

Objectives

1. Finalise checks on converted functions and the control panel for smooth program operation.
 2. Resolve issues with the "Reset All" and "Clear All" buttons and their functionality.
 3. Enhance user experience through UI updates, including rotation button adjustments and browse button behaviour.
 4. Begin updating the threshold CLAHE function for improved performance.
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Activities

1. Function and Control Panel Checks:

- Verified all functions and helper functions were successfully transformed into double 2D pointers.
- Ensured program stability and smooth integration of updated methods.

2. UI Improvements:

- Updated the **Rotation Button**:
 - Replaced the single button with two side-by-side buttons for enhanced user-friendliness.
- Blocked the **Browse Button** when all images are not cleared, preventing unintended actions.

3. Reset All Button Debugging:

- Identified issues with the "Reset All" button:
 - Some functions reset successfully, such as data calibration.
 - Others displayed a reset confirmation pop-up but failed to reset the image output.
 - Rotation function reset but resulted in the image being cut in half.
- Attempted updates via memory release and algorithm adjustments but could not resolve the issue.
- Temporarily deleted the "Reset All" function for re-implementation later.

4. Clear All Button Debugging:

- Debugged issues with the "Clear All" button:

- Crashes occurred when re-loading the text file due to insufficient memory release.
- Updated memory management to ensure smooth re-loading and clearing of images.

5. **Threshold CLAHE Update:**

- Initiated the process of updating the threshold CLAHE function to optimise its behaviour and performance.
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Achievements

1. Verified that all functions, including helpers, have been successfully transformed into the double 2D pointer method.
 2. Enhanced UI with improved rotation button layout and conditional blocking of the browse button.
 3. Debugged and stabilised the "Clear All" button, ensuring smooth functionality during re-loading and clearing of images.
 4. Began the groundwork for updating the threshold CLAHE function.
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Problems & Solutions

1. **Reset All Button Issues:**

- **Problem:** Inconsistent behaviour across functions and cutting of images in the rotation reset.
- **Solution:** Temporarily removed the "Reset All" function for further debugging and re-implementation.

2. **Clear All Button Crashes:**

- **Problem:** Crashes occurred when re-loading text files due to memory mismanagement.
- **Solution:** Improved memory release and cleanup processes, resolving the issue.

3. **Rotation Reset Bug:**

- **Problem:** Resetting the rotation function resulted in images being cut in half.

- **Solution:** Attempted algorithm updates but could not fully resolve; issue remains under investigation.