```
PP 5655-EC6 IBM Enterprise COBOL for z/OS  6.2.0 P180305                Date 09/17/2018  Time 11:19:42   Page     1

Invocation parameters:
 OPTFILE

PROCESS(CBL) statements:
 cbl apost
 cbl optimize(1)
 cbl list
 cbl test(ejpd)
 cbl ssrange(msg)

PP 5655-EC6 IBM Enterprise COBOL for z/OS  6.2.0 P180305       TESTINDX  Date 09/17/2018  Time 11:19:42   Page     4
  LineID  PL SL  ----+-*A-1-B--+----2----+----3----+----4----+----5----+----6----+----7-!--+----8 Map and Cross Reference

/* TESTINDX
  000001                Identification division.
  000002                Program-id. TestIndx.
  000003                Environment division.
  000004                Data division.
  000005                Working-storage section.
  000006                01 ALL-INDICES USAGE BINARY SYNCHRONIZED.                                  000000000 0CL8
  000007                    05 INDICE1 PIC S9(4).                                                 000000000 1H
  000008                    05 INDICE2 PIC S9(4).                                                 000000002 1H
  000009                    05 INDICE3 PIC S9(4).                                                 000000004 1H
  000010                    05 INDICE4 PIC S9(4).                                                 000000006 1H
  000011                01  ATABLE.                                                               000000000 0CL1400
  000012                    05  ROWINTABLE OCCURS 100                                            000000000 0CL14
  000013                        indexed by x-INDICE1, x-INDICE3.  *> auto-indexing

  000014                      10 DATA1 PIC X(10).                                                 000000000 10C
  000015                      10 DATA2 PIC S9(4).                                                  00000000A 4C
  000016                Procedure division.
  000017                Main.
  000018                    Continue
  000019                    .
  000020                A.
  000021                    MOVE 1 TO INDICE1                                          7
  000022                    set x-INDICE1 to INDICE1  *> auto-indexing                 13 7
  000023                    MOVE 100 TO INDICE2                                        8
  000024                    .
  000025                B.
  000026                    IF INDICE1 > INDICE2                                       7 8
  000027      1               GO TO C                                                  35
  000028                    END-IF
  000029                    MOVE 'test' TO DATA1 (x-INDICE1)  *> auto-indexing         14 13
  000030                    MOVE INDICE1 TO DATA2 (x-INDICE1)  *> auto-indexing        7 15 13
  000031                    ADD 1 TO INDICE1                                           7
  000032                    set x-INDICE1 to INDICE1  *> auto-indexing                 13 7
  000033                    GO TO B                                                    25
  000034                    .
  000035                C.
  000036                    CONTINUE.
  000037               *
  000038                Loop-from-zero.
  000039                    PERFORM VARYING INDICE3 FROM 0 BY 1                        9
  000040                            UNTIL INDICE3 >= INDICE2                           9 8
  000041      1                 set x-INDICE3 to INDICE3  *> auto-indexing             13 9
  000042      1                 MOVE 'other' TO DATA1 (x-INDICE3 + 1)  *> auto-indexing 14 13
  000043      1                 MOVE INDICE3 TO DATA2 (x-INDICE3 + 1)  *> auto-indexing 9 15 13
```

```
  000044                    END-PERFORM
  000045                    .
  000046                Bye.
  000047                    Goback
  000048                    .
  000049                End program TestIndx.                                     2
*/ TESTINDX
```

```
000002:         Program-id. TestIndx.
…
     000174                     000002  USER-ENTRY: EQU     *
    000174                     000002            SNAPSHOT ENTRY
    000174                     000017  MAIN:     EQU     *
    000174                     000017            SNAPSHOT PATHLABEL
000018:             Continue
    000174  1800               000018            SNAPSHOT STMT
    000176                     000020  A:        EQU     *
    000176                     000020            SNAPSHOT PATHLABEL
000021:             MOVE 1 TO INDICE1
    000176                     000021            SNAPSHOT STMT
    000176  E544 9018 0001     000021            MVHHI   24(,R9),X'0001'       £
000022:             set x-INDICE1 to INDICE1  *> auto-indexing
    00017C                     000022            SNAPSHOT STMT
    00017C  4840 9018          000022            LH      R4,24(,R9)            £  INDICE1
    000180  EB24 0004 00DF     000022            SLLK    R2,R4,4
    000186  8940 0001          000022            SLL     R4,1
    00018A  1B24               000022            SR      R2,R4
    00018C  A72A FFF2          000022            AHI     R2,0xfff2
    000190  5020 8000          000022            ST      R2,0(,R8)             £
000023:             MOVE 100 TO INDICE2
    000194                     000023            SNAPSHOT STMT
    000194  E544 901A 0064     000023            MVHHI   26(,R9),X'0064'       £
    00019A                     000025  B:        EQU     *
    00019A                     000025            SNAPSHOT PATHLABEL
000026:             IF INDICE1 > INDICE2
    00019A                     000026            SNAPSHOT STMT
    00019A  4840 9018          000026            LH      R4,24(,R9)            £  INDICE1
    00019E  4820 901A          000026            LH      R2,26(,R9)            £  INDICE2
    0001A2  EC24 003A 4076     000026            CRJ     R2,R4,L0006,(mask=0x4),
000029:             MOVE 'test' TO DATA1 (x-INDICE1)  *> auto-indexing
    0001A8                     000029            SNAPSHOT STMT
    0001A8                     000029            SNAPSHOT POSTCOMPOUND
    0001A8  BF2F 8000          000029            ICM     R2,X'f',0(R8)         £
    0001AC  A744 00DE          000029            JL      L0048
    0001B0  A72E 0578          000029            CHI     R2,0x578
    0001B4  A7A4 00DA          000029            JNL     L0048
    0001B8                     000029  L0049:    EQU     *
    0001B8  4122 9000          000029            LA      R2,0(R2,R9)           £
    0001BC  D209 2020 30A2     000029            MVC     32(10,R2),162(R3)     £                          +162
000030:             MOVE INDICE1 TO DATA2 (x-INDICE1)  *> auto-indexing
    0001C2                     000030            SNAPSHOT STMT
    0001C2  BF2F 8000          000030            ICM     R2,X'f',0(R8)         £
    0001C6  A744 00C5          000030            JL      L0052
    0001CA  A72E 0578          000030            CHI     R2,0x578
    0001CE  A7A4 00C1          000030            JNL     L0052
    0001D2                     000030  L0053:    EQU     *
    0001D2  4840 9018          000030            LH      R4,24(,R9)            £  INDICE1
    0001D6  4E40 D148          000030            CVD     R4,328(,R13)          £
    0001DA  940F D14D          000030            NI      333(,R13),X'0F'       £
    0001DE  F822 D14D D14D     000030            ZAP     333(3,R13),333(3,R13) £
    0001E4  4122 902A          000030            LA      R2,42(R2,R9)          £
    0001E8  F332 2000 D14D     000030            UNPK    0(4,R2),333(3,R13)    £
000031:             ADD 1 TO INDICE1
    0001EE                     000031            SNAPSHOT STMT
    0001EE  4820 9018          000031            LH      R2,24(,R9)            £  INDICE1
    0001F2  A72A 0001          000031            AHI     R2,0x1
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   0001F6  4020 9018          000031            STH     R2,24(,R9)            £  INDICE1
000032:            set x-INDICE1 to INDICE1  *> auto-indexing
   0001FA                      000032            SNAPSHOT STMT
   0001FA  4840 9018          000032            LH      R4,24(,R9)            £  INDICE1
   0001FE  EB24 0004 00DF     000032            SLLK    R2,R4,4
   000204  8940 0001          000032            SLL     R4,1
   000208  1B24               000032            SR      R2,R4
   00020A  A72A FFF2          000032            AHI     R2,0xfff2
   00020E  5020 8000          000032            ST      R2,0(,R8)             £
000033:            GO TO B
   000212                      000033            SNAPSHOT STMT
   000212  A7F4 FFC4          000033            J       B
   000216                      000026  L0006:    EQU     *
000027:              GO TO C
   000216  1800                000027            SNAPSHOT STMT
   000218                      000027            SNAPSHOT TRUEIF
   000218                      000035  C:        EQU     *
   000218                      000035            SNAPSHOT PATHLABEL
000036:            CONTINUE.
   000218  1800                000036            SNAPSHOT STMT
   00021A                      000038  LOOP-FROM-ZERO: EQU     *
   00021A                      000038            SNAPSHOT PATHLABEL
000039:            PERFORM VARYING INDICE3 FROM 0 BY 1
   00021A                      000039            SNAPSHOT STMT
   00021A  E544 901C 0000      000039            MVHHI   28(,R9),X'0000'       £
000044:            END-PERFORM
   000220  4840 901C          000044            LH      R4,28(,R9)            £  INDICE3
   000224  4820 901A          000044            LH      R2,26(,R9)            £  INDICE2
   000228  EC24 0045 C076     000044            CRJ     R2,R4,L0007,(mask=0xc),
   00022E                      000039  L0008:    EQU     *
000041:                set x-INDICE3 to INDICE3  *> auto-indexing
   00022E                      000041            SNAPSHOT STMT
   00022E                      000041            SNAPSHOT DO
   00022E  4840 901C          000041            LH      R4,28(,R9)            £  INDICE3
   000232  EB24 0004 00DF     000041            SLLK    R2,R4,4
   000238  8940 0001          000041            SLL     R4,1
   00023C  1B24               000041            SR      R2,R4
   00023E  A72A FFF2          000041            AHI     R2,0xfff2
   000242  5020 8004          000041            ST      R2,4(,R8)             £
000042:                MOVE 'other' TO DATA1 (x-INDICE3 + 1)  *> auto-indexing
   000246                      000042            SNAPSHOT STMT
   000246  5820 8004          000042            L       R2,4(,R8)             £
   00024A  A72A 000E          000042            AHI     R2,0xe
   00024E  1222               000042            LTR     R2,R2
   000250  A744 0074          000042            JL      L0064
   000254  A72E 0578          000042            CHI     R2,0x578
   000258  A7A4 0070          000042            JNL     L0064
   00025C                      000042  L0065:    EQU     *
   00025C  4122 9000          000042            LA      R2,0(R2,R9)           £
   000260  D209 2020 30AC     000042            MVC     32(10,R2),172(R3)     £                          +172
000043:                MOVE INDICE3 TO DATA2 (x-INDICE3 + 1)  *> auto-indexing
   000266                      000043            SNAPSHOT STMT
   000266  5820 8004          000043            L       R2,4(,R8)             £
   00026A  A72A 000E          000043            AHI     R2,0xe
   00026E  1222               000043            LTR     R2,R2
   000270  A744 0058          000043            JL      L0068
   000274  A72E 0578          000043            CHI     R2,0x578
   000278  A7A4 0054          000043            JNL     L0068
   00027C                      000043  L0069:    EQU     *
   00027C  4840 901C          000043            LH      R4,28(,R9)            £  INDICE3
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    000280  4E40 D148          000043            CVD     R4,328(,R13)          £
    000284  940F D14D          000043            NI      333(,R13),X'0F'       £
    000288  F822 D14D D14D     000043            ZAP     333(3,R13),333(3,R13) £
    00028E  4122 902A          000043            LA      R2,42(R2,R9)          £
    000292  F332 2000 D14D     000043            UNPK    0(4,R2),333(3,R13)    £
    000298                     000044            SNAPSHOT STMT
    000298  4840 901C          000044            LH      R4,28(,R9)            £  INDICE3
    00029C  A74A 0001          000044            AHI     R4,0x1
    0002A0  4040 901C          000044            STH     R4,28(,R9)            £  INDICE3
    0002A4  B927 0044          000044            LHR     R4,R4
    0002A8  4820 901A          000044            LH      R2,26(,R9)            £  INDICE2
    0002AC  EC24 FFC1 2076     000044            CRJ     R2,R4,L0008,(mask=0x2),
    0002B2                     000044  L0007:    EQU     *
    0002B2                     000046  BYE:      EQU     *
    0002B2                     000046            SNAPSHOT PATHLABEL
 000047:            Goback
…
```