GritVM Instructions

The accumulator is the only variable usable for math operations.

Instruction	Type	Call	Notes
CLEAR	Accumulator Functions	CLEAR	Set the accumulator to 0
AT	DM Management Functions	AT X	Sets the accumulator to the value at DM[X] A = DM[X]
SET	DM Management Functions	SET X	Sets the DM[X] to the value in the accumulator DM[X] = A
INSERT	DM Management Functions	INSERT X	Inserts in DM at location X the value in the accumulator
ERASE	DM Management Functions	ERASE X	Erases location X in the DM
ADDCONST	Accumulator Maths with a Constant	ADDCONST C	Adds C to the accumulator value A = A + C
SUBCONST	Accumulator Maths with a Constant	SUBCONST C	Subtracts C from the accumulator A = A – C
MULCONST	Accumulator Maths with a Constant	MULCONST C	Multiplies C to the accumulator value A = A * C
DIVCONST	Accumulator Maths with a Constant	DIVCONST C	Divides C from the accumulator value A = A / C
ADDMEM	Accumulator Maths with a Memory Location	ADDMEM X	Adds DM[X] to the accumulator value A = A + DM[X]
SUBMEM	Accumulator Maths with a Memory Location	SUBMEM X	Subtracts DM[X] from the accumulator A = A – DM[X]
MULMEM	Accumulator Maths with a Memory Location	MULMEM X	Multiplies DM[X] to the accumulator value A = A * DM[X]
DIVMEM	Accumulator Maths with a Memory Location	DIVMEM X	Divides DM[X] from the accumulator value A = A / DM[X]
JUMPREL	Instruction Jump Functions	JUMPREL Y	Goes forward/back Y instructions from the current instruction (can be negative)
JUMPZERO	Instruction Jump Functions	JUMPZERO Y	Goes forward/back Y instructions from the current instruction (can be negative) if accumulator is 0. Otherwise just move forward 1 from the current instruction.

JUMPNZERO	Instruction Jump Functions	JUMPNZERO Y	Goes forward/back Y instructions from the current instruction (can be negative) if accumulator is not 0. Otherwise just move forward 1 from the current instruction.
NOOP	Misc Functions	NOOP	Perform no operation. Counts as an instruction but does nothing.
HALT	Misc Functions	HALT	Stop the GritVM and switch status to HALTED
OUTPUT	Misc Functions	OUTPUT	Output accumulator to std::cout
CHECKMEM	Misc Functions	CHECKMEM Z	Checks to make sure DM is of at least size Z. If not, switch status to ERRORED