

Adding Huffman Coding Functionality

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2- The Software

This file '**Huffman.vb**' is a visual basic file. It allows you to compress/decompress arrays of bytes. However there is no error checking of any sort. You might want to add such functionality to the code.

3- Using the file

Select **Project->Add Existing Item**, then select "**Huffman.vb**". The code below loads a file from disk and compress it, then save it to disk again.

```
' open the file dialog to select the file
OpenFileDialog1.ShowDialog()

' get file length

Dim L As Long = FileSystem.FileLen(OpenFileDialog1.FileName)

' create an array and load the file into it

Dim B(0 To L - 1) As Byte

FileSystem.FileOpen(1, OpenFileDialog1.FileName, OpenMode.Binary, OpenAccess.Read)

FileSystem.FileGet(1, B)

FileSystem.FileClose(1)

' compress the file

Dim CMP() As Byte = HuffmanCoding.CompressByteArray(B)
```

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```
' save the compressed byte array to disk with extension .cmp

FileSystem.FileOpen(1, OpenFileDialog1.FileName & ".cmp", OpenMode.Binary,
OpenAccess.Write)

FileSystem.FilePut(1, CMP)

FileSystem.FileClose(1)
```

You can extract the file using the method :

```
Dim OriginalBytes() As Byte = HuffmanCoding.DecompressByteArray(CMP)
```

here CMP represents the compressed bytes, you can load the bytes from disk in a similar way.

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