

SDSF V2.R4 Product Update

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Statements regarding IBM future direction and intent are subject to change or withdrawal, and represent goals and objectives only.

Zeit für Z – z/OS Kundentag,
116. z/OS Guide & U30 Guide
24.-27. September 2019, IBM Böblingen



Overview

- Recap of panels added in 2.2 and 2.3.
- New tabular panels
 - 14 new primary panels
 - 4 new secondary panels
- Usability enhancements
- SDSF REXX enhancements
- z/OSMF SDSF plug-in enhancements
- Installation and configuration

Recap : SDSF panels added in 2.2 and 2.3

APF Data Sets (**APF**)

Address Space Storage (**AS**)

Page Data Sets (**PAG**)

z/OS Parmlib Data Sets (**PARM**)

CF Connections (**CFC**)

CF Structures (**CFS**)

Device Activity (**DEV**)

z/OS Unix File Systems (**FS**)

Generic Tracker (**GT**)

Network Activity (**NA**)

SMS Storage Groups (**SMSG**)

Linklist Data Sets (**LNK**)

LPA List Data Sets (**LPA**)

Jobstep Information (**JS**)

JES2 Proclib Data Sets (**PROC**)

SMS Volumes (**SMSV**)

Subsystems (**SSI**)

Common Storage Remaining (**CSR**)

Virtual Storage Map (**VMAP**)

Job Modules (**JC**)

Job Tasks (**JT**)

Search Data Set Lists (**SRCH**)



NEW PRIMARY PANELS

14 New Primary Panels

- EMCS Extended Consoles
- ENQD Data Set Enqueues
- JES JES Subsystems
- JRI JES2 Resource Information
- JRJ JES2 Resource Usage By Jobname
- RMA JES2 Resource Monitor Alerts
- LPD Link Pack Directory
- OMVS z/OS Unix Options
- REPC WLM Report Classes
- RGRP WLM Resource Groups
- SRVC WLM Service Classes
- WKLD WLM Workloads
- WLM WLM Policy
- XCFM XCF Groups and Members

EMCS Panel – Extended Consoles in Sysplex

```

  Display  Filter  View  Print  Options  Search  Help
-----
SDSF EMCS DISPLAY  RS86                                LINE 33-39 (39)
COMMAND INPUT ==>                                     SCROLL ==> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat,D-Display,DL-DisplayLong,
ACTION=E-ResetForce,P-Remove
NP  NAME      Status  Key      JobName  JobID      QDepth  QLimit  QAlert%  DSPSize
 *AXT0486  ACTIVE  SYSREXX  AXR04    STC01368  0         10000   100      54
 *DICNS86  ACTIVE  NONE
 *OPLOG86  ACTIVE  OPERLOG
 *ROUTE86  ACTIVE  MVSROUTE
 *SYSLG86  ACTIVE  SYSLOG
  ROOT     INACTIVE SDSF
  RS86     ACTIVE  SYSCONS  0         10000   80      774

```

- Sysplex wide - **SYSNAME** pattern does not apply
- Actions available:
 - display, display long, reset force, remove
- Overtypes available:
 - Auth, IntIDs, UnknIDs, Mscope, RoutCde

EMCS Panel - Columns

```
Command ==> _____ Show Columns Row 1 to 22 of 27
Sort column with F5. Use Locate to position to column.
- All values          - Column width
Column              ##  Value
NAME                01  *AXROA86
Status              01  ACTIVE
Key                 01  SYSREXX
QDepth              01  0
QLimit              01  10000
QAlert%             01  100
DSPSizeK            01  540
DSPMaxK             01  2097152
ASID                01  26
ASIDX               01  001A
TermID              01  AXREMCS
Auth                01  MASTER
Level               01  NB
ConsID              01  02000013
CmdSys              01  R586
DOM                 01  NONE
HC                  01  NO
Auto                01  NO
IntIDs              01  NO
UnknIDs             01  NO
PD                  01  NO
SysCons             01  NO
```

```
Command ==> _____ Show Columns Row 23 to 27 of 27
Sort column with F5. Use Locate to position to column.
- All values          - Column width
Column              ##  Value
MScope              01  *ALL
RoutCde             01  NONE
RoutCdeX            01  00000000000000000000000000000000
SysName             01  R586
SysLevel            01  z/OS 02.04.00 HBB77C0
***** Bottom of data *****
```

ENQD – Data Set Enqueues

```

  Display Filter View Print Options Search Help
-----
SDSF ENQ DISPLAY  RS86      DATASET  TS5485*      LINE 1-8 (8)
COMMAND INPUT ==>
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat,D-Display
NP  MINOR
    TS5485.RS86.ISPPROF      Major  Req  JobName
    TS5485.RS86.SPFTEMP1.CNTL SYSDSN SHR  TS5485
    TS5485.RS86.SPFTEMP2.WORK SYSDSN EXC  TS5485
    TS5485.RS86.SPFTEMP1.LIST SYSDSN EXC  TS5485
    TS5485.RS86.SPFTEMP0.CNTL SYSDSN EXC  TS5485
    TS5485.RS86.SPFTEMP2.CNTL SYSDSN EXC  TS5485
    TS5485.RS86.SPFTEMP1.WORK SYSDSN EXC  TS5485
    TS5485.RS86.SPFTEMP2.LIST SYSDSN EXC  TS5485

```

- Shows all enqueues for data sets on all systems in the sysplex
- Optional parameter to specify data set name mask – default is *userid.**
- Convenient variant of the ENQ command that is equivalent to **ENQ SYSDSN *** and then **FILTER** for data set name mask
- Actions available :
 - display

ENQD - Columns

Show Columns

Row 1 to 22 of 22

Command ==>

Sort column with F5. Use Locate to position to column.

∟ All values

— Column width

Column	##	Value
MINOR	01	TS5485.RS86.ISPPROF
Major	01	SYSDSN
Req	01	SHR
JobName	01	TS5485
ASID	01	117
ASIDX	01	0075
Level	01	ENQ
SMC	01	NO
Scope	01	SYSTEMS
Status	01	OWN
Owners	01	1
Waiters	01	0
WaitExc	01	0
WaitShr	01	0
Unit	01	
UserData	01	
ReqTime	01	03/04/2019 10:49:42
EnqToken	01	C5D5D8E301000000000000050001C9CA000D5C56FD3B560B200 000000C5C0003
RNameLong	01	TS5485.RS86.ISPPROF
SysName	01	RS86
.END	01	**End of List**

JES – Known JES Subsystems

```
Display Filter View Print Options Search Help
-----
SDSF JES DISPLAY RS86 (ALL) LINE 1-2 (2)
COMMAND INPUT ==> SCROLL ==> HALF
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat,D-Display,JC-CheckPoint
NP NAME Type Primary Member Emergency ComChar Global OwnNode XCFGroup S
  JES2 JES2 YES RS86 HASP $ NO N1 RSPLEXOG A
  JES2 JES2 YES RS88 HASP $ NO N1 RSPLEXOG A
```

- Display known JES2 and JES3 subsystems in the sysplex
 - Use **SYSNAME** pattern to limit rows
- Actions available:
 - Display, display checkpoint

JES - Columns

```

                                     Show Columns                                     Row 1 to 16 of 16
Command ==> _____
Sort column with F5. Use Locate to position to column.
/ All values      _ Column width
Column           ##  Value
NAME             01  JES2
Type             01  JES2
Primary         01  YES
Member          01  RS86
Emergency       01  HASP
ComChar        01  $
Global         01  NO
OwnNode        01  N1
XCFGroup       01  RSPLEX0G
Status         01  ACTIVE
Service        01  0
Version        01  z/OS 2.4
SSCT           01  00C29670
SysName        01  RS86
SysLevel       01  z/OS 02.04.00 HBB77C0
.END           01  **End of List**
***** Bottom of data *****

```

Background – JES2 Privileged Resources

- Before JES2 2.3, an exhaustion of certain critical resources, such as spool space, could prevent such activities as TSO LOGONs, job execution and JES2 commands.
- In JES2 2.3+, a certain amount of these resources can be reserved for privileged job consumption. This allows support staff to use the emergency JES subsystem and submit jobs or issue commands to correct any non-privileged resource shortage.
- A small percentage of SPOOL, JOEs, JQEs and BERTs are set aside for privileged jobs, STCs and TSO logons
- Emergency subsystem and privileged resources are meant for problem resolution – not high priority workloads.
- New SDSF displays for JES2 resiliency information – **JRI**, **JRJ** and **RMA**.

JRI – JES2 Resource Information

```
Display Filter View Print Options Search Help
-----
SDSF JESINFO DISPLAY  RS86                               LINE 1-4 (4)
COMMAND INPUT ==>                                       SCROLL ==> HALF
PREFIX=*  DEST=(ALL)  OWNER=*  SYSNAME=*
NP  NAME      Shortage NPrivShortage NPrivMax NPrivUse NPrivUse% NPrivExhaust N
   BERT      NO        NO          12610    418      3 NO
   JOE       NO        NO          10000    549      5 NO
   JQE       NO        NO          10000    563      6 NO
   Spool     NO        NO          16465    1348     8 NO
```

- Shows JES2 resource usage
- Similar to \$DLIMITS command

JRI - Columns

Show Columns

Row 1 to 19 of 19

Command ==>

Sort column with F5. Use Locate to position to column.

_ All values

_ Column width

Column	##	Value
NAME	01	BERT
Shortage	01	NO
NPrivShortage	01	NO
NPrivMax	01	12610
NPrivUse	01	418
NPrivUse%	01	3
NPrivExhaust	01	NO
NPrivWarn%	01	80
PrivSup	01	ON
ResPrivSup	01	OFF
PrivMax	01	0
PrivUse	01	0
PrivUse%	01	0
SmallEnv	01	OFF
Description	01	CB extensions
SampleTime	01	07/23/2019 08:59:25
JESName	01	JES2
SysName	01	RS86
SysLevel	01	z/OS 02.04.00 HBB77CO
***** Bottom of data *****		

JRJ – JES2 Resource Usage By Jobname

```

Display Filter View Print Options Search Help
-----
SDSF JESINFO JOB DISPLAY RS86          COUNT          LINE 1-26 (28)
COMMAND INPUT ==>
PREFIX=* DEST=(ALL) OWNER=* SYSNAME=*
NP  NAME      JobID   Resource Usage Usage% UsageRate NPrivMax SampleTime
TS5485W  JOB04866 BERT      6         1         0.000    12610 07/23/2019 09:1
TS5485W1 JOB04868 BERT      5         1         0.000    12610 07/23/2019 09:1
TS5485W2 JOB04869 BERT      5         1         0.000    12610 07/23/2019 09:1
TS5485W3 JOB04870 BERT      5         1         0.000    12610 07/23/2019 09:1
TCPIP    STC00192 BERT      3         1         0.000    12610 07/23/2019 09:1
TS5485   TSU00289 BERT      3         1         0.000    12610 07/23/2019 09:1
TS5485   TSU04771 JOE       6         1         0.000    10000 07/23/2019 09:1
TS5485   TSU04466 JOE       5         0         0.000    10000 07/23/2019 09:1
TS5485   TSU04801 JOE       5         0         0.000    10000 07/23/2019 09:1
TS5485D  JOB04772 JOE       4         0         0.000    10000 07/23/2019 09:1
TS5485D  JOB04773 JOE       4         0         0.000    10000 07/23/2019 09:1
TS5485D  JOB04774 JOE       4         0         0.000    10000 07/23/2019 09:1
TS5485D  JOB04775 JOE       4         0         0.000    10000 07/23/2019 09:1
TS5485D  JOB04776 JOE       4         0         0.000    10000 07/23/2019 09:1
TS5485D  JOB04777 JOE       4         0         0.000    10000 07/23/2019 09:1
TS5485R  JOB04661 JOE       4         0         0.000    10000 07/23/2019 09:1
TS5485R  JOB04663 JOE       4         0         0.000    10000 07/23/2019 09:1
TS7897   TSU04917 JOE       4         1         0.000    10000 07/23/2019 09:1
TS5485   TSU00256 Spool    202      15         0.000    16465 07/23/2019 09:1
TS5485R  JOB04663 Spool    122       5         0.000    16465 07/23/2019 09:1
TS5485   TSU04771 Spool    92        4         0.000    16465 07/23/2019 09:1
TS5485   TSU04801 Spool    92        4         0.000    16465 07/23/2019 09:1
TS5485R  JOB04661 Spool    76        3         0.000    16465 07/23/2019 09:1
TS5485   TSU04466 Spool    72        3         0.000    16465 07/23/2019 09:1
TS7897   TSU04395 Spool    25        2         0.000    16465 07/23/2019 09:1
TS7897   TSU04398 Spool    24        1         0.000    16465 07/23/2019 09:1

```



- Shows JES resource usage by job
 - JRJ [C|COUNT|R|RATE]
- COUNT mode shows job resource usage by highest count
- RATE mode shows job resource usage by highest rate

JRJ - Columns

Show Columns

Row 1 to 11 of 11

Command ==>

Sort column with F5. Use Locate to position to column.

_ All values

_ Column width

Column	##	Value
NAME	01	TS5485W
JobID	01	JOB04866
Resource	01	BERT
Usage	01	6
Usage%	01	1
UsageRate	01	0.000
NPrivMax	01	12610
SampleTime	01	07/23/2019 09:14:21
JESName	01	JES2
SysName	01	RS86
SysLevel	01	z/OS 02.04.00 HBB77C0
***** Bottom of data *****		

RMA – JES2 Resource Monitor Alerts

```

  Display  Filter  View  Print  Options  Search  Help
-----
SDSF RESOURCE ALERTS (ALL)                                LINE 1-4 (4)
COMMAND INPUT ==>                                         SCROLL ==> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat,J-Monitor,JD-MonitorDetails,
ACTION=JH-MonitorHistory,JJ-MonitorState,JS-MonitorStatus
NP  TYPE      Member      MessageLine1
NOTICE  RS86      $HASP9250 RESOURCE JOES UTILIZATION IS AT 6.72%
NOTICE  RS86      $HASP9250 RESOURCE JQES UTILIZATION IS AT 5.66%
NOTICE  RS88      $HASP9250 RESOURCE JOES UTILIZATION IS AT 6.72%
NOTICE  RS88      $HASP9250 RESOURCE JQES UTILIZATION IS AT 5.66%

```

- Shows outstanding JES2 alerts, notices, and track messages
 - Use **SYSNAME** pattern to limit rows
- Actions available:
 - monitor, monitor details, monitor history, monitor state, monitor status

RMA - Columns

Show Columns

Row 1 to 12 of 12

Command ==>

Sort column with F5. Use Locate to position to column.

∟ All values

— Column width

Column	##	Value
TYPE	01	NOTICE
Member	01	RS86
MessageLine1	01	\$HASP9250 RESOURCE JOES UTILIZATION IS AT 12.61%
MessageLine2	01	
MessageLine3	01	
MessageLine4	01	
MessageTime	01	
Critical	01	NO
JESN	01	JES2
SysName	01	RS86
SysLevel	01	z/OS 02.04.00 HBB77C0
.END	01	**End of List**
***** Bottom of data *****		

LPD – Link Pack Directory

```
Display Filter View Print Options Search Help
-----
SDSF LPD DISPLAY R586 (ALL) LINE 322-346 (2329)
COMMAND INPUT ==> SCROLL ==> HALF
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat
NP MODNAME Major EPA LoadPt Location Mod
COFMSRB1 00000000_06BC46B0 00000000_06BC46B0 EXTENDED-PLPA 000
CSFINLPA 00000000_1056B000 00000000_1056B000 EXTENDED-CSA 000
CSFINLP2 00000000_00C28690 00000000_00C28690 CSA 000
CSFMGARC 00000000_1194B4F0 00000000_1194B4F0 EXTENDED-CSA 000
CSFMGTRC 00000000_11220608 00000000_11220608 EXTENDED-CSA 000
CSFMIQIH 00000000_119685F8 00000000_119685F8 EXTENDED-CSA 000
CSRBALUA CSRBLSR 00000000_03839000 EXTENDED-PLPA 000
```

- Shows details of modules in the link pack area
 - Includes modules added by CSVDYLPA

LPD - Columns

Show Columns

Row 1 to 14 of 14

Command ==>

Sort column with F5. Use Locate to position to column.

∟ All values

— Column width

Column	##	Value
MODNAME	01	ACYAPCIP
Major	01	ACYAPCNP
EPA	01	00000000_03337000
LoadPt	01	
Location	01	EXTENDED-PLPA
ModLen	01	00000000
Type	01	PLPA
AC	01	0
AM	01	31
APF	01	YES
Seq	01	2280
SysName	01	RS86
SysLevel	01	z/OS 02.04.00 HBB77C0
.END	01	**End of List**

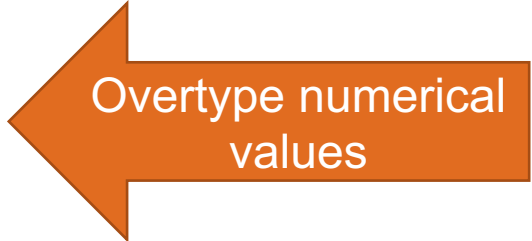
***** Bottom of data *****

OMVS – z/OS Unix Options (BPXO)

- Shows z/OS Unix options in effect
 - Access with the **BPXO** command
 - Conflict with “OMVS” command which means **O** panel classes MVS
- Use **SYSNAME** pattern to limit rows
- Actions available:
 - display OMVS options, set nolimit
- Overtypes available:
 - any numeric property

OMVS - Columns

```
Display Filter View Print Options Search Help
-----
SDSF OMVS OPTIONS  RS86      RS86      LINE 1-26 (56)
COMMAND INPUT ==> SCROLL ==> PAG
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=
NP  NAME                NumericValue Value                Status
ALROOT
ASID                        0010
AUTHPGMLIST                NONE
AUTOCVT                    OFF
BRLM SERVER                N/A
FORKCOPY                   COPY
IPCMSGNIDS                 500
IPCMSGQBYTES              2147483647
IPCMSGQNUM                10000
IPCSEMNIDS                 500
IPCSEMNOPS                 25
IPCSEMNSEMS               1000
IPCshmPAGES                25600
IPCshmNIDS                 500
IPCshmNSEGS                500
IPCshmSPAGES              262144
KERNEL STACKS             ABOVE
LIMMSG                     NONE
LOSTMSG                    ON
MAXASSIZE                 1073741824
MAXCORESIZE                4194304
MAXCPU TIME                7200
MAXFILEPROC                64000
MAXFILESIZE                4294967295
MAXIOBUFUSER                2048
MAXMMAPAREA                40960
NOLIMIT
```



OMVS – Columns (continued)

```

  Display  Filter  View  Print  Options  Search  Help
-----
SDSF OMVS OPTIONS R586          R586          LINE 27-52 (56)
COMMAND INPUT ==>                SCROLL ==>
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=
NP  NAME  NumericValue  Value  Status
MAXPIPEUSER  8730
MAXPROCSYS  400
MAXPROCUSER  150
MAXPTYS  256
MAXQUEUEDSIGS  1000
MAXSHAREPAGES  131072
MAXTHREADS  10000
MAXTHREADTASKS  5000
MAXUIDS  200
MAXUSERMOUNTSYS  0
MAXUSERMOUNTUSER  0
NONEMPTYMOUNTPT  WARN
PARMLIB  OMVS=(RS)
PROCNAME  OMVS
PWT  ENV
RESOLVER PROC  RESOLVER
SC_EXITTABLE
SERV_LINKLIB
SERV_LPALIB
SHRLIBMAXPAGES  4096
SHRLIBBRGNSIZE  67108864
STEPLIBLIST
SUPERUSER  OMVSKERN
SWA  BELOW
SYSCALL COUNTS  NO
SYSPLEX  YES

```


OMVS – Columns (continued)

```
Display Filter View Print Options Search Help
-----
SDSF OMVS OPTIONS R586 R586 LINE 53-56 (56)
COMMAND INPUT ==> SCROLL ==>
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP NAME NumericValue Value Status
TTYGROUP TTY
UMASK NONE
USERIDALIASTABLE
VERSION RP204B,N
```


REPC – WLM Report Classes

```
Display Filter View Print Options Search Help
-----
SDSF REPORT CLASS DISPLAY  RS86      ROCKET01      LINE 1-8 (8)
COMMAND INPUT ==>
PREFIX=*  DEST=(ALL)  OWNER=*  SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat
NP  NAME  Description  Policy  PolicyDescription
CICSRPT  CICS Report Group  ROCKET01  Rocket Software Policy
DB2SQ    DB2 Sysplex Queries  ROCKET01  Rocket Software Policy
DDF      DB2 Distributed Transactions  ROCKET01  Rocket Software Policy
IWEB     Web Server Transactions  ROCKET01  Rocket Software Policy
LSFM     Lan Server for MVS  ROCKET01  Rocket Software Policy
MONITORS System Monitors  ROCKET01  Rocket Software Policy
OMVS     OpenEdition MVS/UNIX  ROCKET01  Rocket Software Policy
SOM      System Object Model  ROCKET01  Rocket Software Policy
```

- Show details of the WLM report classes from the current policy

REPC - Columns

Show Columns

Row 1 to 12 of 12

Command ==>

Sort column with F5. Use Locate to position to column.

∟ All values

— Column width

Column	##	Value
NAME	01	CICSRPT
Description	01	CICS Report Group
Policy	01	ROCKET01
PolicyDescription	01	Rocket Software Policy 01
PolicyActDate	01	06/21/2018 10:13:46
CrUser	01	PDSHAN
CrDate	01	09/05/2006 09:09:00
UpdUser	01	PDSHAN
UpdDate	01	09/05/2006 09:09:00
SysName	01	RS86
SysLevel	01	z/OS 02.04.00 HBB77C0
.END	01	**End of List**

***** Bottom of data *****

RGRP – WLM Resource Groups

```
Display Filter View Print Options Search Help
-----
SDSF RESGROUP DISPLAY RS86 ROCKET01 LINE 1-2 (2)
COMMAND INPUT ==> SCROLL ==> HALF
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat
NP NAME Description Policy MinSU MaxSU MinLP
KILLIT Logical Swapout for Non-Swap ROCKET01 1
TSTRGRP1 TEST resource group for SDSF ROCKET01 1 10000
```

- Shows details about WLM resource groups in the current policy

RGRP - Columns

Show Columns

Row 1 to 19 of 19

Command ==>

Sort column with F5. Use Locate to position to column.

/ All values

_ Column width

Column	##	Value
NAME	01	TSTRGRP1
Description	01	TEST resource group for SDSF
Policy	01	ROCKET01
MinSU	01	1
MaxSU	01	10000
MinLPAR%	01	
MaxLPAR%	01	
MinCPU%	01	
MaxCPU%	01	
MemLimit	01	
PolicyDescription	01	Rocket Software Policy 01
PolicyActDate	01	06/21/2018 10:13:46
CrUser	01	PDSCOT
CrDate	01	07/27/2017 12:02:32
UpdUser	01	PDSCOT
UpdDate	01	05/14/2018 10:06:30
SysName	01	RS86
SysLevel	01	z/OS 02.04.00 HBB77C0
.END	01	**End of List**

***** Bottom of data *****

SRVC – WLM Service Classes

```
_ Display Filter View Print Options Search Help
-----
SDSF SERVICE CLASSES  RS86      ROCKET01                LINE 1-25 (27)
COMMAND INPUT ==>          SCROLL ==> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat
NP  NAME      ResGroup Per Description          Duration Imp CPUCri
   ASCH                1 APPC Transactions      2 NO
   BATCH                1 Batch Work            2 NO
   CICS                  1 CICS                  4 NO
   DAEMON                1 USS DAEMON            2 NO
   DB2                    1 DB2                   1 NO
   DB2SERV                1 DB2 Servers           4 NO
   DB2STPRO                1 DB2 Stored procedures  3 NO
   DDF                    1 DB2 Distributed Transactions  4 NO
```

- Shows details about WLM service classes in the current policy

SRVC - Columns

```
Command ==> Show Columns Row 1 to 22 of 26
Sort column with F5. Use Locate to position to column.
/ All values Column width
Column ## Value
NAME 01 BATCH
ResGroup 01
Per 01 1
Description 01 Batch Work
Duration 01
Imp 01 2
CPUCrit 01 NO
StorProt 01 NO
IOPrio 01 NORMAL
HonorPrio 01 DEFAULT
MaxPer 01 1
WorkLoad 01 BATCH
Goal 01 Execution velocity of 50
TransSSUse 01 NO
AddrSpcSSUse 01 YES
EncSSUse 01 NO
SysHUse 01 NO
EWLMKey 01 0
EWLMName 01
CrUser 01 PDSHAN
CrDate 01 10/08/2003 07:55:06
UpdUser 01 PDSHAN
```

```
Command ==> Show Columns Row 23 to 26 of 26
Sort column with F5. Use Locate to position to column.
/ All values Column width
Column ## Value
UpdDate 01 12/17/2003 09:13:37
Policy 01 ROCKET01
PolicyDescription 01 Rocket Software Policy 01
.END 01 **End of List**
***** Bottom of data *****
```

WKLD – WLM Workload

```
Display Filter View Print Options Search Help
-----
SDSF WORKLOAD DISPLAY RS86 ROCKET01 LINE 1-13 (13)
COMMAND INPUT ==> SCROLL ==> HALF
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat
NP NAME Description Policy PolicyDescription
ASCH APPC ROCKET01 Rocket Software Policy
BATCH Batch Workload ROCKET01 Rocket Software Policy
CICS CICS ROCKET01 Rocket Software Policy
DB2 DB2 Work ROCKET01 Rocket Software Policy
DB2SERV DB2 Servers ROCKET01 Rocket Software Policy
DDF Distributed DB2 ROCKET01 Rocket Software Policy
IMS IMS ROCKET01 Rocket Software Policy
IWEB HTTP Server, Fast Resp Cache Acc ROCKET01 Rocket Software Policy
SOAKER Bottom of the Barrel ROCKET01 Rocket Software Policy
STC Started Tasks ROCKET01 Rocket Software Policy
SYSTEM THE SYSTEM WORKLOAD ROCKET01 Rocket Software Policy
```

- Show workloads in the current WLM policy

WKLD - Columns

```
Command ==> _____ Show Columns Row 1 to 12 of 12
Sort column with F5. Use Locate to position to column.
/ All values      _ Column width
Column           ##  Value
NAME             01  ASCH
Description      01  APPC
Policy           01  ROCKET01
PolicyDescription 01  Rocket Software Policy 01
PolicyActDate    01  06/21/2018 10:13:46
CrUser           01  PDSHAN
CrDate           01  04/30/2007 12:17:29
UpdUser          01  PDSHAN
UpdDate          01  04/30/2007 12:17:29
SysName          01  R586
SysLevel         01  z/OS 02.04.00 HBB77C0
.END             01  **End of List**
***** Bottom of data *****
```


WLM – Current WLM Policy

```
Display Filter View Print Options Search Help
-----
SDSF WLM POLICY DISPLAY  RS86      ROCKET01      LINE 1-10 (10)
COMMAND INPUT ==>
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat
NP  NAME                                     Value                                     DateValue
ACTIVE POLICY                               ROCKET01
POLICY DESCRIPTION                           Rocket Software Policy 01
ACTIVATION SYSTEM                            RS88
ACTIVATION USERID                            PDSCOT
ACTIVATION DATE                               06/21/20
SERVICE DEFINITION                           Rocket01
SERVICE DEFINITION DESC                       Rocket Policy 01
INSTALLATION SYSTEM                           RS88
INSTALLATION USERID                            PDSCOT
INSTALLATION DATE                               06/21/20
```

- Show details from current WLM policy

XCFM – XCF Groups and Members

```
Display Filter View Print Options Search Help
-----
SDSF XCF MEMBERS DISPLAY  RS86                               LINE 1-24 (96)
COMMAND INPUT ==>                                           SCROLL ==> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
ACTION=+-Extend,/-Show,//-Block,%-RunExec,=-Repeat,D-Display,DA-DisplayAll,
ACTION=DG-DisplayGroup
NP  NAME      Member      Status  SysName  JobName  Stalled  Sends  Rece
COFVLFNO  RS86      ACTIVE   RS86     VLF      NO       0
EZBTCPCS  RS86TCPIP ACTIVE   RS86     TCPIP    NO       0
HSFIXC    HSF@RS86  ACTIVE   RS86     SDSFAUX  NO       0
IGGOCAS   IGGOCAS1RS86 ACTIVE   RS86     CATALOG  NO       0
IGGOCAS   IGGOCAS1RS87 FAILED   RS87     CATALOG  NO       0
IOEZFS    RS86      ACTIVE   RS86     ZFS      NO       0
ISTCFS01  RS86SSCPROCKNET1 ACTIVE   RS86     VTAM     NO       0
ISTXCF    RS86SSCPROCKNET1 ACTIVE   RS86     VTAM     NO       0
IXCLO002  M693      ACTIVE   RS86     GRS      NO       0
MXXDSG2C  MXI@RS86  ACTIVE   RS86     MXIMAST  NO       0
N1        MSCBUFF$RS85 FAILED   RS85     JESXCF   NO       0
```

- Lists all XCF members and groups in the sysplex
- Actions available
 - display, display all, display group



NEW SECONDARY PANELS

4 New Secondary Panels

- Address Space Memory Objects
 - Accessed from **DA** and **AS** displays
- Address Space DD Names
 - Accessed from **DA**, **AS**, **I**, **ST**, **NS** and **INIT** displays
- Jobclass Members
 - Accessed from **JC** display
- JES Checkpoint Information
 - Accessed from the **JES** display

JMO - Job Memory Objects

```

Display Filter View Print Options Search Help
-----
SDSF DA RS86      (ALL)    PAG 0 CPU 8                LINE 31-56 (128)
COMMAND INPUT ==>
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=*
NP  JOBNAME StepName ProcStep JobID Owner C Pos DP Real Paging SIO
jmo_ HZR      HZR      IEFPROC NS FE 365 0.00 0.00
     JES2    JES2    IEFPROC NS FE 9840 0.00 0.00
     VLF     VLF     VLF     NS FE 3531 0.00 0.00
    
```

```

Display Filter View Print Options Search Help
-----
SDSF MEMOBJ RS86      ASID 0022 JES2                LINE 1-15 (15)
COMMAND INPUT ==>
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=*
NP  TYPE Start-Address End-Address Size Key Guard FProt Sh
PRIVATE 00000010_00000000 00000010_002FFFFFF 3072K 0 DEFAULT YES NO
PRIVATE 00000010_00400000 00000010_004FFFFFF 1024K 1 NONE NO NO
PRIVATE 00000010_00500000 00000010_006FFFFFF 2048K 1 NONE YES NO
PRIVATE 00000050_00000000 00000050_01DFFFFFF 30720K 1 NONE YES NO
PRIVATE 00000050_01E00000 00000050_01FFFFFF 2048K 1 DEFAULT NO NO
PRIVATE 00000050_02100000 00000050_022FFFFFF 2048K 1 DEFAULT NO NO
PRIVATE 00000050_02400000 00000050_024FFFFFF 1024K 1 DEFAULT NO NO
PRIVATE 00000050_02600000 00000050_026FFFFFF 1024K 1 DEFAULT NO NO
PRIVATE 00000050_02800000 00000050_028FFFFFF 1024K 1 DEFAULT NO NO
PRIVATE 00000050_02A00000 00000050_02AFFFFFF 1024K 1 DEFAULT NO NO
PRIVATE 00000050_02C00000 00000050_337FFFFFF 780M 1 NONE NO NO
PRIVATE 00000050_33800000 00000050_338FFFFFF 1024K 1 DEFAULT NO NO
PRIVATE 00000050_33A00000 00000050_33DFFFFFF 4096K 1 NONE NO NO
COMMON 000001EF_87900000 000001EF_87BFFFFFF 3072K 1 DEFAULT YES NO
    
```

- Shows all memory objects owned by a specific address space
- Accessed with the “JMO” action from AS or DA panel row

JMO - Columns

```
Command ==> Show Columns Row 1 to 18 of 18
Sort column with F5. Use Locate to position to column.
/ All values      _ Column width
Column           ##  Value
TYPE             01  PRIVATE
Start-Address    01  00000010_00000000
End-Address      01  00000010_002FFFFF
Size             01  3145728
Key              01  0
Guard            01  DEFAULT
FProt            01  YES
Shared           01  NO
Large            01  NO
CrDate           01
PgmRetAddr       01
JobName          01  JES2
JobID            01
ASID             01  34
ASIDX            01  0022
SysName          01  RS86
SysLevel         01  z/OS 02.04.00 HBB77C0
.END             01  **End of List**
***** Bottom of data *****
```


JDD – Job DD Names

```

  Display Filter View Print Options Search Help
-----
SDSF AS DISPLAY RS86          RS86          LINE 63-65 (65)
COMMAND INPUT ==>          SCROLL ==> HALF
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP  JOBNAME  ASIDX  Real Fixed  CSA  CSA%  ECSA  ECSA%  SQA  SQA%
    SDSFKJ   0078   1355  126    0    0.00  635616  0.35    0    0.00
    SDSFAUX  0079   2603  183    0    0.00   7136   0.00   64    0.00
jdd_ TS5485  007B   2663  130   160   0.00   2520   0.00   96    0.00

  Display Filter View Print Options Search Help
-----
SDSF JOB DDNAME  RS86          ASID 007B TS5485  TSU01475  LINE 1-26 (37)
COMMAND INPUT ==>          SCROLL ==> HALF
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP  DDNAME      Seq Status  DataSetName
    ISPCTL0     1 ALLOC   TS5485.RS86.SPFTEMP0.CNTL
    ISPCTL1     1 ALLOC   TS5485.RS86.SPFTEMP1.CNTL
    ISPCTL2     1 ALLOC   TS5485.RS86.SPFTEMP2.CNTL
    ISPLOG      1 OPEN    TS5485.TS5485.TSU01475.D0000103.?
    ISPLST1     1 ALLOC   TS5485.RS86.SPFTEMP1.LIST
    ISPLST2     1 ALLOC   TS5485.RS86.SPFTEMP2.LIST
    ISPLIB      1 OPEN    ISP.SISPMENU
    ISPLIB      1 OPEN    RSRTE.LIBDEF.ISPLIB
    ISPLIB      2 OPEN    ROCKET.USER.SPFPLIB
    ISPLIB      3 OPEN    ISP.SISPPENU
    ISPPROF     1 OPEN    TS5485.RS86.ISPPROF
    ISPSLIB     1 OPEN    ISP.SISPSLIB
    ISPSLIB     2 OPEN    ISP.SISPSENU
    ISPTABL     1 ALLOC   TS5485.RS86.ISPPROF
    ISPTLIB     1 OPEN    ISP.SISPTENU
    ISPTLIB     2 OPEN    RSRTE.LIBDEF.ISPTLIB
    ISPWRK1     1 ALLOC   TS5485.RS86.SPFTEMP1.WORK
    ISPWRK2     1 ALLOC   TS5485.RS86.SPFTEMP2.WORK

```

- Shows DD allocations for a specific address space

JDD – Job DD Names

- Subset of the JD information
 - TCP/IP and CF data not included
- Accessed with the JDD action from the **AS**, **DA**, **I**, **ST**, **INIT** and **NS** panel rows
- Can use **SRCH** command to locate members within the data sets shown
 - Enables easy search for member masks for ANY address space
 - Where does TSO userid IBMUSER get his ISR@PRIM panel from?
 - JDD against IBMUSER row on DA
 - SRCH ISR@PRIM
 - Where is the STC JCL for CSQ1MSTR coming from?
 - JDD against JES2 row on DA
 - SRCH CSQ1MSTR
 - ...could also use SRCH on PROC display.

JDD - Columns

```
Command ==> _____ Show Columns Row 1 to 22 of 23
Sort column with F5. Use Locate to position to column.
/ All values      _ Column width
Column           ##  Value
DDNAME           01  ISPCTLO
Seq              01  1
Status           01  ALLOC
DataSetName      01  TS5485.RS86.SPFTEMPO.CNTL
VolSer          01  TSPG00
Unit             01  649A
UnitCt          01  1
RecFm            01  FB
LRecl           01  80
BlkSize         01  23440
Disp1           01  NEW
Disp2           01  DELETE
Disp3           01
EXCP-Cnt        01
Open            01
DSOrg           01  PS
SMS             01  YES
ConnectTime     01  0.000
AvgConnTime     01  0.000
APF             01
SysName         01  RS86
SysLevel        01  z/OS 02.04.00 HBB77C0
```

CKPT – JES2 Checkpoint

```
Display Filter View Print Options Search Help
-----
SDSF JES DISPLAY RS86 (ALL) LINE 1-2 (2)
COMMAND INPUT ==> SCROLL ==> HALF
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=*
NP NAME Type Primary Member Emergency ComChar Global OwnNode XCFGroup S
jc_ JES2 JES2 YES RS86 HASP $ NO N1 RSPLEXOG A
    JES2 JES2 YES RS88 HASP $ NO N1 RSPLEXOG A
```

```
Display Filter View Print Options Search Help
-----
SDSF JES CHECKPOINT RS86 JESNAME JES2 LINE 1-4 (4)
COMMAND INPUT ==> SCROLL ==> HALF
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=*
NP NAME Capacity Cap% CapUsed CapPage InUse CF Mode Duplex Volatile
CKPT1 14696448 32 4808704 3588 YES NO DUPLEX ON NO
CKPT2 14696448 32 4808704 3588 YES NO DUPLEX ON NO
NEWCKPT1 0 0 0 0 NO NO DUPLEX ON NO
NEWCKPT2 0 0 0 0 NO NO DUPLEX ON NO
```

- Shows JES2 checkpoint properties for a specific JES2 subsystem
- Accessed with JC action from the **JES** panel row

CKPT - Columns

Show Columns

Row 1 to 22 of 22

Command ==>

Sort column with F5. Use Locate to position to column.

∟ All values

— Column width

Column	##	Value
NAME	01	CKPT1
Capacity	01	14696448
Cap%	01	32
CapUsed	01	4808704
CapPage	01	3588
InUse	01	YES
CF	01	NO
Mode	01	DUPLEX
Duplex	01	ON
Volatile	01	NO
OpVerify	01	NO
Size	01	16999200
Size%	01	100
SizeUsed	01	16999200
SizeTrk	01	300
StrName	01	
DataSetName	01	RSPLEX0G.HASPCCKPT
VolSer	01	JSPG00
JESName	01	JES2
SysName	01	RS86
SysLevel	01	z/OS 02.04.00 HBB77C0
.END	01	**End of List**

JCM – Job Class Members

```
Display Filter View Print Options Search Help
-----
SDSF JOB CLASS DISPLAY ALL CLASSES                               LINE 1-26 (40)
COMMAND INPUT ==>                                           SCROLL ==> PAGE
PREFIX=* DEST=(ALL) OWNER=* SYSNAME=*
NP CLASS Status Mode XEQ-Cnt Log Jrn1 Rst JESLog Member Group
i_ K ACTIVE 1 STD NO RS85
7 ACTIVE 1 STD NO RS85
```

```
Display Filter View Print Options Search Help
-----
SDSF JOB CLASS MEMBERS RS85 CLASS K                               LINE 1-6 (6)
COMMAND INPUT ==>                                           SCROLL ==> PAGE
PREFIX=* DEST=(ALL) OWNER=* SYSNAME=*
NP MEMBER CtlClass MLimMax MLimCur SelMode SysName
RS85 H 20 0 JS3BATCH RS85
RS85 L 10 0 JS3BATCH RS85
RS86 4 15 0 JS3BATCH RS86
RS86 7 25 1 JS3BATCH RS86
RS87 LONGNAME 30 0 JS3BATCH RS87
RS88 S 40 0 JS3BATCH RS88
```

- Shows members associated with a class (JES3 only)
- Accessed with the I action from the **JC** panel row

JCM - Columns

Show Columns

Row 1 to 6 of 6

Command ==>

Sort column with F5. Use Locate to position to column.

_ All values

_ Column width

Column	##	Value
MEMBER	01	RS85
CtlClass	01	H
MLimMax	01	20
MLimCur	01	0
SelMode	01	JS3BATCH
SysName	01	RS85

***** Bottom of data *****



MISCELLANEOUS PANEL UPDATES

MAS – Critical Notice Indicator

- **MAS** panel title line shows “CRIT” when critical notice outstanding

```

Display Filter View Print Options Search Help
-----
SDSF RESOURCE ALERTS R586 LINE 1-1 (1)
COMMAND INPUT ==> SCROLL ==> HALF
PREFIX==* DEST=(ALL) OWNER=* SYSNAME=
NP TYPE Member MessageLine1
NOTICE R586 $HASP9159 JES2 EXECUTION PROCESSING STOPPED ($PXEQ)

```

```

Display Filter View Print Options Search Help
-----
SDSF MAS DISPLAY R586 RSPLEX0G 65% CRIT LINE 1-6 (6)
COMMAND INPUT ==> SCROLL ==> HALF
PREFIX==* DEST=(ALL) OWNER=* SYSNAME=
NP NAME Status SID PrevCkpt Hold ActHold Dormancy ActDorm SyncT
RS85 DRAINED 1 0.00 0 0 (0,0) 0
RS86 ACTIVE,PXEQ 2 0.93 20 20 (100,500) 500 1
RS87 DRAINED 3 0.00 0 0 (0,0) 0
RS88 ACTIVE 4 0.08 20 20 (100,500) 500 1

```

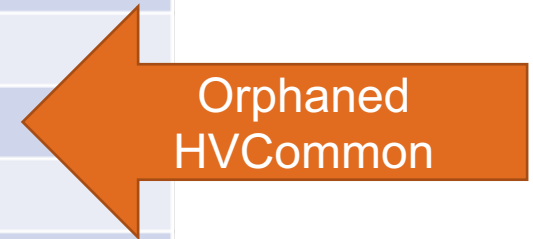
```

Column      ## Value
Boss        01 YES
Command     01 $PXEQ
Start-Type  01 QUICK
Start-Date-Time 01 03/04/2019 10:48:14
CkptLevel   01 Z22
Alert-Types 01 CRITICAL-NOTICE
.END        01 **End of List**

```

New Columns On Existing Panels

Panel	Column Name	Column Title	Description
CDE	CDATTR3	Attr3	CSVINFO attribute byte 3
CDE	CDATTR4	Attr4	CSVINFO attribute byte 4
CSR	HVCOM	HVComUsed	64-bit common not released (bytes)
DA	ESRBTIME	ESRB-Time	Enclave CPU time
DA	CPULIMIT	CPU-Limit	CPU time limit
DA	REUS	Reus	Reusable address space (yes or no)
DA	SYSLEVEL	SysLevel	Level of the operating system
H	JOBCRDATE	JobCrDate	Job creation date (JES2 only)
I	JOBCRDATE	JobCrDate	Job creation date (JES2 only)
JC	SYSNAME	SysName	System name for member (JES3 only)
JC	SELMODE	SelMode	Selection mode name (JES3 only)



New Columns On Existing Panels (continued)

Panel	Column Name	Column Title	Description
JDD	APF	APF	APF indicator for loadlibs (yes or no)
JDS	COMPRESS	Compressed	Compression status (yes or no)
JDS	ENCRYPT	Encrypted	Encryption status (yes or no)
JDS	KEYLABEL	KeyLabel	Keylabel for encryption
JS	TIOTHWM	TIOTHWM	High water mark for TIOT entries used (bytes)
JS	TIOTUSED	TIOTUsed	Current TIOT space used for entries (bytes)
JS	TIOTAVAIL	TIOTAvail	Size of TIOT available for entries (bytes)
MAS	CKPTLEV	CkptLevel	JES2 checkpoint level (\$activate level)
MAS	ALERT	Alert-Types	Types of alert messages outstanding (JES2 only)
O	JOBCRDATE	JobCrDate	Job creation date (JES2 only)
PAG	UNIT	Unit	Data set unit address

← Spool Encryption

← TIOT monitoring

New Columns On Existing Panels (continued)

Panel	Column Name	Column Title	Description
PAG	DEVNAME	DevName	Data set device name
PAG	CUNAME	CUName	Data set control unit name
PAG	SUBCHAN	SubChanSet	Data set subchannel set
PS	ZIIPTIME	zIIP-Time	System and user compute time on zIIP
PS	RUID	RUID	Process real user ID
PS	EUID	EUID	Process effective user ID
RM	SCOPE	Scope	Resource scope (local or JESPLEX)
ST	JOBCRDATE	JobCrDate	Job creation date (JES2 only)
SYS	JESTYPE	JESType	JES type for primary JES (JES2 or JES3)

New Actions On Existing Panels

Panel	Action Character	Description
APF	SV	ISPF view
AS	JMO	Display memory objects owned by the job. Access JMO panel.
AS	N	Display enqueues
CK	SV	ISPF view
CKH	SV	ISPF view
DA	JMO	Display memory objects owned by the job. Access JMO panel.
DA	SV	ISPF view
H	SV	ISPF view
I	SV	ISPF view
JC	I	Member information. Access Job Class Members panel. (JES3 only)
JDS	SV	ISPF view

New Actions On Existing Panels (continued)

Panel	Action Character	Description
JG	SV	ISPF view
JO	SV	ISPF view
LNK	SV	ISPF view
LPA	SV	ISPF view
O	SV	ISPF view
OD	SV	ISPF view
PARM	SV	ISPF view
PROC	SB	ISPF browse data set
PROC	SE	ISPF edit data set
PROC	SV	ISPF view data set
SRCH	SV	ISPF view

New Actions On Existing Panels (continued)

Panel	Action Character	Description
ST	SV	ISPF view
STEP	SV	ISPF view



USABILITY ENHANCEMENTS

SRCH Command Enhancements

- SRCH command used to locate members on panels with lists of data sets
 - APF, LNK, LPA, PARM, PROC and now JDD
- New parameter to limit rows shown
 - All data sets searched (ALL)
 - Data sets for which member was found (F)
 - Data sets for which member was not found (NF)
- Syntax
 - SRCH member-pattern [F | NF | ALL]
- Default action can be controlled through new SET SRCH command
 - SET SRCH [F | NF | ALL]

SRCH Command – All

```

Display Filter View Print Options Search Help
-----
SDSF PARMLIB DISPLAY RS86 RS86 EXT 33 LINE 1-5 (5)
COMMAND INPUT ==> srch isfprm* SCROLL ==> PAGE
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP DSNNAME Seq VolSer BlkSize Extent SMS LRecL DSOrg RecFm Cr
RSPLEXOG.PARMLIB.ZOS204 1 MCPG00 27920 1 NO 80 PO FB 20
RSPLEXOG.PARMLIB 2 MCPG00 27920 14 NO 80 PO FB 20
RSRTE.PARMLIB 3 R3P104 27920 1 YES 80 PO FB 20
ROCKET.USER.PARMLIB 4 S1PG00 27920 16 YES 80 PO FB 20
SYS1.PARMLIB 5 RP204B 27920 1 NO 80 PO FB 20
    
```

```

Display Filter View Print Options Search Help
-----
SDSF SRCH DISPLAY ISFPRM* ALL LINE 1-5 (5)
COMMAND INPUT ==> SCROLL ==> PAGE
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP DSNNAME SysName Seq VolSer Status DSOrg BlkSize
RSPLEXOG.PARMLIB.ZOS204 RS86 1 MCPG00 FOUND PO 27920
RSPLEXOG.PARMLIB RS86 2 MCPG00 NOT FOUND PO 27920
RSRTE.PARMLIB RS86 3 R3P104 FOUND PO 27920
ROCKET.USER.PARMLIB RS86 4 S1PG00 FOUND PO 27920
SYS1.PARMLIB RS86 5 RP204B NOT FOUND PO 27920
    
```

SRCH Command – Only Found

```

  Display  Filter  View  Print  Options  Search  Help
-----
SDSF PARMLIB DISPLAY  R586      R586      EXT      33      LINE 1-5 (5)
COMMAND INPUT ==> srch isfprm* f      SCROLL ==> PAGE
PREFIX=**  DEST=(ALL)  OWNER=*   SYSNAME=
NP  DSNAME                               Seq VolSer BlkSize Extent SMS LRecL DSOrg RecFm Cr
   RSPLEXOG.PARMLIB.ZOS204             1 MCPG00 27920     1 NO   80 PO   FB   20
   RSPLEXOG.PARMLIB                     2 MCPG00 27920    14 NO   80 PO   FB   20
   RSRTE.PARMLIB                         3 R3P104 27920     1 YES  80 PO   FB   20
   ROCKET.USER.PARMLIB                  4 S1PG00 27920    16 YES  80 PO   FB   20
   SYS1.PARMLIB                          5 RP204B 27920     1 NO   80 PO   FB   20
  
```

```

  Display  Filter  View  Print  Options  Search  Help
-----
SDSF SRCH DISPLAY  ISFPRM*  FOUND      LINE 1-3 (3)
COMMAND INPUT ==>
PREFIX=**  DEST=(ALL)  OWNER=*   SYSNAME=
NP  DSNAME                               SysName  Seq VolSer Status      DSOrg BlkSize
   RSPLEXOG.PARMLIB.ZOS204             R586      1 MCPG00 FOUND      PO     27920
   RSRTE.PARMLIB                       R586      3 R3P104 FOUND      PO     27920
   ROCKET.USER.PARMLIB                  R586      4 S1PG00 FOUND      PO     27920
  
```

ARRANGE – Hide Columns

- Hide columns on panels using **ARRANGE** command
 - Reduces LEFT/RIGHT scrolling
 - Remember : can use “/” show action to zoom into single row
- New special column name .END
 - Marks end of visible columns
 - All columns positioned before .END will be shown on panel
 - All columns after .END will not be shown
- Examples:
 - ARR .END A SAFF (All columns after SAFF will be hidden)
 - ARR .END LAST (All columns will be shown)
 - ARR DEFAULT (Reset to supplied defaults)
 - ARR ? (Show ARRANGE pop-up dialog)

ARRANGE – Hide Columns

```

Display Filter View Print Options Search Help
-----
SDSF STATUS DISPLAY ALL CLASSES                               LINE 1-26 (1032)
COMMAND INPUT ==> arr .end a saff                            SCROLL ==> PAGE
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP  JOBNAME  JobID  Owner  Prty Queue  C  Pos SAff ASys Status
MNTWTOR JOB00665 SUBJCL  9 EXECUTION A  RS87
MNTWTOR JOB01664 SUBJCL  9 EXECUTION A  RS87
TS5485W JOB04866 TS5485  9 EXECUTION 7  1  RS86
TS5485W1 JOB04868 TS5485  9 EXECUTION 7  2  RS86
TS5485W2 JOB04869 TS5485  9 EXECUTION 7  3  RS86
TS5485W3 JOB04870 TS5485  9 EXECUTION 7  4  RS86
TS5485W  JOB01289 TS5485  9 EXECUTION 7  5  RS88
    
```

```

Display Filter View Print Options Search Help
-----
SDSF STATUS DISPLAY ALL CLASSES                               LINE 1-26 (1032)
COMMAND INPUT ==>                                           SCROLL ==> PAGE
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP  JOBNAME  JobID  Owner  Prty Queue  C  Pos SAff
MNTWTOR JOB00665 SUBJCL  9 EXECUTION A  RS87
MNTWTOR JOB01664 SUBJCL  9 EXECUTION A  RS87
TS5485W JOB04866 TS5485  9 EXECUTION 7  1  RS86
TS5485W1 JOB04868 TS5485  9 EXECUTION 7  2  RS86
TS5485W2 JOB04869 TS5485  9 EXECUTION 7  3  RS86
TS5485W3 JOB04870 TS5485  9 EXECUTION 7  4  RS86
TS5485W  JOB01289 TS5485  9 EXECUTION 7  5  RS88
    
```



ARRANGE – Hide Columns Pop-up

```

Display Filter View Print Options Search Help
-----
SDSF STATUS DISPLAY ALL CLASSES                LINE 1-26 (1143)
COMMAND INPUT ==>> arr ?                       SCROLL ==>> PAGE
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP  JOBNAME JobID Owner Prty Queue C Pos SAff
MNTWTOR JOB00665 SUBJCL 9 EXECUTION A RS87
MNTWTOR JOB01664 SUBJCL 9 EXECUTION A RS87
TS5485W JOB04866 TS5485 9 EXECUTION 7 1 RS86
    
```

```

Display Filter View Print Options Search Help
-----
SDSF STATUS                                     Arrange                Row 1 to 10 of 58
COMMAND INPU
PREFIX=** D
NP  JOBNAME
MNTWTOR
MNTWTOR
TS5485W
TS5485W
TS5485W
TS5485W
TS5485W
PDSCOT
TS6106
TS6106
TS5485
SYSLOG
VTAM
HZSPROC
INIT
INIT
INIT

Command ==>> _____

To move a column, select with / (// for a block), then type A
(after) or B (before). Special function keys:
F5/17=Refresh list F11/23=Clear input F6/18=Default order

NP width                Current width: 4

Column Width Description
---
JobID      8
Owner      8
Prty       4
Queue     10
C          1
Pos        5
SAff       5
.END       4      **End of List**
ASys       4
Status    17
    
```

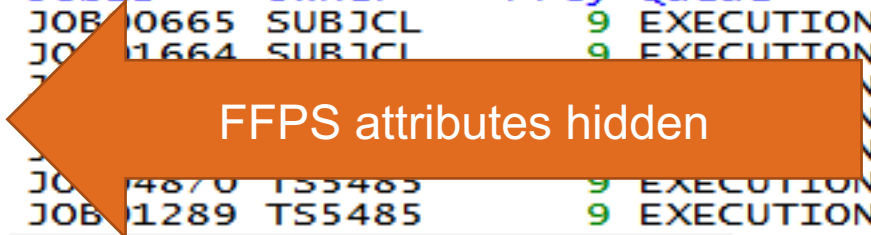
Fixed Field Point-and-Shoot (FFPS)

- Fixed field is the leftmost column next to NP that does not move when scrolling horizontally
- FFPS designed as convenient way to access the most common secondary panel associated with the row
 - Just place cursor on fixed field and press enter (or click mouse)
 - Example : ST→JDS→Spool browse
- Fixed field rendered in TURQ when FFPS active
 - Some users interpreted this as row-highlighting
- New option on SET FFPS command
 - **SET FFPS [ON|HIDE|OFF|?]**
- SET FFPS HIDE still allows point-and-shoot action
 - Fixed field rendering conditioned on row highlighting

SET FFPS HIDE

```
Display Filter View Print Options Search Help
-----
SDSF STATUS DISPLAY ALL CLASSES                               LINE 1-26 (1032)
COMMAND INPUT ==> set ffps hide                               SCROLL ==> PAGE
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP  JOBNAME  JobID  Owner  Prty Queue  C  Pos  SAff
MNTWTOR  JOB00665  SUBJCL  9 EXECUTION  A
MNTWTOR  JOB01664  SUBJCL  9 EXECUTION  A
TS5485W  JOB04866  TS5485  9 EXECUTION  7  1  RS86
TS5485W1 JOB04868  TS5485  9 EXECUTION  7  2  RS86
TS5485W2 JOB04869  TS5485  9 EXECUTION  7  3  RS86
TS5485W3 JOB04870  TS5485  9 EXECUTION  7  4  RS86
TS5485W  JOB01289  TS5485  9 EXECUTION  7  5  RS88
```

```
Display Filter View Print Options Search Help
-----
SDSF STATUS DISPLAY ALL CLASSES                               SET COMMAND COMPLETE
COMMAND INPUT ==>                                           SCROLL ==> PAGE
PREFIX=** DEST=(ALL) OWNER=* SYSNAME=
NP  JOBNAME  JobID  Owner  Prty Queue  C  Pos  SAff
MNTWTOR  JOB00665  SUBJCL  9 EXECUTION  A
MNTWTOR  JOB01664  SUBJCL  9 EXECUTION  A
TS5485W  JOB04866  TS5485  9 EXECUTION  7  1  RS86
TS5485W1 JOB04868  TS5485  9 EXECUTION  7  2  RS86
TS5485W2 JOB04869  TS5485  9 EXECUTION  7  3  RS86
TS5485W3 JOB04870  TS5485  9 EXECUTION  7  4  RS86
TS5485W  JOB01289  TS5485  9 EXECUTION  7  5  RS88
```



Rename SLASH command (/) Groups

- System command extension panel (/ pop-up)
 - Used to classify and display slash command groups
- Once command is grouped
 - Command can be deleted
 - Command can be added to another group
- Now can rename one command group to another
 - If command does not exist in the target group or the target group does not exist
 - Command will be MOVED to new group
 - If command exists in the target group
 - Comment appended to the target command
 - Source command will be removed from the old group

Rename SLASH Command Groups

```

Display Filter View Print Options Search Help
-----
SDSF MENU V2R4M0      RSPLEXOG  RS86                LINE 1-26 (63)
COMMAND INPUT ==> /                                     SCROLL ==> PAG
PR
NP | Edit Options Help
   |-----|
   | 2 1. Clear...      em Command Extension
   | 2. Rename group...
   |-----|
   | ==>
   | Comment
   |
   | STORELIMIT
   |
   |-----|

Display Filter View Print Options Search Help
-----
SDSF MENU V2R4M0      RSPLEXOG  RS86                LINE 1-26 (63)
COMMAND INPUT ==> /                                     SCROLL ==> PAGE
PR
NP | Edit Options Help
   |-----|
   |          Rename Slash Command Group
   |          Type the old and new group names.
   |          Old group name . . . : _____
   |          New group name . . . : _____
   |          F1=Help  F4=Prompt  F12=Cancel
   |-----|
   |          (F4 for list)
   |          More:      +
   |
   | ==> D PROG,LNKLST
   |
   | STORELIMIT
   |
   |-----|

```

ISPF VIEW Action

- All panels implementing ISPF edit and browse (SE and SB) now support ISPF view
 - SV action character
 - Very similar to ISPF edit
- ISPF view also supported on SNAP command
 - SNAP [S|SB|SE|SV]
 - Control default using SET SNAP command

Data Set Display - SHORT

- Data set attributes shown on **APF**, **LNK**, **LPA**, **PARM**, and **PROC** panels
 - Obtained through catalog lookup and reading the VTOC
 - Can be time consuming based on number of data sets shown
- New S | SHORT parameter added to command
 - APF [S|SHORT]
 - LNK [S|SHORT]
 - LPA [S|SHORT]
 - PARM [S|SHORT]
 - PROC [S|SHORT]
- Columns not retrieved in short mode:
 - VolSer, Status, BlkSize, Extent, SMS, LRecL, DSOrg, RecFm, CrDate, RefDate

Data Set Display - SHORT

```

Display Filter View Print Options Search Help
-----
SDSF LNK DISPLAY R586      R586      EXT      62      LINE 1-26 (47)
COMMAND INPUT ==> Tnk s          SCROLL ==> PAGE
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=
NP  DSNAME          Seq VolSer BlkSize Extent SMS APF LRecL DSOrg
   SYS1.LINKLIB      1 RP204B  32760    1 NO  YES    0 PO
   SYS1.MIGLIB       2 RP204B  32760    1 NO  YES    0 PO
   SYS1.CSSLIB       3 RP204B  32760    1 NO  YES    0 PO
   SYS1.SIEALNKE     4 RP204B  32760    1 NO  NO     0 PO-E
   SYS1.SIEAMIGE     5 RP204B  32760    1 NO  NO     0 PO-E
    
```

```

Display Filter View Print Options Search Help
-----
SDSF LNK DISPLAY R586      R586      *EXT      0      LINE 1-26 (47)
COMMAND INPUT ==>          SCROLL ==> PAGE
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=
NP  DSNAME          Seq VolSer BlkSize Extent SMS APF LRecL DSOrg
   SYS1.LINKLIB      1          0          0          0 NO  NO     0
   SYS1.MIGLIB       2          0          0          0 NO  NO     0
   SYS1.CSSLIB       3          0          0          0 NO  NO     0
   SYS1.SIEALNKE     4          0          0          0 NO  NO     0
   SYS1.SIEAMIGE     5          0          0          0 NO  NO     0
    
```

Extent count unavailable in SHORT mode

ABOUT command

- Copyright notice no longer shown on entry to SDSF
- Use new **ABOUT** command to display copyright notice

```

Display  Filter  View  Print  Options  Search  Help
-----
DSF MENU V2R4M0      RSPLEX0G  R586
OMMAND INPUT ==>
PREFIX=**  DEST=(ALL)  OWNER=*   SORT=NAME/A  S
P  NAME      Description      Group
  APF      APF data sets   System
  AS       Address space memory  Jobs
  BPXO     OMVS options    OMVS
  CFC     CF Connections  Sysplex
  CFS     CF Structures   Sysplex
  CK      Health checker   System
  CSR     Common storage remaining Memory
  DA      Active users    Jobs
  DEV     Device activity  Devices
  
```

```

11 1. Extended help...
   2. Keys help...
   3. Help Index...
   4. Tutorial...
   5. Book...
   6. Web sites...
   7. REXX generation
   8. REXX examples
   9. REXX help...
  10. Columns help...
  11. About...
  
```

```

-----
PAGE
  
```

Column Formatting Changes

- Zero value low-lighting
 - Numeric values of zero are now low-lighted independently of row highlighting
 - Only occurs when panel field definition defines zero as not significant
- Automatic right justification for numeric column titles
 - Removes need to define column titles with leading blanks to force alignment is ISFPRMxx FLDENT statements :
 - `FLDENT COLUMN(CPUPR) TITLE(' CPU%')` **No longer needed**
 - Survives any **ARRANGE** command that alters the column width
- Custom properties available to restore previous behaviour

Column Formatting Changes

```
Display Filter View Print Options Search Help
-----
SDSF DA RS88      RS88      PAG 0 CPU 0      LINE 1-37 (65)
COMMAND INPUT ==>      SCROLL ==>
PREFIX=*  DEST=(ALL)  OWNER=*  SORT=JOBNAME/A  SYSNAME=
NP  JOBNAME  Real  Paging  SIO  CPU%  ASID  ASIDX  EXCP-Cnt  CPU-Time
 *MASTER*  3478  0.00  0.01  0.96  1 0001  20817  390.52
ALLOCAS    2639  0.00  0.00  0.00  22 0016  9 0.00
ANTAS000   1591  0.00  0.00  0.00  13 0000  428 0.10
ANTMAIN    1690  0.00  0.00  0.01  12 000C  865 5.04
APPC       1103  0.00  0.00  0.04  104 0068  167 17.48
ASCH       395  0.00  0.00  0.01  105 0069  71 3.75
AXR        615  0.00  0.00  0.00  25 0019  1428 0.07
AXR04      538  0.00  0.00  0.00  37 0025  142 0.02
BPXOINIT   356  0.00  0.00  0.01  133 0085  19 5.84
CATALOG    1522  0.00  0.18  0.09  40 0028  106079 39.93
```

QUERY AUTH

- Query Auth command lists all commands for which user is authorized
 - Typically used in SDSF/REXX execs to determine available functionality
- Now includes slash command
 - Previously omitted because slash could be authorized based on SAF or in non-SAF case by command level (cmdlev)

```
Display Filter View Print Options Search Help
-----
SDSF MENU V2R4M0      RSPLEX0G  RS86                LINE 1-26 (63)
COMMAND INPUT ==>> query auth          SCROLL ==>> PAGE
AUTH=ABEND,ACTION,APF,AS,BPX0,CFC,CFS,CK,CSR,DA,DEST,DEV,DIAG,DYNX,EMCS,ENC,
AUTH=ENQ,ENQC,ENQD,FINDLIM,FS,GT,H,I,INIT,INPUT,JC,JG,JP,JO,LINES,LNK,LOG,LPA,
AUTH=LPD,MAS,NA,NC,NODES,NS,O,OWNER,PAG,PAGE,PARM,PR,PREFIX,PROC,PS,PUN,RDR,
AUTH=REPC,RES,RGRP,RM,RMA,RSYS,SE,SLASH,SMSG,SMSV,SO,SP,SR,SRVC,SSI,ST,SYM,
AUTH=SYS,SYSID,SYSNAME,SYSTEM,TRACE,ULOG,VMAP,WKLD,WLM,XCFM
```

WHO Command

- New emergency subsystem indicator when user is logged in to emergency JES2 subsystem
 - Also shown on **JES** panel Emergency column

```

  Display  Filter  View  Print  Options  Search  Help
-----
SDSF MENU V2R4M0      RSPLEX0G  R586                      LINE 1-26 (63)
COMMAND INPUT ==>          SCROLL ==> PAGE
USERID=TS5485,PROC=ROCKPROC,TERMINAL=S86TCP02,GRPINDEX=1,GRPNAME=ISFSPROG,
MVS=z/OS 02.04.00,JES=z/OS 2.4,SDSF=HGX77C0,ISPF=7.4,RMF/DA=HSF,SERVER=YES,
SERVERNAME=SDSF,JESNAME=HASP/E,MEMBER=R586,JESTYPE=JES2,SYSNAME=R586,
SYSPLEX=RSPLEX0G,COMM=NOTAVAIL,COMMX=ENABLED,JOBID=TSU02225
  BPXO      OMVS options      OMVS
  CFC       CF Connections    Sysplex

```

New Special DD Names

- SDSF security trace (sectrace) is a diagnostic aid used to assist in defining security profiles
 - Sectrace writes messages to ULOG or as WTP
 - Controlled with **SET SECTRACE** command or through invocation options on SDSF command
 - In SDSF/REXX, typically the script is modified to add the **ISFSECTRACE** special variable
- New special DD names to control sectrace
 - **ISFSECTR** equivalent to `set sectrace on`
 - **ISFSECTW** equivalent to `set sectrace wtp`
- Example:
 - `alloc fi(isfsectr) dummy reus`



SDSF REXX ENHANCEMENTS

SDSF REXX – Special DD Name

- Debugging SDSF/REXX execs may include
 - Adding verbose option to SDSF commands (e.g. **ISFEXEC** and **ISFACT**)
 - Printing isfmsg2 stem variable
 - Displaying **WHO** command response
 - This usually means updating the exec
- New special ddname **ISFRXDBG** will do this without need for modifying the exec:
 - TSO foreground : `alloc fi(isfrxdbg) dummy reus`
 - Batch JCL : `//ISFRXDBG DD DUMMY`

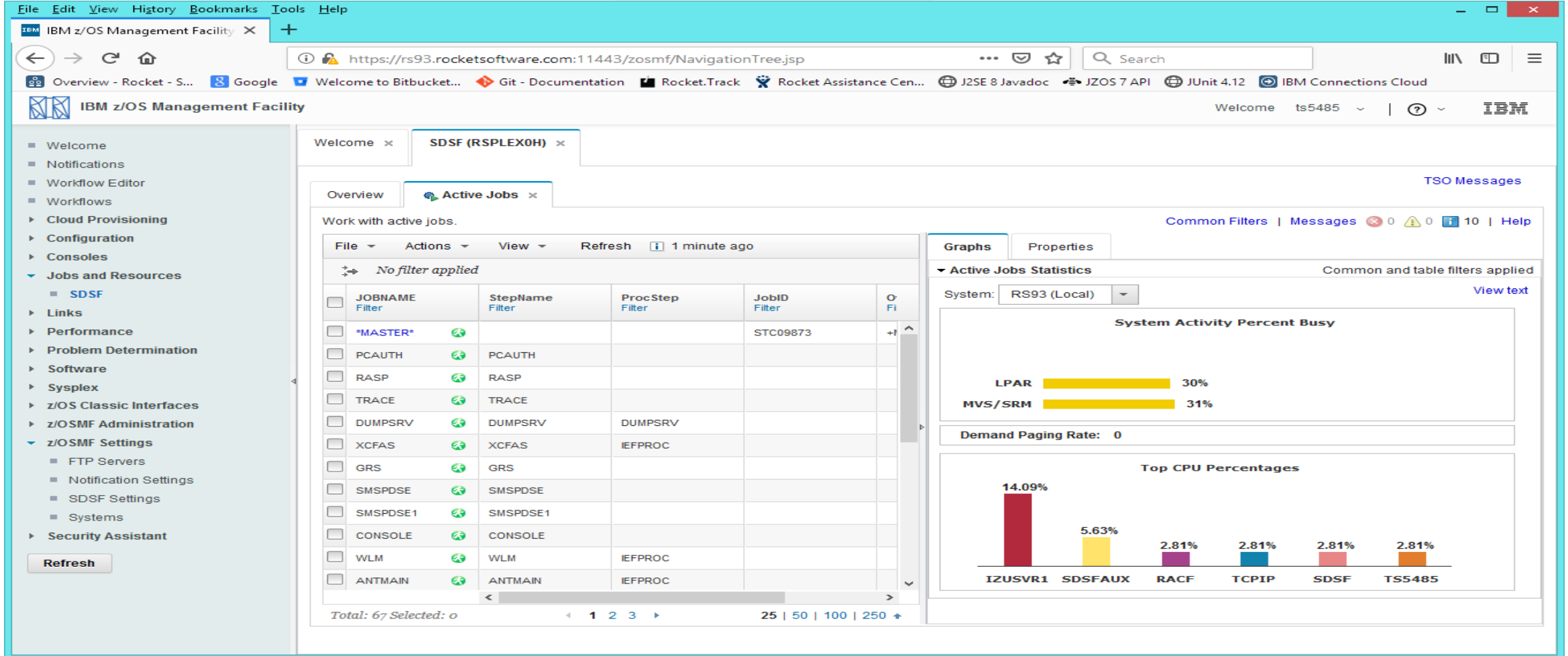


ZOSMF ENHANCEMENTS

z/OSMF – Usability Improvements

- Reduced scrolling
- Apply/Cancel/Refresh buttons moved to menu bar
- Header lines consolidated to reclaim window space
- Panel graphics moved to tab next to property sheet

z/OSMF – New look



The screenshot displays the IBM z/OS Management Facility (z/OSMF) web interface. The browser address bar shows the URL: `https://rs93.rocketsoftware.com:11443/zosmf/NavigationTree.jsp`. The interface includes a navigation menu on the left, a main content area with tabs for 'Overview' and 'Active Jobs', and a right-hand panel for 'Active Jobs Statistics'.

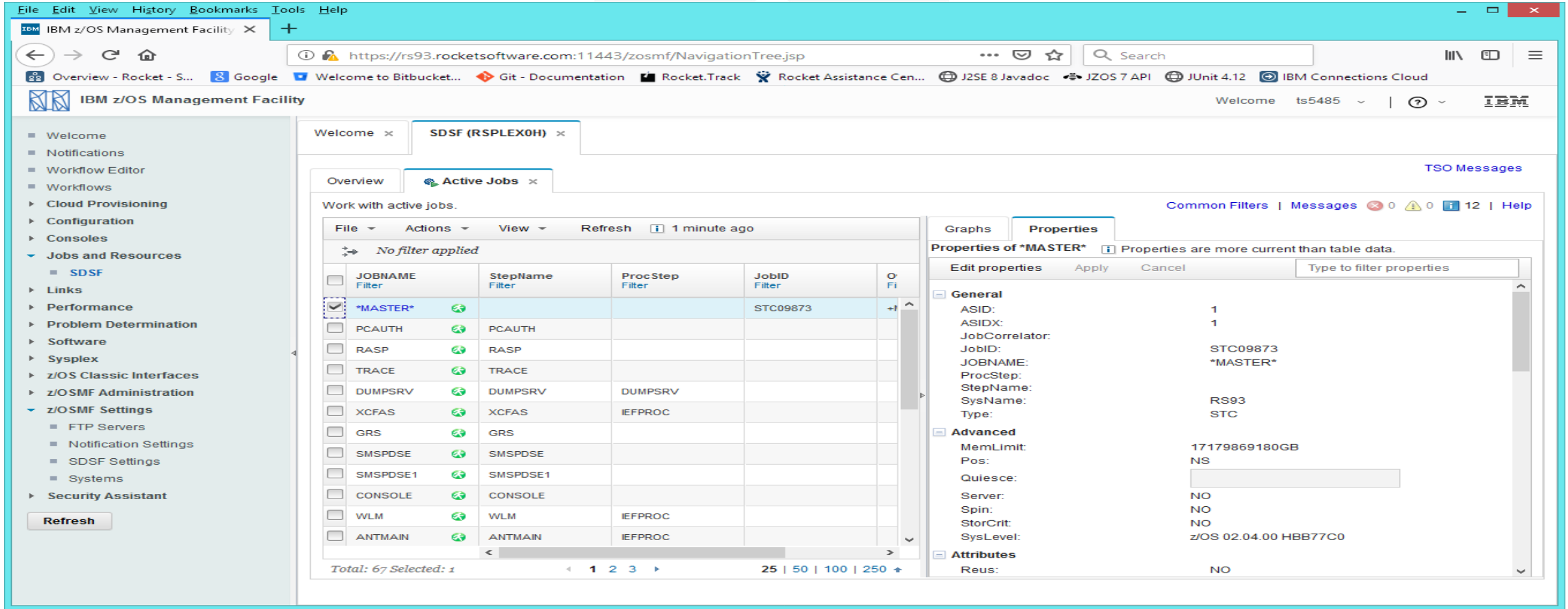
Active Jobs Table:

File	Actions	View	Refresh	1 minute ago
No filter applied				
JOBNAME Filter	StepName Filter	ProcStep Filter	JobID Filter	O FI
<input type="checkbox"/> *MASTER*			STC09873	+1
<input type="checkbox"/> PCAUTH	PCAUTH			
<input type="checkbox"/> RASP	RASP			
<input type="checkbox"/> TRACE	TRACE			
<input type="checkbox"/> DUMPSRV	DUMPSRV	DUMPSRV		
<input type="checkbox"/> XCFAS	XCFAS	IEFPROC		
<input type="checkbox"/> GRS	GRS			
<input type="checkbox"/> SMSPDSE	SMSPDSE			
<input type="checkbox"/> SMSPDSE1	SMSPDSE1			
<input type="checkbox"/> CONSOLE	CONSOLE			
<input type="checkbox"/> WLM	WLM	IEFPROC		
<input type="checkbox"/> ANTMAIN	ANTMAIN	IEFPROC		

Active Jobs Statistics:

- System: RS93 (Local)
- System Activity Percent Busy:**
 - LPAR: 30%
 - MVS/SRM: 31%
 - Demand Paging Rate: 0
- Top CPU Percentages:**
 - IZUSVR1: 14.09%
 - SDSFAUX: 5.63%
 - RACF: 2.81%
 - TCPIP: 2.81%
 - SDSF: 2.81%
 - TS5485: 2.81%

z/OSMF – New Look



The screenshot displays the IBM z/OS Management Facility (z/OSMF) web interface. The browser address bar shows the URL: `https://rs93.rocketsoftware.com:11443/zosmf/NavigationTree.jsp`. The interface includes a navigation menu on the left with categories like 'Jobs and Resources', 'Links', 'Performance', 'Problem Determination', 'Software', 'Sysplex', 'z/OS Classic Interfaces', 'z/OSMF Administration', 'z/OSMF Settings', and 'Security Assistant'. The main content area shows the 'Active Jobs' tab for the SDSF (RSPLEX0H) subsystem. A table lists active jobs with columns for JOBNAME, StepName, ProcStep, JobID, and O-Fi. The job '*MASTER*' is selected. To the right, the 'Properties' panel for the selected job is visible, showing details under 'General' and 'Advanced' sections.

JOBNAME Filter	StepName Filter	ProcStep Filter	JobID Filter	O-Fi
<input checked="" type="checkbox"/> *MASTER*			STC09873	+1
<input type="checkbox"/> PCAUTH	PCAUTH			
<input type="checkbox"/> RASP	RASP			
<input type="checkbox"/> TRACE	TRACE			
<input type="checkbox"/> DUMPSRV	DUMPSRV	DUMPSRV		
<input type="checkbox"/> XCFAS	XCFAS	IEFPROC		
<input type="checkbox"/> GRS	GRS			
<input type="checkbox"/> SMSPDSE	SMSPDSE			
<input type="checkbox"/> SMSPDSE1	SMSPDSE1			
<input type="checkbox"/> CONSOLE	CONSOLE			
<input type="checkbox"/> WLM	WLM	IEFPROC		
<input type="checkbox"/> ANTMAIN	ANTMAIN	IEFPROC		

Properties of *MASTER*

General

- ASID: 1
- ASIDX: 1
- JobCorrelator:
- JobID: STC09873
- JOBNAME: *MASTER*
- ProcStep:
- StepName:
- SysName: RS93
- Type: STC

Advanced

- MemLimit: 17179869180GB
- Pos: NS
- Quiesce:
- Server: NO
- Spin: NO
- StorCrit: NO
- SysLevel: z/OS 02.04.00 HBB77C0

Attributes

- Reus: NO



INSTALLATION AND CONFIGURATION

Migration And Coexistence Considerations

- Toleration Support
 - APARs PI97517, PH04841 and PH10440
 - Apply any time after PTFs available
- Migration Support
 - Special DD name ISFMIGDA to restore former DA implementation
 - SDSF 2.4 collects DA information in SDSFAUX rather than collecting in the SDSF user address space
 - Old-style ISFPARMS must be reassembled with 2.4 macros
 - Cannot be shared with previous levels
 - Consider moving to ISFPRMxx PARMLIB statements
- Coexistence Support
 - None (SDSF 2.4 is compatible with SDSF 2.3 and 2.2)

Installation Considerations

- New function requires SDSF and SDSFAUX address spaces
 - If you are not starting the SDSF address space, **DO IT NOW !!!**
 - **Please re-read the bullet above!**
- If you are using old style ISFPARMS (assembler macros), please convert to ISFPRMxx
 - Run utility ISFACP to create an ISFPRMxx from your ISFPARMS
 - If you are not using ISFPRMxx, please convert and **DO IT NOW !!!**
 - **Please re-read the bullet above!**

Installation Reminders

- If you are not starting SDSF address space
 - Copy ISF.SISFJCL(SDSF) and ISF.SISFJCL(SDSFAUX) to your PROCLIB
 - Copy ISF.SISFJCL(ISFPRM00) to your PARMLIB
 - Add “S SDSF” to COMMNDxx
- SDSF class must be RACLISTed
- User must be authorized to connect to SDSF
 - Read access to ISF.CONNECT.*system* in SDSF class
 - Connection failures are tolerated but no new function will be available
 - Some existing panels have been migrated to use SDSFAUX

SDSFAUX Usage

- Panels now requiring SDSF server (and SDSFAUX)
 - CK, CKH, DA, ENC, PS, RM
- DA migration mode
 - Fallback to prior implementation provided for DA panel in event of unforeseen issues
 - Temporary
 - Allocate special DD name **ISFMIGDA**
 - alloc fi(isfmigda) dummy reus
 - //ISFMIGDA DD DUMMY
 - Generic tracker event created



QUESTIONS?