

J E S 2 J O B L O G

18.04.56 JOB 146 IEF677I WARNING MESSAGE(S) FOR JOB VSTESTE3 ISSUED  
18.04.56 JOB 146 \$HASP373 VSTESTE3 STARTED - INIT 1 - CLASS A - SYS HMVS  
18.04.56 JOB 146 IEF403I VSTESTE3 - STARTED - TIME=18.04.56  
18.04.56 JOB 146 CCI001C PL1L /IEMAA /00:00:00.15/ /00004/1 /VSTESTE3  
18.04.56 JOB 146 CCI001C LKED /IEWL /00:00:00.04/ /00000/1 /VSTESTE3  
18.04.56 JOB 146 CCI001C GO /PGM=\*.DD/00:00:00.01/ /00000/1 /VSTESTE3  
18.04.56 JOB 146 IEF404I VSTESTE3 - ENDED - TIME=18.04.56  
18.04.56 JOB 146 \$HASP395 VSTESTE3 ENDED

----- JES2 JOB STATISTICS -----

07 JUL 20 JOB EXECUTION DATE

22 CARDS READ

1,123 SYSOUT PRINT RECORDS

0 SYSOUT PUNCH RECORDS

0.00 MINUTES EXECUTION TIME

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1 //VSTESTE3 JOB 1,'VSAMIOP IVP ESDSREAD',CLASS=A,MSGCLASS=X, JOB 146
// REGION=4096K
***
*****
*** PL/1 MODULE: ESDSREAD VSAM DATASET: VSTESTES.CLUSTER (ESDS)
***
*** SEQUENTIALLY READS ENTRY SEQUENCED DATASET
*****
***
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 DSNNAME=&&LOADSET,DISP=(MOD,PASS),UNIT=SYSSQ, *00000400
XX SPACE=(80,(250,100)) 00000500
7 XXSYSUT3 DD DSNNAME=&&SYSUT3,UNIT=SYSDA,SPACE=(80,(250,250)), *00000600
XX DCB=BLKSIZE=80 00000700
8 XXSYSUT1 DD DSNNAME=&&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(ESDSREAD),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 DSNNAME=SYSC.PL1LIB,DISP=SHR 00001201
13 // DD DSN=SYSC.LINKLIB,DISP=SHR
14 XXSYSLMOD DD DSNNAME=&&GOSET(GO),DISP=(MOD,PASS), *00001300
XX UNIT=SYSDA,SPACE=(1024,(50,20,1),RLSE) 00001400
15 XXSYSUT1 DD DSNNAME=&&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 DSNNAME=&&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.ESDSF01 DD DSN=PUB001.VSTESTES.CLUSTER,DISP=OLD

```

STMT NO. MESSAGE

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

IEF236I ALLOC. FOR VSTESTE3 PL1L PL1F
IEF237I 253 ALLOCATED TO STEPLIB
IEF237I 253 ALLOCATED TO SYS00302
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 VSTESTE3 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.JOB00146.SO0101 SYSOUT
IEF285I SYS20189.T180456.RA000.VSTESTE3.LOADSET PASSED \*-----201
IEF285I VOL SER NOS= MVS380.
IEF285I SYS20189.T180456.RA000.VSTESTE3.SYSUT3 DELETED \*-----255
IEF285I VOL SER NOS= WORK00.
IEF285I SYS20189.T180456.RA000.VSTESTE3.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 20189.1804

IEF374I STEP /PL1L / STOP 20189.1804 CPU 0MIN 00.15SEC SRB 0MIN 00.04SEC VIRT 4096K SYS 212K

\*\*\*\* JOBCARD READ 20189 18:04:56 \*\*\*\*

\* PRC-CCI 370/148 VS2 R03.8 HMVS STEP STATISTICS \*
\* STEP NAME PL1L USER CORE 4096K TAPES USED/IO 000/000000000 START TIME 18:04:56 TCB TIME 00:00:00.15 \*
\* PGM NAME IEMAA SYSTEM CORE 212K DISKS USED/IO 004/000000486 STOP TIME 18:04:56 SRB TIME 00:00:00.04 \*
\* COND CODE 0004 PRIVATE AREA SZ 4096K ALLOC TIME 18:04:56 ELAPSED TIME PGM LOAD 18:04:56 \*
\*\* PGNO \* NR SRV UNITS \* ACTIVE TIME \*\* PAGES IN \*\*\* PAGES OUT \*\* # SWAPS \* PGS SWAP IN \* PGS SWAP OUT \* VIO PGS IN \* VIO PGS OUT \*\*
\* 004 2641 00:00:00.22 0 0 0 0 0 0 0 0 \*
\* CPU \$ ( 0.05 ) + EXCP \$ ( 0.65 ) + MEMORY \$ ( 1.75 ) = TOTAL \$ ( 2.45 ) \*

IEF236I ALLOC. FOR VSTESTE3 LKED PL1F
IEF237I 253 ALLOCATED TO SYSLIB
IEF237I 253 ALLOCATED TO
IEF237I 253 ALLOCATED TO SYS00304
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 VSTESTE3 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.T180456.RA000.VSTESTE3.GOSET PASSED \*-----56
IEF285I VOL SER NOS= WORK00.
IEF285I SYS20189.T180456.RA000.VSTESTE3.SYSUT1 DELETED \*-----0
IEF285I VOL SER NOS= MVS370.
IEF285I JES2.JOB00146.SO0102 SYSOUT

```

IEF285I  SYS20189.T180456.RA000.VSTESTE3.LOADSET      DELETED      *-----202
IEF285I  VOL SER NOS= MVS380.
IEF373I  STEP /LKED      / START 20189.1804
IEF374I  STEP /LKED      / STOP  20189.1804 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  18:04:56  TCB TIME  00:00:00.04 *
* PGM NAME  IEWL      SYSTEM CORE      208K  DISKS USED/IO 004/000000364  STOP   TIME  18:04:56  SRB TIME  00:00:00.01 *
* COND CODE  0000     PRIVATE AREA SZ  4096K  ALLOC TIME  18:04:56  ELAPSED TIME          PGM LOAD  18:04:56 *
** PGNO * NR SRV UNITS * ACTIVE TIME ** PAGES IN *** PAGES OUT ** # SWAPS * PGS SWAP IN * PGS SWAP OUT * VIO PGS IN * VIO PGS OUT **
*  004      1862    00:00:00.06          0          0          0          0          0          0          0          0          0 *
*****
* CPU $ ( 0.01) + EXCP $ ( 0.49) + MEMORY $ ( 0.02) = TOTAL $ ( 0.52)
*****
IEF236I  ALLOC. FOR VSTESTE3 GO PL1F
IEF237I  251  ALLOCATED TO PGM=*.DD
IEF237I  253  ALLOCATED TO STEPLIB
IEF237I  253  ALLOCATED TO
IEF237I  253  ALLOCATED TO SYS00306
IEF237I  JES2 ALLOCATED TO SYSPRINT
IEF237I  JES2 ALLOCATED TO PRINTR
IEF237I  JES2 ALLOCATED TO SYSUDUMP
IEF237I  JES2 ALLOCATED TO SYSPRINT
IEF237I  190  ALLOCATED TO ESDSF01
IEF237I  190  ALLOCATED TO SYS00308
IEF142I  VSTESTE3 GO PL1F - STEP WAS EXECUTED - COND CODE 0000
IEF285I  SYS20189.T180456.RA000.VSTESTE3.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.JOB00146.S00103      SYSOUT
IEF285I  JES2.JOB00146.S00104      SYSOUT
IEF285I  JES2.JOB00146.S00105      SYSOUT
IEF285I  JES2.JOB00146.S00106      SYSOUT
IEF285I  PUB001.VSTESTES.CLUSTER    KEPT          *-----1
IEF285I  VOL SER NOS= PUB001.
IEF285I  UCPUB001      KEPT          *-----0
IEF285I  VOL SER NOS= PUB001.
IEF373I  STEP /GO      / START 20189.1804
IEF374I  STEP /GO      / STOP  20189.1804 CPU      OMIN 00.01SEC SRB      OMIN 00.00SEC VIRT    92K SYS    224K
*****
*
*          PRC-CCI  370/148 VS2 R03.8  HMVS  STEP STATISTICS
* STEP NAME  GO      USER CORE      92K  TAPES USED/IO 000/000000000  START  TIME  18:04:56  TCB TIME  00:00:00.01 *
* PGM NAME  PGM=*.DD  SYSTEM CORE      224K  DISKS USED/IO 003/000000001  STOP   TIME  18:04:56  SRB TIME  00:00:00.00 *
* COND CODE  0000     PRIVATE AREA SZ  4096K  ALLOC TIME  18:04:56  ELAPSED TIME          PGM LOAD  18:04:56 *
** PGNO * NR SRV UNITS * ACTIVE TIME ** PAGES IN *** PAGES OUT ** # SWAPS * PGS SWAP IN * PGS SWAP OUT * VIO PGS IN * VIO PGS OUT **
*  004      40     00:00:00.02          0          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.T180456.RA000.VSTESTE3.R0000001    KEPT          *-----0
IEF285I  VOL SER NOS= WORK00.
IEF285I  SYS20189.T180456.RA000.VSTESTE3.GOSET      DELETED
IEF285I  VOL SER NOS= WORK00.
IEF375I  JOB /VSTESTE3/ START 20189.1804
IEF376I  JOB /VSTESTE3/ STOP  20189.1804 CPU      OMIN 00.20SEC 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  /*****03240000
2  03250000
3  ESDSREAD - TESTS THE VSAMIO ROUTINE BY READING RECORDS FROM AN ESDS 03260000
4  CLUSTER AND PRINTING THEIR CONTENTS. 03270000
5  03280000
6  *****/03290000
7  ESDSREA: 03300000
8  PROCEDURE OPTIONS(MAIN); 03310000
9  03320000
10 ON ERROR 03330000
11 BEGIN; 03340000
12 ON ERROR SYSTEM; 03350000
13 PUT SKIP(3) LIST((54)'*' || ' DEBUG AID ' || (54)'*'); 03360000
14 PUT SKIP DATA; 03370000
15 PUT SKIP(3) LIST((54)'*' || ' DEBUG AID ' || (54)'*'); 03380000
16 END; 03390000
17 03400000
18 OPEN 03410000
19 FILE(PRINTR) LINESIZE(121); 03420000
20 03430000
21 PRINT_AREA = 'ESDSREAD: READ ESDS SEQUENTIALLY'; 03440000
22 WRITE FILE(PRINTR) FROM(PRINT_LINE); 03450000
23 PRINT_AREA = '-----'; 03460000
24 WRITE FILE(PRINTR) FROM(PRINT_LINE); 03470000
25 PRINT_AREA = ' '; 03480000
26 WRITE FILE(PRINTR) FROM(PRINT_LINE); 03490000
27 03500000
28 MORE_RECORDS = YES; 03510000
29 03520000
30 /*****03530000
31 ESTABLISH PARAMETERS OF VSAM DATASET AND CALL ROUTINE TO OPEN 03540000
32 *****/03550000
33 VSFB_DDNAME = 'ESDSF01'; 03560000
34 VSFB_ORGANIZATION = VSIO_ESDS; 03570000
35 VSFB_ACCESS = VSIO_SEQUENTIAL; 03580000
36 VSFB_MODE = VSIO_INPUT; 03590000
37 VSFB_RECORD_LENGTH = 80; 03600000
38 VSFB_KEY_POSITION = 0; 03610000
39 VSFB_KEY_LENGTH = 0; 03620000
40 VSIO_COMMAND = VSIO_OPEN; 03630000
41 CALL VSAMIOP (VSIO_PARAMETER_BLOCK, 03640000
42 VSIO_FILE_BLOCK, 03650000
43 RECORD_IMAGE); 03660000
44 IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN 03670000
```

## MACRO SOURCE2 LISTING

```
45          DO;                                03680000
46              CALL VSIO_ERROR;                03690000
47              RETURN;                        03700000
48          END;                                03710000
49                                              03720000
50      DO WHILE(MORE_RECORDS);                03730000
51          CALL READ_ES;                      03740000
52          IF (MORE_RECORDS) THEN            03750000
53              DO;                            03760000
54                  COUNTER_EDIT = RECORD_COUNTER; 03770000
55                  PRINT_AREA = COUNTER_EDIT || ' : ' || 03780000
56                      RECORD_FIELDS;        03790000
57                  WRITE FILE(PRINTR) FROM(PRINT_LINE); 03800000
58              END;                            03810000
59          END;                                03820000
60                                              03830000
61 /*****03840000
62     CALL ROUTINE TO CLOSE VSAM DATASET      03850000
63     *****/03860000
64     VSIO_COMMAND = VSIO_CLOSE;             03870000
65     CALL VSAMIOP (VSIO_PARAMETER_BLOCK,    03880000
66                 VSIO_FILE_BLOCK,         03890000
67                 RECORD_IMAGE);           03900000
68     IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN 03910000
69         CALL VSIO_ERROR;                   03920000
70
71     RETURN;                                03930000
72                                              03940000
73 READ_ES:                                    03950000
74     PROCEDURE;                             03960000
75                                              03970000
76 /*****03980000
77     CALL ROUTINE TO READ NEXT RECORD FROM VSAM DATASET 03990000
78     *****/04000000
79     VSIO_COMMAND = VSIO_READ;              04010000
80     CALL VSAMIOP (VSIO_PARAMETER_BLOCK,    04020000
81                 VSIO_FILE_BLOCK,         04030000
82                 RECORD_IMAGE);           04040000
83     IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN 04050000
84         IF (VSIO_RETURN_CODE = VSIO_RC_END_OF_FILE) THEN 04060000
85             MORE_RECORDS = NO;            04070000
86         ELSE                               04080000
87             CALL VSIO_ERROR;              04090000
88     ELSE                                    04100000
89         RECORD_COUNTER = RECORD_COUNTER + 1; 04110000
                                              04120000
```

## MACRO SOURCE2 LISTING

```
90          04130000
91      RETURN;          04140000
92          04150000
93      END READ_ES;    04160000
94          04170000
95      VSIO_ERROR:    04180000
96      PROCEDURE;    04190000
97          PRINT_AREA = 'VSAMIO ERROR OCCURRED DURING ' ||
98              VSIO_COMMAND;          04200000
99          WRITE FILE(PRINTR) FROM(PRINT_LINE); 04210000
100         PRINT_AREA = 'VSIO_RETURN_CODE = ' ||
101             VSIO_RETURN_CODE;      04220000
102         WRITE FILE(PRINTR) FROM(PRINT_LINE); 04230000
103         PRINT_AREA = 'VSIO_VSAM_RETURN_CODE = ' ||
104             VSIO_VSAM_RETURN_CODE;  04240000
105         WRITE FILE(PRINTR) FROM(PRINT_LINE); 04250000
106         PRINT_AREA = 'VSIO_VSAM_FUNCTION_CODE = ' ||
107             VSIO_VSAM_FUNCTION_CODE; 04260000
108         WRITE FILE(PRINTR) FROM(PRINT_LINE); 04270000
109         PRINT_AREA = 'VSIO_VSAM_FEEDBACK_CODE = ' ||
110             VSIO_VSAM_FEEDBACK_CODE; 04280000
111         WRITE FILE(PRINTR) FROM(PRINT_LINE); 04290000
112         PRINT_AREA = ' ';          04300000
113          04310000
114      RETURN;        04320000
115          04330000
116      END VSIO_ERROR; 04340000
117          04350000
118      DECLARE        04360000
119          PRINTR FILE OUTPUT RECORD SEQUENTIAL EXTERNAL 04370000
120              ENV(F CTLASA);          04380000
121          04390000
122      DECLARE        04400000
123          COUNTER_EDIT          PICTURE 'ZZ,ZZZ,ZZ9V', 04410000
124          MORE_RECORDS          BIT(1),          04420000
125          NO                    BIT(1) INIT('0'B), 04430000
126          RECORD_COUNTER        FIXED BINARY(15,0), 04440000
127          YES                   BIT(1) INIT('1'B); 04450000
128          04460000
129      DECLARE        04470000
130          1 RECORD_IMAGE,        04480000
131          2 RECORD_FIELDS        CHAR(80);      04490000
132          04500000
133      DECLARE        04510000
134          1 PRINT_LINE,          04520000
          04530000
          04540000
          04550000
          04560000
          04570000
```

## MACRO SOURCE2 LISTING

```
135          2 CARRIAGE_CONTROL          CHAR(1)  INIT(' '),          04580000
136          2 PRINT_AREA                CHAR(120);          04590000
137                                          04600000
138  %INCLUDE (VSAMIO);                  04610000
139  %INCLUDE (VSAMIOFB);                04620000
140                                          04630000
141          END ESDSREA;                  04640000
```

INCLUDED TEXT FOLLOWS FROM DD.MEMBER = SYSLIB .VSAMIO

```
142  /*****31100000
143                                          31110000
144          VV  VV  SSSSS      A      M      M      IIII      OOOOO      31120000
145          VV  VV  SS  SS      AAA      MM  MM      II      OO  OO      31130000
146          VV  VV  SS      AA AA      MMM MMM      II      OO  OO      31140000
147          VV  VV  SSSSS      AA  AA      MMMMMMMM      II      OO  OO      31150000
148          VV  VV      SS      AA  AA      MM M MM      II      OO  OO      31160000
149          VV VV  SS  SS      AAAAAA      MM  MM      II      OO  OO      31170000
150          VVV      SS  SS      AA  AA      MM  MM      II      OO  OO      31180000
151          V      SSSSS      AA  AA      MM  MM      IIII      OOOOO      31190000
152                                          31200000
153  *****/31210000
154  THESE PARAMETERS ARE USED TO INTERFACE WITH THE VSAM DATASET ACCESS 31220000
155  ROUTINE. 31230000
156 31240000
157  THE VSIO_PARAMETER_VALUES SUPPLY THE VALUES USED TO MOVE INTO 31250000
158  PARAMETER ENTRIES TO TAILOR THE ROUTINE TO A SPECIFIC DATASET AND 31260000
159  TO PROVIDE COMMANDS TO DRIVE THE ROUTINE. 31270000
160  *****/31280000
161 31290000
162  DECLARE 31300000
163  1 VSIO_PARAMETER_VALUES STATIC, 31310000
164  2 VSIO_OPEN CHAR(8) INIT('OPEN '), 31320000
165  2 VSIO_CLOSE CHAR(8) INIT('CLOSE '), 31330000
166  2 VSIO_READ CHAR(8) INIT('READ '), 31340000
167  2 VSIO_WRITE CHAR(8) INIT('WRITE '), 31350000
168  2 VSIO_REWRITE CHAR(8) INIT('REWRITE '), 31360000
169  2 VSIO_DELETE CHAR(8) INIT('DELETE '), 31370000
170  2 VSIO_START_EQUAL CHAR(8) INIT('STARTEQ '), 31380000
171  2 VSIO_START_NOTLESS CHAR(8) INIT('STARTGE '), 31390000
172  2 VSIO_KSDS CHAR(4) INIT('KSDS'), 31400000
173  2 VSIO_ESDS CHAR(4) INIT('ESDS'), 31410000
174  2 VSIO_RRDS CHAR(4) INIT('RRDS'), 31420000
175  2 VSIO_SEQUENTIAL CHAR(10) INIT('SEQUENTIAL'), 31430000
```

MACRO SOURCE2 LISTING

```

176      2 VSIO_DIRECT          CHAR(10)  INIT('DIRECT  '), 31440000
177      2 VSIO_DYNAMIC        CHAR(10)  INIT('DYNAMIC  '), 31450000
178      2 VSIO_INPUT          CHAR(6)   INIT('INPUT  '), 31460000
179      2 VSIO_OUTPUT         CHAR(6)   INIT('OUTPUT'), 31470000
180      2 VSIO_INPUT_OUTPUT   CHAR(6)   INIT('UPDATE'), 31480000
181      2 (VSIO_RC_SUCCESS     INIT(0), 31490000
182          VSIO_RC_LOGIC_ERROR INIT(8), 31500000
183          VSIO_RC_END_OF_FILE INIT(9999), 31510000
184          VSIO_RC_UNKNOWN_COMMAND INIT(20), 31520000
185          VSIO_RC_DATASET_ALREADY_OPEN INIT(21), 31530000
186          VSIO_RC_DATASET_NOT_OPEN INIT(22), 31540000
187          VSIO_RC_ORGANIZATION_UNKNOWN INIT(23), 31550000
188          VSIO_RC_ACCESS_UNKNOWN INIT(24), 31560000
189          VSIO_RC_ORG_ACCESS_MISMATCH INIT(25), 31570000
190          VSIO_RC_MODE_UNKNOWN INIT(26), 31580000
191          VSIO_RC_MODE_UNSUPPORTED INIT(27), 31590000
192          VSIO_RC_DDNAME_BLANK INIT(28)) 31600000
193          FIXED BINARY(15,0), 31610000
194      2 (VSIO_FB_DUPLICATE_RECORD INIT(8), 31620000
195          VSIO_FB_KEY_SEQUENCE INIT(12), 31630000
196          VSIO_FB_RECORD_NOT_FOUND INIT(16), 31640000
197          VSIO_FB_NO_MORE_SPACE INIT(28), 31650000
198          VSIO_FB_READ_WITHOUT_START INIT(88)) 31660000
199          FIXED BINARY(15,0), 31670000
200  /*03240000 31680000
201      THE VSIO_PARAMETER_BLOCK IS THE COMMUNICATION INTERFACE TO THE 31690000
202      THE ROUTINE. 31700000
203  /*03240000 31710000
204  31720000
205      1 VSIO_PARAMETER_BLOCK  STATIC, 31730000
206          2 VSIO_COMMAND      CHAR(8)  INIT(' '), 31740000
207          2 (VSIO_RETURN_CODE, 31750000
208              VSIO_VSAM_RC, 31760000
209              VSIO_VSAM_FUNCTION, 31770000
210              VSIO_VSAM_FEEDBACK) FIXED BINARY(15,0) INIT(0); 31780000
211  31790000
212  /*03240000 31800000
213          END OF VSAMIO COPY BOOK 31810000
214  /*03240000 31820000

```

INCLUDED TEXT FOLLOWS FROM DD.MEMBER = SYSLIB .VSAMIOFB

```

215  /*00000100
216  00000200

```

## MACRO SOURCE2 LISTING

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

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

## SOURCE LISTING.

```

/*****
ESDSREAD - TESTS THE VSAMIO ROUTINE BY READING RECORDS FROM AN ESDS
CLUSTER AND PRINTING THEIR CONTENTS.
*****/
1  ESDSREA:
   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 = 'ESDSREAD: READ ESDS 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 = 'ESDSF01';
18     VSFB_ORGANIZATION = VSIO_ESDS;
19     VSFB_ACCESS = VSIO_SEQUENTIAL;
20     VSFB_MODE = VSIO_INPUT;
21     VSFB_RECORD_LENGTH = 80;
22     VSFB_KEY_POSITION = 0;
23     VSFB_KEY_LENGTH = 0;
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_ES;                        51
33          IF (MORE_RECORDS) THEN              52
34              DO;                              53
35                  COUNTER_EDIT = RECORD_COUNTER; 54
36                  PRINT_AREA = COUNTER_EDIT || ': ' || 55
                      RECORD_FIELDS;          56
37                  WRITE FILE(PRINTR) FROM(PRINT_LINE); 57
38              END;                              58
39          END;                                59
                                           60
/*****
CALL ROUTINE TO CLOSE VSAM DATASET
*****/
                                           61
40      VSIO_COMMAND = VSIO_CLOSE;              64
41      CALL VSAMIOP (VSIO_PARAMETER_BLOCK,      65
                    VSIO_FILE_BLOCK,          66
                    RECORD_IMAGE);            67
42      IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN 68
43          CALL VSIO_ERROR;                    69
                                           70
44      RETURN;                                71
                                           72
45      READ_ES:                                73
        PROCEDURE;                            74
                                           75
/*****
CALL ROUTINE TO READ NEXT RECORD FROM VSAM DATASET
*****/
                                           76
46      VSIO_COMMAND = VSIO_READ;              79
47      CALL VSAMIOP (VSIO_PARAMETER_BLOCK,      80
                    VSIO_FILE_BLOCK,          81
                    RECORD_IMAGE);            82
48      IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN 83
49          IF (VSIO_RETURN_CODE = VSIO_RC_END_OF_FILE) THEN 84
50              MORE_RECORDS = NO;              85
51          ELSE                                86
```

```
51          CALL VSIO_ERROR;                                87
52          ELSE                                           88
52          RECORD_COUNTER = RECORD_COUNTER + 1;          89
                                                    90
53          RETURN;                                        91
                                                    92
54          END READ_ES;                                    93
                                                    94
55          VSIO_ERROR:                                     95
          PROCEDURE;                                       96
56          PRINT_AREA = 'VSAMIO ERROR OCCURRED DURING ' || 97
                VSIO_COMMAND;                               98
57          WRITE FILE(PRINTR) FROM(PRINT_LINE);          99
58          PRINT_AREA = 'VSIO_RETURN_CODE = ' ||         100
                VSIO_RETURN_CODE;                           101
59          WRITE FILE(PRINTR) FROM(PRINT_LINE);         102
60          PRINT_AREA = 'VSIO_VSAM_RETURN_CODE = ' ||    103
                VSIO_VSAM_RETURN_CODE;                       104
61          WRITE FILE(PRINTR) FROM(PRINT_LINE);         105
62          PRINT_AREA = 'VSIO_VSAM_FUNCTION_CODE = ' ||  106
                VSIO_VSAM_FUNCTION_CODE;                     107
63          WRITE FILE(PRINTR) FROM(PRINT_LINE);         108
64          PRINT_AREA = 'VSIO_VSAM_FEEDBACK_CODE = ' ||  109
                VSIO_VSAM_FEEDBACK_CODE;                     110
65          WRITE FILE(PRINTR) FROM(PRINT_LINE);         111
66          PRINT_AREA = ' ';                               112
                                                    113
67          RETURN;                                        114
                                                    115
68          END VSIO_ERROR;                                116
                                                    117
69          DECLARE                                       118
                PRINTR FILE OUTPUT RECORD SEQUENTIAL EXTERNAL 119
                ENV(F CTLASA);                               120
                                                    121
70          DECLARE                                       122
                COUNTER_EDIT          PICTURE 'ZZ,ZZZ,ZZ9V',  123
                MORE_RECORDS          BIT(1),                124
                NO                     BIT(1) INIT('0'B),    125
                RECORD_COUNTER        FIXED BINARY(15,0),    126
                YES                    BIT(1) INIT('1'B);     127
                                                    128
71          DECLARE                                       129
                1 RECORD_IMAGE,      130
                2 RECORD_FIELDS      CHAR(80);               131
                                                    132
72          DECLARE                                       133
```

```

1 PRINT_LINE, 134
  2 CARRIAGE_CONTROL CHAR(1) INIT(' '), 135
  2 PRINT_AREA CHAR(120); 136

```

/\*142

```

VV VV SSSS A M M IIII OOOO 142
VV VV SS SS AAA MM MM II OO OO 142
VV VV SS AA AA MMM MMM II OO OO 142
VV VV SSSS AA AA MMMMMM II OO OO 142
VV VV SS AA AA MM M MM II OO OO 142
VV VV SS SS AAAAAA MM MM II OO OO 142
VVV SS SS AA AA MM MM II OO OO 142
V SSSS AA AA MM MM IIII OOOO 142

```

\*\*\*\*\*142  
 THESE PARAMETERS ARE USED TO INTERFACE WITH THE VSAM DATASET ACCESS142  
 ROUTINE.142

THE VSIO\_PARAMETER\_VALUES SUPPLY THE VALUES USED TO MOVE INTO142  
 PARAMETER ENTRIES TO TAILOR THE ROUTINE TO A SPECIFIC DATASET AND142  
 TO PROVIDE COMMANDS TO DRIVE THE ROUTINE.142

\*\*\*\*\*/142

73

```

DECLARE 162
  1 VSIO_PARAMETER_VALUES STATIC, 163
    2 VSIO_OPEN CHAR(8) INIT('OPEN '), 164
    2 VSIO_CLOSE CHAR(8) INIT('CLOSE '), 165
    2 VSIO_READ CHAR(8) INIT('READ '), 166
    2 VSIO_WRITE CHAR(8) INIT('WRITE '), 167
    2 VSIO_REWRITE CHAR(8) INIT('REWRITE '), 168
    2 VSIO_DELETE CHAR(8) INIT('DELETE '), 169
    2 VSIO_START_EQUAL CHAR(8) INIT('STARTEQ '), 170
    2 VSIO_START_NOTLESS CHAR(8) INIT('STARTGE '), 171
    2 VSIO_KSDS CHAR(4) INIT('KSDS'), 172
    2 VSIO_ESDS CHAR(4) INIT('ESDS'), 173
    2 VSIO_RRDS CHAR(4) INIT('RRDS'), 174
    2 VSIO_SEQUENTIAL CHAR(10) INIT('SEQUENTIAL'), 175
    2 VSIO_DIRECT CHAR(10) INIT('DIRECT '), 176
    2 VSIO_DYNAMIC CHAR(10) INIT('DYNAMIC '), 177
    2 VSIO_INPUT CHAR(6) INIT('INPUT '), 178
    2 VSIO_OUTPUT CHAR(6) INIT('OUTPUT'), 179
    2 VSIO_INPUT_OUTPUT CHAR(6) INIT('UPDATE'), 180
    2 (VSIO_RC_SUCCESS INIT(0), 181
      VSIO_RC_LOGIC_ERROR INIT(8), 182
      VSIO_RC_END_OF_FILE INIT(9999), 183
      VSIO_RC_UNKNOWN_COMMAND INIT(20), 184
    )

```

```

VSIO_RC_DATASET_ALREADY_OPEN  INIT(21),      185
VSIO_RC_DATASET_NOT_OPEN      INIT(22),      186
VSIO_RC_ORGANIZATION_UNKNOWN  INIT(23),      187
VSIO_RC_ACCESS_UNKNOWN        INIT(24),      188
VSIO_RC_ORG_ACCESS_MISMATCH   INIT(25),      189
VSIO_RC_MODE_UNKNOWN          INIT(26),      190
VSIO_RC_MODE_UNSUPPORTED      INIT(27),      191
VSIO_RC_DDNAME_BLANK          INIT(28))     192
                               FIXED BINARY(15,0), 193
2 (VSIO_FB_DUPLICATE_RECORD    INIT(8),      194
  VSIO_FB_KEY_SEQUENCE         INIT(12),     195
  VSIO_FB_RECORD_NOT_FOUND     INIT(16),     196
  VSIO_FB_NO_MORE_SPACE        INIT(28),     197
  VSIO_FB_READ_WITHOUT_START   INIT(88))     198
                               FIXED BINARY(15,0), 199

```

```

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

```

```

1 VSIO_PARAMETER_BLOCK  STATIC,      205
  2 VSIO_COMMAND        CHAR(8)  INIT(' '), 206
  2 (VSIO_RETURN_CODE,  207
    VSIO_VSAM_RC,      208
    VSIO_VSAM_FUNCTION, 209
    VSIO_VSAM_FEEDBACK) FIXED BINARY(15,0) INIT(0); 210

```

```

/*****
END OF VSAMIO COPY BOOK
*****/

```

```

/*****
V V  SSSSS  A  M  M  I I I I  O O O O  F F F F F F  B B B B B B  215
V V  S S  S S  A A A  M M  M M  I I  O O  O O  F F  B B  B B  215
V V  S S  A A  A A  M M M M M M  I I  O O  O O  F F  B B  B B  215
V V  S S S S S  A A  A A  M M M M M M  I I  O O  O O  F F F F F  B B B B B B  215
V V  S S  S S  A A  A A  M M  M M  I I  O O  O O  F F  B B  B B  215
  V V  S S  S S  A A  A A  M M  M M  I I  O O  O O  F F  B B  B B  215
    V V V  S S  S S  A A  A A  M M  M M  I I  O O  O O  F F  B B  B B  215
      V  S S S S S  A A  A A  M M  M M  I I I I  O O O O  F F  B B B B B B  215

```

```

/*****
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.

\*\*\*\*\*/

74

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

\*\*\*\*\*/

75

END ESDSREA;

## ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
72	CARRIAGE_CONTROL	IN PRINT_LINE,AUTOMATIC,UNALIGNED,INITIAL,STRING(1),CHARACTER
70	COUNTER_EDIT	AUTOMATIC,UNALIGNED,DECIMAL,PICTURE(ZZ,ZZZ,ZZ9V) 35,36
1	ESDSREA	ENTRY,DECIMAL,FLOAT(SINGLE)
70	MORE_RECORDS	AUTOMATIC,UNALIGNED,STRING(1),BIT 16,31,33,50
70	NO	AUTOMATIC,UNALIGNED,INITIAL,STRING(1),BIT 50
72	PRINT_AREA	IN PRINT_LINE,AUTOMATIC,UNALIGNED,STRING(120),CHARACTER 10,12,14,36,56,58,60,62,64,66
72	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_ES	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(80),CHARACTER 36
71	RECORD_IMAGE	AUTOMATIC,STRUCTURE 25,41,47
	SYSPRINT	FILE,EXTERNAL 5,6,7
	VSAMIOP	EXTERNAL,ENTRY,DECIMAL,FLOAT(SINGLE) 25,41,47
74	VSFB_ACCESS	IN VSIO_FILE_BLOCK,STATIC,UNALIGNED,INITIAL,STRING(10),CHARACTER

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
		19
74	VFSB_DDNAME	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 17
74	VFSB_FILE_STATUS	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(1), CHARACTER
74	***** VFSB_KEY_LENGTH	IN VSIO_FILE_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED(15,0) 23
74	***** VFSB_KEY_POSITION	IN VSIO_FILE_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED(15,0) 22
74	VFSB_MODE	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(6), CHARACTER 20
74	VFSB_ORGANIZATION	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(4), CHARACTER 18
74	***** VFSB_RECORD_LENGTH	IN VSIO_FILE_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED(15,0) 21
74	VFSB_RESERVED	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, STRING(161), CHARACTER
73	VSIO_CLOSE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 40
73	VSIO_COMMAND	IN VSIO_PARAMETER_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 24, 40, 46, 56
73	VSIO_DELETE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
73	VSIO_DIRECT	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER
73	VSIO_DYNAMIC	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER
55	VSIO_ERROR	ENTRY, DECIMAL, FLOAT(SINGLE) 28, 43, 51
73	VSIO_ESDS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(4),

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
		CHARACTER 18
73	***** VSIO_FB_DUPLICATE_RECORD	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_FB_KEY_SEQUENCE	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_FB_NO_MORE_SPACE	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_FB_READ_WITHOUT_START	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_FB_RECORD_NOT_FOUND	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
74	VSIO_FILE_BLOCK	STATIC, STRUCTURE 25,41,47
73	VSIO_INPUT	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(6), CHARACTER 20
73	VSIO_INPUT_OUTPUT	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(6), CHARACTER
73	VSIO_KSDS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(4), CHARACTER
73	VSIO_OPEN	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 24
73	VSIO_OUTPUT	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(6), CHARACTER
73	VSIO_PARAMETER_BLOCK	STATIC, STRUCTURE 25,41,47
73	VSIO_PARAMETER_VALUES	STATIC, STRUCTURE
73	***** VSIO_RC_ACCESS_UNKNOWN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
73	***** VSIO_RC_DATASET_ALREADY_OPEN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_RC_DATASET_NOT_OPEN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_RC_DDNAME_BLANK	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_RC_END_OF_FILE	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0) 49
73	***** VSIO_RC_LOGIC_ERROR	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_RC_MODE_UNKNOWN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_RC_MODE_UNSUPPORTED	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_RC_ORG_ACCESS_MISMATCH	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_RC_ORGANIZATION_UNKNOWN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	***** VSIO_RC_SUCCESS	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0) 26,42,48
73	***** VSIO_RC_UNKNOWN_COMMAND	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
73	VSIO_READ	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 46
73	***** VSIO_RETURN_CODE	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0) 26,42,48,49,58
73	VSIO_REWRITE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8),

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
		CHARACTER
73	VSIO_RRDS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(4), CHARACTER
73	VSIO_SEQUENTIAL	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER 19
73	VSIO_START_EQUAL	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
73	VSIO_START_NOTLESS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
73	***** VSIO_VSAM_FEEDBACK	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
	VSIO_VSAM_FEEDBACK_CODE	AUTOMATIC, ALIGNED, DECIMAL, FLOAT(SINGLE) 64
73	***** VSIO_VSAM_FUNCTION	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
	VSIO_VSAM_FUNCTION_CODE	AUTOMATIC, ALIGNED, DECIMAL, FLOAT(SINGLE) 62
73	***** VSIO_VSAM_RC	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
	VSIO_VSAM_RETURN_CODE	AUTOMATIC, ALIGNED, DECIMAL, FLOAT(SINGLE) 60
73	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
72	PRINT_LINE	121
71	RECORD_IMAGE	80
74	VSIO_FILE_BLOCK	196
73	VSIO_PARAMETER_BLOCK	16
73	VSIO_PARAMETER_VALUES	158

STORAGE REQUIREMENTS.

-----  
THE STORAGE AREA FOR THE PROCEDURE LABELLED ESDSREA IS 552 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\_ES IS 176 BYTES LONG.  
THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED VSIO\_ERROR IS 256 BYTES LONG.  
THE PROGRAM CSECT IS NAMED ESDSREA AND IS 1542 BYTES LONG.  
THE STATIC CSECT IS NAMED ESDSREAA AND IS 5376 BYTES LONG.

\*STATISTICS\*      MACRO RECORDS =      252, SOURCE RECORDS =      254, PROG TEXT STMNTS =      75, OBJECT BYTES =      1542

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\_ES

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 ESDSREA

OFFSET (HEX)	0000	00B4	00C2	00CC	00D8	00F0	00FC	0114	0120	0138	013E	0144	014A	0150	0156	015C	0162	0168	016E	018A	0196
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)	0196	01A0	01A6	01A6	01AE	01B8	01C0	01C0	01DA	01FC	0214	0214	0218	021E	023A	0246	0250	0256
STATEMENT NO	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	75

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.

ESDSREAD: READ ESDS SEQUENTIALLY

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

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