

```

*****
DEFPLAY
//OAK011D JOB (OAK) , 'JC' ,MSGCLASS=X,CLASS=A,NOTIFY=&SYSUID                JOB05554
//STEP01 EXEC PGM=IDCAMS                                                    00020000
//SYSPRINT DD SYSOUT=*                                                    00030000
//SYSIN DD *
/* ***** */
/* FIRST WE CLEAR AWAY ANY OLD VERSIONS OF THE DATABASES */
/* ***** */
DELETE -                                                                    03290000
    (OAK011.DLI.PLAY01.CLUSTER, -                                          03300000
     OAK011.DLI.PLAY02.CLUSTER)                                           03310000
IF LASTCC=8 THEN SET MAXCC=0                                              03331000
/* ***** */
/* NEXT, WE DEFINE THE VSAM DATASET UOAK BY THE PLAY DATABASE */
/* ***** */
DEFINE CLUSTER -                                                            03340000
    (NAME (OAK011.DLI.PLAY01.CLUSTER) -                                    03350000
     NONINDEXED -                                                            03360000
     RECORDS (10,10) -                                                       03400000
     RECSZ(2041 2041)-                                                       03400103
     VOL(INT005) -                                                            03401000
     SPEED)-                                                                  03410000
    DATA (NAME(OAK011.DLI.PLAY01.DATA) -                                    03430002
           CONTROLINTERVALSIZE (2048) )                                     03440002
/* ***** */
/* NOW WE DEFINE THE VSAM DATASET UOAK BY THE SECONDARY INDEX */
/* ***** */
DEFINE CLUSTER -                                                            03450000
    (NAME (OAK011.DLI.PLAY02.CLUSTER) -                                    03460000
     INDEXED -                                                                03470000
     KEYS (34,5) -                                                            03480000
     RECORDSIZE (50,50) -                                                    03481000
     CONTROLINTERVALSIZE (1024) -                                           03490000
     RECORDS (10,10) -                                                       03500000
     VOL(INT004) -                                                            03501000
     SPEED)-                                                                  03510000
    DATA (NAME(OAK011.DLI.PLAY02.DATA) ) -                                  03530000
    INDEX (NAME(OAK011.DLI.PLAY02.INDEX) )                                  03531001
/*
//

```

```

*****
LISTPLAY
//OAK011L JOB (INT) , 'JC' ,MSGCLASS=X,CLASS=A,NOTIFY=&SYSUID          00010003
//*-----00020000
//*      LIST PLAY      DATA BASE                                00030000
//*-----00040000
//STEP010 EXEC  PGM=DFSRR00,PARM='DLI,DFSDDLTO,PLAY01X,,,,,,,,,N'    00050003
//STEPLIB DD DSN=IMSPROD.RESLIB,DISP=SHR                             00060000
//DFSRESLB DD DSN=IMSPROD.RESLIB,DISP=SHR                             00070000
//DFSVSAMP DD *                                                       00080000
1024,10                                                                00090000
2048,10                                                                00100000
//IMS      DD DSN=OAK011.A.PSBLIB,DISP=SHR                           00110003
//          DD DSN=OAK011.A.DBDLIB,DISP=SHR                           00120003
//PLAY01   DD DSN=OAK011.DLI.PLAY01.CLUSTER,DISP=SHR  BASE DB      00130003
//PLAY02   DD DSN=OAK011.DLI.PLAY02.CLUSTER,DISP=SHR  SEC IND      00140003
//IEFRDER  DD DUMMY                                           NO LOGGING    00150000
//PRINTDD  DD SYSOUT=*                                           00160000
//SYSUDUMP DD SYSOUT=*                                           00170000
//* YOU MAY NEED TO USE DIFFERENT PSBS FOR THE FOLLOWING:          00170102
//*  1. LIST ALL THE PLAY SEGMENTS IN NORMAL PROCESSING SEQUENCE    00171002
//*  2. LIST ALL THE PLAY SEGMENTS IN ALTERNATE PROCESSING SEQUENCE 00171102
//*  3. LIST THE PLAYS WHICH HAVE A CHARACTER CALLED JULIET         00171202
//*  4. LIST THE FIRST PLAY WHICH HAS BOTH                          00171302
//*      A CHARACTER CALLED JULIET AND A CHARACTER CALLED ROMEO     00172000
//SYSIN    DD *                                                  00180000
S 1 1 1 1 1  PLAYDBD                                             00190003
U  DATA BASE SEQUENTIAL RETRIEVAL                                00200000
U      FUNC  SEG      SSA                                         00210000
L      GU   PLAY     *--(XCLASS = JULIET                          #XCL+00220005
      CONT  ASS  = ROMEO                                           )                00221005
EHB      OK                                                         00230002
U  9999 GN   PLAY     *--(XCLASS = JULIET                          )                00231005
//*-----00240000
//          00250000

```

```

*****
LOADPLAY
//OAK011LD JOB (INT) , 'JC' ,MSGCLASS=X,CLASS=A,                      00010001
//          NOTIFY=&SYSUID                                          00020000
//*-----00030000
//*      THIS JOB LOADS THE PLAY DATABASE                            *00040000
//*      AND USES IMS UTILITIES TO PREPARE                          *00050000
//*      AND LOAD THE SECONDARY INDEX                               *00060000
//*      1. YOU MUST CHANGE 011 TO YOUR NUMBER                      *00070001
//*      2. YOU MUST CHANGE 'YOURPSBL' TO YOUR PSB NAME ON LINE 35*00080000
//*-----00090000
//*-----00100000
//*      DELETE OLD UTILITY CONTROL DATASET (IF IT EXISTS)        *00110000
//*-----00120000
//*STEP010 EXEC  PGM=IEFBR14                                         00130006
//*DFSURCDSD  DD DSN=OAK011.RLCDS,DISP=(MOD,DELETE,DELETE) ,      00140006
//*          UNIT=SYSDA,VOL=SER=INT004,DCB=(BLKSIZE=1600) ,      00150006
//*          SPACE=(CYL,1)                                          00160006

```

```

/*-----00170000
/*          PRE-REORG UTILITY PRIOR TO LOADING          *00180000
/*-----00190000
//STEP020 EXEC  PGM=DFSRR00,PARM='ULU,DFSURPRO,,,,,,,,,N'          00200000
//STEPLIB DD   DSN=IMSPROD.RESLIB,DISP=SHR                      00210000
//DFSRESLB DD   DSN=IMSPROD.RESLIB,DISP=SHR                      00220000
//IMS        DD   DSN=OAK011.A.DBDLIB,DISP=SHR                    00230002
//          DD   DSN=OAK011.A.PSBLIB,DISP=SHR                      00240002
//DFSURCDS  DD  DSNAME=OAK011.RLCDS,DISP=(NEW,CATLG,DELETE),      00250001
//          UNIT=SYSDA,VOL=SER=INT004,DCB=(BLKSIZE=1600),        00260000
//          SPACE=(CYL,1)                                         00270000
//SYSPRINT  DD  SYSOUT=*                                           00280000
//SYSIN     DD  *,BLKSIZE=80                                       00290000
DBIL=PLAYDBD                                                    00300005
/*                                                                00310000
/*-----00320000
/*          LOAD STEP FOR TEST DATA BASES          *00330000
/*-----00340000
//STEP030 EXEC  PGM=DFSRR00,PARM='DLI,DFSDDLTO,PLAY011L,,,,,,,,,N' 00350006
//STEPLIB DD   DSN=IMSPROD.RESLIB,DISP=SHR                      00360000
//DFSRESLB DD   DSN=IMSPROD.RESLIB,DISP=SHR                      00370000
//DFSVSAMP DD   *                                                00380000
1024,10                                                         00390000
2048,10                                                         00400000
//IMS        DD   DSN=OAK011.A.DBDLIB,DISP=SHR                    00410002
//          DD   DSN=OAK011.A.PSBLIB,DISP=SHR                      00420002
//PLAY01    DD   DSN=OAK011.DLI.PLAY01.CLUSTER,DISP=SHR           00430001
//PLAY02    DD   DSN=OAK011.DLI.PLAY02.CLUSTER,DISP=SHR           00440001
//DFSURWF1  DD  SPACE=(CYL,(1,1)),UNIT=SYSDA,DSN=&&WF1,          00450000
//          LRECL=900,BLKSIZE=4000,RECFM=VB,DISP=(NEW,PASS)      00460000
//IEFRDR   DD  DUMMY                                             00470000
//PRINTDD  DD  SYSOUT=*                                           00480000
//SYSUDUMP DD  SYSOUT=*                                           00490000
//SYSIN     DD  DSN=INTJC.A.DATA(LOADPLAY),DISP=SHR              00500000
/*-----00510000
/*          PREFIX RESOLUTION FOR THE SECONDARY INDEX          *00520000
/*-----00530000
//STEP30     EXEC  PGM=DFSURG10,PARM='FILSZ=E100'                00540000
//STEPLIB    DD   DSNAME=IMSPROD.RESLIB,DISP=SHR                 00550000
//SYSUDUMP   DD  SYSOUT=*                                         00560000
//SYSPRINT   DD  SYSOUT=*                                         00570000
//SYSOUT     DD  SYSOUT=*                                         00580000
//SORTLIB    DD  DSN=SYS1.SORTLIB,DISP=SHR                         00590000
//SORTWK01   DD  UNIT=SYSDA,SPACE=(1008,(60),,CONTIG)            00600000
//SORTWK02   DD  UNIT=SYSDA,SPACE=(1008,(60),,CONTIG)            00610000
//SORTWK03   DD  UNIT=SYSDA,SPACE=(1008,(60),,CONTIG)            00620000
//SORTIN     DD  DSN=&&WF1,UNIT=SYSDA,DISP=(MOD,PASS)              00630000
//DFSURWF2   DD  DSN=&&WF2,UNIT=SYSDA,SPACE=(1008,(30),,CONTIG),  00640000
//          DISP=(,PASS),DCB=(RECFM=VB,LRECL=900,BLKSIZE=1008)  00650000
//DFSURWF3   DD  DSN=&&WF3,UNIT=SYSDA,SPACE=(1008,(30),,CONTIG),  00660000
//          DISP=(,PASS),DCB=(RECFM=VB,LRECL=900,BLKSIZE=1008)  00670000
//DFSURIDX   DD  DSN=&&IDX,UNIT=SYSDA,SPACE=(1008,(30),,CONTIG),  00680000
//          DISP=(,PASS),DCB=(RECFM=VB,LRECL=900,BLKSIZE=1008)  00690000
//DFSURCDS   DD  DSN=OAK011.RLCDS,DISP=SHR                       00700001

```

```

/*-----00710000
/*          HISAM UNLOAD          FOR THE SECONDARY INDEX          *00720000
/*-----00730000
//STEP40 EXEC PGM=DFSRR00, PARM='ULU,DFSURUL0,,,,,,,,,N'          00740000
//STEPLIB DD DSN=IMSPROD.RESLIB,DISP=SHR                          00750000
//DFSRESLB DD DSN=IMSPROD.RESLIB,DISP=SHR                          00760000
//IMS DD DSN=OAK011.A.DBDLIB,DISP=SHR                              00770006
//SYSPRINT DD SYSOUT=*                                             00780000
//PLAY02 DD DSN=OAK011.DLI.PLAY02.CLUSTER,DISP=SHR                 00790001
//DXOUT1 DD DSN=OAK011.DLI.DXOUT1,DISP=(NEW,PASS),                  00800000
//          UNIT=SYSDA,VOL=SER=INT005,SPACE=(CYL,(1,1))             00810000
/*          DCB=(RECFM=VB,LRECL=900,BLKSIZE=1008)                  ??          00820000
//NDXDS DD DSN=OAK011.DLI.NDXDS,DISP=(OLD,DELETE)                  00830000
//DFSVSAMP DD *                                                     00840000
1024,10                                                                00850000
2048,10                                                                00860000
/* +---1---+---2---+---3---+---4---+---5---+---6---+---7          00870000
//SYSIN DD *                                                         00880000
OPTIONS=(NSTAT,ABEND)                                                00890000
XIMPLAYIDX PLAY02 DXOUT1 NDXDS CREATE NEW SEC INDEX                00900000
/*-----00910000
/*          HISAM RELOAD          FOR THE SECONDARY INDEX          *00920000
/*-----00930000
//STEP50 EXEC PGM=DFSRR00, PARM='ULU,DFSURRLO,,,,,,,,,N'          00940000
//STEPLIB DD DSN=IMSPROD.RESLIB,DISP=SHR                          00950000
//DFSRESLB DD DSN=IMSPROD.RESLIB,DISP=SHR                          00960000
//IMS DD DSN=OAK011.A.DBDLIB,DISP=SHR                              00970007
//SYSPRINT DD SYSOUT=*                                             00980000
//PLAY02 DD DSN=OAK011.DLI.PLAY02.CLUSTER,DISP=SHR                 00990001
//DFSUIN01 DD DSN=OAK011.DLI.DXOUT1,DISP=(OLD,DELETE)             01000000
//DFSVSAMP DD *                                                     01010000
1024,10                                                                01020000
2048,10                                                                01030000
/* +---1---+---2---+---3---+---4---+---5---+---6---+---7          01040000
//SYSIN DD *                                                         01050000
OPTIONS=(NSTAT,ABEND)                                                01060000

*****
PLAYDBD
DBD          NAME=PLAYDBD,ACCESS=(HDAM,VSAM),RMNAME=(DFSHDC40,1,6) 00010005
DATASET DD1=PLAY01,DEVICE=DISK                                     00020000
SEGM        NAME=AUTHOR,BYTES=37,PARENT=0,PTR=T                    00030000
FIELD      NAME=(AUTHKEY,SEQ,U),BYTES=3,START=1,TYPE=C             00031000
FIELD      NAME=LNAME,BYTES=30,START=4,TYPE=C                       00050000
FIELD      NAME=INITS,BYTES=4,START=34,TYPE=C                       00060000
*
SEGM        NAME=PLAY,BYTES=33,PARENT=AUTHOR                        00080000
FIELD      NAME=(PLAYKEY,SEQ,U),BYTES=3,START=1,TYPE=C             00090000
FIELD      NAME=TITLE,BYTES=30,START=4,TYPE=C                       00100000
LCHILD     NAME=(INXSEG,PLAYIDX),PTR=INDX                           00101000
XDFLD     NAME=XCLASS,SEGMENT=CHAR,SRCH=ROLE,SUBSEQ=/SXRBA         00102000
*
SEGM        NAME=CHAR,BYTES=34,PARENT=PLAY                          00120004
FIELD      NAME=ROLE,BYTES=30,START=1,TYPE=C                       00130000
FIELD      NAME=/SXRBA,BYTES=4,START=31                             00140000
DBDGEN                                           00240000
END                                               00250000

```

```

*****
PLAYDBDI
      DBD      NAME=PLAYIDX,ACCESS=INDEX                00010000
      DATASET DD1=PLAY02,DEVICE=DISK                    00020000
      SEGM     NAME=INXSEG,BYTES=34,PARENT=0            00030001
      LCHILD   NAME=(PLAY,PLAYDBD),INDEX=XCLASS,POINTER=SNGL 00040002
      FIELD    NAME=(INDEXFLD,SEQ,U),BYTES=30,START=1,TYPE=C 00050000
*
      DBDGEN
      END                                              00080000

*****
PLAYIDX
      DBD      NAME=PLAYIDX,ACCESS=INDEX                00010000
      DATASET DD1=PLAY02,DEVICE=DISK                    00020000
      SEGM     NAME=INXSEG,BYTES=34,PARENT=0            00030000
      LCHILD   NAME=(PLAY,PLAYDBD),INDEX=XCLASS,POINTER=SNGL 00040000
      FIELD    NAME=(INDEXFLD,SEQ,U),BYTES=34,START=1,TYPE=C 00050001
*
      DBDGEN
      END                                              00080000

*****
PLAY011A
      PCB      TYPE=DB,DBDNAME=PLAYDBD,KEYLEN=36,PROCOPT=A
      SENSEG   NAME=AUTHOR,PARENT=0
      SENSEG   NAME=PLAY,PARENT=AUTHOR
      SENSEG   NAME=CHAR,PARENT=PLAY
*
      PSBGEN   LANG=COBOL,PSBNAME=PLAY011A,CMPAT=NO
      END

*****
PLAY011L
      PCB      TYPE=DB,DBDNAME=PLAYDBD,KEYLEN=36,PROCOPT=LS
      SENSEG   NAME=AUTHOR,PARENT=0
      SENSEG   NAME=PLAY,PARENT=AUTHOR
      SENSEG   NAME=CHAR,PARENT=PLAY
*
      PSBGEN   LANG=COBOL,PSBNAME=PLAY011L,CMPAT=NO
      END

*****
PLAY011X
      PCB      TYPE=DB,DBDNAME=PLAYDBD,KEYLEN=36,PROCOPT=G,      +
              PROCSEQ=PLAYIDX
      SENSEG   NAME=PLAY,PARENT=0
      SENSEG   NAME=AUTHOR,PARENT=PLAY
      SENSEG   NAME=CHAR,PARENT=PLAY
*
      PSBGEN   LANG=COBOL,PSBNAME=PLAY011X,CMPAT=NO
      END

```

```

*****
PRAC1
//OAK0111 JOB (INT) , 'JC' ,MSGCLASS=X,CLASS=A,NOTIFY=&SYSUID          00010000
//*-----00020000
//*      LIST CUSTOMER DATA BASE EXERCISES                          00030000
//*-----00040000
//*      THIS USES DFSDDLTO STATEMENTS:                             00050000
//*      U      INDICATES A COMMENT                                  00060000
//*      L      INDICATES A FUNCTION WHICH STARTS IN COLUMN 10      00070000
//*      THE SEGMENT NAME (IF ANY) STARTS IN COLUMN 16              00080000
//*      THE SSA (IF ANY) STARTS IN COLUMN 24                        00090000
//*      E      INDICATES A CONDITION FOR SUBSEQUENT EXECUTION      00100000
//*      EH8     OK IS INTERPRETED AS: CONTINUE IF STATUS CODE IS OK 00110000
//*      L      9999 GN  IS INTERPRETED AS: DO 9999 GN CALLS        00120000
//PROCS  JCLLIB ORDER=OAK010.A.PROCLIB                              00130000
//DDLTO  EXEC PRAC1                                                 00140000
//DDLTO.SYSIN  DD *                                                00150000
U  DATA BASE SEQUENTIAL RETRIEVAL                                  00160000
S 1 1 1 1 1  OAKCUST                                               00170000
U  +----1-----+----2-----+----3-----+----                    00180000
U      FUNC  SEG      SSA                                           00190000
L      GU    OAKCUST *-- (CUSTBAL GT0001000&CUSTBAL LE0002000)    00200001
EH8    OK                                           00210000
L      9999 GN  OAKCUST *-- (CUSTBAL GT0001000&CUSTBAL LE0002000) 00210101
/*                                           00230000
//                                           00240000
*****

L      GHU    SEG...                                               00350001
L      REPL                                     00360001
L      DATA NEW VALUES                                         00370001
U                                           00380001
L      GHU    SEG...                                               00390001
L      DLET                                           00400001
U                                           00410001
L      ISRT  SEG...                                               00420001
L      DATA NEW VALUES                                         00430001

```

```

PRAC2
//OAK011D JOB (OAK) , 'JC' ,MSGCLASS=X,CLASS=A,                00001000
//                                NOTIFY=&SYSUID                00001100
//LIBS      JCLLIB ORDER=OAK010.A.PROCLIB                    00001200
//*-----00001300
//*   CHANGE 011 TO YOUR NUMBER E.G. 011                      *00001401
//*-----00001500
//PRELIM1 EXEC PGM=IDCAMS      CREATE YOUR VERSION OF THE DATABASE 00001600
//SYSPRINT DD SYSOUT=*                00001700
//SYSIN DD *                            00001800
DELETE -                                00001900
      (OAK011.DLI.HDAM.OAKCUST.CLUSTER) - 00002001
      PURGE -                            00003000
      CLUSTER                            00004000
IF LASTCC=8 THEN SET MAXCC=0            00005000
DEFINE CLUSTER -                        00006000
      (NAME (OAK011.DLI.HDAM.OAKCUST.CLUSTER) - 00007001
      NONINDEXED -                        00008000
      RECORDSIZE (2041 2041) -           00009000
      CONTROLINTERVALSIZE (2048) -       00010000
      RECORDS (10,10) -                  00020000
      SPEED -                             00030000
      VOLUMES (INT004)) -                00040000
      DATA (NAME (OAK011.DLI.HDAM.OAKCUST.DATA)) 00050001
//*-----00060000
//*           LOAD STEP FOR TEST DATA BASES                  *00070000
//*-----00080000
//PRELIM2 EXEC LOADIMS      LOAD YOUR VERSION OF THE DATABASE 00090000
//*-----00100000
//*   LIST CUSTOMER DATA BASE                                00110000
//*-----00120000
//UPDATE EXEC PRAC2      UPDATE YOUR DATABASE                00130000
//UPDATE.SYSIN DD *                00140000
U DATA BASE UPDATES . . .                00150000
S 1 1 1 1 1      OAKCUST                00160000
L      ISRT OAKCUST                00240001
L      DATA 1500000000TEAM 1 CUSTOMER 1 00250001
L      ISRT OAKCUST                00251001
L      DATA 1500000000TEAM 1 CUSTOMER 2 00252001
L      GHU OAKCUST *--(CUSTKEY = 150)    00253001
L      REPL                00254001
L      DATA 1500000502TEAM 1 CUSTOMER ONE 00255001
L      GHU OAKCUST *--(CUSTKEY = 150)    00256001
L      DLET                00257001
L      GHU OAKCUST *--(CUSTKEY = 150)    00258001
L      REPL                00259001
L      DATA 1500000645TEAM 1 CUSTOMER GONE 00259101
L      ISRT OAKCUST                00259201
L      DATA 1510000645TEAM 2 CUSTOMER 2 00259501
U                00260000
/*                00270000
//                00280000
ADD      1500000000TEAM 1 CUSTOMER 1      00290000
ADD      1500000000TEAM 1 CUSTOMER 2      00300000
CHANGE   1500000502TEAM 1 CUSTOMER ONE    00310000
DELETE   150                00320000
CHANGE   1500000645TEAM 1 CUSTOMER GONE    00330000
ADD      1510000000TEAM 2 CUSTOMER 2      00340000
U                00440001

```

```

*****
PRAC3
//OAK011E JOB (OAK) , 'JC' ,MSGCLASS=X,CLASS=A,                00001001
//          NOTIFY=&SYSUID                                     00001100
//LIBS      JCLLIB ORDER=OAK010.A.PROCLIB                      00001200
//*-----00001300
//*  CHANGE 011 TO YOUR NUMBER E.G. 011                       *00001401
//*-----00001500
//PRELIM1 EXEC PGM=IDCAMS      CREATE YOUR VERSION OF THE DATABASE 00001600
//SYSPRINT DD SYSOUT=*                                             00001700
//SYSIN DD *                                                       00001800
DELETE -                                                           00001900
      (OAK011.DLI.HDAM.OAKCUST.CLUSTER) -                         00002001
      PURGE -                                                       00003000
      CLUSTER                                                       00004000
IF LASTCC=8 THEN SET MAXCC=0                                     00005000
DEFINE CLUSTER -                                                00006000
      (NAME (OAK011.DLI.HDAM.OAKCUST.CLUSTER) -                 00007001
      NONINDEXED -                                               00008000
      RECORDSIZE (2041 2041) -                                   00009000
      CONTROLINTERVALSIZE (2048) -                               00010000
      RECORDS (10,10) -                                         00020000
      SPEED -                                                    00030000
      VOLUMES (INT004) ) -                                       00040000
      DATA (NAME (OAK011.DLI.HDAM.OAKCUST.DATA) )              00050001
//*-----00060000
//*          LOAD STEP FOR TEST DATA BASES                     *00070000
//*-----00080000
//PRELIM2 EXEC LOADIMS      LOAD YOUR VERSION OF THE DATABASE  00090000
//*-----00100000
//*  LIST CUSTOMER DATA BASE                                   00110000
//*-----00120000
//UPDATE EXEC PRAC2          UPDATE YOUR DATABASE USING PRAC3 DATA 00130000
//UPDATE.SYSIN DD *                                             00140000
U  DATA BASE UPDATES . . .                                     00150000
S 1 1 1 1 1  OAKCUST                                         00160000
L      ISRT  OAKCUST *-- (CUSTKEY = 161)                       +00240001
      OAKORD *--                                             00241001
L      DATA 11754 1175462                                     00250001
U                                             00260000
L      ISRT  OAKCUST *-- (CUSTKEY = 161)                       +00261001
      OAKORD *-- (ORDDATE = 11754)                         +00262001
      OAKLITM *--                                           00263001
L      DATA KA6405                                           00264001
U                                             00265001
L      ISRT  OAKCUST *-- (CUSTKEY = 161)                       +00266001
      OAKORD *-- (ORDDATE = 11754)                         +00267001
      OAKLITM *--                                           00268001
L      DATA KQ6425                                           00269001
U                                             00269101
L      ISRT  OAKCUST *-- (CUSTKEY = 161)                       +00269201
      OAKORD *-- (ORDDATE = 11754)                         +00269301
      OAKSHIP *--                                           00269401
L      DATA OAK OLD WINDSOR                                   00269501
U                                             00269601
L      ISRT  OAKCUST *-- (CUSTKEY = 162)                       +00269701
      OAKORD *--                                           00269801

```

```

L      DATA  11754 1175462                                00269901
U                                             00270001
L      ISRT   OAKCUST *-- (CUSTKEY = 162)                 +00270101
          OAKORD  *-- (ORDDATE = 11754)                 +00270201
          OAKLITM *--                                     00270301
L      DATA  VS6003                                       00270401
U                                             00270501
L      ISRT   OAKCUST *-- (CUSTKEY = 162)                 +00270601
          OAKORD  *-- (ORDDATE = 11754)                 +00270701
          OAKSHIP *--                                     00270801
L      DATA  OAK COPENHAGEN                               00270901
U                                             00271001
L      ISRT   OAKCUST *-- (CUSTKEY = 162)                 +00271101
          OAKORD  *--                                     00271201
L      DATA  11754 1175462                                00271301
U                                             00271401
L      ISRT   OAKCUST *-- (CUSTKEY = 161)                 +00271501
          OAKORD  *-- (ORDDATE = 11700)                 +00271601
          OAKLITM *--                                     00271701
L      DATA  KA6405                                       00271801
U                                             00271901
L      ISRT   OAKCUST *-- (CUSTKEY = 161)                 +00272001
          OAKORD  *-- (ORDDATE = 11754)                 +00272101
          OAKLITM *--                                     00272201
L      DATA  KA6405                                       00272301
U                                             00272401
/*                                             00273001
//                                             00280000
OAKORD  161 11754 1175462                                00290000
OAKLITM 161 11754 KA6405                                  00300000
OAKLITM 161 11754 KQ6425                                  00310000
OAKSHIP 161 11754 OAK OLD WINDSOR                        00320000
OAKORD  162 11754 1175462                                00330000
OAKLITM 162 11754 VS6003                                  00340000
OAKSHIP 162 11754 OAK COPENHAGEN                        00350000
OAKORD  162 11754 1175462                                00360000
OAKLITM 161 11700 KA6405                                  00370000
OAKLITM 161 11754 KA6405                                  00380000
L      GHU    SEG...                                       00390001
L      REPL                                       00400001
L      DATA  NEW VALUES                                00410001
U                                             00420001
L      GHU    SEG...                                       00430001
L      DLET                                       00440001
U                                             00450001
L      ISRT   SEG...                                       00460001
L      DATA  NEW VALUES                                00470001
U                                             00480001
*****

```

DLITRACE

When you execute a program via DFSRRC00, you can also run a trace using a DLITRACE control statement as input to the DFSVSAMP DD statement.

The format of DLITRACE is:

```

>>--DLITRACE--+-----+-----+-----+-----+----->
          |           +-NO--+ | |           +-DFSTROUT--+ |
          +-LOG--==--+YES--+ + , --DDNAME--==--+anyname--+
>--+-----+-----+-----+-----+----->X
  |           +-0--+ |
  +- , --START--==--+n--+
>>--+-----+-----+-----+-----+----->X
  |           +-7FFFFFFF--+ | | +- , --NOCOMP--+ |
  +- , --STOP--==--+n-----+ +--+ , --COMP-----+
  
```

Example:

The following example traces the first 25 DL/I calls or commands issued by the program and sends the output to the IMS log data set. It also produces data and PCB comparison statements for use with DFSDDLTO.

```

//DFSVSAMP DD *
DLITRACE LOG=YES,STOP=25,COMP
/*
  
```