

C# webcam snapshot and save image to bitmap using aforge

在WINDOWS下做WEBCAM 影像的擷取，比較常見的就是用DirectShow或EmguCV，

最近突然發現有一個還不錯的open souce可以擷取webcam影像，而且大小不到50mb

它就是 aforge，這次就決定用它來示範怎麼做影像擷取與存圖！

編譯環境：

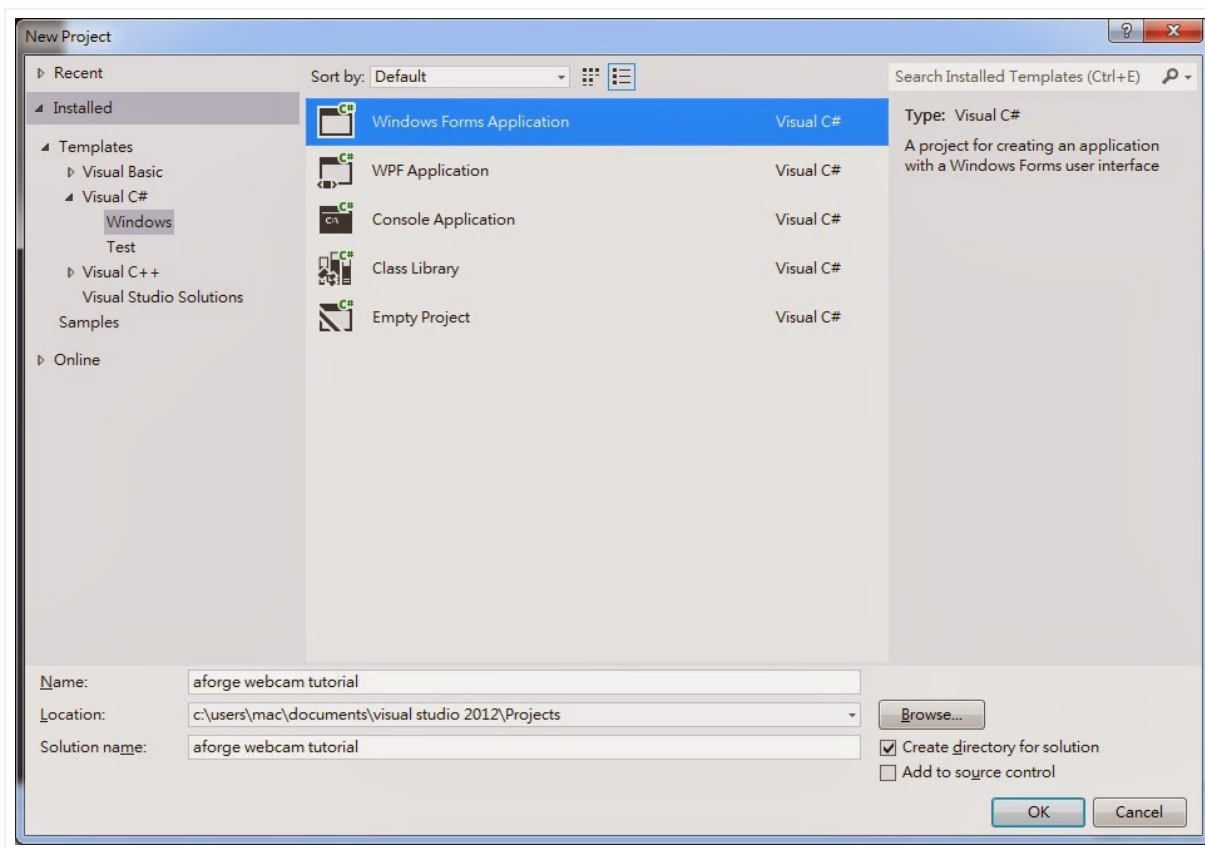
windows 7

visual studio 2012 express

aforge .net Framework-2.2.5

1.到 aforge 官網下載最新版.net Framework 並安裝

2.開啟新專案，選擇 Windows Form Application

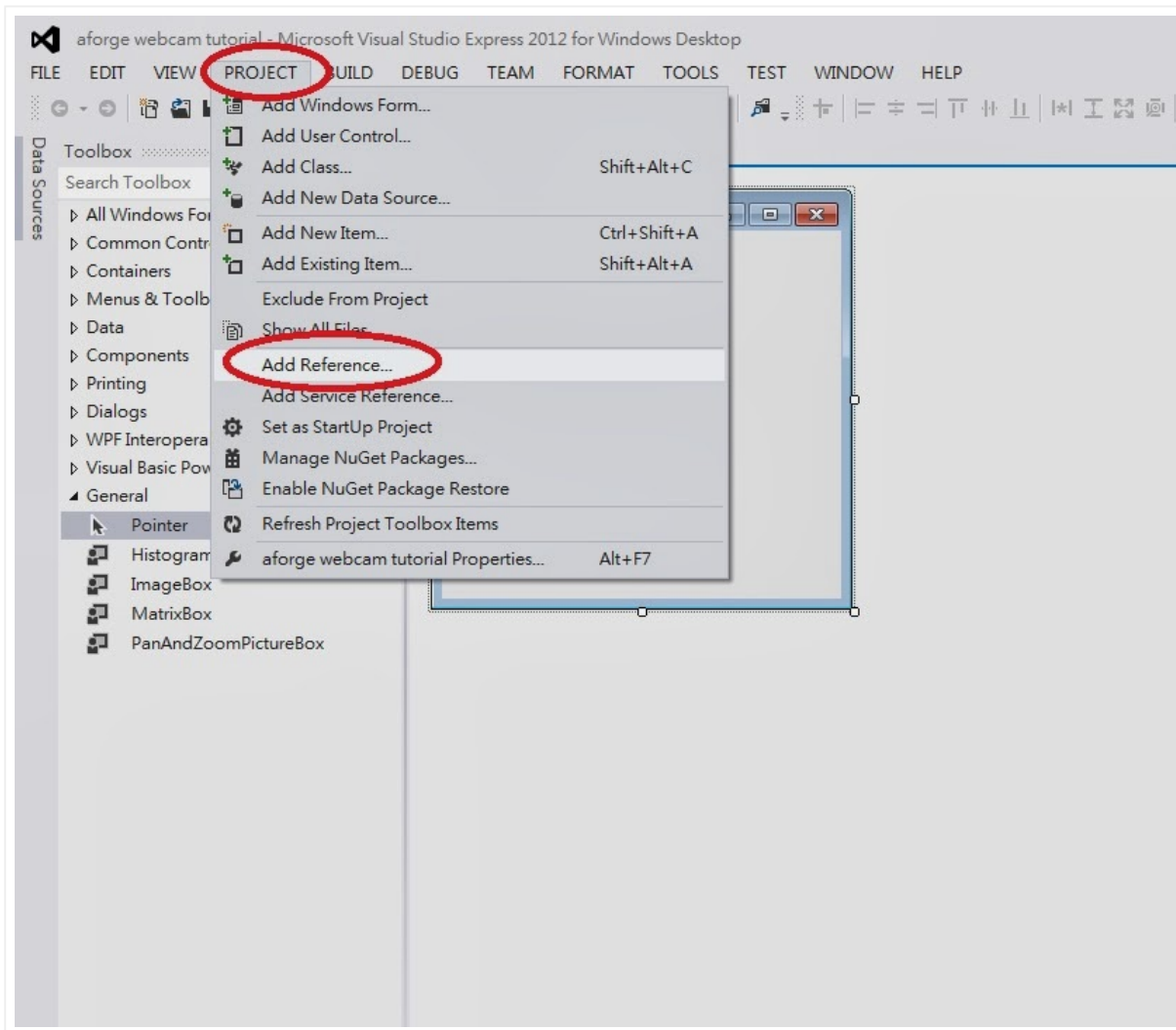


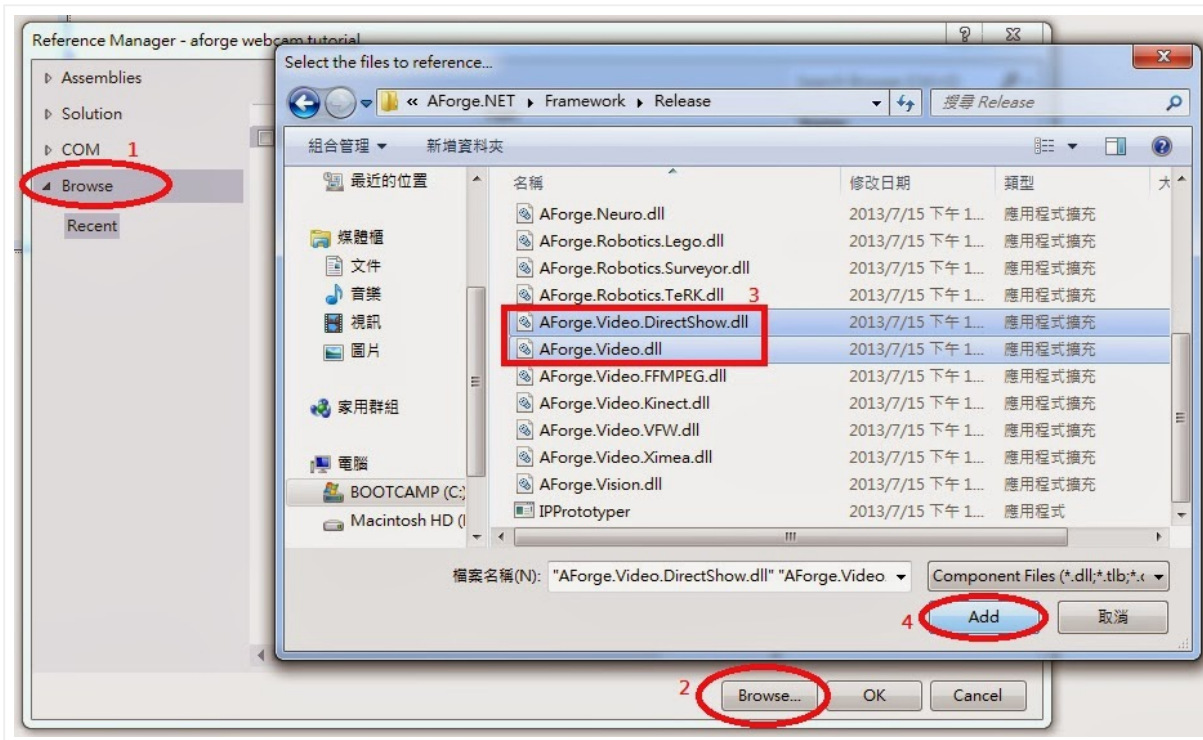
3.把DLL加進Project

PROJECT -> Add Reference -> Browse

到 AForge.NET 的安裝目錄下，AForge.NET\Framework\Release，

將 **AForge.Video.DirectShow.dll** 和 **AForge.Video.dll** 加進來

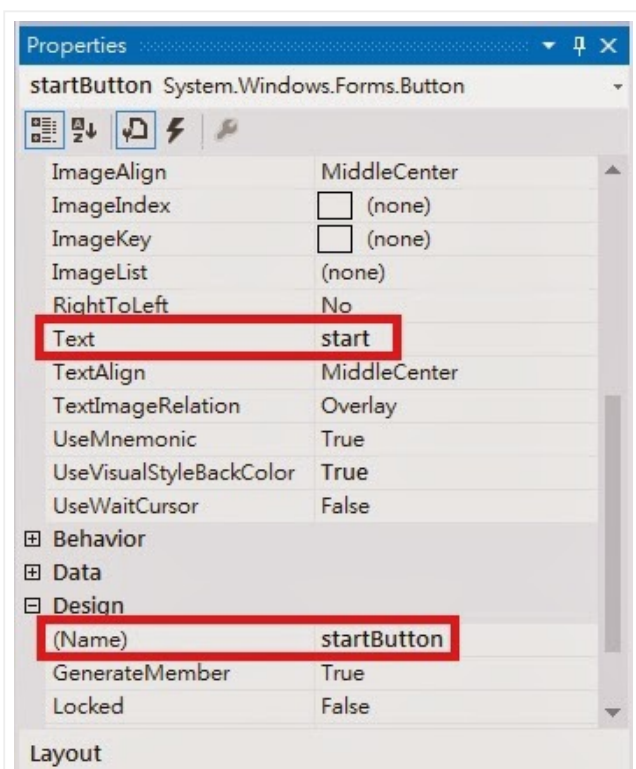


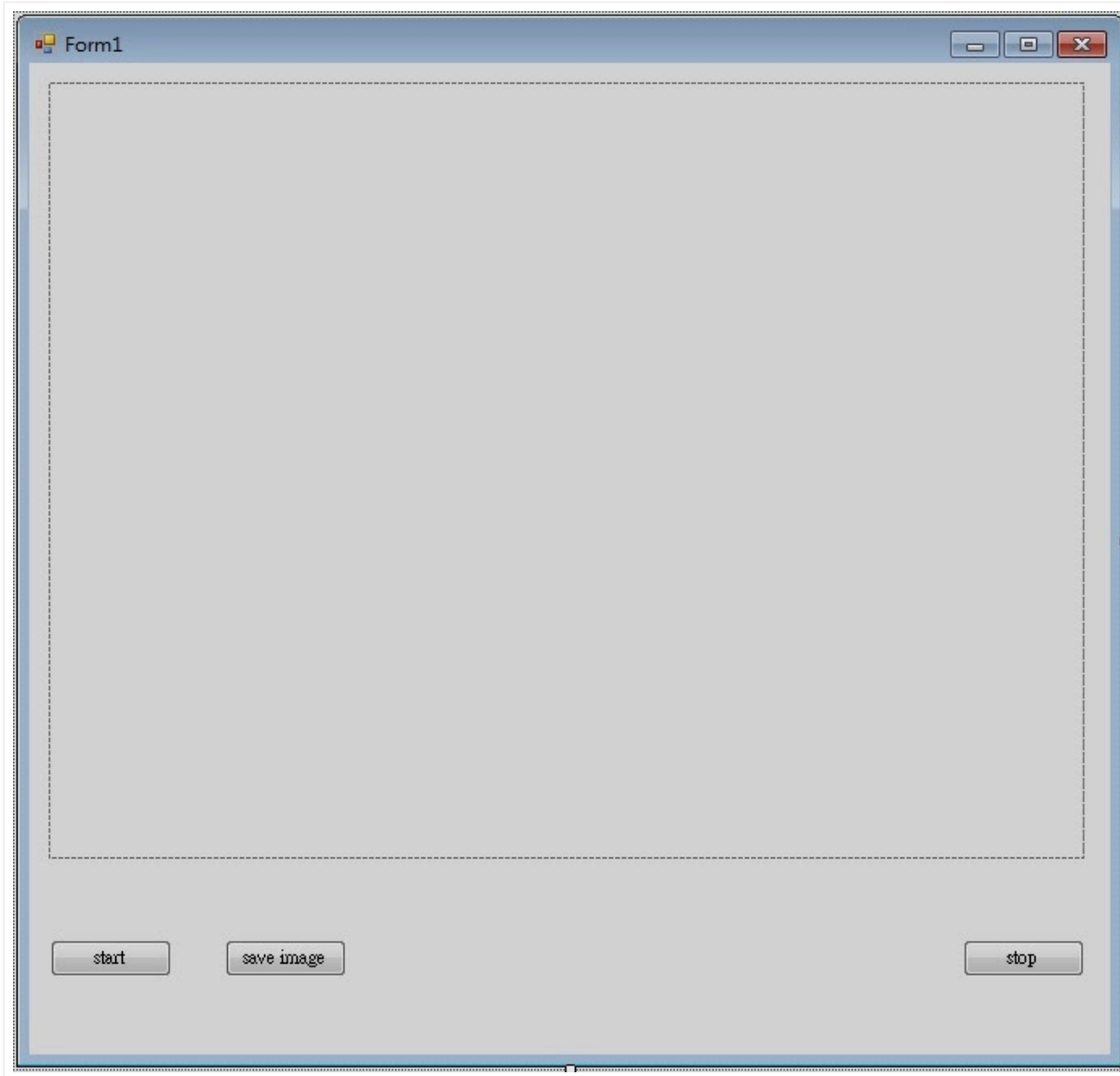


4.UI介面設計

這邊我們只要簡單加入 picture box 和 3個 button 就可以了，接著可以對物件按右鍵，

選擇 property，更改名稱，比較不容易在寫程式的時候搞混





5.Code

```
// Created
// Copyrig
```

```
using System
using System
using System
using System
using System
```

```
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using AForge.Video;           //記得加入1
using AForge.Video.DirectShow; //記得加入2

namespace aforge_webcam_tutorial
{
    public partial class Form1 : Form
    {
        public VideoCaptureDevice cam = null; //global
        public FilterInfoCollection usbCams; //global
        Bitmap image_from_cam;               //global

        public Form1()
        {
            InitializeComponent();
        }

        void got_frame(object sender, NewFrameEventArgs eventArgs)
        {

```

```
        image_from_cam = (Bitmap)eventArgs.Frame.Clone();
        pictureBox1.Image = image_from_cam;
    }

    private void startButton_Click(object sender, EventArgs e)
    {
        usbCams = new FilterInfoCollection(FilterCategory.VideoInputDevice);
        cam = new VideoCaptureDevice(usbCams[0].MonikerString);
        cam.NewFrame += new NewFrameEventHandler(got_frame); //註冊事件(got_frame)
        cam.Start();
    }

    private void stopButton_Click(object sender, EventArgs e)
    {
        cam.Stop();
    }

    private void saveButton_Click(object sender, EventArgs e)
    {
        SaveFileDialog sfd = new SaveFileDialog();
        if (sfd.ShowDialog(this) == DialogResult.Cancel) //按下取消鍵時返回
        {
            return;
        }
        image_from_cam.Save(sfd.FileName); //存圖，副檔名記得給他.bmp
    }
}
```

執行下去就可以直接跑囉XD

下面是存圖片檔案



下面這張是拍下來存起來的圖片

