**C-Like High Level Assembly**

Assembly languages are the lowest level computer programming languages used by programmers to command computers. There are many assembly languages and each is specific to a particular computer architecture. An assembly language statement consists of a 2-4 letter mnemonic followed by zero or more operands. Often the meaning of an assembly statement is not immediately obvious to the programmer without looking it up, especially since the assembly languages are very inconsistent. This project aims to simplify operation by introducing a single High Level Assembly Language with a consistent C-like syntax across multiple architectures.

The C-Like High Level Assembly Language (CHLA) makes use of C-like syntax so that it is easier to read. The language is highly consistent and much of the syntax is identical across multiple assembly languages, and thus, it is intuitive to write after learning a few simple constructs.

This project has produced an assembler and disassembler that understand CHLA as well as a two different specification documents. The specification documents describe the translation between an assembly architecture and CLHA. An example test program was developed to show that a CHLA program can be portable between more than one computer architecture.