X P L COMPILATION -- THE VIRTUAL AGC PROJECT -- XCOM III VERSION OF APRIL 27, 2024. CLOCK TIME = 12:4:21.17.

TODAY IS APRIL 27, 2024. CLOCK TIME = 17:8:37.31.

```
1286
     /* INTERLIST $EMITTED CODE */
                                                                                                    1286
 3
                                                                                                    1286
 4
     DECLARE I FIXED, J BIT(16), K BIT(8),
                                                                                                    1286
      ALPHA CHARACTER INITIAL ('MESSAGE'),
                                                                                                    1286
 5
                                                                              24: DESC = 6, 160
                                                                              160: CHARACTER = D4
                                                                              161: CHARACTER = C5
                                                                              162: CHARACTER = E2
                                                                              163: CHARACTER = E2
                                                                              164: CHARACTER = C1
                                                                              165: CHARACTER = C7
                                                                              166: CHARACTER = C5
 6
       BETA (3) BIT(64) ;
                                                                                                    1286
 8 | CALL TRACE ; /* BEGIN TRACING */
                                                                                                   1286
                                                                              1286: CODE = STM 1,124(3,11)
1290: CODE = LA 1,12(0,0)
                                                                              1294: CODE = BALR 12,15
                                                                              1296: CODE = LM 1,124(3,11)
 9 | I,J,K = 2;
                                                                                                1300
                                                                              1300: CODE = LA 1,2(0,0)
                                                                              1304: CODE = STC 1,1346(0,11)
1308: CODE = STH 1,1344(0,11)
1312: CODE = ST 1,1340(0,11)
                                                                                               1316
10 | BETA(I) = ALPHA;
                                                                              1316: CODE = L 1,1340(0,11)
1320: CODE = L 2,24(0,13)
                                                                              1324: CODE = SLL 1,2(0,0)
                                                                              1328: CODE = ST 2,28(1,13)
                                                                              1332: CODE = LH 1,1344(0,11)
11 | DO WHILE J = I;
                                                                              1336: CODE = C 1,1340(0,11)
1340: CODE = LA 1,0(0,0)
1344: CODE = BC 6,1352(0,14)
                                                                              1348: CODE = LA 1,1(0,0)
                                                                                               BACK UP CODE EMITTER
                                                                              1340: CODE = BC 6,1340(0,14)
                                                                                               1344
12 J = SHL(K, 1) \& SHR(I, J);
                                                                              1344: CODE = SR 1,1
1346: CODE = IC 1,13
                                                                                                  1,1346(0,11)
                                                                              1350: CODE = AR 1,1
                                                                                                 2,1340(0,11)
                                                                              1352: CODE = L
                                                                              1356: CODE = LH 3,1344(0,11)
1360: CODE = SRL 2,0(0,3)
                                                                              1364: CODE = NR 1,2
                                                                              1366: CODE = STH 1,1344(0,11)
13 | OUTPUT, ALPHA = SUBSTR(ALPHA, J, I+1);
                                                                                                   1370
                                                                              1370: CODE = L
                                                                                                   1,24(0,13)
                                                                              1374: CODE = LH 2,1344(0,11)
```

```
14 | END;

15 | IF J < BYTE('A') THEN

16 | I = 0;

17 | ELSE
18 | I = BYTE(BETA(J),K);

19 | CALL UNTRACE; /* END TRACE */

20 | /* $END INTERLISTING */
21 | 22 | EOF
```

```
1378: CODE = LA 3,1(0,0)

1382: CODE = A 3,1340(0,11)

1386: CODE = LA 1,0(2,1)

1390: CODE = LA 3,255(0,3)

1394: CODE = SLL 3,24(0,0)
1398: CODE = OR 1,3
1400: CODE = ST 1,24(0,13)
1404: CODE = STM 1,124(3,11)
1408: CODE = LR 0,1
1410: CODE = SR
                     2,2
1,8(0,0)
1412: CODE = LA
1416: CODE = BALR 12,15
1418: CODE = LM 1,124(3,11)
1422: CODE = BC 15,1332(0,14)
   1340: FIXUP =1426
                   1426
1426: CODE = LH 1,1344(0,11)
1348: DATA = 193
1430: CODE = C 1,1348(0,11)
1434: CODE = LA 1,0(0,0)
1438: CODE = BC 10,1446(0,14)
1442: CODE = LA 1,1(0,0)
| 1446 C7 = 193.
                  BACK UP CODE EMITTER
1434: CODE = BC 10,1434(0,14)
1434. CODE = SR 1,1
1440: CODE = ST
                       1,1340(0,11)
                     1444
                     1444
1444: CODE = BC 15,1444(0,14)
1448: CODE = LH 1,1344(0,11)
1452: CODE = SLL 1,2(0,0)
1456: CODE = L 1,28(1,13)
1460: CODE = SR 2,2
1462: CODE = IC 2,1346(0,11)
1466: CODE = IC 2,0(2,1)
                 ST 2,1340(0,11)
| 1474
1470: CODE = ST
      1444: FIXUP =1474
      1434: FIXUP =1448
1474: CODE = STM 1,124(3,11)
1478: CODE = LA 1,16(0,0)
1482: CODE = BALR 12,15
1484: CODE = LM 1,124(3,11)
| 1488
                        1488
                      1488
```

\* FILE CONTROL BLOCK 3600 3600 1 1 3600 1496 1568

\* LOAD FILE WRITTEN.

END OF COMPILATION APRIL 27, 2024. CLOCK TIME = 17:8:37.32.

22 CARDS CONTAINING 9 STATEMENTS WERE COMPILED.

NO ERRORS WERE DETECTED.

1496 BYTES OF PROGRAM, 1357 OF DATA, 44 OF DESCRIPTORS, 167 OF STRINGS. TOTAL CORE REQUIREMENT 3064 BYTES.

SYMBOL TABLE DUMP

ALPHA : CHARACTER AT 24(13), DECLARED ON LINE 5 AND REFERENCED 3 TIMES.

BETA : CHARACTER AT 28(13), DECLARED ON LINE 6 AND REFERENCED 2 TIMES.

I : FIXED AT 1340(11), DECLARED ON LINE 4 AND REFERENCED 7 TIMES.

J : BIT(16) AT 1344(11), DECLARED ON LINE 4 AND REFERENCED 7 TIMES.

K : BIT(8) AT 1346(11), DECLARED ON LINE 4 AND REFERENCED 3 TIMES.

```
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```

## MACRO DEFINITIONS:

DX\_SIZE LITERALLY: 500

```
IDCOMPARES = 1849
SYMBOL TABLE SIZE = 42
MACRO DEFINITIONS = 1
STACKING DECISIONS= 2134
              = 556
SCAN
               = 76
= 357
EMITRR
EMITRX
FORCEACCUMULATOR = 127
ARITHEMIT = 37
GENSTORE
                  = 39
FIXBFW = 34

FIXDATAWORD = 12

FIXCHW = 34
FIXCHW
                  = 0
GETDATA
GETCODE = 0
FINDADDRESS = 65
SHORTCFIX = 34
LONGCFIX = 0
SHORTDFIX = 12
LONGDFIX
                  = 0
FREE STRING AREA = 16744964
```

## REGISTER VALUES (RELATIVE TO R11):

R4 = 0 R5 = 0 R6 = 0 R7 = 0 R8 = 0 R9 = 0 R10 = 0 R11 = 0 R12 = 0

## INSTRUCTION FREQUENCIES:

BALR BCTR 3 BCR 7 1 LPR LTR 4 NR 1 OR 3 6 LR CR 22 AR SR 18 DR 1 STH 5

R13 = 1352

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| LA  | 23 |
|-----|----|
| STC | 6  |
| IC  | 8  |
| EX  | 2  |
| BAL | 2  |
| BC  | 45 |
| LH  | 11 |
| ST  | 52 |
| N   | 7  |
| L   | 85 |
| C   | 20 |
| A   | 12 |
| S   | 12 |
| AL  | 2  |
| SRL | 2  |
| SLL | 10 |
| STM | 7  |
| TM  | 1  |
| OI  | 1  |
| LM  | 8  |

TOTAL TIME IN COMPILER 0:0:0.01.
SET UP TIME 0:0:0.00.
ACTUAL COMPILATION TIME 0:0:0.00.
POST-COMPILATION TIME 0:0:0.00.