Shared Spool Mods

Operations Commands

For Jes2 1.7 and 1.8

What are the Shared Spool mods, and what can they do for you?

The shared spool mods enhance the job selection routines that JES2 uses when selecting the next job for execution from the input queue by adding new requirements and qualifications to submitted jobs. Throughout this document, whenever we refer to job selection, we mean the process of selecting a job from the input queue for assignment to an initiator and its immediate execution.

The new requirements that can be used to qualify when a job is eligible to be selected to run, or on which system it can run if you are in a MAS (Multi-Access Spool configuration), are expanded by the shared spool mods beyond the normal JES2 job selection criterion of JOBCLASS, SYSAFF, PRIORITY, and SCHENV to include the following list.

- Only select this job for execution on the system where it was submitted.
- Only select this job if a named WLM Scheduling Environment is available.
- Only select this job if another named job is currently running.
- Only select this job if another named job is NOT currently running.
- Only select this job after a named job ends, if that job is currently running.
- Always select this job before another named job in the input queue.
- Allow or deny job selection based on other active jobs requirement for an arbitrary named resource.
- Hold the job on the input queue for a specified length of time before allowing it to be selected.
- Hold the job on the input queue until a specific time of day occurs, before allowing it to be selected.
- Only select the job if a specific scheduling environment is active. This is maintained for compatibility only since the SCHENV job parm does the same thing.

Other than the specific types of job selection restrictions listed above you also have the ability to specify, via JES2 parms, or JES2 modify commands, the following more general types of job selection restrictions;

- Limit the number of active jobs on a single member based on jobclass.
- Limit the number of active jobs on a single member based on a “masked” USERID associated with the job.
- Limit the number of active jobs on a single member based on a “masked” JOBNAME value.
- You can set three different options to describe different ways you may want the BEFORE and AFTER jobname selection criterion to work. One of the options, “DELAY” will cause all jobs to be held on the input queue for a variable number

of seconds that you specify. There is a specific reason for causing this delay related to 'BEFORE' and 'AFTER' processing, but it may also be valuable to delay all jobs for a small number of seconds for other reasons.

You may also specify via JES2 parms or change via JES2 $T commands, the following SSM processing options;

- If you want SMF recording for the SSM to take place.
- The level of SMF recording that you want for SSM.
- The SMF number that you want to use for SMF records.

The general format of the $T SSM commands

All JES2 commands to modify SSM settings take the general form of

$T SSM,option,option,option

All JES2 commands to display SSM setting take the general form of

$D SSM,option,option,option

You may also display all of the SSM options with a single command -

$D SSM

Multiple SSM displays or modifications can be issued at one time.

Examples of which are:

$D SSM,CLASSLIM(A-G,B)=255,SMFOPT=NONE,BATIME=05

$T SSM,CLASSLIM(A-Z)=0,SMFOPT=ALL,BATIME=01

Of course individual displays or modifications can be issue, as below.

$T SSM,SMFOPT=NONE
$D SSM,CLASSLIM(G)

Or all options can be displayed at one time by using the following command.

$D SSM

The meaning and use of the individual options are detailed starting on the next page.

SSM Statement Options -

SMFNUM=0

SMFNUM specifies the number of the smf record that the shared spool mods with write it's SMF data to, if SMFOPT is not set to NONE. Use a number between 200 and 255 that is not being used by any other products in your installation. At SunTrust we have smf number 216 reserved for this purpose. The default of zero specifies that no smf records will be written.

Ex. $D SSM,SMFNUM
$T SSM,SMFNUM=227

SMFOPT=

SMFOPT= specifies the level of SMF recording, specify either ALL for all SMF record types, INPUT for a record of all shared spool mods input statements, ACTION for actions taken by the shared spool mods, and NONE if you do not want any SMF records written.

Ex. $D SSM,SMFOPT
$T SSM,SMFOPT=NONE

BEAFTER={ PREMOD | DELAY }

BEAFTER specifies how the BEFORE and AFTER statements are to be processed, PREMOD specifies that they should be handled as they have historically been handled. DELAY specifies that all jobs should wait on the input queue for a length of time specified in the BATIME operand. Delay can be used to correct some unintended job sequencing that can occur when multiple jobs are submitted simultaneously and they appear to get to the input queue "out of order".

Ex. $D SSM,BEAFTER
$T SSM,BEAFTER=PREMOD

BATIME=###

BATIME is used to determine how many seconds a job must wait on the input queue before becoming eligible for execution if the BEAFTER= option is set to DELAY.

Ex. $D SSM,BATIME=003
$T SSM,BATIME=004

UIDMASK=8 characters each is either an '*' or a 'U'

This specifies the Userid Mask. It is used in conjunction with the UIDMAX value. The USERID owning each active job (or about to be selected for execution job) is examined

one character at a time and compares it to the UIDMASK, if the corresponding position in the UIDMASK is a 'U" the character from the UserID is extracted, if the character is an '*' the position is ignored. Once the end of the UserID field is reached, all the selected characters are concatenated to form an intermediate UIDMASK value. The UIDMAX value is used as a maximum count for all jobs that have a matching UIDMASK VALUE.

Ex. UIDMASK=UU*UU***
UIDMAX=2

Given the following USERIDS associated with the following jobs that are active:
JOBNAME1 has a USERID of ABCD1234 - masked value = ABD1
JOBNAME2 has a USERID of ABBD1999 - masked value = ABD1
JOBNAME3 has a USERID of CBAD2000 - masked value = CBD2
JOBNAME4 has a USERID of CBXD2050 - masked value = CBD2
JOBNAME5 has a USERID of CBXD3050 - masked value = CBD3

A new job with a userid value of ABDD1000 - masked value = ABD1, would not be allowed to start since it would become the 3rd (1 more than the limit) job with the same masked value.

A new job with a userid value of CBBD3978 - masked value = CBD3, would be allowed to start since it would only bring the total for that masked value to 2 active jobs (JOBNAME5 + the new job with a userid of CBBD3978).

A new job with a userid value of CBXD4050 - masked value = CBD4, would be allowed to start since it would only bring the total for that masked value to 1 active job with that masked value.

Note - changing the UIDMASK and UIDMAX value to lower values will not affect jobs that have already been selected for execution. They can only affect the decision to allow or reject future jobs as they move from the input to execution queues.

Ex. $D SSM,UIDMASK
$T SSM,UIDMASK=UUUUU**U

JBNMAX=####

This is the maximum number of jobs to allow to concurrently execute with the same jobname masked value on this JES2 member. The default value is zero and indicates that this test should not be done when JES2 selects a potential job for execution.

Ex. $D SSM,JBNMAX
$T SSM,JBNMAX=255

JBNMASK=a mask of 8 characters each either an '*' or a 'U'

This specifies the Jobname Mask. It is used in conjunction with the JBNMAX value. The JOBNAME of each active job (or about to be selected for execution job) is examined one character at a time and compared to the JBNMASK. If the corresponding position in the JBNMASK is a 'U" the character from the JOBNAME is extracted; if the character is an '*' the position is ignored. Once the end of the JOBNAME field is reached, all the selected characters are concatenated to form an intermediate JBNMASK value. The JBNMAX value is used as a maximum count for all jobs that have a matching JBNMASK VALUE.

Example - JBNMASK=UU***U**
Given the following active jobnames, and a JBNMASK=U***U** value, and a JBNMAX=2 setting;

JOBNAME1 masked value = JOE
JOB0029 masked value = JO2
JOBX masked value = JO
TSNAME1 masked value = TSE
TSBNAME masked value = TSM
TSXXXM2 masked value = TSM
JOB002X77 masked value = JO2

A newly selected job with a jobname of JOB992 would have a JBNMASK value of JO2, and would not be allowed to execute yet because it would exceed the limit of 2-(JOB002X77 and JOB0029) are already executing.

A newly selected job with a jobname of JOB993 would have a JBNMASK value of JO3 and with no matching jobname masks would be allowed to execute (the count for JBNMASK JO# would then become 1).

A newly selected job with jobname TSODEEP would have a JBNMASK value of TSE, and since there is only one other job with a matching mask value (TSNAME1), it would be allowed to execute. Then the limit would be met for that JBNMASK value.

Ex. $D SSM,JBNMASK
$T SSM,JBNMASK=UUUU***U

ALLOWS={ ON | OFF }

ALLOWS is an internal control developed specifically for use by the Capacity and Performance group. It should only be changed as directed by the Capacity and Performance group.

EX. $T SSM,ALLOWS=OFF
$D SSM,ALLOWS

CLASSOPT={ ON | OFF }

CLASSOPT determines whether or not the classlim values that limit the number of active jobs on this system, in each class are enforced or not. ON means that the classlim value for each class is being enforced. OFF means that the classlim value for each class is NOT being enforced. Note - setting a low limit will not stop, or cancel any jobs, it will just prevent any new jobs from starting until the total number of jobs for each class is within the limit specified in the CLASSLIM statement for each class.

EX. $D SSM,CLASSOPT
$T SSM,CLASSOPT=ON

CLASSLIM(class specification)=###

CLASSLIM specifies the maximum number of jobs for each class that will be allowed to start on the local copy of JES2. Valid CLASSLIM class specifications are;

A single character.
A range of characters ie. A-L or A-Z or 0-9
A masked value ie. * (meaning all classes)
A combination of the above separated by commas, ie. CLASSLIM(A-G,J,K,0-9)

EX $D SSM,CLASSLIM
$D SSM,CLASSLIM(A,J,N-R,5)
$T SSM,CLASSLIM(A-9)=0

The JES2 $DJ command

The JES2 $DJ command output has been extended to include information about /*CNTL statements. Up to five CNTL names are displayed qualified with an “E” for exclusive, or an “S” for shared. One /*WITH jobname, one /*WITHOUT, one /*BEFORE and one /*AFTER jobname, will each be displayed if those types of statements are present in the job. /*HOLDFOR and /*HOLDTIL values and whether the timers have expired or elapsed are indicated if those cards are also present in the job being displayed. Examples of the extended displays are given below. Please note that the information is included in either the standard or long versions of the command.

Altered Display Commands –

```
-$DJ(25926)

$HASP890 JOB(T0SM139)
$HASP890 JOB(T0SM139)   STATUS=(AWAITING EXECUTION),CLASS=X,
$HASP890                PRIORITY=6,SYSAFF=(ANY),HOLD=(NONE),
$HASP890                DELAY RSN=HOLDTIL TIMR,AFTER=T0SM150,
$HASP890                BEFORE=T0SM160,WITH=T0SM140,WITHOUT=T0SM138,
```

```
$HASP890                 HOLDFOR=00:02:00¦ELAPSED,HOLDTIL=10:20:00,
$HASP890                 CNTL=(RESNAME1-E,MYSTUFF-S,YOURSTUF-P,
$HASP890                 COMMON-S,RESNAME1-E)
```

The **BOLD** text in the display above is all as a result of Shared Spool Mods statements in the JCL. First the 'DELAY RSN=' is only displayed for jobs with Shared Spool Mods statements in the JCL, and indicates whether the job has been bypassed for job selection due to a Shared Spool Mods restriction or if it has simply never been selected by JES2 as a candidate for execution. In this case above the job is held due to the HOLDTIL timer value of 10:20:00. The AFTER=, BEFORE=, WITH=, and WITHOUT= all indicate the jobname associated with each like named control statement. The HOLDFOR= and HOLDTIL= fields indicate the time values specified, and whether or not they have elapsed. In this case the HOLDFOR time has expired, the HOLDTIL time has not. The CNTL= field lists the values specified in up to 5 /*CNTL statements followed by either a -S for shared, -E for exclusive, or -P for purge.

The LONG version of the Display Job command is shown below, it also contains the same Shared Spool Mods information that the short form of the display does.

```
-$DJ(25926),LONG

$HASP890 JOB(T0SM139)
$HASP890 JOB(T0SM139)    STATUS=(AWAITING EXECUTION),CLASS=X,
$HASP890                 PRIORITY=6,SYSAFF=(ANY),HOLD=(NONE),
$HASP890                 CMDAUTH=(LOCAL),OFFS=(),SECLABEL=,
$HASP890                 USERID=T0SM0,SPOOL=(VOLUMES=(JES2T3),TGS=1,
$HASP890                 PERCENT=0.0009),ARM_ELEMENT=NO,CARDS=16,
$HASP890                 REBUILD=NO,SRVCLASS=BATTSTMD,SCHENV=TAPE,
$HASP890                 SCHENV_AFF=(TSPC,TSPD),CC=(),DELAY=(),
$HASP890                 CRTIME=(2007.116,13:42:07),
$HASP890                 DELAY RSN=HOLDTIL TIMR,AFTER=T0SM150,
$HASP890                 BEFORE=T0SM160,WITH=T0SM140,WITHOUT=T0SM138,
$HASP890                 HOLDFOR=00:02:00¦ELAPSED,HOLDTIL=10:20:00,
$HASP890                 CNTL=(RESNAME1-E,MYSTUFF-S,YOURSTUF-P,
$HASP890                 COMMON-S,RESNAME1-E)
```

$HASP943 messages

In addition informational messages, $HASP943 are written to the log as jobs with /*CNTL, /*WITH, /*BEFORE, or /*AFTER are read. Examples of the messages follow.

These messages were issued for the job displayed above, as it was submitted. These form one of the audit trails available for used Shared Spool Mods options. The other audit trail option is of course the optional SMF recording.

```
$HASP943 T0SM139  * -- HOLD UNTIL = 10:20:00       --
$HASP943 T0SM139  * --   HOLD FOR = 00:02:00       --
$HASP943 T0SM139  * -- WITH     JOBNAME = T0SM140   --
$HASP943 T0SM139  * -- WITHOUT  JOBNAME = T0SM138   --
```

```
$HASP943 T0SM139  * -- CONTROL INFO = RESNAME1,EXC  --
$HASP943 T0SM139  * -- CONTROL INFO = MYSTUFF ,SHR  --
$HASP943 T0SM139  * -- CONTROL INFO = YOURSTUF,PRG  --
$HASP943 T0SM139  * -- CONTROL INFO = COMMON  ,SHR  --
$HASP943 T0SM139  * -- CONTROL INFO = RESNAME1,EXC  --
$HASP943 T0SM139  * -- AFTER    JOBNAME = T0SM150   --
$HASP943 T0SM139  * -- BEFORE   JOBNAME = T0SM160   --
```

The SSM OPTIONS can be displayed using the $D SSM command, or altered using the $T SSM command.

The initial values for SSM are set in JES2 parms, and take the format listed in the sample parms below.

```
SSM SMFOPT=ACTION,      /* SMF recording level */
    SMFNUM=216,         /* SMF number used to write smf records */
    BEAFTER=PREMOD,     /* BEFORE/AFTER processing options */
    BATIME=3,           /* Delay time, if BEAFTER=DELAY is selected*/
    UIDMAX=256,         /* Max.# of jobs with matching UID vals*/
    JBNMAX=0,           /* Max.# of jobs with matching JBNMASK vals*/
    UIDMASK=UUUUU***,   /* Mask used with UIDMAX to limit jobs by UID*/
    JBNMASK=********,   /* Mask used with JBNMAX to limit jobs by JBN*/
    ALLOWS=OFF,         /*                                          */
    CLASSOPT=ON,        /*enforce or don't enforce limits by jobclass*/
    CLASSLIM(A-Z,0-9)=234  /*limit for each class - if classopt=on*/
```

NOTE ** the LOADMOD statements for STJTABS and STSSMTBS, and the EXIT statements for EXIT(19) and EXIT(24) should physically be placed BEFORE the SSM parmlib statements.

SMF RECORD LAYOUTS

The SMF records produced by the Shared Spool Mods are sub-typed records all with the same SMF record number as specified in the SSM,SMFNUM=### statement. A different subtype is specified for each type of record.

```
** * ------------------------------------------------------------ * **
** * -- THIS GROUP OF DS'S IS INTEDED TO BE USED AS PART OF AN  -- * **
** * -- EXISTING DSECT, TO DESCRIBE AN SMF BUFFER FOR RECORD    -- * **
** * -- TYPE 216 (D8) TECH SUBTYPED SMF RECORDS.                -- * **
** * ------------------------------------------------------------ * **
SMFXLEN  DS    XL2               LRECL INCLUDING RDW
SMFXSEG  DS    XL2               SEGMENT - ALWAYS ZEROS
SMFXFLG  DS    XL1               B'0101 1110' INDICATES SUBTYPES
SMFXRTY  DS    XL1               SMF RECORD TYPE = 216 = X'D8'
SMFXTME  DS    XL4               TIME SINCE MIDNIGHT IN 1/100TH SEC.
*  TOD, USING FORMAT FROM TIME MACRO WITH BIN. INTVL
SMFXDTE  DS    PL4               X'01YYDDDF'
*  DATE IN PACKED DECIMAL FORM: 01YYDDDF
SMFXSID  DS    XL4               SYSID FROM ( SID )
SMFXSSI  DS    XL4               SUBSYS ID  (SSID = TECH) OR BLANKS
SMFXSTY  DS    XL2               RECORD SUBTYPE X'01'-X'FF'
*                ****  PROGRAM EXECUTION TRACKING SUBTYPES  ****
*                        X'01' = TECH PGM EXECUTION
*                        X'02' = TECH PGM EXECUTION DUP LIB.
*                        X'03' = TECH PGM EXECUTION DUP LIB.
*                        X'04' = TECH PGM EXECUTION DUP LIB.
*                        X'05' = TECH PGM EXECUTION DUP LIB.
*                ****  S.S.M. = SHARED SPOOL MODS SUBTYPES  ****
*                        X'40' = SSM REJECTION INFORMATION
*                        X'41' = SSM JOB PASSED SELECTION
*             FUTURE     X'42' = SSM OPERATOR ACTIONS ($T CMDS)
*                        X'43' = $SJ - ALLOWED OR REJECTED
*                        X'44' = SSM JECL CARD ACCEPTED
*             FUTURE     X'45' = SSM JECL CARD REJCTED JCL ERROR
*                        X'46' = SSM JOB SELECTION REDRIVEN
*             FUTURE     X'47' = JES2 SSM PARM ACCEPTED
*             FUTURE     X'48' = RESERVED FOR SSM
*             FUTURE     X'49' = RESERVED FOR SSM
SMFXNUMT DS    XL2               NUMBER OF TRIPLETS (SUBTYPES 1-5= 2)
*
SMFXRESV DS    XL2               LENGTH OF SELF-DEFINING SECTION
*** SELF-DEFINING SECTION ***
* - FIRST TRIPLET - PRODUCT SECTION
OFFPRD01 DS    XL4               OFFSET FROM RDW TO PROD. SECTION
LENPRD01 DS    XL2               LENGTH OF PRODUCT SECTION
NUMPRD01 DS    XL2               NUMBER OF PRODUCT SECTIONS
*- SECOND TRIPLET - SUBTYPED DATA SECTION
```

```
OFFTEC01 DS    XL4               OFFSET FROM RDW TO SUBTYPED DATA
LENTEC01 DS    XL2               LENGTH OF SUBTYPED SECTION
NUMTEC01 DS    XL2               NUMBER OF SUBTYPED SECTIONS
*
SDSEND   EQU   *                 END OF SELF DEFINING SECTION
SMFD8SSD EQU   SDSEND-OFFPRD01   EQU'D LEN OF SELF DEFINING ssm SECT.
SMFD8TSD EQU   SDSEND-OFFPRD01   EQU'D LEN OF SELF DEFINING tech SECT.
*
* THE PRODUCT SECTION(S) FOR JES2 SSM GOES HERE
*
         ORG   SDSEND            ORG TO END OF SELF DEFINING SECITON
*
PRDOFS   EQU   *-SMFXLEN         OFFSET TO PRODUCT SECTION
SMFD8STY DS    XL2               SUBTYPE - REPEATED - JUST IN CASE
SMFD8SVR DS    XL4               SAME AS UBRVRM AND UJCXVRM
SMFD8SID DS    XL16              C'SHARED SPOOL MOD'
PRDLENS  EQU   *-SMFD8STY        LENGTH OF THE SSM PRODUCT SECTION
*
PRD8JZZ  EQU   *                 END OF SSM PRODUCT SECTION
*
* THE SUBTYPED SHARED SPOOL MODS DATA GOES IN HERE
*
STDOFFS  EQU   *-SMFXLEN         OFFSET TO SUBTYPED SSM DATA
*
SMFD8S40 DS    XL2               SUBTYPE - X'0040' SSM REJECTION INFO
SMFD80JI DS    XL4               JOBID
SMFD80JN DS    CL8               JOBNAME
SMFD80SI DS    XL4               NODE ID REJECT TOOK PLACE ON
SMFD80TE DS    XL8               NODE NAME REJECT TOOK PLACE ON
SMFD80GN DS    XL8               NODE NAME REJECT TOOK PLACE ON
SMFD80ME DS    CL12              REJECTION REASON
SMFD80XT DS    CL8               STCK FORMAT DATE AND TIME
SMFLNS40 EQU   *-SMFD8S40        LENGTH OF SUBTYPED DATA
SMFXLS40 EQU   *-SMFXLEN         LENGTH OF THE ENTIRE RECORD
*
         ORG   PRD8JZZ           ORG TO END OF SSM PRODUCT SECTION
*
SMFD8S41 DS    XL2               SUBTYPE - X'0041' SSM JOB SELECTED
SMFD81IN DS    XL2               INPUT NODE ID       JQEINPND
SMFD81XN DS    XL2               EXECUTION NODE ID   JQEXEQND
SMFD81CD DS    CL1               JQE CREATION TIME    - JQXCRTME
SMFD81JC DS    CL1               JOB CLASS   JQEJCLAS
SMFD81JI DS    XL4               JOBID
SMFD81JN DS    CL8               JOBNAME JQEJNAME
SMFD81RI DS    CL8               USERID OF JOB OWNER    - JQEUSRID
SMFD81SL DS    CL8               SECURITY LABEL OF JOB   - JQESECLB
SMFD81XT DS    CL8               STCK FORMAT DATE AND TIME - THIS REC
SMFD81SE DS    CL16              SCHEDULING ENVIRONMENT NAME -JQASCHE
SMFD81TE DS    XL8               NODE NAME ACCEPTED ON
SMFD81GN DS    CL8               XCF GROUP NAME ACCEPTED ON
SMFLNS41 EQU   *-SMFD8S41        LENGTH OF SUBTYPED DATA
SMFXLS41 EQU   *-SMFXLEN         LENGTH OF THE ENTIRE RECORD
*
```

```
         ORG   PRD8JZZ            ORG TO END OF SSM PRODUCT SECTION
*
SMFD8S42 DS    XL2                SUBTYPE - X'0042' SSM OPER CMDS
SMFD82XT DS    CL8                STCK FORMAT DATE AND TIME - THIS REC
* THE ONLY THINGS AN OPERATOR CAN CHANGE ARE IN THE ECSA AREA -
* HERE IS A BEFORE AND AFTER COPY OF THE ECSA AREA
SMFD82NN DS    XL8                NODE NAME ACCEPTED ON
SMFD82NX DS    XL8                NODE ID COMMAND ENTERED ON
SMFD82CM DS    CL140              THE COMMAND ITSELF (IF WE CAN GET IT)
SMFD82CB DS    XL(SSMTBLEN)       THE ECSA AREA ITSELF (BEFORE)
SMFD82CA DS    XL(SSMTBLEN)       THE ECSA AREA ITSELF (AFTER)
SMFLNS42 EQU   *-SMFD8S42         LENGTH OF SUBTYPED DATA
SMFXLS42 EQU   *-SMFXLEN          LENGTH OF THE ENTIRE RECORD
*
         ORG   PRD8JZZ            ORG TO END OF SSM PRODUCT SECTION
*
SMFD8S43 DS    XL2                SUBTYPE - X'0043' $SJ ALLOWED OR NOT
SMFD83DT DS    CL8                STCK FORMAT DATE AND TIME - THIS REC
SMFD83NN DS    CL1                A=$SJ IS ALLOWED ;;;; X=$SJ REJECTED
SMFLNS43 EQU   *-SMFD8S43         LENGTH OF SUBTYPED DATA
SMFXLS43 EQU   *-SMFXLEN          LENGTH OF THE ENTIRE RECORD
*
         ORG   PRD8JZZ            ORG TO END OF SSM PRODUCT SECTION
*
SMFD8S44 DS    XL2                SUBTYPE - X'0044' JECL CARD ACCPETED
SMFD84IN DS    XL2                INPUT NODE ID       JQEINPND
SMFD84CD DS    CL1                JQE CREATION TIME    - JQXCRTME
SMFD84JC DS    CL1                JOB CLASS   JQEJCLAS
SMFD84JI DS    XL4                JOBID
SMFD84JN DS    CL8                JOBNAME JQEJNAME
SMFD84RI DS    CL8                USERID OF JOB OWNER    - JQEUSRID
SMFD84XT DS    CL8                STCK FORMAT DATE AND TIME - THIS REC
SMFD84SE DS    CL16               SCHEDULING ENVIRONMENT NAME -JQASCHE
SMFD84MG DS    CL60               DETAILED INFO FOR SMF
SMFD84JA DS    CL(UJCXSLN1)       THE STQNAME (JCT EXTENSION) AFTER
SMFLNS44 EQU   *-SMFD8S44         LENGTH OF SUBTYPED DATA
SMFXLS44 EQU   *-SMFXLEN          LENGTH OF THE ENTIRE RECORD
*
         ORG   PRD8JZZ            ORG TO END OF SSM PRODUCT SECTION
*
SMFD8S45 DS    XL2                SUBTYPE - X'0045' JECL CARD REJECTED
SMFD85IN DS    XL2                INPUT NODE ID       JQEINPND
SMFD85CD DS    CL1                JQE CREATION TIME    - JQXCRTME
SMFD85JC DS    CL1                JOB CLASS   JQEJCLAS
SMFD85JI DS    XL4                JOBID
SMFD85JN DS    CL8                JOBNAME JQEJNAME
SMFD85RI DS    CL8                USERID OF JOB OWNER    - JQEUSRID
SMFD85SL DS    CL8                SECURITY LABEL OF JOB   - JQESECLB
SMFD85XT DS    CL8                STCK FORMAT DATE AND TIME - THIS REC
SMFD85SE DS    CL16               SCHEDULING ENVIRONMENT NAME -JQASCHE
SMFD85TE DS    XL8                NODE NAME ACCEPTED ON
SMFD85MG DS    CL140              JECL CARD IMAGE PROCESSED
SMFLNS45 EQU   *-SMFD8S45         LENGTH OF SUBTYPED DATA
```

```
SMFXLS45 EQU   *-SMFXLEN          LENGTH OF THE ENTIRE RECORD
*
         ORG   PRD8JZZ           ORG TO END OF SSM PRODUCT SECTION
*
SMFD8S46 DS    XL2               SUBTYPE - X'0046' QSEL IS REDRIVEN
SMFD86IN DS    XL2               NODEID SOMEWHERE IN $HCT OR $HCCT
SMFD86XT DS    CL8               STCK FORMAT DATE AND TIME - THIS REC
SMFLNS46 EQU   *-SMFD8S46        LENGTH OF SUBTYPED DATA
SMFXLS46 EQU   *-SMFXLEN         LENGTH OF THE ENTIRE RECORD
*
         ORG   PRD8JZZ           ORG TO END OF SSM PRODUCT SECTION
*
SMFD8S47 DS    XL2               SUBTYPE - X'0047' SSM PARM ACCEPTED
SMFD87IN DS    XL2               NODEID SOMEWHERE IN $HCT OR $HCCT
SMFD87XT DS    CL8               STCK FORMAT DATE AND TIME - THIS REC
SMFD87PM DS    CL256             PARM VALUE ACCEPTED
SMFD87EC DS    XL(SSMTBLEN)      THE ECSA AREA ITSELF
SMFLNS47 EQU   *-SMFD8S47        LENGTH OF SUBTYPED DATA
SMFXLS47 EQU   *-SMFXLEN         LENGTH OF THE ENTIRE RECORD
*
         ORG   PRD8JZZ           ORG TO END OF SSM PRODUCT SECTION
*
SMFD8S48 DS    XL2               SUBTYPE - X'0047' SSM PARM ACCEPTED
SMFD8801 DS    XL1               SOME DATA TO RECORD(UNUSED FOR NOW)
SMFD8802 DS    XL1                 MORE DATA TO RECORD
SMFLNS48 EQU   *-SMFD8S48        LENGTH OF SUBTYPED DATA
SMFXLS48 EQU   *-SMFXLEN         LENGTH OF THE ENTIRE RECORD
*
         ORG   PRD8JZZ           ORG TO END OF SSM PRODUCT SECTION
*
SMFD8S49 DS    XL2               SUBTYPE - X'0047' SSM PARM ACCEPTED
SMFD8901 DS    XL1               SOME DATA TO RECORD(UNUSED FOR NOW)
SMFD8902 DS    XL1                 MORE DATA TO RECORD
SMFLNS49 EQU   *-SMFD8S49        LENGTH OF SUBTYPED DATA
SMFXLS49 EQU   *-SMFXLEN         LENGTH OF THE ENTIRE RECORD
*
*   end of record layout *
```