

Modify Image Pixels

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//File:Window.xaml.cs

using System;
using System.Collections.Generic;
using System.Text;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Shapes;

namespace BitmapProgramming
{
    public partial class ModifyPixels : System.Windows.Window
    {
        public ModifyPixels()
        {
            InitializeComponent();

            BitmapImage originalBmp = new BitmapImage();
            originalBmp.BeginInit();
            originalBmp.UriSource = new Uri("http://www.your
            host.com/a.jpeg");
            originalBmp.DownloadCompleted += delegate{
            BitmapSource prgbaSource = new
            FormatConvertedBitmap(originalBmp, PixelFormats.Pbgra32, null,
            0);
            WriteableBitmap bmp = new WriteableBitmap(prgbaSource);
```

```
int w = 20;
int h = 30;
int[] pixelData = new int[w * h];
int widthInBytes = 4 * w;

bmp.CopyPixels(pixelData, widthInBytes, 0);
for (int i = 0; i < pixelData.Length; ++i) { pixelData[i] ^=
0x00112233; } bmp.WritePixels(new Int32Rect(0, 0, w,
h),pixelData, widthInBytes, 0); imageElement.Source = bmp; };
originalBmp.EndInit(); } } } [/csharp]
```