Photonics Measurement Systems in Fluid Mechanics

MecE 606

Program #1: Handling images in Matlab

Due: 25th September 2014

Task: Develop a program in Matlab that allows two images to be opened and displayed.

Two pairs of images are available on the website as examples of images to be loaded

Requirements:
- Can open basic image formats (BMP, TIF, JPEG, GIF, etc)
- The program is run from a GUI
- Has a control feature (button, slider etc) that allows rapid toggling of the display of each individual image as needed.
- Information about the image is displayed on the GUI. These would include:
    - Image type \ format
    - Image size in the vertical and horizontal directions
    - Image bit depth
- A scaling factor and offset input is provided to map the image from a pixel space to physical space. This would be a user input.
- Code is well commented
- The program is self-explanatory or has simple instructions on use. A "readme.txt" can be included, if needed. Instructions can also be placed on the GUI or at the command prompt

Marking Scheme:
Marks will be assigned based on the following
0) Program is not submitted
1) Material is submitted. Program does not achieve most of the requirements
2) Program achieves most of the requirements
3) Program achieves all requirements