



Studio 1.0

Basic IP Tool

Eniac 2008 Project

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Basic IP Tools

- ❖ Grayscale
- ❖ Sepia Tone
- ❖ Image Binarization(Threshold)
- ❖ Background Changer
- ❖ 2 Source Filters: Merge and Difference
- ❖ Invert Image
- ❖ Tinge:RGB
- ❖ Resize, Rotate, Flip,

Utility

- Entertainment/Animation Industry for basic Image Processing.
- Grayscale/Sepia conversion.
- 2 Images Difference/Merge.
- Background Filter/Changer: WallpaperX
- Resizing, Rotating, Flipping Images.

Features

- Built in C# on .NET framework 3.5
- Uses user defined functions rather than Image Processing library tools of C#.
- Uses self-made 2 Source Difference algorithm.
- User friendly GUI and easy to use.
- Background Changer: WallpaperX

Algorithms Used

- ❖ Grayscale: $(R+G+B)/3$ for all RGB Values.
- ❖ Sepia Tone: Uses RGB multipliers defined by Microsoft.
- ❖ Invert Image: $255 - \text{RGB values}$.
- ❖ 2 Source Difference Filter: Checks any change in RGB values of image and gives the change as output.
- ❖ 2 Source Merge Filter: Mean of RGB values of two images.

WallpaperX Algorithm

- ❖ Identifies white colour and copies RGB values of the wallpaper image to original image.
- ❖ Can be used to change background image.
- ❖ Actively used in animation industry for creating visual effects.

[illegible]

Image 2



