

Published: 12/05/68

Identification

read7: An Interim Command to Read 7-punch Decks into Segments  
J. F. Ossanna

Purpose

This section describes an interim command to read 7-punch card decks from a directly attached card-reader into a segment with any valid pathname.

Usage

After insuring that a CR2201 card reader is connected to GIOC channel 38, is powered on, is in the "operate" state, is loaded with the decks to be read in, and is not attached by another user, the following command may be issued.

read7

or

read7 rename

read7 causes successive 7-punch decks to be read into segments indicated by pathnames punched on header control cards preceding each 7-punch deck. Reading continues until an "end" control card is read instead of a header card. Control cards are distinguished by having 5-7 punches in column 1; column 2 is reserved for a type indicator character. Header control cards for 7-punch decks have a "blank" in column 2, and contain the pathname in columns 3-80. "End" control cards have an "E" in column 2. Except for column 1, control cards must be punched according to the Multics key punch code standard specified in BB.3.02.

Specifically, the deck sequence is:

1. A header control card giving a pathname.
2. A complete 7-punch deck.
3. An arbitrary number of (1 + 2).
4. An "end" control card.

Pathnames are interpreted by calling entryarg. If the "rename" is given, or if the segment indicated by a pathname cannot be found or created or has maximum length zero, a request is written on user\_output asking that a new pathname be provided on user\_input.

While searching for control cards, all other cards are ignored. If errors occur while reading a 7-punch deck, a comment is written on `user_output` and the remainder of the deck is skipped. Possible errors are: (1) card not in 7-punch format; (2) checksum error; and (3) cards not in sequence. If problems occur on the card reader, the card-reader DIM writes appropriate remarks on `user_output`.

### Method of Operation

`read7` first attempts to attach (via the card-reader DIM, `rdr21`) a card reader on channel "rdrb38"; if the attachment fails, a comment is written on `user_output`. Next the outer module `cdread7` (see Section BF.10.01) is spliced in (attached) to accomplish the 7-punch to linear binary conversion. Control cards are read directly from the card-reader DIM, and are converted by calls to `card$c12_9` (see BF.10.03). When a control card is found, column 2 is examined for the indicator character. An "E" results in the detachment of both `cdread7` and `rdr21` and final return. If column 2 is blank, the pathname is taken from columns 3-80. `entryarg` is called to interpret the pathname. If the "rename" argument was given, or if the segment indicated cannot be found or created or has zero maximum length, a request is made for a new pathname. After the data has been copied into a segment, the bit-length is set to correspond to the actual number of `words` read from the 7-punch deck. A comment is written on `user_output` naming each segment written. If an error occurs during the reading of a 7-punch deck, the remainder is skipped and the bit-length is set to correspond to how much was read. If fatal error status is returned by the card-reader DIM, `read7` returns after writing a comment on `user_output`.