

OpcodeX Assembler Report

OpcodeX Assembler

Mohamed Abdallah Eldairouty - 221001719 | Youssef Waleed - 221000928

1. Program Description

OpcodeX is a two-pass SIC/XE Assembler built with a sleek GUI using Windows Forms in C#. The application supports all major SIC/XE features including format 1-4 instructions, addressing modes, PC-relative and base-relative addressing, M records for format 4 modifications, and buffer-based memory management. Users can edit, clean, run Pass 1 and Pass 2, and view generated files through an intuitive interface.

2. Usage Instructions

The user interacts with the program via a step-by-step GUI interface:

1. Input Editor - Edit your assembly code.
2. Clean Code - Reformats and verifies the code.
3. Run Pass 1 - Generates intermediate files.
4. View LOCCTR and Symbol Table - Displays results from Pass 1.
5. Run Pass 2 - Generates object code and HTME records.
6. View Final Outputs - View and save the assembled outputs.

Example:

The program reads from: AppData\Roaming\OpcodeX\input\in.txt

Outputs are saved to: AppData\Roaming\OpcodeX\output\

Executable: Just double-click the OpcodeX.exe from the published Application folder.










3. Design Highlights

- Modular structure separating GUI, assembler logic, and IO.
- Robust error handling for duplicate symbols and unresolvable references.
- GUI navigation flows smoothly from start to end.

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- Rich visual design for all forms (input, intermediate, symbol table, output, HTME, etc.).

4. Sample Run Screenshots

 D3DCompiler_47_cor3.dll	21/02/2024 14:59	Application extens...	4,802 KB
 OpcodeX	05/05/2025 21:34	Application	170,094 KB
 OpcodeX.pdb	05/05/2025 21:33	Program Debug D...	20 KB
 PenImc_cor3.dll	17/03/2025 22:19	Application extens...	155 KB
 PresentationNative_cor3.dll	16/07/2024 09:38	Application extens...	1,209 KB
 SICXEAssembler.dll.config	04/05/2025 21:55	CONFIG File	1 KB
 SICXEAssembler.pdb	05/05/2025 21:33	Program Debug D...	15 KB
 vcruntime140_cor3.dll	03/03/2025 06:06	Application extens...	118 KB
 wpfgfx_cor3.dll	17/03/2025 22:20	Application extens...	1,915 KB

Mohamed Eldairouty > AppData > Roaming > OpcodeX >			
Sort View ...			
Name	Date modified	Type	Size
input	05/05/2025 18:17	File folder	
output	05/05/2025 20:40	File folder	

HTME	05/05/2025 22:07	Text Document	1 KB
intermediate	05/05/2025 22:07	Text Document	1 KB
out_pass1	05/05/2025 22:07	Text Document	1 KB
out_pass2	05/05/2025 22:07	Text Document	1 KB
symbtable	05/05/2025 22:07	Text Document	1 KB