

Tech Stack

- **Programming Language:** C
 - **Version Control:** Git
 - **Build System:** GNU Make
 - **AST VISUALIZER:** Graphviz
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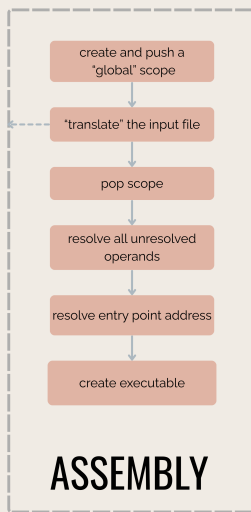
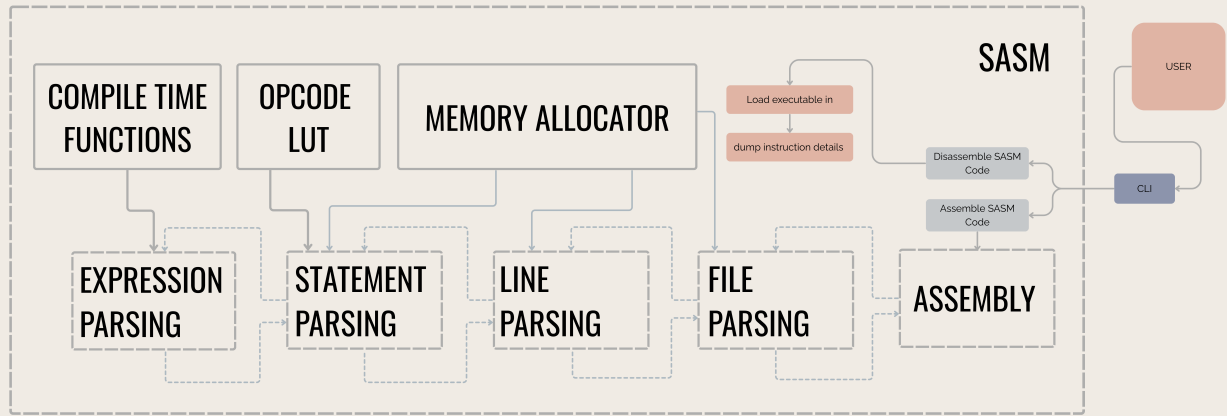


Project Structure

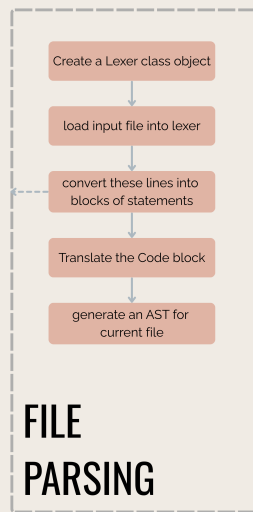
```
/docs/           # Reference documentation
/examples/       # Sample programs
/include/        # Public headers for VM, SASM, OCC
/src/           # Core implementation (VM, assembler,
compiler)
/tests/          # Simple Test programs written in SASM
/tools/themes/vs_code/ # VS Code syntax highlighter
/install.sh      # Install script for linux
```

Architecture

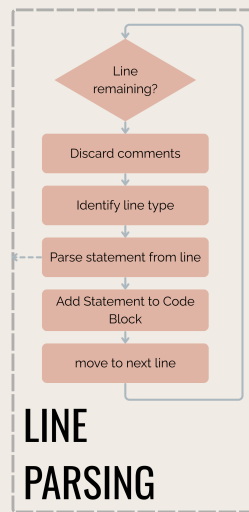
VIREX



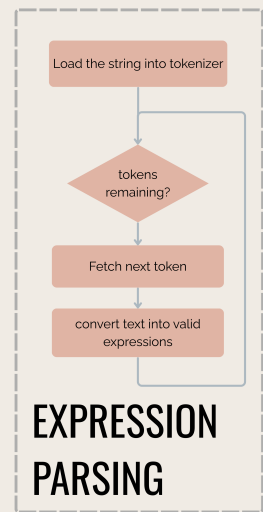
(a) Assembly Pipeline



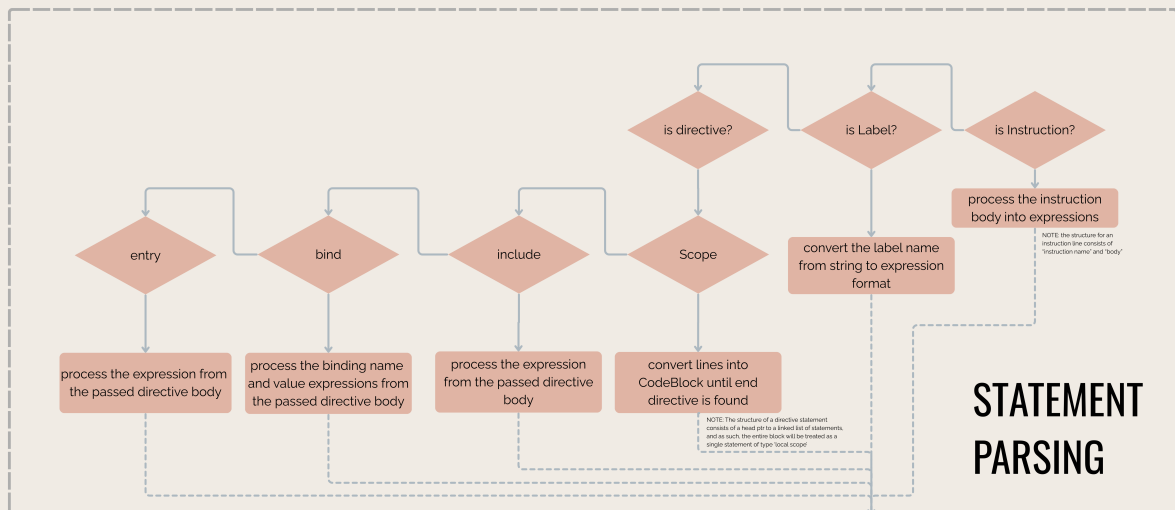
(b) File Parsing



(c) Line Parsing



(e) Expression Parsing



(d) Statement Parsing