TJHSST Senior Research Project
Implementation of Steganographic Techniques
2006-2007

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The purpose of this research will be to investigate various methods of steganography (hiding data within different media). I will implement various known algorithms that achieve this, and possibly will develop a new program to hide data within a certain file type (mp3, pdf, etc.). The first part of the program itself will be able to accept two inputs: the 'clean' file and the hidden message. It will then combine the two and output a 'doctored' file with the hidden message inside it. The second part of the program will be able to reverse the process, receiving a 'doctored' file as an input and extracting the hidden message.

1 Quarter 1

In the first quarter, I will focus on thoroughly researching different steganographic techniques, using only simple programs to practice implementation. I hope to have a running program by the end of this quarter that implements a basic technique.

2 Quarter 2

In the second quarter, I will begin to research one or more data types that I hope to use for steganography. I will have to learn how the data are stored and how to alter them in order to embed a hidden message. A program at

this point would make simple alterations to a file, trying to make them as discreet as possible.

3 Quarter 3

In the third quarter, I will bring together both earlier parts to form a complete steganography application. It will be able to manipulate the chosen file type, embed information, and export a file with the message at the end. The program will be implementing my own unique algorithm rather than a known technique. I will also research some steganalysis techniques to be able to make the algorithm resistant to things like statistic analysis of the file.