```
1   /*
2   * MemorySharp Library
3   * http://www.binarysharp.com/
4   *
5   * Copyright (C) 2012-2014 James Menetrey (a.k.a. ZenLulz).
6   * This library is released under the MIT License.
7   * See the file LICENSE for more information.
8   */
9
10  using Binarysharp.Assemblers.Fasm;
11  using System;
12
13  namespace Binarysharp.MemoryManagement.Assembly.Assembler
14  {
15      /// <summary>
16      /// Implement Fasm.NET compiler for 32-bit development.
17      /// More info: https://github.com/ZenLulz/Fasm.NET
18      /// </summary>
19      public class Fasm32Assembler : IAssembler
20      {
21          /// <summary>
22          /// Assemble the specified assembly code.
23          /// </summary>
24          /// <param name="asm">The assembly code.</param>
25          /// <returns>An array of bytes containing the assembly
                   code.</returns>
26          public byte[] Assemble(string asm)
27          {
28              // Assemble and return the code
29              return Assemble(asm, IntPtr.Zero);
30          }
31
32          /// <summary>
33          /// Assemble the specified assembly code at a base address.
34          /// </summary>
35          /// <param name="asm">The assembly code.</param>
36          /// <param name="baseAddress">The address where the code is
                   rebased.</param>
37          /// <returns>An array of bytes containing the assembly
                   code.</returns>
38          public byte[] Assemble(string asm, IntPtr baseAddress)
39          {
40              // Rebase the code
41              asm = String.Format("use32\norg 0x{0:X8}\n",
                       baseAddress.ToInt64()) + asm;
42              // Assemble and return the code
43              return FasmNet.Assemble(asm);
44          }
45      }
46  }
```

Listing 1: Assembler implementation - MemorySharp

Sources

The style for this listing has been inspired by this StackExchange post: `http://tex.stackexchange.com/a/124969/108649`.

More information about this package can be found on `https://en.wikibooks.org/wiki/LaTeX/Source_Code_Listings`.