

JAVA IMAGE FILTERING

LISTING OF COMMANDS

1. Open an image

Command : ***open path***

Parameters :

- path : absolute path to the image
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2. Smoothing the image with a average filter

Command : ***average_filter***

Parameters : no parameters

3. Change the brightness of your image

Command : ***brightness percent channel***

Parameters :

- percent : percent of the new brightness (between -100 and +100)
 - channel : rgb channel to apply this operation (0 for all channels, 1 for red channel, 2 for green channel and 3 for blue channel)
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4. Change the contrast of your image

Command : ***contrast percent channel***

Parameters :

- percent : percent of the new contrast (between -100 and +100)
 - channel : rgb channel to apply this operation (0 for all channels, 1 for red channel, 2 for green channel and 3 for blue channel)
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5. Change the color saturation of your image

Command : ***saturation percent channel***

Parameters :

- percent : percent of the new saturation (between -100 and +100)
 - channel : rgb channel to apply this operation (0 for all channels, 1 for red channel, 2 for green channel and 3 for blue channel)
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6. Change the color hue of your image

Command : ***hue percent channel***

Parameters :

- percent : percent of the new hue (between -100 and +100)
 - channel : rgb channel to apply this operation (0 for all channels, 1 for red channel, 2 for green channel and 3 for blue channel)
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7. Transform an RGB image in a greyscale image

Command : ***img_to_grey***

Parameters : no parameters

8. Show the image negative

Command : ***img_to_neg***

Parameters : no parameters

9. Add gaussian noise in the image

Command : ***gaussian_noise level***

Parameters :

- level : level of the noise (between 1 and 5)
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10. Add salt & pepper noise in the image

Command : ***salt_pepper_noise level***

Parameters :

- level : level of the noise (between 1 and 5)
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11. Detect the edge of an image (Prewitt method 3x3filter)

Command : ***prewitt_detection***

Parameters : no parameters

12. Detect the edge of an image (Sobel method 3x3filter)

Command : ***sobel_detection***

Parameters : no parameters

13. Detect the edge of an image (Laplace method 3x3filter)

Command : *laplace_detection*

Parameters : no parameters

14. Improve the edge of the image (Kramer&Bruckner method 3x3filter)

Command : *kramer_filter*

Parameters : no parameters

15. Smoothing the image with a median filter

Command : *median_filter*

Parameters : no parameters

16. Binarize an image (black and white only - thresholding)

Command : *threshold* [*value*]

Parameters :

- value : value of the threshold (between 0 and 255). If, the parameter is not specified, the system automatically determines a threshold value.