Pixel Editor

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Abstract

- Pixel Editor : Multi-purpose Image Editing Tool for Windows Platform.
- Features :
  - Image Smoothening.
  - Morphological Operations.
  - Image Filtering.
  - Transformations.
  - Histogram Equalization Techniques.
- Easy to use GUI.
- Low System Requirements.
- Built using C#.

Problem Statement

- Hardware Requirements.
  - Memory
  - CPU
  - Storage
  - GPU
- Not User Friendly.
- Need for learning Programming Language.

Existing Tools/Solutions

Photoshop

- Rich Features.
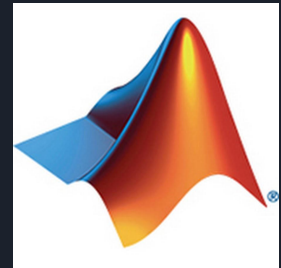- Easy to use UI.
- Cross Platform.

GIMP

- Open Source.
- Free.
- Cross Platform.

MATLAB

- Programming Language.
- Complex Maths Operations.
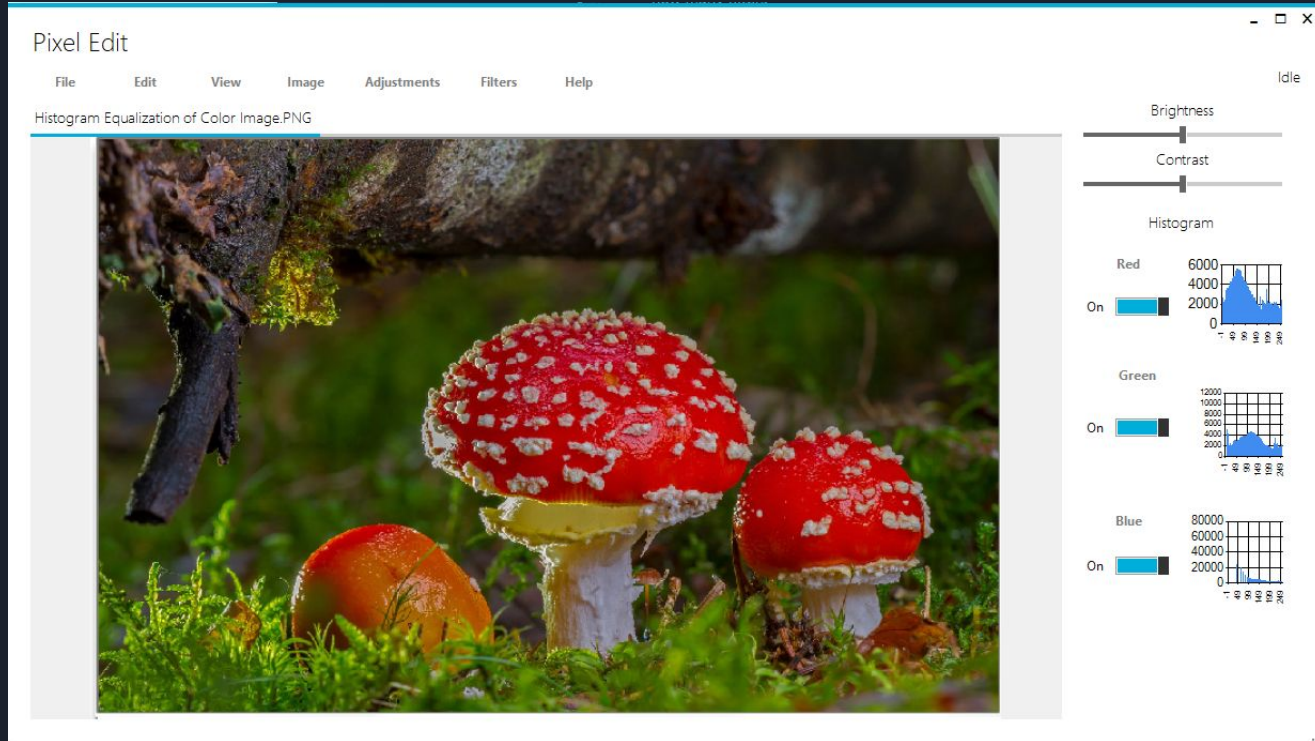- Cross Platform.

Solution

- C# Implementation.
  - Good UI Design.
  - Faster Computation.
- Filtering Techniques.
  - Blurring.
  - Edge Detection.
  - Additional Filters.
- Morphological Operations.
  - Erosion.
  - Dilation.
  - Open / Close.
- Transformation.

UI Design

DEMO

Conclusion

- Project Objectives.
- Cross Platform Support. (Mono)
- Further Improvements
  - Features.
  - Performance.
  - Additional GPU Support.