µCode Quick Reference Page

INSTRUCTION	DESCRIPTION
HLT	Terminate program execution
RD dst	Read an integer value from the keyboard into dst
RDF dst	Read a float value from the keyboard into dst
RDS dst	Read a string value from the keyboard into dst. Quotations not needed.
WRT src	Write a value in src to the screen
WRTS	Performs: POP A WRT A
WRTLN src	Write a value in src with a new line appended to the screen.
WRTLNS	Performs: POP A WRTLN A
MOV src dst	Performs: dst <- src
NEG src dst	Performs: dst <- -src (Integer)
ADD src1 src2 dst	Performs: dst <- src1 + src2 (Integer)
SUB src1 src2 dst	Performs: dst <- src1 - src2 (Integer)
MUL src1 src2 dst	Performs: dst <- src1 * src2 (Integer)
DIV src1 src2 dst	Performs: dst <- src1 / src2 (Integer)
MOD src1 src2 dst	Performs: dst <- src1 % src2 (Integer)
NEGF src dst	Performs: dst <- -src (Float or Fixed)
ADDF src1 src2 dst	Performs: dst <- src1 + src2 (Float or Fixed)
SUBF src1 src2 dst	Performs: dst <- src1 - src2 (Float or Fixed)
MULF src1 src2 dst	Performs: dst <- src1 * src2 (Float or Fixed)
DIVF src1 src2 dst	Performs: dst <- src1 / src2 (Float or Fixed)
PUSH src	Push src onto the data stack
POP dst	Pop the stack top into dst
NEGS	Performs: POP A PUSH -A (Integer)
ADDS	Performs: POP A POP B PUSH B + A (Integer)
SUBS	Performs: POP A POP B PUSH B - A (Integer)
MULS	Performs: POP A POP B PUSH B * A (Integer)
DIVS	Performs: POP A POP B PUSH B / A (Integer)
MODS	Performs: POP A POP B PUSH B % A (Integer)
NEGSF	Performs: POP A PUSH -A (Float or Fixed)
ADDSF	Performs: POP A POP B PUSH B + A (Float or Fixed)
SUBSF	Performs: POP A POP B PUSH B - A (Float or Fixed)
MULSF	Performs: POP A POP B PUSH B * A (Float or Fixed)
DIVSF	Performs: POP A POP B PUSH B / A (Float or Fixed)
CASTSI	Performs: POP A PUSH (float)A
CASTSF	Performs: POP A PUSH (int)A
Ln:	Drop a label at the current line

ANDS	Performs POP A POP B PUSH B and A
ORS	Performs POP A POP B PUSH B or A
NOTS	Performs POP A PUSH not A
CMPEQS	Performs POP A POP B PUSH B = A (Integer)
CMPGES	Performs POP A POP B PUSH B >= A (Integer)
CMPGTS	Performs POP A POP B PUSH B > A (Integer)
CMPLES	Performs POP A POP B PUSH B <= A (Integer)
CMPLTS	Performs POP A POP B PUSH B < A (Integer)
CMPNES	Performs POP A POP B PUSH B <> A (Integer)
CMPEQSF	Performs POP A POP B PUSH B = A (Float or Fixed)
CMPGESF	Performs POP A POP B PUSH B >= A (Float or Fixed)
CMPGTSF	Performs POP A POP B PUSH B > A (Float or Fixed)
CMPLESF	Performs POP A POP B PUSH B <= A (Float or Fixed)
CMPLTSF	Performs POP A POP B PUSH B < A (Float or Fixed)
CMPNESF	Performs POP A POP B PUSH B <> A (Float or Fixed)
BRTS Ln	Performs POP A BEQ A #1 Ln
BRFS Ln	Performs POP A BEQ A #0 Ln
BR Ln	Branch to label n
BEQ src1 src2 Ln	Branch to label n if src1 = src2 (Integer)
BGE src1 src2 Ln	Branch to label n if src1 >= src2 (Integer)
BGT src1 src2 Ln	Branch to label n if src1 > src2 (Integer)
BLE src1 src2 Ln	Branch to label n if src1 <= src2 (Integer)
BLT src1 src2 Ln	Branch to label n if src1 < src2 (Integer)
BNE src1 src2 Ln	Branch to label n if src1 <> src2 (Integer)
BEQF src1 src2 Ln	Branch to label n if src1 = src2 (Float or Fixed)
BGEF src1 src2 Ln	Branch to label n if src1 >= src2 (Float or Fixed)
BGTF src1 src2 Ln	Branch to label n if src1 > src2 (Float or Fixed)
BLEF src1 src2 Ln	Branch to label n if src1 <= src2 (Float or Fixed)
BLTF src1 src2 Ln	Branch to label n if src1 < src2 (Float or Fixed)
BNEF src1 src2 Ln	Branch to label n if src1 <> src2 (Float or Fixed)
CALL Ln	Performs: PUSH PC BR Ln
RET	Performs: POP PC
PRTS	Prints out stack addresses and values – Doesn't affect state of machine.
PRTR	Prints out registers – Doesn't affect state of machine.