

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9 using Emgu.CV;
10 using Emgu.CV.Structure;
11 using OpenCvSharp;
12 using OpenCvSharp.Extensions;
13
14
15 /* -----OpenCvSharp-----
16 1.首先先安裝OpenCvSharp
17 2.點擊工具/NuGet套件管理員/管理方案的NuGet套件
18 3.點擊瀏覽/搜尋OpenCvSharp並安裝(baboon圖案)
19 */
20
21 /* -----EmguCv-----
22 1.首先先安裝EmguCv請至官網下載
23 2.點擊右方方案總管理的"參考"(點右鍵)/加入參考/瀏覽
24 3.加入Emgu.CV.UI 、Emgu.CV.UI.GL.dll 與 Emgu.CV.World.dll (三個)
25 4.點擊工具/選擇工具箱項目/瀏覽/把Emgu.CV.UI加入/再把ImageBox加入進來
26 5.在把Emgu資料夾/Emgu.CV.Example/WebDynamicImage/Bin/x64 的cvextern.dll複製至執
    行檔bin裡面
27 */
28
29
30 //=====Emgu=====
31 //參考資料 先安裝Emgu https://dotblogs.com.tw/april\_notes/2019/05/14/cinque
32 //範例 https://dotblogs.com.tw/secondchenblog/2017/10/24/164307
33
34 //=====OpenCvSharp=====
35 //參考資料 先安裝OpenCvSharp 教學 https://blog.csdn.net/jameshater/article/
    details/79642384
36 //https://blog.csdn.net/zanllp/article/details/79829813
37
38
39 namespace image2
40 {
41     public partial class Form1 : Form
42     {
43         public Form1()
44         {
45             InitializeComponent();
46         }
47
48         private void button1_Click(object sender, EventArgs e)
49         {
50             if (openFileDialog1.ShowDialog() == DialogResult.OK)
51             {
```

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52         pictureBox1.Image = Image.FromFile(openFileDialog1.FileName);
53     }
54 }
55
56 private void button2_Click(object sender, EventArgs e)
57 {
58     OpenCvSharp.Mat pic = new OpenCvSharp.Mat();
59     pic = Cv2.ImRead(openFileDialog1.FileName,
60         OpenCvSharp.ImreadModes.Grayscale);
61     pictureBox1.Image = pic.ToBitmap();
62 }
63
64 private void button4_Click(object sender, EventArgs e)
65 {
66     OpenCvSharp.Mat src = new OpenCvSharp.Mat();
67     // src = Cv2.ImRead("lena_std.bmp");
68     src = Cv2.ImRead(openFileDialog1.FileName);
69     pictureBox1.Image = src.ToBitmap();
70     Cv2.ImShow("image", src);
71     Cv2.WaitKey(0);
72 }
73
74 private void button3_Click(object sender, EventArgs e)
75 {
76     /*
77     //=====彩色=====
78     Image<Bgr, byte> colorImage;
79     colorImage = new Image<Bgr, byte>(openFileDialog1.FileName);
80     imageBox1.Image = colorImage;
81     */
82
83     //=====灰階=====
84     Image<Gray, byte> grayImage;
85     grayImage = new Image<Gray, byte>(openFileDialog1.FileName);
86     imageBox1.Image = grayImage;
87
88 }
89 }
90 }
91
```