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DATE: 2025-11-15 21:24:06      USER: COBOL      JOB: MATMUL      PAGE: 0000
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4 MATMUL COBOL FILE NAME/TYPE= /COBOL/MATH/MATMUL.COB
5 MATMUL COBOL
6 MATMUL COBOL CREATION DATE/TIME= 2025-11-15 21:24:06
7 MATMUL COBOL
8 MATMUL COBOL FILE= 001 PAGES= 0002 LINES= 000104
9 MATMUL COBOL
10 MATMUL COBOL SYSTEM= LINUX(6.16.8+KALI-AMD64)
11 MATMUL COBOL
12 MATMUL COBOL SYSID= ACID SYSUSER= ACID
13 MATMUL COBOL
14 MATMUL COBOL FORM= SMALL
15 MATMUL COBOL
16 MATMUL COBOL CHAR= FONTMONO
17 MATMUL COBOL
18 MATMUL COBOL PRT1403 VERSION= 1.5.PRE-RELEASE
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22 CCCCCCCC 0000000 BBBBBBBB 0000000 LL
23 CCCCCCCCCC 000000000 BBBBBBBB 000000000 LL
24 CC CC 00 00 BB BB 00 00 LL
25 CC 00 00 BB BB 00 00 LL
26 CC 00 00 BBBBBBBB 00 00 LL
27 CC 00 00 BBBBBBBB 00 00 LL
28 CC 00 00 BB BB 00 00 LL
29 CC CC 00 00 BB BB 00 00 LL
30 CCCCCCCC 000000000 BBBBBBBB 000000000 LLLLLLLL
31 CCCCCCCC 0000000 BBBBBBBB 0000000 LLLLLLLL
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34 M M AAA TTTTTTTT M M UU UU LL
35 MM MM AAAAAA TTTTTTTT MM MM UU UU LL
36 MMM MMM AA AA TT MMM MMM UU UU LL
37 MMMM MMMM AA AA TT MMMM MMMM UU UU LL
38 MM MMM MM AA AA TT MM MMM MM UU UU LL
39 MM M MM AAAAAAAA TT MM M MM UU UU LL
40 MM MM AAAAAAAA TT MM MM UU UU LL
41 MM MM AA AA TT MM MM UU UU LL
42 MM MM AA AA TT MM MM UUUUUUUU LLLLLLLL
43 MM MM AA AA TT MM MM UUUUUU LLLLLLLL
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46 00000 00000 1
47 0000000 0000000 11
48 00 00 00 00 111
49 00 00 00 00 11
50 00 00 00 00 11
51 00 00 00 00 11
52 00 00 00 00 11
53 00 00 00 00 11
54 0000000 0000000 111111
55 00000 00000 111111
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58 *****  
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1 000001 IDENTIFICATION DIVISION.
2 000002 PROGRAM-ID. MatrixCalculation.

3
4 000004 ENVIRONMENT DIVISION.
5 000005 DATA DIVISION.

6
7 000007 WORKING-STORAGE SECTION.

8
9 000009 01 M-SIZE PIC 9(4) COMP VALUE 400.

10
11 000011 01 RESULT1 PIC S9(14) COMP VALUE 0.
12 000012 01 RESULT2 PIC S9(14) COMP VALUE 0.

13
14 000014 01 TIME1 COMP-2 VALUE 0.

15 000015 01 TIME2 COMP-2 VALUE 0.

16
17 000017 01 M1.

18 000018 05 M1-ROW OCCURS 400 TIMES.

19 000019 10 M1-ELEMENTS OCCURS 400 TIMES PIC S9(10) COMP.

20
21 000020 01 M2.

22 000021 05 M2-ROW OCCURS 400 TIMES.

23 000022 10 M2-ELEMENTS OCCURS 400 TIMES PIC S9(10) COMP.

24
25 000023 01 M3.

26 000024 05 M3-ROW OCCURS 400 TIMES.

27 000025 10 M3-ELEMENTS OCCURS 400 TIMES PIC S9(10) COMP.

28
29 000026 01 I PIC S9(10) COMP.

30 000027 01 J PIC S9(10) COMP.

31 000028 01 K PIC S9(10) COMP.

32
33 000029 01 START-TIME PIC S9(10) COMP.

34 000030 01 END-TIME PIC S9(10) COMP.

35
36 000031 01 TEMP PIC S9(10) COMP.

37 000032 01 RESULT1_TXT PIC 9(14).

38 000033 01 RESULT2_TXT PIC 9(14).

39 000034 01 TIME1_TXT PIC 9(3).9(6).

40 000035 01 TIME2_TXT PIC 9(3).9(6).

41
42 000036 01 PROCEDURE DIVISION.

43 000037 * -----

44 000038 ACCEPT START-TIME FROM TIME.

45 000039 MOVE 0 TO RESULT1.

46 000040 PERFORM VARYING I FROM 1 BY 1 UNTIL 100 < I

47 000041 PERFORM VARYING J FROM 1 BY 1 UNTIL 1000000 < J

48 000042 ADD J TO RESULT1

49 000043 END-PERFORM

50 000044 END-PERFORM.

51 000045 ACCEPT END-TIME FROM TIME.

52 000046 COMPUTE TIME1 = (END-TIME - START-TIME) / 100.

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1 000061
2      PERFORM VARYING I FROM 1 BY 1 UNTIL M-SIZE < I
3      PERFORM VARYING J FROM 1 BY 1 UNTIL M-SIZE < J
4          ADD I TO J GIVING M1-ELEMENTS(I, J)
5          ADD I TO J GIVING M2-ELEMENTS(I, J)
6      END-PERFORM
7 000067      END-PERFORM.
8 000068
9 000069      PERFORM VARYING I FROM 1 BY 1 UNTIL M-SIZE < I
10     PERFORM VARYING J FROM 1 BY 1 UNTIL M-SIZE < J
11         MOVE 0 TO M3-ELEMENTS(I, J)
12         PERFORM VARYING K FROM 1 BY 1 UNTIL M-SIZE < K
13             MULTIPLY M1-ELEMENTS(I, K) BY M2-ELEMENTS(K, J)
14                 GIVING TEMP
15                 ADD TEMP TO M3-ELEMENTS(I, J)
16             END-PERFORM
17 000077             END-PERFORM
18 000078             END-PERFORM.
19 000079
20 000080         MOVE 0 TO RESULT2.
21 000081
22 000082         PERFORM VARYING I FROM 1 BY 1 UNTIL M-SIZE < I
23             PERFORM VARYING J FROM 1 BY 1 UNTIL M-SIZE < J
24                 ADD M3-ELEMENTS(I, J) TO RESULT2
25             END-PERFORM
26 000086             END-PERFORM.
27 000087
28 000088         ACCEPT END-TIME FROM TIME.
29         COMPUTE TIME2 = (END-TIME - START-TIME) / 100.
30 000090
31 000091 * -----
32 000092
33 000093         MOVE RESULT1 TO RESULT1_TXT
34         MOVE RESULT2 TO RESULT2_TXT
35         MOVE TIME1 TO TIME1_TXT
36         MOVE TIME2 TO TIME2_TXT
37
38 000098         DISPLAY 'COBOL : Result= ' RESULT1_TXT
39             ', Time= ' TIME1_TXT ' sec'
40             ', Result= ' RESULT2_TXT
41             ', Time= ' TIME2_TXT ' sec'.
42 000102
43 000103     STOP RUN.
44 000104
```