

J E S 2 J O B L O G

```
18.12.03 JOB 151 IEF677I WARNING MESSAGE(S) FOR JOB VSTESTK3 ISSUED
18.12.03 JOB 151 $HASP373 VSTESTK3 STARTED - INIT 1 - CLASS A - SYS HMVS
18.12.03 JOB 151 IEF403I VSTESTK3 - STARTED - TIME=18.12.03
18.12.04 JOB 151 CCI001C PL1L /IEMAA /00:00:00.16/ /00004/SYS /VSTESTK3
18.12.04 JOB 151 CCI001C LKED /IEWL /00:00:00.04/ /00000/SYS /VSTESTK3
18.12.04 JOB 151 CCI001C GO /PGM=*.DD/00:00:00.01/ /00000/SYS /VSTESTK3
18.12.04 JOB 151 IEF404I VSTESTK3 - ENDED - TIME=18.12.04
18.12.04 JOB 151 $HASP395 VSTESTK3 ENDED
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----- JES2 JOB STATISTICS -----

07 JUL 20 JOB EXECUTION DATE

22 CARDS READ

1,140 SYSOUT PRINT RECORDS

0 SYSOUT PUNCH RECORDS

0.00 MINUTES EXECUTION TIME

```

1 //VSTESTK3 JOB (SYS), 'VSAMIOP IVP KSDSREAD', CLASS=A, MSGCLASS=X, JOB 151
// REGION=4096K
***
*****
*** PL/1 MODULE: KSDSREAD VSAM DATASET: VSTESTKS.CLUSTER (KSDS)
***
*** SEQUENTIALLY READS INDEXED DATASET AND DUMPS RECORDS TO PRINTER
*****
***
2 //PL1F EXEC PL1LFCLG,
// PARM='LOAD,NODECK,ATR,XREF,CHAR60,MACRO'
3 XXPL1L EXEC PGM=IEMAA, PARM='LOAD,NODECK', REGION=52K 00000100
4 XXSTEPLIB DD DSN=SYSC.LINKLIB, DISP=SHR 00000200
5 //PL1L.SYSPRINT DD SYSOUT=*
X/SYSPRINT DD SYSOUT=A 00000300
6 XXSYSLIN DD DSNAME=&&LOADSET, DISP=(MOD,PASS), UNIT=SYSSQ, *00000400
XX SPACE=(80,(250,100)) 00000500
7 XXSYSUT3 DD DSNAME=&&SYSUT3, UNIT=SYSDA, SPACE=(80,(250,250)), *00000600
XX DCB=BLKSIZE=80 00000700
8 XXSYSUT1 DD DSNAME=&&SYSUT1, UNIT=SYSDA, SPACE=(1024,(60,60),,CONTIG), *00000800
XX SEP=(SYSUT3,SYSLIN), DCB=BLKSIZE=1024 00000900
9 //PL1L.SYSIN DD DSN=SYSC.VSAMIOP.SOURCE(KSDSREAD), DISP=SHR
10 //PL1L.SYSLIB DD DSN=SYSC.VSAMIOP.MACLIB, DISP=SHR
11 XXLKED EXEC PGM=IEWL, PARM='XREF,LIST', COND=(9,LT,PL1L), *00001000
XX REGION=96K 00001100
12 //LKED.SYSLIB DD
X/SYSLIB DD DSNAME=SYSC.PL1LIB, DISP=SHR 00001201
13 // DD DSN=SYSC.LINKLIB, DISP=SHR
14 XXSYSLMOD DD DSNAME=&&GOSET(GO), DISP=(MOD,PASS), *00001300
XX UNIT=SYSDA, SPACE=(1024,(50,20,1),RLSE) 00001400
15 XXSYSUT1 DD DSNAME=&&SYSUT1, UNIT=SYSDA, SPACE=(1024,(200,20)), *00001500
XX SEP=(SYSLMOD,SYSLIB), DCB=BLKSIZE=1024 00001600
16 //LKED.SYSPRINT DD SYSOUT=*
X/SYSPRINT DD SYSOUT=A 00001700
17 XXSYSLIN DD DSNAME=&&LOADSET, DISP=(OLD,DELETE) 00001800
18 XX DD DDNAME=SYSIN 00001900
19 XXGO EXEC PGM=*.LKED.SYSLMOD, COND=((9,LT,LKED),(9,LT,PL1L)) 00002000
20 //GO.STEPLIB DD DSN=SYSC.PL1LIB, DISP=SHR
X/STEPLIB DD DSN=SYSC.LINKLIB, DISP=SHR 00002102
21 XX DD DSN=SYSC.PL1LIB, DISP=SHR 00002202
22 XXSYSPRINT DD SYSOUT=A 00002300
23 //GO.PRINTR DD SYSOUT=*
24 //GO.SYSUDUMP DD SYSOUT=*
25 //GO.SYSPRINT DD SYSOUT=*
26 //GO.KSDSF01 DD DSN=PUB001.VSTESTKS.CLUSTER, DISP=OLD

```

STMT NO. MESSAGE

19 IEF686I DDNAME REFERRED TO ON DDNAME KEYWORD IN PRIOR STEP WAS NOT RESOLVED

IEF236I ALLOC. FOR VSTESTK3 PL1L PL1F

IEF237I 253 ALLOCATED TO STEPLIB

IEF237I 253 ALLOCATED TO SYS00334

IEF237I JES2 ALLOCATED TO SYSPRINT

IEF237I 380 ALLOCATED TO SYSLIN

IEF237I 251 ALLOCATED TO SYSUT3

IEF237I 370 ALLOCATED TO SYSUT1

IEF237I 253 ALLOCATED TO SYSIN

IEF237I 253 ALLOCATED TO SYSLIB

IEF142I VSTESTK3 PL1L PL1F - STEP WAS EXECUTED - COND CODE 0004

IEF285I SYSC.LINKLIB KEPT *-----0

IEF285I VOL SER NOS= SYSCPK.

IEF285I UCSYSCPK KEPT *-----0

IEF285I VOL SER NOS= SYSCPK.

IEF285I JES2.JOB00151.SO0101 SYSOUT

IEF285I SYS20189.T181203.RA000.VSTESTK3.LOADSET PASSED *-----204

IEF285I VOL SER NOS= MVS380.

IEF285I SYS20189.T181203.RA000.VSTESTK3.SYSUT3 DELETED *-----261

IEF285I VOL SER NOS= WORK00.

IEF285I SYS20189.T181203.RA000.VSTESTK3.SYSUT1 DELETED *-----0

IEF285I VOL SER NOS= MVS370.

IEF285I SYSC.VSAMIOP.SOURCE KEPT *-----3

IEF285I VOL SER NOS= SYSCPK.

IEF285I SYSC.VSAMIOP.MACLIB KEPT *-----27

IEF285I VOL SER NOS= SYSCPK.

IEF373I STEP /PL1L / START 20189.1812

IEF374I STEP /PL1L / STOP 20189.1812 CPU 0MIN 00.16SEC SRB 0MIN 00.04SEC VIRT 4096K SYS 212K

**** JOBCARD READ 20189 18:12:03 ****

* PRC-CCI 370/148 VS2 R03.8 HMVS STEP STATISTICS *

* STEP NAME PL1L USER CORE 4096K TAPES USED/IO 000/000000000 START TIME 18:12:03 TCB TIME 00:00:00.16 *

* PGM NAME IEMAA SYSTEM CORE 212K DISKS USED/IO 004/000000495 STOP TIME 18:12:04 SRB TIME 00:00:00.04 *

* COND CODE 0004 PRIVATE AREA SZ 4096K ALLOC TIME 18:12:03 ELAPSED TIME PGM LOAD 18:12:03 *

** PGNO * NR SRV UNITS * ACTIVE TIME ** PAGES IN *** PAGES OUT ** # SWAPS * PGS SWAP IN * PGS SWAP OUT * VIO PGS IN * VIO PGS OUT **

* 004 2687 00:00:00.23 0 0 0 0 0 0 0 0 *

* CPU \$ (0.05) + EXCP \$ (0.66) + MEMORY \$ (1.86) = TOTAL \$ (2.57) *

IEF236I ALLOC. FOR VSTESTK3 LKED PL1F

IEF237I 253 ALLOCATED TO SYSLIB

IEF237I 253 ALLOCATED TO

IEF237I 253 ALLOCATED TO SYS00336

IEF237I 251 ALLOCATED TO SYSLMOD

IEF237I 370 ALLOCATED TO SYSUT1

IEF237I JES2 ALLOCATED TO SYSPRINT

IEF237I 380 ALLOCATED TO SYSLIN

IEF237I DMY ALLOCATED TO

IEF142I VSTESTK3 LKED PL1F - STEP WAS EXECUTED - COND CODE 0000

IEF285I SYSC.PL1LIB KEPT *-----106

IEF285I VOL SER NOS= SYSCPK.

IEF285I SYSC.LINKLIB KEPT *-----0

IEF285I VOL SER NOS= SYSCPK.

IEF285I UCSYSCPK KEPT *-----0

IEF285I VOL SER NOS= SYSCPK.

IEF285I SYS20189.T181203.RA000.VSTESTK3.GOSET PASSED *-----57

IEF285I VOL SER NOS= WORK00.

IEF285I SYS20189.T181203.RA000.VSTESTK3.SYSUT1 DELETED *-----0

IEF285I VOL SER NOS= MVS370.

IEF285I JES2.JOB00151.SO0102 SYSOUT

```

IEF285I  SYS20189.T181203.RA000.VSTESTK3.LOADSET      DELETED      *-----205
IEF285I  VOL SER NOS= MVS380.
IEF373I  STEP /LKED      / START 20189.1812
IEF374I  STEP /LKED      / STOP  20189.1812 CPU      OMIN 00.04SEC SRB      OMIN 00.01SEC VIRT    260K SYS    208K
*****
*
*          PRC-CCI 370/148 VS2 R03.8  HMVS  STEP STATISTICS
* STEP NAME  LKED      USER CORE      260K  TAPES USED/IO 000/000000000  START  TIME 18:12:04  TCB TIME 00:00:00.04 *
* PGM NAME  IEWL      SYSTEM CORE      208K  DISKS USED/IO 004/000000368  STOP   TIME 18:12:04  SRB TIME 00:00:00.01 *
* COND CODE 0000      PRIVATE AREA SZ 4096K  ALLOC TIME 18:12:04  ELAPSED TIME          PGM LOAD 18:12:04 *
** PGNO * NR SRV UNITS * ACTIVE TIME ** PAGES IN *** PAGES OUT ** # SWAPS * PGS SWAP IN * PGS SWAP OUT * VIO PGS IN * VIO PGS OUT **
* 004      1882      00:00:00.06          0          0          0          0          0          0          0          0 *
*****
* CPU $ ( 0.01) + EXCP $ ( 0.49) + MEMORY $ ( 0.02) = TOTAL $ ( 0.52)
*****
IEF236I  ALLOC. FOR VSTESTK3 GO PL1F
IEF237I  251  ALLOCATED TO PGM=*.DD
IEF237I  253  ALLOCATED TO STEPLIB
IEF237I  253  ALLOCATED TO
IEF237I  253  ALLOCATED TO SYS00338
IEF237I  JES2 ALLOCATED TO SYSPRINT
IEF237I  JES2 ALLOCATED TO PRINTR
IEF237I  JES2 ALLOCATED TO SYSUDUMP
IEF237I  JES2 ALLOCATED TO SYSPRINT
IEF237I  190  ALLOCATED TO KSDSF01
IEF237I  190  ALLOCATED TO SYS00340
IEF142I  VSTESTK3 GO PL1F - STEP WAS EXECUTED - COND CODE 0000
IEF285I  SYS20189.T181203.RA000.VSTESTK3.GOSET      KEPT      *-----0
IEF285I  VOL SER NOS= WORK00.
IEF285I  SYSC.PL1LIB      KEPT      *-----0
IEF285I  VOL SER NOS= SYSCPK.
IEF285I  SYSC.PL1LIB      KEPT      *-----0
IEF285I  VOL SER NOS= SYSCPK.
IEF285I  UCSYSCPK      KEPT      *-----0
IEF285I  VOL SER NOS= SYSCPK.
IEF285I  JES2.JOB00151.SO0103      SYSOUT
IEF285I  JES2.JOB00151.SO0104      SYSOUT
IEF285I  JES2.JOB00151.SO0105      SYSOUT
IEF285I  JES2.JOB00151.SO0106      SYSOUT
IEF285I  PUB001.VSTESTKS.CLUSTER      KEPT      *-----2
IEF285I  VOL SER NOS= PUB001.
IEF285I  UCPUB001      KEPT      *-----0
IEF285I  VOL SER NOS= PUB001.
IEF373I  STEP /GO      / START 20189.1812
IEF374I  STEP /GO      / STOP  20189.1812 CPU      OMIN 00.01SEC SRB      OMIN 00.00SEC VIRT    100K SYS    224K
*****
*
*          PRC-CCI 370/148 VS2 R03.8  HMVS  STEP STATISTICS
* STEP NAME  GO      USER CORE      100K  TAPES USED/IO 000/000000000  START  TIME 18:12:04  TCB TIME 00:00:00.01 *
* PGM NAME  PGM=*.DD  SYSTEM CORE      224K  DISKS USED/IO 003/000000002  STOP   TIME 18:12:04  SRB TIME 00:00:00.00 *
* COND CODE 0000      PRIVATE AREA SZ 4096K  ALLOC TIME 18:12:04  ELAPSED TIME          PGM LOAD 18:12:04 *
** PGNO * NR SRV UNITS * ACTIVE TIME ** PAGES IN *** PAGES OUT ** # SWAPS * PGS SWAP IN * PGS SWAP OUT * VIO PGS IN * VIO PGS OUT **
* 004      50      00:00:00.02          0          0          0          0          0          0          0          0 *
*****
* CPU $ ( 0.00) + EXCP $ ( 0.00) + MEMORY $ ( 0.00) = TOTAL $ ( 0.00)
*****
IEF237I  251  ALLOCATED TO SYS00001
IEF285I  SYS20189.T181204.RA000.VSTESTK3.R0000001      KEPT      *-----0
IEF285I  VOL SER NOS= WORK00.
IEF285I  SYS20189.T181203.RA000.VSTESTK3.GOSET      DELETED
IEF285I  VOL SER NOS= WORK00.
IEF375I  JOB /VSTESTK3/ START 20189.1812
IEF376I  JOB /VSTESTK3/ STOP  20189.1812 CPU      OMIN 00.21SEC SRB      OMIN 00.05SEC

```

PL/I F COMPILER OPTIONS SPECIFIED ARE AS FOLLOWS--

LOAD,NODECK,ATR,XREF,CHAR60,MACRO

THE COMPLETE LIST OF OPTIONS USED DURING THIS COMPILATION IS--

EBCDIC
CHAR60
MACRO
SOURCE2
NOMACDCK
COMP
SOURCE
ATR
XREF
NOEXTREF
NOLIST
LOAD
NODECK
FLAGW
NOSTMT
SIZE=4154608
LINECNT=050
OPT=01
SORMGIN=(002,072)
NOEXTDIC
NONEST
OPLIST
SYNCHKT

OPTIONS IN EFFECT EBCDIC,CHAR60,MACRO,SOURCE2,NOMACDCK,COMP,SOURCE,ATR,XREF,NOEXTREF,NOLIST,LOAD,
OPTIONS IN EFFECT NODECK,FLAGW,NOSTMT,SIZE=4154608,LINECNT=050,OPT=01,SORMGIN=(002,072),NOEXTDIC,
OPTIONS IN EFFECT NONEST,OPLIST,SYNCHKT

COMPILE-TIME MACRO PROCESSOR
MACRO SOURCE2 LISTING

```
1  /*****11520000
2  11530000
3  KSDSREAD - TESTS THE VSAMIO ROUTINE BY READING RECORDS FROM A KSDS 11540000
4  CLUSTER AND PRINTING THEIR CONTENTS. 11550000
5  11560000
6  *****/11570000
7  KSDSREA: 11580000
8  PROCEDURE OPTIONS(MAIN); 11590000
9  11600000
10 ON ERROR 11610000
11 BEGIN; 11620000
12 ON ERROR SYSTEM; 11630000
13 PUT SKIP(3) LIST((54)'*' || ' DEBUG AID ' || (54)'*'); 11640000
14 PUT SKIP DATA; 11650000
15 PUT SKIP(3) LIST((54)'*' || ' DEBUG AID ' || (54)'*'); 11660000
16 END; 11670000
17 11680000
18 OPEN 11690000
19 FILE(PRINTR) LINESIZE(121); 11700000
20 11710000
21 PRINT_AREA = 'KSDSREAD: READ KSDS SEQUENTIALLY'; 11720000
22 WRITE FILE(PRINTR) FROM(PRINT_LINE); 11730000
23 PRINT_AREA = '-----'; 11740000
24 WRITE FILE(PRINTR) FROM(PRINT_LINE); 11750000
25 PRINT_AREA = ' '; 11760000
26 WRITE FILE(PRINTR) FROM(PRINT_LINE); 11770000
27 11780000
28 MORE_RECORDS = YES; 11790000
29 11800000
30 /*****11810000
31 ESTABLISH PARAMETERS OF VSAM DATASET AND CALL ROUTINE TO OPEN 11820000
32 *****/11830000
33 VSFB_DDNAME = 'KSDSF01'; 11840000
34 VSFB_ORGANIZATION = VSIO_KSDS; 11850000
35 VSFB_ACCESS = VSIO_SEQUENTIAL; 11860000
36 VSFB_MODE = VSIO_INPUT; 11870000
37 VSFB_RECORD_LENGTH = 80; 11880000
38 VSFB_KEY_POSITION = 0; 11890000
39 VSFB_KEY_LENGTH = 10; 11900000
40 VSIO_COMMAND = VSIO_OPEN; 11910000
41 CALL VSAMIOP (VSIO_PARAMETER_BLOCK, 11920000
42 VSIO_FILE_BLOCK, 11930000
43 RECORD_IMAGE); 11940000
44 IF (VSIO_RETURN_CODEa= VSIO_RC_SUCCESS) THEN 11950000
```

MACRO SOURCE2 LISTING

```
45          DO;                               11960000
46              CALL VSIO_ERROR;               11970000
47              RETURN;                        11980000
48          END;                               11990000
49                                              12000000
50      DO WHILE(MORE_RECORDS);                12010000
51          CALL READ_KS;                       12020000
52          IF (MORE_RECORDS) THEN             12030000
53              DO;                             12040000
54                  COUNTER_EDIT = RECORD_COUNTER; 12050000
55                  PRINT_AREA = COUNTER_EDIT || ': KEY: ' || 12060000
56                      RECORD_KEY || ' DATA: ' || 12070000
57                      RECORD_IMAGE_SCALAR;      12080000
58                  WRITE FILE(PRINTR) FROM(PRINT_LINE); 12090000
59              END;                             12100000
60      END;                                   12110000
61                                              12120000
62 /*****12130000
63     CALL ROUTINE TO CLOSE VSAM DATASET      12140000
64     *****/12150000
65     VSIO_COMMAND = VSIO_CLOSE;              12160000
66     CALL VSAMIOP (VSIO_PARAMETER_BLOCK,     12170000
67                 VSIO_FILE_BLOCK,          12180000
68                 RECORD_IMAGE);            12190000
69     IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN 12200000
70         CALL VSIO_ERROR;                   12210000
71                                              12220000
72     RETURN;                                12230000
73                                              12240000
74 READ_KS:                                   12250000
75     PROCEDURE;                             12260000
76                                              12270000
77 /*****12280000
78     CALL ROUTINE TO READ NEXT RECORD FROM VSAM DATASET 12290000
79     *****/12300000
80     VSIO_COMMAND = VSIO_READ;              12310000
81     CALL VSAMIOP (VSIO_PARAMETER_BLOCK,     12320000
82                 VSIO_FILE_BLOCK,          12330000
83                 RECORD_IMAGE);            12340000
84     IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN 12350000
85         IF (VSIO_RETURN_CODE = VSIO_RC_END_OF_FILE) THEN 12360000
86             MORE_RECORDS = NO;            12370000
87         ELSE                               12380000
88             CALL VSIO_ERROR;               12390000
89     ELSE                                   12400000
```


MACRO SOURCE2 LISTING

```
135 DECLARE 12860000
136 RECORD_IMAGE_SCALAR DEFINED RECORD_IMAGE 12870000
137 CHAR(80); 12880000
138 12890000
139 DECLARE 12900000
140 1 PRINT_LINE, 12910000
141 2 CARRIAGE_CONTROL CHAR(1) INIT(' '), 12920000
142 2 PRINT_AREA CHAR(120); 12930000
143 12940000
144 %INCLUDE (VSAMIO); 12950000
145 %INCLUDE (VSAMIOFB); 12960000
146 12970000
147 END KSDSREA; 12980000
```

INCLUDED TEXT FOLLOWS FROM DD.MEMBER = SYSLIB .VSAMIO

```
148 /*****31100000
149 31110000
150 VV VV SSSSS A M M IIII OOOO 31120000
151 VV VV SS SS AAA MM MM II OO OO 31130000
152 VV VV SS AA AA MMM MMM II OO OO 31140000
153 VV VV SSSSS AA AA MMMMMM II OO OO 31150000
154 VV VV SS AA AA MM M MM II OO OO 31160000
155 VV VV SS SS AAAAAA MM MM II OO OO 31170000
156 VVV SS SS AA AA MM MM II OO OO 31180000
157 V SSSSS AA AA MM MM IIII OOOO 31190000
158 31200000
159 *****/31210000
160 THESE PARAMETERS ARE USED TO INTERFACE WITH THE VSAM DATASET ACCESS 31220000
161 ROUTINE. 31230000
162 31240000
163 THE VSIO_PARAMETER_VALUES SUPPLY THE VALUES USED TO MOVE INTO 31250000
164 PARAMETER ENTRIES TO TAILOR THE ROUTINE TO A SPECIFIC DATASET AND 31260000
165 TO PROVIDE COMMANDS TO DRIVE THE ROUTINE. 31270000
166 *****/31280000
167 31290000
168 DECLARE 31300000
169 1 VSIO_PARAMETER_VALUES STATIC, 31310000
170 2 VSIO_OPEN CHAR(8) INIT('OPEN '), 31320000
171 2 VSIO_CLOSE CHAR(8) INIT('CLOSE '), 31330000
172 2 VSIO_READ CHAR(8) INIT('READ '), 31340000
173 2 VSIO_WRITE CHAR(8) INIT('WRITE '), 31350000
174 2 VSIO_REWRITE CHAR(8) INIT('REWRITE '), 31360000
175 2 VSIO_DELETE CHAR(8) INIT('DELETE '), 31370000
```

MACRO SOURCE2 LISTING

```
176      2 VSIO_START_EQUAL      CHAR(8)  INIT('STARTEQ '),      31380000
177      2 VSIO_START_NOTLESS    CHAR(8)  INIT('STARTGE '),      31390000
178      2 VSIO_KSDS                CHAR(4)  INIT('KSDS'),          31400000
179      2 VSIO_ESDS                CHAR(4)  INIT('ESDS'),          31410000
180      2 VSIO_RRDS                CHAR(4)  INIT('RRDS'),          31420000
181      2 VSIO_SEQUENTIAL          CHAR(10) INIT('SEQUENTIAL'),    31430000
182      2 VSIO_DIRECT              CHAR(10) INIT('DIRECT '),        31440000
183      2 VSIO_DYNAMIC             CHAR(10) INIT('DYNAMIC '),        31450000
184      2 VSIO_INPUT               CHAR(6)  INIT('INPUT '),         31460000
185      2 VSIO_OUTPUT              CHAR(6)  INIT('OUTPUT'),         31470000
186      2 VSIO_INPUT_OUTPUT       CHAR(6)  INIT('UPDATE'),         31480000
187      2 (VSIO_RC_SUCCESS         INIT(0),      31490000
188          VSIO_RC_LOGIC_ERROR   INIT(8),      31500000
189          VSIO_RC_END_OF_FILE   INIT(9999),   31510000
190          VSIO_RC_UNKNOWN_COMMAND INIT(20),     31520000
191          VSIO_RC_DATASET_ALREADY_OPEN INIT(21),    31530000
192          VSIO_RC_DATASET_NOT_OPEN INIT(22),    31540000
193          VSIO_RC_ORGANIZATION_UNKNOWN INIT(23),    31550000
194          VSIO_RC_ACCESS_UNKNOWN INIT(24),     31560000
195          VSIO_RC_ORG_ACCESS_MISMATCH INIT(25),    31570000
196          VSIO_RC_MODE_UNKNOWN  INIT(26),     31580000
197          VSIO_RC_MODE_UNSUPPORTED INIT(27),    31590000
198          VSIO_RC_DDNAME_BLANK  INIT(28))     31600000
199          FIXED BINARY(15,0),   31610000
200      2 (VSIO_FB_DUPLICATE_RECORD INIT(8),      31620000
201          VSIO_FB_KEY_SEQUENCE  INIT(12),     31630000
202          VSIO_FB_RECORD_NOT_FOUND INIT(16),    31640000
203          VSIO_FB_NO_MORE_SPACE INIT(28),     31650000
204          VSIO_FB_READ_WITHOUT_START INIT(88))    31660000
205          FIXED BINARY(15,0),   31670000
206  /*****31680000
207      THE VSIO_PARAMETER_BLOCK IS THE COMMUNICATION INTERFACE TO THE 31690000
208      THE ROUTINE. 31700000
209  *****/31710000
210 31720000
211      1 VSIO_PARAMETER_BLOCK  STATIC, 31730000
212          2 VSIO_COMMAND      CHAR(8)  INIT(' '), 31740000
213          2 (VSIO_RETURN_CODE, 31750000
214              VSIO_VSAM_RC, 31760000
215              VSIO_VSAM_FUNCTION, 31770000
216              VSIO_VSAM_FEEDBACK) FIXED BINARY(15,0) INIT(0); 31780000
217 31790000
218  /*****31800000
219          END OF VSAMIO COPY BOOK 31810000
220  *****/31820000
```

MACRO SOURCE2 LISTING

INCLUDED TEXT FOLLOWS FROM DD.MEMBER = SYSLIB .VSAMIOFB

```
221 /*****00000100
222                                     00000200
223     VV  VV  SSSSS  A    M    M  IIII  OOOOO  FFFFFFFF  BBBBBB  00000300
224     VV  VV  SS   SS   AAA  MM   MM  II   OO   OO  FF      BB   BB  00000400
225     VV  VV  SS           AA AA  MMM MMM  II   OO   OO  FF      BB   BB  00000500
226     VV  VV  SSSSS  AA   AA  MMMMMMMM  II   OO   OO  FFFFFF  BBBBBB  00000600
227     VV  VV           SS  AA   AA  MM M MM  II   OO   OO  FF      BB   BB  00000700
228     VV VV  SS   SS  AAAAAA  MM   MM  II   OO   OO  FF      BB   BB  00000800
229     VVV   SS   SS  AA   AA  MM   MM  II   OO   OO  FF      BB   BB  00000900
230     V     SSSSS  AA   AA  MM   MM  IIII  OOOOO  FF      BBBBBB  00001000
231                                     00001100
232 *****/00001200
233     THESE PARAMETERS ARE USED TO INTERFACE WITH THE VSAM DATASET ACCESS 00001300
234     ROUTINE, AND ARE USED TO COMMUNICATE CHARACTERISTICS FOR A SINGLE 00001400
235     VSAM DATASET. 00001500
236                                     00001600
237     WITH THE 2 EXCEPTIONS FOR RECORD LENGTH (TO ACCOMODATE VARIABLE 00001700
238     LENGTH RECORDS) AND RELATIVE RECORD (TO ACCOMODATE RELATIVE RECORD 00001800
239     DATASETS), THESE DATA NAMES MUST BE POPULATED PRIOR TO CALLING THE 00001900
240     ROUTINE TO OPEN THE DATASET AND MUST NOT THEN BE CHANGED UNTIL THE 00002000
241     DATASET HAS BEEN CLOSED. 00002100
242 *****/00002200
243                                     00002300
244     DECLARE 00002400
245     1 VSIO_FILE_BLOCK  STATIC, 00002500
246     2 VSFB_DDNAME      CHAR(8)  INIT(' '), 00002600
247     2 VSFB_ORGANIZATION CHAR(4)  INIT(' '), 00002700
248     2 VSFB_ACCESS      CHAR(10) INIT(' '), 00002800
249     2 VSFB_MODE        CHAR(6)  INIT(' '), 00002900
250     2 (VSFB_RECORD_LENGTH, 00003000
251     VSFB_KEY_POSITION, 00003100
252     VSFB_KEY_LENGTH)  FIXED BINARY(15,0) INIT(0), 00003200
253     2 VSFB_FILE_STATUS  CHAR(1)  INIT('C'), 00003300
254     2 VSFB_RESERVED    CHAR(161); 00003400
255                                     00003500
256 /*****00003600
257                                     END OF VSAMIOFB COPY BOOK 00003700
258 *****/00003800
```

NO ERROR OR WARNING CONDITION HAS BEEN DETECTED FOR THIS MACRO PASS.

SOURCE LISTING.

```

/*****
KSDSREAD - TESTS THE VSAMIO ROUTINE BY READING RECORDS FROM A KSDS
          CLUSTER AND PRINTING THEIR CONTENTS.
*****/
1  KSDSREA:
   PROCEDURE OPTIONS(MAIN);
2      ON ERROR
3          BEGIN;
4          ON ERROR SYSTEM;
5          PUT SKIP(3) LIST((54)'*' || ' DEBUG AID ' || (54)'*');
6          PUT SKIP DATA;
7          PUT SKIP(3) LIST((54)'*' || ' DEBUG AID ' || (54)'*');
8      END;
9      OPEN
   FILE(PRINTR) LINESIZE(121);
10     PRINT_AREA = 'KSDSREAD: READ KSDS SEQUENTIALLY';
11     WRITE FILE(PRINTR) FROM(PRINT_LINE);
12     PRINT_AREA = '-----';
13     WRITE FILE(PRINTR) FROM(PRINT_LINE);
14     PRINT_AREA = ' ';
15     WRITE FILE(PRINTR) FROM(PRINT_LINE);
16     MORE_RECORDS = YES;
/*****
ESTABLISH PARAMETERS OF VSAM DATASET AND CALL ROUTINE TO OPEN
*****/
17     VSFB_DDNAME = 'KSDSF01';
18     VSFB_ORGANIZATION = VSIO_KSDS;
19     VSFB_ACCESS = VSIO_SEQUENTIAL;
20     VSFB_MODE = VSIO_INPUT;
21     VSFB_RECORD_LENGTH = 80;
22     VSFB_KEY_POSITION = 0;
23     VSFB_KEY_LENGTH = 10;
24     VSIO_COMMAND = VSIO_OPEN;
25     CALL VSAMIOP (VSIO_PARAMETER_BLOCK,
```

```
                VSIO_FILE_BLOCK,                42
                RECORD_IMAGE);                43
26      IF (VSIO_RETURN_CODEa= VSIO_RC_SUCCESS) THEN 44
27          DO;                                45
28              CALL VSIO_ERROR;                46
29              RETURN;                          47
30          END;                                48
                                           49
31      DO WHILE(MORE_RECORDS);                50
32          CALL READ_KS;                        51
33          IF (MORE_RECORDS) THEN              52
34              DO;                              53
35                  COUNTER_EDIT = RECORD_COUNTER; 54
36                  PRINT_AREA = COUNTER_EDIT || ': KEY: ' || 55
                      RECORD_KEY || ' DATA: ' || 56
                      RECORD_IMAGE_SCALAR;      57
37                  WRITE FILE(PRINTR) FROM(PRINT_LINE); 58
38              END;                              59
39          END;                                60
                                           61
        /*****                                62
        CALL ROUTINE TO CLOSE VSAM DATASET      62
        *****/                                62
                                           64
40      VSIO_COMMAND = VSIO_CLOSE;              65
41      CALL VSAMIOP (VSIO_PARAMETER_BLOCK,      66
                    VSIO_FILE_BLOCK,          67
                    RECORD_IMAGE);            68
42      IF (VSIO_RETURN_CODEa= VSIO_RC_SUCCESS) THEN 69
43          CALL VSIO_ERROR;                    70
                                           71
44      RETURN;                                72
                                           73
45      READ_KS:                                74
        PROCEDURE;                            75
                                           76
        /*****                                77
        CALL ROUTINE TO READ NEXT RECORD FROM VSAM DATASET 77
        *****/                                77
                                           79
46      VSIO_COMMAND = VSIO_READ;              80
47      CALL VSAMIOP (VSIO_PARAMETER_BLOCK,      81
                    VSIO_FILE_BLOCK,          82
                    RECORD_IMAGE);            83
48      IF (VSIO_RETURN_CODEa= VSIO_RC_SUCCESS) THEN 84
49          IF (VSIO_RETURN_CODE = VSIO_RC_END_OF_FILE) THEN 85
50              MORE_RECORDS = NO;              86
```

```
51         ELSE                                     87
51             CALL VSIO_ERROR;                       88
52         ELSE                                     89
52             RECORD_COUNTER = RECORD_COUNTER + 1;   90
53             RETURN;                               91
54         END READ_KS;                              92
55     VSIO_ERROR:                                  93
56     PROCEDURE;                                   94
57         PRINT_AREA = 'VSAMIO ERROR OCCURRED DURING ' || 95
58             VSIO_COMMAND;                          96
59         WRITE FILE(PRINTR) FROM(PRINT_LINE);      97
60         PRINT_AREA = 'VSIO_RETURN_CODE = ' ||     98
61             VSIO_RETURN_CODE;                       99
62         WRITE FILE(PRINTR) FROM(PRINT_LINE);      100
63         PRINT_AREA = 'VSIO_VSAM_RETURN_CODE = ' || 101
64             VSIO_VSAM_RETURN_CODE;                 102
65         WRITE FILE(PRINTR) FROM(PRINT_LINE);      103
66         PRINT_AREA = 'VSIO_VSAM_FUNCTION_CODE = ' || 104
67             VSIO_VSAM_FUNCTION_CODE;               105
68         WRITE FILE(PRINTR) FROM(PRINT_LINE);      106
69         PRINT_AREA = 'VSIO_VSAM_FEEDBACK_CODE = ' || 107
70             VSIO_VSAM_FEEDBACK_CODE;              108
71         WRITE FILE(PRINTR) FROM(PRINT_LINE);      109
72         PRINT_AREA = ' ';                          110
73         RETURN;                                    111
74     END VSIO_ERROR;                               112
75
76     DECLARE                                       113
77     PRINTR FILE OUTPUT RECORD SEQUENTIAL EXTERNAL 114
78     ENV(F CTLASA);                               115
79
80     DECLARE                                       116
81     COUNTER_EDIT          PICTURE 'ZZ,ZZZ,ZZ9V',  117
82     MORE_RECORDS          BIT(1),                 118
83     NO                    BIT(1) INIT('0'B),     119
84     RECORD_COUNTER        FIXED BINARY(15,0),    120
85     YES                   BIT(1) INIT('1'B);     121
86
87     DECLARE                                       122
88     1 RECORD_IMAGE,                                  123
89     2 RECORD_KEY          CHAR(10),               124
90     2 RECORD_FIELDS       CHAR(70);              125
```

```

72          DECLARE                                     134
          RECORD_IMAGE_SCALAR                          DEFINED RECORD_IMAGE 135
          CHAR(80);                                     136
73          DECLARE                                     137
          1 PRINT_LINE,                                 138
          2 CARRIAGE_CONTROL CHAR(1) INIT(' '),        139
          2 PRINT_AREA CHAR(120);                       140
          /.....*                                     141
          VV  VV   SSSSS   A      M      M      IIII   OOOOO 142
          VV  VV   SS   SS   AAA    MM   MM   II     OO   OO 143
          VV  VV   SS     AA AA   MMM  MMM  II     OO   OO 144
          VV  VV   SSSSS   AA   AA  MMMMMMMM  II     OO   OO 145
          VV  VV           SS   AA   AA   MM M MM  II     OO   OO 146
          VV VV   SS   SS   AAAAAA  MM   MM   II     OO   OO 147
          VVV     SS   SS   AA   AA   MM   MM   II     OO   OO 148
          V       SSSSS   AA   AA   MM   MM   IIII   OOOOO 148
          *.....*                                     148
          THESE PARAMETERS ARE USED TO INTERFACE WITH THE VSAM DATASET ACCESS 148
          ROUTINE.                                     148
          THE VSIO_PARAMETER_VALUES SUPPLY THE VALUES USED TO MOVE INTO      148
          PARAMETER ENTRIES TO TAILOR THE ROUTINE TO A SPECIFIC DATASET AND    148
          TO PROVIDE COMMANDS TO DRIVE THE ROUTINE.                             148
          *.....*/                                     148
74          DECLARE                                     166
          1 VSIO_PARAMETER_VALUES STATIC,              168
          2 VSIO_OPEN CHAR(8) INIT('OPEN  '),         169
          2 VSIO_CLOSE CHAR(8) INIT('CLOSE  '),       170
          2 VSIO_READ CHAR(8) INIT('READ  '),         171
          2 VSIO_WRITE CHAR(8) INIT('WRITE  '),       172
          2 VSIO_REWRITE CHAR(8) INIT('REWRITE '),     173
          2 VSIO_DELETE CHAR(8) INIT('DELETE '),      174
          2 VSIO_START_EQUAL CHAR(8) INIT('STARTEQ '), 175
          2 VSIO_START_NOTLESS CHAR(8) INIT('STARTGE '), 176
          2 VSIO_KSDS CHAR(4) INIT('KSDS'),           177
          2 VSIO_ESDS CHAR(4) INIT('ESDS'),           178
          2 VSIO_RRDS CHAR(4) INIT('RRDS'),           179
          2 VSIO_SEQUENTIAL CHAR(10) INIT('SEQUENTIAL'), 180
          2 VSIO_DIRECT CHAR(10) INIT('DIRECT '),     181
          2 VSIO_DYNAMIC CHAR(10) INIT('DYNAMIC '),   182
          2 VSIO_INPUT CHAR(6) INIT('INPUT '),        183

```

```

2 VSIO_OUTPUT          CHAR(6)  INIT('OUTPUT'),      185
2 VSIO_INPUT_OUTPUT   CHAR(6)  INIT('UPDATE'),      186
2 (VSIO_RC_SUCCESS    INIT(0),      187
  VSIO_RC_LOGIC_ERROR INIT(8),      188
  VSIO_RC_END_OF_FILE INIT(9999),    189
  VSIO_RC_UNKNOWN_COMMAND INIT(20),    190
  VSIO_RC_DATASET_ALREADY_OPEN INIT(21),    191
  VSIO_RC_DATASET_NOT_OPEN INIT(22),    192
  VSIO_RC_ORGANIZATION_UNKNOWN INIT(23),    193
  VSIO_RC_ACCESS_UNKNOWN INIT(24),    194
  VSIO_RC_ORG_ACCESS_MISMATCH INIT(25),    195
  VSIO_RC_MODE_UNKNOWN INIT(26),    196
  VSIO_RC_MODE_UNSUPPORTED INIT(27),    197
  VSIO_RC_DDNAME_BLANK INIT(28))      198
                          FIXED BINARY(15,0), 199
2 (VSIO_FB_DUPLICATE_RECORD INIT(8),      200
  VSIO_FB_KEY_SEQUENCE INIT(12),      201
  VSIO_FB_RECORD_NOT_FOUND INIT(16),    202
  VSIO_FB_NO_MORE_SPACE INIT(28),      203
  VSIO_FB_READ_WITHOUT_START INIT(88))  204
                          FIXED BINARY(15,0), 205

```

```

/.....
THE VSIO_PARAMETER_BLOCK IS THE COMMUNICATION INTERFACE TO THE
THE ROUTINE.
...../

```

```

1 VSIO_PARAMETER_BLOCK STATIC,      211
  2 VSIO_COMMAND        CHAR(8)  INIT(' '),      212
  2 (VSIO_RETURN_CODE,  213
    VSIO_VSAM_RC,      214
    VSIO_VSAM_FUNCTION, 215
    VSIO_VSAM_FEEDBACK) FIXED BINARY(15,0) INIT(0); 216

```

```

/.....
                          END OF VSAMIO COPY BOOK
...../

```

```

/.....
VV  VV  SSSSS  A    M    M  IIII  OOOO  FFFFFFFF  BBBB  221
VV  VV  SS   SS   AAA  MM   MM  II   OO  OO  FF      BB  BB  221
VV  VV  SS           AA AA  MMM MMM  II   OO  OO  FF      BB  BB  221
VV  VV  SSSSS  AA  AA  MMMMMMMM  II   OO  OO  FFFFFF  BBBB  221
VV  VV           SS  AA  AA  MM M MM  II   OO  OO  FF      BB  BB  221
  VV VV  SS   SS  AAAAAA  MM   MM  II   OO  OO  FF      BB  BB  221
    VVV  SS   SS  AA  AA  MM   MM  II   OO  OO  FF      BB  BB  221
      V   SSSSS  AA  AA  MM   MM  IIII  OOOO  FF      BBBB  221

```



```

*****
THESE PARAMETERS ARE USED TO INTERFACE WITH THE VSAM DATASET ACCESS
ROUTINE, AND ARE USED TO COMMUNICATE CHARACTERISTICS FOR A SINGLE
VSAM DATASET.

WITH THE 2 EXCEPTIONS FOR RECORD LENGTH (TO ACCOMODATE VARIABLE
LENGTH RECORDS) AND RELATIVE RECORD (TO ACCOMODATE RELATIVE RECORD
DATASETS), THESE DATA NAMES MUST BE POPULATED PRIOR TO CALLING THE
ROUTINE TO OPEN THE DATASET AND MUST NOT THEN BE CHANGED UNTIL THE
DATASET HAS BEEN CLOSED.
*****/

```

```

75      DECLARE
          1 VSIO_FILE_BLOCK          STATIC,
            2 VSFB_DDNAME             CHAR(8)   INIT(' '),
            2 VSFB_ORGANIZATION       CHAR(4)   INIT(' '),
            2 VSFB_ACCESS              CHAR(10)  INIT(' '),
            2 VSFB_MODE                CHAR(6)   INIT(' '),
            2 (VSFB_RECORD_LENGTH,
              VSFB_KEY_POSITION,
              VSFB_KEY_LENGTH)       FIXED BINARY(15,0) INIT(0),
            2 VSFB_FILE_STATUS        CHAR(1)   INIT('C'),
            2 VSFB_RESERVED           CHAR(161);

```

```

/*****
                                END OF VSAMIOFB COPY BOOK
*****/

```

```

76      END KSDSREA;

```

ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
73	CARRIAGE_CONTROL	IN PRINT_LINE,AUTOMATIC,UNALIGNED,INITIAL,STRING(1),CHARACTER
70	COUNTER_EDIT	AUTOMATIC,UNALIGNED,DECIMAL,PICTURE(ZZ,ZZZ,ZZ9V) 35,36
1	***** KSDSREA	ENTRY,BINARY,FIXED(15,0)
70	MORE_RECORDS	AUTOMATIC,UNALIGNED,STRING(1),BIT 16,31,33,50
70	NO	AUTOMATIC,UNALIGNED,INITIAL,STRING(1),BIT 50
73	PRINT_AREA	IN PRINT_LINE,AUTOMATIC,UNALIGNED,STRING(120),CHARACTER 10,12,14,36,56,58,60,62,64,66
73	PRINT_LINE	AUTOMATIC,STRUCTURE 11,13,15,37,57,59,61,63,65
69	PRINTR	FILE,EXTERNAL,OUTPUT,RECORD,SEQUENTIAL,ENVIRONMENT(F CTLASA) 9,11,13,15,37,57,59,61,63,65
45	READ_KS	ENTRY,DECIMAL,FLOAT(SINGLE) 32
70	***** RECORD_COUNTER	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 35,52,52
71	RECORD_FIELDS	IN RECORD_IMAGE,AUTOMATIC,UNALIGNED,STRING(70),CHARACTER
71	RECORD_IMAGE	AUTOMATIC,STRUCTURE 25,41,47
72	RECORD_IMAGE_SCALAR	AUTOMATIC,DEFINED,UNALIGNED,STRING(80),CHARACTER 36
71	RECORD_KEY	IN RECORD_IMAGE,AUTOMATIC,UNALIGNED,STRING(10),CHARACTER 36
	SYSPRINT	FILE,EXTERNAL 5,6,7

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
	VSAMIOP	EXTERNAL, ENTRY, DECIMAL, FLOAT(SINGLE) 25, 41, 47
75	VSFB_ACCESS	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER 19
75	VSFB_DDNAME	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 17
75	VSFB_FILE_STATUS	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(1), CHARACTER
75	***** VSFB_KEY_LENGTH	IN VSIO_FILE_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED(15, 0) 23
75	***** VSFB_KEY_POSITION	IN VSIO_FILE_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED(15, 0) 22
75	VSFB_MODE	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(6), CHARACTER 20
75	VSFB_ORGANIZATION	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(4), CHARACTER 18
75	***** VSFB_RECORD_LENGTH	IN VSIO_FILE_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED(15, 0) 21
75	VSFB_RESERVED	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, STRING(161), CHARACTER
74	VSIO_CLOSE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 40
74	VSIO_COMMAND	IN VSIO_PARAMETER_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 24, 40, 46, 56
74	VSIO_DELETE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
74	VSIO_DIRECT	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER
74	VSIO_DYNAMIC	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
55	VSIO_ERROR	ENTRY,DECIMAL, FLOAT(SINGLE) 28,43,51
74	VSIO_ESDS	IN VSIO_PARAMETER_VALUES,STATIC,UNALIGNED,INITIAL,STRING(4), CHARACTER
74	***** VSIO_FB_DUPLICATE_RECORD	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_FB_KEY_SEQUENCE	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_FB_NO_MORE_SPACE	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_FB_READ_WITHOUT_START	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_FB_RECORD_NOT_FOUND	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
75	VSIO_FILE_BLOCK	STATIC,STRUCTURE 25,41,47
74	VSIO_INPUT	IN VSIO_PARAMETER_VALUES,STATIC,UNALIGNED,INITIAL,STRING(6), CHARACTER 20
74	VSIO_INPUT_OUTPUT	IN VSIO_PARAMETER_VALUES,STATIC,UNALIGNED,INITIAL,STRING(6), CHARACTER
74	VSIO_KSDS	IN VSIO_PARAMETER_VALUES,STATIC,UNALIGNED,INITIAL,STRING(4), CHARACTER 18
74	VSIO_OPEN	IN VSIO_PARAMETER_VALUES,STATIC,UNALIGNED,INITIAL,STRING(8), CHARACTER 24
74	VSIO_OUTPUT	IN VSIO_PARAMETER_VALUES,STATIC,UNALIGNED,INITIAL,STRING(6), CHARACTER
74	VSIO_PARAMETER_BLOCK	STATIC,STRUCTURE 25,41,47

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
74	VSIO_PARAMETER_VALUES	STATIC,STRUCTURE
74	***** VSIO_RC_ACCESS_UNKNOWN	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_RC_DATASET_ALREADY_OPEN	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_RC_DATASET_NOT_OPEN	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_RC_DDNAME_BLANK	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_RC_END_OF_FILE	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0) 49
74	***** VSIO_RC_LOGIC_ERROR	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_RC_MODE_UNKNOWN	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_RC_MODE_UNSUPPORTED	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_RC_ORG_ACCESS_MISMATCH	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_RC_ORGANIZATION_UNKNOWN	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	***** VSIO_RC_SUCCESS	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0) 26,42,48
74	***** VSIO_RC_UNKNOWN_COMMAND	IN VSIO_PARAMETER_VALUES,STATIC,ALIGNED,INITIAL,BINARY,FIXED (15,0)
74	VSIO_READ	IN VSIO_PARAMETER_VALUES,STATIC,UNALIGNED,INITIAL,STRING(8), CHARACTER 46

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
74	***** VSIO_RETURN_CODE	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0) 26,42,48,49,58
74	VSIO_REWRITE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
74	VSIO_RRDS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(4), CHARACTER
74	VSIO_SEQUENTIAL	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER 19
74	VSIO_START_EQUAL	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
74	VSIO_START_NOTLESS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
74	***** VSIO_VSAM_FEEDBACK	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
	VSIO_VSAM_FEEDBACK_CODE	AUTOMATIC, ALIGNED, DECIMAL, FLOAT(SINGLE) 64
74	***** VSIO_VSAM_FUNCTION	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
	VSIO_VSAM_FUNCTION_CODE	AUTOMATIC, ALIGNED, DECIMAL, FLOAT(SINGLE) 62
74	***** VSIO_VSAM_RC	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
	VSIO_VSAM_RETURN_CODE	AUTOMATIC, ALIGNED, DECIMAL, FLOAT(SINGLE) 60
74	VSIO_WRITE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
70	YES	AUTOMATIC, UNALIGNED, INITIAL, STRING(1), BIT 16

AGGREGATE LENGTH TABLE

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
73	PRINT_LINE	121
71	RECORD_IMAGE	80
75	VSIO_FILE_BLOCK	196
74	VSIO_PARAMETER_BLOCK	16
74	VSIO_PARAMETER_VALUES	158

STORAGE REQUIREMENTS.

THE STORAGE AREA FOR THE PROCEDURE LABELLED KSDSREA IS 592 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 3 IS 184 BYTES LONG.
THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED READ_KS IS 176 BYTES LONG.
THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED VSIO_ERROR IS 256 BYTES LONG.
THE PROGRAM CSECT IS NAMED KSDSREA AND IS 1574 BYTES LONG.
THE STATIC CSECT IS NAMED KSDSREAA AND IS 5456 BYTES LONG.

STATISTICS MACRO RECORDS = 258, SOURCE RECORDS = 260, PROG TEXT STMNTS = 76, OBJECT BYTES = 1574

TABLE OF OFFSETS AND STATEMENT NUMBERS WITHIN ON UNIT

OFFSET (HEX)	0000	0050	005C	007A	0094	00B2
STATEMENT NO	3	4	5	6	7	8

TABLE OF OFFSETS AND STATEMENT NUMBERS WITHIN PROCEDURE READ_KS

OFFSET (HEX)	0000	0034	003A	005A	0066	0072	0080	008E	009E	00A4
STATEMENT NO	45	46	47	48	49	50	51	52	53	54

TABLE OF OFFSETS AND STATEMENT NUMBERS WITHIN PROCEDURE VSIO_ERROR

OFFSET (HEX)	0000	0038	0052	006A	00B6	00CE	0104	011C	014E	0166	0198	01B0	01BC	01C2
STATEMENT NO	55	56	57	58	59	60	61	62	63	64	65	66	67	68

TABLE OF OFFSETS AND STATEMENT NUMBERS WITHIN PROCEDURE KSDSREA

OFFSET (HEX)	0000	00C4	00D2	00DC	00E8	0100	010C	0124	0130	0148	014E	0154	015A	0160	0166	016C	0172	0178	017E	019A	01A6
STATEMENT NO	1	2	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

OFFSET (HEX)	01A6	01B0	01B6	01B6	01BE	01C8	01D0	01D0	01EA	021C	0234	0234	0238	023E	025A	0266	0270	0276
STATEMENT NO	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	76

COMPILER DIAGNOSTICS.

WARNINGS.

IEM0227I NO FILE/STRING OPTION SPECIFIED IN ONE OR MORE GET/PUT STATEMENTS. SYSIN/SYSPRINT HAS BEEN ASSUMED IN EACH CASE.

IEM0764I ONE OR MORE FIXED BINARY ITEMS OF PRECISION 15 OR LESS HAVE BEEN GIVEN HALFWORD STORAGE. THEY ARE FLAGGED '*****' IN THE XREF/ATR LIST.

IEM1790I DATA CONVERSIONS WILL BE DONE BY SUBROUTINE CALL IN THE FOLLOWING STATEMENTS 60, 62, 64.

END OF DIAGNOSTICS.

AUXILIARY STORAGE WILL NOT BE USED FOR DICTIONARY WHEN SIZE = 138K

COMPILE TIME .00 MINS

ELAPSED TIME .00 MINS

F64-LEVEL LINKAGE EDITOR OPTIONS SPECIFIED NONE
DEFAULT OPTION(S) USED - SIZE=(231424,55296)
***GO DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET
AUTHORIZATION CODE IS 0.

KSDSREAD: READ KSDS SEQUENTIALLY

1:	KEY:	0045557001	DATA:	0045557001	LISA L FONTAINE	714 SUNSET PLACE	SAN ANTONIO	TX
2:	KEY:	0130758002	DATA:	0130758002	VIRGINIA O RENFRO	2111 BRIDGE AVENUE	BRIDGEPORT	CT
3:	KEY:	0243081003	DATA:	0243081003	JILL W SCHWAB	5641 WASHINGTON STREET	WEST PALM BEACH	FL
4:	KEY:	0366881004	DATA:	0366881004	LUCY J CHILDRESS	2777 GUADLAUPE BLVD	ROSWELL	GA
5:	KEY:	0517579005	DATA:	0517579005	DEBRA K RODGERS	1048 WINDHAM COURT	GREENVILLE	SC
6:	KEY:	0561094006	DATA:	0561094006	TAMMY L SCHAEFER	3911 KINGS RIDGE STREET	EUGENE	OR
7:	KEY:	0593878007	DATA:	0593878007	LOUIS W HORTON	9722 EASTHAVEN STREET	DES PLAINES	IL
8:	KEY:	0725148008	DATA:	0725148008	BRIAN A HODGES	4292 BONANZA STREET	ENGLEWOOD	CO
9:	KEY:	0930005009	DATA:	0930005009	RUSSELL B HASTINGS	226 WINDTREE STREET	ALBANY	NY
10:	KEY:	0994201010	DATA:	0994201010	ADOLF S CARLISLE	936 LAKEFRONT AVENUE	ROANOAK	VA
11:	KEY:	1033846021	DATA:	1033846021	CHERYL I TUCKER	660 SHORE ROAD	LOUISVILLE	KY
12:	KEY:	1098019022	DATA:	1098019022	HANNAH F QUIMBY	6151 MAIN COURT	PHOENIX	AZ
13:	KEY:	1168050023	DATA:	1168050023	TAMMY J FRANKLIN	5226 ROSA LINDA ROAD	LOUISVILLE	KY
14:	KEY:	1371074024	DATA:	1371074024	TAMMY M HARMON	243 KINGS RIDGE STREET	GREENVILLE	SC
15:	KEY:	1442146025	DATA:	1442146025	LUCY H ERICKSON	6207 RIDGEWAY AVENUE	KANSAS CITY	MO
16:	KEY:	1511914026	DATA:	1511914026	SAMANTHA J TEMPLETON	1534 SUN MEADOW AVENUE	FORT LAUDERDALE	FL
17:	KEY:	1765093027	DATA:	1765093027	DANIEL I GOODWIN	1660 BRIGHT AVENUE	DALLAS	TX
18:	KEY:	1766129028	DATA:	1766129028	JOYCE R NORTON	907 BRANDYWINE CIRCLE	SAN ANTONIO	TX
19:	KEY:	1778910029	DATA:	1778910029	JUDITH H JEFFERSON	766 KNICKERBOCKER PLACE	SIOUX FALLS	SD
20:	KEY:	1907611030	DATA:	1907611030	KEITH E NEWTON	143 BUCKLEY AVENUE	BALDWIN	MO
21:	KEY:	2119032041	DATA:	2119032041	RUTH E GASTON	8754 GARDEN PLACE	FORT LAUDERDALE	FL
22:	KEY:	2121744042	DATA:	2121744042	TROY J NORRIS	716 HILLSIDE ROAD	DENTON	TX
23:	KEY:	2174003043	DATA:	2174003043	SHIRLEY V MATTOX	1260 SHORE AVENUE	FALLS VILLAGE	CT
24:	KEY:	2229822044	DATA:	2229822044	LUCY T HAMMOND	587 CARBONDALE COURT	SALINA	KS
25:	KEY:	2231748045	DATA:	2231748045	SCOTT F HABERMANN	336 BALBOA AVENUE	LAGO VISTA	TX
26:	KEY:	2324761046	DATA:	2324761046	EVERETT L HAMMOND	5912 BISHOP AVENUE	KEARNEY	NE
27:	KEY:	2363024047	DATA:	2363024047	REBECCA A GERBLICK	1617 PARKER AVENUE	SALINA	KS
28:	KEY:	2483871048	DATA:	2483871048	SAMANTHA T MOORE	3586 STRAWBERRY COURT	PONCA CITY	OK
29:	KEY:	2522284049	DATA:	2522284049	WANDA J TUCKER	7807 WINDTREE ROAD	SAN ANTONIO	TX
30:	KEY:	2597002050	DATA:	2597002050	HELEN H FONTAINE	852 WESTRIDGE AVENUE	FORT LAUDERDALE	FL
31:	KEY:	2806628061	DATA:	2806628061	ANDREW T MORENO	8900 WASHINGTON STREET	PROVIDENCE	RI
32:	KEY:	2822279062	DATA:	2822279062	BEVERLY F WINSTON	5585 CHARLESTON ROAD	BOSTON	MA
33:	KEY:	2845743063	DATA:	2845743063	ZELDA W RANDALL	639 SOUTHLAND ROAD	FOREST HEIGHTS	MD
34:	KEY:	2858277064	DATA:	2858277064	CLARA F BRYANT	529 BARNABY STREET	LOUISVILLE	KY
35:	KEY:	3071401065	DATA:	3071401065	MICHELLE A ROSS	188 EASTHAVEN AVENUE	BUFFALO	NY
36:	KEY:	3129003066	DATA:	3129003066	BILL W BECK	1798 SEABREEZE AVENUE	BOSTON	MA
37:	KEY:	3284189067	DATA:	3284189067	RITA N RENFRO	7881 DAISY COURT	SIOUX FALLS	SD
38:	KEY:	3489628068	DATA:	3489628068	ARNOLD R ELISON	465 MAIN AVENUE	TULSA	OK
39:	KEY:	3775212069	DATA:	3775212069	HANNAH J GLOVER	3791 SEABREEZE STREET	NASHAU	NH
40:	KEY:	3786163070	DATA:	3786163070	REBECCA D DOREN	8730 STRAWBERRY ROAD	SPRING	TX
41:	KEY:	3851331081	DATA:	3851331081	CLIFF J DRAKE	169 SHORE AVENUE	CHICAGO	IL
42:	KEY:	3912384082	DATA:	3912384082	CRAIG O LABROIE	8021 MILL MOUNTAIN PLACE	MURFREESBORO	TN
43:	KEY:	4077702083	DATA:	4077702083	ROLAND P RODGERS	827 MEADOW STREET	TULSA	OK
44:	KEY:	4093285084	DATA:	4093285084	JACK J SCHWAB	250 BUCKLEY PLACE	CHICAGO	IL
45:	KEY:	4176588085	DATA:	4176588085	BRENDA O MCKAY	315 A & M PLACE	LA HABRA	CA
46:	KEY:	4197550086	DATA:	4197550086	TROY S POWERS	1707 BRIDGE STREET	ENGLEWOOD	CO
47:	KEY:	4318291087	DATA:	4318291087	SAMANTHA M HALL	8063 EDMUND AVENUE	SAN ANTONIO	TX
48:	KEY:	4461486088	DATA:	4461486088	SAMANTHA E MORENO	5196 BAYVIEW PLACE	BRIDGEPORT	CT
49:	KEY:	4514067089	DATA:	4514067089	JIM B RIGHT	568 GREEN VALLEY AVENUE	HOUSTON	TX
50:	KEY:	4588719090	DATA:	4588719090	SHIRLEY D JOHNSON	716 COBBS ROAD	TULSA	OK
51:	KEY:	4776111101	DATA:	4776111101	JOSEPH P HAMMOND	6532 BRANDYWINE STREET	PASADENA	CA
52:	KEY:	4813060102	DATA:	4813060102	REBECCA S NORTON	1175 ELLIS COURT	LOUISVILLE	KY
53:	KEY:	4862587103	DATA:	4862587103	JILL M BENSON	170 SIERRA VISTA ROAD	HELENA	MT
54:	KEY:	4893602104	DATA:	4893602104	LAURIE R RAMSEY	902 PECAN VALLEY STREET	PONCA CITY	OK
55:	KEY:	4934781105	DATA:	4934781105	CHERYL H HABERMANN	930 CLIFTWOOD AVENUE	BUFFALO	NY
56:	KEY:	5105151106	DATA:	5105151106	SHIRLEY P TYLER	5262 BRIDGE CIRCLE	FORT COLLINS	CO
57:	KEY:	5220743107	DATA:	5220743107	CHRISTOPHER F MORGAN	9624 BONANZA AVENUE	DOWNEY	CA

58:	KEY: 5239514108	DATA: 5239514108	NATHAN O SCHAEFER	7644 INDUSTRIAL ROAD	EUGENE	OR
59:	KEY: 5462366109	DATA: 5462366109	DIANE P JENNINGS	2454 ROSA LINDA ROAD	KNOXVILLE	TN
60:	KEY: 5470384110	DATA: 5470384110	JILL F ROSS	949 ROSEWOOD STREET	BALDWIN	MO
61:	KEY: 5582803121	DATA: 5582803121	ANGELA J ERWIN	2709 BIENVILLE STREET	NEWPORT BEACH	CA
62:	KEY: 5618369122	DATA: 5618369122	PETER F ALEXANDER	5500 KNICKERBOCKER AVENUE	BINGHAMTON	NY
63:	KEY: 5731895123	DATA: 5731895123	BETTY H BOWERS	3787 WINDWOOD PLACE	SALT LAKE CITY	UT
64:	KEY: 5764671124	DATA: 5764671124	PETER L SCHAEFER	358 ATOLL STREET	PASADENA	CA
65:	KEY: 5867208125	DATA: 5867208125	JOYCE K JENNINGS	1580 ROSA LINDA COURT	TUCSON	AZ
66:	KEY: 5877149126	DATA: 5877149126	ROBERT P GLOVER	6394 PARSON ROAD	NORWALK	CT
67:	KEY: 5922222127	DATA: 5922222127	RUTH N ALEXANDER	259 SEASIDE ROAD	ANNAPOLIS	MD
68:	KEY: 6007109128	DATA: 6007109128	JARED D HILLFORD	879 MICHIGAN AVENUE	PONCA CITY	OK
69:	KEY: 6131803129	DATA: 6131803129	HELEN R DRAKE	263 BENSON STREET	DENVER	CO
70:	KEY: 6212865130	DATA: 6212865130	JOYCE C EUBANKS	516 WESTRIDGE BLVD	WEST BRADENTON	FL
71:	KEY: 6288450141	DATA: 6288450141	DEBRA B JACKSON	7426 PARSON ROAD	MINNEAPOLIS	MN
72:	KEY: 6315453142	DATA: 6315453142	BILL M TEASDALE	608 LINCOLN ROAD	FORT WORTH	TX
73:	KEY: 6426347143	DATA: 6426347143	PATTY C ELISON	5454 LINCOLN AVENUE	DETROIT	MI
74:	KEY: 6532928144	DATA: 6532928144	HANNAH O NEWBURY	3634 SIERRA VISTA STREET	BOSTON	MA
75:	KEY: 6552938145	DATA: 6552938145	BETTY V POWERS	454 JUNIPER AVENUE	ANN ARBOR	MI
76:	KEY: 6565164146	DATA: 6565164146	JACK H EUBANKS	3699 SOUTHLAND PLACE	FREMONT	CA
77:	KEY: 6613600147	DATA: 6613600147	TAMMY O EUBANKS	5230 DAISY AVENUE	KEARNEY	NE
78:	KEY: 6660837148	DATA: 6660837148	BRIAN T PARRISH	751 PECAN VALLEY COURT	ANN ARBOR	MI
79:	KEY: 6740697149	DATA: 6740697149	LARRY O MORENO	6565 JACKSON STREET	EUGENE	OR
80:	KEY: 6865914150	DATA: 6865914150	DEBRA F BOWERS	8793 GARDEN AVENUE	DES PLAINES	IL
81:	KEY: 6890599161	DATA: 6890599161	LARRY G PARKER	827 MEADOW STREET	SAN DIEGO	CA
82:	KEY: 6911300162	DATA: 6911300162	JANET H HAMMOND	5064 GRANT STREET	DES PLAINES	IL
83:	KEY: 7110260163	DATA: 7110260163	BEVERLY K WEAVER	829 HORSESHOE CIRCLE	LA JOLLA	CA
84:	KEY: 7170298164	DATA: 7170298164	KEVIN L FONTAINE	3527 APPLE VALLEY STREET	MISSOULA	MT
85:	KEY: 7255026165	DATA: 7255026165	JERRY S BOWERS	395 ALTAVISTA COURT	SAN DIEGO	CA
86:	KEY: 7792268166	DATA: 7792268166	JOAN C GLOVER	6152 CUMBERLAND AVENUE	NEW YORK	NY
87:	KEY: 8198053167	DATA: 8198053167	RONALD A EUBANKS	378 SHORE STREET	ANCHORAGE	AK
88:	KEY: 8214332168	DATA: 8214332168	ROY P MATTOX	154 SUNSET COURT	WEST PALM BEACH	FL
89:	KEY: 8216798169	DATA: 8216798169	ROY F NORRIS	3212 ALTAVISTA BLVD	BOSTON	MA
90:	KEY: 8309814170	DATA: 8309814170	EVERETT A ERWIN	926 BALBOA STREET	OKLAHOMA CITY	OK
91:	KEY: 8491480181	DATA: 8491480181	JOYCE S HODGES	682 PARKER PLACE	CLEVELAND	OH
92:	KEY: 8544794182	DATA: 8544794182	NATHAN R JOHNSON	1034 TWILIGHT ROAD	COVINGTON	LA
93:	KEY: 8675854183	DATA: 8675854183	ANDREW B WINSTON	2458 ELLIS ROAD	SPRING	TX
94:	KEY: 8763434184	DATA: 8763434184	CRAIG I GOODLOW	1667 WASHINGTON ROAD	MONTGOMERY	AL
95:	KEY: 8969094185	DATA: 8969094185	ERNIE N DUNBAR	2830 NORTHFIELD STREET	LOUISVILLE	KY
96:	KEY: 9235874186	DATA: 9235874186	TED R BOWERS	532 PECAN VALLEY STREET	PRESCOTT	AZ
97:	KEY: 9266973187	DATA: 9266973187	ANDREW K CONLEY	689 WINDTREE BLVD	ATLANTA	GA
98:	KEY: 9445325188	DATA: 9445325188	ARNOLD F RAMSEY	8629 LINCOLN CIRCLE	MONTGOMERY	AL
99:	KEY: 9604395189	DATA: 9604395189	JANET M BARBER	1605 GARRETT STREET	LA JOLLA	CA
100:	KEY: 9962289190	DATA: 9962289190	PETER R STUART	870 BALBOA COURT	PHILADELPHIA	PA