#include <opencv2/opencv.hpp>

#include "opencv2/highgui/highgui.hpp"

#include "cvconfig.h"

#include "opencv2/core/core.hpp"

#include "filter.cpp"

#include <cv2.h>

#include<stdio.h>

using namespace std;

using namespace cv;

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#define h 500

#define w 1000

int main()

{

//Image variables

IplImage\* img = cvLoadImage("c:\\AM10.png");

IplImage\* rimg = cvCreateImage(cvSize(w, h), 8, 3);

IplImage\* hsvimg = cvCreateImage(cvSize(w, h), 8, 3);

IplImage\* thresh = cvCreateImage(cvSize(w, h), 8, 1);

//Windows

cvNamedWindow("Original Image", CV\_WINDOW\_AUTOSIZE);

cvNamedWindow("Thresholded Image", CV\_WINDOW\_AUTOSIZE);

cvNamedWindow("cnt", CV\_WINDOW\_AUTOSIZE);

//Variables for trackbar

int h1 = 0; int s1 = 0; int v1 = 0;

int h2 = 0; int s2 = 0; int v2 = 0;

//Creating the trackbars

cvCreateTrackbar("H1", "cnt", &h1, 255, 0);

cvCreateTrackbar("H2", "cnt", &h2, 255, 0);

cvCreateTrackbar("S1", "cnt", &s1, 255, 0);

cvCreateTrackbar("S2", "cnt", &s2, 255, 0);

cvCreateTrackbar("V1", "cnt", &v1, 255, 0);

cvCreateTrackbar("V2", "cnt", &v2, 255, 0);

//Resizing the image

cvResize(img, rimg, CV\_INTER\_LINEAR);

//Changing into HSV plane

cvCvtColor(rimg, hsvimg, CV\_BGR2HSV);

while (1)

{

//Thresholding the image

cvInRangeS(hsvimg, cvScalar(h1, s1, v1), cvScalar(h2, s2, v2), thresh);

//Showing the images

cvShowImage("Original Image", rimg);

cvShowImage("Thresholded Image", thresh);

//Escape Sequence

char c = cvWaitKey(33);

if (c == 27)

break;

}

//Showing the image

cvShowImage("Original Image", rimg);

cvShowImage("Thresholded Image", thresh);

//Waiting for user to press any key

cvWaitKey(0);

//Cleanup

cvReleaseImage(&img);

cvReleaseImage(&thresh);

cvReleaseImage(&rimg);

cvReleaseImage(&hsvimg);

cvDestroyAllWindows();

}

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