line number source line Microsoft COBOL Version 2.20

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 1         IDENTIFICATION DIVISION.
 2         PROGRAM-ID. MATRIX-MULTIPLICATION.
 3         ENVIRONMENT DIVISION.
 4         CONFIGURATION SECTION.
 5         SOURCE-COMPUTER.
 6         OBJECT-COMPUTER.
 7         DATA DIVISION.
 8         WORKING-STORAGE SECTION.
 9         01  MATRIXA.
10             02 MATA OCCURS 10 TIMES.
11                03 A PIC S9(3) OCCURS 10 TIMES.
12         01  MATRIXB.
13             02 MATB OCCURS 10 TIMES.
14                03 B PIC S9(3) OCCURS 10 TIMES.
15         01  MATRIXC.
16             02 MATC OCCURS 10 TIMES.
17                03 C PIC S9(3) OCCURS 10 TIMES.
18         01  E-VAL   PIC -ZZ9.
19         01  I       PIC 99.
20         01  J       PIC 99.
21         01  K       PIC 99.
22         01  RW      PIC 99.
23         01  RC      PIC 99.
24         01  CL      PIC 99.
25         PROCEDURE DIVISION.
26         MAIN-PARA.
27             DISPLAY (01 01) ERASE.
28             DISPLAY (02 10) "Enter the Order of the Matices".
29             DISPLAY (03 10) " I-Matirx : Rows : ".
30             DISPLAY (03 31) "Columns : ".
31             ACCEPT (03 28) RW.
32             ACCEPT (03 41) RC.
33             DISPLAY (04 10) "II-Matirx : Rows : ".
34             DISPLAY (04 31) "Columns : ".
35             DISPLAY (04 28) RC.
36             ACCEPT (04 41) CL.
37
38             DISPLAY (06 10) "Enter the elements of:".
39             DISPLAY (07 10) "First Matrix ".
40             DISPLAY (07 50) "Second Matrix".
41             MOVE 09 TO LIN.
42             MOVE 10 TO COL.
43             PERFORM READ-A1 VARYING I FROM 1 BY 1 UNTIL I > RW.
44             MOVE 08 TO LIN.
45             MOVE 50 TO COL.
46             PERFORM READ-B1 VARYING I FROM 1 BY 1 UNTIL I > RC.
47             PERFORM COMPUTE-PARA VARYING I FROM 1 BY 1 UNTIL I > RW
48                     AFTER J FROM 1 BY 1 UNTIL J > CL.
49             ADD 2 TO LIN.
50             MOVE 10 TO COL.
51             DISPLAY (LIN, 10) "Multiplication of the Matrices".
52             DISPLAY (LIN + 1, 10) "-----------------------------".
53             ADD 2 TO LIN.
54             PERFORM DISP-C1 VARYING I FROM 1 BY 1 UNTIL I > RW.
55             DISPLAY (LIN, 10) "=============================".
56             STOP RUN.
57         READ-A1.
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 58              PERFORM READ-A VARYING J FROM 1 BY 1 UNTIL J > RC.
 59              ADD 1 TO LIN.
 60              MOVE 10 TO COL.
 61          READ-A.
 62              ACCEPT (LIN, COL) A(I J).
 63              ADD 5 TO COL.
 64          READ-B1.
 65              PERFORM READ-B VARYING J FROM 1 BY 1 UNTIL J > CL.
 66              ADD 1 TO LIN.
 67              MOVE 50 TO COL.
 68          READ-B.
 69              ACCEPT (LIN, COL) B(I J).
 70              ADD 5 TO COL.
 71          COMPUTE-PARA.
 72              MOVE 0 TO C(I J).
 73              PERFORM MULTI-PARA VARYING K FROM 1 BY 1 UNTIL K > RC.
 74          MULTI-PARA.
 75              COMPUTE C(I J) = C(I J) + A(I K) * B(K J).
 76          DISP-C1.
 77              PERFORM DISP-C VARYING J FROM 1 BY 1 UNTIL J > CL.
 78              ADD 1 TO LIN.
 79              MOVE 10 TO COL.
 80          DISP-C.
 81              MOVE C(I J) TO E-VAL.
 82              DISPLAY (LIN, COL) E-VAL.
 83              ADD 5 TO COL.

  No errors or warnings

  Data area size =  1560
  Code area size =  1208
```