

## User Manual for SIMPLE Compiler

The SIMPLE code must start with line numbers. These line numbers have to be in sequential order (i.e. 1, 2, 3, 4... or 10, 20, 30, 40...). After the line number a valid command must follow (input, print, if, let, goto, end). There must be one space between each expression in the line.

Input must be followed by a variable.

Print must be followed by an existing variable. If it doesn't exist, an error message is shown.

If must be followed by a variable, a logical operator (`==`, `<`, `>`, `<=`, `>=`, `!=`), and then either a variable or a number. No expressions can be put after the logical operator. After the variable/number the command goto must be present followed by a line number. This line number can either already exist or be later on in the code.

Let must be followed by a variable, an equal sign, and then an expression using constants, variables, and mathematical operators (`+`, `-`, `*`, `/`). No parentheses can be used.

Goto branches to the designated line number.

End should be put at the end of the code. It shouldn't be followed by any variables or numbers.

Valid variable symbols is anything made up of letters; it can be a word or just a single character. No spaces or non-letter characters are allowed in the variable name.

Constants must be equal or less than 99. Constants cannot be negative.

This compiler outputs a file in SML code. Files using SML code can be run using a different project.