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Curtis

MURA-620

IDENTIFICATION

SORT BY COLUMN AND CHARACTER, MU SRTC
1401 PROGRAM
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PURPOSE

To sort out those cards which have the same character in the same column as the first non-blank character of the control card.

RESTRICTIONS

This program requires an IBM 1401 with the column binary device.

Comparison may be made on any combination of punches in a column.

USAGE

The cards to be sorted, preceded by the control card, are placed behind the assembled deck of MU SRTC and loaded into the 1401. The control card will go into stacker 8/2, the cards having the same character in the same column will be stacked into stacker 1, and the remainder into the NR stacker. If "Last Card Switch A is on, the program will halt at location 1186 after the last card is sorted. A new deck with a new control card may now be sorted by placing it in the read hopper and pressing START. If the control card is blank, the cards will just be fed on thru to the NR stacker.

CODING INFORMATION

The program occupies core locations 1000-1189. It uses the following regions for temporary storage:

0001-0080
0401-0480
0501-0580

The cards are sorted at 800 cards per minute.

DISCLAIMER
Although this program has been carefully tested by its contributor, no guarantee is made of its correct functioning under all conditions, and no responsibility is taken by him in case of possible failure.

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CLEAR STORAGE 1     ,008015,022026,030034,041,045,053,049057/I89,073)0491026
CLEAR STORAGE 2     L072116,110106,105117B101/H99,027A074028)027B00102708026/0991,001/00111710
BOOTSTRAP CARD      ,008015,022029,056063/056029                                  ,0240671056

PG LIN  CT  LABEL   OP    A OPERAND        B OPERAND        D       LOC   INSTRUCTION COMMENTS   SRTC

 1   1                   *SORT BY COLUMN AND CHARACTER.
 1   2                   *USES 1ST NON-BLANK CHARACTER OF 1ST CARD.
 1   3                   *CAN COMPARE ANY BINARY CODE PUNCHED IN CARD.
 1 010                ORG   1000
 1 020   2  START    R                                      C       1000  1 C          READ CONTROL CD
 1 030   2           SS                                     2       1002  K 2           TO 8/2
 1 040   7           MCW   ONE              FIND  +  6              1004  M /87 #24
 1 041   7           MCW   ONE              FIND2 +  6              1011  M /87 /32
 1 050   8  FIND     B     FIND2            0400                    1018  B /26 400    TEST COLUMN, IF
 1 060   7  SETUP    SW    FIND  +  5       COMP  +  7              1026  , #23 /04    NOT BLANK, SETU
 1  61   4           SW    COMP2 +  7                               1033  , /16
 1 070   7           MCW   FIND  +  6       MOVE  +  3              1037  M #24 #68    SEARCH. COLUMN
 1 071   7           MCW   FIND  +  6       MOVE2 +  3              1044  M #24 #75
 1 080   7           MCW   FIND  +  6       COMP  +  6              1051  M #24 /03    IN B, CHAR IN D
 1 081   7           MCW   FIND  +  6       COMP2 +  6              1058  M #24 /15
 1 090   7  MOVE     MCW   0400             COMP  +  7              1065  M 400 /04    OF COMP
 1 091   7  MOVE2    MCW   0500             COMP2 +  7              1072  M 500 /16    AND COMP2
 1 100   7           CW    FIND  +  5       COMP  +  7              1079  ) #23 /04
 1 101   4           CW    COMP2 +  7                               1086  ) /16
 1 110   5  READ     B     LAST                                   A       1090  B /82 A
 1 120   2           R                                      C       1095  1 C          READ IF NOT LAS
 1 130   8  COMP     B     COMP2            0400                  0       1097  B /09 400 0 IF CHAR NOTEQUA
 1 140   4           B     READ                                     1105  B #90        CARD TO NR
 1 141   8  COMP2    B     EQU              0500                  0       1109  B /21 500 0
 1 142   4           B     READ                                     1117  B #90
 1 150   5  EQU      SS    READ                                   1       1121  K #90 1      IF EQUAL, TO 1
 1 151   8  FIND2    B     INCR             0500                    1126  B /38 500
 1 152   4           B     SETUP                                    1134  B #26
 1 160   4  INCR     SW    FIND  +  5                               1138  , #23
 1 161   7           A     ONE              FIND  +  6              1142  A /87 #24    COLUMN BLANK,
 1 162   7           MCW   FIND  +  6       FIND2 +  6              1149  M #24 /32
 1 170   7           C     FIND  +  6       L81                     1156  C #24 /89    GO TO NEXT COL.
 1 171   4           CW    FIND  +  5                               1163  ) #23
 1 180   5           B     FIND                                   /       1167  B #18 /
 1 190   5  FEED     B     LAST                                   A       1172  B /82 A      BLANK CONTROL C
 1 200   5           R     FEED                                   C       1177  1 /72 C      FEED DECK THRU
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PG LIN  CT  LABEL   OP    A OPERAND        B OPERAND        D        LOC   INSTRUCTION COMMENTS   SORT

 1 210   4  LAST    H     START                                      1182  . *00
 1 220   2  ONE     DCW   *                                     01   1187
 1 230   2  L81     DCW   *                                     81   1189
 1 240              END   START                                            / *00 080
```