



IBM Systems

What's new in SDSF z/OS 1.10?

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z/OS V1R10 SDSF

- Installation
- SDSF server health check
- JES3 support

Installation

- New SDSF packaging
 - SDSF base FMID HQX7750
 - Contains common code
 - SDSF JES2 feature FMID JJE775S
 - Contains JES2-specific support
 - JES2 installations must install both HQX7750 and JJE775S
 - By default no assemblies are done at SMP/E APPLY time

Installation (continued)

- New libraries for JJE775S
 - ISF.SISFMOD1 / ISF.AISFMOD1
 - ISF.SISFSRC1 / ISF.AISFSRC1
 - ISF.SISFJCL1 / ISF.AISFJCL1
- Add ISF.SISFMOD1 to the Inklst and APF authorize
 - Contains ISFPARMS
- ISFPARMS now in JJE775S (ISF.SISFSRC1)
- ISFISUCL (UCLIN sample) now in JJE775S (ISF.SISFJCL1)

Installation (continued)

- Staging JES2 or JES3 (running a prior level JES on BCP R10):
 - Stage SDSF at the same level of JES
 - For JES2 R9, you must run SDSF R9
 - For JES3 R9, no SDSF support
 - System user is logged on to must be R10
 - Global must be R10

Customization

- Fewer source modules and macros than with older releases of SDSF
- Only modules that need JES macros ship source
 - Direction is to ship less source each release
 - Tell us about any mods you have!
 - We will try to provide support, possibly through the new PROPERTY/PROPLIST statements

SDSF Health Check

- New health check for SDSF
 - SDSF_ISFPARMS_IN_USE (owner IBMSDSF)
 - Determines if ISFPRMxx is being used
 - If not, determines if ISFPARMS has been customized
 - Low severity exception if ISFPARMS has been customized
- Defined when SDSF server starts
 - If server not being used, use EXIT statement in PROGxx
 - Sample ISFSPROG can be copied to parmlib
- Rollback to SDSF V1R8 (HQX7730) and V1R9 (HQX7740)
 - APAR PK59629

SDSF Health Check (continued)

```
SDSF OUTPUT DISPLAY SDSF_ISFPARMS_IN_USE
```

```
COMMAND INPUT ===>
```

```
SCROLL ===> HALF
```

```
CHECK(IBMSDSF,SDSF_ISFPARMS_IN_USE)
```

```
START TIME: 03/04/2008 13:22:11.746530
```

```
CHECK DATE: 20080101 CHECK SEVERITY: LOW
```

```
CHECK PARM: SERVER(SDSF)
```

```
ISFH1001I SDSF server SDSF is using statements from member  
ISFPRM00 of data set SYS2.PARMLIB.
```

```
END TIME: 03/04/2008 13:22:11.795770 STATUS: SUCCESSFUL
```

```
***** BOTTOM OF DATA *****
```

SDSF Health Check (continued)

- ISFPARMS Customization Report
 - Generated when ISFPRMxx is not in use
 - Lists differences between default ISFPARMS and installation ISFPARMS
- Use VERBOSE mode to list every keyword in ISFPARMS regardless of whether it has been customized

SDSF Health Check (continued)

ISFPARMS Customization Report

S	Macro	Name	Parameter	Changed	Comments
---	-----	-----	-----	-----	-----
**	ISFPMAC		FINDLIM	YES	
**	ISFGRP	ISFSPROG	DFIELD2	YES	Ref ISFFLD changed
**	ISFGRP	ISFOPER	CMDLEV	YES	
**	ISFGRP	ISFOPER	PREFIX	YES	
**	ISFGRP	ISFOPER	VALTAB	YES	Ref ISFTR changed
**	ISFGRP	ISFUSER	DFIELD2	YES	
**	ISFGRP	ISFUSER	PREFIX	YES	
**	ISFGRP	ISFUSER	TSOAUTH	YES	
**	ISFGRP	ISFUSER	UPCTAB	YES	Ref ISFTR changed

REXX changes

- An unlimited number of filters now allowed with the ISFFILTER and ISFFILTER2 special variables.
- ISFFILTERMODE special variable to specify the relationship between filters (AND or OR)
- By default, panels now include columns in both the primary and alternate fields lists.
 - Use the PRIMARY or ALTERNATE options to request just those columns
- X (print) action character now supported for job data sets (JDS panel)

JES3 Support

- Using SDSF JES3 support, you can:
 1. Display active JES3 jobs (DA)
 2. Display and control all JES3 jobs in the queue (ST and I)
 3. Display and control data sets in a JES3 job (JDS)
 4. Browse JES3 job output (ODS)
 5. Use non-JES related functions:
CK, ENC, PS, RES, SE, SR, ULOG, Operlog, Slash
- Value:
 1. Common interface between JES2 and JES3

Display Filter View Print Options Help

HQX7750 ----- SDSF PRIMARY OPTION MENU -----

COMMAND INPUT ==> _

SCROLL ==> CSR

DA	Active Users	CK	Health Checker
I	Input queue		
ST	Status of jobs	ULOG	User session log
LOG	System log		
SR	System requests		
SE	Scheduling environments		
RES	WLM resources		
END	Enclaves		
PS	Processes		
END	Exit SDSF		

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DA Panel

- Shows active address spaces in the sysplex
- Action characters the same for JES2 and JES3 with these exceptions:

Existing actions changed for JES3:

C Cancel job **and print non-held data sets**

JES2 only:

EC Process a job again, but cancel and hold it prior to execution

LL List output status of a job, long form

PP Cancel a protected job and purge its output

Q Display output descriptors

DA Panel

- Action characters (continued)

JES3 only:

CP Cancel job and print non-held data sets

DE Display line, page, record and card counts

DSD Display DDNAMES of spool data sets that contain data

DSH Display DDNAMES of spool data sets in spool hold that contain data

DSP Display spool partition name

DX Display extended

LB List SNA/NJE output

LH List output on the hold queue

LT List TCP/IP job output

Queue Displays (I and ST)

- Shows all jobs in JES3 queue
- Action characters the same for JES2 and JES3 with these exceptions:

Existing actions changed for JES3:

C Cancel job **and print non-held data sets**

JES2 only:

DL Display job information, long form

EC Process a job again, but cancel and hold it prior to execution

LL List job information, long form (ST only)

O Release held output for printing (ST only)

PO Purge output (ST only)

PP Cancel a protected job and purge its output

Q Display output descriptors

Queue Displays (I and ST)

- Action characters (continued)

JES3 only:

CP	Cancel job and print data sets ready for printing
DE	Display line, page, record and card counts
DM	Display mains on which the job is eligible to run
DMA	Display MDS allocate queue information
DME	Display MDS error queue information
DMR	Display MDS restart queue information
DMSS	Display MDS system select queue information
DMSV	Display MDS system verify queue information
DMU	Display MDS unavailable volumes information

Queue Displays (I and ST)

- Action characters (continued)

JES3 only (continued):

DSD	Display DDNAMEs of all spool data sets that contain data
DSH	Display DDNAMEs of data sets in spool hold status that contain data
DSP	Display spool partition name
DX	Display job information, extended
LB	List SNA/NJE output
LH	List output on the hold queue
LT	List TCP/IP job output

Queue Displays (I and ST)

- Column changes

JES2 only:

Offs	Offload devices
TGNum	Number of track groups used
TGPct	Percentage of track group used

- Overtypable column changes:

JES2 only:

ExecNode	Execution node
PrtDest	Print destination name
SAff	System affinity
Scheduling-Env	Scheduling environment

Queue Displays (I and ST)

- Command syntax change

I command:

Accepts a single class, 1-7 characters, in JES3

Example: iabc – shows class ABC jobs

ST command:

Accepts a single class, 1-6 characters, in JES3

Example: stxyz – shows class XYZ jobs

Display Filter View Print Options Help

 SDSF DA SY1 SY1 PAG 0 CPU/L 2/ 1 SET COMMAND COMPLETE
 COMMAND INPUT ==> set action on_ SCROLL ==> CSR

PREFIX=* DEST=(ALL) OWNER=* SYSNAME=
 ACTION=// -Block,=-Repeat,+ -Extend,?-JDS,A-Release,C-Cancel,CA-CancelARM,
 ACTION=CD-CancelDump,CDA-CancelARMDump,CP-CancelPrint,D-Display,
 ACTION=DE-DisplayEstimates,DL-DisplayLong,DSD-DisplayDDDnames,
 ACTION=DSH-DisplaySpoolHold,DSP-DisplaySpoolPartition,DX-DisplayExtended,
 ACTION=E-Restart,H-Hold,K-SysCancel,KD,SysCancelDump,L-List,LB-ListBDT,
 ACTION=LH-ListHold,LT-ListTCP,P-Purge,Q-Outdesc,R-Reset,RQ-ResetQuiesce,
 ACTION=S-Browse,SB-ISPFBrowse,SE-ISPFEedit,SJ-JCLEdit,W-Spin,X-Print,
 ACTION=XC-PrintClose,XD-PrintDS,XDC-PrintDSClose,XF-PrintFile,
 ACTION=XFC-PrintFileClose,XS-PrintSYSOUT,XSC-PrintSYSOUTClose,Y-SysStop,
 ACTION=Z-SysForce

NP	JOBNAME	StepName	ProcStep	JobID	Owner	C	Pos	DP	Real	Paging
	MASTER			JOB00002	+MASTER+		NS	FF	704	0.00
	PCAUTH	PCAUTH					NS	FF	81	0.00
	RASP	RASP					NS	FF	185	0.00
	TRACE	TRACE					NS	FF	320	0.00
	DUMPSRV	DUMPSRV	DUMPSRV				NS	FF	133	0.00
	XCFAS	XCFAS	IEFPROC				NS	FF	1143	0.00
	GRS	GRS					NS	FF	816	0.00
	SMSPDSE	SMSPDSE					NS	FF	1520	0.00

Display Filter View Print Options Help

 SDSF STATUS DISPLAY ALL CLASSES

COMMAND ISSUED

COMMAND INPUT ==>

SCROLL ==> CSR

RESPONSE=SY1 IAT8686 JOB SETROPTS (JOB00040) ACTUAL

RESPONSE=SY1 IAT8686 0000007 LINES, 00000000 PAGES, 0000004084 BYTES,

RESPONSE=00000 CARDS

RESPONSE=SY1 IAT8699 INQUIRY ON JOB STATUS COMPLETE, 0 JOBS

RESPONSE=DISPLAYED

	MONITOR	JOB00001	JES2	15	EXECUTION		SY1
	OMVSINIT	JOB00012	OMVSKERN	15	PRINT	A	
	PRIMEPSA	JOB00007	JES2	15	EXECUTION	A	SY1
	RACF	JOB00016	JES2	15	EXECUTION	A	SY1
	READTCP	JOB00008	JES2	15	PRINT	A	
	RMF	JOB00009	JES2	15	EXECUTION	A	SY1
	SDSF	JOB00013	JES2	15	EXECUTION	A	SY1
de_	SETROPTS	JOB00040	IBMUSER	2	PRINT	A	
	SETROPTS	JOB00039	IBMUSER	2	PRINT	A	
	SETROPTS	JOB00038	IBMUSER	2	PRINT	A	
	SETROPTS	JOB00037	IBMUSER	2	PRINT	A	
	SETROPTS	JOB00036	IBMUSER	2	PRINT	A	
	SETROPTS	JOB00035	IBMUSER	2	PRINT	A	
	SETROPTS	JOB00034	IBMUSER	2	PRINT	A	
	SETROPTS	JOB00033	IBMUSER	2	PRINT	A	

JDS

- Shows job data sets
- Action characters the same for JES2 and JES3 with these exceptions:

Existing actions changed for JES3:

C, H, O and P – no restrictions on the panel JDS is accessed from. For JES2, it must be O or H.

JES2 only:

Q – Display output descriptors

JDS

- Column changes

JES2 only:

Address-Line1-4	Output address lines 1 to 4
AFPParms	Data set containing AFP parameters
Building	Output building
ColorMap	AFP resource
ComSetup	Printer setup options
CpyModFT	Table name in the CHARS parameter
Department	Output department
FormDef	Library member used by PSF
FormLen	Form length
ITy	Paper source (in-tray)

JDS

- Column changes
JES2 only (continued):

Name	Output name
Node	Data set node number
Notify	Print complete notification message
OffsetXB	Offset in the x direction for the back of each page
OffsetXF	Offset in the x direction for the front of each page
OffsetYB	Offset in the y direction for the back of each page
OffsetYF	Offset in the y direction for the front of each page
O-Grp-N	Data set output group name
OutBn	Output bin
OverlayB	Overlay for the back of each sheet
OverlayF	Overlay for the front of each sheet
PageDef	Library member used by PSF

JDS

- Column changes
JES2 only (continued):

Port	Number of the TCP/IP port
Room	Output room
Rmt	JES2 print routing
Title	Output title
UserLib	Libraries containing AFP resources
UserData1	User data

JES3 only:

Queue	JES3 queue the dataset is on (TCP, BDT, etc.)
-------	---

JDS

- Overtypable column changes

JES2 only:

Address	Output address (lines 1-4)
AFPParms	Data set containing AFP parameters
Building	Output building
C	JES2 output class
ColorMap	AFP resource
ComSetup	Output microfiche printer options
Department	Output department
FormDef	Output form definition
FormLen	Form length
ITy	Paper source
Name	Output name
Notify	Output print complete notification

JDS

- Overtypable column changes

JES2 only (continued):

OffsetXB, OffsetYB Offset in the x and y directions, back of page

OffsetXF, OffsetYF Offset in the x and y directions, back of page

OverlayB, OverlayF Overlay for the back and front of each sheet

OutBn Output bin

PageDef Output page definition

Port Number of the TCP/IP port

Room Output room

Title Output title

Userlib User libraries

UserData1 User data

JDS

- Overtypable column changes
New overtypes for JES3

JES3 only:

Burst	Data set burst indicator
Chars	Character arrangement table names
CpyMod	Copy modification table name
Flash	Output flash ID
PrMode	Process Mode
UCS	UCS ID

Arrange and Filter

- Columns that require JES2 or JES3 are indicated in the pop-up columns list (access with ARR ? Command)

Column	Width	Description
TGNum	5	z/OS JES2 required
TGPct	6	z/OS JES2 required
OrigNode	8	
ExecNode	8	
Device	18	
Offs	4	z/OS JES2 required
Max-RC	10	

- Separate Arrange, Filter and Sort criteria kept for JES2 and JES3

WHO Command

- Displays information about the user and the environment
- Added for JES3 support:
 - JES type
 - Global indicator
 - Global release level

```
USERID=KJONAS,PROC=SDSF31AJ,TERMINAL=Z046LC11,GRPINDEX=1,GRPNAME=ISFSPROG,  
MVS=z/OS 01.10.00,JES=z 1.10.0,SDSF=HQX7750,ISPF=5.9,RMF/DA=719,SERVER=YES,  
SERVERNAME=SDSF,JESNAME=JES3,MEMBER=SY1,JESTYPE=JES3,GLOBAL=SY1,  
GLOBALREL=HJS7750,SYSNAME=SY1,SYSPLEX=PLEX1,COMM=NOTAVAIL
```

REXX

- Same exec can be used in both JES2 and JES3 environments in many cases (if using ST, DA, or other common panels)
- Use output from WHO command to determine JES being processed

```
rc=isfcalls("on")
Address SDSF "ISFEXEC WHO"
do ix=1 to isfresp.0
  if pos("JESTYPE=",isfresp.ix) <> 0 then
    do
      Parse var isfresp.ix kw "=" jestype
      Say jestype
    end
  end
end
if jestype="JES3" then ...
else ...
rc=isfcalls("off")
```

LOG support

- **LOG** (SYSLOG) currently works only in JES2 environment
 - SYSLOG datasets can be browsed from JDS panel after they have been spun
- **LOG O** (Operlog) works in both JES2 and JES3 environment

Security Considerations

- SDSF JES3 security is SAF only
 - ISFPARMS only used with JES2
- When SAF cannot decide (RC=4), the request is failed
 - No fallback to ISFPARMS as in JES2
- Same profiles between JES2 and JES3 when possible (e.g. in SDSF and JESSPOOL classes)
- OPERCMDS profiles differ based on command

Security Considerations (continued)

- Use new custom property Security.SAFNoDec.WarnMsg to assist diagnosing security problems
 - **TRUE:** issue a message for SAF no decision, including the class name, resource name, and access level being checked
 - **FALSE:** do not issue a message. This is the default.

GROUP CUSTOM(SPRGPROP)

PROPLIST(SPRGPROP)

PROPERTY NAME(Security.SAFNoDecWarnMsg)

VALUE(TRUE)

**ISF314I Access denied to OPERCMDS/JES3.MODIFY.JOBP level
UPDATE due to SAF no decision.**

Security Considerations (continued)

- ISFACR (RACF conversion utility)
 - Helps you to migrate to SAF security
 - Updated for JES3
 - Generates both JES2 and JES3 related profiles

Configuration

- Configuration defaults changed using ISFPRMxx
 - Assembler based ISFPARMS not used with JES3
- SDSF server address space must be started to use ISFPRMxx
 - Server remains optional
 - Only needed if you change a default in ISFPRMxx
- Same ISFPRMxx can be shared between SDSF V1R9 and V1R10
 - Toleration APAR PK51434 (PTF UK90012) for HQX7740
 - Causes R9 to ignore new keywords

Configuration (continued)

- JES3 subsystem name
 - OPTIONS statement in ISFPRMxx: JES3NAME keyword
 - Not supported in the ISFPMAC macro
 - SDSF command: JES3NAME option
 - REXX variable: isfjes3name
 - Default is the JES the user is logged on to
- Field lists can include JES-specific columns
 - SDSF dynamically determines if column is valid for JES

Session Summary

- SDSF can be used in both JES2 and JES3 environments
- Support for jobs (DA, I, ST, JDS, ODS) and non-JES related displays (CK, PS, /)
- Use ISFPRMxx instead of ISFPARMS
 - New health check to identify changes made to ISFPARMS
- Use SAF for security
- Any Questions?

Appendix

- Reference
 - *z/OS SDSF Operation and Customization*, SA22-7670
 - SDSF Web page:
<http://www.ibm.com/servers/eserver/zseries/zos/sdsf/>
 - *Implementing REXX Support in SDSF* Redbook, SG24-7419

References

- Issue the **REXXHELP** command while using SDSF under ISPF
- *SDSF Operation and Customization*:
<http://publibz.boulder.ibm.com/epubs/pdf/isf4cs70.pdf>
- SDSF Web page:
<http://www.ibm.com/servers/eserver/zseries/zos/sdsf/>
- New Redbook: *Implementing REXX Support in SDSF*,
SG24-7419-00
<http://w3.itso.ibm.com/abstracts/sg247419.html?Open>
– Loaded with interesting examples and experiences

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