A. Introduction：

ImageRotate is a small batch handling program for rotating digital image automatically. It is a MFC applet with Visual Studio 2010 and Opencv 2.4.10. The applet can only be used for digital images and identification photos because of technical problem.

Declare first, it has a lot of shortcomings requires your tolerance, thank you. I make it just for some practicing, and my engineering ability still has much room to improve. Comments and suggestions are welcome.

If you have such distress, when you uploaded the phone or a digital camera's photos to the computer, the picture's orientation is not normal, this applet may help you out.

B. Runtime environment configuration:

1) Deploy Microsoft visual studio 2010 and Opencv 2.4.10(if you have another vision of opencv, it's ok)
2) Double-click the OpenCV installation package, extract to the directory D: \ OPENCV2.4.10 \
3) Setting environment variables: (Add the directory where the OpenCV dll file is located in the Path environment variable)

   My computer ---> Right ---> Properties ---> Advanced ---> Environment variable ---> In the user variable

   ① Add "D: \ OPENCV2.4.10 \ opencv \ build \ x64 \ vc10 \ bin" in the path is to add dll files

   Note: 64-bit system here also choose x86, or in the back of the project to change win32 platform to X64 platform will full of trouble

   ② Create a new environment variable called "OPENCV", it's value is "D: \ OPENCV2.4.10 \ opencv \ build". After joining, you may need to log out of the current Windows user (or reboot) and then re-login to take effect
4) Configure the include path

   Open an OpenCV project, In the project name, right-click -> select "Properties", then select "Configuration Properties" -> VC ++ Directory -> "Include Directory Files", adding:

D:\OPENCV2.4.10\opencv\build\include

D:\OPENCV2.4.10\opencv\build\include\opencv

D:\OPENCV2.4.10\opencv\build\include\opencv2

(These include should be recorded, the order is best with opencv2 opencv include, no semicolon)

5) Configure the lib path

In the configuration attributes ---> VC ++ directory ---> library directory to add [Debug and Release should be added]:

D:\OPENCV2.4.10\opencv\build\x64\vc10\lib

6) Add the lib library file

In the project properties page, the upper left corner of the configuration selected debug, In the linker ---> input ---> additional dependency library add:

opencv_core2410d.lib

opencv_highgui2410d.lib

opencv_video2410d.lib

opencv_ml2410d.lib

opencv_legacy2410d.lib

opencv_imgproc2410d.lib

[Note]

1. different versions of attention to modify the version number, such as 2.4.10 to 2410
2. Release and Debug to join the content is different, there is no ‘d’ behind the Release

   Similarly, in the upper-left corner of the project property page, In the linker ---> input ---> additional dependency library, add:

   opencv_core243.lib

   opencv_highgui243.lib

   opencv_video243.lib

   opencv_ml243.lib

   opencv_legacy243.lib

opencv_imgproc243.lib

[Test] the simplest procedures (read pictures and show pictures)

```
#include "stdafx.h"
#include <opencv2 / opencv.hpp>
Using namespace std;
Using namespace cv;
int main (int argc, char * argv [])
{
const char * imagename = "lena.jpg";
// Images are read from the file
Mat img = imread (imagename);
// If reading image fails
If (img.empty ())
  {
    fprintf (stderr, "Can not load image% s \ n", imagename);
    return -1;
  }
}
// Display the image
imshow ("image", img);
/ / This function waits for the key, presses the keyboard any key to return
waitKey ();
return 0;
}
}
```

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My project is based on Microsoft visual studio 2010 and Opencv 2.4.10(if you have another vision of opencv, it's ok), just deploy the environment like what I said. After you download the file, you will see a lot of file like fig 1. shows, double click the Mfc_rotate.sln file, the project will open with vs2010, now you can edit it.

名称	修改日期	类型	大小
Mfc_rotate	2016/10/19 16:00	文件夹	
Mfc_rotate.sdf	2016/10/19 15:18	SQL Server Com...	69,140 KB
Mfc_rotate.sln	2016/4/5 12:55	Microsoft Visual...	1 KB

Fig 1. Program list

C. Instruction for use:

Fig 2. is the interface of my applet interface:

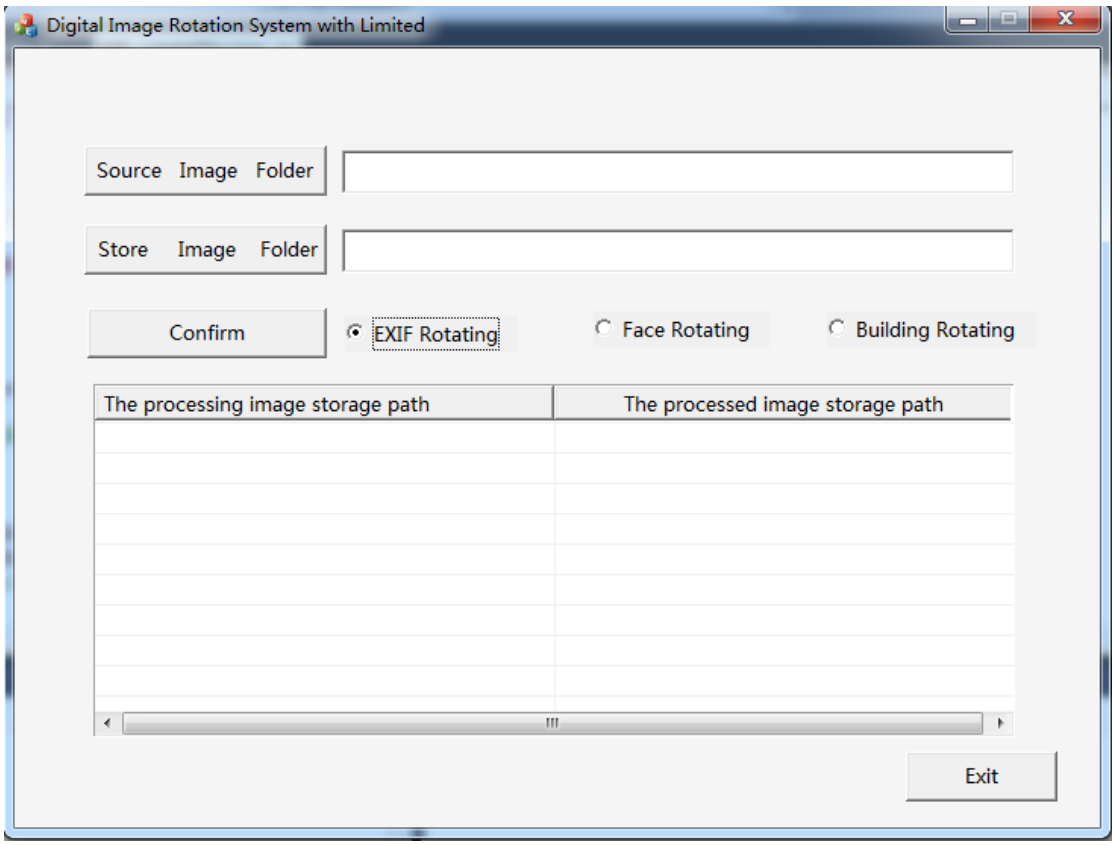

Fig 2. Interface Photo

✧ **Function description:**

- Source Image Folder: the folder path of source images
- Store Image Folder: the folder to save the processed images
- Exif Rotating: this is for digital image, which has an orientation information in image information. I rotate the image based on this image, but after rotating, the image will lose the orientation flag. So if you mind it, I am not suggest you to use this applet, and if you have some approach to improve it, I will very appreciate if you can share with me.
- Face Rotating: this is a method for identification photos.
- Building rotating: the function need to be completed in the future.

- The processing image store path: the list will show the processing image store path, and if you need to look at the image, just click the path and the image will present, you need to drag the windows manually by mouse to meet your image size.
- The processed image store path: the list will show the processed image store path, and if you need to look at the image, just click the path and the image will present, you need to drag the windows manually by mouse to meet your image size.

✧ **The defects of the applet**

- When you use the EXIF rotation, the orientation flag will lose.
- The rotate algorithm is not perfect.

This is my applet, and my first share on GitHub, comments and suggestions are welcomed.