dec PERMANENT MEMORANDUM

DATE
August 7, 1961

SUBJECT Read In Mode Simulator

TO   PDP Distribution List

ABSTRACT

A utility routine generated primarily for maintenance and checkout purposes. The routine provides a means of entering programs into PDP-1 without activating the "read-in" switch.

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Introduction

The first three lines of a binary*tape are interpreted as "read-in" mode instructions. The next three lines of data are stored as determined by the address portion of the read in mode instruction.

There are two "read-in" mode instructions ("deposit in-out" (dio) or jump (jmp)). When a dio instruction appears, the next three lines on tape will be stored in memory. A jmp instruction (last three lines on tape) terminates the "read-in" mode and a jump is executed to the address of the jump instruction.

Operating instructions:

#1 Load program into memory via test word switches or other input device.

#2 Load "read-in" mode tape into reader and turn reader on.

#3 Start routine at start indicated below.

,Read-in mode routine
,14_8 registers

address				Reg.
0	start	rpb		730002
1		dio temp		320013
2		lac temp		200013
3		dap stop		260007
4		dap stop & 2		260011
5		and stop		020007
6		sad stop		500007
7	stop	jmp		600000
10		rpb		730002
11		dio		320000
12		jmp		600000
13	temp	0		000000

*A binary tape has the following format:

holes		
87654x321		
0 00x 0	------Read-in mode instruction	
0 x)	------Address of following data	
0 x)		

```
        holes
     87654x321
     0  00x 0      )
     0   0x 0      )  ------Data
     0 000x         )
           x
           x
           x
```

Note: hole seven is not used in binary tapes when using the "rpb" instruction.

A better routine for general purpose use is:

Address			Contents
0	start	rpb	730002
1		dio do	320003
2		rpb	730002
3	do	----	(dio) or (jmp)
4		jmp start	600000