Stenographer Module Design View

UI:

Handle Button Action

Input: The button that was pressed

Output: The appropriate method called, returned, and UI updated accordingly.

One of the Load Buttons Pressed (4 scenarios)

Input: The button that was pressed

Output: The image or text loaded into the program and displayed from the

appropriate location in the UI.

• Uses: File Library's: Load Image or File Library's: Load Text

One of the Save Buttons Pressed (4 scenarios)

• Input: The button that was pressed

Output: The image or text saved to the computer.

Uses: File Library's: Save Image or File Library's: Save Text

One of the Clear Buttons Pressed (5 scenarios)

Input: The button that was pressed

Output: The image(s) and/or text removed from the program and the UI updated.

Composed Button Pressed

Input: The button that was pressed

Output: The composite image created in program memory from the cover and

hidden images and the composite image view in the UI updated to display it.

• Uses: The Cover Image stored in the program.

The Hidden Image stored in the program, Image Comp's: Images to Composite

Decomposed Button Pressed

Input: The button that was pressed

Output: The Cover and Hidden images stored in program memory from the

decomposition of the composite and the UI updated to display them.

• Uses: The Composite image stored in the program,

Image Comp's: Composite to Images

Image To Text Button Pressed

Input: The button that was pressed

Output: The text area of the UI updated to display the text decryption of the Hidden

image stored in memory.

• Uses: The Hidden image stored in the program,

Text & Image's: Image to text

Text To Image Button Pressed

Input: The button that was pressed

Output: The Hidden image in memory updated to the encrypted version of the text

the hidden image view in the UI updated to display this image.

Uses: The Cover image stored in the program(need to clarify?),

Text & Image's: Text to image

Stenographer

and

Text to image

• Input: A String containing the message,

The desired width of the image, The desired height of the image

• Output: An Image of the String with the width and height given

Image to text

Input: An image of the encrypted string

• Output: A String of the message encrypted in the image

Images to Composite

Input: The cover image,

The image to hide in the composite

• Output: A image that is the composite of the first 2 images

Composite to Images

Input: A image to be decomposed

Output: A two element array containing the cover image and the hidden image

File Library: Load Image A string describing the file path of the image to open Input: The image in the file or null if an error occurred Output: A File Chooser Uses: Save Image Input: The image to save, A string describing the file path to save the image to Output: True if a save occurred, false otherwise Uses: A File Chooser **Load Text** A string describing the file path of the text to open Input: The text in the file or null if an error occurred Output: A File Chooser Uses: **Save Text** • Input: A String containing the text to save,

Test class

Test Text To image and back

Output:

Uses:

Input: A String

Output: True if the conversion was successful, false otherwise

Description: Converts the string to an image and then converts the image back to a

A string describing the file path to save the text to

True if a save occurred, false otherwise

string and compares the resulting string with the initial string

• Uses: Text & Image's: Image to text

Text & Image's: Text to image

A File Chooser

Monkey Test UI

• Input: A batch of random key presses and mouse clicks sent to the UI

Output: Any exceptions that occurred

• Uses: The UI and all classes it depends on

Ext...