ENSE 496AE Steganography Tools

Jeremy Cross 200319513
Taylen Jones 200354271
Bipin Suram 200439429
January 30 2020

Our topic of research

We will be looking at text hidden within images and the tools surrounding this concept

Some of the tools we will be discussing will be:

- QuickStego
- Steghide

QuickStego

What Quickstego does

- This tools allows text to be hidden within images
- Only users with quickstego can retrieve the secret hidden text within the image
- Once the text is hidden within the image, the saved image is still an image and appears the same as before
- The image can be emailed, saved or uploaded with the hidden text contained within

QuickStego

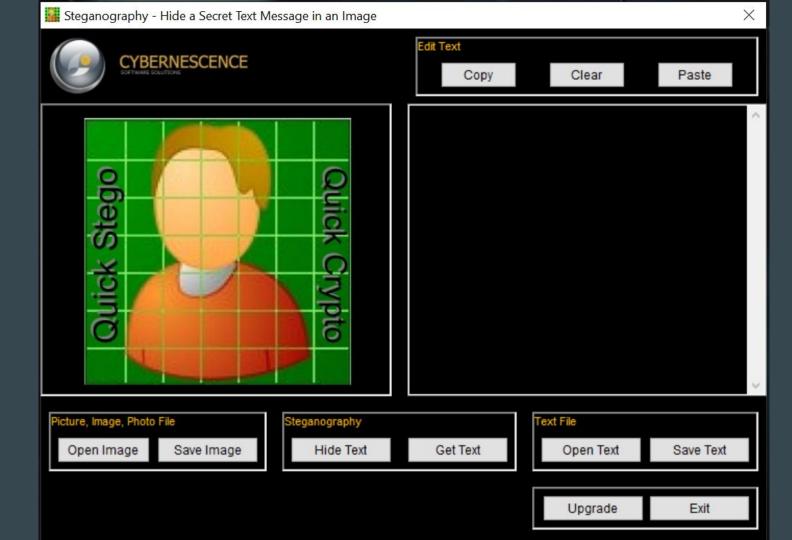
What QuickStego does not do

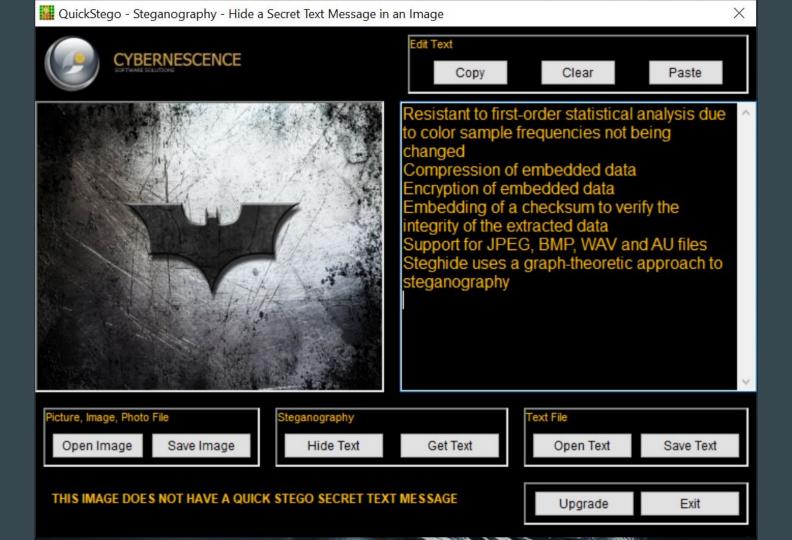
- Does not encrypt the secret message but it is well hidden within the image
- If you want to encrypt the message then QuickCrypto is required
- QuickCrypto includes the features of QuickStego but it can encrypt text and files
- QuickStego does not allow files to be hidden within images

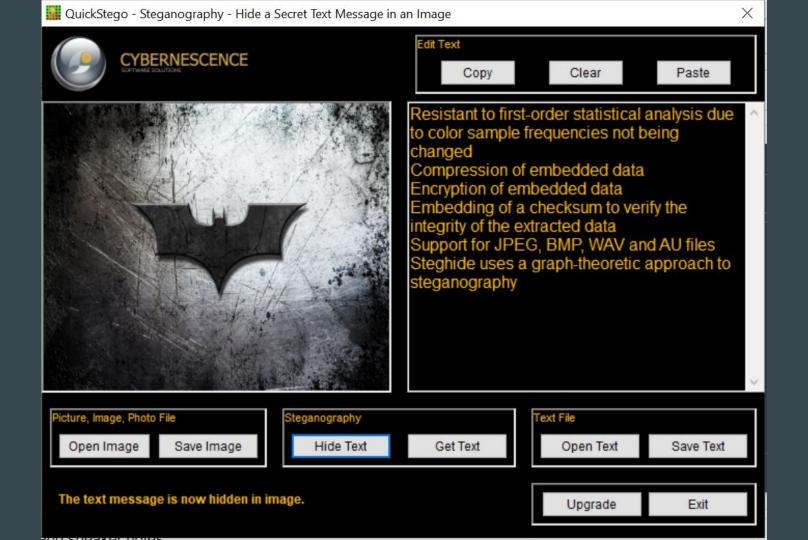
Steghide

- Resistant to first-order statistical analysis due to color sample frequencies not being changed
- Compression of embedded data
- Encryption of embedded data
- Embedding of a checksum to verify the integrity of the extracted data
- Support for JPEG, BMP, WAV and AU files
- Steghide uses a graph-theoretic approach to steganography

Demo!





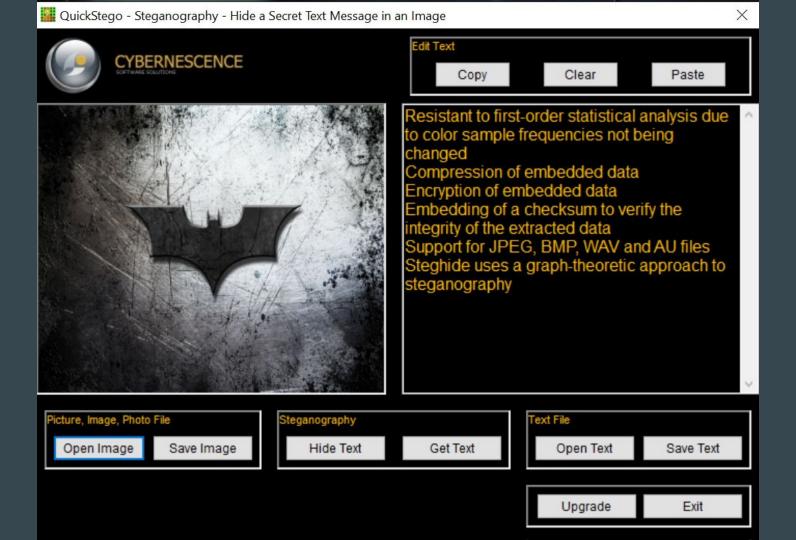


Normal image



Stego image





Steghide

Enter passphrase:

wrote extracted data to "secret.txt".

```
C:\Users\Jeremy\Documents\University Classes\ENSE 496AE\steghide>steghide embed -cf Cat.jpg -ef secret.txt
Enter passphrase:
Re-Enter passphrase:
embedding "secret.txt" in "Cat.jpg"... done
C:\Users\Jeremy\Documents\University Classes\ENSE 496AE\steghide>steghide extract -sf Cat.jpg
```

the file "secret.txt" does already exist. overwrite ? (y/n) y

References

- http://steghide.sourceforge.net/
- http://quickcrypto.com/free-steganography-software.html