

Welcome!

Welcome to the Image Processing System!

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Table of Contents

INTRODUCTION	1
FILE	2
UNDO	3
SAVE	3
LOAD	4
EDIT	4
CHANGE BRIGHTNESS	5
CONVERT TO GREYSCALE	6
<i>Visualize Red Component</i>	6
<i>Visualize Green Component</i>	6
<i>Visualize Blue Component</i>	6
<i>Visualize With Maximum RGB Value</i>	6
<i>Visualize With the Average of RGB Values</i>	6
<i>Visualize With the Weighted Sum</i>	6
BLUR IMAGE	7
SHARPEN IMAGE	7
COLOR TRANSFORMATIONS	7
<i>Sepia Filter</i>	7
<i>Greyscale Filter</i>	7
HELP	7

Introduction

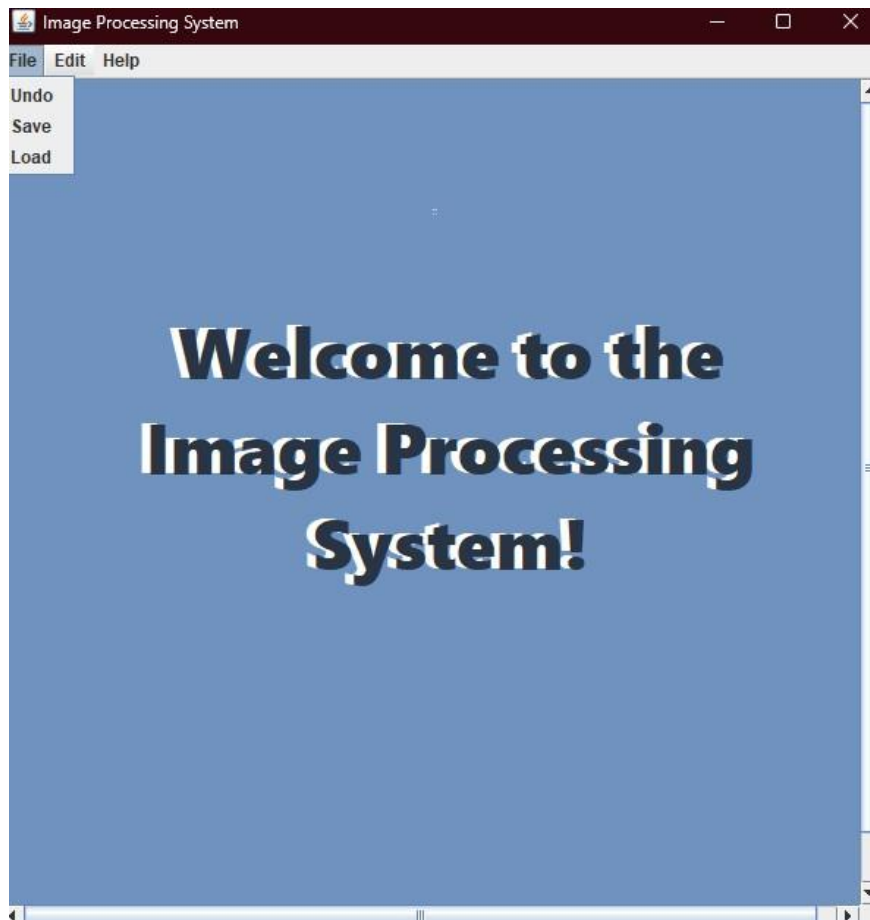
This is the help file for the Image Processing System! Refer to the table of contents for answers.



Welcoming Screen

File

This contains the functions for the methods to undo, save, or load an image.



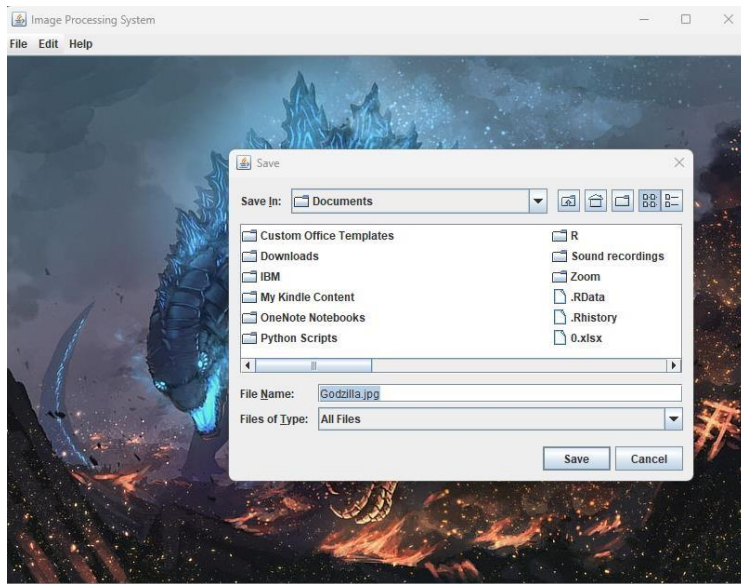
Undo

The ability to reverse back to the previous image you were working on. Useful if you performed a transformation, you did not like.

Save

This command is to save the image to your device. You will be asked to select where exactly on your device you would like to save. Refer to the pop-up window that shows the file directory to determine where you would like to save.

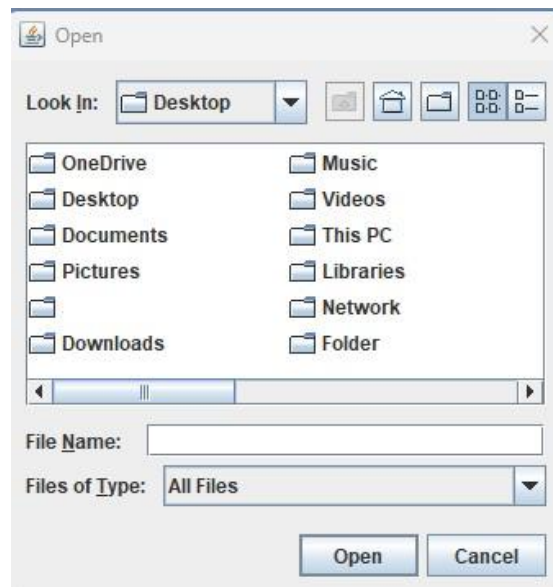
You can change the name of the image if you would like when saving it.



Load

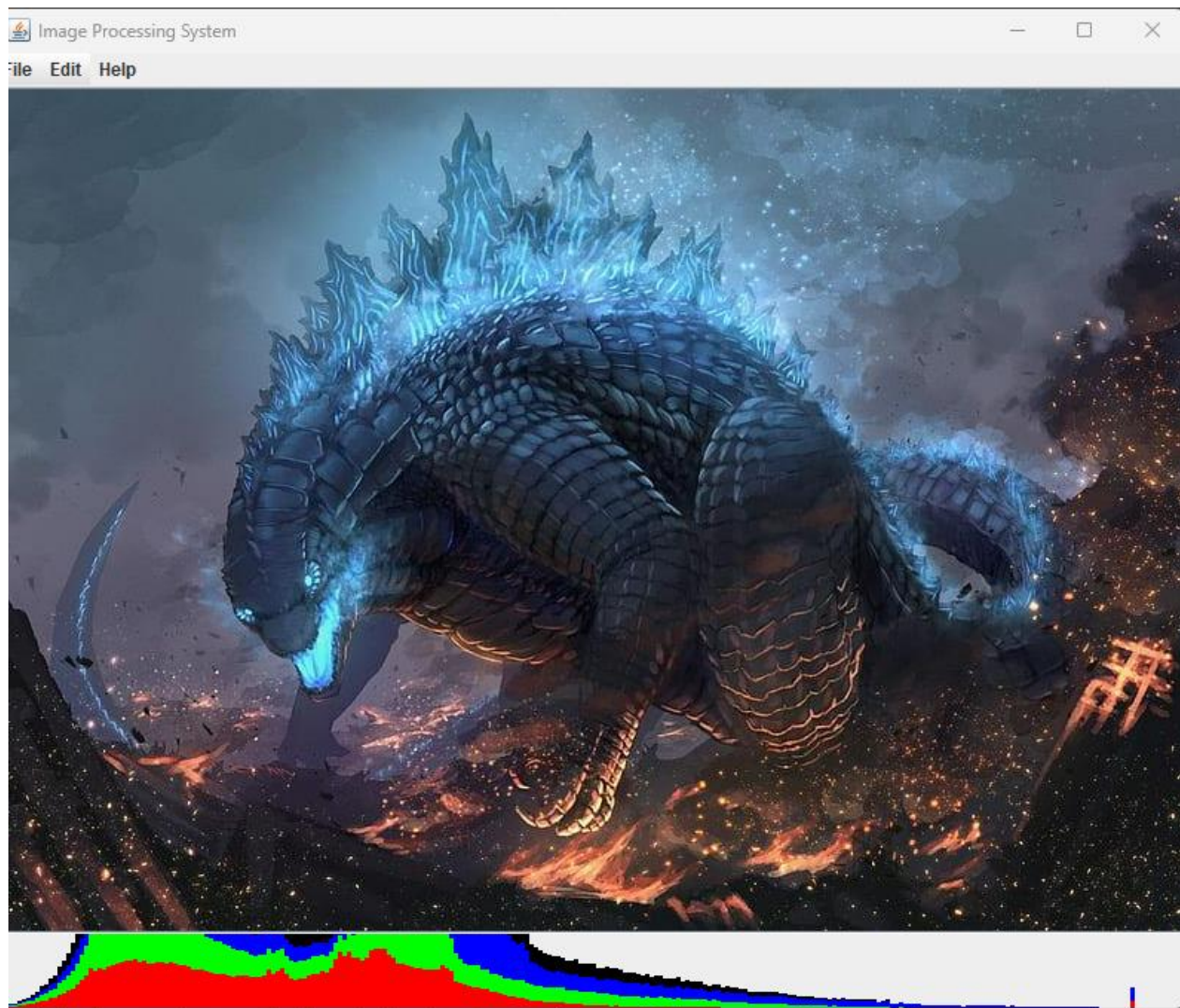
This command is to load an image into the Image Processing system. It will ask you to pick the image through the directory of the device. Once loaded, it will show the image as the background to allow the ability to keep track of what transformations are occurring.

The bottom of the image is where the histogram is.



Edit

This contains the functions to alter the given image. You will need an image loaded into the system before altering.



Example of an image loaded.

Link: <https://www.peakpx.com/en/hd-wallpaper-desktop-aktix>

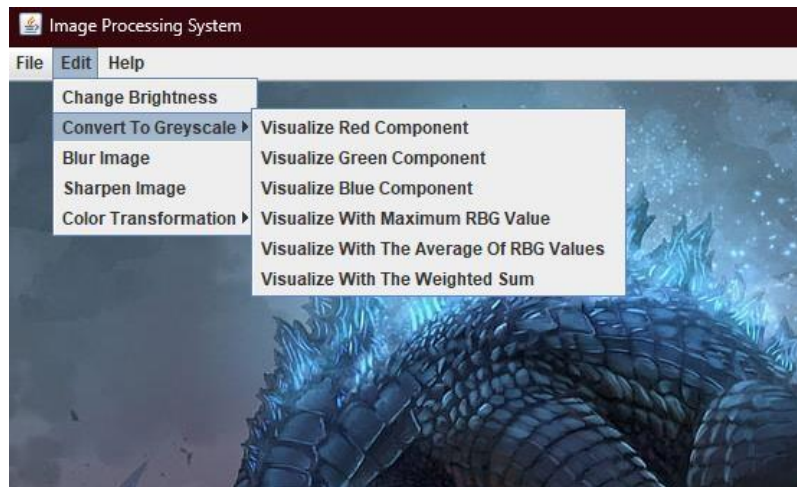
Change Brightness

This command is to alter the brightness of the image. It accepts either positive or negative integers and changes the brightness accordingly.



Convert to Greyscale

This contains the functions to alter the image to a greyscale image based on altering the image in a specific way that results in it returning to greyscale.



Visualize Red Component

This method changes the values of the red, green, and blue components of a pixel are equal to the red channel value of that pixel in the original image.

Visualize Green Component

This method changes the values of the red, green, and blue components of a pixel are equal to the green channel value of that pixel in the original image.

Visualize Blue Component

This method changes the values of the red, green, and blue components of a pixel are equal to the blue channel value of that pixel in the original image.

Visualize With Maximum RGB Value

This method changes the values of the red, green, and blue components of a pixel are equal to the maximum value of the three channels.

Visualize With the Average of RGB Values

This method changes the values of the red, green, and blue components of a pixel are equal to the average of the three components for each pixel.

Visualize With the Weighted Sum

This method changes the values of the red, green, and blue components of a pixel are equal to the weighted sum of the pixels. It follows this equation: $0.2126r + 0.7152g + 0.0722b$

Blur Image

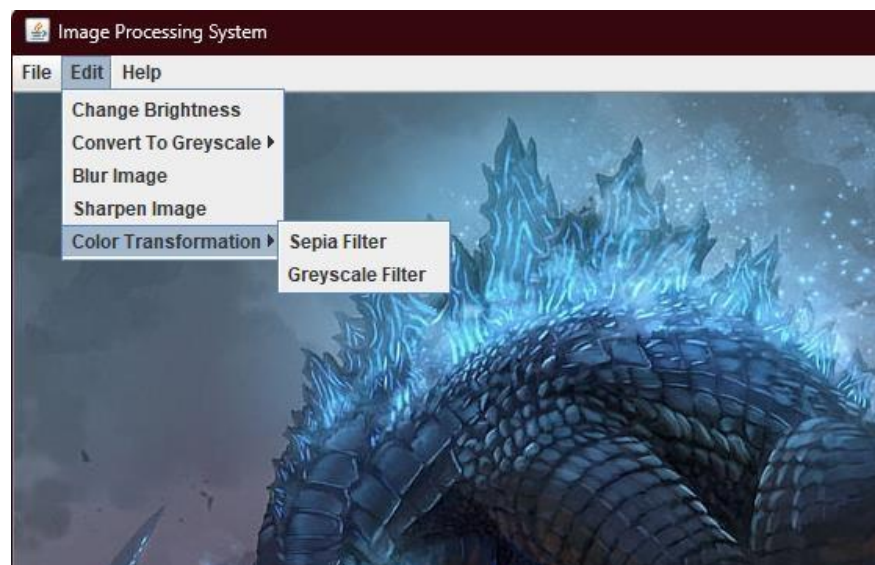
This command causes the given image to be blurred. This means that it makes the image less clear or distinct; it distorts the detail of the image.

Sharpen Image

This command causes the given image to be sharpened. This means that it enhances the definition of edges in an image; it enhances the detail of the image.

Color Transformations

This command contains the functions to alter the image with color transformation.



Sepia Filter

This method changes the coloring of an image to have the characteristics of a reddish-brown tone.

Greyscale Filter

This method changes the coloring of an image to be a greyscale image.

Help

This command is how you got here! 😊