Learn OpenCV by Examples

OpenCV simplified for beginners by the use of examples. Learn OpenCV with basic implementation of different algorithms.

Erosion or dilation (Morphological operations)

void **erode**(InputArray src, OutputArray dst, InputArray kernel, Point anchor=Point(-1,-1), int iterations=1, int borderType=BORDER_CONSTANT, const Scalar& borderValue=morphologyDefaultBorderValue())

Parameters:

- **src** – input image; the number of channels can be arbitrary, but the depth should be one of `CV_8U`, `CV_16U`, `CV_16S`, `CV_32F` or ``CV_64F`.
- **dst** – output image of the same size and type as `src`.
- **element** – structuring element used for erosion; if `element=Mat()`, a `3 x 3` rectangular structuring element is used.
- **anchor** – position of the anchor within the element; default value `(-1, -1)` means that the anchor is at the element center.
- **iterations** – number of times erosion is applied.
- **borderType** – pixel extrapolation method (see `borderInterpolate()` for details).
- **borderValue** – border value in case of a constant border (see `createMorphologyFilter()` for details).

void **dilate**(InputArray src, OutputArray dst, InputArray kernel, Point anchor=Point(-1,-1), int iterations=1, int borderType=BORDER_CONSTANT, const Scalar& borderValue=morphologyDefaultBorderValue())

SEARCH CONTENTS OF THIS BLOG

Search

POPULAR POSTS

1 Find Contour

2 Basic drawing examples

3 Line Detection by Hough Line Transform

4 Face Detection using Haar-Cascade Classifier

5 Perspective Transform

6 Sobel Edge Detection

Parameters: **Same as erode(...)**
Steps:

1. Load an image
2. Create a structuring element
3. Apply erosion or dilation on the image
4. Show result

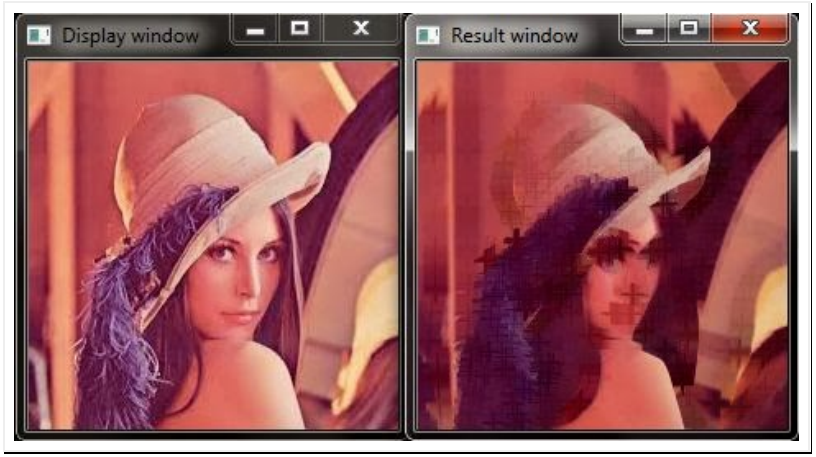
Functions:
erode, dilate, imshow, imread, namedWindow, waitKey.

Example:

```
#include "opencv2/highgui/highgui.hpp""
#include "opencv2/imgproc/imgproc.hpp"
#include <iostream>

using namespace cv;
using namespace std;

int main( )
{

       Mat image,dst;
       image = imread("lena.jpg", CV_LOAD_IMAGE_COLOR);

       // Create a structuring element
       int erosion_size = 6;
       Mat element = getStructuringElement(cv::MORPH_CROSS,
              cv::Size(2 * erosion_size + 1, 2 * erosion_size + 1),
              cv::Point(erosion_size, erosion_size) );

       // Apply erosion or dilation on the image
       erode(image,dst,element);  // dilate(image,dst,element);

       namedWindow( "Display window", CV_WINDOW_AUTOSIZE );
       imshow( "Display window", image );

       namedWindow( "Result window", CV_WINDOW_AUTOSIZE );
       imshow( "Result window", dst );

       waitKey(0);
       return 0;
}
```

Result:

CATEGORIES



Sources:
http://docs.opencv.org/modules/imgproc/doc/filtering.html?highlight=erode

Labels: Morphological Operation

No comments:

Post a Comment