different MATLAB commands for image processing.

1 **Imread**

syntax:A=IMREAD(FILENAME,FMT)

Description: reads a grayscale or color image from the file specified by the string FILENAME. If the file is not in the current directory, or in a directory on the MATLAB path, specify the full pathname**.**

2 **Imwrite**

Syntex: imwrite(A,filename,*fmt*)

Description: imwrite(A,filename,*fmt*) writes the image A to the file specified by filename in the format specified by *fmt*.

3 **Imshow**

Syntex: imshow(I)

Description: imshow(I) displays the grayscale image I.

4 **Size**

Syntex: [m,n] = size(X)

Description: [m,n] = size(X) returns the size of matrix X in separate variables m and n.

5 **for loop**

Syntex: for x=*initval*:*endval*, *statements*, end

Description: for x=*initval*:*endval*, *statements*, end repeatedly executes one or more MATLAB *statements* in a loop.

6 **Imresize**

Syntex: B = imresize(A, scale)

Description: B = imresize(A, scale) returns image B that is scale times the size of A. The input image A can be a grayscale, RGB, or binary image. If scale is between 0 and 1.0, B is smaller than A. If scale is greater than 1.0, B is larger than A.

7 **info**

Syntax: info

Description: displays in the Command Window, information about contacting The MathWorks.

8 **Imrotate**
Syntex: B = imrotate(A,angle)

Description: B = imrotate(A,angle) rotates image A by angle degrees in a counter clockwise direction around its center point. To rotate the image clockwise, specify a negative value for angle. imrotate makes the output image B large enough to contain the entire rotated image. imrotate uses nearest neighbor interpolation, setting the values of pixels in B that are outside the rotated image to 0 (zero).

9 **Subplot**
Syntex: h = subplot(m,n,p)

Description: h = subplot(m,n,p) or subplot(mnp) breaks the figure window into an m-by-n matrix of small axes, selects the pth axes object for the current plot, and returns the axes handle.

10 **Figure**
Syntex: FIGURE(H)

Description: FIGURE(H) makes H the current figure, forces it to become visible, and raises it above all other figures on the screen. If Figure H does not exist, and H is an integer, a new figure is created with handle H.

11 **Title**
Syntex: title('string')

Description: title('string') outputs the string at the top and in the center of the current axis.

12 **Xlabel**
Syntex: XLABEL('text')

Description: XLABEL('text') adds text beside the X-axis on the current axis.

13 **Imcrop**
Syntex: I2 = IMCROP(I)

Description: I2 = IMCROP(I) displays the image I in a figure window and creates a cropping tool associated with that image. I can be a grayscale Image, an RGB image, or a logical array. The cropped image returned, I2, is of the same type as I.

14 **Ylabel**
Syntex:YXLABEL('text')
Description: YLABEL('text') adds text beside the Y-axis on the current axis.

15 Histeq

Syntex: J = HISTEQ(I,HGRAM)

Description: J = HISTEQ(I,HGRAM) transforms the intensity image I so that the histogram of the output image J with length(HGRAM) bins approximately matches HGRAM. The vector HGRAM should contain integer counts for equally spaced bins with intensity values in the appropriate range: [0,1] for images of class double or single, [0,255] for images of class uint8, [0,65535] for images of class uint16, and [-32768, 32767] for images of class int16. HISTEQ automatically scales HGRAM so that sum(HGRAM) = NUMEL(I). The histogram of J will better match HGRAM when length(HGRAM) is much smaller than the number of discrete levels in I.

16 Imhist

Syntex: imhist(I)

Description : imhist(I) displays a histogram for the image I above a grayscale color bar. The number of bins in the histogram is specified by the image type. If I is a grayscale image, imhist uses a default value of 256 bins. If I is a binary image, imhist uses two bins.

17 imdivide

Syntex: Z = IMDIVIDE(X,Y)

Description : Z = IMDIVIDE(X,Y) divides each element in the array X by the corresponding element in array Y and returns the result in the corresponding element of the output array Z. X and Y are real, nonsparse, numeric or logical arrays with the same size and class, or Y can be a scalar double. Z has the same size and class as X and Y unless X is logical, in which case Z is double.

18 immultiply

Syntex: Z = IMMULTIPLY(X,Y)

Description: Z = IMMULTIPLY(X,Y) multiplies each element in the array X by the corresponding Element in the array Y and returns the product in the corresponding element of the output array Z.

19 imadd

Syntex: Z = imadd(X,Y)

Description : Z = imadd(X,Y) adds each element in array X with the corresponding element in Array Y and returns the sum in the corresponding element of the output array Z. X and Y are real, nonsparse numeric arrays with the same size and class, or Y is a scalar double. Z has the same size and class as X, unless X is logical, in which case Z is double.

20 imcomplement

Syntax: IM2 = imcomplement(IM)

Description : IM2 = imcomplement(IM) computes the complement of the image IM. IM can be a binary, grayscale, or RGB image. IM2 has the same class and size as IM.