COMP 8505

Assignment 1

User Guide

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Purpose

Accept command line input that specifies the PNG image, a file to hide or extract and an encryption key. The program will then securely encrypt the data and embeds it into a PNG image using the Least Significant Bit (LSB) steganography or reverses the process to recover the original file.

Installing

Obtaining

```
git clone https://github.com/HarmanbirD/stego-png-lsb.git
```

Building

```
mkdir build
cd build
cmake ..
make
```

Running

```
./stego
```

Command Line Arguments

The following configuration values can be set in <file>:

Variable	Purpose
-p	Input PNG image
-k	Password for encryption/decryption
-e	Encryption mode (default)
-d	Decryption mode
-f	File to encrypt and embed into PNG
<message>	The message to print

Examples

```
…/source/build main ● ❯ ./stego -p white.png -k "secret key" -f secret_short.txt
TRACE: STATE_PARSE_ARGUMENTS
Entered state at line 86.

TRACE: STATE_HANDLE_ARGUMENTS
Entered state at line 98.

TRACE: STATE_LOAD_IMAGE
Entered state at line 111.

TRACE: STATE_ENCRYPT_DATA
Entered state at line 125.

TRACE: STATE_EMBED_DATA
Entered state at line 150.

TRACE: STATE_OUTPUT
Entered state at line 176.

TRACE: STATE_CLEANUP
Entered state at line 225.


…/source/build main ● ❯ ▌
```