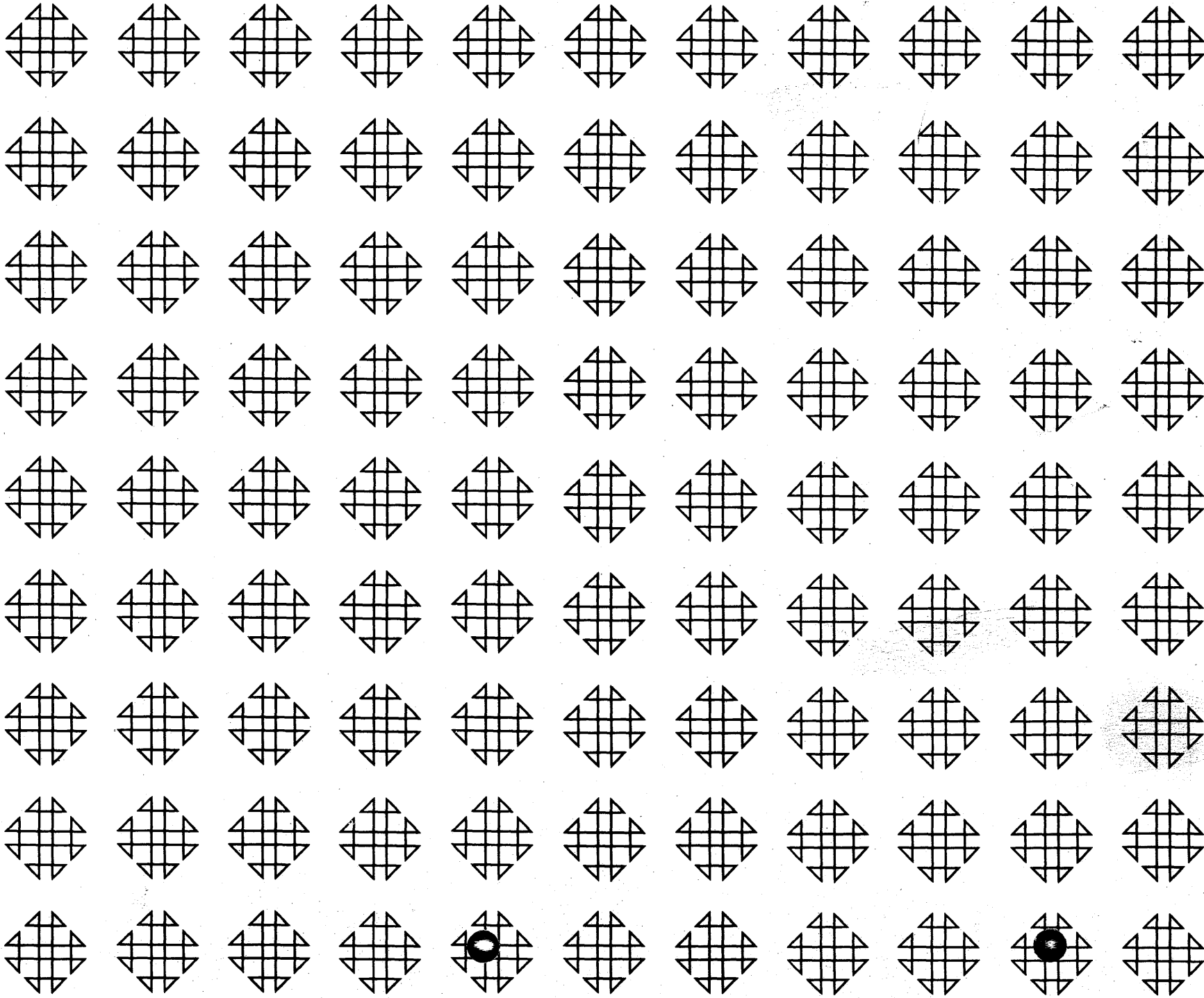


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1620 CARD SYSTEM DEMONSTRATION

Author: Mr. Carl F. Fink
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Milwaukee, Wisconsin

DECK KEY

1. Machine Language Deck

1620 Card System Demonstration

11/16/68
17/17/68
S. D. [unclear]
[unclear]

- A. Purpose/Description: To simply demonstrate the 1620 card system's arithmetic, reading, punching and typing abilities.
- B. Method: N/A
- C. Restrictions and Range: N/A
- D. Accuracy: N/A
- E. Machine Configuration: 1620 with card input/output, no special features, any core size.
- F. Program Requirements: N/A
- G. Source Language: N/A as the program is written in machine language.
- H. Program Execution Time: 5 Minutes.
- I. Check-Out Status: N/A
- J. Sample Problem Running Time: 5 Minutes
- K. Comments: This program and its documentation were written by an IBM employee. It was developed for a specific purpose and submitted for general distribution to interested parties in the hope that it might prove helpful to other members of the data processing community. The program and its documentation are essentially in the author's original form. IBM serves as the distribution agency in supplying this program. Questions concerning the use of the program should be directed to the author's attention.

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OPERATING INSTRUCTIONS

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Program Description

This is a short program used to demonstrate the 1620 card system. As shown by the typed output sample, various facts about the 1620 are typed out, and its arithmetic speed and input-output abilities are demonstrated.

The program deck consists of 27 cards:

Card 1 , the loading card,
Cards 2 and 3, the addition table,
Cards 4-11, the program,
Cards 12-27, the "data", cards carrying the information which is to be typed out. The 12th and 27th cards may be changed from "your IBM office" to any desired name.

The program is written in machine language and requires only the basic card system. The running time is about five minutes.

Operating Instructions

Console switches have no effect.

Set margins at 13 and 96.

Clear Core:

```
RESET
INSERT
Type    16 00010 00000
RELEASE
START
INSTANT STOP (after ↓ second pause)
RESET
```

Load deck in Read Hopper.

LOAD

Program comes to halt.
Align paper on new sheet.

START

POWER (ALUMINUM) - CAMPUS
MAY I EXTEND A WELCOME TO ALL OF YOU FROM YOUR IBM OFFICE.

IF YOU WILL PRESS START I WILL GIVE YOU SOME INFORMATION ABOUT MYSELF.

I AM A SOLID STATE, FULLY TRANSISTORIZED IBM 1620 ELECTRONIC COMPUTER. I AM READING THIS INFORMATION FROM PUNCHED CARDS AT THE RATE OF 250 CARDS PER MINUTE (333 CHARACTERS PER SECOND) AND AM TYPING IT AT 10 CHARACTERS PER SECOND.

IF YOU PRESS START AGAIN, I WILL PUNCH CARDS AT THE RATE OF 125 PER MINUTE.

I WILL NOW DEMONSTRATE MY ARITHMETIC ABILITY. I WILL ADD TEN 20-DIGIT NUMBERS TOGETHER, TYPING AFTER EACH ADDITION.

01
02
03
04
05
06
07
08
09
10

I WILL NOW CONTINUE THIS OPERATION, BUT WILL TYPE ONLY AFTER 100 ADDITIONS, 1,000 AND FINALLY 10,000 ADDITIONS (ACTUALLY I AM PERFORMING TEST AND BRANCH INSTRUCTIONS ALONG WITH EACH ADD INSTRUCTION).

100
1000
10000

I CAN DO ADDITIONS AND SUBTRACTIONS AT THE RATE OF 1,780 PER SECOND (5 DIGIT NUMBERS) AND CAN DO MULTIPLICATIONS AT THE RATE OF 200 PER SECOND (5 DIGIT NUMBERS BY 5 DIGIT NUMBERS).

I HAVE 20,000 POSITIONS OF CORE STORAGE AND CAN BE EXPANDED TO 100,000. I DO AN ODD BIT PARITY CHECK ON ALL INPUT DATA, INTERNAL DATA MOVEMENTS AND OUTPUT DATA. READING, COMPUTING AND PUNCHING CAN PROCEED SIMULTANEOUSLY.

*PLMP 1041 45
11/19/67 11:00*

*SP...
...*

*Have STRIPES TYPE...
...
...*

8

I CAN BE OBTAINED AS A PAPER TAPE SYSTEM ALSO -- I WOULD READ TAPE AT THE RATE OF 150 CHARACTERS PER SECOND, AND PUNCH TAPE AT 15 CHARACTERS PER SECOND.

IIIII	BBBB	M M	1	6	222	0000
I	B B	MM MM	11	6	2	0 0
I	BBBB	M M M	1	6666	2222	0 0
I	B B	M M	1	6 6	2	0 0
IIIII	BBBB	M M	11111	6666	2222	0000

THANK YOU FOR COMING TO SEE ME.

Examine it → MORE INFORMATION ABOUT ME CAN BE OBTAINED FROM YOUR IBM OFFICE.

OR FOR THE P.M.

Application: 1620 Demonstration

Date: 11-2-61 Page: 1 of 2

Routine: _____

Written by: Carl Fink

1ST
Card

2ND,
3RD

4TH-
11TH
Cards

LOCATION	OPERATION		P						Q					COMMENTS
	MNEM.	NUM.	0	1	2	3	4	5	6	7	8	9	10	
0000	RN	36	0	0	2	4	2	0	0	5	0	0	0	
012	RN	36	0	0	3	2	2	0	0	5	0	0	0	
024	CM	14	0	0	0	1	8	0	0	9	6	2		
036	BI	46	0	0	4	0	2	0	1	2	0	0		
048	AM	11	0	0	0	1	8	0	0	0	8	0		
060	B	49	0	0	0	1	2	0	0	0	0	0		
TABLES														
402	H	48	0	0	0	0	0	0	0	0	0	0		
414	K	34	0	0	0	0	0	0	0	1	0	2		
426	BTM	17	0	0	8	3	4	0	0	0	0	1		
438	BTM	17	0	0	8	3	4	0	0	0	0	1		
450	H	48	0	0	0	0	0	0	0	0	0	0		
462	BTM	17	0	0	8	3	4	0	0	0	0	4		
474	BTM	17	0	0	8	3	4	0	0	0	0	1		
486	H	48	0	0	0	0	0	0	0	0	0	0		
498	DN	35	1	5	0	0	0	0	0	4	0	0		
510	BTM	17	0	0	8	3	4	0	0	0	0	2		
522	TD	25	0	0	9	7	6	0	0	4	0	0		
534	AM	11	0	0	9	7	5	0	0	0	0	1		
546	BD	43	0	0	5	9	4	0	0	9	7	4		
558	WN	38	0	0	9	7	4	0	0	1	0	0		
570	K	34	0	0	0	0	0	0	0	1	0	2		
582	B	49	0	0	5	3	4	0	0	0	0	0		
594	WN	38	0	0	9	7	4	0	0	1	0	0		
606	K	34	0	0	0	0	0	0	0	1	0	2		
618	K	34	0	0	0	0	0	0	0	1	0	2		
630	BTM	17	0	0	8	3	4	0	0	0	0	3		
642	BD	43	0	0	6	7	8	0	0	9	7	3		
654	AM	11	0	0	9	7	5	0	0	0	0	1		
666	B	49	0	0	6	4	2	0	0	0	0	0		
678	WN	38	0	0	9	7	3	0	0	1	0	0		
690	K	34	0	0	0	0	0	0	0	1	0	2		
702	BD	43	0	0	7	5	0	0	0	9	7	1		
714	SM	12	0	0	6	5	3	0	0	0	0	1		

Application: 1620 Demonstration Date: _____ Page: 2 of 2

Routine: _____ Written by: _____

LOCATION	OPERATION		P						Q					COMMENTS
	MNEM.	NUM.	0	1	2	3	4	5	6	7	8	9	10	
726	SM	12	0	0	6	8	4	0	0	0	0	1		
738	B	49	0	0	6	5	4	0	0	0	0	0		
750	K	34	0	0	0	0	0	0	0	0	1	0	2	
762	BTM	17	0	0	8	3	4	0	0	0	0	3		
774	BTM	17	0	0	8	3	4	0	0	0	0	3		
786	BTM	17	0	0	8	3	4	0	0	0	0	2		
798	BTM	17	0	0	8	3	4	0	0	0	0	5		
810	BTM	17	0	0	8	3	4	0	0	0	0	2		
822	H	48	0	0	0	0	0	0	0	0	0	0		
834	RA	37	0	0	9	9	3	0	0	5	0	0		
846	WA	39	0	0	9	9	3	0	0	1	0	0		
858	K	34	0	0	0	0	0	0	0	0	1	0	2	
870	AM	11	0	0	4	1	3	0	0	0	0	1		
882	C	24	0	0	4	1	3	0	0	8	3	3		
894	BN I	47	0	0	8	3	4	0	1	2	0	0		
906	TFM	16	0	0	4	1	3	0	0	0	0	0		
918	K	34	0	0	0	0	0	0	0	0	1	0	2	
930	K	34	0	0	0	0	0	0	0	0	1	0	2	
942	BB	42	0	0	0	0	0	0	0	0	0	0		
954		00	0	0	0	0	0	0	0	0	0	0		
966		00	0	0	0	0	0	0	0	0	0	0		

Cards containing alphabetic explanation follow.

MAY I EXTEND A WELCOME TO ALL OF YOU FROM THE PURDUE CALUMET CAMPUS.

IF YOU WILL PRESS START I WILL GIVE YOU SOME INFORMATION ABOUT MYSELF.

I AM A SOLID STATE, FULLY TRANSISTORIZED IBM 1620 ELECTRONIC COMPUTER. I AM READING THIS INFORMATION FROM PUNCHED CARDS AT THE RATE OF 250 CARDS PER MINUTE (333 CHARACTERS PER SECOND) AND AM TYPING IT AT 10 CHARACTERS PER SECOND.

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IIIII	BBBB	M M	1	6	222	0000
I	B B	MM MM	11	6	2	0 0
I	BBBB	M M M	1	6666	2222	0 0
I	B B	M M	1	6 6	2	0 0
IIIII	BBBB	M M	11111	6666	2222	0000

THANK YOU FOR COMING TO SEE ME.
MORE INFORMATION ABOUT ME CAN BE OBTAINED FROM IT 10 OR IT 12. ← om 15

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