New SDSF functions in z/OS 3.1

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Agenda

- Recent SDSF Enhancements

- Configure SDSF Features

- SDSF Event Log

- Module Fetch Monitor

- RACF Panels

- MEM Enhancements

- Other New SDSF Panels

- Useability Enhancements

Recent SDSF Enhancements

- Pre-z/OS 2.2
  - Approximately 35 panels and object displays
- z/OS 2.3
  - SDSF server rewrite
  - 25 new panels including system data sets, XCF objects and address space storage
- z/OS 2.4
  - Display manager rewrite
  - 18 new panels including WLM objects and JES resource information
- z/OS 2.5
  - SAF-only security
  - 16 new panels including memory browse, detailed common and private storage information
- z/OS 3.1
  - New concept of SDSF features
  - Over 30 new panels

Configure SDSF Features

Configure SDSF Features

- New SDSF concept of a "feature"

  - Optional component of SDSF that can be configured via new FEATURE and FEATENT statements in ISFPRMxx
  - Certain SDSF panels can depend on a specific feature being active
  - FEATURE statement
    - Initial status of the feature when SDSF server starts
    - Resource limits for any data collection
    - Level of detail maintained
  - FEATENT statements
    - One or more optional filters for the data collected
  - Features can be dynamically started and stopped using operator commands
  - SDSF for z/OS ships with two new features available
    - Event Log
    - Module Fetch Monitor

SDSF ships with two features available

- Event log (ELOG) feature

  - Active by default
  - SDSF assigned category and event names can be used to filter data collected on FEATENT statements in ISFPRMxx

- Module fetch (MFM) feature

  - Is inactive by default to minimize collection overhead
  - FEATENT statements can filter on data set name, module name and fetch-causing jobname

Example FEATURE And FEATENT

```
/****************************************************************************/
/* The ELOG feature gathers important system events and the data */
/* collected is displayed by the "ELOG" command.                 */
/****************************************************************************/

FEATURE NAME(ELOG),              /* SDSF feature - Event log           */
        START(YES),              /* Automatically start on server start */
        LIMIT(50000)             /* Record limit                       */


/****************************************************************************/
/* The ELOG feature processes NAME and CATEGORY keywords.        */
/*                                                               */
/* The following FEATENTs show examples of how that might be     */
/* coded, however note that the "BADNAME" data is not used       */
/* in the classification of ELOG data - this is just an example  */
/****************************************************************************/

FEATENT NAME(*),                 /* Exclude BADNAME category events    */
        CATEGORY(BADNAME),
        ENABLE(NO)

FEATENT NAME(SMF_SYNC),          /* Include SMF-SYNC events            */
        CATEGORY(SMF),
        ENABLE(YES)              /* Change to NO to exclude            */

FEATENT NAME(*),                 /* Exclude JOB events for BADJOB*     */
        CATEGORY(JOB),
        JOBNAME(BADJOB*),
        ENABLE(NO)

FEATENT NAME(*),                 /* Include all other events           */
        CATEGORY(*),
        ENABLE(YES)
```

SDSF Event Log

Event Log (ELOG)

- Event Log is a new feature in SDSF.

  - Active by default at SDSF server start

- Data source for Event Log includes

  - ENF signals
  - SMF records
    - IEFU86 exit must be active.
      - Use new SDSF command "SMFS" to verify.
  - Dynamic exits

Event Log Captured Data Examples

- System status changes

  - I/O configuration
  - WLM policy
  - Boost activity
  - SET operator commands
  - RSM detected shortages and any subsequent relief

- Dynamic updates to system resources

  - APF list
  - Link list
  - LPA

- Abnormal end to jobs

- SVC dump creation

Event Log (ELOG)

- Captures important recent system events (default 10,000) and presents the SDSF user with a summary row for each event

Event Log (ELOG)

- The "L" action against the row takes the user to the nearest OPERLOG record to the event timestamp
  - Can save numerous "FIND xxx PREV" activities in the LOG panel


```
Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------------
SDSF EVENT LOG   RS79       RS79       ACTIVE    ALL       LINE 1-2 (2)
COMMAND INPUT ===>                                         SCROLL ===> CSR
NP   NAME             Description
     JOB_ABEND        Job TS7897(TSU03747) owner=TS7897 abended CC=S622
L    JOB_ABEND        Job TS7897(TSU03738) owner=TS7897 abended CC=S622
```

```
Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------------
SDSF OPERLOG  RS79      07/03/2023    4w                 COLUMNS 02- 134
COMMAND INPUT ===>                                        SCROLL ===> CSR
N 4100000 RS79        2023184 01:14:55.25 TSU03738 00000281  IKT100I USERID TS7897    CANCELED DUE TO UNCONDITIONAL LOGOFF
N 4100000 RS79        2023184 01:14:55.25 TSU03738 00000090  IKT122I IPADDR..PORT 10.45.18.159..55291
N 0000000 RS79        2023184 01:14:55.25          00000281  IEA989I SLIP TRAP ID=X622 MATCHED.  JOBNAME=TS7897  , ASID=0078.
N 0000000 RS79        2023184 01:14:55.25          00000281  IEA989I SLIP TRAP ID=X13E MATCHED.  JOBNAME=TS7897  , ASID=0078.
N 0000000 RS79        2023184 01:14:55.25          00000281  IEA989I SLIP TRAP ID=X13E MATCHED.  JOBNAME=TS7897  , ASID=0078.
N 4000000 RS79        2023184 01:14:55.26 TSU03738 00000281  IEF450I TS7897 ROCKPROC ROCKPROC - ABEND=S622 U0000 REASON=00000000
N 4000000 RS79        2023184 01:14:55.39 TSU03738 00000281  $HASP395 TS7897   ENDED - ABEND=S622
N 0000000 RS79        2023184 01:15:00.44          00000281  IEA989I SLIP TRAP ID=X33E MATCHED.  JOBNAME=*UNAVAIL, ASID=0078.
NC0000000 RS79        2023184 01:15:09.06 INSTREAM 00000290  LOGON
N 0200000 RS79        2023184 01:15:14.28 TSU03741 00000281  $HASP100 TS7897   ON TSOINRDR
```

Module Fetch Monitor

Module Fetch Monitor Implementation

- Module Fetch Monitor is a new feature

  - Inactive by default to minimize collection overhead
  - Similar functionality was provided by adhoc tool provided (on request) by IBM z/OS development in Poughkeepsie "MFM"

- Captures program fetch data from CSVFETCH and CSVLLIX1 dynamic exits

- Support 3 levels of data collection detail

  - LEVEL(1)   Only collect module fetch data for data set names
  - LEVEL(2)   Collect module fetch data for both data set and module name
  - LEVEL(3)   Collect module fetch data for data set name, module name and job names

Module Fetch By Data Set Name (MFD)

- Module fetch activity summarized by data set

```
 Display  Filter  View  Print  Options  Search  Help
 --------------------------------------------------------------------------------
 SDSF FETCH DATA SETS  RS79      RS79       ACTIVE          LINE 1-17 (17)
 COMMAND INPUT ===>                                      SCROLL ===> CSR
 NP   DSNAME                   Fetch  AvgDASD  MaxDASD   AvgVLF   MaxVLF FetchDASD LastDASD            FirstDASD
      CEE.SCEERUN               694    0.212    7.142    0.018    0.064       386 07/05/2023 11:45:46 07/03/2023 07:56:35
      CEE.SCEERUN2                2   40.801   41.873    0.000    0.000         2 07/04/2023 12:59:36 07/03/2023 12:58:53
      CSF.SCSFMOD0                3    0.316    0.339    0.000    0.000         3 07/04/2023 11:36:21 07/04/2023 11:35:08
      DEVRTE.HSF.HSFE0301.SISFLOAD 509 7.379  339.365    1.553    5.319       492 07/05/2023 11:56:24 07/03/2023 04:00:44
      GDDM.SADMMOD                2    6.391    9.777    0.000    0.000         2 07/04/2023 07:12:13 07/04/2023 07:12:13
      ISP.SISPLOAD              144    0.136    1.247    0.005    0.032        78 07/05/2023 11:56:24 07/03/2023 04:01:06
      REXX.SEAGALT               80    0.204    3.571    0.013    0.025        45 07/05/2023 11:56:20 07/03/2023 07:56:36
      RSRTE.LINKLIB              46    0.378    2.142    0.000    0.000        46 07/05/2023 11:56:20 07/03/2023 07:56:36
      RSRTE.ZSECURE.SCKRLOAD     14    1.177    3.320    0.000    0.000        14 07/05/2023 00:06:46 07/04/2023 00:06:46
      SYS1.CMDLIB              1313    0.199    4.865    0.015    0.750       725 07/05/2023 11:56:24 07/03/2023 04:01:43
```

Module Fetch By Module Name (MFM)

- xxxDASD indicates program fetch versus xxxVLF for LLA fetch

Module Fetch By Job Name (MFJ)

- Module fetch activity summarized by Jobname (has date stamp column)

```
 Display   Filter   View   Print   Options   Search   Help
------------------------------------------------------------------------
SDSF FETCH JOBNAMES   RS79        RS79        ACTIVE             LINE 207-239 (2390)
COMMAND INPUT ===>                                               SCROLL ===> CSR
NP    JOBNAME   Module      Fetch   AvgDASD   MaxDASD   AvgVLF    MaxVLF ASIDX Dataset
      BPXAS     IEFCNAMS       1     0.271     0.271     0.000     0.000 0079  SYS1.LINKLIB
      BPXAS     IEFCNDDV       2     0.266     0.268     0.000     0.000 0079  SYS1.LINKLIB
      BPXAS     IEFIB600     100     0.093     1.657     0.054     1.621 0079  SYS1.LINKLIB
      BPXAS     IEFVH1         2     0.111     0.111     0.088     0.088 0079  SYS1.LINKLIB
      BPXAS     IFAEASIL       1     0.323     0.323     0.000     0.000 0079  SYS1.LINKLIB
      CONSOLE   IEAVC702       8     0.534     0.888     0.000     0.000 000A  SYS1.LINKLIB
      CONSOLE   IEAVG604       1     0.712     0.712     0.000     0.000 000A  SYS1.LINKLIB
      CONSOLE   IEAVG608       9     0.647     1.677     0.000     0.000 000A  SYS1.LINKLIB
      CONSOLE   IEAVG710       4     0.392     0.446     0.000     0.000 000A  SYS1.LINKLIB
      CONSOLE   IEAVM610       4     0.455     0.509     0.000     0.000 000A  SYS1.LINKLIB
      DUMPSRV   ADYDFLT        4     0.349     0.389     0.000     0.000 0005  SYS1.LINKLIB
      DUMPSRV   ADYMSGT        4     0.455     0.562     0.000     0.000 0005  SYS1.LINKLIB
      DUMPSRV   IEAVTSEP      21     0.436     0.751     0.000     0.000 0005  SYS1.LINKLIB
      FTPD1     CEEBINIT       2     0.041     0.041     0.021     0.021 0051  CEE.SCEERUN
      FTPD1     EDCZEMSG       1     0.959     0.959     0.000     0.000 0051  CEE.SCEERUN
```

Module Fetch By Job Name (MFJ)

- FJ action on DA to see Module fetch by Jobname

RACF Panels

RACF Panels

- RACF panels
  - RACF classes (RAC)
  - RACF profiles (RACP)
  - RACF options (RACO)
  - RACF users (RACU)
  - RACF groups (RACG)
- Uses IRRSEQ00 (r_admin) to collect data
  - Access to the panels are controlled using SDSF profiles
    - ISFCMD.ODSP.RACFLIST.sysname in the SDSF class
    - Row actions are controlled by ISFRACF.CLASS.classname.sysname

Note: RACF only, other ESM products not supported

RACF Classes (RAC)

- Display RACF classes and attributes

- Command parameters
  - ACTIVE – Default
  - ALL
  - INACTIVE

```
 Display  Filter  View  Print  Options  Search  Help
 ----------------------------------------------------------------------------------
 SDSF RACF CLASSES   RS79        ACTIVE                   LINE 1-33 (65)
 COMMAND INPUT ===> RAC                                   SCROLL ===> CSR
 NP   NAME     Xref         Active Dynamic MaxLen DfltRC Raclist  Group UACC    Oper Genlist Signal Seclabel IBM Posit KeyQual MAC
      ACCTNUM               YES    NO        39     4    ALLOWED  NO    NONE    NO   NO      NO     NO       YES  126      0 NORMAL
      ACICSPCT BCICSPCT YES NO        13     4    NO       NO    NONE    NO   NO      NO     NO       YES    5      0 NORMAL
      APPL                  YES    NO         8     4    YES      NO    NONE    NO   YES     NO     YES      YES    3      0 EQUAL
      BCICSPCT ACICSPCT YES NO        13     4    NO       YES   NONE    NO   NO      NO     NO       YES    5      0 NORMAL
      CBIND                 YES    NO        41     8    YES      NO    ACEE    NO   NO      NO     NO       YES  545      0 NORMAL
      CCICSCMD VCICSCMD YES NO        21     4    NO       NO    NONE    NO   NO      NO     NO       YES    5      0 NORMAL
      CDT                   YES    NO         8     4    ALLOWED  NO    NONE    NO   NO      YES    NO       YES  572      0 NORMAL
      CFIELD                YES    NO        26     4    NO       NO    NONE    NO   NO      NO     NO       YES  588      0 NORMAL
```

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RACF Profiles (RACP)

- Profiles for a specific class.

- Default is DATASET and class can be passed as parameter in RACP command

RACF Profiles (RACP)

- User can also access RACP panel using L action on RACF classes (RAC)

RACF Profile Access List

- L action on RACP to see RACF Profile Access List

- Access list entries for specific profile is shown

- Special value of "--UACC—" in access list for profile universal access

RACF Connected Groups

- List RACF group that a specific user ID has been connected to.

- RACF connected Group is shown in response to L action on RACU panel

```
   Display   Filter   View   Print   Opt
-------------------------------------------
SDSF RACF PROFILES     RS79        USER
COMMAND INPUT ===> RACU_
NP    Profile
L     TS7897
      TS7897A
```

```
   Display   Filter   View   Print   Options   Search   Help
-----------------------------------------------------------------------------
SDSF RACF CONNECTS     RS79        USER      TS7897           LINE 1-4 (4)
COMMAND INPUT ===>                                           SCROLL ===> CSR
NP    GROUP     Special Operations Auditor Owner    Connected  Class    Profile
      #ZVNEXT   NO      NO         NO      #ZVNEXT  07/27/2022 USER     TS7897
      IZUADMIN  NO      NO         NO      IZUADMIN 05/06/2022 USER     TS7897
      IZUUSER   NO      NO         NO      TS5582   03/17/2022 USER     TS7897
      PDUSER    NO      NO         NO      PDUSER   01/11/2019 USER     TS7897
```

RACF Profile Browse

- Shows detailed RACF profile information for a profile from all segments

- RACF Profile Browse can be access with S action from various RACF panels

- Left Hand Side column shows RACF database template fields

```
  Display   Filter   View   Print   Options   Search
-------------------------------------------------------
SDSF RACF BROWSE   CATALOG.*.MASTER*.**
COMMAND INPUT ===>  _
********************************** TOP OF DATA ***
CLASS    : DATASET
PROFILE  : CATALOG.*.MASTER*.**
SEGMENT  : BASE
   CREATDAT: 05/28/15
   OWNER   : SYS1
   LREFDAT : 05/28/15
   LCHGDAT : 05/28/15
   ACSALTR : 0
   ACSCNTL : 0
   ACSUPDT : 0
   ACSREAD : 0
   UACC    : READ
   GROUPDS : YES
   RAUDIT  : FAILURES(READ)
   GROUPNM : SYSPROG
   DSTYPE  : NON-VSAM
   LEVEL   : 0
   RGAUDIT : NONE
   WARNING : NO
   ERASE   : NO
   ACLCNT  : (REPEAT GROUP)
      ACLID    : SYSPROG
      ACLACS   : ALTER
      ACLID    : SMSVSAM
      ACLACS   : UPDATE
      ACLID    : SUBJCL
      ACLACS   : UPDATE
********************************** BOTTOM OF DATA *
```

```
  Display   Filter   View   Print   Options
-------------------------------------------------
SDSF RACF PROFILES     RS79     DATASET
COMMAND INPUT ===>
NP    Profile
S_    CATALOG.*.MASTER*.**
      CBC.*.**
```

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RACF Options (RACO)

- Show current RACF options

- Data is *similar* to SETROPTS LIST command output

```
  Display   Filter   View   Print   Options   Search   Help
---------------------------------------------------------------------
SDSF RACF OPTIONS   RS79                                    LINE 0
COMMAND INPUT ===>
****************************** TOP OF DATA *************************
RACF GLOBAL OPTIONS AND SETTINGS
  INITSTATS                                      : YES
  TERMINAL UACC                                  : READ
  LOG COMMAND VIOLATIONS                          : YES
  AUDIT OPERATIONS                               : NO
  AUDIT SPECIAL                                  : YES
  AUDIT APPC TRANSACTIONS                         : NO
  AUDIT SECLABEL                                 : NO
  ADD CREATOR TO ACCESS LIST                      : NO
  AUTOMATIC DATA SET PROTECTION                   : NO
  CATALOGUED DATA SETS ONLY                       : NO
  SECLABEL COMPATABILITY                          : NO
  ENHANCED GENERIC NAMING                         : YES
  GENERIC OWNER ONLY                             : YES
  LIST OF GROUPS ACCESS CHECKING                  : YES
  MULTI-LEVEL QUIET                              : NO
  MULTI-LEVEL STABLE                             : NO
```

MEM Enhancements

MEM and MAP Enhancements

- New "RC" action added to **MEM** display to perform a "run chain" to process linked lists

- Memory **MAP** Panel now uses SDSF table display *instead of browse*
  - "D" and "G" actions supported
    - D – Display using 31 bit address
    - G – Display using 64 bit address
  - No longer need "MEMCSR" assigned to PF-Key – still exists – might use on SYSOUT browse
- MVS control block mapping in z/OS 3.1 is provided by SDSF in ISFPRMxx statements
  - z/OS 2.5 used internal structure
- Provides ability for installation/customer to define map for their own structures.
  - Structure definitions externalized to new ISFPRMxx statements.
    - MAP
    - MAPENT
    - MAPOPT
    - MAPDEF

Memory MAP (MEM MAP)

- User can do row action (D & G) and Point and Shoot within address field

- Equated fields shown under associated data

```
   Display  Filter  View  Print  Options  Search  Help
 ------------------------------------------------------------------------------
 SDSF MAP RS79       RS79       SSCT        004E TS7897          LINE 1-20 (20)
 COMMAND INPUT ===>  _                                      SCROLL ===>  CSR
 NP    NAME                    Content                      Off  Key FProt Address            AltContent
       SSCTID                  SSCT                         0000  0  NO   00000000_00C2FBE8  E2E2C3E3
       SSCTSCTA                00C2FC48                     0004  0  NO   00000000_00C2FBEC
       SSCTSNAM                DFRM                         0008  0  NO   00000000_00C2FBF0  C4C6D9D4
       SSCTFLG1                00        B'00000000'        000C  0  NO   00000000_00C2FBF4
       +EQUATED VALUES         --        -----------
       +SSCTSFOR               80        B'10000000'
       +SSCTUPSS               40        B'01000000'
       +SSCTARDR               20        B'00100000'
       +SSCTLDEL               10        B'00010000'
       SSCTSSID                00        B'00000000'        000D  0  NO   00000000_00C2FBF5
       +EQUATED VALUES         --        -----------
       +SSCTJES3               03        B'00000011'
       +SSCTJES2               02        B'00000010'
       +SSCTUNKN               00        B'00000000'
       SSCTRSV1(2)             0000                         000E  0  NO   00000000_00C2FBF6
       SSCTSSVT                00000000                     0010  0  NO   00000000_00C2FBF8
       SSCTSUSE                00000000                     0014  0  NO   00000000_00C2FBFC
       SSCTSYN                 00000000                     0018  0  NO   00000000_00C2FC00
       SSCTSUS2                90000000                     001C  0  NO   00000000_00C2FC04
       SSCTSCTX                00C2FC0C                     0020  0  NO   00000000_00C2FC08
```

MEM MAP

D or G action to invoke MEM on address value in content field

MEM MAP

M action allow user to process linked list in structure format

```
   Display  Filter  View  Print  Options
------------------------------------------------
SDSF MAP RS79        RS79       SSCT        004E
COMMAND INPUT ===>
NP    NAME                      Content
      SSCTID                    SSCT
M_    SSCTSCTA                  00C2FC48
      SSCTSNAM                  DFRM
```

```
   Display  Filter  View  Print  Options  Search  Help
--------------------------------------------------------------------------
SDSF MAP RS79        RS79       SSCT        004E TS7897        LINE 1-20 (20)
COMMAND INPUT ===>                                             SCROLL ===> CSR
NP    NAME                      Content                 Off  Key FProt Address
      SSCTID                    SSCT                    0000   0  NO  00000000_00C2FC48
_     SSCTSCTA                  00C2FCA8                0004   0  NO  00000000_00C2FC4C
      SSCTSNAM                  LOGR                    0008   0  NO  00000000_00C2FC50
      SSCTFLG1                  00      B'00000000'     000C   0  NO  00000000_00C2FC54
      +EQUATED VALUES           --      -----------
      +SSCTSFOR                 80      B'10000000'
      +SSCTUPSS                 40      B'01000000'
      +SSCTARDR                 20      B'00100000'
      +SSCTLDEL                 10      B'00010000'
      SSCTSSID                  00      B'00000000'     000D   0  NO  00000000_00C2FC55
      +EQUATED VALUES           --      -----------
      +SSCTJES3                 03      B'00000011'
```

Example MAP Structure Definition
what installation defined coding would look like

```
MAP NAME(SSCT) REFNAME(IEFJSCVT) LENGTH(36)
  MAPENT FIELD(SSCTID)   LENGTH(4) TYPE(CHAR) OFFSET(0000)
  MAPENT FIELD(SSCTSCTA) LENGTH(4) TYPE(ADDR) OFFSET(0004)
  MAPENT FIELD(SSCTSNAM) LENGTH(4) TYPE(CHAR) OFFSET(0008)
  MAPENT FIELD(SSCTFLG1) LENGTH(1) TYPE(BYTE) OFFSET(000C)
  MAPENT FIELD(SSCTSFOR) LENGTH(1) TYPE(BIT) REF(SSCTFLG1) VALUE(80)
  MAPENT FIELD(SSCTUPSS) LENGTH(1) TYPE(BIT) REF(SSCTFLG1) VALUE(40)
  MAPENT FIELD(SSCTARDR) LENGTH(1) TYPE(BIT) REF(SSCTFLG1) VALUE(20)
  MAPENT FIELD(SSCTLDEL) LENGTH(1) TYPE(BIT) REF(SSCTFLG1) VALUE(10)
  MAPENT FIELD(SSCTSSID) LENGTH(1) TYPE(BYTE) OFFSET(000D)
  MAPENT FIELD(SSCTUNKN) LENGTH(1) TYPE(BIT) REF(SSCTSSID) VALUE(00)
  MAPENT FIELD(SSCTJES2) LENGTH(1) TYPE(BIT) REF(SSCTSSID) VALUE(02)
  MAPENT FIELD(SSCTJES3) LENGTH(1) TYPE(BIT) REF(SSCTSSID) VALUE(03)
  MAPENT FIELD(SSCTRSV1) LENGTH(1) TYPE(HEX) OFFSET(000E),
     DUPLICATION(2)
  MAPENT FIELD(SSCTSSVT) LENGTH(4) TYPE(ADDR) OFFSET(0010)
  MAPENT FIELD(SSCTSUSE) LENGTH(4) TYPE(HEX) OFFSET(0014)
  MAPENT FIELD(SSCTSYN)  LENGTH(4) TYPE(ADDR) OFFSET(0018)
  MAPENT FIELD(SSCTSUS2) LENGTH(4) TYPE(HEX) OFFSET(001C)
  MAPENT FIELD(SSCTSCTX) LENGTH(4) TYPE(HEX) OFFSET(0020)
```

Bitmask value specifies associated byte using "REF"

TYPE(ADDR) makes the value active for memory browse

MEM Run Chain

- RC action on MEM panel cause pop-up to show

```
 Display   Filter   View   Print   Options   Search   Help
--------                                                                    ----------
SDSF MEM           Memory Run Chain Definition                             )
COMMAND                                                                    ===> CSR
NP    ADDR    Type run chain parameters to describe control block.
RC    0000                                                                 ..SSCT.B
      0000    Offset to next pointer    4      (hexadecimal, 000 to FFF)   .........
      0000    Length of next pointer    4      (4 or 8 bytes)              ...B .SSCX
      0000    Number bytes to display  20      (hexadecimal, 001 to 400)   .........
      0000                                                                 .........
      0000    Traversal limit . . . . . 255                               .........
      0000                                                                 ..SSCT.B y
      0000                                                                 .........
      0000     F1=Help      F3=Cancel F12=Cancel                          ...B %SSCX
      0000                                                                 .........
      00000000_00C2FC80 0098 00000000 00000000 00000000 00000000  ................
      00000000_00C2FC90 00A8 00000000 00000000 00000000 00000000  ................
      00000000_00C2FCA0 00B8 00000000 00000000 E2E2C3E3 00C2FD08  ........SSCT.B .
      00000000_00C2FCB0 00C8 D4D7C6E7 00000000 00000000 00000000  MPFX............
      00000000_00C2FCC0 00D8 00000000 00000000 00C2FCCC E2E2C3E7  .........B öSSCX
      00000000_00C2FCD0 00E8 0100003C 00000000 00000000 00000000  ................
```

MEM Run Chain

- Results from run chain show in selectable list using length and limit specified in pop up

- Command line D, G, M possible here

```
  Display   Filter   View   Print   Options   Search   Help
-----------------------------------------------------------------------------
SDSF MEMORY CHAIN RS79          RS79          0086 TS7897          LINE 1-32 (36)
COMMAND INPUT ===>                                                  SCROLL ===> CSR
ACTION=+,/,%,D1,D2,D3,D4,G1,G2,G3,M,S
NP     ADDRESS              Seq Contents                            EBCDIC
       00000000_00C2FBE8      1 E2E2C3E3 00C2FC48 C4C6D9D4 00000000 SSCT.B  DFRM....
       00000000_00C2FBF8        00000000 00000000 00000000 90000000 ............ ...
       00000000_00C2FC48      2 E2E2C3E3 00C2FCA8 D3D6C7D9 00000000 SSCT.B yLOGR....
       00000000_00C2FC58        1A1C2C78 00000000 00000000 00000000 ... ........ ...
       00000000_00C2FCA8      3 E2E2C3E3 00C2FD08 D4D7C6E7 00000000 SSCT.B .MPFX....
       00000000_00C2FCB8        00000000 00000000 00000000 00000000 ................
       00000000_00C2FD08      4 E2E2C3E3 00C2FD68 C4F7F8C1 00000000 SSCT.B  D78A....
       00000000_00C2FD18        1A0C6EF8 1A0C7F58 00C1AAE0 00000000 ..>8.." .A \....
       00000000_00C2FD68      5 E2E2C3E3 00C2FDC8 C4F7F8C2 00000000 SSCT.B HD78B....
       00000000_00C2FD78        1A0C6950 1A0C6B50 00C2FDC8 00000000 .. &..,&.B H....
       00000000_00C2FDC8      6 E2E2C3E3 00C2FE28 C4F7F9C1 00000000 SSCT.B .D79A....
       00000000_00C2FDD8        1A0ADEF8 1A0C68A8 00C1ABA0 00000000 .. 8.. y.A  ....
```

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Other New SDSF Panels

Other New SDSF Panels

- CF   Coupling facilities
- CFSA   CF structure activity
- DASH   Dashboard
- EDT   Eligible device table
- LPAR   Logical partitions
- PLEX   Sysplex systems
- PPT   Program properties

- SMFD   SMF data sets
- SMFO   SMF options
- SMFS   SMF subsystems
- PROD   Registered products
- UCB   Unit control blocks
- XCFA   XCF Application servers
- XCFP   XCF Signalling paths

Coupling Facilities (CF)

- Show all coupling facility defined in the system

- LC action will take to CFC panel filtering on CF name

- LS action will take to CFS panel filtering on CF name

```
 Display  Filter  View  Print  Options  Search  Help
--------------------------------------------------------------------------------
SDSF CF DISPLAY  RS79       RSPLEX0G                        LINE 1-1 (1)
COMMAND INPUT ===> _                                SCROLL ===> CSR
NP    CFNAME    Status    CFLevel Partition Proc SysCount StrCount     Size      Free   StorInc Volatile
      CF85      ACTIVE        25        0    1       4        4      430080    353280      1024 YES
```

```
 Display  Filter  View  Print  Options
-------------------------------------------------
SDSF CF DISPLAY  RS79       RSPLEX0G
COMMAND INPUT ===>
NP    CFNAME    Status    CFLevel Partition
LS_   CF85      ACTIVE        25        0
```

```
 Display  Filter  View  Print  Options  Search
--------------------------------------------------------
SDSF CF STRUCTURES  RS79       RSPLEX0G
COMMAND INPUT ===> _
NP    STRNAME            CFName    Encrypt EncrType
      ISGLOCK            CF85      NO
      IXCLIST1           CF85      NO
```

CF Structure Activity (CFSA)

- Information about synchronous and asynchronous requests for each structure of a coupling facility

- SDSF calls RMF to retrieve information on CF structure activity.

- RMF MON III must be active

```
 Display  Filter  View  Print  Options  Search  Help
 -------------------------------------------------------------------------------
 SDSF CF STRUCTURE ACTIVITY  RS79       RSPLEX0G          LINE 1-8 (8)
 COMMAND INPUT ===>                                   SCROLL ===> CSR
 NP   STRNAME       Type    SysName    SyncRate    SyncAvgTime  AsyncRate    AsyncAvgTime   SyncToAsync% AsyncDelay%
      ISGLOCK       LOCK    RS79           1.08             1     0.00                0           0.00        0.00
      IXCLIST1      LIST    RS79           0.00             0     4.20              436           0.00        0.00
      IXCLIST2      LIST    RS79           0.00             0     4.77              527           0.00        0.00
      OPERLOG       LIST    RS79           0.00             0     0.00                0           0.00        0.00
      ISGLOCK       LOCK    RS86           1.01             1     0.00                0           0.00        0.00
      IXCLIST1      LIST    RS86           0.00             0     4.42              590           0.00        0.00
      IXCLIST2      LIST    RS86           0.00             0     5.30              384           0.00        0.00
      OPERLOG       LIST    RS86           0.00             0     0.00                0           0.00        0.00
```

Dashboard (DASH)

- Display configuration information along with utilization and up to top 5 consumer of system resources

- Default view is DASH INFO

```
  Display   Filter   View   Print   Options   Search   Help
-----------------------------------------------------------------------------------
SDSF DASHBOARD   RS79            RSPLEX0G                      LINE 1-33 (46)
COMMAND INPUT ===>                                       SCROLL ===> CSR
Attribute        Value                              Metric          Measure
-----------------------------------------------------------------------------------
Sysplex          RSPLEX0G                           CPU%                  6
Sysname          RS79                               ZIIP%                 0
Syslevel         z/OS 03.01.00 HBB77E0              Spool%               21
Sysclone         79                                 SIO                   0
SMFID            RS79                               Aux%                  0
JESName          JES2                               RealAFC          686535
JESNode          RSP0                               Real%                44
JESMember        RS79                               PageRate              0
LPAR                                                SysMSU              394
IPLVolser        RZ301A                             AvgMSU                3
IPLDate          2023/07/03-00:59:51                MaxASID             705
IEASYS           RS                                 FreeASID            588
IEASYM           (31,79,L)                          BadASID               0
CVTVERID         ETPBLDE   20Jun23                  TSO                   1
HardwareName     Z16                                Job                   0
CPCNode          003931.A01.IBM.02.000000088DC8     WTOR                  3
Userid           TS7897                             HVComm%              14
ASID             004E                               ECSA%                14
LogonProc        ROCKPROC                           ESQA%                73
Terminal         S79TCP26                           CSA%                 34
JobID            TSU04423                           SQA%                 24
-----------------------------------------------------------------------------------
Spool(1)         USER01TS JOBID(JOB03015)           Spool%(1)             7
```

Dashboard (DASH)

- DASH TOP shows system resources (Spool, Real, (E)CSA, and (E)SQA) first

```
  Display    Filter    View    Print    Options    Search    Help

SDSF DASHBOARD    RS79          RSPLEX0G                      LINE 1-33 (46)
COMMAND INPUT ===>                                           SCROLL ===> CSR
Attribute         Value                                  Metric        Measure
--------------------------------------------------------------------------------
Spool(1)          USER01TS  JOBID(JOB03015)              Spool%(1)           7
Spool(2)          TS7897    JOBID(TSU04340)              Spool%(2)           5
Spool(3)          TS5485A   JOBID(TSU04182)              Spool%(3)           4
Spool(4)          SDSFKJ    JOBID(STC04185)              Spool%(4)           3
Spool(5)          TS5479    JOBID(TSU03447)              Spool%(5)           1
--------------------------------------------------------------------------------
Real(1)           ZFS       ASID(001F)  OWNER(++++++++)  Real%(1)           15
Real(2)           GRS       ASID(0007)  OWNER(++++++++)  Real%(2)            1
Real(3)           OMVS      ASID(0010)  OWNER(++++++++)  Real%(3)            1
Real(4)           TCPIP     ASID(0058)  OWNER(TCPIP   )  Real%(4)            1
Real(5)           RMF       ASID(0059)  OWNER(RMF     )  Real%(5)            1
--------------------------------------------------------------------------------
ECSA(1)           *MASTER*  ASID(0001)  OWNER(+MASTER+)  ECSA%(1)            4
--------------------------------------------------------------------------------
ESQA(1)           *MASTER*  ASID(0001)  OWNER(+MASTER+)  ESQA%(1)            8
ESQA(2)           RMFGAT    ASID(0077)  OWNER(RMF     )  ESQA%(2)            5
ESQA(3)           XCFAS     ASID(0006)  OWNER(++++++++)  ESQA%(3)            2
ESQA(4)           WLM       ASID(000B)  OWNER(++++++++)  ESQA%(4)            1
--------------------------------------------------------------------------------
CSA(1)            MXIMAST   ASID(005C)  OWNER(MXISTC  )  CSA%(1)             4
CSA(2)            *MASTER*  ASID(0001)  OWNER(+MASTER+)  CSA%(2)             2
--------------------------------------------------------------------------------
SQA(1)            *MASTER*  ASID(0001)  OWNER(+MASTER+)  SQA%(1)             2
--------------------------------------------------------------------------------
Sysplex           RSPLEX0G                                CPU%                7
```

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Dashboard (DASH) as Main Menu

- User can set DASH panel as main menu using "SET MAIN DASH" command.

- To go back to table main menu use "SET MAIN TABLE" command.

- Use MENU command to display tabular menu

```
 Display  Filter  View  Print  Options  Search  Help
-------------------------------------------------------------
SDSF MENU 3.1     RSPLEX0G   RS79
COMMAND INPUT ===> SET MAIN DASH_
NP    NAME      Description              Group     Status
      DA        Active users             Jobs
      I         Input queue              Jobs
      O         Output queue             Output
      H         Held output queue        Output
      ST        Status of jobs           Jobs
      JG        Job groups               JES
```

```
 Display  Filter  View  Print  Options  Search  Help
-------------------------------------------------------------
SDSF DASHBOARD  RS79       RSPLEX0G          SET COMMAND COMPLETE
COMMAND INPUT ===> _                             SCROLL ===> CSR
Attribute    Value                     Metric        Measure
-------------------------------------------------------------
Sysplex      RSPLEX0G                  CPU%               1
Sysname      RS79                      zIIP%              0
Syslevel     z/OS 03.01.00 HBB77E0     Spool%            19
Sysclone     79                        SIO               10
SMFID        RS79                      Aux%               0
JESName      JES2                      RealAFC       684153
JESNode      RSP0                      Real%             44
JESMember    RS79                      PageRate           0
LPAR                                   SysMSU           394
IPLVolser    RZ301A                    AvgMSU             3
```

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Eligible Device Table (EDT)

- Display installation-defined I/O devices that are eligible for allocation

- Use L action to invoke new UCB display for the unit name

```
 Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------------
SDSF EDT DISPLAY RS79       RS79                         LINE 1-33 (42)
COMMAND INPUT ===>                                       SCROLL ===> CSR
NP    UNITNAME Type       DevClass DevCount VIO Token    SysName   SysLevel
      CXCART   ESOTERIC TAPE            16 NO  00028000 RS79      z/OS 03.01.00 HBB77E0
      CXCLOUD  ESOTERIC TAPE             8 NO  000B8000 RS79      z/OS 03.01.00 HBB77E0
      CXLARGE  ESOTERIC TAPE             8 NO  00098000 RS79      z/OS 03.01.00 HBB77E0
      CXOAM    ESOTERIC TAPE             8 NO  00168000 RS79      z/OS 03.01.00 HBB77E0
      CXSMALL  ESOTERIC TAPE             8 NO  000A8000 RS79      z/OS 03.01.00 HBB77E0
      DASD     ESOTERIC DASD         28778 YES 00032000 RS79      z/OS 03.01.00 HBB77E0
      DASDGLO  ESOTERIC DASD             1 NO  000F2000 RS79      z/OS 03.01.00 HBB77E0
      EXCLDA   ESOTERIC DASD             3 NO  000D2000 RS79      z/OS 03.01.00 HBB77E0
      FBA      GENERIC  UNITREC        256 NO  00000860 RS79      z/OS 03.01.00 HBB77E0
      FBADASD  ESOTERIC UNITREC        256 NO  00180800 RS79      z/OS 03.01.00 HBB77E0
      IQD      GENERIC  CTC            540 NO  00004107 RS79      z/OS 03.01.00 HBB77E0
      OSA      GENERIC  CTC            474 NO  00004105 RS79      z/OS 03.01.00 HBB77E0
      OSAD     GENERIC  CTC              1 NO  00004106 RS79      z/OS 03.01.00 HBB77E0
      RBRNSMS  ESOTERIC DASD             2 NO  000E2000 RS79      z/OS 03.01.00 HBB77E0
      SWCH     GENERIC  UNITREC          4 NO  0000083A RS79      z/OS 03.01.00 HBB77E0
```

Unit Control Blocks (UCB)

- Use L action on EDT panel to see UCB for a device name
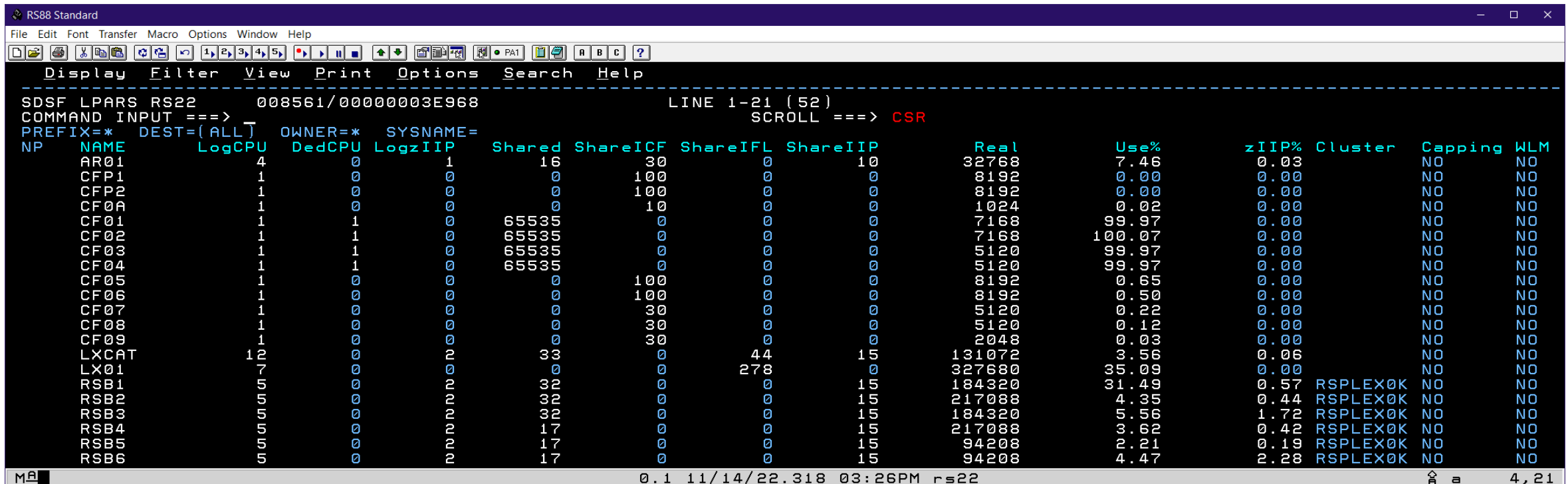
Unit Control Blocks (UCB)

- Display status and information for static and dynamic UCB

- Show online UCB by default.

- Use command parameter OFF|OFFLINE for offline and A|ALL for ALL UCB

```
 Display  Filter  View  Print  Options  Search  Help
-------------------------------------------------------------------------------
SDSF UCB DISPLAY RS79        RS79        ONLINE               LINE 1-33 (260)
COMMAND INPUT ===>                                         SCROLL ===> CSR
NP   UNIT DevType  VolSer DevClass Status  SMS EAV Loc UCB       UCBPDATA UCBCMEXT UCBType  Paths               OfflinePaths
     000C 2540            UNITREC  ONLINE           24  00F1B140  00F1B118 02BA9D70 10000801 03
     000E 1403            UNITREC  ONLINE           24  00F1B180  00F1B158 02BA9DA0 10000808 03
     1100 OSA             CTC      ONLINE           31  02656B70  02656B48 02BB7B70 00004105 03
     1101 OSA             CTC      ONLINE           31  02656BC0  02656B98 02BB7BA0 00004105 03
     1102 OSA             CTC      ONLINE           31  02656C10  02656BE8 02BB7BD0 00004105 03
     5003 3390-3  RZ301S  DASD     ONLINE  NO  NO   31  026B57A8  026B5780 02BD2F00 3030200F 32,38,3F,40,39,3A,41,42
     5081 3390-9  R3P1D3  DASD     ONLINE  NO  NO   31  026BAB98  026BAB70 02BD46A0 3030200F 32,38,3F,40,39,3A,41,42
     50C4 3390-3  SFPG01  DASD     ONLINE  NO  NO   31  026BD850  026BD828 02BD5330 3030200F 32,38,3F,40,39,3A,41,42
     510F 3390-3  RZ205S  DASD     ONLINE  NO  NO   31  026BF508  026BF4E0 02BD5B40 3030200F 32,38,3F,40,39,3A,41,42
     5170 3390-9  R3L100  DASD     ONLINE  NO  NO   31  026C35B0  026C3588 02BD6D70 3030200F 32,38,3F,40,39,3A,41,42
     5491 3390-3  JSPG61  DASD     ONLINE  NO  NO   31  026E0B98  026E0B70 02BDF1A0 3030200F 32,38,3F,40,39,3A,41,42
     5493 3390-3  JSPG81  DASD     ONLINE  NO  NO   31  026E0CE8  026E0CC0 02BDF200 3030200F 32,38,3F,40,39,3A,41,42
```

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Logical Partitions (LPAR)

- SDSF calls RMF to retrieve information about LPAR

- Usage percentage based on last RMF interval

- RMF MON III must be active and command not applicable on VM guest

Sysplex Systems (PLEX)

- Display information about the sysplex

- Use various L actions to invoke sysplex related display filtered by system name

```
  Display  Filter  View  Print  Options  Search  Help
 --------------------------------------------------------------------------
SDSF SYSPLEX DISPLAY  RS79       RSPLEX0G                    LINE 1-3 (3)
COMMAND INPUT ===>                                        SCROLL ===> CSR
NP    SYSTEM    Status        Status-Time          MonitorTime OperatorTime LPAR CloneID
      RS79      ACTIVE        07/05/2023 00:55:29       16500       16800    79
      RS86      ACTIVE        07/05/2023 00:55:28       16500       16800    86
      RS87      ACTIVE        07/05/2023 00:55:28       16500       16800    87
```

Program Properties Table (PPT)

- Display entries in program properties table

- Both IBM supplied and SCHEDxx specifications are shown

```
  Display   Filter   View   Print   Options   Search   Help
-------------------------------------------------------------------------------
SDSF PROGRAM PROPERTIES RS79          RS79                          LINE 1-33 (116)
COMMAND INPUT ===>                                                  SCROLL ===> CSR
NP      MODULE    NoCancel  NonSwap  Privileged  SysTask  NoDSI  NoPass  Key  SPref  LPref
        AHLGTF    YES       YES      NO          YES      NO     NO      0    NO     NO
        ANFFIEP   NO        YES      NO          YES      YES    NO      1    NO     NO
        APSHPOSE  NO        YES      NO          YES      YES    NO      1    NO     NO
        APSKAFPD  NO        YES      NO          YES      YES    NO      1    NO     NO
        APSPPIEP  NO        YES      NO          YES      YES    NO      1    NO     NO
        ASBSCHIN  NO        YES      NO          YES      NO     NO      1    YES    YES
        ASBSCHWL  NO        NO       YES         NO       NO     NO      1    NO     NO
        ATBINITM  NO        YES      NO          YES      NO     NO      1    YES    YES
        ATBSDFMU  NO        NO       YES         NO       NO     NO      1    NO     NO
        AVFMNBLD  YES       YES      NO          YES      NO     NO      3    NO     NO
        AXRINIT   YES       NO       YES         NO       NO     NO      8    NO     NO
        AXRRXTSS  NO        NO       YES         NO       NO     NO      8    NO     NO
        BBOCTL    NO        YES      YES         YES      NO     NO      2    NO     NO
        BBODAEMN  NO        YES      YES         YES      NO     NO      2    NO     NO
        BBOSMS    NO        YES      YES         YES      NO     NO      2    NO     NO
        BHII1TPC  YES       NO       YES         YES      NO     NO      0    NO     NO
        BNJLINTX  NO        YES      NO          NO       NO     NO      8    NO     NO
        BPEINI00  NO        YES      NO          YES      NO     NO      7    NO     NO
        BPXBATA2  NO        NO       YES         NO       NO     NO      2    NO     NO
        BPXINIT   YES       YES      NO          YES      NO     NO      0    NO     NO
        BPXPINPR  YES       NO       NO          YES      NO     NO      8    YES    YES
        BPXVCLNY  NO        YES      YES         YES      NO     YES     8    NO     NO
```

Registered Products (PROD)

- Display registered product or enablement information

- Command parameter

  - STATE – Default (enablement)
  - REG
  - ALL

```
 Display  Filter  View  Print  Options  Search  Help
------------------------------------------------------------------------------
SDSF PROD DISPLAY RS79        RS79        STATE                   LINE 9-15 (15)
COMMAND INPUT ===>                                        SCROLL ===> CSR
NP    PRODUCT           State     Owner    Feature          Version   ProdID    Type   Instances
      zSecure Verifier DISABLED  IBM CORP *                 * .* .*  5655-N19 STATE          0
      zSecure Visual   DISABLED  IBM CORP *                 * .* .*  5655-N20 STATE          0
      IBM APP DLIV FND DISABLED  IBM CORP *                 * .* .*  5655-AC6 STATE          0
      IBM APP DLIV FND ENABLED   IBM CORP FILE-MANAGER      * .* .*  5655-AC6 STATE          0
      IBM IDZ          DISABLED  IBM CORP *                 * .* .*  5724-T07 STATE          0
```

SMF Data Sets (SMFD)

- Display current SMF data set information


```
 Display  Filter  View  Print  Options  Search  Help
 -------------------------------------------------------------------------------
 SDSF SMF DATA SETS RS79        RS79                          LINE 1-3 (3)
 COMMAND INPUT ===>                                     SCROLL ===> CSR
 NP   DSNAME          Status         Blocks      Used  Use% Volser CRDate       CISize
      RS79.MAN1       ALTERNATE       27000         0  0.00 SFPG00 2019.057       4096
      RS79.MAN2       ACTIVE          27000       494  1.82 SFPG00 2019.057       4096
      RS79.MAN3       ALTERNATE       27000         0  0.00 SFPG00 2019.057       4096
```

SMF Options (SMFO)

- Display current SMF option information

```
 Display  Filter  View  Print  Options  Search  Help
 ---------------------------------------------------------------------
 SDSF SMF OPTIONS RS79      RS79                        LINE 1-1 (1)
 COMMAND INPUT ===>                                     SCROLL ===> CSR
 NP   ID   Option    Member   IntVal   SyncVal    FloodSupport NoBuffs BufUseWarn SMCA     SMCX      LogStream
      RS79 DATASET   SMFPRMRS 15       00         NO           MSG            25 00FAA808 023CE090
```

SMF Subsystem (SMFS)

- Display current SMF subsystem information

- SDSF requires IEFU86 for ELOG

```
  Display  Filter  View  Print  Options  Search  Help
---------------------------------------------------------------------------------
SDSF SMF SUBSYSTEMS RS79       RS79                       LINE 1-3 (3)
COMMAND INPUT ===>                              SCROLL ===> CSR
NP   SUBSYS Detail IntVal IEFACTRT IEFU29 IEFU29L IEFU83 IEFU84 IEFU85 IEFU86 IEFUAV IEFUJI IEFUJP IEFUJV IEFUSI IEFUSO IEFUTL
     JES2   NO            YES      NO     NO      NO     NO     NO     YES    NO     NO     NO     NO     YES    NO     NO
     STC    NO            NO       NO     NO      YES    YES    NO     YES    NO     NO     YES    NO     NO     YES    NO
     SYS    NO            YES      NO     NO      YES    YES    NO     YES    NO     YES    NO     NO     YES    NO     NO
```

XCF Application Servers (XCFA)

- Show detailed XCF application server information

- SDSF uses XCF application server to provide cross-system data gathering

```
 Display  Filter  View  Print  Options  Search  Help
------------------------------------------------------------------------------
SDSF XCF APPLICATION SERVERS RS79      RSPLEX0G          LINE 22-54 (72)
COMMAND INPUT ===>                                        SCROLL ===> CSR
NP   SERVER                     InstanceNum System  Status       Requests Description                    FDI JobName   ASID
     SYSXCF.IXCNOPAD                     1 RS79     IDLE              11 XCF Note Pad Server Task        120 XCFAS         6
     SYSXCF.IXCREQ                       1 RS79     WORKING            1 XCF Server for IXCREQ Requests  120 XCFAS         6
     SYSXCF.SMF1154.COLLECTR             1 RS79     IDLE               0 XCF Server for Compliance Data  120 XCFAS         6
     CEA                                 1 RS86     IDLE               0 CEA Communications Server       120 CEA          26
     HSF.HSFIXC                         25 RS86     IDLE               0 SDSF IXC SERVER                 120 SDSFAUX      127
     HSF.HSFIXC                         26 RS86     IDLE               0 SDSF IXC SERVER                 120 SDSFAUX      127
     HSF.HSFIXC                         27 RS86     IDLE               0 SDSF IXC SERVER                 120 SDSFAUX      127
     HSF.HSFIXC                         28 RS86     IDLE               0 SDSF IXC SERVER                 120 SDSFAUX      127
     HSF.HSFIXC                         29 RS86     IDLE               0 SDSF IXC SERVER                 120 SDSFAUX      127
     HSF.HSFIXC                         30 RS86     IDLE               1 SDSF IXC SERVER                 120 SDSFAUX      127
     HZR.RS86                            1 RS86     IDLE               0 HZR to HZR communications server 120 HZR         32
     ICSF.OPERATOR.COMMAND.SERVER        1 RS86     IDLE               0 ICSF COMMAND CLIENT SERVER TASK 120 CSF         89
```

XCF Signaling Paths (XCFP)

- Signaling path status and statics information

```
 Display  Filter  View  Print  Options  Search  Help
----------------------------------------------------------------------------------
SDSF XCF SIGNALING PATHS RS79      RSPLEX0G              LINE 1-12 (12)
COMMAND INPUT ===>                                         SCROLL ===> CSR
NP    STRNAME         RemoteSys Status       Type     SignalCount UnusedPath RefuseCount RetryLimit RetryCount RestartCount
      IXCLIST1                  WORKING       PATHIN            0         50           0         10          0            1
      IXCLIST1                  WORKING       PATHOUT           0         50                      10          0            1
      IXCLIST1        RS86      WORKING       PATHIN       141434         19           0         10          0            3
      IXCLIST1        RS86      WORKING       PATHOUT      125842         18                      10          0            2
      IXCLIST1        RS87      WORKING       PATHIN       206919         10           0         10          0            3
      IXCLIST1        RS87      WORKING       PATHOUT      197217         11                      10          0            4
      IXCLIST2                  WORKING       PATHIN            0         50           0         10          0            1
      IXCLIST2                  WORKING       PATHOUT           0         50                      10          0            1
      IXCLIST2        RS86      WORKING       PATHIN       127047         19           0         10          0            3
      IXCLIST2        RS86      WORKING       PATHOUT      123448         18                      10          0            2
      IXCLIST2        RS87      WORKING       PATHIN       214967         10           0         10          0            3
      IXCLIST2        RS87      WORKING       PATHOUT      213012         11                      10          0            4
```

Useability Enhancements

Extended Field Highlighting

- Fields on numerous panels now utilize extended highlighting

- Colour change for both character and numerical data depending on value

- Thresholds and ranges currently use internal definitions

- Examples

    - Non-zero return codes on ST and H

    - Percentage values on displays like DA and SMSG

    - Access level permitted for RACF profile

    - Number of extents for data set

Extended Field Highlighting - Examples

MAX-RC highlight improves ability to see failing jobs immediately

```
SDSF STATUS DISPLAY ALL CLASSES
COMMAND INPUT ===>
NP    JOBNAME    Max-RC        SrvClass
      TS7897
      TS7897     SYS FAIL
      TS7897     ABEND S622
      TS7897     CC 0000
      TS7897     CC 0000
      TS7897     CC 0000
      TS7897     ABEND S622
      TS7897I    JCL ERROR
```

```
Display   Filter   View   Print   Opt
---------------------------------------
SDSF SMS STORAGE GROUPS   RS79      R
COMMAND INPUT ===>
NP    NAME        TotalMB  Used%  FreeMB
      DB2G1            0    0.00       0
      DMPG1         5414   26.19    3996
      EMCCXSG          0    0.00       0
      RCKG1         2707   98.67      36
      SBXG1            0    0.00       0
      SYSG1         2707   84.63     416
      SYSG2         5414   63.15    1995
      TSOG1        16240   82.31    2872
      WRKG1         2707    0.77    2686
      ZFSG1        16241   26.44   11946
```

Percentage value highlight helps to spot usage easily

Extended Field Highlighting - Examples

Enhancement to certain browse style panels to highlight individual records

Notable New Columns

- AD (Address space diagnosis)

  - RAX   RAX address
  - RAX64   RAX64 address

- AS (Address space storage)

  - DMEM   Dedicated memory
  - DMEMPCT   Dedicated memory percent used

- FS (File systems)

  - SETUID   SetUID can be issued (Yes/No)

- JES (JES2 subsystems)

  - CKPTLEV   Checkpoint level

- JMO (Address space memory objects)

  - REAL   Real storage frames backing memory object
  - AUX   Auxiliary storage slots occupied by memory object
  - HASN   Home ASID when memory object created (HVCOMM)
  - PASN   Primary ASID when memory object created (HVCOMM)

- SYS (System information)

  - DMEM   Dedicated memory
  - DMEMPCT   Dedicated memory percent used

- TCB (Job tasks)

  - ACEE   ACEE address for task

Notable New Action Characters

- WLM class panels

  - L   Invoke DA with WLM class as filter

- DA (Active address spaces)

  - FJ   Module fetch activity by job name

- APF (APF data sets) and LNK (link list data sets)

  - FD   Module fetch activity for data set name
  - FJ   Module fetch activity by job names for data set

- MEM (Memory display)

  - RC   Perform "run-chain" for linked list

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