CSCE 4555/5555 – Computer Forensics

Participation Activity 6 Assignment
Steganography

S-Tool is a steganography tool that hides files in BMP, GIF, and WAV files. S-Tools supports only these container files that must be the larger file that will store the hidden file inside itself. Using this tool, we will learn how to hide, reveal, and extract files using steganography.

1. Start the S-Tools program on your workstation.

2. Next, search for and choose either a fairly small BMP or GIF file without animation from the Internet, making sure that there are no legal restrictions on downloading and using the file for the purposes of this lab. This BMP or GIF will serve as the container file for this steganography exercise and must be larger than the hidden file that we will store inside of this file itself. Drag and drop this BMP or GIF file into the S-Tools workspace.

3. Now open up **notepad** and write two or three sentences and save this file as your last name with the **.txt** file extension.

4. Then, drag and drop the file that you are trying to hide over the container file that you placed there in an earlier step.

    You will notice that you are prompted to enter a passphrase. To make this easy for everyone, use the 3-character passphrase "**unt**", without the quotes, and then click OK.

5. Once the new file has loaded, right click the new file that contains the hidden file and save it on your USB flash drive as "**hiddenCon**.bmp", or use whatever applicable file extension for the file type. When saving, it is very important that you save it with a supported file type (i.e., .bmp, .gif, or .wav).

6. You want to make sure that you did this correctly, so the next step is to reveal this hidden image and save it to your desktop as evidence. Begin by closing the previous two images you had open in S-Tools. Now, open the new **hiddenCon**.bmp (or applicable file type) that you just created by dragging it into the S-Tools workspace.

7. Now, right click the image and select **reveal**. You will be prompted for a passphrase. Use the passphrase "**unt**", without the quotes, that you entered earlier.

8. Once you enter the correct passphrase, a window with the name of the hidden file should appear. Right click the filename and select Save As to save the file under a different name and verify that it contains the hidden text (using notepad) that you hid in the container file.

9. You have now hidden, extracted, and revealed a file using steganography methods.

You are to submit your stego-media **hiddenCon**.bmp (or applicable file type) document (i.e., the container file with the hidden file stored inside) to the **Participation Activity 6** dropbox on Canvas by the announced date and time. **No late submissions will be accepted.**