## 1401 DATA PROCESSING SYSTEM PROGRAM CARD

OPERATION		TRANSMISSION	REQUIRED	CAN INST.	and the second sec	NTS OF REC	GISTERS AT	DEMARKS
CODE	INSTRUCTION	STOPPED BY	WORD MARKS	BE CHAINED		1	B	REMARKS
1	Read A Card				NSI	A	081	
2	Write A Line				NSI	Ap Ap	335	B-Add. Reg. stands at
2	Write A Line			1. A.	ICN	Ар	335	333 with Print Storage
2□	Write Word Marks				NSI	dbb	335	B-Add. Reg. stands at
-1		5						333 with Print Storage
3	Write-Read				NSI	Ар	081	Printing occurs first
4	Punch A Card				NSI	Ар	181	
4R	Read-Punch Feed		9 - C		NSI	dbb	181	
5	Read-Punch				NSI	Ар	181 or 081	Normally B-Add. Reg. is at 181 unless punch- ing is completed first
6	Write-Punch				NSI	Ар	181	
6R	Write-Read Punch Feed	-			NSI	dbb	181	*
7	Write-Read-Punch				NSI	Ар	181 or 081	See remarks for Read- Punch
8	Start Read Feed				NSI	Ар	Вр	
9	Start Punch Feed				NSI	Ар	Вр	
A (A) (B)	Add	B-field word mark	B-field. A-field only if smaller than B-field	Yes	NSI	A-Lw	B-LB	Blanks are treated as zeros, unsigned fields are treated as positive
S (A) (B)	Subtract	B-field word mark	B-field. A-field only if smaller than B-field	Yes	NSI	A-Lw	B-LB	Same as remark for Add
? (A) (B)	Zero and Add	B-field word mark	B-field. A-field only if smaller than B-field	Yes	NSI	A-Lw	B-LB	
! (A) (B)	Zero and Subtract	B-field word mark	B-field. A-field only if smaller than B-field	Yes	NSI	A-Lw	B-LB	Can be used with a single address to change sign of field
@ (A) (B)	Multiply	<i>e</i>	A and B-field	No	NSI	A-LC	B-L of product field	Product in low-order positions of B-field
% (A) (B)	Divide		A-field	No	NSI	A-LA	Tens pos. of quot.	Quotient is developed in high-order position
B (I)	Branch			No	NSI	BI	BI	of B-field The I-address can be followed by a blank
<b>P</b> (1) 1								without a word mark
B (I) d	Branch if Indicator On			No	NSI	BI	dbb	The character at
B (I) (B) d	Branch If Character Equal			Yes	NSI	BI	B-1	B-address is compared to the d-character
V (I) (B) d	Branch IF WM and/or Zone		ан С. 1917 г.	Yes	NSI	BI	B-1	Tests character at B for zone and/or WM
D (A) (B)	Move Numerical	Single digit move		Yes	NSI	A-1	B-1	Numeric bits of A moved to B. B zone bits are re- tained.
L (A) (B)	Load Characters to A-Word Mark	A-field word mark	A-field	Yes	NSI	A-LA	B-LA	B-field word marks are cleared
M (A) (B)	Move Characters to A- or B-Word Mark	First word mark encountered		Yes	NSI	A-Lw	Bp-Lw	to a
Y (A) (B)	Move Zone			Yes	NSI	A-1	B-1	Zone bits of A are moved to B. B numeric bits are retained.
Z (A) (B)	Move Characters and Suppress Zeros	A-field word mark		No	NSI	A-LA	B + 1	B-field word marks are cleared
, (A) (B)	Set Word Mark			Yes	NSI	A-1	B-1	Sets word marks in A- and B-address. Data is undisturbed
□ (A) (B)	Clear Word Mark			Yes	NSI	A-1	B-1	Removes the word marks at the A and B
				a di serie				location. Data is un- disturbed
C (A) (B)	Compare	First word mark encountered	A or B-field	Yes	NSI	A-Lw	B-Lw	If B field is longer than A field unequal compare results
E (A) (B)	Move Characters and Edit	B-field word mark	A and B-field	No	NSI	A-LA	B-LB	If zero suppression occurs B-Add. Reg. contains location of
			· · · · · · · · · · · · · · · · · · ·					control zero + 1
Fd	Control Carriage		e	No	NSI	dbb	dbb	
INTERNATIONAL BUSINESS MACHINES CORPORATION 630715MUP								

DATA PROCESSING DIVISION 112 EAST POST ROAD WHITE PLAINS, N. Y.

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