

The logo icon is a red square with rounded corners. Inside the square, there is a white outline of a book with its pages slightly curved, suggesting it is open. The text "CBZViewer" is written in a large, bold, black sans-serif font to the right of the icon.

# CBZViewer

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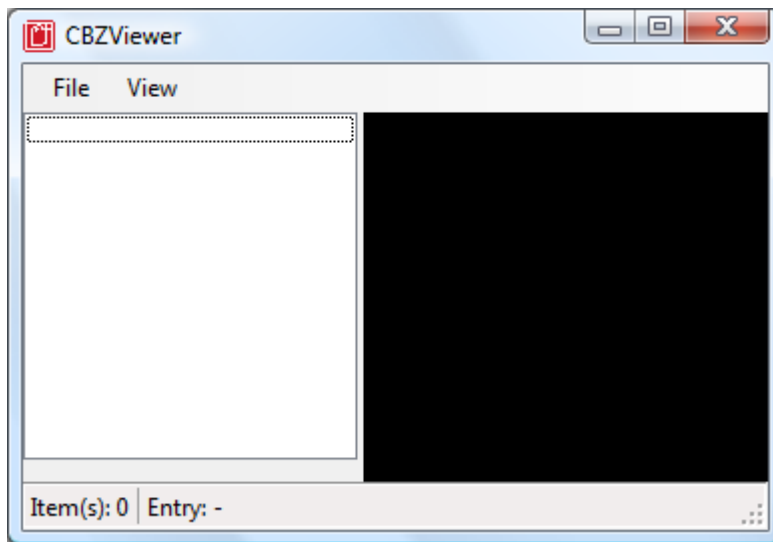
## 1. Introduction

A while ago I stumbled upon an e-book with the file extension CBZ. I'd never heard of it before, so I simply double clicked it and had Microsoft Windows figure out a program to read the file. The file seemed to be a Comic Book Zip archive, which is actually a zip file containing a few images. So next I used 'What' from my own toolkit and renamed the file to .ZIP. The archive simply contained some JPG files containing the pages of the comic.

So a new project was born, create a CBZ viewer without the need to create temporary files, but by decompressing the image out of the archive directly into a viewable image.

### 1.1. Interface

When you start the program it will look like this:



Within the main menu the following options can be found:

Option	Comment
<b>File</b>	Simply opens the File sub menu.
➤ <b>Open</b>	Open a CBZ file.
➤ <b>Exit</b>	Exit the program.
<b>View</b>	Simply opens the View sub menu.
➤ <b>Fit</b>	Fit the selected image into the image area (the default).
➤ <b>Full</b>	Show the image into its original size and show scroll bars when required.

The status bar will show the number of images found within the archive and the 'Entry' area will show the name of the displayed page.

## 2. Techno Talk

During my investigation I found out that the extensions CBZ and CBR are used for respectively Comic Book Zip and Comic Book Rar. Even the Rar version had the CBZ extension, so I had to implement a CBZ/CBR detection mechanism.

```
// Check the archive signature, should be "PK"
FileStream fs = File.OpenRead(dlgOpen.FileName);
char val1 = (char)fs.ReadByte();
char val2 = (char)fs.ReadByte();
fs.Close();

if ((val1!='P') || (val2!='K'))
{
    MessageBox.Show("This file is not a CBZ archive!",
        "Error", MessageBoxButtons.OK, MessageBoxIcon.Error);

    if ((val1 == 'R') && (val2 == 'a'))
        MessageBox.Show("This file seems to be a CBR archive!",
            "Information", MessageBoxButtons.OK,
            MessageBoxIcon.Information);
        return;
}
}
```

The detection mechanism does not only recognizes the CBZ format, but will also indicate the fact that the file actually is a CBR archive.

Since the format is using the Zip compression technology I decided to search on the web for any experience on decompressing Zip files. Most implementations I found were using the GNU version of SharpZipLib. You can find the full package and detailed information on the SharpZipLib website:

<http://www.icsharpcode.net/>

The following namespaces need to be included into the application:

```
using ICSharpCode.SharpZipLib.Zip;
using ICSharpCode.SharpZipLib.Zip.Compression;
using ICSharpCode.SharpZipLib.Zip.Compression.Streams;
```

Using this library an image can be extracted directly into a memory stream. This stream can be casted into a Bitmap object which can be shown directly into an Image object. So no temporary files are required.

```
// Finally load the image:
Bitmap myImage;
myImage = new Bitmap(memStream);
image.Image = (Image)myImage;
```

## 3. Requirements

The program is based on the technology provided within the .NET 2.0 Framework (or higher). So install this first when it's not available on your system.

## 4. History

Version	Comment
1.0	First edition of CBZViewer