

Stenography Testing

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Test Case - BMP Input

Testing if the program properly handles BMP input for the carrier.

Input

One large BMP image as the carrier and any file for the secret.

Expected Results

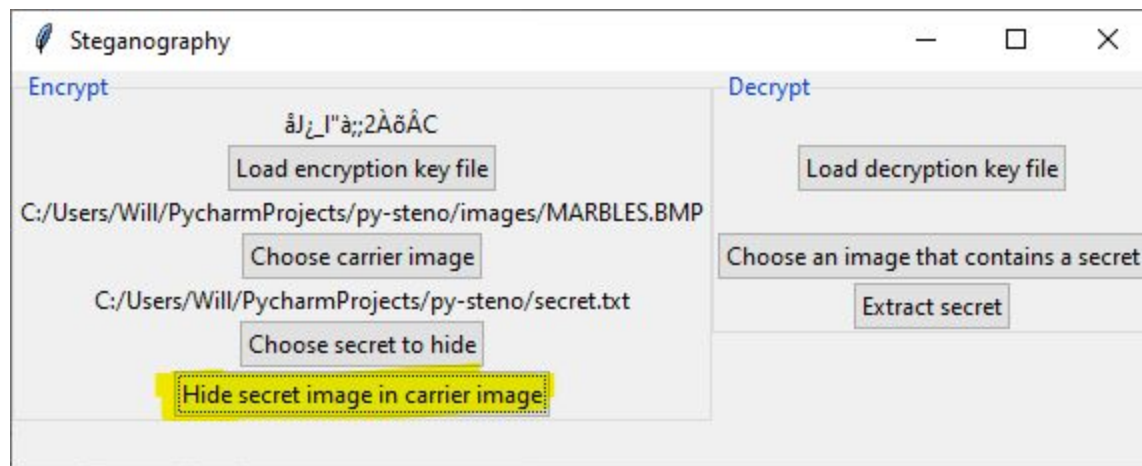
The output PNG image is created without error.

Test Results

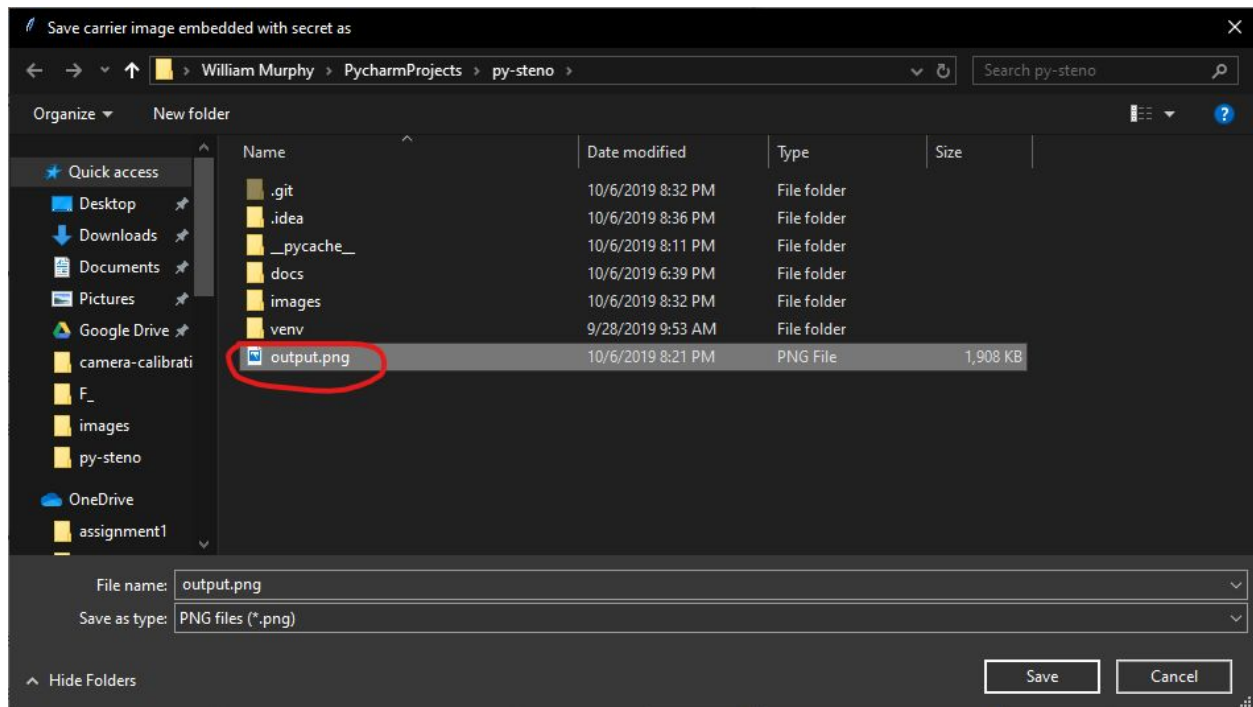
Image file: MARBLES.bmp

Secret file: secret.txt

After running the application:



After clicking the highlighted button:



The file "output.png" is created without error.

Test Status

Complete.

Test Case - PNG Input

Testing if the program properly handles PNG input

Input

One large PNG image as the carrier and any file for the secret.

Expected Results

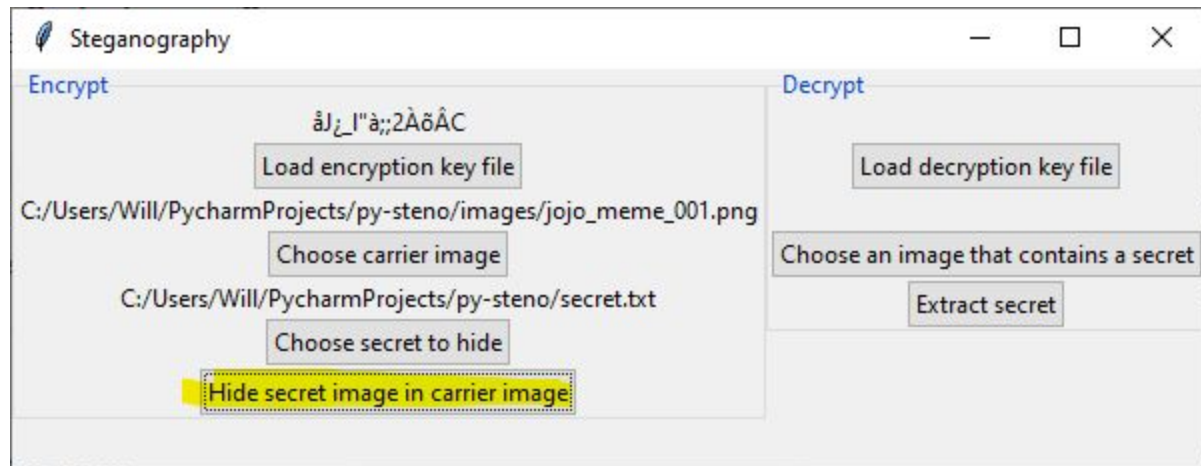
The output PNG image is created without error.

Test Results

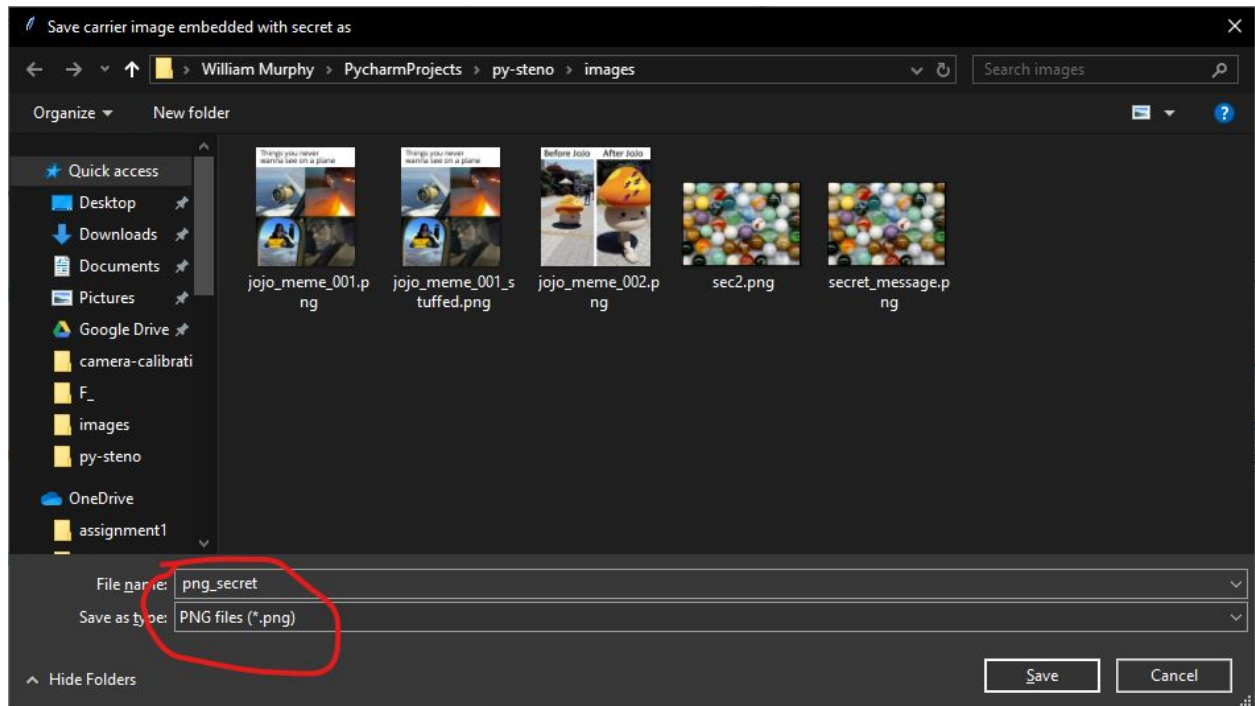
Image file: jojo_meme_001.png

Secret: secret.txt

After running the application:

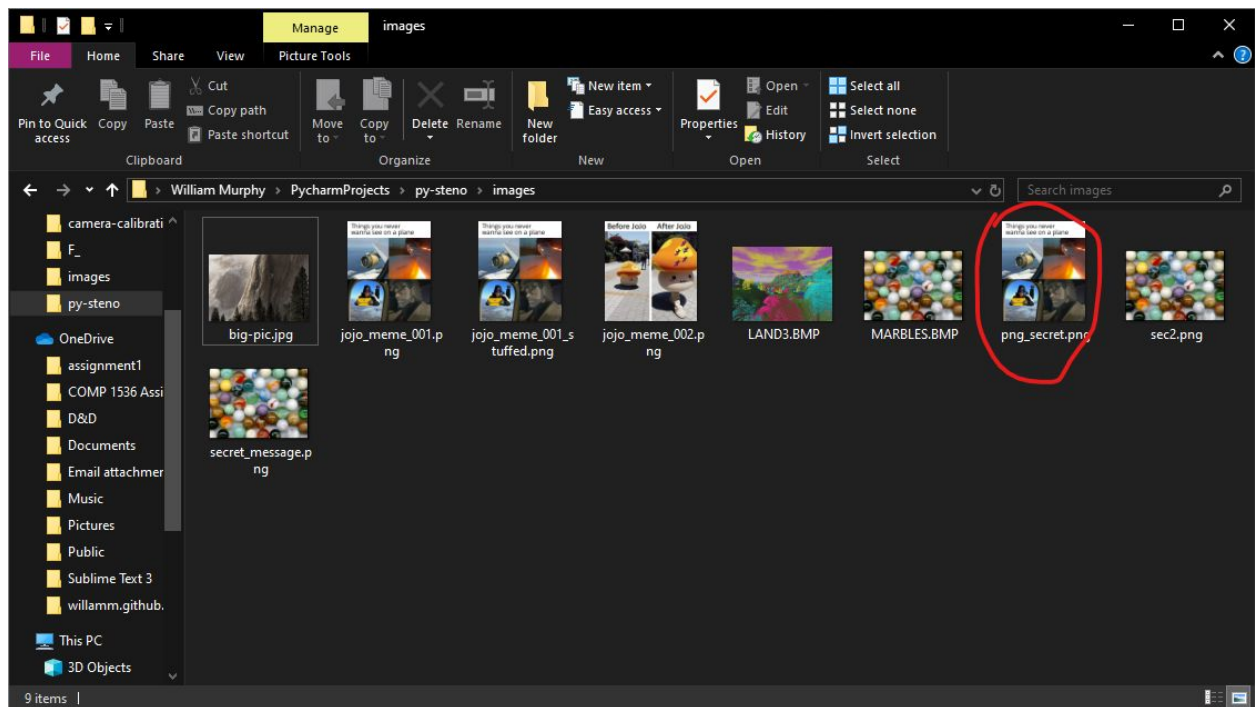


After clicking the highlighted button:



The red circle indicates the filename of the image with the secret embedded in it and the file extension.

After clicking the save button:



The file “png_secret.png” is created without error.

Test Status

Complete.

Test Case - JPEG Input

Testing if the program properly handles JPEG input

Input

One large JPEG image as the carrier and any file for the secret.

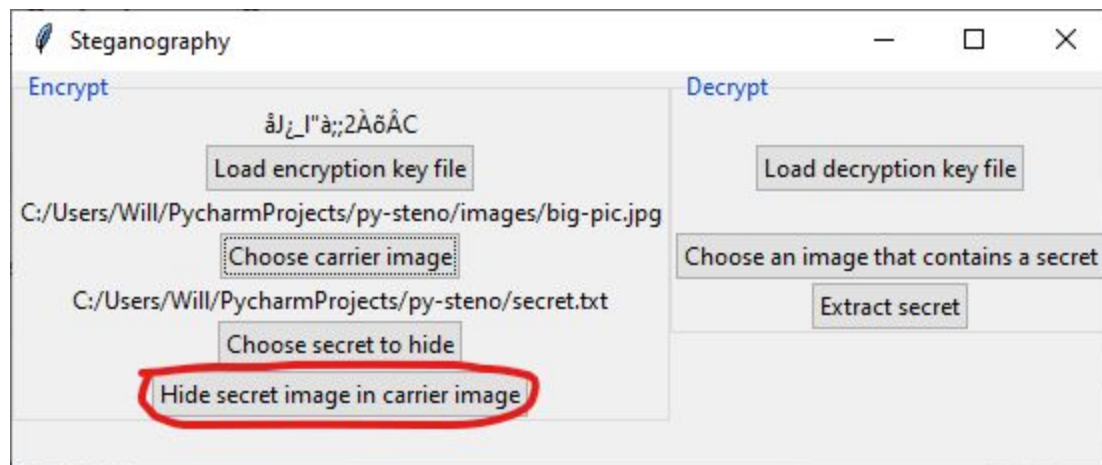
Expected Results

The output PNG image is created without error.

Test Results

Image: big-pic.jpg

Secret: secret.txt



After clicking the red circled button:

Test Status

In progress.

Test Case - Extracting from PNG

Testing that secret file is extracted correctly from the input carrier image.

Input

A PNG image with a hidden file.

Expected Results

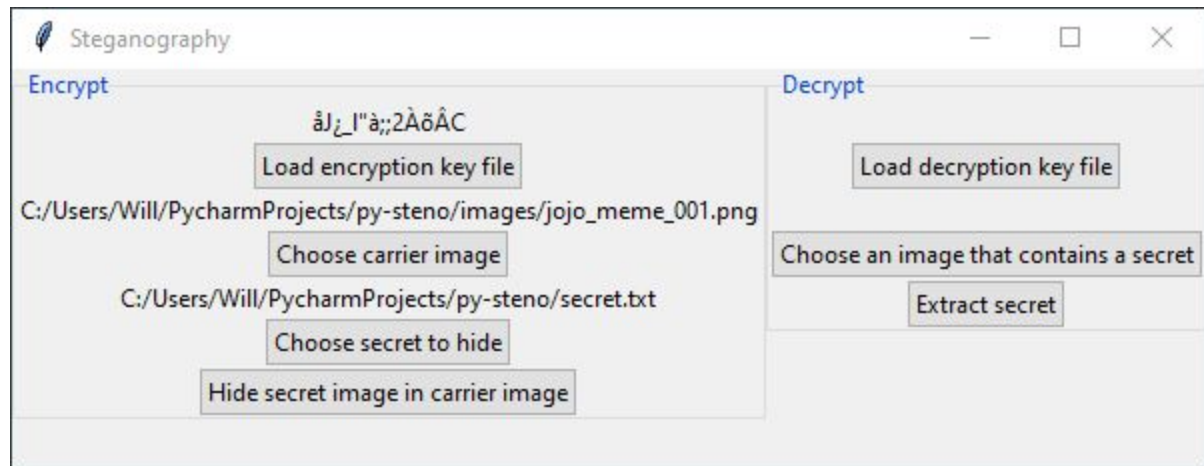
The hidden file should be extracted from the input PNG and written to disk.

Test Results

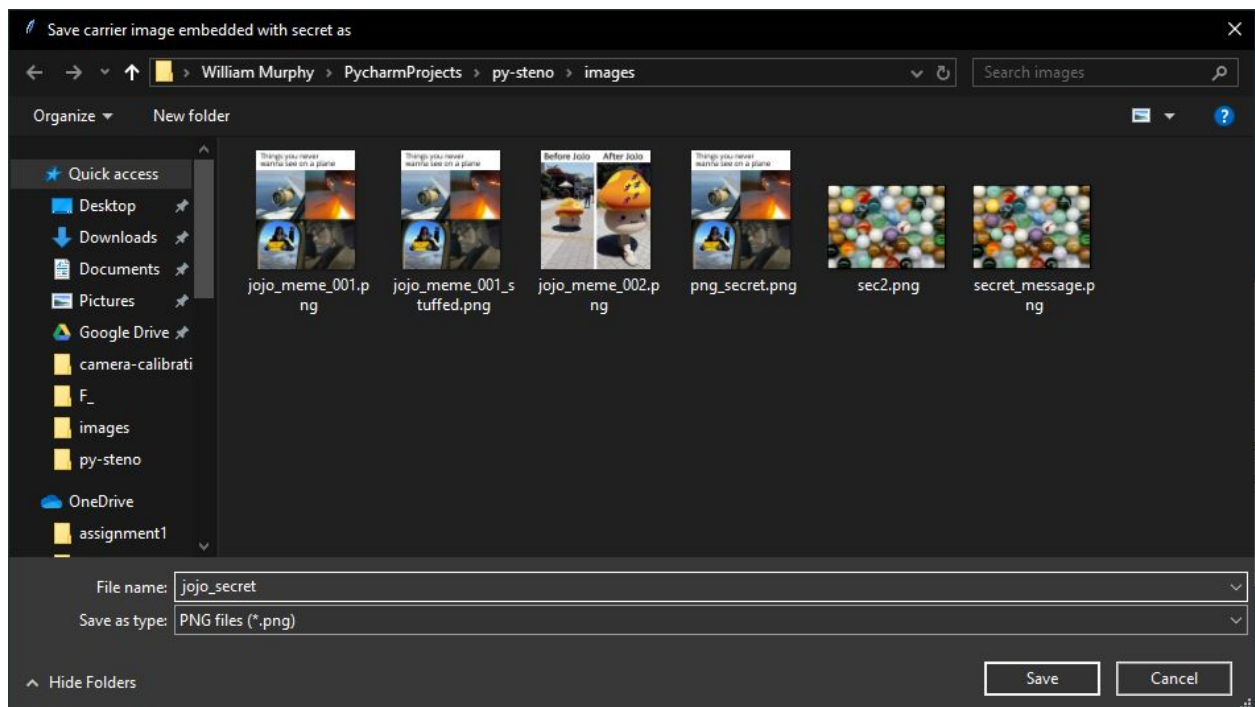
Image: jojo_meme_001.png

Secret: secret.txt

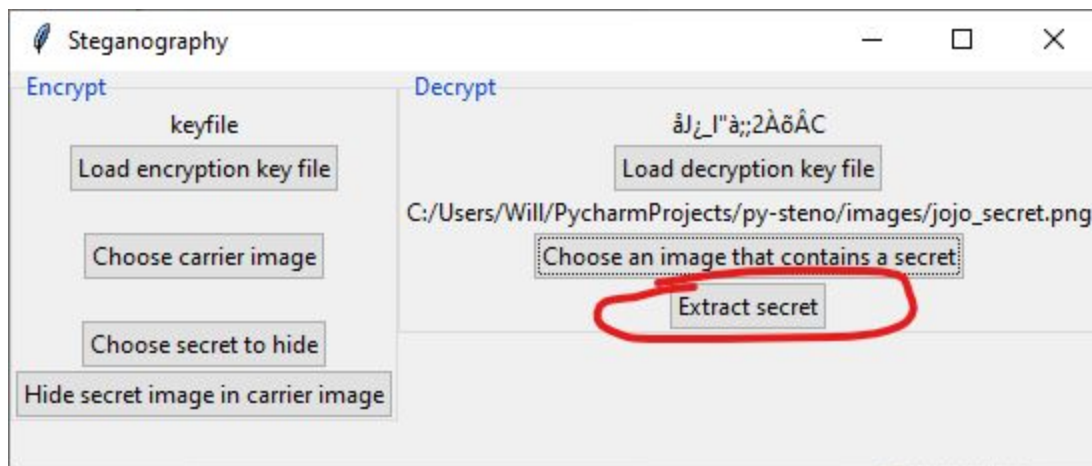
Hiding the secret:



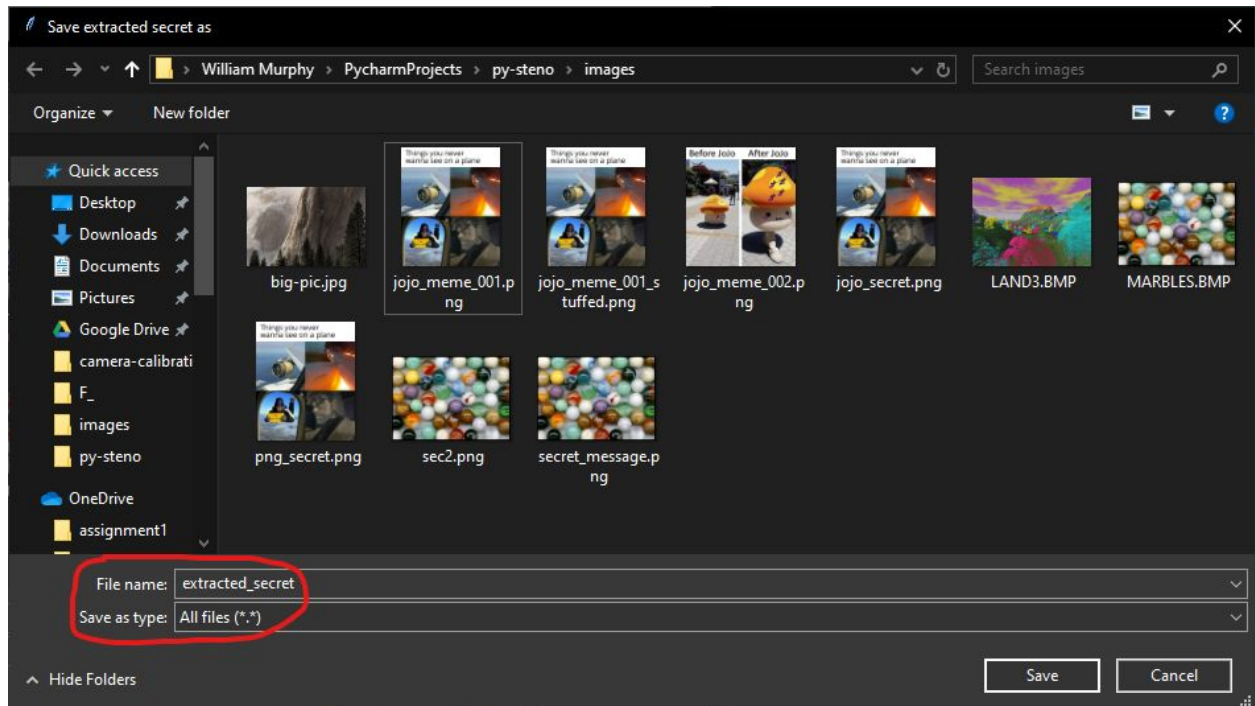
Saving the secret-embedded image:



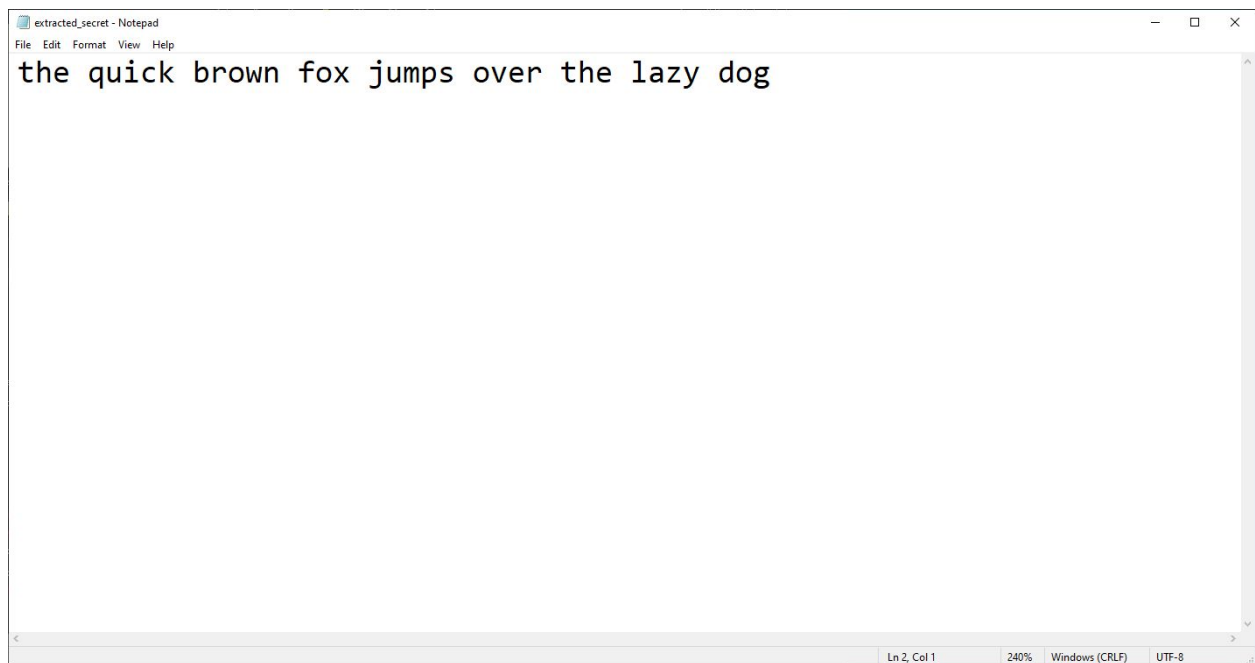
Extracting the secret:



Saving the extracted secret:



Opening the secret file in Notepad:



Test Status

Complete

Test Case - Extracting from BMP

Testing that secret file is extracted correctly from the input carrier image.

Input

A BMP image with a hidden file.

Expected Results

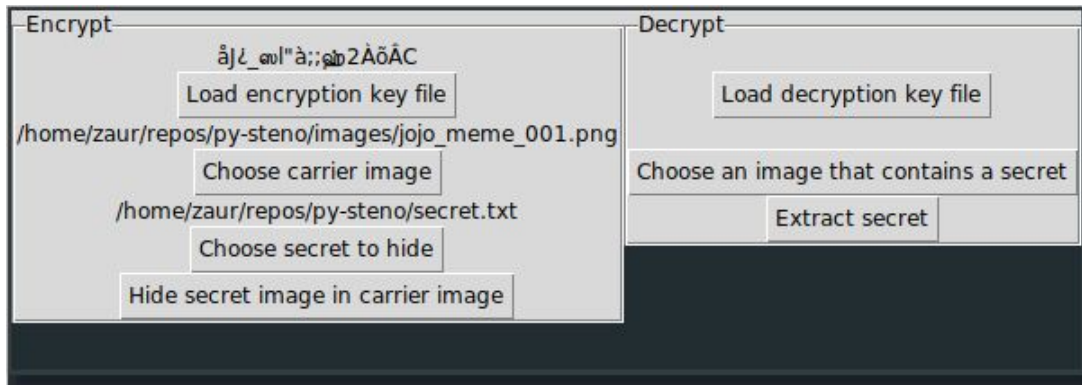
The hidden file should be extracted from the input BMP and written to disk.

Test Results

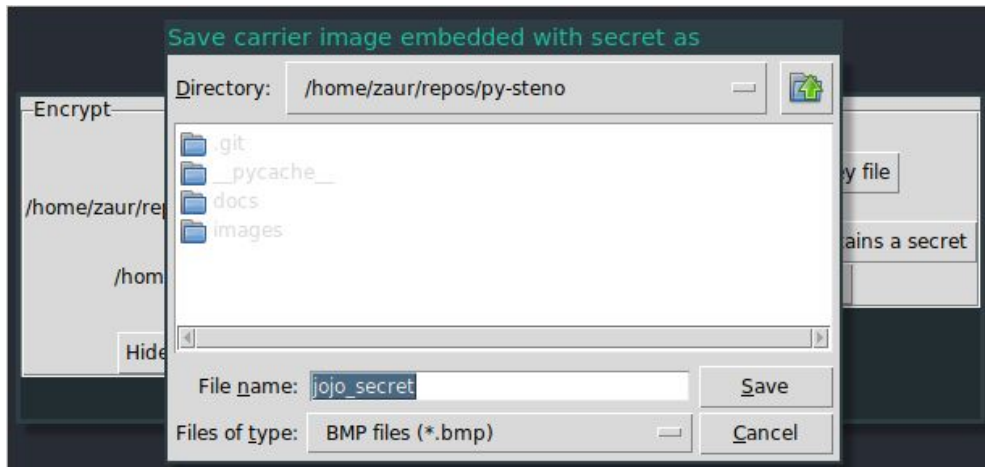
Image: jojo_meme_001.png

Secret: secret.txt

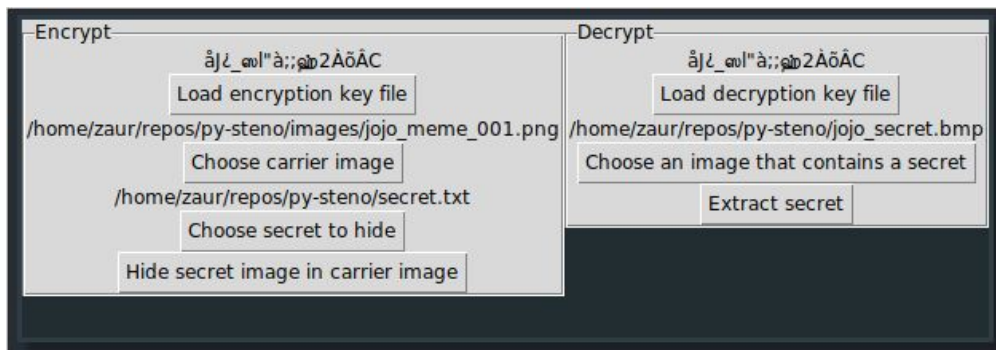
Hiding the secret:



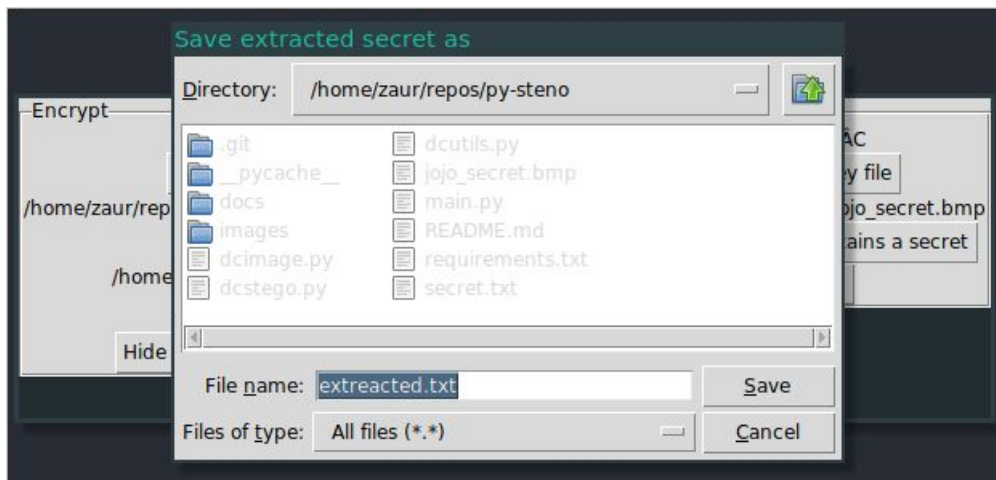
Saving the secret-embedded image:



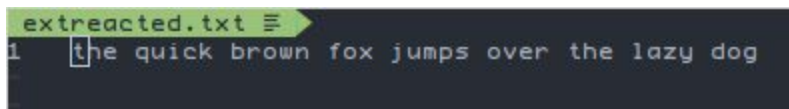
Extracting the secret:



Saving the extracted secret:



Viewing the secret:



Test Status

Complete

Test Case - Extracting from Unsupported type

Testing that the program rejects any non-PNG images when extracting.

Input

Images of the following formats:

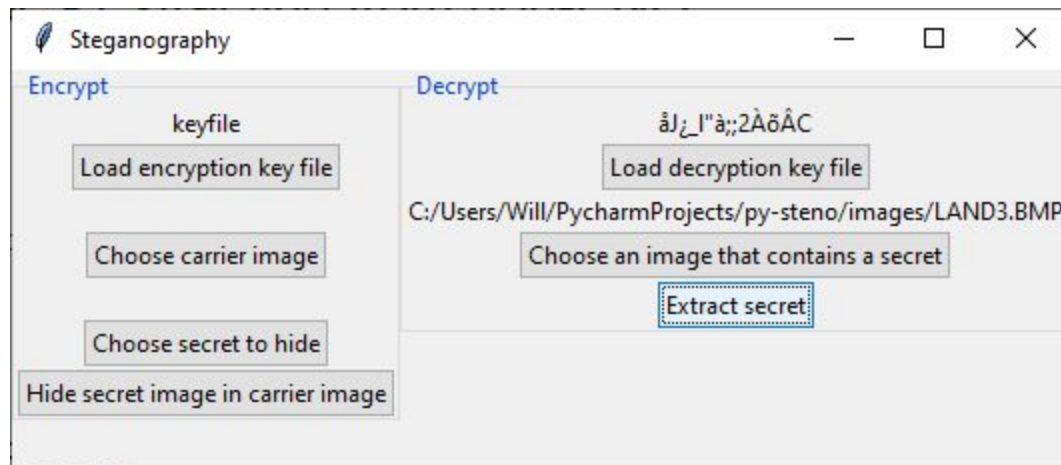
- JPEG
- GIF

Expected Results

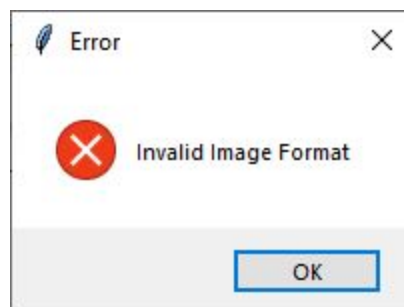
The program should error out and do nothing.

Test Results

Before trying to extract from a non-PNG image:



After:



Test Status

Complete.

Test Case - Extracting from an Unprocessed PNG

Testing extracting from a PNG image without any image packed inside.

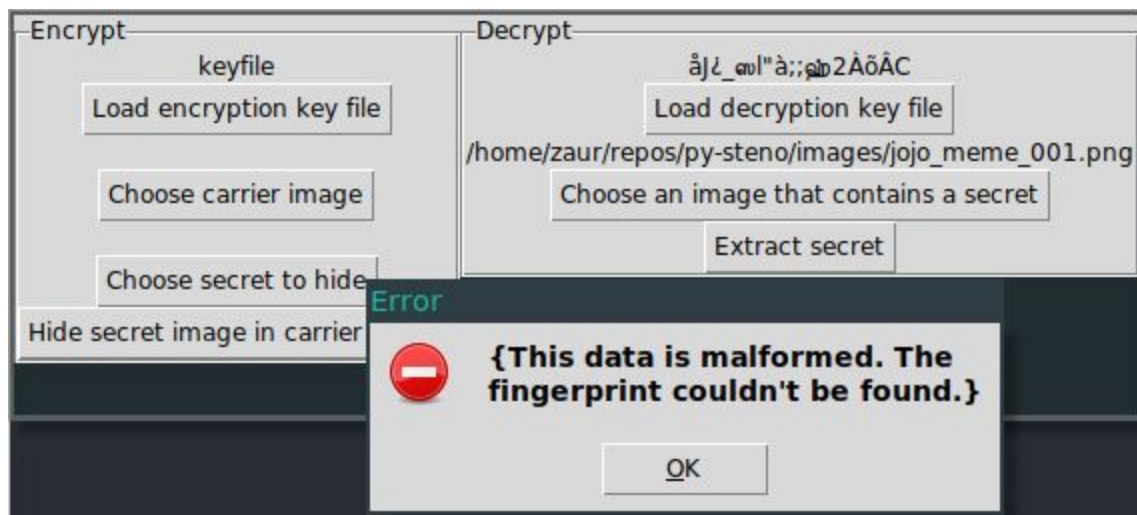
Input

A regular PNG image.

Expected Results

The program should notify the user that the PNG image does not have a hidden file.

Test Results



Test Status

Complete.

Test Case - Extracting from an Unprocessed BMP

Testing extracting from a PNG image without any image packed inside.

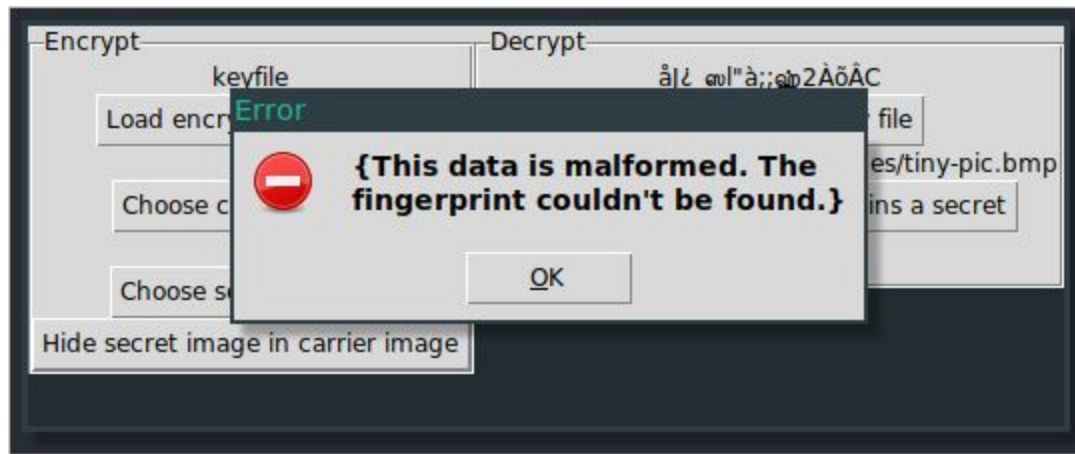
Input

A regular BMP image.

Expected Results

The program should notify the user that the BMP image does not have a hidden file.

Test Results



Test Status

Complete.

Test Case - Carrier is too Small

Testing the error handling if the carrier image is not large enough to carry the secret file.

Input

A PNG image and a data file. The data file is significantly larger than the PNG image.

Expected Results

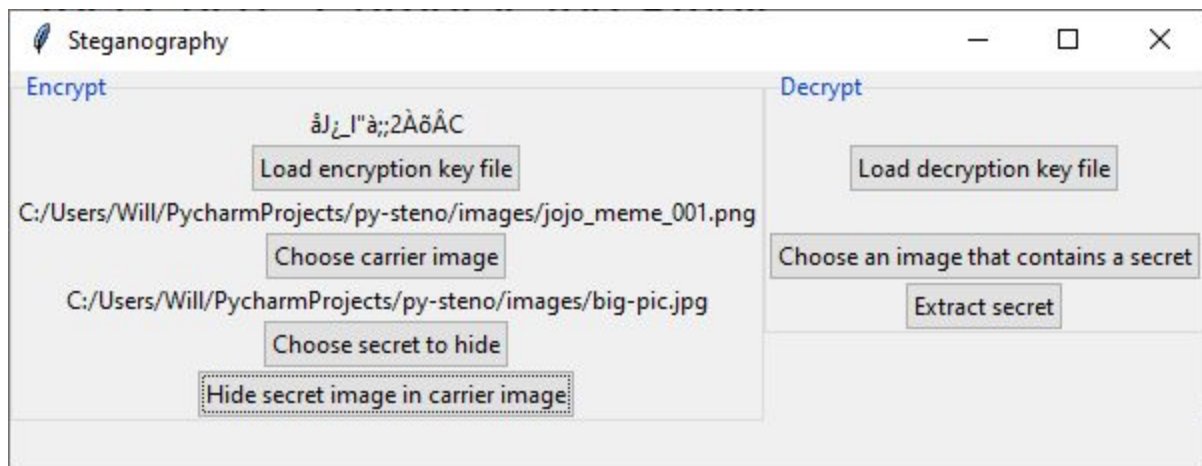
The program should fail and let the user know that the PNG image is unable to carry the data file.

Test Results

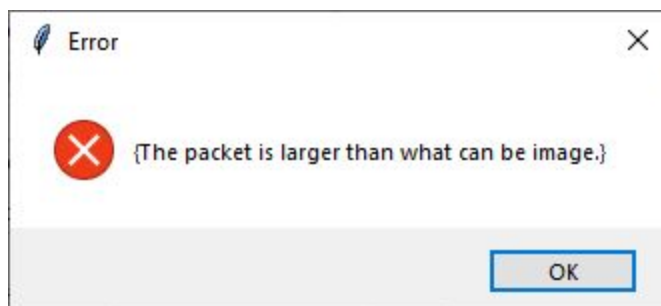
Carrier image: jojo_meme_001.png, 1.62 MB

Secret: big-pic.jpg, 3.95 MB

Before:



After:



Test Status

Complete.