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Review On Stenography Tools

Satyavan M. Kunjir ,Shobhana D. Patil, Shaiqua Jabeen, Shubhangi V. Bhosale

Asst. Professor, Dept. of CS, Dr.D.Y. Patil ACS College, Pune, Maharashtra, India

Abstract: *Due to nasty changes & abolition of secret data, the security of information is very important. Steganography is becoming increasingly popular in areas of Information security. Steganography is used to hide the existence of secret data while transmitting through an untrusted channel. Steganography can be implemented in different spatial & frequency domains. This paper has the review onvarious stegnographic Tools used for stegnogarphy.*

Key Words: Secret, Encryption, Message, Stgenalysis, Security, Steganography.

1. INTRODUCTION

The use of internet as a communication media is increasing exponentially day by day. Information hiding techniques can be used to preclude the malicious modification, use or obliteration of the secret data. Information Security is process of keeping information secure, protecting its accessibility, integrity, and secrecy.

Steganography is process of the hiding of a secret data within another media such as image, so that the presence of the hidden message is indiscernible. Steganalysis is reveals the secret data form stego media.

The word steganography restraints the greek words steganos means "protected/covered", and graphic means "writing". It was first used in 1499 by Johannes Trithemius. In digital steganography digital images, video, audio, DNA, Protocol, etc., are used as a cover media to hide the secret information Figure below shows the general process of steganography:

2. Steganographic Tools

2.1 Xiao Steganography [13]

It is simple to use free of charge software to hide secret files in BMP images or in WAV files with encryption hold You can load target BMP or WAV file to its interface .then to add your secret file (attachment file should be of small size) click next. One can click next and set the encryption algorithm and hash algorithms with password to make it secure. RC4, Triple DES, DES, Triple DES 112, RC2, hashing SHA, MD4, MD2, MD5 algorithms are Supported. One can save the final BMP or WAV file to the preferred location and similarly one can extract the secret file attached with the target file using Xiao Steganography tool.

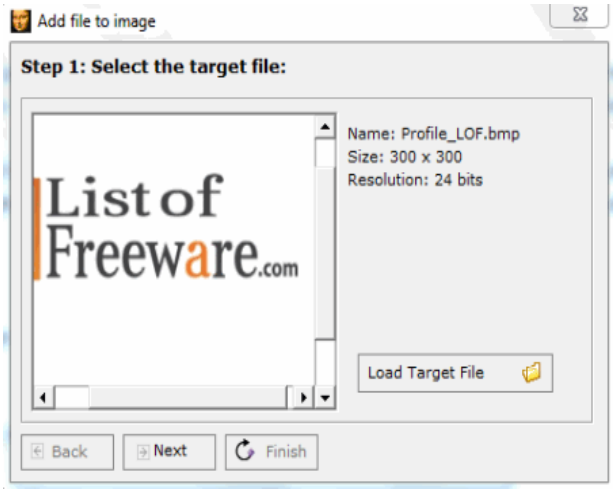

Fig -1: Xiao Steganography Tool

2.2 Our Secret [13]

It is easy and free software that let one to hide secret information in image files. In first step one can select the carrier file .this can be an image. Now in next step one can choose the secret message clicking Add button. In last step you can enter password and click Hide button to save the image with secret message or file in the desired location. One can also unhide the surreptitious message or file from the carrier file by using this.

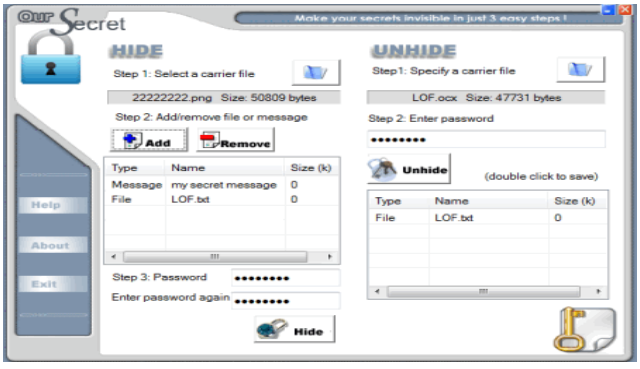

Fig -2: Our Secret Stenography Tool

3.3 Shusssh![7]

It is easy tool to hide a message inside any image .one have to select "Encrypt Text" and load an image by clicking "Load Image" button as given in following figure. One can type your message in "Insert Message" and can Proceed by pressing precede button to save the image with hidden message on the desired location. For decrypting text, select "Decrypt Text" and load image and click Proceed button to view the hidden message.

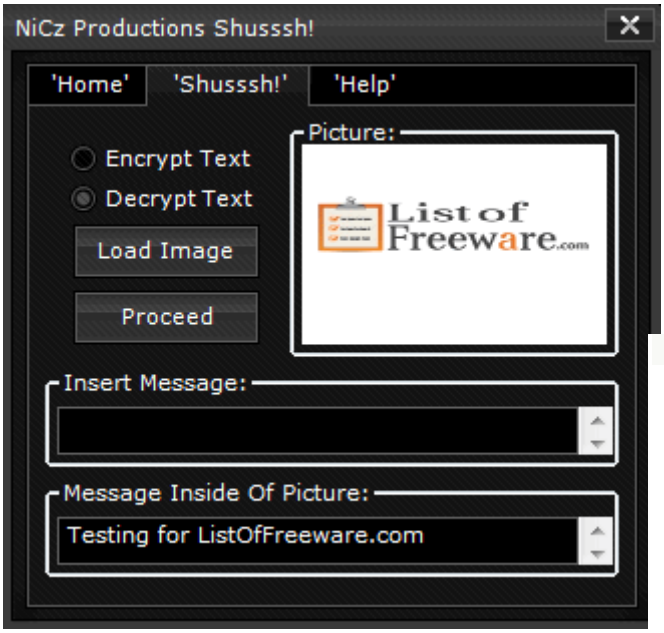

Fig -3: Shusssh! Stenography Tool

2.4 SteganPEG [9]

It allows one to embed files of many types into JPG images. You can attach files to the JPG image with password protection securely. You can send these files over the internet and the users having installed SteganPEG and correct password can extract files embedded in JPG file. The files look like normal image file after embedding procedure. You can attach or embed multiple files to a single JPG image. The program has intuitive user interface which is easy to understand.

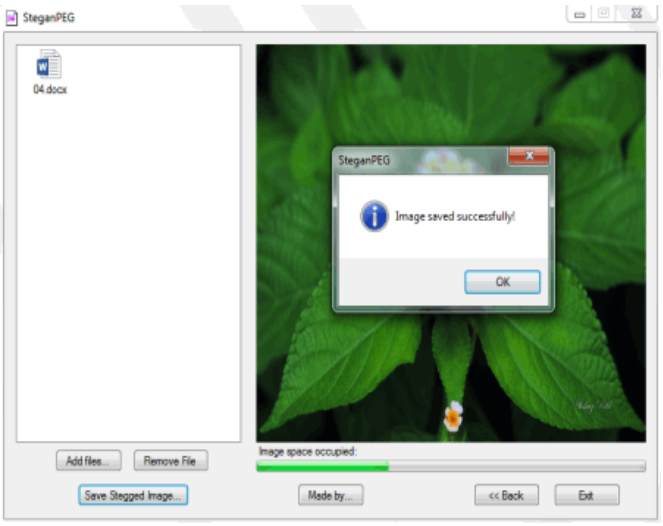

Fig -4: SteganPEG Stenography tool

2.5 Silent Eye[10]

Silent Eye is an easy to use cross platform steganography program. It provides a pretty nice interface and an easy integration of new steganography algorithm and cryptography process by using a plug-ins system.
Sensitive message behind image or in audio file can be hidden. It supports including BMP, JPG, PNG, GIF, TIF, and WAV image and audio formats. The default encoding image format can be configured between JPG or BMP and similarly for audio encoding the default format is WAV only.

2.6 OpenStego [11]

It is a java based open source steganography software.it provides two functionality data hiding as well as watermarking.OpenStego used to attach any type of secret message file to cover files.BMP, GIF, JPEG, JPG, PNG, WBMP are the supported file types for cover. After finishing one can save output stego file in PNG format. Similarlythis software isused to extract secret data from the above output file. Security can be provided by giving passwords.

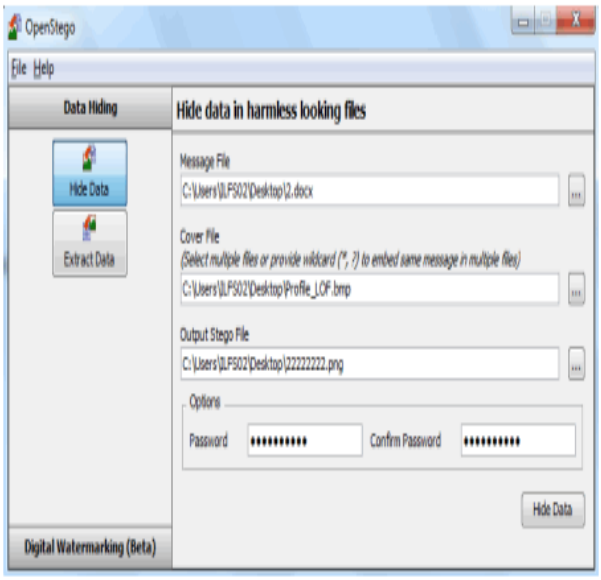

Fig -6: OpenStego Stenography Tool

2.7 Steg[12]

Stegis cross platform and portable. It is written in C++. It uses stegnography and cryptography techniques to hides important data inside compressed and uncompressed images.JPG, TIF, PNG or BMP images formats are supported. You can embed a text message also to the specified image. You can save the final image with hidden data file in TIF or PNG format. It is a portable and cross platform program. It has an easy to use graphical user interface. It uses both symmetric and asymmetric Key cryptography.

3. CONCLUSIONS

In this paper, we studied some of the most widely used, open source, commercial steganographic tools. Information about the types of covert data, cover media and securityetc is given. Most steganographic tools employ compression and encryption so that even when detected, interpretation of the covert message content is problematic. Many tools support any type of files such as images, audio, video or flash files. Stegonagraphic techniques advance there is need for constant review and revision of extant tools.

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