

An IBM representative will walk the attendees through using SDSF at an introductory level. New users will learn how SDSF can help them monitor and control jobs, output, devices and system resources throughout the MAS. The session will also include hints and tips for more experienced SDSF users.



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Objectives

- Explain SDSF to the new or intermediate user:
 - Familiar with SDSF but not expert
 - Might include:
 - End users
 - Operators
 - System programmers
- Along the way, include tips for everyone

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System Display and Search Facility

SDSF provides an easy & efficient way to:

- Control job processing
- Control output and browse jobs, without printing
- Control devices such as printers, lines, and initiators
- Manage system resources
- Work with checks for IBM Health Checker for z/OS







SDSF Organizes Data

- Data is presented in tabular format on 20+ different panels
- Panels are customizable by the system programmer and the user
- SDSF security controls the panels users see and the functions they can use





SDSF Main Panel



HQX7770 SDSF PRIMARY OPTION MENU							
COMMAND INPUT ===>_ SCROLL ===> PAGE							
DA	Active users	INIT	Initiators				
I	Input queue	PR	Printers				
0	Output queue	PUN	Punches				
H	Held output queue	RDR	Readers				
ST	Status of jobs	LINE	Lines				
		NODE	Nodes				
LOG	System log	SO	Spool offload				
SR	System requests	SP	Spool volumes				
MAS	Members in the MAS						
JC	Job classes	RM	Resource monitor				
SE	Scheduling environments	CK	Health checker				
RES	WLM resources						
ENC	Enclaves	ULOG	User session log				
PS	Processes						



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Here is the main panel in SDSF with all of the options enabled.

Lab Task:

Log on, enter ISPF, and access SDSF. You should see a panel that looks something like this.



Manage Jobs

```
Display
          Filter
                  View
                        Print
                               Options
                                         Help
HOX7770 -----
                   SDSF PRIMARY OPTION MENU --
COMMAND INPUT ===>
DA
      Active users
Ι
      Input queue
0
      Output queue
Η
      Held output queue
      Status of jobs
ST
```

This is what the typical "End User" sees on the menu.

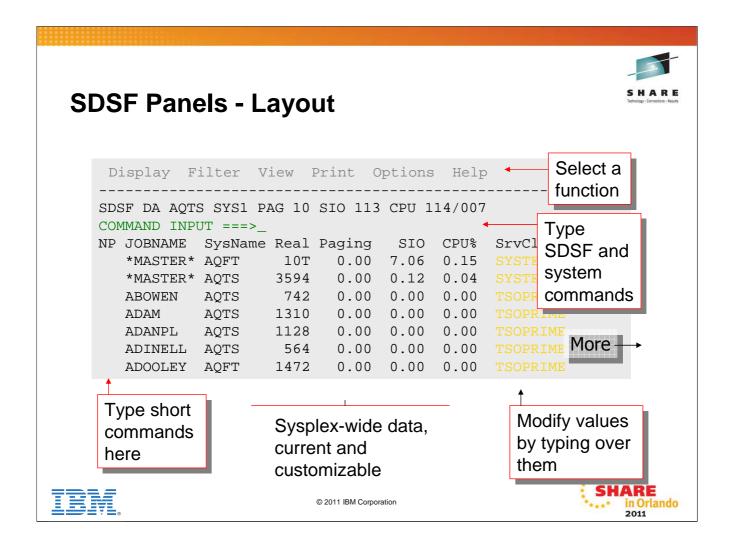


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Most of this session is devoted to these panels. However, many of the concepts discussed apply to all panels.

SDSF can be tailored either through SAF or through it's own parameters (ISFPARM) so that various panels and functions within those panels are only available to select users or groups. So, for an average user who should have access to only his jobs and nothing else, the panel could be tailored to look like this.



All SDSF panels have the same basic layout. For now, we'll look at DA just to see what this looks like.

Lab Task:

Access the DA panel, you should see something that looks like this.

The top row consists of pulldowns where you can access additional SDSF functions Below that is a title line indicating what display you are on (in this case DA), and for some panels additional summary data may be displayed too.

Next is the command line where SDSF or TSO commands can be issued.

Finally, there is a columnar display of, in this case, all active jobs in the system. The NP column allows you to issue specific commands against row objects; also the values in some columns can be modified by overtypeing them. You can page up and down to see additional rows, and left and right to see additional columns.

There may be some differences in what you see on your system because a prior user has modified some settings. You'll see how, and how to deal with it, on the next page.



Tips – Other settings

Display settings: set display

```
SDSF STATUS DISPLAY ALL CLASSES LINE 1-20 (24651)

COMMAND INPUT ===> PAGE

PREFIX=BKELLER* DEST=(ALL) OWNER=* FILTERS=2

NP JOBNAME JobID Owner Prty Queue C

BKELLER TSU23637 BKELLER 15 EXECUTION
```

Display action characters: set action (long|short)

```
SDSF HELD OUTPUT DESPLAY ALL CLASSES LINES 452,893 LINE 429-449 (449)

COMMAND INPUT ===> SCROLL ===> CSR

ACTION=//-Block,=-Repeat,+-Extend,?-JDS,A-Release,C-Cancel,H-Hold,L-List

ACTION=O-Release,P-Purge,Q-Outdesc,S-Browse,X-Print

NP JOBNAME JOBID OWNER PRTY C ODISP DEST TOT-REC

DB2LU32 JOB09111 DB2JOB 7 H HOLD LOCAL 730
```



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Lab Task:

Issue SET DISPLAY ON and SET DISPLAY OFF to toggle the display line. If data is not being displayed, this can indicate why.

The PREFIX command can be used to limit what job names are displayed. PREFIX with no operands is the same as PREFIX *.

The OWNER command limits the display based on the owner of the row object (in this case, a job). Again, OWNER with no operands is the same as OWNER *.

Other filters can be set up using the FILTER command but it's easier from the FILTER pulldown. FILTERS= on the display line displays how many are in effect. Go to the pulldown or issue FILTER? to see what filters are in effect for this panel.

Issue SET ACTION LONG, SET ACTION SHORT, and SET ACTION OFF and notice the difference in the display. These lines are there to remind you what you can type in the NP column for this panel.



Customizing Panels

Use commands to show just your own jobs •ISFPARMS can also limit jobs

```
SDSF STATUS DISPLAY ALL CLASSES
COMMAND INPUT ===>
NP
     JOBNAME JobID
                        Owner
                                 Status
                                          Prty
                                                Queue
     BKELLER
             TSU23995 BKELLER
     BKELLER
              JOB13185 BKELLER
     BKELLER
              JOB06091 BKELLER
                                 Filter on owning userid:
              TODONATO DVELLED
     BKELLERA
                                 OWNER BKELLER
             Filter on job name:
             PREFIX BKELLER*
```

PREFIX and OWNER commands apply to all job panels



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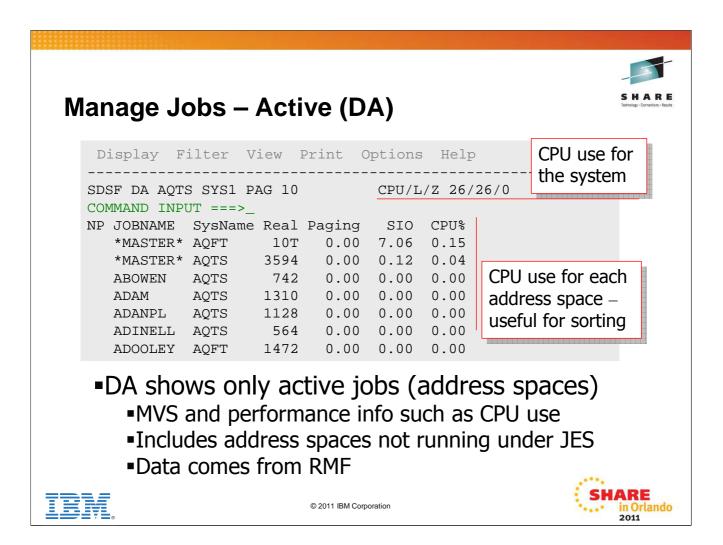


Note that PREFIX and OWNER require a trailing generic character; otherwise, they look for an exact match. You can modify the generic character with the SET SCHARS command.

Lab Task:

Set PREFIX to your userid followed by an *. Then set it to just * and note the differences.

Set OWNER to your userid. Then set it back to * and note the differences.



Values in the SysName column indicate that this is a sysplex-wide view.

If RMF isn't installed, this display shows a subset of the columns.



Manage Jobs - CPU Values

MVS, LPAR and zAAP views of CPU use on the title line: CPU/L/Z 26/26/0

Many CPU-related columns

GCP-Time Accumulated general processor service time, in seconds

zAAP-Time Accumulated zAAP service time, in seconds

zACP-Time Accumulated general processor service time that was eligible

for a zAAP, in seconds

GCP-Use% Percent of the total general processor time used by the address

space in the most recent interval (not normalized)

zAAP-Use% Percent of the total zAAP time used by the address space in the

most recent interval (not normalized)

>SzAAP% zAAP view of CPU use for the system, in the most recent

interval

>SzIIP% zIIP view of CPU use **for the system**, in the most recent

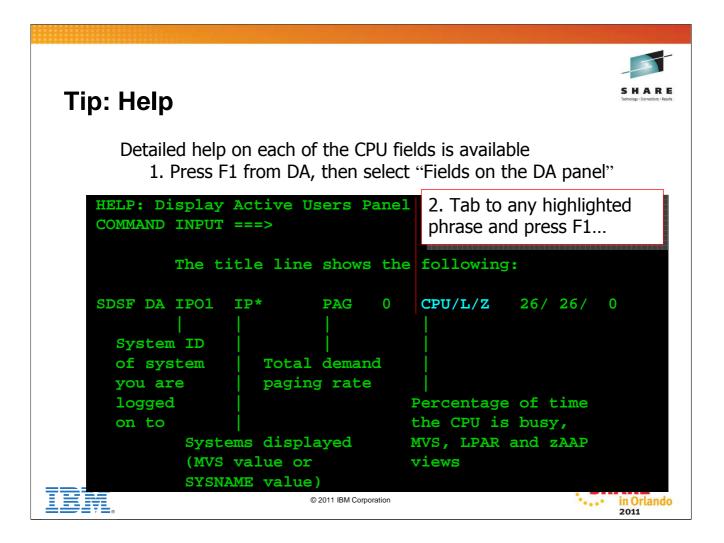
interval



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Values for the system columns (SzAAP% and SzIIP%) are the same for all rows for a given system. This information is shown in columns because there is no room on the title line. The title line reflects just the system you are logged on to.



From any panel, F1 will put you int a general help for that panel. There are options that you can then follow which will get you closer to the specific help you're looking for. You can also get there from the Help pulldown.

Within the help, you may also find highlighted phrases that you can tab to and hit F1 to find relevant to that specific phrase. This help function requires ISPF. It exploits what ISPF calls "reference phrase" help. Anytime you see a highlighted phrase in the help that you can tab to, it is probably a reference phrase "link" that you can follow by pressing F1.

Lab Task:

Access the help for DA, and find specific help on the zIIP and zAAP related columns.



Tip: Help for CPU Values

Further help on that topic is displayed (7 panels on CPU)



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Manage Jobs – Status (ST) Panel

```
Display Filter View Print Options Help

SDSF STATUS DISPLAY ALL CLASSES LINE 1-20 (24651)

COMMAND INPUT ===> SCROLL ===> PAGE

NP JOBNAME JobID Owner Prty Queue C

BKELLER TSU23637 BKELLER 15 EXECUTION

BKELLERA JOB23991 BKELLER 15 INPUT J
```

- ST basic panel for managing jobs and output
 - •Jobs on any queue
 - o Including started tasks that are executing
 - Held and non-held output
 - Overtypes for job cols like service class, priority
 - •I panel shows jobs on the input queue or executing o Columns and actions nearly identical to ST



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This example shows a typical setup with jobs being limited to just the user's jobs. This could be done through either PREFIX (job name) or OWNER commands.

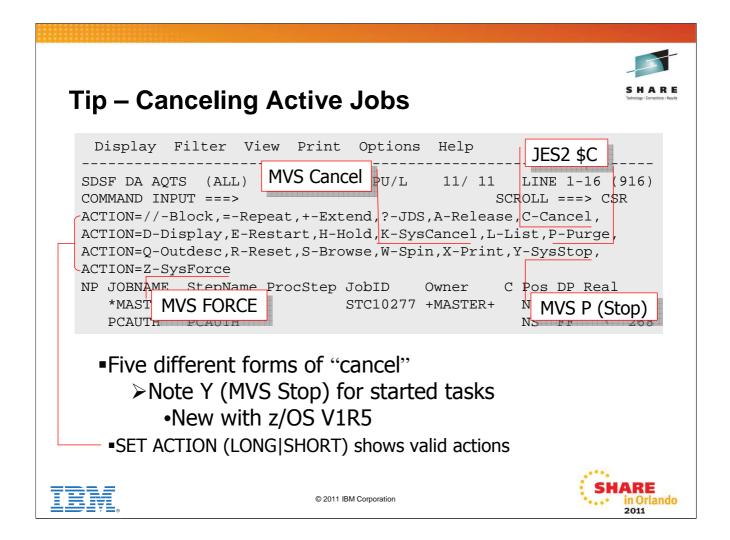
Lab Task:

Issue the ST command to check out the ST panel.

Submit the job in **CLWOOD.S2343.JCL(IEFBR14).** Tailor the display so that it only displays your jobs using the PREFIX and OWNER commands.

Go to the I panel. Note that the PREFIX and OWNER settings are still in effect. Now release your job. If you don't remember how, SET ACTION LONG to see a list of actions to remind you how to do it.

Finally, go back to ST to see the status of the job. Don't worry, we'll do more with it later.



SET ACTION is enhanced as of z/OS 1.9: SET ACTION LONG used to show just the base form of each action, meaning, for example, it would include C but not CD (cancel and take a dump) or CDA (cancel a job defined to ARM and take a dump). With R9, all forms of each action character are included with SET ACTION LONG.



Tip: Scaling and Arrange

SDSF scales numbers to make them fit the column width

T=thousands, M=millions, B=billions, plus KB, MB, GB, TB, PB (bytes)



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You can resize columns with the ARRANGE command, as shown on the next page.





■To see the actual number, use Arrange to increase the column width

```
Display Filter View Print Options Help

SDSF DA AQTS SYS1 PAG 10 CPU/L/Z 26/26/0
COMMAND INPUT ===> arr real 8

NP JOBNAME SysName Real Paging SIO CPU%

*MASTER* AQFT 12T 0.00 7.06 0.15

Display Filter View Print Options Help

SDSF DA AQTS SYS1 PAG 10 SIO 113 CPU/L (7.26/26/0)

COMMAND INPUT ===>_

NP JOBNAME SysName Real Paging SIC Number

*MASTER* AQFT 12,831 0.00 7.06

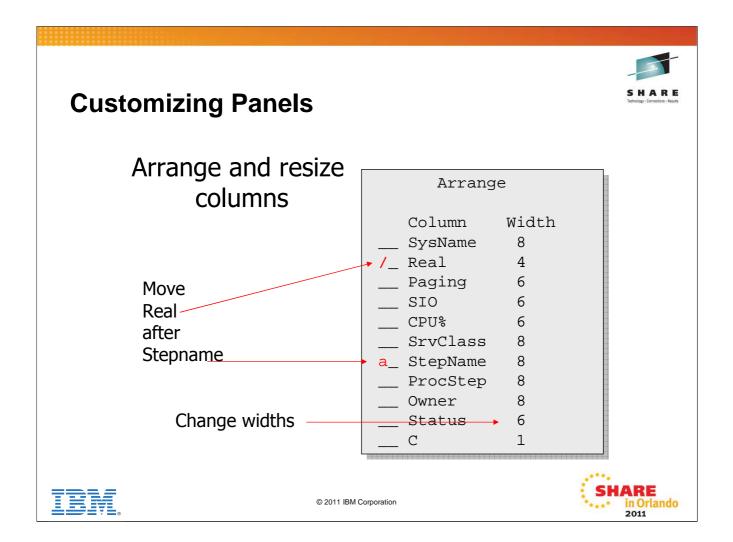
*MASTER* AQTS 3594 0.00 0.12 0.04
```



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You can also do this through the Arrange pop-up, which you access with this command: ARR? (requires ISPF). There is also an Arrange option on the View pulldown which shows the same information.



Lab Task:

Use the arrange commands and popup to reorder and resize columns on the DA panel.

When you're done issue **ARR** ? to access the popup and hit PF6 to restore the columns to their default size and order.



Tip: Alternate Field Lists

- Every panel has two sets of columns, a primary and a secondary, or alternate
 - Defined in ISFPARMS
- Secondary includes things like output descriptors (Programmer name, Room number, Account number, etc.) that may take longer to obtain
- Different sets of ARRANGE criteria can be used for each
- Access the alternate set with ?



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The alternate set of fields, by default, contains all of the primary fields plus the alternate fields.

Both sets of fields can be customized for the installation through SDSF's customization module, ISFPARMS.

Note that for many displays, the primary and alternate lists are the same by default and include all possible columns.

Lab Task:

Issue a ? from the command line to see the alternate columns. Note that both list are the same for DA.

Now use arrange to rearrange the columns and toggle back and forth between primary and secondary.

When you're done set the order for both the primary and secondary back to the default (ARR ? and PF6)

Manage Output – Output (O) Panel



Display Fil	Completion i high return o	nfo & ode	Overtypes	
SDSF OUTPUT AL		ALL FORMS	LINES 1,44 SCROLL =	
NP JOBNAME	Max-RC	C Forms	JobID	Tot-Rec
BKELLERA	CC 0000	A REC	JOB18690	1,178
BKELLERB	ABEND S622	A REC	TSU01320	485

- Output (O) panel displays information about output that is ready to be printed.
 - Overtypes for output characteristics
- ■Output panel can be filtered by output class by issuing Ox to see output class x. Up to 7 output classes can be listed.

Lab Task:

Issue the O command to check out the output panel.

Issue the OABC command and note the differences.



Manage Output - O Panel

O shows a row for each output group, so a job can have multiple rows:

	JOBNAME	JobID	Owner	O-Grp-N	OGID1	OGID2 C
۲	ABCGR2XX	JOB01736	ABCARSO	2	1	1 4
L	ABCGR2XX	JOB01736	ABCARSO	1	1	1 (6)
۲	ABCGR3XX	JOB01738	ABCARSO	2	1	1 4
L	ABCGR3XX	JOB01738	ABCARSO	1	1	1 6
۲	ABCGR4XX	JOB01740	ABCARSO	2	1	1 4
L	ABCGR4XX	JOB01740	ABCARSO	1	1	1 6

Output groups have identical characteristics, such as forms, class, destination, address and building









Tip: Held Output (H) Panel

H panel shows *held* output.

- O and H have nearly identical columns and actions
- H has a built-in filter that limits it to your own jobs.
- To display output for all jobs on the H panel:
 - prefix ** then h
 - or -
 - prefix then h all



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Note that PREFIX works differently on the H display from how it works on the other displays. This is because historically, JES2 used to have to do spool I/O to determine what held datasets were associated with a job, and this was to limit the amount of I/O to be done. This changed many years ago but the behavior has remained for compatibility.

PREFIX ** or H ALL can be used to override the default filtering.

Lab Task:

Issue H to get to the held panel.



Tip: Time/Date Columns

- O and H panels have a CRDate column:
 - Default width shows just a date
 - Expand with arr crdate 20 to see the time

 JOBNAME
 CrDate
 JOBNAME
 CrDate

 SRVLIB
 01/12/2011
 SRVLIB
 01/12/2011
 16:39:39

 SRVLIB
 01/12/2011
 16:39:49

- When filtering on any date/time field, use < or >, not =
 - Time will never match precisely

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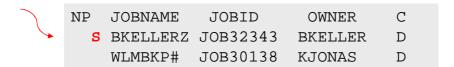






Browse

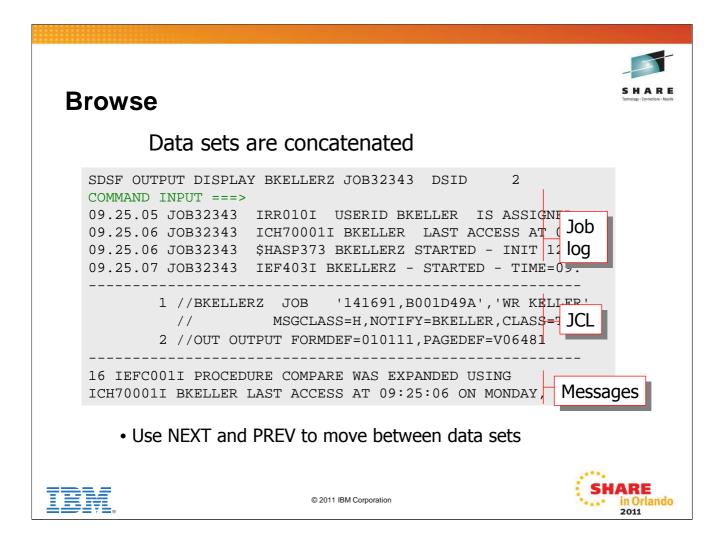
- Output as it is being created, consisting of:
 - Data written to SPOOL
 - In-memory buffers (most recent data) if:
 - >Job is running on the local system or
 - ➤You have SDSF's sysplex support
 - •See earlier slide...
- •Input data sets for jobs being processed or waiting to be processed





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Lab Task:

Use the S action character from the ST panel to browse a job's output.

Use PF7/PF8 to page up and down

Use the NEXT and PREV commands to jump forward backward to the next or prior data set.



Tip: ISPF Edit or Browse

Instead of S (SDSF browse), you can use

- ■SE to browse using ISPF Edit
- ■SB to browse using ISPF Browse
- ■Then you can use any ISPF Edit or Browse commands or macros
- ■SDSF NEXT and PREV actions cannot be used.



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Lab Task:

Look at the same job's output using the SB action character to get ISPF Browse

Look at the same job's output using the SE action character to get ISPF Edit.





- Default browse action
 - Browse a job by pressing Enter next to it
 - No action character required
- ==> SET BROWSE S

```
SDSF STATUS DISPLAY ALL CLASSES
COMMAND INPUT ===>
    JOBNAME JobID
                  SDSF OUTPUT DISPLAY BKELLER JOB07810
    BKELLER TSU09
                  COMMAND INPUT ===>
    BKELLER JOB07
                 ****** TOP OF DATA *****
    BKELLER
            TSU26
                  \INMR01
                               S390VM
                                           BKELLER
                 12113 \INMR07
                                             R17JSHP2 2
                                    BKELLER
```



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SET BROWSE with no arguments turns this off.

Browse JCL and Resubmit



Use SJ action to browse just the JCL

• Make changes and resubmit

- Uses ISPF Edit
- Changes you make are not saved



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Lab Task:

Use SJ to browse the input JCL for a job.

Modify the JCL and re-submit the job.



Tip: Save Changes

To save changes, use ISPF's CREATE or REPLACE commands

•Displays a panel that lets you specify where to save





Work with Job Data Sets (JDS)



The ? action lists the data sets for a job:

```
NP
    JOBNAME
              JOBID
                         OWNER
                                  PRTY
                                         C
    BKELLERZ JOB32343
                        BKELLER
                                      7
                                         D
 SDSF JOB DATA SET DISPLAY - JOB BERKEA5 (JOB00042)
 COMMAND INPUT ===>
                                      SCROLL ===> PAGE
 NP
      DDNAME
                 StepName ProcStep DSID Owner C Dest
                                       1 BEVK
      JESJCLIN
      JESMSGLG
                JES2
                                       2 BEVK
                                               R LOCAL
      JESJCL
                 JES2
                                       3 BEVK
                                               R LOCAL
      JESYSMSG
                JES2
                                       4 BEVK
                                               R LOCAL
 S
      ISFOUT
                FINDDA
                                     104 BEVK
                                               R LOCAL
```

Browse, print, purge release

Change class, dest, output descriptors



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Lab Task:

Use the ? Action character to display the list of data sets associated with the job.

Now use the S, SB, or SE commands to look at individual data sets.





Overtyping long columns:

- Entire column must be visible
- ■Use LOC column-name

Scrolls to that column

```
SDSF JOB DATA SET DISPLAY - JOB BERKEA5 (JOB00042)

COMMAND INPUT ===> SCROLL ===> PAGE

NP DDNAME UserLib

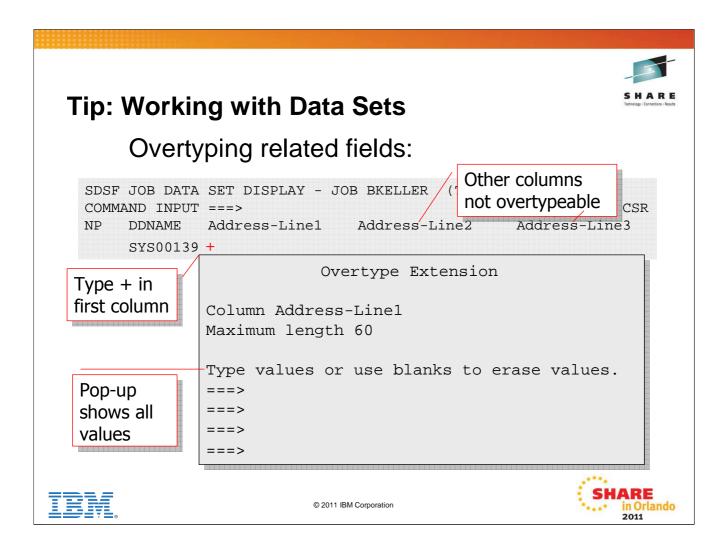
JESJCLIN
```



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Note that LOC can be used on any display, not just JDS



Many columns have sets of related values. For example, you can specify multiple selection forms and selection destinations for printers. SDSF typically handles these "related fields" by providing a single overtypable column; to work with the full set of values, you use "overtype extension." The Overtype Extension pop-up always shows as many input fields as are valid for that column. If there are no "related' columns, the pop-up has only one field. If you are unsure if a column has related values, type the + by itself to find out.



Printing

You can print:

- Output data
- Data from the log panels
- Screen images of SDSF panels

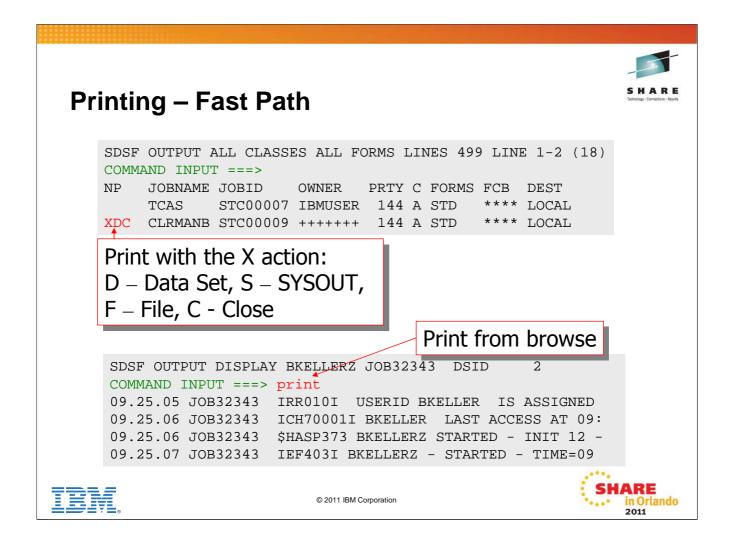
The print output can be sent to:

- **SYSOUT**
- Data set
- ■Print file (specified with a *ddname*).



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XDC prints to a data set and closes the print file when the printing is done.

The PRINT command entered from within browse prints the output that you are browsing. In the example, it would print to SYSOUT.



Printing - Control

PRINT command and pop-ups provide more control:

```
SDSF Open Print
COMMAND INPUT ===>
Enter SYSOUT attributes below:
Class
                             (A through Z, 0 through 9)
           ===>
Copies
                             (1to 255)
                              * *
Forms
            ===>
Destination ===>
UCS
                              * *
Process Mode ===>
                              * *
Pagedef ===>
                              * *
Formdef
           ===>
```





You can use options on the X action character and print command to display panels that let you define the destination. XS or PRINT S display the pop-up for SYSOUT, shown here.

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Tip - Printing As Is

SDSF's print function inserts ANSI carriage control, or converts machine carriage control, if present, to ANSI, unless:

- •You use the PRINT FILE command or the XF or XFC action character
- •The data is page-mode. SYSOUT files containing both page-mode data and machine character data are not defined as page-mode in JES2.







Manage Other (non-JES) Workload

WLM enclaves

SDSF COMMA	ENCLAVE DISPI	,			LINE 1-6 (6) SCROLL==		
NP	TOKEN	SSType	Status	SrvClass	CPU-Time	zIIP-Time	
	240000149E	DDF	INACTIVE	SYSOTHER	34.51	0.00	
	640000145B	DDF	INACTIVE	SYSOTHER	63.24	0.00	
	2C00000004	DDF	INACTIVE	SYSOTHER	7.64	0.00	
	3000000020	DDF	INACTIVE	SYSOTHER	0.15	0.00	
	3800000033	DDF	INACTIVE	SYSOTHER	0.31	0.00	
	4000000021	DDF	INACTIVE	SYSOTHER	0.15	0.00	

- zIIP and zAAP use columns
- Actions to resume, quiesce



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The token (the fixed field) is generated by z/OS.



Manage Other (non-JES) Workload

Unix System Services processes

S	OSF PROCES	S DISPLAY	SY1 ALL	LINE	1	1- 10	(10)
C	COMMAND INPUT===>_ SCROLL===>					> CSR	
N	P JOBNAME	Status			Owner	State	CPU-
	BPXOINIT	SWAPPED,	RUNNING		SYSTASK	MRI	1
	MQS1CHIN	RUNNING			MQS	1R	11
	MQS1CHIN	RUNNING			MQS	1R	12
	MQS1CHIN	FILE SYS	KERNEL W	VAIT	MQS	1F	20
	KDMQDKJ	RUNNING			SYSTASK	HR	
	~		KERNEL W	VAIT	~		20

Actions for Cancel (address space) and Unix Kill







Customizing Panels

- •Filter by any column or combination of columns, including boolean operators
 - Set for a single panel
 - •FILTER?
- Sort using 1 or 2 columns
 SORT ?
- Set screen colors and other attributesSET SCREEN



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FILTER?, SORT? and SET SCREEN display pop-ups that require ISPF.



Tips – Other settings

- Require confirmation of destructive actions
 - •**Set confirm** displays a confirmation popup for cancel & purge on job and output panels
- Control cursor placement
 - •Set cursor on keeps the cursor on the row you are working with
 - Set cursor top returns cursor to the command line (V1R7)

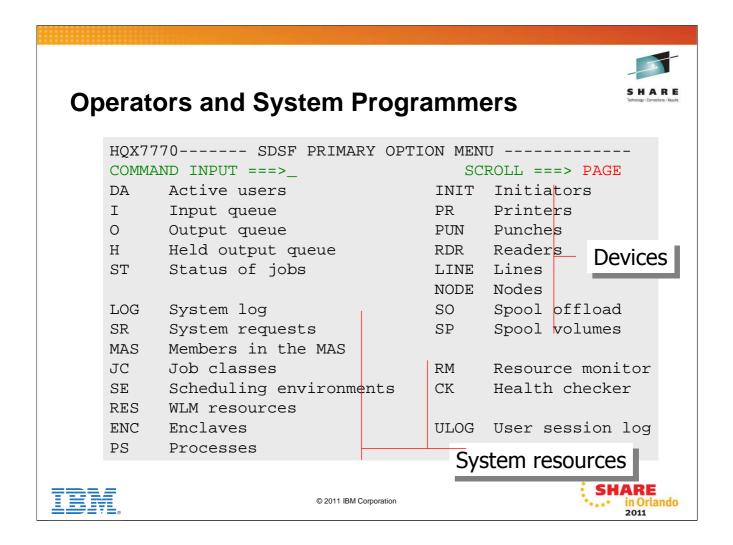


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Lab Task:

Issue **SET CONFIRM ON**. Now go to the ST panel and purge the job that you submitted earlier with the **P** action character.



The remainder of the presentation is geared toward operator and system programmer type actions. Many of the hints and tips you've seen so far apply equally well to thosae tasks, such as ARRANGE, FILTER, and so on.

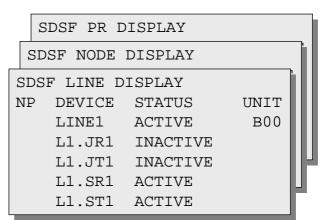
Operators and System Programmers



Monitor and control:

- Initiators
- Printers, punches
- Readers
- Lines, nodes
- Job classes
- Spool volumes
- Spool offloaders
- Members in the MAS
- WLM scheduling environment, resources
- IBM Health Checker for z/OS
- JES2 resources
- SYSLOG







View the System Log



- View the system log online
- View a merged sysplex log (LOG O)



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Lab Task:

Issue LOG command to browse SYSLOG.

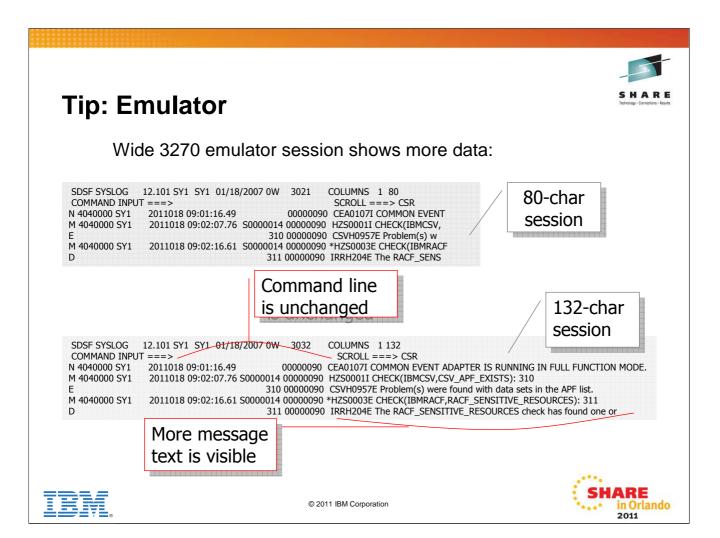


Tip - Auto-refresh the Log

- New log data is added to the bottom
- •& command repeats a command at an interval









Work with Action Messages

SR panel shows system requests

```
SDSF SYSTEM REQUESTS ALL 6 WTORS LINE 1-16 (16)

COMMAND INPUT ===> SCROLL ===> CSR

NP REPLYID SysName JobName Message-Text

r 43 AQTS AUTONET *43 DSI802A M05AO REPLY WITH

52 AQTS WHOSP2 *52 DENQ002D ENQ Monitor - R

1 53 AQTS NETVNET *53 DSI802A CNM05 REPLY WITH
```

R action displays a pop-up for replying to the message



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Lab Task:

Issue SR to get to the system request panel. There probably are not any WTORs to reply to. If there are, **please do not reply to them**!



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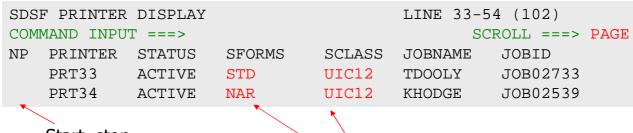
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Control Devices

Information displayed about devices includes:

- Status and characteristics (such as selection criteria)
- The job currently being processed

Control with action characters and overtypes



Start, stop, forward space, etc.

Overtype to change attributes





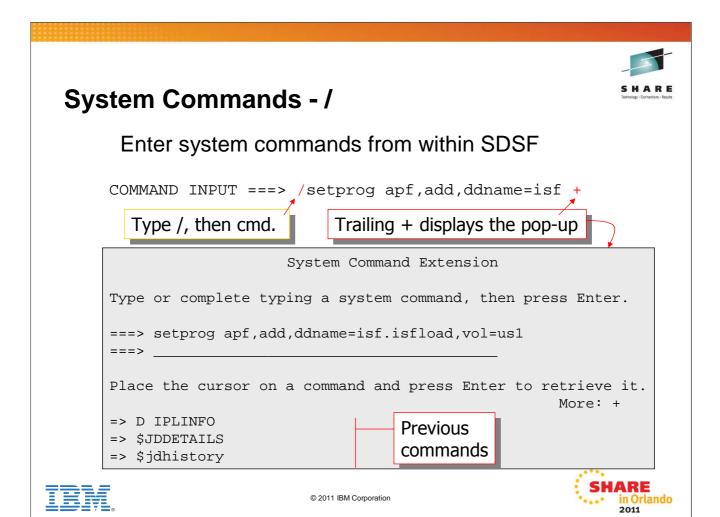
Sysplex-wide Data

■With the addition of WebSphere MQ, users can work with devices anywhere in the sysplex.

```
SDSF LINE DISPLAY SY1 LINE 1-5 (5)
COMMAND INPUT ===>
                                    SCROLL ===> CSR
NP DEVICE Status
                 SysName Unit Node Jobname
                 SY1
  LINE1
         ACTIVE
                         SNA
  LINE2 ACTIVE
                 SY1
                         F00C
                         F012
  LINE3 ACTIVE
                 SY1
                               POKVMXA1
  LINE10 DRAINED SY2
                         0406
  LINE11 DRAINED SY2
                         0407
```







Tip: Long System Commands



Two input lines -- can be a problem with Insert

System Command Extension

Type or complete typing a system command, then press Enter of room

===> SETPROG APF, ADD, DSNAME=isftest.hqx7730.bkelledata, volume=******
===>

Press F5 for a full-screen version with a single input line:

SDSF - System Command Extension

Type or complete typing a system command, then press Enter.

===> setprog apf,add,dsname=isftest.hqx7730 bkeller.data volume=*****









ULOG captures commands and msgs. for a user.

SDSF U		View Print E BKELLER	operons i	Help LINE 0		enerated ommand
COMMAN	D INPUT ===	:>			SCRO	
*****	*****	*****	** TOP OF	DATA *****	******	****
AQFT	2011040	17:30:22.29		ISF031I CC	NSOLE BKE	LLER ACT
AQFT	2011040	17:30:55.58		-\$CJ(5903),	Р	
AQFT	2011040	17:30:55.59	JOB05903	\$HASP890 J	OB (ВКЕЦЫ	Messages
				\$HASP890 J	OB (BKELLE	
				\$HASP890		PRIO
				\$HASP890		PURG
AQFT	2011040	17:31:53.22		-\$RALL,J=J3	09 <mark>22,D=B</mark> K	ELLER
AQFT	2011040	17:31:53.72		\$HASP000 C	K	
*****	******	*****	* BOTTOM	OF DATA ****	*****	****



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Lab Task:

Go to the ST panel and issue a D action character to get a JES display of the job.

Issue the ULOG command and see the command that was issued, plus the response.



Customizing SDSF

System programmers use SDSF's internal parameters, ISFPARMS, to customize SDSF:

- •Global initialization values (data set names, etc.)
- Columns on SDSF panels
- Action bar on or off, confirmation on or off, etc.
- Systems to include









ISFPARMS example (excerpt)

```
GROUP TSOAUTH(JCL,OPER,ACCT),

XUID(XLIST),

AUTH(LOG,I,O,H,DA,INIT,PR,NO,DEST),

IFIELDS(DFLD)

NTBL NAME(XLIST)

NTBLENT STRING($$),OFFSET(1)

NTBLENT STRING(OPER),OFFSET(3)

FLD NAME(DFLD) TYPE(IN)

FLDENT COLUMN(JNUM),TITLE('JOB NUM'),WIDTH(7)

FLDENT COLUMN(JPRIO),TITLE(PRTY),WIDTH(4)

Columns definition

Name list used in group definition

Group definition
```



Processing ISFPARMS

- Processed by an SDSF server (address space) at initialization
- ■Server reads from PARMLIB member ISFPRMxx or from a PDS defined in the server JCL.
 - •Can specify the xx suffix when starting the server, for example s sdsf,m=01

Note: ISFPARMS can also be coded with ASSEMBLER macros if JES2 is being used, but is not recommended.







Controlling the SDSF Server

- START proc-name to start the serverExample: s sdsf
- MODIFY server-name to refresh the statements or check syntax without activating
 Example: f sdsf,refresh,test
- STOP server-name to stop the serverExample: p sdsf







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Tip: Starting the SDSF Server

- After starting a server, be sure ISFPRMxx read okay
- ➤ Check the console for error messages
- ➤Or, in SDSF, browse the job log for the server





Providing Security

- ISFPARMS
 - •Combination of group definitions and auth lists
- **SAF**
 - ➤ Recommended! Required for JES3!
 - Dynamic
 - •Granular
 - Better audit trail
 - •Falls back to ISFPARMS when there is no decision in JES2 only





REXX!



- Available since z/OS V1R9 SDSF
- Access SDSF data and function with REXX execs
 - ■Invoke SDSF with ISFEXEC and ISFACT commands
 - ■Data is returned in REXX stem variables with variable name corresponding to column name and subscript corresponding to row.
 - Type REXXHELP in SDSF for information and examples
 - Also described in the SDSF book



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There is also a presentation that has been given at SHARE several times which describes the SDSF REXX functionality. You can find it in the 2009 SHARE in Denver proceedings:

2344: SDSF Rexx API Usage Tutorial

Lab Task:

Check out the REXX EXEC in **CLWOOD.S2343.CLIST(TOPTEN).** This will display the top ten users of spool space in the system.



Where to Learn More

- Online interactive tutorial demonstrates the most common tasks. → TUTOR command
- Help panels describe SDSF panels, commands, and messages. → PF1 or Help command
 - Over 1,800 help and tutorial panels
- SDSF Operation and Customization provides detailed information for the system programmer
- The SDSF Web site has tips, presentations, & links:
 www.ibm.com/servers/eserver/zseries/zos/sdsf/



