Assembler

User's Guide

Install Assembler

- Locate the setup.exe file in the RetroactiveDesign\Assembler\Assembler Excecutable folder
- Double-click setup.exe to install the Assembler (supporting .NET framework will install if needed)

Run Assembler

- From the start menu, Programs or All Programs, select AssemblerXP under the AssemblerXP folder

Use Assembler to Convert Assembly

- You can either type in a single instruction or select an entire file to convert.
- To convert a single line, simply enter the assembly into the "Source Instruction" field and click the "Convert Line" button.
- To convert a file, either type the file path in the "Source File" field or use the file browser to select the input file by clicking the "Select Source" button. Similarly type or select a destination output file using the "Set Destination" button. Once a source and destination file are selected, click the "Convert File" button.
- The Assembler will automatically pad the output file to fill 2^14 memory addresses.
- If any errors are encountered, a window will pop up showing any errors and their line numbers in the source file. In most cases the output file will still be created, but the lines for the erroneous instructions will contain an error message. The error form also allows the user to save the errors to a log file.

After Converting the File

- After file conversion, the destination file now contains the binary instructions.
- Move your file into the "Main Xillinx Project" folder where the Xilinx project is located.
- It is necessary to tell the Xilinx project where to find your binary instructions in order to load them into memory on the FPGA. To do so, locate the exmem.v file in the Xilinx project under XLXI_4\mem and edit the line that starts with $readmemb. Replace the file inside the double-quotes with your output file.