Although this program has been tested by the contributor, no warranty, express or implied, is made by the contributor, Digital Equipment Computer Users Society or Digital Equipment Corporation as to the accuracy or functioning of the program or related program material, and no responsibility is assumed by these parties in connection therewith.
Object

To interpret ASCII characters into a readable binary format. It accepts 40 ASCII characters but space has been left for the remainder of the ASCII set. Used in conjunction with the high speed reader, a readable leader can be produced and attached to a tape to be copied.

This program was originally produced with the object of producing a form of Kimballtag. By punching readable references on all library tapes, a stock check program could be used to check all the tapes held in a library, by reading, say the first six inches of tape. Comparing the readout with a list held in store and punching out a list of missing tapes. This stock check was being formulated, but, unfortunately, I lost access to a DEC machine.

Operating instructions.

Starting address 0200.
High speed punch/reader on.
Teletype on-line.
Depress start on PDP 8
Teletype keyboard can now be used. Depressing a key will result in the character concerned being punched by the high speed punch.

When all required characters have been punched, place tape to be copied in the high speed reader. Depress ALTMODE key on the teletype.
Six inches of blank tape will be produced and the tape will be copied.
Stop the computer manually when the trailer is reached otherwise a spurious character will be punched.
Restarting at 0200 for the next job.

Restrictions.

This program is not complete. It does what it is supposed to do but final debugging was not completed. The program was in the course of being modified so that when it read 50 (8) blanks the reader would halt. This was being done in subroutine CON, but this does not appear to work. There is also a fault which is only apparent intermittantly. On depressing ALTMODE the leader is produced but
instead of reading, the computer halts. An error in the listing is immediately apparent. 542 should be 543 and in the character table from location 0760 1 should be added to the contents of each location. ie 0760 0543 0761 0546 0762 0552

At present the above fault makes no difference to the working of the program, because 0537 is a blank.

Program description

The program commences with initialising. The character is read in from the keyboard stored and then checked for CRLF (which are omitted) and ALTMODE. If none of these, the LH six bits are masked out and added to SOC the character address pointer. The contents of the resultant address determine the address of the start of the appropriate vector sequence. This address is stored in MKAD and the contents of it are stored in CHAR1. This is rotated six bits right and masked, to remove the second vector. The first vector is punched. CHAR1 is masked to remove the first vector and the second is punched. The Mark address is incremented and the process is repeated until six vectors have been punched.

Receipt of ALTMODE produces a JMP to LDR, whereon 106 (8) blanks are produced at the end of which any tape in the reader will be read.

Alteration of character shape.

Character design is a matter of personal choice and ingenuity.

Above is the character representation for the letter A

The vector sequence is

| 7 1 6 1 |
| 7 6 0 |

By following the above format any character can be packed six vectors to three words.

The Matrix is 6 x 5. The last vector 00 gives a space between characters.
The principle is adaptable and further reference can be made to Mr. Murray's excellent character generator program for the KV8 graphic display.

As explained before, the author no longer has access to a DEC PDP 8 but any assistance required in connection with this and/or the Stock check program is readily available from the author.