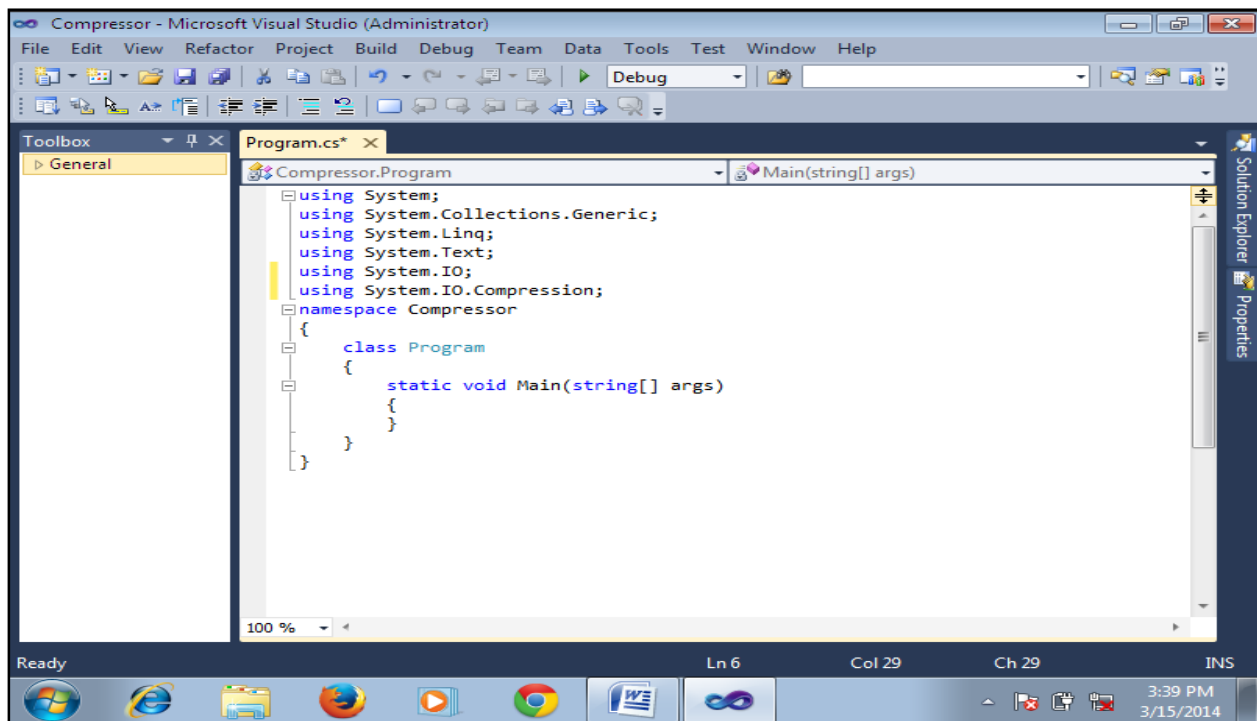


# Reading and Writing Compressed Data in C#

Often when dealing with the files lot of space is used up on the hard disk. This is particularly true for graphics and sound files. You've probably come across the tool that enables you to compress and decompress files, which is handy when you want to move them around and e-mail them. In dot net "**System.IO.Compression**" namespace enables you to compress and decompress files from c# code. So in this article I'm going to shows you how to read and write compress data files using c#. Let's understand it practically.

**Step 1:** Create new console application called Compressor and save it in the directory.

**Step 2:** Add two namespaces "**System.IO**" and "**System.IO.Compression**" at top of your code as shown below.



```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.IO;
using System.IO.Compression;
namespace Compressor
{
    class Program
    {
        static void Main(string[] args)
        {
        }
    }
}
```

**Step 3:** Add following code into body of **Program.cs** file, just before **Main()** method.

```

class Program
{
    static void SaveCompressedFile(string filename, string data)
    {
        FileStream file = new FileStream(filename, FileMode.Create, FileAccess.Write);
        GZipStream compressionstream = new GZipStream(file, CompressionMode.Compress);
        StreamWriter sw = new StreamWriter(compressionstream);
        sw.Write(data);
        sw.Close();
    }
    static void Main(string[] args)
    {
    }
}

```

**Step 4:** Add another method for reading compress data below **SaveCompressedFile ()** method and above **Main ()** method.

```

static string LoadCompressedFile(string filename)
{
    FileStream file = new FileStream(filename, FileMode.Open, FileAccess.Read);
    GZipStream compressStream = new GZipStream(file, CompressionMode.Decompress);
    StreamReader sr = new StreamReader(compressStream);
    string data = sr.ReadToEnd();//read stream from current to end
    sr.Close();
    return data;
}
static void Main(string[] args)
{
}

```

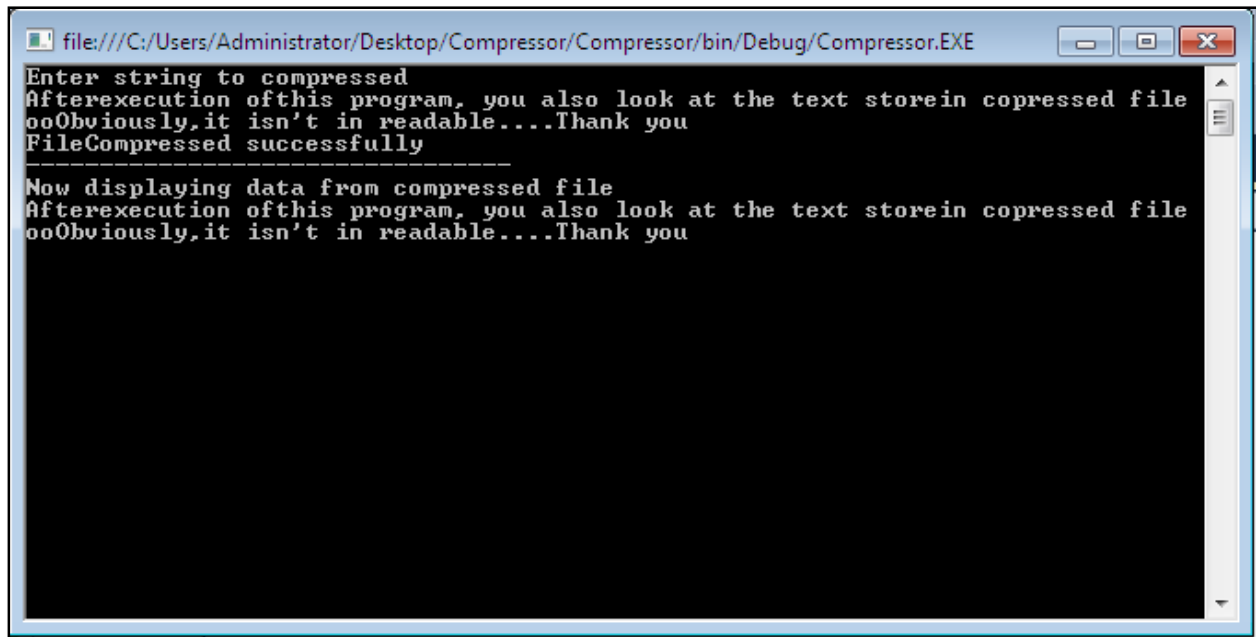
**Step 5:** Add the following code in your Main() method

```

try
{
    string filename = "CompressFile.txt";
    Console.WriteLine("Enter string to compressed");
    string source = Console.ReadLine();
    SaveCompressedFile(filename, source);
    Console.WriteLine("FileCompressed successfully");
    Console.WriteLine("-----");
    Console.WriteLine("Now displaying data from compressed file");
    //displaying compressed data on console
    Console.WriteLine( LoadCompressedFile(filename));
}
catch (Exception ex)
{
    Console.WriteLine("Error while Compressing file" + ex.Message);
}
Console.ReadLine();

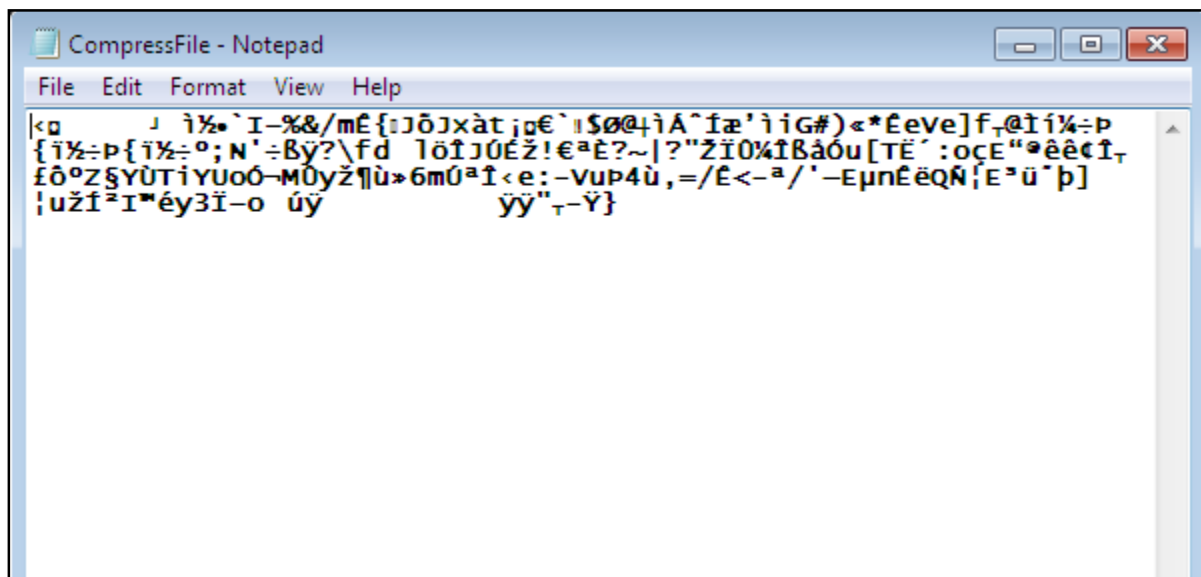
```

**Step 6:** Press f5 to run the application.



```
file:///C:/Users/Administrator/Desktop/Compressor/Compressor/bin/Debug/Compressor.EXE
Enter string to compressed
After execution of this program, you also look at the text store in compressed file
Obviously, it isn't in readable.... Thank you
File Compressed successfully
-----
Now displaying data from compressed file
After execution of this program, you also look at the text store in compressed file
Obviously, it isn't in readable.... Thank you
```

**Step 7:** Open compressed file.txt



```
CompressFile - Notepad
File Edit Format View Help
|<  ' i%`I-%&/mE{;JdJxàt;je`!S0@+iA`fa'iiG#)«*Eeve]f, @ii% =P
{ i% =P { i% =°; N' =Bÿ? \fd lōiJÓÉŽ!EªE?~|?"Zi0%iBáóu[TE':oçE"ªêêcf,
fō°z§YÜTiYUoó-M0yžŋù»6m0ªf<e: -vup4ù, =/é<-ª/' -EµñéQñ|Eªü`p]
!užĩ²Iªéy3ĩ-o úy          ŷy"r-Ÿ}
```

Thank you...