

SYSTEMS ENGINEERING LABORATORIES PROGRAM LIBRARY

PROGRAM DESCRIPTION

Page 1 of 2

Catalog Number 320002A

IDENTIFICATION: SEL 810A/B I/Ø Handler for Card Reader
AUTHOR: Systems Engineering Laboratories
ACCEPTED: January 1, 1968
PURPOSE: To provide a free-standing I/Ø handler to communicate with the card reader

COMPUTER CONFIGURATION: SEL 810A/B Computer with Card Reader

SUBROUTINES REQUIRED: UN\$PAK, BCDTØA and common locations (Catalog Number 300020A)

STORAGE: 113₈

TIMING: N/A

USE: I/Ø handler tape is loaded after user's program.

CALLING SEQUENCE: To input from the card reader the calling sequence is:

CALL CARD\$I

DAC BUF

FØRM 1, 15

FDAT X, Y

where BUF - address of first location of the buffer

X - number of characters per word (0 for 1 char/word, 1 for 2 chars/word)

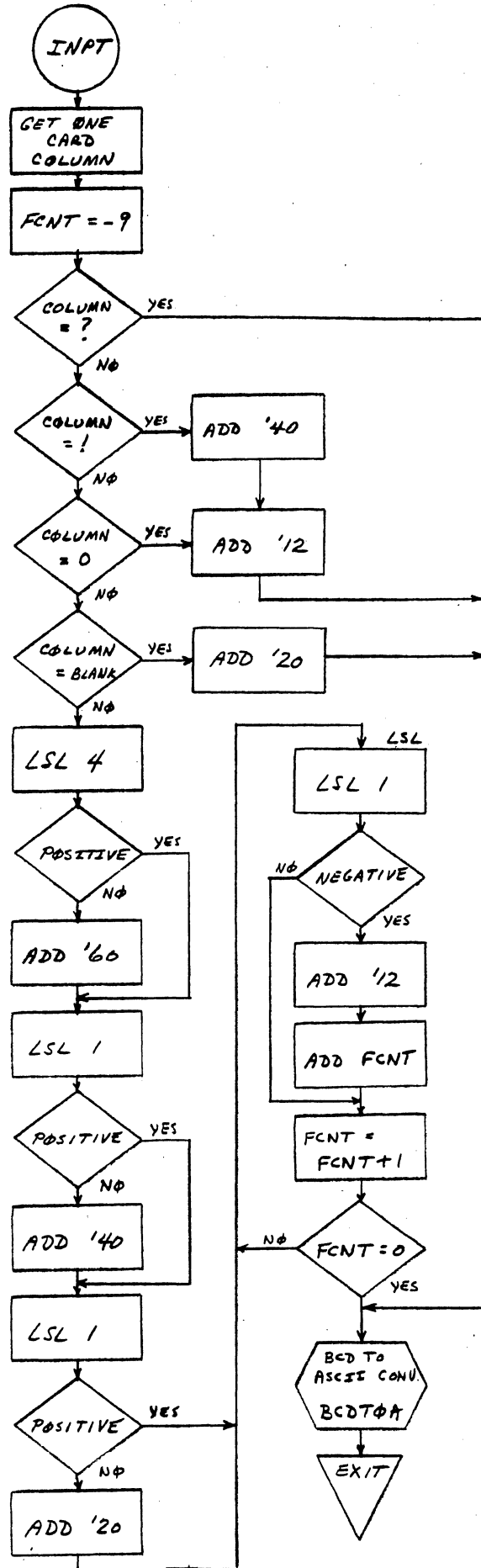
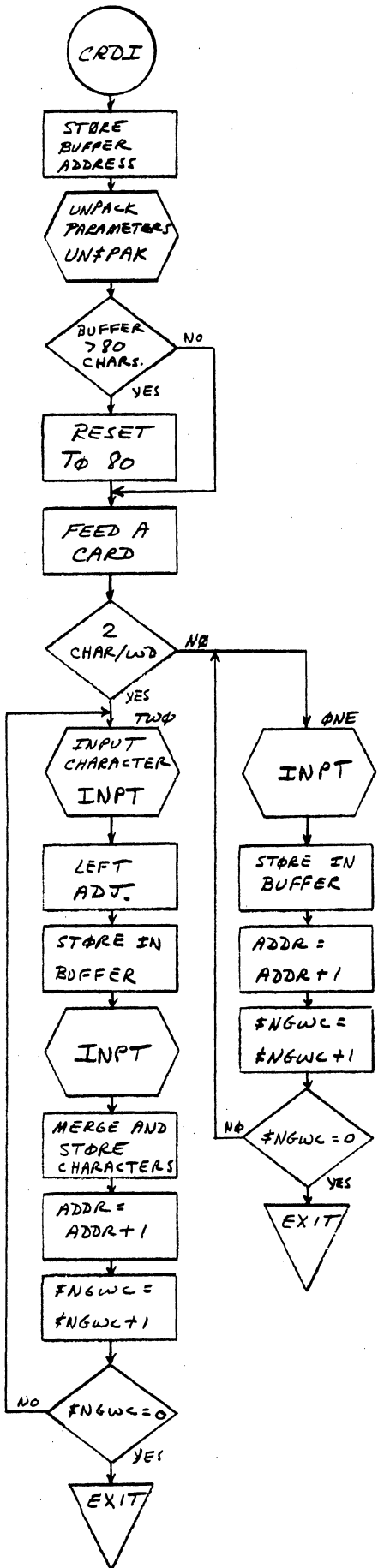
Y - number of words in the buffer

METHOD:

1.0 Input: I/Ø handler name is CARD\$I:

Cards are read in binary mode whether the card reader has a BCD mode or not. Thus, a 12 punch causes bit 4 to be set in the computer, while a 9 punch causes bit 15 to be set. The resulting card binary code is first translated to BCD and then to full ASCII. The ASCII character is stored in the user's buffer. The approximate 2 milliseconds delay between columns is used to do the translation (and packing in the case of 2 characters per word) for the previous column. No more than 80 characters can be input. If more than 80 characters are requested, inputting will stop at 80.

CARD I



0002	00000	00000000	*	JANUARY 2, 1968	
0003	00000	00000000	*		
0004	00000	00000000	*	I/O HANDLER FOR CARD READER	
0005	00000	00000000	*		
0006	00000	00000000		REL	
0007	00000	50000000		NAME CARDI, CRDI	
0008	00000	00000000	CRDI	*** **	
0009	00001	01300000		LAA* CRDI	
0010	00002	03100112		STA ADDR	ADDRESS OF CALLING SEQUENCE
0011	00003	01100000		LAA CRDI	
0012	00004	55100000		CALL UN\$PAK	UNPACK DATA WORD AND SET FLAGS
0013	00005	03100000		STA CRDI	
0014	00006	01077660		LAA =-80	
0015	00007	56500000		CMA \$NGWC	ARE MORE THAN 80 CHARS REQUESTED
0016	00010	00000033		NOP	NO
0017	00011	11100013		BRU **2	NO
0018	00012	51500000		STA \$NGWC	YES, RESET TO 80
0019	00013	00130104		CEU 4,W	
0020	00014	00004000		DATA 4000	FEED A CARD
0021	00015	50500000		LAA \$CFLG	
0022	00016	00000023		SAN	TWO CHARS/WORD
0023	00017	11100034		BRU ONE	NO
0024	00020	12100042	TWO	SPB INPT	YES
0025	00021	00001016		LSL R	
0026	00022	03300112		STA* ADDR	
0027	00023	12100042		SPB INPT	INPUT A CHARACTER
0028	00024	02300112		LBA* ADDR	
0029	00025	00000030		ORA	
0030	00026	03300112		STA* ADDR	
0031	00027	14100112		IMS ADDR	INCREMENT BUFFER ADDRESS
0032	00030	56100000		IMS \$NGWC	
0033	00031	56100000		IMS \$NGWC	
0034	00032	11100020		BRU TWO	GET ANOTHER CHARACTER
0035	00033	11300000		BRU* CRDI	RETURN
0036	00034	12100042	ONE	SPB INPT	INPUT A CHARACTER
0037	00035	03300112		STA* ADDR	
0038	00036	14100112		IMS ADDR	
0039	00037	56100000		IMS \$NGWC	

0040	00040	11100034	BRU	ZNF	GET ANOTHER CHARACTER
0041	00041	11300000	BRU	CRDI	RETURN
0042	00042	00000000	INPT	*** **	SUBROUTINE TO GET NEXT CHARACTER
0043	00043	00170304	AIP	4,W	
0044	00044	02077767	LBA	=-9	
0045	00045	04100111	STB	FCNT	
0046	00046	02000000	LBA	=0	
0047	00047	15006000	CMA	=16000	TEST FOR QUESTION MARK
0048	00050	11100052	BRU	**2	NO
0049	00051	11100107	BRU	STR	YES
0050	00052	15001000	CMA	=1001000	TEST FOR ZERO
0051	00053	11100055	BRU	**2	NO
0052	00054	11100106	BRU	AMB1	YES
0053	00055	15003000	CMA	=13000	
0054	00056	11100060	BRU	**2	NO
0055	00057	11100105	BRU	AMB4	YES
0056	00060	00000022	SAZ		TEST FOR SPACE
0057	00061	11100064	BRU	**3	NO
0058	00062	02000020	LBA	=120	
0059	00063	11100107	BRU	STR	
0060	00064	00000416	LSL	4	
0061	00065	00000024	SAP		TEST FOR 12 PUNCH
0062	00066	16000060	AMB	=160	
0063	00067	00000116	LSL	1	
0064	00070	00000024	SAP		TEST FOR 11 PUNCH
0065	00071	16000040	AMB	=140	
0066	00072	00000116	LSL	1	
0067	00073	00000024	SAP		TEST FOR 0 PUNCH
0068	00074	16000020	AMB	=120	
0069	00075	00000116	LSL	LSL 1	
0070	00076	00000023	SAN		TEST FOR NEXT ROW PUNCH
0071	00077	11100102	BRU	IMS	NO
0072	00100	16000012	AMB	=112	ADJUST TOTAL FOR PUNCH
0073	00101	16100111	AMB	FCNT	
0074	00102	14100111	IMS	IMS FCNT	
0075	00103	11100075	BRU	LSL	NO
0076	00104	11100107	BRU	STR	YES
0077	00105	16000040	AMB4	AMB =140	
0078	00106	16000012	AMB1	AMB =12	

1 PAGE 0003 SEL 810A-B I/O HANDLER J.P. GUDFREY CATALOG NO. 320002A

0079 00107 55100000 STB CALL BCDTAA

0080 00110 11300042 BRU* INPT

0081 00111 00000001 FCNT BSS 1

0082 00112 00000001 ADDR BSS 1

0083 00113 70400000 END

CRDI 00000

TW0 00020

ONE 00034

INPT 00042

LSL 00075

IMS 00102

AMB4 00105

AMB1 00106

STB 00107

FCNT 00111

ADDR 00112

1 ERRORS 0000 00000