Red File: /libs/imgproc/cvImgproc.reds
Source: C_Functions/imgproc_c.h
Fonctions: 120
Inline macros and functions : 6

Function	
cvAcc	Adds image to accumulator
cvSquareAcc	Adds squared image to accumulator
cvMultiplyAcc	Adds a product of two images to accumulator
cvRunningAvg	Adds image to accumulator with weights: acc = acc*(1-alpha) + image*alpha
cvCopyMakeBorder	Copies source 2D array inside of the larger destination array and makes a border of the specified type (IPL_BORDER_*) around the copied area
cvSmooth	Smoothes array (removes noise)
cvFilter2D	Convolves the image with the kernel
cvIntegral	Finds integral image: SUM(X,Y) = sum(x<X,y<Y)I(x,y)
cvPyrDown	Smoothes the input image with gaussian kernel and then down-samples it
cvPyrUp	Up-samples image and smoothes the result with gaussian kernel.
cvCreatePyramid	Builds pyramid for an image
cvReleasePyramid	Releases pyramid
cvPyrMeanShiftFiltering	Filters image using meanshift algorithm
cvWatershed	Segments image using seed markers
cvSobel	Calculates an image derivative using generalized Sobel
cvLaplace	Calculates the image Laplacian: (d2/dx + d2/dy)I
cvCvtColor	Converts input array pixels from one color space to another
cvResize	Resizes image (input array is resized to fit the destination array)
cvWarpAffine	Warps image with affine transform

cvGetAffineTransform	computes affine transform matrix for mapping src[i] to dst[i] (i=0,1,2)
cv2DRotationMatrix	Computes rotation_matrix matrix
cvWarpPerspective	Warps image with perspective (projective) transform
cvGetPerspectiveTransform	Computes perspective transform matrix for mapping src[i] to dst[i] (i=0,1,2,3)
cvRemap	Performs generic geometric transformation using the specified coordinate maps
cvConvertMaps	Converts mapx & mapy from floating-point to integer formats for cvRemap
cvLogPolar	Performs forward or inverse log-polar image transform
cvLinearPolar	Performs forward or inverse log-polar image transform
cvUndistort2	Transforms the input image to compensate lens distortion
cvInitUndistortMap	Computes transformation map from intrinsic camera parameters that can used by cvRemap
cvInitUndistortRectifyMap	Computes undistortion+rectification map for a head of stereo camera
cvUndistortPoints	Computes the original (undistorted) feature coordinates from the observed (distorted) coordinates
cvCreateStructuringElementEx	Creates structuring element used for morphological operations
cvReleaseStructuringElement	Releases structuring element
cvErode	Erodes input image (applies minimum filter) one or more times
cvDilate	Dilates input image (applies maximum filter) one or more times.
cvMorphologyEx	Performs complex morphological transformation
cvMoments	Calculates all spatial and central moments up to the 3rd order
cvGetSpatialMoment	Retrieve particular spatial moments
cvGetCentralMoment	Retrieve particular central moments
cvGetNormalizedCentralMoment	Retrieve particular normalized central moments

cvGetHuMoments	Calculates 7 Hu's invariants from precalculated spatial and central moments
cvSampleLine	Fetches pixels that belong to the specified line segment and stores them to the buffer. Returns the number of retrieved points
cvGetRectSubPix	Retrieves the rectangular image region with specified center from the input array
cvGetQuadrangleSubPix	Retrieves quadrangle from the input array
cvMatchTemplate	Measures similarity between template and overlapped windows
cvCalcEMD2	Computes earth mover distance between two weighted point sets (called signatures)
cvFindContours	Retrieves outer and optionally inner boundaries of white (non-zero) connected components in the black (zero) background
cvStartFindContours	Initalizes contour retrieving process
cvFindNextContour	Retrieves next contour
cvSubstituteContour	Substitutes the last retrieved contour with the new one
cvEndFindContours	Releases contour scanner and returns pointer to the first outer contour
cvApproxChains	Approximates a single Freeman chain or a tree of chains to polygonal curves
cvStartReadChainPoints	Initalizes Freeman chain reader
cvReadChainPoint	Retrieves the next chain point
cvApproxPoly	Approximates a single polygonal curve (contour) or a tree of polygonal curves (contours)
cvArcLength	Calculates perimeter of a contour or length of a part of contour
cvContourPerimeter	Inline function
cvBoundingRect	Calculates contour boundning rectangle (update=1) or just retrieves pre-calculated rectangle (update=0)
cvContourArea	Calculates area of a contour or contour segment
cvMinAreaRect2	Finds minimum area rotated rectangle bounding a set of points

cvMinEnclosingCircle	Finds minimum enclosing circle for a set of points
cvMatchShapes	Compares two contours by matching their moments
cvConvexHull2	Calculates exact convex hull of 2d point set
cvCheckContourConvexity	Checks whether the contour is convex or not (returns 1 if convex, 0 if not)
cvConvexityDefects	Finds convexity defects for the contour
cvFitEllipse2	Fits ellipse into a set of 2d points
cvMaxRect	Finds minimum rectangle containing two given rectangles
cvBoxPoints	Finds coordinates of the box vertices
cvPointSeqFromMat	Initializes sequence header for a matrix (column or row vector) of points - a wrapper for cvMakeSeqHeaderForArray (it does not initialize bounding rectangle!!!)
cvPointPolygonTest	Checks whether the point is inside polygon, outside, on an edge (at a vertex).
cvCreateHist	Creates new histogram
cvSetHistBinRanges	Assignes histogram bin ranges
cvMakeHistHeaderForArray	Creates histogram header for array
cvReleaseHist	Releases histogram
cvClearHist	Clears histogram
cvGetMinMaxHistValue	Finds indices and values of minimum and maximum histogram bins
cvNormalizeHist	Normalizes histogram by dividing all bins by sum of the bins, multiplied by <factor>. After that sum of histogram bins is equal to <factor>
cvThreshHist	Clear all histogram bins that are below the threshold
cvCompareHist	Compares two histograms
cvCopyHist	Copies one histogram to another. Destination histogram is created if the destination pointer is NULL
cvCalcBayesianProb	Calculates bayesian probabilistic histograms (each or src and dst is an array of <number>

	histograms
cvCalcArrHist	Calculates array histogram
cvCalcHist	Calculates array histogram (image : IplImage**)
cvCalcArrBackProject	Calculates back project
cvCalcBackProject	Inline function
cvCalcArrBackProjectPatch	Does some sort of template matching but compares histograms of template and each window location"
cvCalcBackProjectPatch	Inline function
cvCalcProbDensity	Calculates probabilistic density (divides one histogram by another)
cvEqualizeHist	equalizes histogram of 8-bit single-channel image
cvDistTransform	Applies distance transform to binary image
cvThreshold	Applies fixed-level threshold to grayscale image
cvAdaptiveThreshold	Applies adaptive threshold to grayscale image
cvFloodFill	Fills the connected component until the color difference gets large enough"
cvCanny	Runs canny edge detector
cvPreCornerDetect	Calculates constraint image for corner detection Dx^2 * Dyy + Dxx * Dy^2 - 2 * Dx * Dy * Dxy. Applying threshold to the result gives coordinates of corners
cvCornerEigenValsAndVecs	Calculates eigen values and vectors of 2x2 gradient covariation matrix at every image pixel
cvCornerMinEigenVal	Calculates minimal eigenvalue for 2x2 gradient covariation matrix at every image pixel
cvCornerHarris	Harris corner detector: Calculates det(M) - k*(trace(M)^2), where M is 2x2 gradient covariation matrix for each pixel
cvFindCornerSubPix	Adjust corner position using some sort of gradient search

cvGoodFeaturesToTrack	Finds a sparse set of points within the selected region that seem to be easy to track"
cvHoughLines2	Finds lines on binary image using one of several methods
cvHoughCircles	Finds circles in the image
cvFitLine	Fits a line into set of 2d or 3d points in a robust way (M-estimator technique)
cvLine	Draws 4-connected, 8-connected or antialiased line segment connecting two points
cvRectangle	Draws a rectangle given two opposite corners of the rectangle (pt1 & pt2)
cvRectangleR	Draws a rectangle specified by a CvRect structure
cvCircle	draws a circle with specified center and radius.
cvEllipse	Draws ellipse outline, filled ellipse, elliptic arc or filled elliptic sector
cvEllipseBox	Inline function
cvFillConvexPoly	Fills convex or monotonous polygon
cvFillPoly	Fills an area bounded by one or more arbitrary polygons
cvPolyLine	Draws one or more polygonal curves
cvClipLine	Clips the line segment connecting *pt1 and *pt2 by the rectangular window
cvInitLineIterator	Initializes line iterator.
cvInitFont	Initializes font structure (OpenCV 1.x API)
cvPutText	renders text stroke with specified font and color at specified location.
cvGetTextSize	Calculates bounding box of text stroke (useful for alignment)
cvColorToScalar	Unpacks color value
cvEllipse2Poly	Returns the polygon points which make up the given ellipse
cvDrawContours	Draws contour outlines or filled interiors on the image