

IDENTIFICATION

Product Code: DEC-08-PMP0-D
Product Name: Readin-Mode (RIM) Punch
Date Created: November 22, 1966
Maintainer: Software Services Group

1. ABSTRACT

The RIM Punch program provides a means of punching out information contained in selected blocks of core memory as RIM-coded tape via the ASR 33 Perforated Tape Punch or 75E High Speed Punch. The punch program may occupy either low or high memory depending on the version used.

2. PRELIMINARY REQUIREMENTS

2.1 Equipment

PDP-8[®] with its associated ASR 33 or 75E punch.

2.2 Storage

This program requires 61 (decimal) memory locations.

3. LOADING OR CALLING PROCEDURE

3.1 Loading

This routine is loaded using the Binary Loader. See DEC-08-LBAA for a complete description of the Binary Loader.

3.2 Calling Sequence

None. This routine cannot be called as a subroutine.

4. USING THE PROGRAM OR ROUTINES

4.1 Switch Settings

The SWITCH REGISTER is used to enter the initial and final address of each block of core memory to be punched.

4.2 Start Up/Entry

a. Make sure ASR 33 or 75E punch is on.

b. Set the starting address 0041 (or 7441 if using the high-memory version) into the SWITCH REGISTER and press the LOAD ADDRESS key. Next press the START key.

[®]PDP is a registered trademark of the Digital Equipment Corporation.

c. The computer halts. Set the initial address of the block to be punched into the SWITCH REGISTER and press the CONTINUE key.

d. The computer halts. Set the final address of the block to be punched into SWITCH REGISTER and press the CONTINUE key.

Note that the final address must be larger than the initial address.

e. A block of leader (code 200) is punched followed by the selected block of data in RIM format.

f. The computer halts. Steps c and d may now be repeated to punch as many blocks of data as desired. To terminate the tape, proceed as follows.

g. Set the terminating address 0074 (7474) into the SWITCH REGISTER and press the LOAD ADDRESS key. Next press the START key and a block of trailer is punched.

5. DETAILS OF OPERATION AND STORAGE

Reference to section 7.1, Flow Chart, will illustrate the following discussion.

After entry, a short subroutine is entered to punch a block of leader. Next the initial address is picked up and the six most significant bits are rotated right, masked out, added to 0100 (in order to punch channel 7), and punched. The least-significant six bits of the address are next masked out and punched.

A similar process is followed to punch the data associated with the corresponding address except 0100 is not added before the first character is punched.

This process is repeated until the final address is reached; then the computer halts at the starting address. If more blocks of data are to be punched, this is done as explained in step f above.

The routine is entered at a different address to punch the final trailer.

5.1 Execution Time

This routine is output limited with respect to speed.

6. SPECIAL FORMATS

6.1 External Data

See Digital-8-2-U for a description of RIM paper tape format.

7. FLOW CHARTS AND LISTINGS

7.1 Flow Chart

