

J E S 2 J O B L O G

```
18.26.01 JOB 161 IEF677I WARNING MESSAGE(S) FOR JOB VSTESTR5 ISSUED
18.26.01 JOB 161 $HASP373 VSTESTR5 STARTED - INIT 1 - CLASS A - SYS HMVS
18.26.01 JOB 161 IEF403I VSTESTR5 - STARTED - TIME=18.26.01
18.26.01 JOB 161 CCI001C PL1L /IEMAA /00:00:00.18/ /00004/SYS /VSTESTR5
18.26.01 JOB 161 CCI001C LKED /IEWL /00:00:00.05/ /00000/SYS /VSTESTR5
18.26.01 JOB 161 CCI001C GO /PGM=*.DD/00:00:00.01/ /00000/SYS /VSTESTR5
18.26.01 JOB 161 IEF404I VSTESTR5 - ENDED - TIME=18.26.01
18.26.01 JOB 161 $HASP395 VSTESTR5 ENDED
```

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

07 JUL 20 JOB EXECUTION DATE

22 CARDS READ

1,336 SYSOUT PRINT RECORDS

0 SYSOUT PUNCH RECORDS

0.00 MINUTES EXECUTION TIME

```

1 //VSTESTR5 JOB (SYS), 'VSAMIOP IVP RRDSUPDT', CLASS=A, MSGCLASS=X, JOB 161
// REGION=4096K
***
*****
*** PL/1 MODULE: RRDSUPDT VSAM DATASET: VSTESTRR.CLUSTER (RRDS)
***
*** SEQUENTIALLY READ RECORDS AND UPDATE OR DELETE SELECTED RECORDS
*****
***
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(RRDSUPDT),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.SYSDUMP DD SYSOUT=*
25 //GO.SYSPRINT DD SYSOUT=*
26 //GO.RRDSF01 DD DSN=PUB001.VSTESTRR.CLUSTER,DISP=OLD

```

STMT NO. MESSAGE

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

IEF236I ALLOC. FOR VSTESTR5 PL1L PL1F
IEF237I 253 ALLOCATED TO STEPLIB
IEF237I 253 ALLOCATED TO SYS00398
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 VSTESTR5 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.JOB00161.SO0101 SYSOUT
IEF285I SYS20189.T182601.RA000.VSTESTR5.LOADSET PASSED *-----242
IEF285I VOL SER NOS= MVS380.
IEF285I SYS20189.T182601.RA000.VSTESTR5.SYSUT3 DELETED *-----335
IEF285I VOL SER NOS= WORK00.
IEF285I SYS20189.T182601.RA000.VSTESTR5.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 20189.1826

IEF374I STEP /PL1L / STOP 20189.1826 CPU 0MIN 00.18SEC SRB 0MIN 00.04SEC VIRT 4096K SYS 212K

**** JOBCARD READ 20189 18:26:01 ****

Table with 12 columns: STEP NAME, PL1L, USER CORE, PRC-CCI, TAPES USED/IO, DISKS USED/IO, ALLOC TIME, ELAPSED TIME, PGM LOAD, VIO PGS IN, VIO PGS OUT. Includes summary statistics for CPU, EXCP, and MEMORY usage.

IEF236I ALLOC. FOR VSTESTR5 LKED PL1F
IEF237I 253 ALLOCATED TO SYSLIB
IEF237I 253 ALLOCATED TO
IEF237I 253 ALLOCATED TO SYS00400
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 VSTESTR5 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.T182601.RA000.VSTESTR5.GOSET PASSED *-----58
IEF285I VOL SER NOS= WORK00.
IEF285I SYS20189.T182601.RA000.VSTESTR5.SYSUT1 DELETED *-----0
IEF285I VOL SER NOS= MVS370.
IEF285I JES2.JOB00161.SO0102 SYSOUT

```

IEF285I  SYS20189.T182601.RA000.VSTESTR5.LOADSET      DELETED      *-----243
IEF285I  VOL SER NOS= MVS380.
IEF373I  STEP /LKED      / START 20189.1826
IEF374I  STEP /LKED      / STOP  20189.1826 CPU      OMIN 00.05SEC 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 18:26:01  TCB TIME 00:00:00.05 *
* PGM NAME  IEWL      SYSTEM CORE      208K  DISKS USED/IO 004/000000407  STOP   TIME 18:26:01  SRB TIME 00:00:00.01 *
* COND CODE 0000      PRIVATE AREA SZ 4096K  ALLOC TIME 18:26:01  ELAPSED TIME          PGM LOAD 18:26:01 *
** PGNO * NR SRV UNITS * ACTIVE TIME ** PAGES IN *** PAGES OUT ** # SWAPS * PGS SWAP IN * PGS SWAP OUT * VIO PGS IN * VIO PGS OUT **
* 004      2079  00:00:00.07          0          0          0          0          0          0          0          0          0 *
*****
* CPU $ ( 0.01) + EXCP $ ( 0.54) + MEMORY $ ( 0.03) = TOTAL $ ( 0.58)
*****
IEF236I  ALLOC. FOR VSTESTR5 GO PL1F
IEF237I  251  ALLOCATED TO PGM=*.DD
IEF237I  253  ALLOCATED TO STEPLIB
IEF237I  253  ALLOCATED TO
IEF237I  253  ALLOCATED TO SYS00402
IEF237I  JES2 ALLOCATED TO SYSPRINT
IEF237I  JES2 ALLOCATED TO PRINTR
IEF237I  JES2 ALLOCATED TO SYSUDUMP
IEF237I  JES2 ALLOCATED TO SYSPRINT
IEF237I  190  ALLOCATED TO RRDSF01
IEF237I  190  ALLOCATED TO SYS00404
IEF142I  VSTESTR5 GO PL1F - STEP WAS EXECUTED - COND CODE 0000
IEF285I  SYS20189.T182601.RA000.VSTESTR5.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.JOB00161.SO0103      SYSOUT
IEF285I  JES2.JOB00161.SO0104      SYSOUT
IEF285I  JES2.JOB00161.SO0105      SYSOUT
IEF285I  JES2.JOB00161.SO0106      SYSOUT
IEF285I  PUB001.VSTESTRR.CLUSTER    KEPT          *-----8
IEF285I  VOL SER NOS= PUB001.
IEF285I  UCPUB001      KEPT          *-----0
IEF285I  VOL SER NOS= PUB001.
IEF373I  STEP /GO      / START 20189.1826
IEF374I  STEP /GO      / STOP  20189.1826 CPU      OMIN 00.01SEC SRB      OMIN 00.00SEC VIRT    96K SYS    224K
*****
*
*          PRC-CCI 370/148 VS2 R03.8  HMVS  STEP STATISTICS
* STEP NAME  GO      USER CORE      96K  TAPES USED/IO 000/000000000  START  TIME 18:26:01  TCB TIME 00:00:00.01 *
* PGM NAME  PGM=*.DD  SYSTEM CORE      224K  DISKS USED/IO 003/000000008  STOP   TIME 18:26:01  SRB TIME 00:00:00.00 *
* COND CODE 0000      PRIVATE AREA SZ 4096K  ALLOC TIME 18:26:01  ELAPSED TIME          PGM LOAD 18:26:01 *
** PGNO * NR SRV UNITS * ACTIVE TIME ** PAGES IN *** PAGES OUT ** # SWAPS * PGS SWAP IN * PGS SWAP OUT * VIO PGS IN * VIO PGS OUT **
* 004      85  00:00:00.02          0          0          0          0          0          0          0          0          0 *
*****
* CPU $ ( 0.00) + EXCP $ ( 0.01) + MEMORY $ ( 0.00) = TOTAL $ ( 0.01)
*****
IEF237I  251  ALLOCATED TO SYS00001
IEF285I  SYS20189.T182601.RA000.VSTESTR5.R0000001    KEPT          *-----0
IEF285I  VOL SER NOS= WORK00.
IEF285I  SYS20189.T182601.RA000.VSTESTR5.GOSET      DELETED
IEF285I  VOL SER NOS= WORK00.
IEF375I  JOB /VSTESTR5/ START 20189.1826
IEF376I  JOB /VSTESTR5/ STOP  20189.1826 CPU      OMIN 00.24SEC 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  /*****27270000
2  27280000
3  RRDSUPDT - TESTS THE VSAMIO ROUTINE BY READING RECORDS FROM AN RRDS 27290000
4  CLUSTER SEQUENTIALLY AND THEN REWRITING SOME OF THE 27300000
5  RECORDS WITH UPDATED CONTENTS. 27310000
6  27320000
7  *****/27330000
8  RRDSUPD: 27340000
9  PROCEDURE OPTIONS(MAIN); 27350000
10  27360000
11  ON ERROR 27370000
12  BEGIN; 27380000
13  ON ERROR SYSTEM; 27390000
14  PUT SKIP(3) LIST((54)'*' || ' DEBUG AID ' || (54)'*'); 27400000
15  PUT SKIP DATA; 27410000
16  PUT SKIP(3) LIST((54)'*' || ' DEBUG AID ' || (54)'*'); 27420000
17  END; 27430000
18  27440000
19  OPEN 27450000
20  FILE(PRINTR) LINESIZE(133); 27460000
21  27470000
22  PRINT_AREA = 'RRDSUPDT: READ/REWRITE RRDS SEQUENTIALLY'; 27480000
23  WRITE FILE(PRINTR) FROM(PRINT_LINE); 27490000
24  PRINT_AREA = '-----'; 27500000
25  WRITE FILE(PRINTR) FROM(PRINT_LINE); 27510000
26  PRINT_AREA = ' '; 27520000
27  WRITE FILE(PRINTR) FROM(PRINT_LINE); 27530000
28  27540000
29  MORE_RECORDS = YES; 27550000
30  27560000
31  /*****27570000
32  ESTABLISH PARAMETERS OF VSAM DATASET AND CALL ROUTINE TO OPEN IT 27580000
33  *****/27590000
34  VSFB_DDNAME = 'RRDSF01'; 27600000
35  VSFB_ORGANIZATION = VSIO_RRDS; 27610000
36  VSFB_ACCESS = VSIO_SEQUENTIAL; 27620000
37  VSFB_MODE = VSIO_INPUT_OUTPUT; 27630000
38  VSFB_RECORD_LENGTH = 80; 27640000
39  VSFB_KEY_POSITION = 0; 27650000
40  VSFB_KEY_LENGTH = 0; 27660000
41  VSIO_COMMAND = VSIO_OPEN; 27670000
42  CALL VSAMIOP (VSIO_PARAMETER_BLOCK, 27680000
43  VSIO_FILE_BLOCK, 27690000
44  RECORD_IMAGE); 27700000
```

MACRO SOURCE2 LISTING

```
45     IF (VSIO_RETURN_CODE a= VSIO_RC_SUCCESS) THEN      27710000
46     DO;                                                27720000
47         CALL VSIO_ERROR;                                27730000
48         RETURN;                                        27740000
49     END;                                                27750000
50                                                         27760000
51     DO WHILE(MORE_RECORDS);                             27770000
52     CALL READ_RR;                                       27780000
53     IF (MORE_RECORDS) THEN                              27790000
54         IF (VERIFY(RECORD_KEY_LO,UPDATE_KEYS) = 0) THEN 27800000
55             CALL UPDATE_RECORD;                          27810000
56     END;                                                27820000
57                                                         27830000
58 /*****27840000
59     CALL ROUTINE TO CLOSE VSAM DATASET                  27850000
60     *****/27860000
61     VSIO_COMMAND = VSIO_CLOSE;                          27870000
62     CALL VSAMIOP (VSIO_PARAMETER_BLOCK,                 27880000
63                 VSIO_FILE_BLOCK,                       27890000
64                 RECORD_IMAGE);                          27900000
65     IF (VSIO_RETURN_CODE a= VSIO_RC_SUCCESS) THEN      27910000
66         CALL VSIO_ERROR;                                27920000
67                                                         27930000
68     RETURN;                                              27940000
69                                                         27950000
70 UPDATE_RECORD:                                         27960000
71     PROCEDURE;                                          27970000
72                                                         27980000
73     COUNTER_EDIT = RECORD_COUNTER;                      27990000
74     RRN_EDIT = VSFB_KEY_LENGTH;                          28000000
75     PRINT_AREA = COUNTER_EDIT || ': RRN: ' || RRN_EDIT || 28010000
76                 ' DATA: ' || RECORD_IMAGE_SCALAR || ' BEFORE'; 28020000
77     WRITE FILE(PRINTR) FROM(PRINT_LINE);                28030000
78                                                         28040000
79     IF (RECORD_KEY_LO = '2' |                           28050000
80         RECORD_KEY_LO = '4' |                           28060000
81         RECORD_KEY_LO = '8') THEN                       28070000
82     DO;                                                  28080000
83         RECORD_KEY_HI = '99';                            28090000
84         CALL REWRITE_RR;                                  28100000
85         IF (VSIO_RETURN_CODE = VSIO_RC_SUCCESS) THEN    28110000
86             DO;                                          28120000
87                 PRINT_AREA = (32)' ' ||                28130000
88                     RECORD_IMAGE_SCALAR || ' AFTER';    28140000
89                 WRITE FILE(PRINTR) FROM(PRINT_LINE);    28150000
```

MACRO SOURCE2 LISTING

```
90          END;                                28160000
91      END;                                    28170000
92      ELSE                                    28180000
93      DO;                                     28190000
94          CALL DELETE_RR;                     28200000
95          IF (VSIO_RETURN_CODE = VSIO_RC_SUCCESS) THEN 28210000
96              DO;                             28220000
97                  PRINT_AREA = (112)' ' | | ' DELETED'; 28230000
98                  WRITE FILE(PRINTR) FROM(PRINT_LINE); 28240000
99              END;                             28250000
100         END;                                28260000
101                                             28270000
102         RETURN;                             28280000
103                                             28290000
104     END UPDATE_RECORD;                       28300000
105                                             28310000
106 DELETE_RR:                                  28320000
107     PROCEDURE;                              28330000
108                                             28340000
109 /*****28350000
110     CALL ROUTINE TO DELETE LAST RECORD READ FROM VSAM DATASET 28360000
111     *****/28370000
112     VSIO_COMMAND = VSIO_DELETE;              28380000
113     CALL VSAMIOP (VSIO_PARAMETER_BLOCK,      28390000
114                 VSIO_FILE_BLOCK,           28400000
115                 RECORD_IMAGE);             28410000
116     IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN 28420000
117         CALL VSIO_ERROR;                    28430000
118                                             28440000
119     RETURN;                                  28450000
120                                             28460000
121     END DELETE_RR;                           28470000
122                                             28480000
123 READ_RR:                                     28490000
124     PROCEDURE;                              28500000
125                                             28510000
126 /*****28520000
127     CALL ROUTINE TO READ NEXT RECORD FROM VSAM DATASET 28530000
128     *****/28540000
129     VSIO_COMMAND = VSIO_READ;                28550000
130     CALL VSAMIOP (VSIO_PARAMETER_BLOCK,      28560000
131                 VSIO_FILE_BLOCK,           28570000
132                 RECORD_IMAGE);             28580000
133     IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN 28590000
134         IF (VSIO_RETURN_CODE = VSIO_RC_END_OF_FILE) THEN 28600000
```


MACRO SOURCE2 LISTING

```
135         MORE_RECORDS = NO;                28610000
136         ELSE                                28620000
137         CALL VSIO_ERROR;                    28630000
138     ELSE                                    28640000
139         RECORD_COUNTER = RECORD_COUNTER + 1; 28650000
140                                             28660000
141     RETURN;                                  28670000
142                                             28680000
143 END READ_RR;                                28690000
144                                             28700000
145 REWRITE_RR:                                 28710000
146     PROCEDURE;                              28720000
147                                             28730000
148 /*****28740000
149     CALL ROUTINE TO REWRITE PREVIOUSLY READ RECORD TO VSAM DATASET 28750000
150     *****/28760000
151     VSIO_COMMAND = VSIO_REWRITE;            28770000
152     CALL VSAMIOP (VSIO_PARAMETER_BLOCK,     28780000
153                 VSIO_FILE_BLOCK,          28790000
154                 RECORD_IMAGE);            28800000
155     IF (VSIO_RETURN_CODE = VSIO_RC_SUCCESS) THEN 28810000
156         CALL VSIO_ERROR;                    28820000
157                                             28830000
158     RETURN;                                  28840000
159                                             28850000
160 END REWRITE_RR;                             28860000
161                                             28870000
162 VSIO_ERROR:                                 28880000
163     PROCEDURE;                              28890000
164     PRINT_AREA = 'VSAMIO ERROR OCCURRED DURING ' || 28900000
165                 VSIO_COMMAND;              28910000
166     WRITE FILE(PRINTR) FROM(PRINT_LINE);    28920000
167     PRINT_AREA = 'VSIO_RETURN_CODE = ' || 28930000
168                 VSIO_RETURN_CODE;         28940000
169     WRITE FILE(PRINTR) FROM(PRINT_LINE);    28950000
170     PRINT_AREA = 'VSIO_VSAM_RETURN_CODE = ' || 28960000
171                 VSIO_VSAM_RETURN_CODE;    28970000
172     WRITE FILE(PRINTR) FROM(PRINT_LINE);    28980000
173     PRINT_AREA = 'VSIO_VSAM_FUNCTION_CODE = ' || 28990000
174                 VSIO_VSAM_FUNCTION_CODE;  29000000
175     WRITE FILE(PRINTR) FROM(PRINT_LINE);    29010000
176     PRINT_AREA = 'VSIO_VSAM_FEEDBACK_CODE = ' || 29020000
177                 VSIO_VSAM_FEEDBACK_CODE;  29030000
178     WRITE FILE(PRINTR) FROM(PRINT_LINE);    29040000
179     PRINT_AREA = ' ';                        29050000
```

MACRO SOURCE2 LISTING

```
180                                         29060000
181     RETURN;                               29070000
182                                         29080000
183     END VSIO_ERROR;                       29090000
184                                         29100000
185     DECLARE                               29110000
186     PRINTR FILE OUTPUT RECORD SEQUENTIAL EXTERNAL 29120000
187     ENV(F CTLASA);                        29130000
188                                         29140000
189     DECLARE                               29150000
190     COUNTER_EDIT      PICTURE 'ZZ,ZZZ,ZZ9V', 29160000
191     MORE_RECORDS      BIT(1),              29170000
192     NO                 BIT(1) INIT('0'B),  29180000
193     RECORD_COUNTER     FIXED BINARY(15,0), 29190000
194     RRN_EDIT           PICTURE 'ZZ,ZZ9V',    29200000
195     UPDATE_KEYS        CHAR(5) INIT('24578'), 29210000
196     YES                BIT(1) INIT('1'B);  29220000
197                                         29230000
198     DECLARE                               29240000
199     1 RECORD_IMAGE,    29250000
200     2 RECORD_KEY,     29260000
201     3 RECORD_KEY_HI   CHAR(2),             29270000
202     3 RECORD_KEY_MID  CHAR(7),             29280000
203     3 RECORD_KEY_LO   CHAR(1),             29290000
204     2 RECORD_FIELDS   CHAR(70);           29300000
205                                         29310000
206     DECLARE                               29320000
207     RECORD_IMAGE_SCALAR  DEFINED RECORD_IMAGE 29330000
208     CHAR(80);           29340000
209                                         29350000
210     DECLARE                               29360000
211     1 PRINT_LINE,     29370000
212     2 CARRIAGE_CONTROL CHAR(1) INIT(' '),  29380000
213     2 PRINT_AREA      CHAR(132);          29390000
214                                         29400000
215     %INCLUDE (VSAMIO);                    29410000
216     %INCLUDE (VSAMIOFB);                  29420000
217                                         29430000
218     END RRDSUPD;                          29440000
```

INCLUDED TEXT FOLLOWS FROM DD.MEMBER = SYSLIB .VSAMIO

```
219 /*****31100000
220                                         31110000
```

MACRO SOURCE2 LISTING

```
221      VV  VV  SSSSS      A      M      M      IIII      OOOOO      31120000
222      VV  VV  SS  SS      AAA      MM  MM      II      OO  OO      31130000
223      VV  VV  SS      AA  AA      MMM  MMM      II      OO  OO      31140000
224      VV  VV  SSSSS      AA  AA      MMMMMM      II      OO  OO      31150000
225      VV  VV      SS  AA  AA      MM  M  MM      II      OO  OO      31160000
226      VV  VV  SS  SS      AAAAAA      MM  MM      II      OO  OO      31170000
227      VVV      SS  SS      AA  AA      MM  MM      II      OO  OO      31180000
228      V      SSSSS      AA  AA      MM  MM      IIII      OOOOO      31190000
229                                          31200000
230 *****31210000
231  THESE PARAMETERS ARE USED TO INTERFACE WITH THE VSAM DATASET ACCESS 31220000
232  ROUTINE. 31230000
233 31240000
234  THE VSIO_PARAMETER_VALUES SUPPLY THE VALUES USED TO MOVE INTO 31250000
235  PARAMETER ENTRIES TO TAILOR THE ROUTINE TO A SPECIFIC DATASET AND 31260000
236  TO PROVIDE COMMANDS TO DRIVE THE ROUTINE. 31270000
237 *****/31280000
238 31290000
239  DECLARE 31300000
240      1 VSIO_PARAMETER_VALUES  STATIC, 31310000
241          2 VSIO_OPEN          CHAR(8)  INIT('OPEN  '), 31320000
242          2 VSIO_CLOSE         CHAR(8)  INIT('CLOSE '), 31330000
243          2 VSIO_READ          CHAR(8)  INIT('READ  '), 31340000
244          2 VSIO_WRITE         CHAR(8)  INIT('WRITE '), 31350000
245          2 VSIO_REWRITE       CHAR(8)  INIT('REWRITE'), 31360000
246          2 VSIO_DELETE        CHAR(8)  INIT('DELETE '), 31370000
247          2 VSIO_START_EQUAL   CHAR(8)  INIT('STARTEQ'), 31380000
248          2 VSIO_START_NOTLESS CHAR(8)  INIT('STARTGE '), 31390000
249          2 VSIO_KSDS          CHAR(4)  INIT('KSDS'), 31400000
250          2 VSIO_ESDS          CHAR(4)  INIT('ESDS'), 31410000
251          2 VSIO_RRDS          CHAR(4)  INIT('RRDS'), 31420000
252          2 VSIO_SEQUENTIAL    CHAR(10) INIT('SEQUENTIAL'), 31430000
253          2 VSIO_DIRECT        CHAR(10) INIT('DIRECT  '), 31440000
254          2 VSIO_DYNAMIC       CHAR(10) INIT('DYNAMIC  '), 31450000
255          2 VSIO_INPUT         CHAR(6)  INIT('INPUT '), 31460000
256          2 VSIO_OUTPUT        CHAR(6)  INIT('OUTPUT'), 31470000
257          2 VSIO_INPUT_OUTPUT  CHAR(6)  INIT('UPDATE'), 31480000
258          2 (VSIO_RC_SUCCESS   INIT(0), 31490000
259             VSIO_RC_LOGIC_ERROR INIT(8), 31500000
260             VSIO_RC_END_OF_FILE INIT(9999), 31510000
261             VSIO_RC_UNKNOWN_COMMAND INIT(20), 31520000
262             VSIO_RC_DATASET_ALREADY_OPEN INIT(21), 31530000
263             VSIO_RC_DATASET_NOT_OPEN INIT(22), 31540000
264             VSIO_RC_ORGANIZATION_UNKNOWN INIT(23), 31550000
265             VSIO_RC_ACCESS_UNKNOWN INIT(24), 31560000
```

MACRO SOURCE2 LISTING

```

266 VSIO_RC_ORG_ACCESS_MISMATCH INIT(25), 31570000
267 VSIO_RC_MODE_UNKNOWN INIT(26), 31580000
268 VSIO_RC_MODE_UNSUPPORTED INIT(27), 31590000
269 VSIO_RC_DDNAME_BLANK INIT(28)) 31600000
270 FIXED BINARY(15,0), 31610000
271 2 (VSIO_FB_DUPLICATE_RECORD INIT(8), 31620000
272 VSIO_FB_KEY_SEQUENCE INIT(12), 31630000
273 VSIO_FB_RECORD_NOT_FOUND INIT(16), 31640000
274 VSIO_FB_NO_MORE_SPACE INIT(28), 31650000
275 VSIO_FB_READ_WITHOUT_START INIT(88)) 31660000
276 FIXED BINARY(15,0), 31670000
277 /*31680000
278 THE VSIO_PARAMETER_BLOCK IS THE COMMUNICATION INTERFACE TO THE 31690000
279 THE ROUTINE. 31700000
280 *****/31710000
281 31720000
282 1 VSIO_PARAMETER_BLOCK STATIC, 31730000
283 2 VSIO_COMMAND CHAR(8) INIT(' '), 31740000
284 2 (VSIO_RETURN_CODE, 31750000
285 VSIO_VSAM_RC, 31760000
286 VSIO_VSAM_FUNCTION, 31770000
287 VSIO_VSAM_FEEDBACK) FIXED BINARY(15,0) INIT(0); 31780000
288 31790000
289 /*31800000
290 END OF VSAMIO COPY BOOK 31810000
291 *****/31820000
    
```

INCLUDED TEXT FOLLOWS FROM DD.MEMBER = SYSLIB .VSAMIOFB

```

292 /*00000100
293 00000200
294 VV VV SSSSS A M M IIII OOOO FFFFFFFF BBBB 00000300
295 VV VV SS SS AAA MM MM II OO OO FF BB BB 00000400
296 VV VV SS AA AA MMM MMM II OO OO FF BB BB 00000500
297 VV VV SSSSS AA AA MMMMMM II OO OO FFFFF BBBB 00000600
298 VV VV SS AA AA MM M MM II OO OO FF BB BB 00000700
299 VV VV SS SS AAAAAA MM MM II OO OO FF BB BB 00000800
300 VVV SS SS AA AA MM MM II OO OO FF BB BB 00000900
301 V SSSSS AA AA MM MM IIII OOOO FF BBBB 00001000
302 00001100
303 *****/00001200
304 THESE PARAMETERS ARE USED TO INTERFACE WITH THE VSAM DATASET ACCESS 00001300
305 ROUTINE, AND ARE USED TO COMMUNICATE CHARACTERISTICS FOR A SINGLE 00001400
306 VSAM DATASET. 00001500
    
```

MACRO SOURCE2 LISTING

```
307                                         00001600
308     WITH THE 2 EXCEPTIONS FOR RECORD LENGTH (TO ACCOMODATE VARIABLE 00001700
309     LENGTH RECORDS) AND RELATIVE RECORD (TO ACCOMODATE RELATIVE RECORD 00001800
310     DATASETS), THESE DATA NAMES MUST BE POPULATED PRIOR TO CALLING THE 00001900
311     ROUTINE TO OPEN THE DATASET AND MUST NOT THEN BE CHANGED UNTIL THE 00002000
312     DATASET HAS BEEN CLOSED. 00002100
313     *****/00002200
314                                         00002300
315     DECLARE 00002400
316         1 VSIO_FILE_BLOCK          STATIC, 00002500
317         2 VSFB_DDNAME              CHAR(8)  INIT(' '), 00002600
318         2 VSFB_ORGANIZATION        CHAR(4)  INIT(' '), 00002700
319         2 VSFB_ACCESS              CHAR(10) INIT(' '), 00002800
320         2 VSFB_MODE                CHAR(6)  INIT(' '), 00002900
321         2 (VSFB_RECORD_LENGTH,     00003000
322           VSFB_KEY_POSITION,       00003100
323           VSFB_KEY_LENGTH)        FIXED BINARY(15,0) INIT(0), 00003200
324         2 VSFB_FILE_STATUS         CHAR(1)  INIT('C'), 00003300
325         2 VSFB_RESERVED            CHAR(161); 00003400
326                                         00003500
327     /*****00003600
328         END OF VSAMIOFB COPY BOOK 00003700
329     *****/00003800
```

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

SOURCE LISTING.

```

/*****
RRDSUPDT - TESTS THE VSAMIO ROUTINE BY READING RECORDS FROM AN RRDS
          CLUSTER SEQUENTIALLY AND THEN REWRITING SOME OF THE
          RECORDS WITH UPDATED CONTENTS.
*****/
1  RRDSUPD:
   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(133);
10     PRINT_AREA = 'RRDSUPDT: READ/REWRITE RRDS 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 IT
*****/
17     VSFB_DDNAME = 'RRDSF01';
18     VSFB_ORGANIZATION = VSIO_RRDS;
19     VSFB_ACCESS = VSIO_SEQUENTIAL;
20     VSFB_MODE = VSIO_INPUT_OUTPUT;
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,          42
                VSIO_FILE_BLOCK,                  43
                RECORD_IMAGE);                    44
26      IF (VSIO_RETURN_CODEa= VSIO_RC_SUCCESS) THEN 45
27          DO;                                    46
28              CALL VSIO_ERROR;                  47
29              RETURN;                           48
30          END;                                   49
                                                50
31      DO WHILE(MORE_RECORDS);                    51
32          CALL READ_RR;                          52
33          IF (MORE_RECORDS) THEN                53
34              IF (VERIFY(RECORD_KEY_LO,UPDATE_KEYS) = 0) THEN 54
35                  CALL UPDATE_RECORD;          55
36          END;                                   56
                                                57
/*****/                                           58
CALL ROUTINE TO CLOSE VSAM DATASET                58
/*****/                                           58
                                                60
37      VSIO_COMMAND = VSIO_CLOSE;                61
38      CALL VSAMIOP (VSIO_PARAMETER_BLOCK,        62
                VSIO_FILE_BLOCK,                  63
                RECORD_IMAGE);                    64
39      IF (VSIO_RETURN_CODEa= VSIO_RC_SUCCESS) THEN 65
40          CALL VSIO_ERROR;                       66
                                                67
41      RETURN;                                    68
                                                69
42      UPDATE_RECORD:                             70
        PROCEDURE;                               71
                                                72
43          COUNTER_EDIT = RECORD_COUNTER;        73
44          RRN_EDIT = VSFB_KEY_LENGTH;           74
45          PRINT_AREA = COUNTER_EDIT || ': RRN: ' || RRN_EDIT || 75
                ' DATA: ' || RECORD_IMAGE_SCALAR || ' BEFORE'; 76
46          WRITE FILE(PRINTR) FROM(PRINT_LINE); 77
                                                78
47          IF (RECORD_KEY_LO = '2' |            79
              RECORD_KEY_LO = '4' |            80
              RECORD_KEY_LO = '8') THEN         81
48              DO;                               82
49                  RECORD_KEY_HI = '99';        83
50                  CALL REWRITE_RR;             84
51                  IF (VSIO_RETURN_CODE = VSIO_RC_SUCCESS) THEN 85
52                      DO;                       86
53                          PRINT_AREA = (32)' ' || 87
```

```

                                RECORD_IMAGE_SCALAR || ' AFTER';      88
54      WRITE FILE(PRINTR) FROM(PRINT_LINE);      89
55      END;      90
56      END;      91
57      ELSE      92
57      DO;      93
58      CALL DELETE_RR;      94
59      IF (VSIO_RETURN_CODE = VSIO_RC_SUCCESS) THEN      95
60      DO;      96
61      PRINT_AREA = (112)' ' || ' DELETED';      97
62      WRITE FILE(PRINTR) FROM(PRINT_LINE);      98
63      END;      99
64      END;      100
65      RETURN;      101
66      END UPDATE_RECORD;      102
67      DELETE_RR:      103
        PROCEDURE;      104
        /*****      105
        CALL ROUTINE TO DELETE LAST RECORD READ FROM VSAM DATASET      106
        *****/      107
68      VSIO_COMMAND = VSIO_DELETE;      108
69      CALL VSAMIOP (VSIO_PARAMETER_BLOCK,      109
                    VSIO_FILE_BLOCK,      110
                    RECORD_IMAGE);      111
70      IF (VSIO_RETURN_CODEa = VSIO_RC_SUCCESS) THEN      112
71      CALL VSIO_ERROR;      113
72      RETURN;      114
73      END DELETE_RR;      115
74      READ_RR:      116
        PROCEDURE;      117
        /*****      118
        CALL ROUTINE TO READ NEXT RECORD FROM VSAM DATASET      119
        *****/      120
75      VSIO_COMMAND = VSIO_READ;      121
76      CALL VSAMIOP (VSIO_PARAMETER_BLOCK,      122
                    VSIO_FILE_BLOCK,      123
                    RECORD_IMAGE);      124

```



```
77      IF (VSIO_RETURN_CODE a= VSIO_RC_SUCCESS) THEN      133
78          IF (VSIO_RETURN_CODE = VSIO_RC_END_OF_FILE) THEN      134
79              MORE_RECORDS = NO;      135
80          ELSE      136
80              CALL VSIO_ERROR;      137
81          ELSE      138
81              RECORD_COUNTER = RECORD_COUNTER + 1;      139
82          RETURN;      140
83      END READ_RR;      141
84      REWRITE_RR:      142
      PROCEDURE;      143
85          /*****      144
86          CALL ROUTINE TO REWRITE PREVIOUSLY READ RECORD TO VSAM DATASET      145
87          *****/      146
88          VSIO_COMMAND = VSIO_REWRITE;      147
89          CALL VSAMIOP (VSIO_PARAMETER_BLOCK,      148
90                      VSIO_FILE_BLOCK,      148
91                      RECORD_IMAGE);      148
92          IF (VSIO_RETURN_CODE a= VSIO_RC_SUCCESS) THEN      150
93              CALL VSIO_ERROR;      151
94          RETURN;      152
95      END REWRITE_RR;      153
96      VSIO_ERROR:      154
97      PROCEDURE;      155
98          PRINT_AREA = 'VSAMIO ERROR OCCURRED DURING ' ||      156
99                      VSIO_COMMAND;      157
100         WRITE FILE(PRINTR) FROM(PRINT_LINE);      158
101         PRINT_AREA = 'VSIO_RETURN_CODE = ' ||      159
102                     VSIO_RETURN_CODE;      160
103         WRITE FILE(PRINTR) FROM(PRINT_LINE);      161
104         PRINT_AREA = 'VSIO_VSAM_RETURN_CODE = ' ||      162
105                     VSIO_VSAM_RETURN_CODE;      163
106         WRITE FILE(PRINTR) FROM(PRINT_LINE);      164
107         PRINT_AREA = 'VSIO_VSAM_FUNCTION_CODE = ' ||      165
108                     VSIO_VSAM_FUNCTION_CODE;      166
109         WRITE FILE(PRINTR) FROM(PRINT_LINE);      167
110         PRINT_AREA = 'VSIO_VSAM_FEEDBACK_CODE = ' ||      168
111                     VSIO_VSAM_FEEDBACK_CODE;      169
112         WRITE FILE(PRINTR) FROM(PRINT_LINE);      170
113         PRINT_AREA = 'VSIO_VSAM_FEEDBACK_CODE = ' ||      171
114                     VSIO_VSAM_FEEDBACK_CODE;      172
115         WRITE FILE(PRINTR) FROM(PRINT_LINE);      173
116         PRINT_AREA = 'VSIO_VSAM_FEEDBACK_CODE = ' ||      174
117                     VSIO_VSAM_FEEDBACK_CODE;      175
118         WRITE FILE(PRINTR) FROM(PRINT_LINE);      176
119         PRINT_AREA = 'VSIO_VSAM_FEEDBACK_CODE = ' ||      177
120                     VSIO_VSAM_FEEDBACK_CODE;      178
121         WRITE FILE(PRINTR) FROM(PRINT_LINE);      179
```

```

102          PRINT_AREA = ' ';                                179
                                                    180
103          RETURN;                                        181
                                                    182
104          END VSIO_ERROR;                                183
                                                    184
105          DECLARE                                       185
          PRINTR FILE OUTPUT RECORD SEQUENTIAL EXTERNAL  186
          ENV(F CTLASA);                                    187
                                                    188
106          DECLARE                                       189
          COUNTER_EDIT          PICTURE 'ZZ,ZZZ,ZZ9V',    190
          MORE_RECORDS          BIT(1),                    191
          NO                     BIT(1)  INIT('0'B),      192
          RECORD_COUNTER        FIXED BINARY(15,0),       193
          RRN_EDIT              PICTURE 'ZZ,ZZ9V',        194
          UPDATE_KEYS          CHAR(5)  INIT('24578'),     195
          YES                   BIT(1)  INIT('1'B);       196
                                                    197
107          DECLARE                                       198
          1 RECORD_IMAGE,                                       199
          2 RECORD_KEY,                                         200
          3 RECORD_KEY_HI    CHAR(2),                          201
          3 RECORD_KEY_MID   CHAR(7),                          202
          3 RECORD_KEY_LO    CHAR(1),                          203
          2 RECORD_FIELDS    CHAR(70);                          204
                                                    205
108          DECLARE                                       206
          RECORD_IMAGE_SCALAR    DEFINED RECORD_IMAGE        207
          CHAR(80);                                              208
                                                    209
109          DECLARE                                       210
          1 PRINT_LINE,                                         211
          2 CARRIAGE_CONTROL    CHAR(1)  INIT(' '),          212
          2 PRINT_AREA          CHAR(132);                    213
                                                    214
          /*27270000                                         219
          VV  VV  SSSSS  A  M  M  IIII  OOOO  219
          VV  VV  SS  SS  AAA  MM  MM  II  OO  OO  219
          VV  VV  SS  AA  AA  MMM  MMM  II  OO  OO  219
          VV  VV  SSSSS  AA  AA  MMMMMM  II  OO  OO  219
          VV  VV  SS  SS  AA  AA  MM  M  MM  II  OO  OO  219
          VV  VV  SS  SS  AAAAAA  MM  MM  II  OO  OO  219
          VVV  SS  SS  AA  AA  MM  MM  II  OO  OO  219
          V  SSSSS  AA  AA  MM  MM  IIII  OOOO  219
          219

```

***** 219
 THESE PARAMETERS ARE USED TO INTERFACE WITH THE VSAM DATASET ACCESS 219
 ROUTINE. 219
 219
 THE VSIO_PARAMETER_VALUES SUPPLY THE VALUES USED TO MOVE INTO 219
 PARAMETER ENTRIES TO TAILOR THE ROUTINE TO A SPECIFIC DATASET AND 219
 TO PROVIDE COMMANDS TO DRIVE THE ROUTINE. 219
 *****/ 219

110

```

DECLARE 239
  1 VSIO_PARAMETER_VALUES STATIC, 240
    2 VSIO_OPEN CHAR(8) INIT('OPEN '), 241
    2 VSIO_CLOSE CHAR(8) INIT('CLOSE '), 242
    2 VSIO_READ CHAR(8) INIT('READ '), 243
    2 VSIO_WRITE CHAR(8) INIT('WRITE '), 244
    2 VSIO_REWRITE CHAR(8) INIT('REWRITE '), 245
    2 VSIO_DELETE CHAR(8) INIT('DELETE '), 246
    2 VSIO_START_EQUAL CHAR(8) INIT('STARTEQ '), 247
    2 VSIO_START_NOTLESS CHAR(8) INIT('STARTGE '), 248
    2 VSIO_KSDS CHAR(4) INIT('KSDS'), 249
    2 VSIO_ESDS CHAR(4) INIT('ESDS'), 250
    2 VSIO_RRDS CHAR(4) INIT('RRDS'), 251
    2 VSIO_SEQUENTIAL CHAR(10) INIT('SEQUENTIAL'), 252
    2 VSIO_DIRECT CHAR(10) INIT('DIRECT '), 253
    2 VSIO_DYNAMIC CHAR(10) INIT('DYNAMIC '), 254
    2 VSIO_INPUT CHAR(6) INIT('INPUT '), 255
    2 VSIO_OUTPUT CHAR(6) INIT('OUTPUT'), 256
    2 VSIO_INPUT_OUTPUT CHAR(6) INIT('UPDATE'), 257
    2 (VSIO_RC_SUCCESS INIT(0), 258
      VSIO_RC_LOGIC_ERROR INIT(8), 259
      VSIO_RC_END_OF_FILE INIT(9999), 260
      VSIO_RC_UNKNOWN_COMMAND INIT(20), 261
      VSIO_RC_DATASET_ALREADY_OPEN INIT(21), 262
      VSIO_RC_DATASET_NOT_OPEN INIT(22), 263
      VSIO_RC_ORGANIZATION_UNKNOWN INIT(23), 264
      VSIO_RC_ACCESS_UNKNOWN INIT(24), 265
      VSIO_RC_ORG_ACCESS_MISMATCH INIT(25), 266
      VSIO_RC_MODE_UNKNOWN INIT(26), 267
      VSIO_RC_MODE_UNSUPPORTED INIT(27), 268
      VSIO_RC_DDNAME_BLANK INIT(28)) 269
      FIXED BINARY(15,0), 270
    2 (VSIO_FB_DUPLICATE_RECORD INIT(8), 271
      VSIO_FB_KEY_SEQUENCE INIT(12), 272
      VSIO_FB_RECORD_NOT_FOUND INIT(16), 273
      VSIO_FB_NO_MORE_SPACE INIT(28), 274
      VSIO_FB_READ_WITHOUT_START INIT(88)) 275
      FIXED BINARY(15,0), 276
    
```

THE VSIO_PARAMETER_BLOCK IS THE COMMUNICATION INTERFACE TO THE THE ROUTINE.

```
1 VSIO_PARAMETER_BLOCK STATIC,
2 VSIO_COMMAND CHAR(8) INIT(' '),
2 (VSIO_RETURN_CODE,
VSIO_VSAM_RC,
VSIO_VSAM_FUNCTION,
VSIO_VSAM_FEEDBACK) FIXED BINARY(15,0) INIT(0);
```

END OF VSAMIO COPY BOOK

VV VV SSSSS A M M IIII OOOO FFFFFFFF BBBB
VV VV SS SS AAA MM MM II OO OO FF BB BB
VV VV SS AA AA MMM MMM II OO OO FF BBBB
VV VV SSSSS AA AA MMMMMM II OO OO FFFFF BBBB
VV VV SS SS AA AA MM M MM II OO OO FF BB BB
VV VV SS SS AAAAAA MM MM II OO OO FF BB BB
VVV SS SS AA AA MM MM II OO OO FF BB BB
V SSSSS AA AA MM MM IIII OOOO FF BBBB

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.

```
111 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'), 324
2 VSFB_RESERVED CHAR(161); 325

/*326
327

END OF VSAMIOFB COPY BOOK 327

*/ 327

112 END RRDSUPD; 217
218

ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
109	CARRIAGE_CONTROL	IN PRINT_LINE,AUTOMATIC,UNALIGNED,INITIAL,STRING(1),CHARACTER
106	COUNTER_EDIT	AUTOMATIC,UNALIGNED,DECIMAL,PICTURE(ZZ,ZZZ,ZZ9V) 43,45
67	DELETE_RR	ENTRY,DECIMAL,FLOAT(SINGLE) 58
106	MORE_RECORDS	AUTOMATIC,UNALIGNED,STRING(1),BIT 16,31,33,79
106	NO	AUTOMATIC,UNALIGNED,INITIAL,STRING(1),BIT 79
109	PRINT_AREA	IN PRINT_LINE,AUTOMATIC,UNALIGNED,STRING(132),CHARACTER 10,12,14,45,53,61,92,94,96,98,100,102
109	PRINT_LINE	AUTOMATIC,STRUCTURE 11,13,15,46,54,62,93,95,97,99,101
105	PRINTR	FILE,EXTERNAL,OUTPUT,RECORD,SEQUENTIAL,ENVIRONMENT(F CTLASA) 9,11,13,15,46,54,62,93,95,97,99,101
74	READ_RR	ENTRY,DECIMAL,FLOAT(SINGLE) 32
106	***** RECORD_COUNTER	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 43,81,81
107	RECORD_FIELDS	IN RECORD_IMAGE,AUTOMATIC,UNALIGNED,STRING(70),CHARACTER
107	RECORD_IMAGE	AUTOMATIC,STRUCTURE 25,38,69,76,86
108	RECORD_IMAGE_SCALAR	AUTOMATIC,DEFINED,UNALIGNED,STRING(80),CHARACTER 45,53
107	RECORD_KEY	IN RECORD_IMAGE,AUTOMATIC,STRUCTURE
107	RECORD_KEY_HI	IN RECORD_KEY IN RECORD_IMAGE,AUTOMATIC,UNALIGNED,STRING(2), CHARACTER

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
		49
107	RECORD_KEY_LO	IN RECORD_KEY IN RECORD_IMAGE, AUTOMATIC, UNALIGNED, STRING(1), CHARACTER 34, 47, 47, 47
107	RECORD_KEY_MID	IN RECORD_KEY IN RECORD_IMAGE, AUTOMATIC, UNALIGNED, STRING(7), CHARACTER
84	REWRITE_RR	ENTRY, DECIMAL, FLOAT(SINGLE) 50
1	RRDSUPD	ENTRY, DECIMAL, FLOAT(SINGLE)
106	RRN_EDIT	AUTOMATIC, UNALIGNED, DECIMAL, PICTURE(ZZ, ZZ9V) 44, 45
	SYSPRINT	FILE, EXTERNAL 5, 6, 7
106	UPDATE_KEYS	AUTOMATIC, UNALIGNED, INITIAL, STRING(5), CHARACTER 34
42	UPDATE_RECORD	ENTRY, DECIMAL, FLOAT(SINGLE) 35
	VERIFY	GENERIC, BUILT-IN FUNCTION 34
	VSAMIOP	EXTERNAL, ENTRY, DECIMAL, FLOAT(SINGLE) 25, 38, 69, 76, 86
111	VSFB_ACCESS	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER 19
111	VSFB_DDNAME	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 17
111	VSFB_FILE_STATUS	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(1), CHARACTER
111	***** VSFB_KEY_LENGTH	IN VSIO_FILE_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED(15, 0) 23, 44
111	***** VSFB_KEY_POSITION	IN VSIO_FILE_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED(15, 0) 22

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
111	VSFb_MODE	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(6), CHARACTER 20
111	VSFb_ORGANIZATION	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(4), CHARACTER 18
111	***** VSFb_RECORD_LENGTH	IN VSIO_FILE_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED(15,0) 21
111	VSFb_RESERVED	IN VSIO_FILE_BLOCK, STATIC, UNALIGNED, STRING(161), CHARACTER
110	VSIO_CLOSE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 37
110	VSIO_COMMAND	IN VSIO_PARAMETER_BLOCK, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 24,37,68,75,85,92
110	VSIO_DELETE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 68
110	VSIO_DIRECT	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER
110	VSIO_DYNAMIC	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER
91	VSIO_ERROR	ENTRY, DECIMAL, FLOAT(SINGLE) 28,40,71,80,88
110	VSIO_ESDS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(4), CHARACTER
110	***** VSIO_FB_DUPLICATE_RECORD	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_FB_KEY_SEQUENCE	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_FB_NO_MORE_SPACE	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
110	***** VSIO_FB_READ_WITHOUT_START	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_FB_RECORD_NOT_FOUND	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
111	VSIO_FILE_BLOCK	STATIC, STRUCTURE 25, 38, 69, 76, 86
110	VSIO_INPUT	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(6), CHARACTER
110	VSIO_INPUT_OUTPUT	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(6), CHARACTER 20
110	VSIO_KSDS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(4), CHARACTER
110	VSIO_OPEN	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 24
110	VSIO_OUTPUT	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(6), CHARACTER
110	VSIO_PARAMETER_BLOCK	STATIC, STRUCTURE 25, 38, 69, 76, 86
110	VSIO_PARAMETER_VALUES	STATIC, STRUCTURE
110	***** VSIO_RC_ACCESS_UNKNOWN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_RC_DATASET_ALREADY_OPEN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_RC_DATASET_NOT_OPEN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_RC_DDNAME_BLANK	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_RC_END_OF_FILE	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
		78
110	***** VSIO_RC_LOGIC_ERROR	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_RC_MODE_UNKNOWN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_RC_MODE_UNSUPPORTED	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_RC_ORG_ACCESS_MISMATCH	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_RC_ORGANIZATION_UNKNOWN	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	***** VSIO_RC_SUCCESS	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0) 26,39,51,59,70,77,87
110	***** VSIO_RC_UNKNOWN_COMMAND	IN VSIO_PARAMETER_VALUES, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
110	VSIO_READ	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 75
110	***** VSIO_RETURN_CODE	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0) 26,39,51,59,70,77,78,87,94
110	VSIO_REWRITE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER 85
110	VSIO_RRDS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(4), CHARACTER 18
110	VSIO_SEQUENTIAL	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(10), CHARACTER 19
110	VSIO_START_EQUAL	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8),

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
		CHARACTER
110	VSIO_START_NOTLESS	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
110	***** VSIO_VSAM_FEEDBACK	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
	VSIO_VSAM_FEEDBACK_CODE	AUTOMATIC, ALIGNED, DECIMAL, FLOAT(SINGLE) 100
110	***** VSIO_VSAM_FUNCTION	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
	VSIO_VSAM_FUNCTION_CODE	AUTOMATIC, ALIGNED, DECIMAL, FLOAT(SINGLE) 98
110	***** VSIO_VSAM_RC	IN VSIO_PARAMETER_BLOCK, STATIC, ALIGNED, INITIAL, BINARY, FIXED (15,0)
	VSIO_VSAM_RETURN_CODE	AUTOMATIC, ALIGNED, DECIMAL, FLOAT(SINGLE) 96
110	VSIO_WRITE	IN VSIO_PARAMETER_VALUES, STATIC, UNALIGNED, INITIAL, STRING(8), CHARACTER
106	YES	AUTOMATIC, UNALIGNED, INITIAL, STRING(1), BIT 16

AGGREGATE LENGTH TABLE

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
109	PRINT_LINE	133
107	RECORD_IMAGE	80
111	VSIO_FILE_BLOCK	196
110	VSIO_PARAMETER_BLOCK	16
110	VSIO_PARAMETER_VALUES	158

STORAGE REQUIREMENTS.

THE STORAGE AREA FOR THE PROCEDURE LABELLED RRDSUPD IS 808 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 UPDATE_RECORD IS 308 BYTES LONG.
THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED DELETE_RR IS 176 BYTES LONG.
THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED READ_RR IS 176 BYTES LONG.
THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED REWRITE_RR IS 176 BYTES LONG.
THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED VSIO_ERROR IS 256 BYTES LONG.
THE PROGRAM CSECT IS NAMED RRDSUPD AND IS 2362 BYTES LONG.
THE STATIC CSECT IS NAMED RRDSUPDA AND IS 6632 BYTES LONG.

STATISTICS MACRO RECORDS = 329, SOURCE RECORDS = 333, PROG TEXT STMNTS = 112, OBJECT BYTES = 2362

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 UPDATE_RECORD

OFFSET (HEX)	0000	0048	0066	0086	00C4	00DC	013A	013A	0144	014E	015A	015A	0184	019C	019C	01A0	01A0	01AA	01B6	01B6	01C6
STATEMENT NO	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62

OFFSET (HEX)	01DE	01DE	01DE	01E4
STATEMENT NO	63	64	65	66

TABLE OF OFFSETS AND STATEMENT NUMBERS WITHIN PROCEDURE DELETE_RR

OFFSET (HEX)	0000	0038	003E	005E	006A	0074	007A
STATEMENT NO	67	68	69	70	71	72	73

TABLE OF OFFSETS AND STATEMENT NUMBERS WITHIN PROCEDURE READ_RR

OFFSET (HEX)	0000	0034	003A	005A	0066	0072	0080	008E	009E	00A4
STATEMENT NO	74	75	76	77	78	79	80	81	82	83

TABLE OF OFFSETS AND STATEMENT NUMBERS WITHIN PROCEDURE REWRITE_RR

OFFSET (HEX)	0000	0038	003E	005E	006A	0074	007A
STATEMENT NO	84	85	86	87	88	89	90

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	91	92	93	94	95	96	97	98	99	100	101	102	103	104

TABLE OF OFFSETS AND STATEMENT NUMBERS WITHIN PROCEDURE RRDSUPD

OFFSET (HEX)	0000	00EC	00FA	0104	0110	0128	0134	014C	0158	0170	0176	017C	0182	0182	0188	018E	0194	019A	01A0	01BC	01C8
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)	01C8	01D2	01D8	01D8	01E0	01EA	01F2	0252	025C	0260	0266	0282	028E	0298	029E
STATEMENT NO	28	29	30	31	32	33	34	35	36	37	38	39	40	41	112

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 96, 98, 100.

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.

RRDSUPDT: READ/REWRITE RRDS SEQUENTIALLY

2:	RRN:	2	DATA:	0130758002	VIRGINIA O RENFRO	2111 BRIDGE AVENUE	BRIDGEPORT	CT	BEFORE
				9930758002	VIRGINIA O RENFRO	2111 BRIDGE AVENUE	BRIDGEPORT	CT	AFTER
4:	RRN:	4	DATA:	0366881004	LUCY J CHILDRESS	2777 GUADLAUPE BLVD	ROSWELL	GA	BEFORE
				9966881004	LUCY J CHILDRESS	2777 GUADLAUPE BLVD	ROSWELL	GA	AFTER
5:	RRN:	5	DATA:	0517579005	DEBRA K RODGERS	1048 WINDHAM COURT	GREENVILLE	SC	BEFORE
									DELETED
7:	RRN:	7	DATA:	0593878007	LOUIS W HORTON	9722 EASTHAVEN STREET	DES PLAINES	IL	BEFORE
									DELETED
8:	RRN:	8	DATA:	0725148008	BRIAN A HODGES	4292 BONANZA STREET	ENGLEWOOD	CO	BEFORE
				9925148008	BRIAN A HODGES	4292 BONANZA STREET	ENGLEWOOD	CO	AFTER
12:	RRN:	22	DATA:	1098019022	HANNAH F QUIMBY	6151 MAIN COURT	PHOENIX	AZ	BEFORE
				9998019022	HANNAH F QUIMBY	6151 MAIN COURT	PHOENIX	AZ	AFTER
14:	RRN:	24	DATA:	1371074024	TAMMY M HARMON	243 KINGS RIDGE STREET	GREENVILLE	SC	BEFORE
				9971074024	TAMMY M HARMON	243 KINGS RIDGE STREET	GREENVILLE	SC	AFTER
15:	RRN:	25	DATA:	1442146025	LUCY H ERICKSON	6207 RIDGEWAY AVENUE	KANSAS CITY	MO	BEFORE
									DELETED
17:	RRN:	27	DATA:	1765093027	DANIEL I GOODWIN	1660 BRIGHT AVENUE	DALLAS	TX	BEFORE
									DELETED
18:	RRN:	28	DATA:	1766129028	JOYCE R NORTON	907 BRANDYWINE CIRCLE	SAN ANTONIO	TX	BEFORE
				9966129028	JOYCE R NORTON	907 BRANDYWINE CIRCLE	SAN ANTONIO	TX	AFTER
22:	RRN:	42	DATA:	2121744042	TROY J NORRIS	716 HILLSIDE ROAD	DENTON	TX	BEFORE
				9921744042	TROY J NORRIS	716 HILLSIDE ROAD	DENTON	TX	AFTER
24:	RRN:	44	DATA:	2229822044	LUCY T HAMMOND	587 CARBONDALE COURT	SALINA	KS	BEFORE
				9929822044	LUCY T HAMMOND	587 CARBONDALE COURT	SALINA	KS	AFTER
25:	RRN:	45	DATA:	2231748045	SCOTT F HABERMANN	336 BALBOA AVENUE	LAGO VISTA	TX	BEFORE
									DELETED
27:	RRN:	47	DATA:	2363024047	REBECCA A GERBLICK	1617 PARKER AVENUE	SALINA	KS	BEFORE
									DELETED
28:	RRN:	48	DATA:	2483871048	SAMANTHA T MOORE	3586 STRAWBERRY COURT	PONCA CITY	OK	BEFORE
				9983871048	SAMANTHA T MOORE	3586 STRAWBERRY COURT	PONCA CITY	OK	AFTER
32:	RRN:	62	DATA:	2822279062	BEVERLY F WINSTON	5585 CHARLESTON ROAD	BOSTON	MA	BEFORE
				9922279062	BEVERLY F WINSTON	5585 CHARLESTON ROAD	BOSTON	MA	AFTER
34:	RRN:	64	DATA:	2858277064	CLARA F BRYANT	529 BARNABY STREET	LOUISVILLE	KY	BEFORE
				9958277064	CLARA F BRYANT	529 BARNABY STREET	LOUISVILLE	KY	AFTER
35:	RRN:	65	DATA:	3071401065	MICHELLE A ROSS	188 EASTHAVEN AVENUE	BUFFALO	NY	BEFORE
									DELETED
37:	RRN:	67	DATA:	3284189067	RITA N RENFRO	7881 DAISY COURT	SIOUX FALLS	SD	BEFORE
									DELETED
38:	RRN:	68	DATA:	3489628068	ARNOLD R ELISON	465 MAIN AVENUE	TULSA	OK	BEFORE
				9989628068	ARNOLD R ELISON	465 MAIN AVENUE	TULSA	OK	AFTER
42:	RRN:	82	DATA:	3912384082	CRAIG O LABROIE	8021 MILL MOUNTAIN PLACE	MURFREESBORO	TN	BEFORE
				9912384082	CRAIG O LABROIE	8021 MILL MOUNTAIN PLACE	MURFREESBORO	TN	AFTER
44:	RRN:	84	DATA:	4093285084	JACK J SCHWAB	250 BUCKLEY PLACE	CHICAGO	IL	BEFORE
				9993285084	JACK J SCHWAB	250 BUCKLEY PLACE	CHICAGO	IL	AFTER
45:	RRN:	85	DATA:	4176588085	BRENDA O MCKAY	315 A & M PLACE	LA HABRA	CA	BEFORE
									DELETED
47:	RRN:	87	DATA:	4318291087	SAMANTHA M HALL	8063 EDMUND AVENUE	SAN ANTONIO	TX	BEFORE
									DELETED
48:	RRN:	88	DATA:	4461486088	SAMANTHA E MORENO	5196 BAYVIEW PLACE	BRIDGEPORT	CT	BEFORE
				9961486088	SAMANTHA E MORENO	5196 BAYVIEW PLACE	BRIDGEPORT	CT	AFTER
52:	RRN:	102	DATA:	4813060102	REBECCA S NORTON	1175 ELLIS COURT	LOUISVILLE	KY	BEFORE
				9913060102	REBECCA S NORTON	1175 ELLIS COURT	LOUISVILLE	KY	AFTER
54:	RRN:	104	DATA:	4893602104	LAURIE R RAMSEY	902 PECAN VALLEY STREET	PONCA CITY	OK	BEFORE
				9993602104	LAURIE R RAMSEY	902 PECAN VALLEY STREET	PONCA CITY	OK	AFTER
55:	RRN:	105	DATA:	4934781105	CHERYL H HABERMANN	930 CLIFTWOOD AVENUE	BUFFALO	NY	BEFORE
									DELETED
57:	RRN:	107	DATA:	5220743107	CHRISTOPHER F MORGAN	9624 BONANZA AVENUE	DOWNEY	CA	BEFORE

58:	RRN:	108	DATA:	5239514108	NATHAN O SCHAEFER	7644 INDUSTRIAL ROAD	EUGENE	OR	DELETED
				9939514108	NATHAN O SCHAEFER	7644 INDUSTRIAL ROAD	EUGENE	OR	BEFORE
62:	RRN:	122	DATA:	5618369122	PETER F ALEXANDER	5500 KNICKERBOCKER AVENUE	BINGHAMTON	NY	AFTER
				9918369122	PETER F ALEXANDER	5500 KNICKERBOCKER AVENUE	BINGHAMTON	NY	BEFORE
64:	RRN:	124	DATA:	5764671124	PETER L SCHAEFER	358 ATOLL STREET	PASADENA	CA	AFTER
				9964671124	PETER L SCHAEFER	358 ATOLL STREET	PASADENA	CA	BEFORE
65:	RRN:	125	DATA:	5867208125	JOYCE K JENNINGS	1580 ROSA LINDA COURT	TUCSON	AZ	BEFORE
									DELETED
67:	RRN:	127	DATA:	5922222127	RUTH N ALEXANDER	259 SEASIDE ROAD	ANNAPOLIS	MD	BEFORE
									DELETED
68:	RRN:	128	DATA:	6007109128	JARED D HILLFORD	879 MICHIGAN AVENUE	PONCA CITY	OK	BEFORE
				9907109128	JARED D HILLFORD	879 MICHIGAN AVENUE	PONCA CITY	OK	AFTER
72:	RRN:	142	DATA:	6315453142	BILL M TEASDALE	608 LINCOLN ROAD	FORT WORTH	TX	BEFORE
				9915453142	BILL M TEASDALE	608 LINCOLN ROAD	FORT WORTH	TX	AFTER
74:	RRN:	144	DATA:	6532928144	HANNAH O NEWBURY	3634 SIERRA VISTA STREET	BOSTON	MA	BEFORE
				9932928144	HANNAH O NEWBURY	3634 SIERRA VISTA STREET	BOSTON	MA	AFTER
75:	RRN:	145	DATA:	6552938145	BETTY V POWERS	454 JUNIPER AVENUE	ANN ARBOR	MI	BEFORE
									DELETED
77:	RRN:	147	DATA:	6613600147	TAMMY O EUBANKS	5230 DAISY AVENUE	KEARNEY	NE	BEFORE
									DELETED
78:	RRN:	148	DATA:	6660837148	BRIAN T PARRISH	751 PECAN VALLEY COURT	ANN ARBOR	MI	BEFORE
				9960837148	BRIAN T PARRISH	751 PECAN VALLEY COURT	ANN ARBOR	MI	AFTER
82:	RRN:	162	DATA:	6911300162	JANET H HAMMOND	5064 GRANT STREET	DES PLAINES	IL	BEFORE
				9911300162	JANET H HAMMOND	5064 GRANT STREET	DES PLAINES	IL	AFTER
84:	RRN:	164	DATA:	7170298164	KEVIN L FONTAINE	3527 APPLE VALLEY STREET	MISSOULA	MT	BEFORE
				9970298164	KEVIN L FONTAINE	3527 APPLE VALLEY STREET	MISSOULA	MT	AFTER
85:	RRN:	165	DATA:	7255026165	JERRY S BOWERS	395 ALTAVISTA COURT	SAN DIEGO	CA	BEFORE
									DELETED
87:	RRN:	167	DATA:	8198053167	RONALD A EUBANKS	378 SHORE STREET	ANCHORAGE	AK	BEFORE
									DELETED
88:	RRN:	168	DATA:	8214332168	ROY P MATTOX	154 SUNSET COURT	WEST PALM BEACH	FL	BEFORE
				9914332168	ROY P MATTOX	154 SUNSET COURT	WEST PALM BEACH	FL	AFTER
92:	RRN:	182	DATA:	8544794182	NATHAN R JOHNSON	1034 TWILIGHT ROAD	COVINGTON	LA	BEFORE
				9944794182	NATHAN R JOHNSON	1034 TWILIGHT ROAD	COVINGTON	LA	AFTER
94:	RRN:	184	DATA:	8763434184	CRAIG I GOODLOW	1667 WASHINGTON ROAD	MONTGOMERY	AL	BEFORE
				9963434184	CRAIG I GOODLOW	1667 WASHINGTON ROAD	MONTGOMERY	AL	AFTER
95:	RRN:	185	DATA:	8969094185	ERNIE N DUNBAR	2830 NORTHFIELD STREET	LOUISVILLE	KY	BEFORE
									DELETED
97:	RRN:	187	DATA:	9266973187	ANDREW K CONLEY	689 WINDTREE BLVD	ATLANTA	GA	BEFORE
									DELETED
98:	RRN:	188	DATA:	9445325188	ARNOLD F RAMSEY	8629 LINCOLN CIRCLE	MONTGOMERY	AL	BEFORE
				9945325188	ARNOLD F RAMSEY	8629 LINCOLN CIRCLE	MONTGOMERY	AL	AFTER