Brainshift VM Operator Reference

> - Move the pointer to the right.

< - Move the pointer to the left.

+ - Increment the byte at the pointer.

- - Decrement the byte at the pointer.

. - Output the character signified by the byte at the pointer.

, - Input a character and store it in the byte at the pointer.

[- Jump past the matching `]` if the byte at the pointer is 0.

] - Jump back to the matching `[` if the byte at the pointer is nonzero.

& - Logical AND operation between the current cell and the next cell.

| - Logical OR operation between the current cell and the next cell.

^ - Logical XOR operation between the current cell and the next cell.

~ - Logical NOT operation on the current cell.

- Right bit shift on the current cell.

@ - Left bit shift on the current cell.

A - Addition with carry: Adds the next cell to the current cell, checks for overflow.

M - Multiplication with overflow: Multiplies the current cell with the next cell.

S - Subtraction with underflow: Subtracts the next cell from the current cell.

D - Division with remainder: Divides the current cell by the next cell.

% - Modulus operation: Finds the remainder when the current cell is divided by the next cell.

! - Negation: Flips all bits in the current cell.

J - Jump to a label if the condition is met.

C - Call a subroutine at a label, saving the return address on the stack.

R - Return from a subroutine, using the address at the top of the stack.

Z - Set the Zero flag if the current cell is 0.

z - Clear the Zero flag.

j - Jump to a label if the Zero flag is set.

n - Jump to a label if the Zero flag is not set.

; - Denotes the end of the program sequence.

" - Used to denote the beginning and end of a comment.

* - Used to denote a label for jumps and calls.

Special Syntax

" - Encloses comments. Everything between two " characters is ignored.

* - Precedes label names used in jump (J) and call (C) instructions

  - and jump if zero sb (j) and (n) instructions for control flow.

  - Label is terminated by a space, tab or newline .