

Csharp - Intermittent - OSGeo.GDAL.GdalPINVOKE' exception on first call.

Using GDAL>>> gdal-110-1600-core.msi

Same type of problem on a Windows 7 32 bit and 64 bit machine. The problem occurs at the first call to any gdal routine after the paths and environment variables are set. In this case:

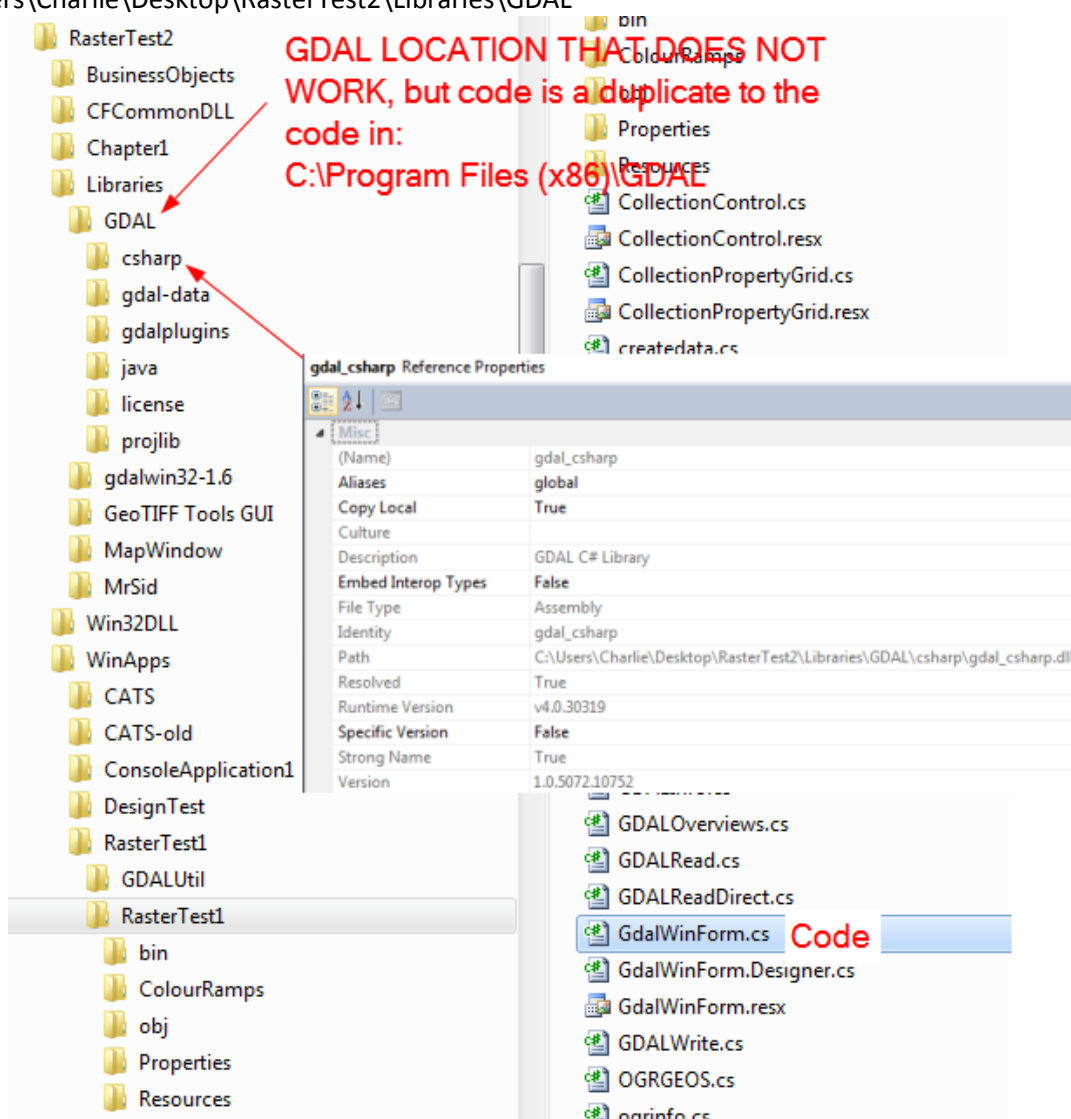
```
Environment.SetEnvironmentVariable("PROJ_LIB", projlib);  
MessageBox.Show("Final PROJ_LIB= " + projlib);
```

Here >> OSGeo.GDAL.Gdal.SetConfigOption("PROJ_LIB", projlib);

This is the error message - "An unhandled exception of type 'System.TypeInitializationException' occurred in gdal_csharp.dll Additional information: The type initializer for 'OSGeo.GDAL.GdalPINVOKE' threw an exception.

This code works sometime on some machines and fails other times.

Right now it will work regardless of where the "csharp" dll's are, but will only work when the GDAL path and Environmental variables are in: C:\Program Files (x86)\GDAL
and not in: C:\Users\Charlie\Desktop\RasterTest2\Libraries\GDAL



```

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using OSGeo.GDAL;
using GDALUtil.Python;
using GDALUtil;
using GDALUtil.Cpp;
using System.Drawing.Imaging;
using System.IO; //http://msdn.microsoft.com/en-us/library/system.io.path%28v=vs.110%29.aspx

namespace RasterTest1
{
    public partial class GdalWinForm : Form
    {
        OSGeo.GDAL.Dataset dataSet;

        //private string image = "";
        private int width = -1;
        private int height = -1;
        private string loaded = "";

        public GdalWinForm()
        {
            InitializeComponent();

            #region GDAL
            string show = "no";
            string oldPath = Environment.GetEnvironmentVariable("PATH");
            if (show != "no") MessageBox.Show("OLDPATH= " + oldPath);

            string gdaldir = @"..\..\..\..\Libraries\GDAL"; // Does not WORK

            //string gdaldir = @"C:\Program Files (x86)\GDAL"; // WORKS
            if (show != "no") MessageBox.Show("Indirect Path to GDAL= " + gdaldir);
            //http://msdn.microsoft.com/en-us/library/system.io.path%28v=vs.110%29.aspx
            gdaldir = Path.GetFullPath(gdaldir);
            if (show != "no") MessageBox.Show("Full Path to GDAL=" + gdaldir);
            string path = gdaldir + ";" + oldPath;
            Environment.SetEnvironmentVariable("PATH", path);
            string newPath = Environment.GetEnvironmentVariable("PATH");
            if (show != "no") MessageBox.Show("NEW path= " + newPath);

            string gdal_data = Environment.GetEnvironmentVariable("GDAL_DATA");
            if (show != "no") MessageBox.Show("Initial GDAL_DATA= " + gdal_data);
            gdal_data = gdaldir + @"\gdal-data";
            Environment.SetEnvironmentVariable("GDAL_DATA", gdal_data);
            gdal_data = ""; gdal_data = Environment.GetEnvironmentVariable("GDAL_DATA");
            if (show != "no") MessageBox.Show("Final GDAL_DATA= " + gdal_data);
            //OSGeo.GDAL.Gdal.SetConfigOption("GDAL_DATA", gdaldata);

            string gdal_driver_path = Environment.GetEnvironmentVariable("GDAL_DRIVER_PATH");
            if (show != "no") MessageBox.Show("Initial GDAL_DRIVER_PATH= " + gdal_driver_path);
            gdal_driver_path = gdaldir + @"\gdalplugins";
            Environment.SetEnvironmentVariable("GDAL_DRIVER_PATH", gdal_driver_path);
            gdal_driver_path = Environment.GetEnvironmentVariable("GDAL_DRIVER_PATH");
            if (show != "no") MessageBox.Show("Final GDAL_DRIVER_PATH= " + gdal_driver_path);
            //OSGeo.GDAL.Gdal.SetConfigOption("GDAL_DRIVER_PATH", gdal_driver_path);

            string projlib = gdaldir + @"\projlib";
            if (show != "no") MessageBox.Show("value to be set= " + projlib);

```

```
// http://msdn.microsoft.com/en-us/library/z46c489x%28v=vs.110%29.aspx
string proj_lib = Environment.GetEnvironmentVariable("PROJ_LIB");
if (proj_lib != null) MessageBox.Show("initial PROJ_LIB+ " + proj_lib);
Environment.SetEnvironmentVariable("PROJ_LIB", projlib);
MessageBox.Show("Final PROJ_LIB= " + projlib);

OSGeo.GDAL.Gdal.SetConfigOption("PROJ_LIB", projlib); // Fails Here (regardless the call)
```

```
OSGeo.GDAL.Gdal.SetConfigOption("GDAL_CACHEMAX", "1000000");
OSGeo.GDAL.Gdal.SetConfigOption("CPL_TMPDIR", "c:\\");
OSGeo.OGR.Ogr.RegisterAll();
Gdal.AllRegister();
#endregion
```

```
}
```