



Detailed Description

Menu Bar

- **File:** Options for "Open File", "Save "and "Exit".
- **Edit:** Opens dialogs to add a new instruction, delete the selected instruction, or change the color scheme of the GUI.
- **Help:** Contains "About" information.

Toolbar

- **Run:** Button to start executing the loaded program.
- **Stop:** Button to halt the execution of the program.
- **Save:** Button to save edited file

Main Panel

- **Left Pane (Program Instructions)**
 - A large text area to display the loaded BasicML program instructions.
 - User can switch, edit, and/or execute each files with tab in any order
- **Right Pane**
 - **Memory Display:** A table or list view to display memory contents.
 - Columns: Address, Value.
 - Rows: Each row corresponds to a memory address and its value.
 - **Accumulator:** A text field or label to show the current value of the accumulator.
 - **Program Counter:** A text field or label to show the current value of the program counter.
 - **Status:** A text field or label to show the current status of the simulator (e.g., Running, Stopped).

Status Bar

- A label at the bottom of the window to display general status messages.