



A NOVEL MIXED STEGNOGRAPHY FOR PROVIDING SECURITY FOR THE DIGITAL DATA

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ABSTRACT

Steganography is the craftsmanship and study of composing concealed messages so that nobody, aside from the sender and mean beneficiary, associates the presence with the message, a type of security through lack of clarity. Steganography is the plan of concealing the presence of mystery data by hiding it into another medium, for example, sound, and video or picture records. In Steganography the shrouded document doesn't change the structure of the mystery message, however conceals it inside a spread picture with the goal that it can't be seen. This application allows you to insert or shroud significant or private messages or documents into wmv without influencing the nature of genuine information or records. It accomplishes this by utilizing the least critical pieces of these documents for inserting information which are not utilized by the Image watchers or Image editors. It permits you to install the messages or records in scrambled structure utilizing 32 piece DES calculation which implies that once encoded, the message or document could be recovered (or unscrambled) from a Master record simply subsequent to indicating the right secret phrase which was utilized at the hour of . On the off chance that you indicate encryption to be utilized, you'll need to determine a secret phrase which is at least 8 characters long.

Key Words:

Steganography, Video, Audio, Image, Encryption, Decryption.

1. INTRODUCTION

The idea of making sure about messages through Steganography and Cryptography has long history. Cryptography is engrossed with the insurance of the substance of a message or data. Steganography originates from Greek and signifies "secured composing". Steganography is a strategy used to conceal data inside pictures. Utilizing transcription, watermarks and copyrights can be put on a picture to ensure the privileges of its proprietor without changing the presence of the picture. Practically like enchantment, pictures, executable projects, and instant messages can cover up in pictures. The spread picture doesn't seem, by all accounts, to be adjusted. Individuals take a gander at the spread picture and never presume something is covered up. Your data is covered up on display.

The way to conceal information is to gadget a covering up (encryption) system that is extremely hard to switch (i.e., to locate the first information) without utilizing the decoding key. Symmetric-key calculations are a class of calculations for cryptography that utilization the equivalent cryptographic keys for both encryption of plaintext and unscrambling of ciphertext. In uneven key one key is utilized for encryption and another key is utilized for decoding. All the more explicitly this Paper manages the Symmetric key cryptography. For the Steganography we are utilizing the idea of bit move calculation.

2. LITERATURE SURVEY

In this section we will mainly discuss about the background work that is carried out in order to prove the performance of our proposed Method. Now let us discuss about them in detail

MOTIVATION

The Unix input/output (I/O) framework follows a worldview for the most part alluded to as Open-Read-Write-Close. Before a client procedure can perform I/O activities, it calls Open to indicate and acquire consents for the record or gadget to be utilized. When an item has been opened, the client procedure makes at least one calls to Read or Write information. Peruse peruses information from the article and moves it to the client procedure, while Write moves information from the client procedure to the item. After all exchange tasks are finished, the client procedure considers Close to illuminate the working framework that it has wrapped up that object.

At the point when offices for Inter-process Communication (IPC) and systems administration were added to UNIX, the thought was to make the interface to IPC like that of record I/O. In UNIX, a procedure has a lot of I/O descriptors that one peruses from and writes to. These descriptors may allude to documents, gadgets, or correspondence channels (attachments). The lifetime of a descriptor is comprised of three stages:

creation (open attachment), perusing and composing (get and send to attachment), and annihilation (close attachment).

The IPC interface in BSD-like renditions of Unix is executed as a layer over the system TCP and UDP conventions. Message goals are indicated as attachment addresses; every attachment address is a correspondence identifier that comprises of a port number and an Internet address. The IPC activities depend on attachment sets, one having a place with a correspondence procedure. IPC is finished by trading a few information through communicating that information in a message between an attachment in one procedure and another attachment in another procedure. At the point when messages are sent, the messages are lined at the sending attachment until the hidden system convention has communicated them. At the point when they show up, the messages are lined at the getting attachment until the accepting procedure makes the important calls to get them.

TCP/IP AND UDP/IP COMMUNICATIONS

There are two communication protocols that one can use for socket programming: datagram communication and stream communication.

DATAGRAM COMMUNICATION:

The datagram communication protocol, known as UDP (user datagram protocol), is a connectionless protocol, meaning that each time you send datagrams, you also need to send the local socket descriptor and the receiving socket's address. As you can tell, additional data must be sent each time a communication is made.

3. EXISTING METHODOLOGY

In the current framework we used to have security of advanced information by utilizing Image Stegnography, where a picture can be inserted inside a picture of same organization. It can't insert on other type of information. Similarly we use to have Audio Stegnography just as Video Stegnography procedures where there are likewise utilized for concealing one type of information into other type of information of same kind.

LIMITATIONS OF THE EXISTING METHODOLOGY

There are lots of limitations present in the existing system. They are as follows:

- 1) Existing framework flopped secluded from everything one type of information in side another type of information of various types. (I.e. Picture inside a sound or video) and the other way around.
- 2) Existing framework flopped in accomplishing the guideline of blended stegnography.

3) In the current steganography it's absolutely impossible of coordinating cryptography additionally so as to give security.

4. PROPOSED METHODOLOGY

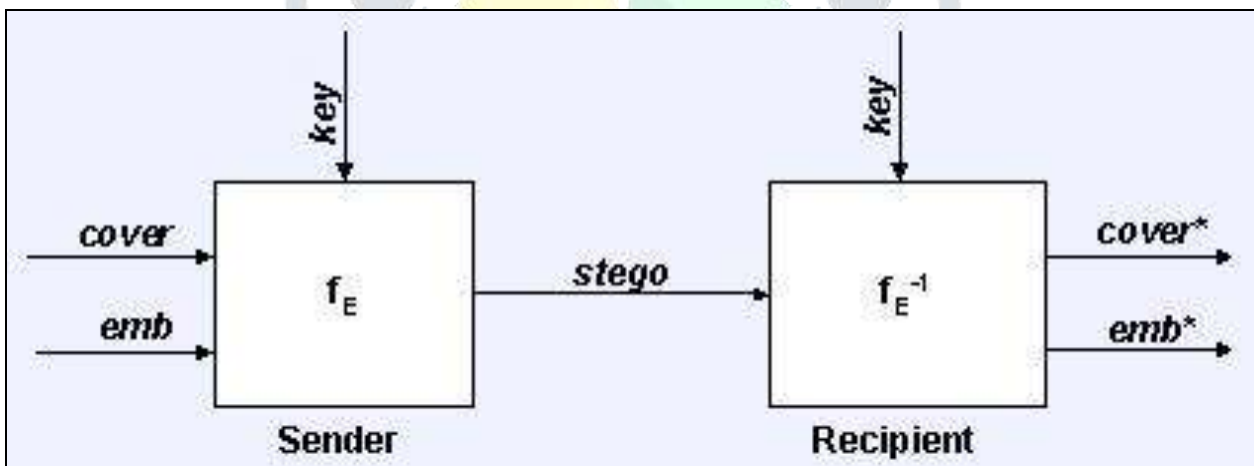
The framework proposes a calculation that expands the security of the shrouded information and improve it for JPEG assaults. In the initial segment of this paper, we propose a calculation is utilized for installing one type of information inside other type of information of same sort or various sorts. In the second step we additionally has an office of giving security to the transporter record by giving a secret phrase for the information.

ADVANTAGES OF THE PROPOSED SYSTEM

The following are the advantages of the proposed system. They are as follows:

- Image....within....Image
- Image...within...Video
- Image...within...Audio
- Text...Within...Audio
- Audio....within....Audio
- Audio....within....Image
- Audio....within....Video
- Text....Within....Video
- Video....within....Video
- Video....within....Image
- Video....within....Audio
- Text.....Within...Image

5. PROPOSED APPROACH



- f_E : steganographic function "embedding"
- f_E^{-1} : steganographic function "extracting or De-Embedding"
- cover** : cover data in which *emb* will be hidden
- emb** : message to be hidden
- key** : parameter of f_E
- stego** : cover data with the hidden message

The following are the step by step procedure for the this proposed application. This is as follows:

STEP 1:

Initially the sender will try to choose the cover image and then he try to add the sensitive data inside the cover image by using a key parameter.

STEP 2:

Now he tries to use Key parameter for embedding the secret data into the cover image.

STEP 3:

The file will be send to the receiver node as a carrier file.

STEP 4:

The receiver will receive the carrier file and try to enter the password correctly to extract the hidden data.

STEP 5:

If the key is correctly substituted the data can be extracted from that carrier file.

STEP 6

The receiver can able to view the hidden data from the carrier file by substituting valid password.

6. EXPERIMENTAL REPORTS

1) Extraction of Hidden Output by entering the correct password



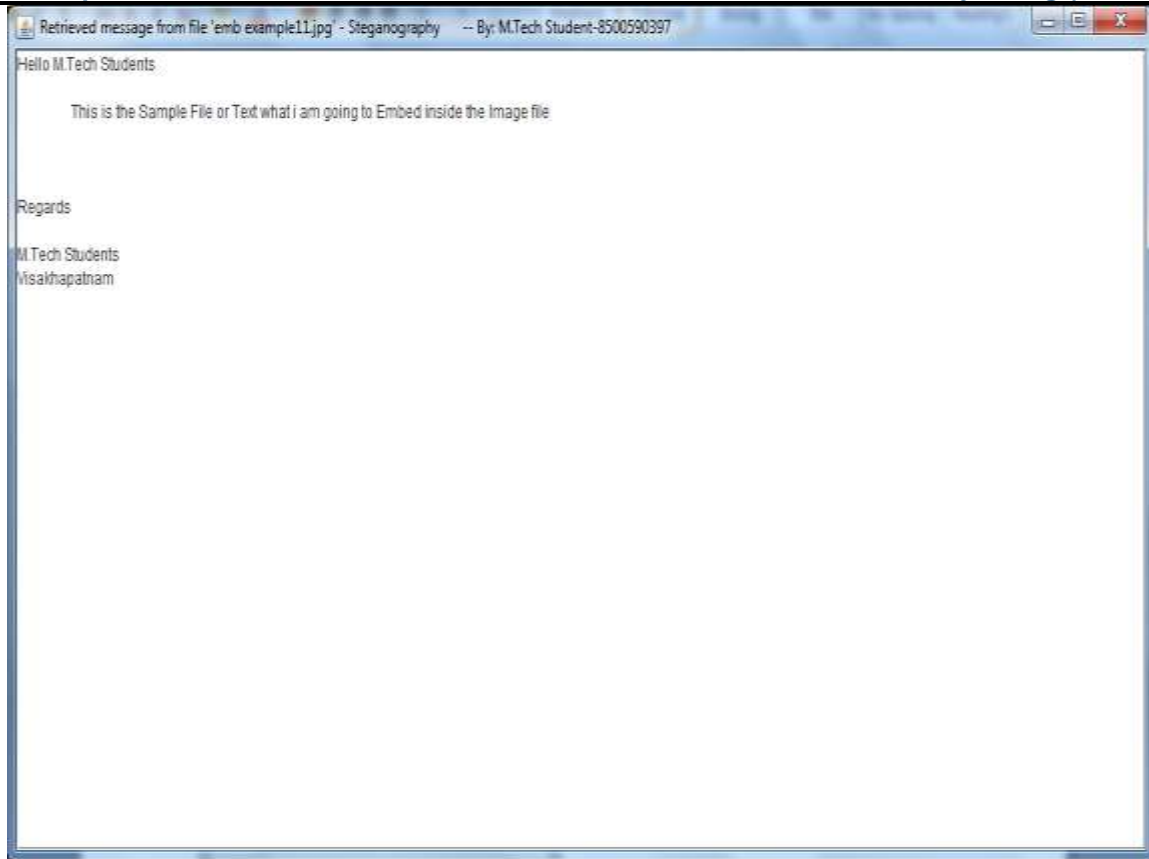


Figure Represents the File retrieved from that carrier file

Explanation:

In the same way, if we enter correct password for the emb video file also we can get the hidden data. This is as follows:

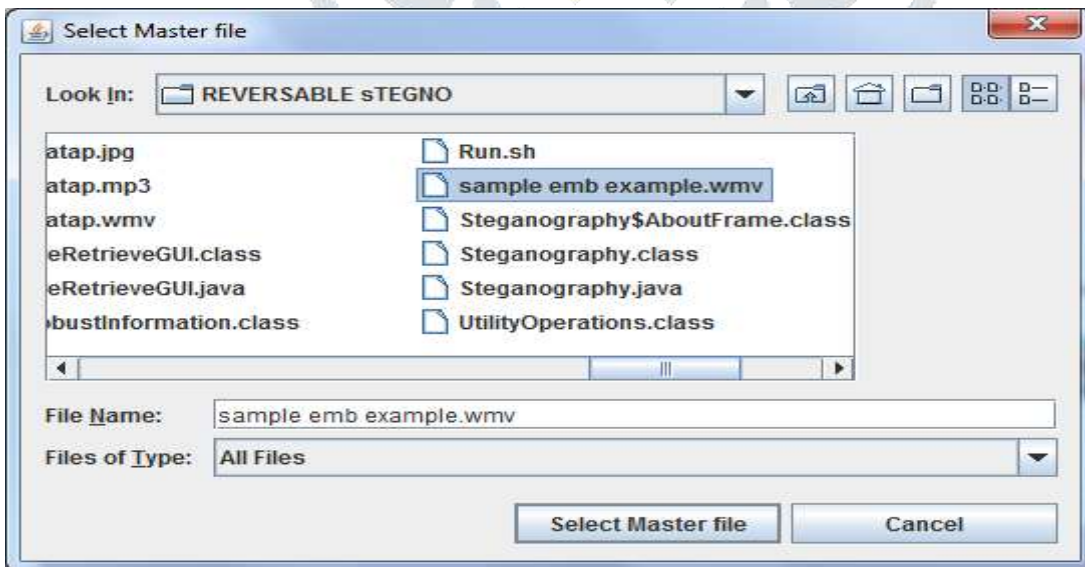
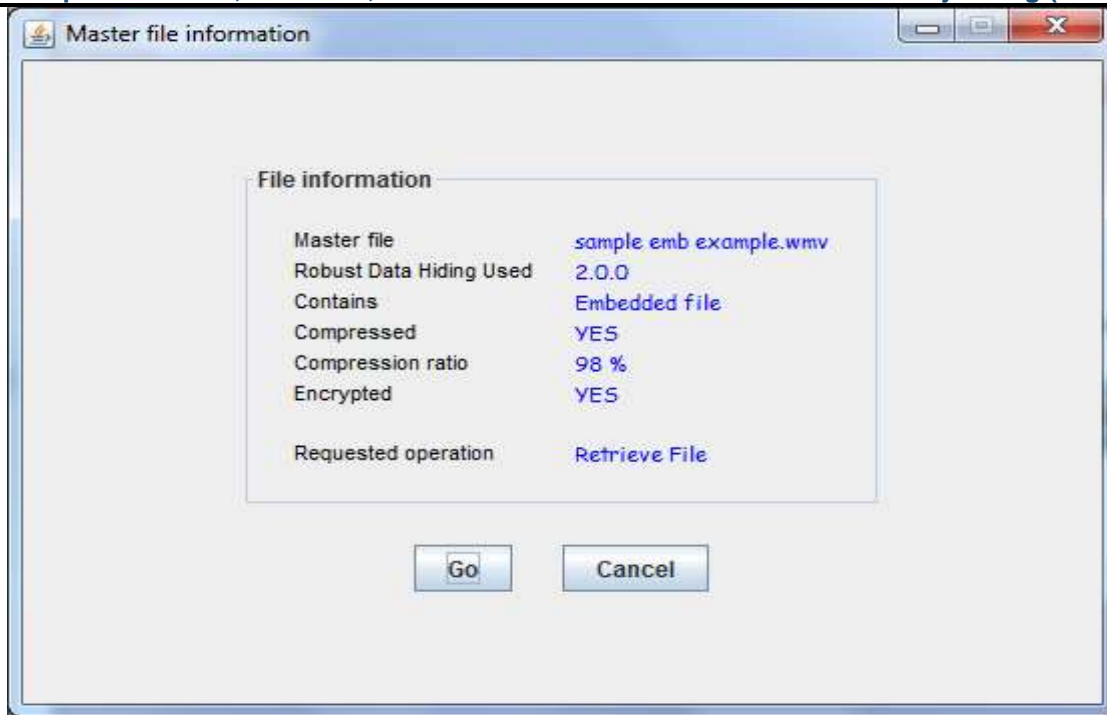


Figure Represents the Browse Carrier File

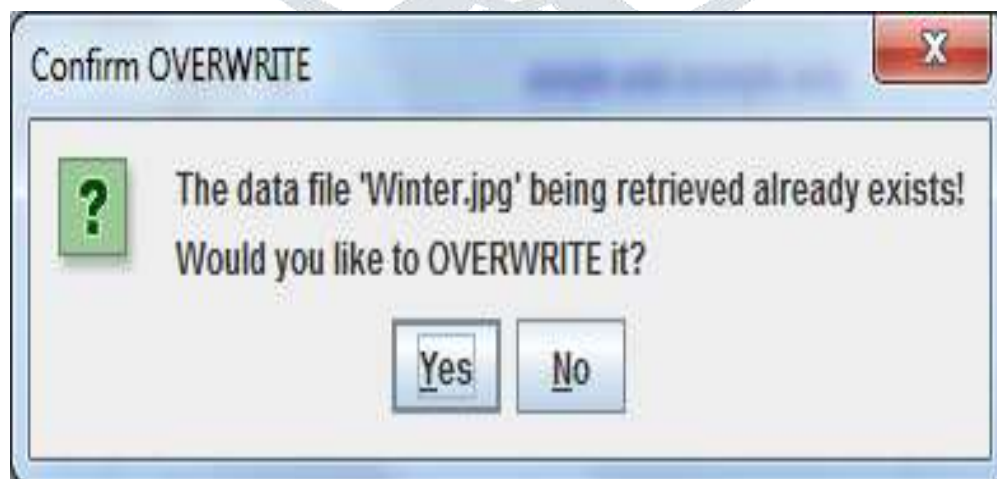
From the above window we can clearly find out that we have chosen the embedded file as input by the receiver, in order to extract the hidden data I.e Image from the embedded file.



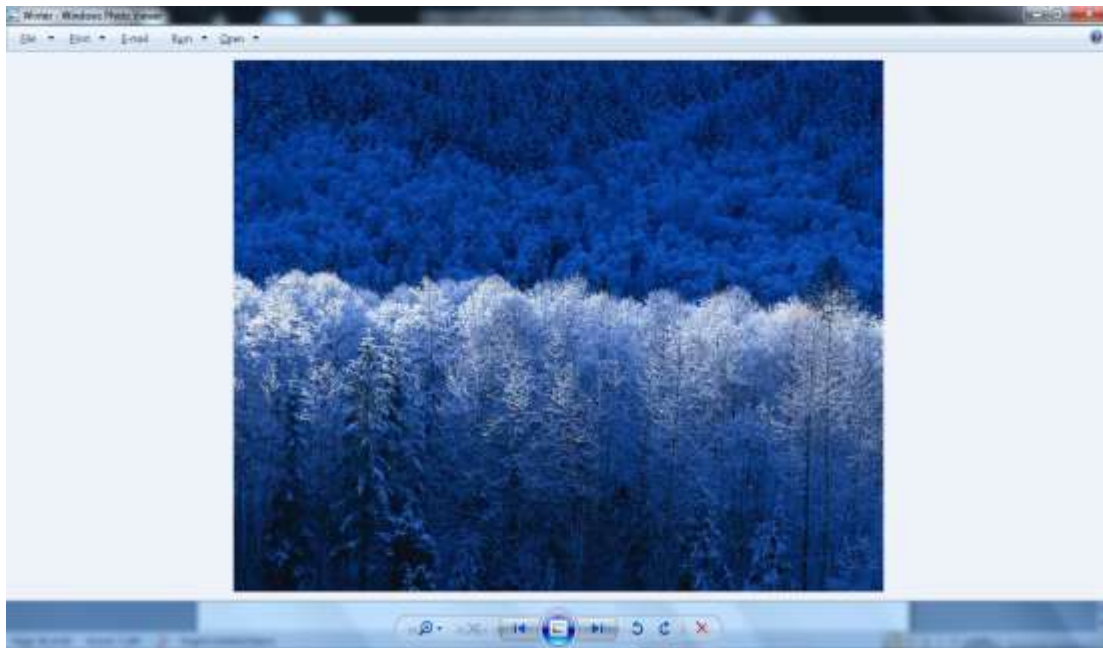
The above window clearly tells that the file which is chosen as the master file contains some hidden information and also it is encrypted. So if we click on go button to view the data, we will get the below Pop Up Window to enter the password.



In the above window if we enter the correct password, then it will be decrypted and the hidden data can be viewed. Or else it will show error like password not correct.



From the above confirm dialog box, we can get an idea that password is correct and it is prompting the receiver to overwrite the file to open as it is available in same folder.



7. CONCLUSION

In this paper, on the off chance that one had the option to shroud the message in the video record in such a way, that there would be no discernible changes in the sound document after the message addition. Simultaneously, if the message that will be covered up were encoded, the degree of security would be raised to a serious palatable level. This application allows you to implant or conceal significant or private messages or records into wmv and mpg without influencing the nature of real information or documents. It accomplishes this by utilizing the least huge pieces of these records for installing information which are not utilized by the Image watchers or Image editors.

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