User Stories, Tasks, and Acceptance Tests

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User Stories

1. As a user, I want to upload my natural scenes picture and make it more realistic.
2. As a user, I want to be able to enhance medical images to get all the important details.
3. As a user, I want to be able to enhance radar backscatter data to improve the recognizability of the structures in the image.
4. As a user, I want to be able to enhance a Hubble telescope image to increase clarity of the image.
5. As a user, I want an interface that is easy to use, visually pleasing, and allows me to choose the brightness values.

Tasks

1. User Story 1 - Natural Scenes
    a. Determine the acceptable range of brightness values.
    b. Determine lightness value range for the user.
    c. Use High Resolution Image capturing device to procure an image.

2. User Story 2 - Medical Images
    a. Determine the acceptable range of brightness values.
    b. Determine lightness value range for the user.
3. User Story 3 - Radar Backsetting
    a. Determine the acceptable range of brightness values.
    b. Determine lightness value range for the user.
4. User Story 4 - Telescope Images
    a. Determine the acceptable range of brightness values.
    b. Determine lightness value range for the user.
5. User Story 5 - Graphical User Interface
    a. Wrap the back-end image processing into a single function call.
    b. Implement browsing feature for selecting an image.
    c. Develop menus to choose which type of image.
    d. Implement text field for inputting brightness values.
    e. Generate multiple output images after settings are finalized.
    f. Allow user to select a single image object from an array of output image objects.

Acceptance Tests

1. User Story 1 - Natural Scenes
    a. Tonemap 5 images with 5 different ranges and agree upon which value range is optimal for the most cases.
    b. Tonemap 5 images with 5 different ranges and agree upon which value range is optimal for the most cases.
    c. No test required.
2. User Story 2 - Medical Images
    a. Tonemap existing image with 5 different ranges and agree upon which value range is optimal for the most cases.
    b. Tonemap existing image with 5 different ranges and agree upon which value range is optimal for the most cases.
3. User Story 3 - Radar Backsetting
    a. Tonemap existing image with 5 different ranges and agree upon which value range is optimal for the most cases.

    b. Tonemap existing image with 5 different ranges and agree upon which value range is optimal for the most cases.
4. User Story 4 - Telescope Images
    a. Tonemap existing image with 5 different ranges and agree upon which value range is optimal for the most cases.
    b. Tonemap existing image with 5 different ranges and agree upon which value range is optimal for the most cases.
5. User Story 5 - Graphical User Interface
    a. Test the back-end image processing image processing function.
    b. Verify that the browse function correctly chooses a file.
    c. Make sure each radio button opens its corresponding interface.
    d. Test text field with several numeric inputs.
    e. Verify that multiple outputs are produced.
    f. Ensure that callback interacts with image objects as expected.