish

Files on Github.

RESEARCH



IMPLEMENTATION

CONCLUSION

Closing Remarks.

There are only two kinds of companies:

1. Those that have been hacked.
2. Those that will be.

~ Robert Mueller

Best,

Brandon Rowe