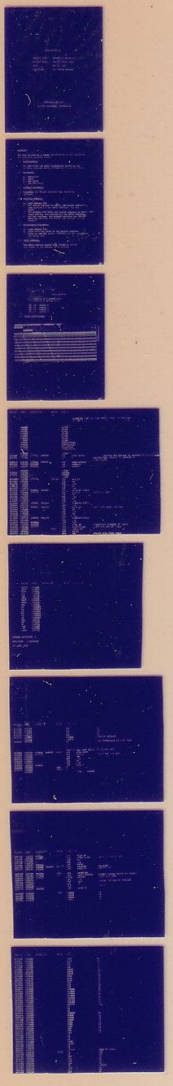


IBM 026

IBM 026 PUNCH TEST
MD-11-DAIBA-A

EP DAIBA A DL
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FICHE 1 OF 1

MAY 1978
digital
MADE IN USA



PDP11/20

IBM 026 PUNCH TEST
MD-11-DIABA-A

EP-DIABA-A-DL

FEB 1978

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digital

FICHE 1 OF 1

MADE IN USA



IDENTIFICATION

PRODUCT CODE: MAINDEC-11-DAIHA-A-D
PRODUCT NAME: IBM #26 PUNCH TEST
DATE: MAY 15, 1972
MAINTAINER: IPG CUSTOM SYSTEMS

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US

ABSTRACT

The test is used as a visual verification of the character and numerical punching format.

1.0 Requirements:

All PDP-11/20 and UDC11 Diagnostics should be run in their entirety before attempting to run this test.

2.0 Equipment:

- A. PDP-11/20
- B. UDC11
- C. ASR 33/35
- D. IBM Ø26 Punch

3.0 Loading Procedure:

Procedure for normal absolute tape should be followed.

4.0 Starting Address:

- A. Load address 200
- B. Set switch register to UDC11, IBM output address (see Section 6.0 for UDC11 Address), hit key start.
- C. The program will halt. Set switch register to UDC11, IBM input address (see Section 6.0 for UDC11 Address).
- D. Hit key continue, the program executes the IBM Ø26 punch by punching the format (see Section 7.0 for format).

5.0 Maintenance Procedure:

- A. Load address 220.
- B. Start with all zeros in the switch register.
- C. Refer to IBM Ø26 Prints (7606262) for bit assignment and delay time.

6.0 UDC11 Address:

The UDC11 address starts from 171000 to 171776.
The format of the address is as follows:

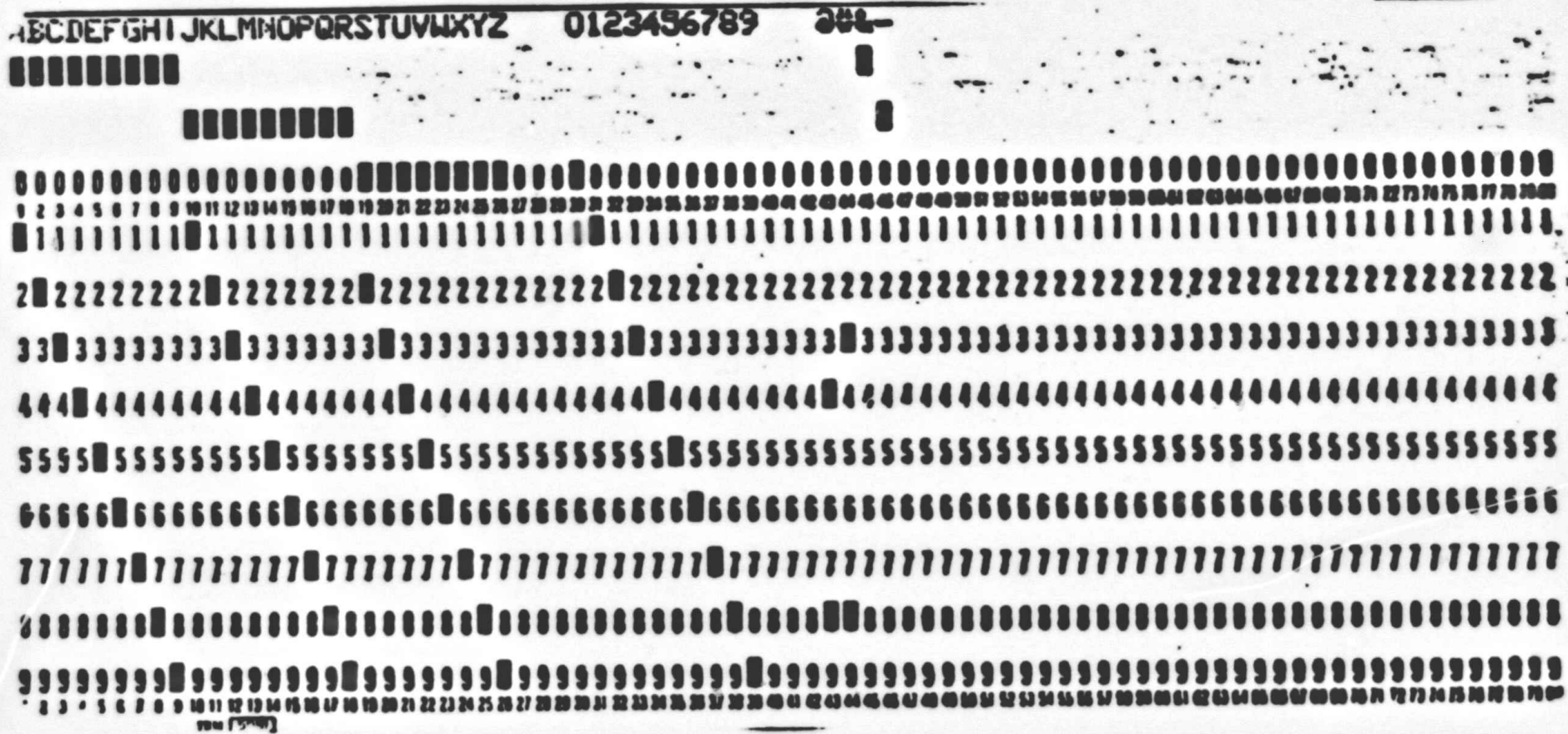


byte pointer

X = address in 4 groups of 8
 Y = address in groups of 8

WD 00 module 0
 WD 01 module 1
 WD 10 module 2
 WD 11 module 3

7.0 Punch Card Format:



:EXERCISE FOR IBM CARD PUNCH (026) CONTROLLED
 :BY UDC - 11

	030000			HLT=0		
	030000			R0=X0		
	030001			R1=X1		
	030002			R2=X2		
	030003			R3=X3		
	030004			R4=X4		
	030005			R5=X5		
	177566			DBRP=177566		
	177564			CSRP=177564		
	177570			SR=177570		
	171776			UDCR=171776		
	000200			. =200		
000200	013737	177570	002030	MOV	##SR.##IBM	
000206	030000			HLT		:SWITCH REG. EQUALS TO ADDRESS OF OUTPUT .
						:SWITCH REG. EQUALS TO ADDRESS OF
						:INPUT WORD
000210	013737	177570	002032	MOV	##SR.##IBM1	
000216	000137	000600		JMP	##BEGIN	
000222	000137	002002		JMP	##MANT	
	000234			. =234		
000234	002000			002000		
000236	000007			000007		
	000600			. =600		
000600	012704	177775		BEGIN:	MOV	#-3,X4
000604	005200			INC	X0	
000606	001376			BNE	.-2	
000610	005204			INC	X4	
000612	001374			BNE	.-6	
000614	012777	000001	001206	MOV	#1,0:IBM IFREQ	
000622	012704	177774		MOV	#-4,X4	:WAIT 1.2 SEC.
000626	005200			INC	X0	
000630	001376			BNE	.-2	
000632	005204			INC	X4	
000634	001374			BNE	.-6	
000636	032777	100000	001166	BIT	#100000,0:IBM1	
000644	001774			BEQ	.-6	
000646	012777	000004	001154	MOV	#4,0:IBM	:WAIT 640 MSEC. FOR REG.
000654	005200			INC	X0	
000656	001376			BNE	.-2	
000660	005200			INC	X0	
000662	001376			BNE	.-2	
000664	032777	100000	001140	BIT	#100000,0:IBM1	
000672	001402			BEQ	.-6	
000674	000167	000000		JMP	TYP	
000700	012705	001000		MOV	#TAB.X5	:TAB=FIRST ADDRESS OF TABLE
000704	012701	177777		MOV	#177777,X1	:LOOK FOR END OF TABLE
000710	012502			MOV	(X5)-,X2	
000712	020201			CMP	X2,X1	
000714	001410			BEQ	REL	:PUNCH DATA FROM TABLE
				PUN:		

000716	012777	001136		MOV	%2,0 BM	
000722	012700	130000		MOV	#-50V00,X0	!WAIT 100 MILLI SEC.
000726	005200			INC	X0	
000730	001370			BNE	.-2	
000732	000137	000710		JMP	00PUN	
000736	012777	000002	001064 REL:	MOV	#2,01BM	!RELEASE
000744	000137	000000		JMP	00BEGIN	!DELAY FOR
000750	012704	001136	TYP:	MOV	#MESS,X4	
000754	012437	177566	ST:	MOV	(X4)+,0000RP	!START TYPING "CARD NOT READY"
000760	100737	177564		TSTB	00CSR	!TEST FOR DONE
000764	100375			BPL	.-4	
000766	005714			TST	(X4)	!CHECK FOR END OF MESSAGE
000770	100371			BPL	ST	
000772	000000			HLT		!HALT
000774	000137	000600		JMP	00BEGIN	
001000	040020		TAB:	40020		!A
001002	020020			20020		!B
001004	010020			10020		!C
001006	004020			4020		!D

001010	002020	2020
001012	001020	1220
001014	000420	420
001016	000220	220
001020	000120	120
001022	040040	40040
001024	020040	20040
001026	010040	10040
001030	004040	4040
001032	002040	2040
001034	001040	1040
001036	000440	440
001040	000240	240
001042	000140	140
001044	120000	120000
001046	110000	110000
001050	104000	104000
001052	102000	102000
001054	101000	101000
001056	100400	100400
001060	100200	100200
001062	100100	100100
001064	000010	10
001066	000010	10
001070	000010	10
001072	100000	100000
001074	040000	40000
001076	020000	20000
001100	010000	10000
001102	004000	4000
001104	002000	2000
001106	001000	1000
001110	000400	400
001112	000200	200
001114	000100	100
001116	000010	10
001120	000010	10
001122	000010	10
001124	004200	4200
001126	001200	1200
001130	00020	20
001132	000040	40
001134	177777	177777
001136	000015	15
001140	000012	12
001142	000103	103
001144	000101	101
001146	000122	122
001150	000104	104
001152	000040	40
001154	000116	116
001156	000117	117
001160	000124	124
001162	000040	40
001164	000122	122

MESS:

IE
IF
IG
IH
II
IJ
IK
IL
IM
IN
IO
IP
IQ
IR
IS
IT
IU
IV
IW
IX
IY
IZ

10
11
12
13
14
15
16
17
18
19

END OF TABLE

ICR
ILF
IC
IA
IR
ID
ISPACE
IN
IO
IT
ISPACE
IR

PALX11 V:33 16-MAY-72 10:34 PAGE 2-1

001166 000135
001170 000101
001172 000104
001174 000131
001176 100000
002000 000000

120
101
104
131
100000
.02020
HLT

IE
IA
IO
IY
IEND OF MESSAGE
INO INTERRUPTS IN THIS TEST

002002 013777 177570 000020 MANT1
002010 012704 177774
002014 005200
002016 001376
002020 005204
002022 001374
002024 000137 002002
002030 000000
002032 000000
000001

SET UP ONE SHOT DELAY VIA SWITCH REG.
MOV @SR,@IOM
MOV #-4,%4 WAIT FOR 1.2 SEC.
INC %0
BNE .-2
INC %4
BNE .-6
JMP @MANT
IBM:
IBM1:
.END 000001

BEGIN	000600
CSRP	177564
DBRP	177566
HLT	000000
IDM	002030
IDM1	002032
MANT	002002
MESS	001136
PUN	000710
R0	000000R
R1	000001R
R2	000002R
R3	000003R
R4	000004R
R5	000005R
REL	000736
SR	177570
ST	000754
TAB	001000
TYP	000750
UDCR	171776

ERRORS DETECTED: 0
RUN-TIME: 1 SECONDS
4K CORE USED