



| | | | | | | | |
|------------|----------|--------------|------------|----------|----------|----------|----------|
| HH | HH | EEEEEEEEEEEE | RRRRRRRRRR | CCCCCCCC | 00000000 | 11 | CCCCCCCC |
| HH | HH | EEEEEEEEEEEE | RRRRRRRRRR | CCCCCCCC | 00000000 | 111 | CCCCCCCC |
| HH | HH | EE | RR | RR | CC | 00 | 0000 |
| HH | HH | EE | RR | RR | CC | 00 | 00 00 |
| HH | HH | EE | RR | RR | CC | 00 | 00 00 |
| HHHHHHHHHH | EEEEEEEE | RRRRRRRRRR | CC | 00 | 00 00 | 11 | CC |
| HHHHHHHHHH | EEEEEEEE | RRRRRRRRRR | CC | 00 | 00 00 | 11 | CC |
| HH | HH | EE | RR | RR | CC | 00 | 00 00 |
| HH | HH | EE | RR | RR | CC | 0000 | 00 11 |
| HH | HH | EE | RR | RR | CC | 000 | 00 11 |
| H | HH | EEEEEEEEEEEE | RR | RR | CCCCCCCC | 00000000 | 11111111 |
| H | HH | EEEEEEEEEEEE | RR | RR | CCCCCCCC | 00000000 | 11111111 |

| | | | |
|----------|----------|------------|--------------|
| JJJJJJJJ | 11 | 33333333 | AAAAAAAA |
| JJJJJJJJ | 111 | 3333333333 | AAAAAAAAAAAA |
| JJ | 1111 | 33 | 33 |
| JJ | 11 | | 33 |
| JJ | 11 | | 33 |
| JJ | 11 | 3333 | 3333 |
| JJ | 11 | 3333 | 3333 |
| JJ | 11 | | 33 |
| JJ | 11 | | 33 |
| JJ | 11 | 33 | 33 |
| JJ | 11 | 33 | 33 |
| JJJJJJJ | 11111111 | 3333333333 | 3333333333 |
| JJJJJ | 11111111 | 33333333 | 33333333 |

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****A START OB 13 HERC01C ROOM 5.41.11 PM 05 SEP 21 PRINTER1 SYS TK4- JOB 13 START A****
****A START OB 13 HERC01C ROOM 5.41.11 PM 05 SEP 21 PRINTER1 SYS TK4- JOB 13 START A****
****A START OB 13 HERC01C ROOM 5.41.11 PM 05 SEP 21 PRINTER1 SYS TK4- JOB 13 START A****
****A START OB 13 HERC01C ROOM 5.41.11 PM 05 SEP 21 PRINTER1 SYS TK4- JOB 13 START A****

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J E S 2 J O B L O G

17.41.11 JOB 13 IEF677I WARNING MESSAGE(S) FOR JOB HERC01C ISSUED
17.41.11 JOB 13 \$HASP373 HERC01C STARTED - INIT 1 - CLASS A - SYS TK4-
17.41.11 JOB 13 IEF403I HERC01C - STARTED - TIME=17.41.11
17.41.11 JOB 13 IEFACTRT - Stepname Procstep Program Retcode
17.41.11 JOB 13 HERC01C STEP1 COB IKFCBL00 RC= 0004
17.41.11 JOB 13 HERC01C STEP1 LKED IEWL RC= 0000
17.41.11 JOB 13 HERC01C STEP1 GO PGM=*.DD RC= 0000
17.41.11 JOB 13 IEF404I HERC01C - ENDED - TIME=17.41.11
17.41.11 JOB 13 \$HASP395 HERC01C ENDED

----- JES2 JO STATISTICS -----

05 SEP 21 JOBEEXECUTION DATE

159 CARS READ

399 SYSUT PRINT RECORDS

0 SYSUT PUNCH RECORDS

0.00 MINTES EXECUTION TIME

| | | | |
|----|---|--|--------|
| 1 | //ERC01C JOB 1,CLASS=A,MSGCLASS=A, // USER=HERC01,PASSWORD= ***** *** *** NSTALL VERIFICATION PROGRAM 1 *** ***** *** ESTRUN JOB | GENERATED BY GDL 00000200 00000300 00000400 00000500 00000600 00000700 | JOB 13 |
| 2 | //STP1 EXEC COB2UCLG | 00000800 | |
| 3 | XXCO2UCLG PROC SYSOUT=A *** PROC FOR COBOL 2.4 | 00000100 00000200 | |
| 4 | XXCO EXEC PGM=IKFCBL00 | 00000300 | |
| 5 | //CO.STEPLIB DD DISP=SHR,DSN=SYS1.VSCOLIB X/STPLIB DD DSN=SYS1.VSCOLIB,DISP=SHR | 00000900 00000400 | |
| 6 | XXSYPRINT DD SYSOUT=&SYSOUT | 00000500 | |
| 7 | XXSYUT1 DD UNIT=SYSDA,SPACE=(CYL,(1,1)) | 00000600 | |
| 8 | XXSYUT2 DD UNIT=SYSDA,SPACE=(CYL,(1,1)) | 00000700 | |
| 9 | XXSYUT3 DD UNIT=SYSDA,SPACE=(CYL,(1,1)) | 00000800 | |
| 10 | XXSYUT4 DD UNIT=SYSDA,SPACE=(CYL,(1,1)) | 00000900 | |
| 11 | XXSYLIN DD DSN=&&LOADSET,UNIT=SYSDA,DISP=(MOD,PASS), XX SPACE=(TRK,(3,3)),DCB=BLKSIZE=800 | 00001000 00001100 | |
| 12 | //CO.SYSIN DD * | 00001000 | |
| 13 | XXLKD EXEC PGM=IEWL,PARM='LIST,MAP',COND=(5,LT,COB) | 00001200 | |
| 14 | XXSYLIN DD DSN=&&LOADSET,DISP=(OLD,DELETE) | 00001300 | |
| 15 | XX DD DDNAME=SYSIN | 00001400 | |
| 16 | XXSYLMOD DD DSN=&&GOSET(GO),DISP=(,PASS),UNIT=SYSDA, XX SPACE=(CYL,(1,1,1)) | 00001500 00001600 | |
| 17 | //LKD.SYSLIB DD DISP=SHR,DSN=SYS1.VSCLLIB X/SYLIB DD DSN=SYS1.VSCLLIB,DISP=SHR | 00015100 00001700 | |
| 18 | XXSYUT1 DD UNIT=SYSDA,SPACE=(CYL,(1,1)) | 00001800 | |
| 19 | XXSYPRINT DD SYSOUT=&SYSOUT | 00001900 | |
| 20 | XXGO EXEC PGM=*.LKED.SYSLMOD,COND=((5,LT,COB),(5,LT,LKED)) | 00002000 | |
| 21 | //GOSTEPLIB DD DISP=SHR,DSN=SYS1.VSCLLIB X/STPLIB DD DSN=SYS1.VSCLLIB,DISP=SHR | 00015200 00002100 | |
| 22 | //GOSAMPLE DD DSN=&&TEMP,DISP=(NEW,DELETE),UNIT=SYSDA, // SPACE=(TRK,(1,1)),DCB=(RECFM=FB,LRECL=20,BLKSIZE=100) | 00015300 00015400 | |
| 23 | //GOSYSOUT DD SYSOUT=* | 00015500 | |
| 24 | //GOSYSIN DD * | 00015600 | |

STMT NO. MESSAGE

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6      IEF63I SUBSTITUTION JCL - SYSOUT=A
19     IEF63I SUBSTITUTION JCL - SYSOUT=A
20     IEF66I DDNAME REFERRED TO ON DDNAME KEYWORD IN PRIOR STEP WAS NOT RESOLVED
IEF236I ALLOC.FOR HERC01C COB STEP1
IEF237I 147 ALOCATED TO STEPLIB
IEF237I JES2 ALOCATED TO SYSPRINT
IEF237I 180 ALOCATED TO SYSUT1
IEF237I 190 ALOCATED TO SYSUT2
IEF237I 170 ALOCATED TO SYSUT3
IEF237I 140 ALOCATED TO SYSUT4
IEF237I 170 ALOCATED TO SYSLIN
IEF237I JES2 ALOCATED TO SYSIN
IEF142I HERC01 COB STEP1 - STEP WAS EXECUTED - COND CODE 0004
IEF285I SYS1VSCOLIB KEPT *-----0
IEF285I VOL ER NOS= VSCB24.
IEF285I JES2JOB00013.SO0103 SYSOUT
IEF285I SYS2248.T174111.RA000.HERC01C.R0000001 DELETED *-----10
IEF285I VOL ER NOS= WORK02.
IEF285I SYS2248.T174111.RA000.HERC01C.R0000002 DELETED *-----8
IEF285I VOL ER NOS= WORK03.
IEF285I SYS2248.T174111.RA000.HERC01C.R0000003 DELETED *-----14
IEF285I VOL ER NOS= WORK01.
IEF285I SYS2248.T174111.RA000.HERC01C.R0000004 DELETED *-----6
IEF285I VOL ER NOS= WORK00.
IEF285I SYS2248.T174111.RA000.HERC01C.LOADSET PASSED *-----9
IEF285I VOL ER NOS= WORK01.
IEF285I JES2JOB00013.SI0101 SYSIN
IEF373I STEP /OB / START 21248.1741
IEF374I STEP /OB / STOP 21248.1741 CPU OMIN 00.06SEC SRB OMIN 00.02SEC VIRT 136K SYS 212K
*****
* 1. Jobstp of job: HERC01C Stepname: COB Program name: IKFCBL00 Executed on 05.09.21 from 17.41.11 to 17.41.11 *
* elaped time 00:00:00,13 CPU-Identifer: TK4- Page-in: 0 *
* PU time 00:00:00,08 Virtual Storage used: 136K Page-out: 0 *
* cor. CPU: 00:00:00,08 CPU time has been corrected by 1 / 1,0 multiplier *
*
* I/O Opertion *
* Number o records read via DD * or DD DATA: 140 *
* 147.....0 DMY.....0 180.....10 190.....8 170.....14 140.....6 170.....9 DMY.....0 *
*
* Charge for step (w/o SYSOUT): 0,13 *
*****
IEF236I ALLOC.FOR HERC01C LKED STEP1
IEF237I 170 ALOCATED TO SYSLIN
IEF237I DMY ALOCATED TO
IEF237I 190 ALOCATED TO SYSLMOD
IEF237I 147 ALOCATED TO SYSLIB
IEF237I 180 ALOCATED TO SYSUT1
IEF237I JES2 ALOCATED TO SYSPRINT
IEF142I HERC01 LKED STEP1 - STEP WAS EXECUTED - COND CODE 0000
IEF285I SYS2248.T174111.RA000.HERC01C.LOADSET DELETED *-----10
IEF285I VOL ER NOS= WORK01.
IEF285I SYS2248.T174111.RA000.HERC01C.GOSET PASSED *-----17
IEF285I VOL ER NOS= WORK03.
IEF285I SYS1VSCLLIB KEPT *-----87
IEF285I VOL ER NOS= VSCB24.
IEF285I SYS2248.T174111.RA000.HERC01C.R0000005 DELETED *-----24
IEF285I VOL ER NOS= WORK02.
IEF285I JES2JOB00013.SO0104 SYSOUT

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IEF373I STEP /KED / START 21248.1741
IEF374I STEP /KED / STOP 21248.1741 CPU OMIN 00.03SEC SRB OMIN 00.01SEC VIRT 264K SYS 208K
*****
* 2. Jobstp of job: HERC01C Stepname: LKED Program name: IEWL Executed on 05.09.21 from 17.41.11 to 17.41.11 *
* elapsed time 00:00:00,07 CPU-Identifier: TK4- Page-in: 0 *
* PU time 00:00:00,04 Virtual Storage used: 264K Page-out: 0 *
* cor. CPU: 00:00:00,04 CPU time has been corrected by 1 / 1,0 multiplier *
*
* I/O Operation *
* Number o records read via DD * or DD DATA: 0 *
* 170.....10 DMY.....0 190.....17 147.....87 180.....24 DMY.....0 *
*
* Charge for step (w/o SYSOUT): 0,06 *
*****
IEF236I ALLOC.FOR HERC01C GO STEP1
IEF237I 190 ALOCATED TO PGM=*.DD
IEF237I 147 ALOCATED TO STEPLIB
IEF237I 170 ALOCATED TO SAMPLE
IEF237I JES2 ALOCATED TO SYSOUT
IEF237I JES2 ALOCATED TO SYSIN
IEF142I HERC01 GO STEP1 - STEP WAS EXECUTED - COND CODE 0000
IEF285I SYS2248.T174111.RA000.HERC01C.GOSET KEPT *-----0
IEF285I VOL ER NOS= WORK03.
IEF285I SYS1VSCLLIB KEPT *-----0
IEF285I VOL ER NOS= VSCB24.
IEF285I SYS2248.T174111.RA000.HERC01C.TEMP DELETED *-----0
IEF285I VOL ER NOS= WORK01.
IEF285I JES2JOB00013.SO0105 SYSOUT
IEF285I JES2JOB00013.SI0102 SYSIN
IEF373I STEP /O / START 21248.1741
IEF374I STEP /O / STOP 21248.1741 CPU OMIN 00.01SEC SRB OMIN 00.00SEC VIRT 48K SYS 204K
*****
* 3. Jobstp of job: HERC01C Stepname: GO Program name: PGM=*.DD Executed on 05.09.21 from 17.41.11 to 17.41.11 *
* elapsed time 00:00:00,02 CPU-Identifier: TK4- Page-in: 0 *
* PU time 00:00:00,01 Virtual Storage used: 48K Page-out: 0 *
* cor. CPU: 00:00:00,01 CPU time has been corrected by 1 / 1,0 multiplier *
*
* I/O Operation *
* Number o records read via DD * or DD DATA: 1 *
* 190.....0 147.....0 170.....0 DMY.....0 *
*
* Charge for step (w/o SYSOUT): 0,01 *
*****
IEF237I 190 ALOCATED TO SYS00001
IEF285I SYS2248.T174111.RA000.HERC01C.R0000001 KEPT *-----0
IEF285I VOL ER NOS= WORK03.
IEF285I SYS2248.T174111.RA000.HERC01C.GOSET DELETED
IEF285I VOL ER NOS= WORK03.
IEF375I JOB /ERC01C / START 21248.1741
IEF376I JOB /ERC01C / STOP 21248.1741 CPU OMIN 00.10SEC SRB OMIN 00.03SEC

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1 17.41.11 SEP 5,1921

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00001 10 //////////////////////////////////////// 00001100
00002 20 // Name: Peter M. Maurer 00001200
00003 30 // Program: Sieve of Eratosthenes 00001300
00004 40 // Due: Never 00001400
00005 50 // Language: COBOL 00001500
00006 60 // 00001600
00007 70 // Changes: 00001700
00008 80 // - Juergen Winkelmann, 2014/10/25, o adaption to IBM OS COBOL 00001800
00009 90 // o read limit from SYSIN 00001900
00010 100 // o n**2 (sqrt) shortcut 00002000
00011 110 // o skip even numbers 00002100
00012 120 // o compact output format 00002200
00013 130 // o 32767 prime flags 00002300
00014 140 //////////////////////////////////////// 00002400
00015 150 ** 00002500
00016 160 ** 00002600
00017 170 ** 00002700
00018 180 IDENTIFICATION DIVISION. 00002800
00019 190 PROGRAM-ID. PRIMES . 00002900
00020 200 ** 00003000
00021 210 ** 00003100
00022 220 ** 00003200
00023 230 ENVIRONMENT DIVISION. 00003300
00024 240 * 00003400
00025 250 * 00003500
00026 260 CONFIGURATION SECTION. 00003600
00027 270 SOURCE-COMPUTER. IBM-370. 00003700
00028 280 OBJECT-COMPUTER. IBM-370. 00003800
00029 290 * 00003900
00030 300 * 00004000
00031 310 INPUT-OUTPUT SECTION. 00004100
00032 320 FILE-CONTROL. 00004200
00033 330 SELECT PRIMES-SYSIN 00004300
00034 340 ASSIGN TO UT-S-SYSIN. 00004400
00035 350 ** 00004500
00036 360 ** 00004600
00037 370 ** 00004700
00038 380 DATA DIVISION. 00004800
00039 390 * 00004900
00040 400 * 00005000
00041 410 FILE SECTION. 00005100
00042 420 FD PRIMES-SYSIN 00005200
00043 430 RECORDING MODE IS F 00005300
00044 440 RECORD CONTAINS 80 CHARACTERS 00005400
00045 450 BLOCK CONTAINS 1 RECORDS 00005500
00046 460 LABEL RECORDS ARE OMITTED 00005600
00047 470 DATA RECORD IS PRIMES-SYSIN-RECORD. 00005700
00048 480 01 PRIMES-SYSIN-RECORD. 00005800
00049 490 02 PRIMES-SYSIN-NUMBER PIC 99999999 OCCURS 10. 00005900
00050 500 * 00006000
00051 510 * 00006100
00052 520 WORKING-STORAGE SECTION. 00006200
00053 530 77 I PIC 99999999 COMP VALUE 1. 00006300
00054 540 77 J PIC 99999999 COMP. 00006400

```

| | | | |
|-------|------|---|----------|
| 00055 | 550 | 77 K PIC 99999999 COMP VALUE 1. | 00006500 |
| 00056 | 560 | 77 N PIC 99999999 COMP. | 00006600 |
| 00057 | 570 | 77 N-2 PIC 99999999 COMP. | 00006700 |
| 00058 | 580 | 77 SQRTN PIC 99999999 COMP. | 00006800 |
| 00059 | 590 | 77 PRODUCT PIC 99999999 COMP. | 00006900 |
| 00060 | 600 | 01 BLANK-LINE PIC X(160). | 00007000 |
| 00061 | 610 | 01 OUT-INTEGER. | 00007100 |
| 00062 | 620 | 02 SHOWIT PIC ZZZZZZZZ OCCURS 20. | 00007200 |
| 00063 | 630 | 01 OUT REDEFINES OUT-INTEGER. | 00007300 |
| 00064 | 640 | 02 OUT-LINE PIC X(160). | 00007400 |
| 00065 | 650 | 01 PRIME-FLAGS. | 00007500 |
| 00066 | 660 | 02 ISPRIME PIC 9 OCCURS 32767. | 00007600 |
| 00067 | 670 | ** | 00007700 |
| 00068 | 680 | ** | 00007800 |
| 00069 | 690 | ** | 00007900 |
| 00070 | 700 | PROCEDURE DIVISION. | 00008000 |
| 00071 | 710 | * | 00008100 |
| 00072 | 720 | * | 00008200 |
| 00073 | 730 | MAIN-PART. | 00008300 |
| 00074 | 740 | OPEN INPUT PRIMES-SYSIN. | 00008400 |
| 00075 | 750 | READ PRIMES-SYSIN AT END DISPLAY " EOF ON SYSIN ". | 00008500 |
| 00076 | 760 | MOVE PRIMES-SYSIN-NUMBER (1) TO N. | 00008600 |
| 00077 | 770 | CLOSE PRIMES-SYSIN. | 00008700 |
| 00078 | 780 | SUBTRACT 2 FROM N GIVING N-2. | 00008800 |
| 00079 | 790 | | 00008900 |
| 00080 | 800 | PERFORM NEXT-SQUARE UNTIL SQRTN GREATER N. | 00009000 |
| 00081 | 810 | MOVE I TO SQRTN. | 00009100 |
| 00082 | 820 | | 00009200 |
| 00083 | 830 | MOVE 3 TO I. | 00009300 |
| 00084 | 840 | PERFORM INIT-1 UNTIL I GREATER N. | 00009400 |
| 00085 | 850 | | 00009500 |
| 00086 | 860 | MOVE 3 TO I. | 00009600 |
| 00087 | 870 | PERFORM CHECK-NUMBER UNTIL I GREATER SQRTN OR EQUAL SQRTN. | 00009700 |
| 00088 | 880 | | 00009800 |
| 00089 | 890 | MOVE 3 TO I. | 00009900 |
| 00090 | 900 | MOVE 2 TO J. | 00010000 |
| 00091 | 910 | MOVE J TO SHOWIT (K). | 00010100 |
| 00092 | 920 | PERFORM PRINT UNTIL I GREATER N. | 00010200 |
| 00093 | 930 | | 00010300 |
| 00094 | 940 | MOVE K TO SHOWIT (1). | 00010400 |
| 00095 | 950 | MOVE N TO SHOWIT (2). | 00010500 |
| 00096 | 960 | DISPLAY " ". | 00010600 |
| 00097 | 970 | DISPLAY SHOWIT (1), SHOWIT (2). | 00010700 |
| 00098 | 980 | STOP RUN. | 00010800 |
| 00099 | 990 | * | 00010900 |
| 00100 | 1000 | * | 00011000 |
| 00101 | 1010 | INIT-1. | 00011100 |
| 00102 | 1020 | MOVE 1 TO ISPRIME (I). | 00011200 |
| 00103 | 1030 | ADD 2 TO I. | 00011300 |
| 00104 | 1040 | * | 00011400 |
| 00105 | 1050 | * | 00011500 |
| 00106 | 1060 | CHECK-NUMBER. | 00011600 |
| 00107 | 1070 | PERFORM ADVANCE UNTIL I GREATER THAN SQRTN OR EQUAL TO SQRT | 00011700 |
| 00108 | 1080 | N OR ISPRIME (I) EQUAL TO 1. | 00011800 |
| 00109 | 1090 | IF ISPRIME (I) EQUAL TO 1 | 00011900 |
| 00110 | 1100 | ADD I I GIVING J | 00012000 |
| 00111 | 1110 | MULTIPLY I BY I GIVING PRODUCT | 00012100 |

| | | | |
|-------|------|--|----------|
| 00112 | 1120 | PERFORM CROSS-OUT UNTIL PRODUCT GREATER THAN N. | 00012200 |
| 00113 | 1130 | ADD 2 TO I. | 00012300 |
| 00114 | 1140 | * | 00012400 |
| 00115 | 1150 | * | 00012500 |
| 00116 | 1160 | ADVANCE. | 00012600 |
| 00117 | 1170 | ADD 2 TO I. | 00012700 |
| 00118 | 1180 | * | 00012800 |
| 00119 | 1190 | * | 00012900 |
| 00120 | 1200 | CROSS-OUT. | 00013000 |
| 00121 | 1210 | MOVE 0 TO ISPRIME (PRODUCT). | 00013100 |
| 00122 | 1220 | ADD J TO PRODUCT. | 00013200 |
| 00123 | 1230 | * | 00013300 |
| 00124 | 1240 | * | 00013400 |
| 00125 | 1250 | NEXT-SQUARE. | 00013500 |
| 00126 | 1260 | ADD 1 TO I. | 00013600 |
| 00127 | 1270 | MULTIPLY I BY I GIVING SQRTN. | 00013700 |
| 00128 | 1280 | * | 00013800 |
| 00129 | 1290 | * | 00013900 |
| 00130 | 1300 | PRINT. | 00014000 |
| 00131 | 1310 | IF ISPRIME (I) EQUAL TO 1 | 00014100 |
| 00132 | 1320 | MOVE I TO SHOWIT (J) | 00014200 |
| 00133 | 1330 | ADD 1 TO K | 00014300 |
| 00134 | 1340 | ADD 1 TO J | 00014400 |
| 00135 | 1350 | IF J GREATER 20 | 00014500 |
| 00136 | 1360 | DISPLAY OUT-LINE | 00014600 |
| 00137 | 1370 | MOVE BLANK-LINE TO OUT-LINE | 00014700 |
| 00138 | 1380 | MOVE 1 TO J. | 00014800 |
| 00139 | 1390 | IF I GREATER N-2 AND J NOT EQUAL 1 DISPLAY OUT-LINE. | 00014900 |
| 00140 | 1400 | ADD 2 TO I. | 00015000 |

```
*STATISTICS*      SOURCE RECORDS = 140      DATA DIVISION STATEMENTS = 17      PROCEDURE DIVISION STATEMENTS = 45
*OPTIONS IN EFECT*  SIZE = 131072 BUF = 12288 LINECNT = 57 SPACE1, FLAGW, SEQ, SOURCE
*OPTIONS IN EFECT*  NODMAP, NOPMAP, NOCLIST, NOSUPMAP, NOXREF, NOSXREF, LOAD, NODECK, QUOTE, NOTRUNC, NOFLOW
*OPTIONS IN EFECT*  NOTERM, NONUM, NOBATCH, NONAME, COMPILE=01, NOSTATE, NORESIDENT, NODYNAM, NOLIB, NOSYNTAX
*OPTIONS IN EFECT*  NOOPTIMIZE, NOSYMDMP, NOTEST, VERB, ZWB, SYST, NOENDJOB, NOLVL
*OPTIONS IN EFECT*  NOLST , NOFDECK, NOCDECK, LCOL2, L120, DUMP , ADV , NOPRINT,
*OPTIONS IN EFECT*  NOCOUNT, NOVBSUM, NOVBREF, LANGLVL(2)
```

CARD ERROR MESSAGE

| | | | | | | |
|----|-----------|----|--------|-------|----|-----------|
| 53 | IKF111I-W | 77 | SHOULD | BEGIN | IN | A-MARGIN. |
| 54 | IKF111I-W | 77 | SHOULD | BEGIN | IN | A-MARGIN. |
| 55 | IKF111I-W | 77 | SHOULD | BEGIN | IN | A-MARGIN. |
| 56 | IKF111I-W | 77 | SHOULD | BEGIN | IN | A-MARGIN. |
| 57 | IKF111I-W | 77 | SHOULD | BEGIN | IN | A-MARGIN. |
| 58 | IKF111I-W | 77 | SHOULD | BEGIN | IN | A-MARGIN. |
| 59 | IKF111I-W | 77 | SHOULD | BEGIN | IN | A-MARGIN. |
| 60 | IKF111I-W | 01 | SHOULD | BEGIN | IN | A-MARGIN. |
| 61 | IKF111I-W | 01 | SHOULD | BEGIN | IN | A-MARGIN. |
| 63 | IKF111I-W | 01 | SHOULD | BEGIN | IN | A-MARGIN. |
| 65 | IKF111I-W | 01 | SHOULD | BEGIN | IN | A-MARGIN. |

F64-LEVEL LINAGE EDITOR OPTIONS SPECIFIED LIST,MAP
 DEFAULT OPTION(S) USED - SIZE=(231424,55296)

MODULE MAP

| CONTROL SECTION | | | ENTRY | | | | | | | |
|-----------------|-------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| NAME | ORGIN | LENGTH | NAME | LOCATION | NAME | LOCATION | NAME | LOCATION | NAME | LOCATION |
| PRIMES | 00 | 8D32 | | | | | | | | |
| ILBOBID * | D38 | 90 | | | | | | | | |
| | | | ILBOBID0 | 8D3A | ILBOBID1 | 8D3E | ILBOBID2 | 8D42 | | |
| ILBOCOM0* | DC8 | 173 | | | | | | | | |
| | | | ILBOCOM | 8DC8 | | | | | | |
| ILBODSP * | F40 | A08 | | | | | | | | |
| | | | ILBODSP0 | 8F42 | ILBODSS0 | 8F42 | | | | |
| ILBOEXT * | 948 | 68 | | | | | | | | |
| | | | ILBOEXT0 | 994A | ILBOEXT1 | 994E | | | | |
| ILBOIDB * | 9B0 | 8C | | | | | | | | |
| | | | ILBOIDB0 | 99B2 | ILBOIDB1 | 99B6 | | | | |
| ILBOQIO * | A40 | 7F4 | | | | | | | | |
| | | | ILBOQIO0 | 9A42 | ILBOQIO1 | 9A46 | | | | |
| ILBOSRV * | 238 | 4D4 | | | | | | | | |
| | | | ILBOSRV0 | A242 | ILBOSR5 | A242 | ILBOSR3 | A242 | ILBOSR | A242 |
| | | | ILBOSRV1 | A246 | ILBOSTP1 | A246 | ILBOST | A24A | ILBOSTP0 | A24A |
| ILBOBEG * | 710 | 1DC | | | | | | | | |
| | | | ILBOBEG0 | A712 | | | | | | |
| ILBOCMM * | 8F0 | 530 | | | | | | | | |
| | | | ILBOCMM0 | A8F2 | ILBOCMM1 | A8F6 | | | | |
| ILBOMSG * | E20 | 100 | | | | | | | | |
| | | | ILBOMSG0 | AE22 | | | | | | |

ENTRY ADDRESS 00

TOTAL LENGTH AF20

****GO OES NOT EXIST BUT HAS BEEN ADDED TO DATA SET

AUTHORIZATION ODE IS 0.

