

Listing of Instructions: NEAT 399 / 11.73

Operation	Operand A	Operand B	Operand C	Action	N-Fields	Description
ADD	A	B	C			$B+A=C$, Operands A and B unchanged
ADDN	A	B			1-31	$B(1-31)+A(1-31)\Rightarrow B(1-31)$, Operand A unchanged
ADDNA	A	B			1-31	$B+A(1-31)\Rightarrow B$, Operand A unchanged
ADDNB	A	B			1-31	$B(1-31)+A\Rightarrow B(1-31)$, Operand A unchanged
BR			LABEL			Unconditional branch
BRE	A	B	LABEL			If $A = B$, Branch to C
BRU	A	B	LABEL			If $A \neq B$, Branch to C
BRG	A	B	LABEL			If $A > B$, Branch to C
BRL	A	B	LABEL			If $A < B$, Branch to C
BRION	IND		LABEL			If Indicator ON, Branch to C
BRIOFF	IND		LABEL			If Indicator OFF, Branch to C
BRS	LPR		LABEL	PGS		If PGS-Indicator ON, Branch to C
CNTL	D-CODE			M-CODE	1-265	Device-Code/Modifications-Code
DIV	A	B	C	(RD)		$B:A=C$, Operands A and B unchanged, Rounds if RD is set
DIVN	A	B		(RD)	1-31	$B(1-31):A(1-31)\Rightarrow B(1-31)$, Operand A unchanged, Rounds if RD is set
FILL	A				1-999	Fill N-Fields with NULL or SPACE
GET	D-CODE	B			1-255	Data input from D-CODE to B(1-255)
GBP	BKxx	B	LABEL	E-CODE		GET:BRANCH:PUT Input from Start: Print, Data to B, no Branch Input from BKxx: no Print, Data to B, Branch to C Input from BKnn: Print, Data to B, no Branch
MOVE	A	B		M-CODE	1-31	$MOVE A(1-31)\Rightarrow B(1-31)$; alphanumeric fields must have equal length
MOVENA	A	B		M-CODE	1-31	$MOVE A(1-31)\Rightarrow B$; B-field must be big enough to contain sum of A-fields; when B-field is bigger then required, unused space be filled with NULL or SPACE
MOVENB	A	B		M-CODE	1-31	$MOVE A\Rightarrow B(1-31)$; Length of B-fields must be equal to the length of A-field
MOVEP	A	B	C			Partial MOVE of alphanumeric fields
MULT	A	B	C	(RD)		$B*A=C$, Operands A and B unchanged, Rounds if RD is set
MULTN	A	B		(RD)	1-31	$B(1-31)*A(1-31)\Rightarrow B(1-31)$, Operand A unchanged, Rounds if RD is set
PUT	D-CODE	B		E-CODE	1-255	Data output to D_CODE from B(1-31) to N-Fields
REDEF	A	B			1-999	Redefine Headers from B to A
RETURN						Program control returns to the memory address saved/remembered by SAVERA
SAVERA						Save Return Address
SUB	A	B	C			$B-A=C$, Operands A and B unchanged
SUBN	A	B			1-31	$B(1-31)-A(1-31)\Rightarrow B(1-31)$
SUBNA	A	B			1-31	$B-A(1-31)\Rightarrow B$
SUBNB	A	B			1-31	$B(1-31)-A\Rightarrow B(1-31)$
TBLADD	T-NAME	B	C		1-63	Addition from B(1-63) to the Table. Pointer C
TBLIN	T-NAME	B	C		1-63	Input to the Table from B(1-63). Pointer C
TBLOUT	T-NAME	B	C		1-63	Output from the Table to B(1-63). Pointer C
TYPE						Type, no limitations
TYPEK						Type, no limitations, until button E pressed
TYPEL					1-999	Type N symbols
TYPEN	A				1-63	Type to Memory, N Fields
WAIT						Programmed Wait

NEAT 399: D-CODE, E-CODE and M-CODE Description

Operation	A D-CODE	B	C	M-CODE E-CODE	N-Fields	Description	
BRION/ BRIOFF	ANY ALL BK00/19 P1/2 KBF CBT CET CFO CTM MCE SGN SB5 SB6 FLL FLR LL1/2 MLE PTE PBA RBF		LABEL LABEL				ANY BRANCH KEY ON ALL BRANCH KEYS OFF BRANCH KEY 00-19 PROGRAM KEY ½ KEYBOARD BUFFER FULL CASSETTE BLANK TAPE CASSETTE END OF TAPE CASSETTE FIELD OVERFLOW CASSETTE TAPE MARK MAGNETIC CASSETTE ERROR SIGN NEGATIVE SEPARATOR BIT 5 SEPARATOR BIT 6 FULL LEDGER LEFT FULL LEDGER RIGHT LAST LINE CFF ½ MAGNETIC LEDGER ERROR PAPER TAPE ERROR PUNCH BUFFER AVAILABLE READ BUFFER FULL
CNTL	CAS1/2			BACK RWND CTM SFE SFD		BACK REWIND CASSETTE TAPE MARK SEPARATOR FLAG ENABLE SEPARATOR FLAG DISABLE	
	FH LITE SPR LPR TR TP CR CP			FF1/2 FH1/2 LFL/R/B POL/R/B PCL/R/B LE/RE RRE PFP PFP SLEW PRNT RWND ASC DEL NUL ASC FSEL EMTX LAST FSEL PLZ EM ETX	1-15 1-31 1-265 1-132 1-127 1-127 1-63 1-63 1-80 1-80	FEED FORMS FIELD FEED FORMS HOME LINE FEED LEFT/RIGHT/BOTH PLATEN OPEN LEFT/RIGHT/BOTH PLATEN CLOSE LEFT/RIGHT/BOTH LEFT EJECT/RIGHT EJECT RIGHT REAR EJECT LIGHTS ON POSITION FOR PRINT POSITION FOR PRINT SLEW PRINT REWIND ASCII DELETE NULL ASCII FIELD SELECT END OF MESSAGE OR TEXT LAST FIELD SELECT PRINT LEADING ZEROS END OF MESSAGE END OF TEXT	
GET	CAS1/2 CR KB ML			(LAST)		CASSETTE CARD READER KEYBOARD MAGNETIC LEDGER	

	MLFR LNCL/R TR					MAGNETIC LEDGER FEEDER READER LINE NUMBER COUNTER LEFT/RIGHT TAPE READER
PUT	CAS1/2 CP ML LNCL/R LPR SPR TP			(LAST) SLEW 000e LPNe LPSe ABNe PBCe e=0 E \$ S		CASSETTE CARD PUNCH MAGNETIC LEDGER LINE COUNTER LEFT/RIGHT LINE PRINTER SLEW NO SYMBOL; DEC POINT NO SYMBOL; DEC POINT POS.NO SYM., NEG.WITH -; DEC.POINT NO SYMBOL; DEC POINT NO SYMBOL; DEC POINT POS.NO SYM., NEG.WITH CR; DEC.POINT NO PUNCTUATION, WITH LEADING ZEROS EDITING WITH PUNCTUATION, ZERO SUPPRESS EDITING WITH PUNCTUATION, PROTECT PRNT ZERO SUPPRESSION ONLY TAPE PUNCH
MOVE				NF NS RD		SIGN TRANSFER FROM A TO B NO FILL NO SIGN ROUND (NUM.ONLY)
MOVENA				AZ NS		ADD ZONE BITS NO SIGN
MOVENB				SZ NS		SUPPRESS ZONE BITS NO SIGN