z/OS SDSF Hidden Treasures

August 17, 2023

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Agenda

- General Tips
- Tables
- Slash command
- Browse (next, prev, defaults, findlim)
- Using sectrace
- REXX (rgen, stems)

GENERAL TIPS

General Tips

- Use **SET DISPLAY ON** to show current settings of your prefix and owner
- Use **SET ACTION ON|SHORT** to display valid action characters
- Use **PREFIX **** and **OWNER** *userid* to default to your own jobs
  - PREFIX ** is a special case so the H panel will display all jobs
- Use **SET SCREEN** to change display attributes

Display Values

- Use SET DISPLAY ON to show your current prefix and owner
- Saved in ISPF profile

Tip: **ON** is the default

Display Action Characters

- Use **SET ACTION <u>ON</u> | OFF | SHORT** to display valid action characters for the panel
- Saved in the ISPF profile

TABLES

Table Tips

- Fast filter rows (SELECT command)
- Position to start of column (LOCATE command)
- Reorder columns and change width (ARRANGE command)
- Show contents of row (/ action)
- Advanced filter rows (FILTER command)
- Printing and copying a table (SNAP command)
- Block and repeat overtypes (// and = actions)
- Overtype multiple values in same column (+ overtype)
- Run REXX exec against row (% action)
- Change NP column width (+ action or ARRANGE command)
- Actions and overtypes from the command line
- Point-and-shoot
- Searching data set lists (SRCH)

Fast Path Select

- Probably the best hidden treasure in the product !
- **SELECT | S *pattern1 [pattern2]***
  - Use S with no operands to reset
- Temporary filter while accessing table
- Not saved in profile or across commands
- Usually names a fixed field pattern
  - Operands vary based on panel
- Overrides prefix and owner is authorized
  - Use instead of changing your PREFIX when you want to filter jobs

Fast Path Select


```
 Display  Filter  View  Print  Options  Search  Help
-------------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                      LINE 1-26 (572)
COMMAND INPUT ===> s r*                              SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*    SYSNAME=*
NP   JOBNAME   JobID    Owner    Prty Queue       C Pos    SAff  ASys Status
     TS5485    TSU05627 TS5485     15 EXECUTION            RS85  RS85
     BPXAS     STC05353 BPXAS      15 EXECUTION            RS86  RS86
     SYSLOG    STC05354 +MASTER+   15 EXECUTION            RS86  RS86
     VTAM      STC05355 VTAM       15 EXECUTION            RS86  RS86
```

Filters all jobs that start with R

```
 Display  Filter  View  Print  Options  Search  Help
-------------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                      LINE 1-15 (15)
COMMAND INPUT ===>                                   SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*    SYSNAME=*
NP   JOBNAME   JobID    Owner    Prty Queue       C Pos    SAff  ASys Status
     RACF      STC05420 RACF       15 EXECUTION            RS86  RS86
     RACF      STC05510 RACF       15 EXECUTION            RS85  RS85
     RMF       STC05514 RMF        15 EXECUTION            RS85  RS85
```

Fast Path Select by Job Number

```
   Display  Filter  View  Print  Options  Search  Help
--------------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                         LINE 1-26 (563)
COMMAND INPUT ===> s 5522                               SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*   SYSNAME=*
NP    JOBNAME   JobID     Owner   Prty Queue      C Pos   SAff  ASys Status
      TS5485    TSU05627  TS5485    15 EXECUTION           RS85  RS85
      BPXAS     STC05353  BPXAS     15 EXECUTION           RS86  RS86
      SYSLOG    STC05354  +MASTER+  15 EXECUTION           RS86  RS86
      VTAM      STC05355  VTAM      15 EXECUTION           RS86  RS86
```

Select by job number

```
   Display  Filter  View  Print  Options  Search  Help
--------------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                         LINE 1-1 (1)
COMMAND INPUT ===>                                      SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*   SYSNAME=*
NP    JOBNAME   JobID     Owner   Prty Queue      C Pos   SAff  ASys Status
      SUBRTE    STC05522  SUBJCL     1 PRINT          376
```

Fast Path Select Override

```
 Display  Filter  View  Print  Options  Search  Help
------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-14 (14)
COMMAND INPUT ===> s rmf                            SCROLL ===> HALF
PREFIX=TS5485   DEST=(ALL)  OWNER=*  SYSNAME=*
NP   JOBNAME  JobID    Owner   Prty Queue       C Pos   SAff  ASys Status
     TS5485   TSU05627 TS5485    15 EXECUTION            RS85  RS85
     TS5485   TSU04454 TS5485     1 PRINT           3               PRIVILEGED
     TS5485   TSU04596 TS5485     1 PRINT           4
```

Override prefix and owner and select all RMF jobs

```
 Display  Filter  View  Print  Options  Search  Help
------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-5 (5)
COMMAND INPUT ===>                                  SCROLL ===> HALF
PREFIX=TS5485   DEST=(ALL)  OWNER=*  SYSNAME=*
NP   JOBNAME  JobID    Owner   Prty Queue       C Pos   SAff  ASys Status
     RMF      STC05514 RMF       15 EXECUTION            RS85  RS85
     RMF      STC04883 RMF        1 PRINT         212
     RMF      STC05042 RMF        1 PRINT         215
```

Fast Path Select Override Examples

Panel	Operands
DA, I, O, ST, H, AS	jobname [jobid] jobname [jobnumber] jobnumber
JDS	ddname [stepname] ddname [dsid] dsid
Job Dependency	Jobname [jobid] May match JOBNAME (jobid) or DJobName (DJobID) columns
Job Device	fixedfield (dataset, crstructurename, ipaddr)
Job Group	groupname [groupid]
Job Step	stepname [procstep]

Locate Column

- **LOCATE | L *column-name***
- Used to position to a column
- Instead of left/right scrolling
- Aligns the column first just after fixed field
- Specify enough characters to uniquely name column
- If name not unique, positions to first column name that matches

Locate Column


```
   Display  Filter  View  Print  Options  Search  Help
---------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                      LINE 711-718 (718)
COMMAND INPUT ===> locate tgpct                      SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
NP   JOBNAME   JobID      Owner     Prty Queue     C Pos    SAff  ASys Status
     SMFSWTCH  STC05592   SMFDMP       1 PRINT        556
     LOGREC86  JOB05593   SUBJCL       1 PRINT      A  557
     SUBRTE    STC05594   SUBJCL       1 PRINT        558
```

```
   Display  Filter  View  Print  Options  Search  Help
---------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                      LINE 711-718 (718)
COMMAND INPUT ===>                                   SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
NP   JOBNAME   TGPct OrigNode ExecNode Device        Offs Max-RC    SrvCl
     SMFSWTCH  0.00  LOCAL    LOCAL                        CC 0000
     LOGREC86  0.00  LOCAL    LOCAL                        CC 0000
     SUBRTE    0.00  LOCAL    LOCAL                        CC 0000
```

Tgpct column is positioned first

Arrange Columns

- Use arrange command to re-order columns (saved in ISPF profile)
- **arr ?** to display pop-up (most commands use ? to display the pop-up)
- Use command for quick changes
  - **arr *column-name* first**
  - **arr *column-name* last**
  - **arr *column-name1* a *column-name2*** (after)
  - **arr *column-name1* b *column-name2*** (before)
  - **arr default** (to reset to default arrangement)
- Use special column name **.end** to hide columns
  - **arr .end a saff** (All columns after SAff will be hidden)
- Can also change column widths (**arr *column-name nn***)
- Specify enough characters in *column-name* to make it unique

Arrange first


```
 Display  Filter  View  Print  Options  Search  Help
-------------------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                       LINE 711-715 (715)
COMMAND INPUT ===> arr phasename first                   SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
NP    JOBNAME   JobID    Owner    Prty Queue       C Pos    SAff  ASys Status
      SMFSWTCH  STC05592 SMFDMP      1 PRINT          556
      LOGREC86  JOB05593 SUBJCL      1 PRINT        A 557
      SUBRTE    STC05594 SUBJCL      1 PRINT          558
```

```
 Display  Filter  View  Print  Options  Search  Help
-------------------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                       LINE 711-715 (715)
COMMAND INPUT ===>                                       SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
NP    JOBNAME   PhaseName           JobID    Owner    Prty Queue       C Pos    SA
      SMFSWTCH  AWAITING OUTPUT     STC05592 SMFDMP      1 PRINT          556
      LOGREC86  AWAITING OUTPUT     JOB05593 SUBJCL      1 PRINT        A 557
      SUBRTE    AWAITING OUTPUT     STC05594 SUBJCL      1 PRINT          558
```

Phasename column has been arranged after fixed field

Arrange after

```
 Display  Filter  View  Print  Options  Search  Help
------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                      LINE 711-715 (715)
COMMAND INPUT ===> arr max-rc a jobid                     SCROLL ===> HALF
PREFIX=**  DEST=(ALL)   OWNER=*   SYSNAME=*
NP   JOBNAME  JobID     Owner     Prty Queue      C Pos   SAff  ASys Status
     SMFSWTCH STC05592 SMFDMP       1 PRINT          556
     LOGREC86 JOB05593 SUBJCL       1 PRINT        A 557
```

```
 Display  Filter  View  Print  Options  Search  Help
------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                      LINE 711-715 (715)
COMMAND INPUT ===>                                        SCROLL ===> HALF
PREFIX=**  DEST=(ALL)   OWNER=*   SYSNAME=*
NP   JOBNAME  JobID     Max-RC    Owner     Prty Queue      C Pos   SAff  ASys S
     SMFSWTCH STC05592 CC 0000    SMFDMP      1 PRINT          556
     LOGREC86 JOB05593 CC 0000    SUBJCL      1 PRINT        A 557
```

Arrange Hidden Columns

Show Contents of Row

- Action to show all columns for single row in vertical scrollable table
- Enter / in NP against table row
  - Not to be confused with the primary slash command for operator commands
- ISPF Pop-up panel displayed showing title and value for all columns in scrollable area
  - Locate available
  - Can suppress null/blank columns

Show Row Contents

Filters

- Use filter command to select rows to be displayed
  - Applied after prefix, owner, dest, sysname
  - Filters are saved in ISPF profile
- Use pop-up when entering multiple filters
- Simplified command
  - Single column
  - Operator is EQ
- For example, **fil jobn bpx*** will filter jobs starting with **bpx**
  - Use enough characters to make column name unique
- Use **fil off** to turn off filtering

Filters

```
 Display  Filter  View  Print  Options  Search  Help
----------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (563)
COMMAND INPUT ===> fil jobn bpx*                     SCROLL ===> HALF
PREFIX=** DEST=(ALL)  OWNER=*  SYSNAME=*
NP   JOBNAME  JobID    Owner    Prty Queue        C Pos  SAff  ASys Status
     TS5485   TSU05627 TS5485    15 EXECUTION             RS85  RS85
     BPXAS    STC05353 BPXAS     15 EXECUTION             RS86  RS86
     SYSLOG   STC05354 +MASTER+  15 EXECUTION             RS86  RS86
```

Least characters to make column name unique and EQ omitted

```
 Display  Filter  View  Print  Options  Search  Help
----------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (50)
COMMAND INPUT ===>                                   SCROLL ===> HALF
PREFIX=** DEST=(ALL)  OWNER=*  SYSNAME=*  FILTERS=1
NP   JOBNAME  JobID    Owner    Prty Queue        C Pos  SAff  ASys Status
     BPXAS    STC05353 BPXAS     15 EXECUTION             RS86  RS86
     BPXAS    STC05389 BPXAS     15 EXECUTION             RS86  RS86
     BPXAS    STC05390 BPXAS     15 EXECUTION             RS86  RS86
     BPXAS    STC05498 BPXAS     15 EXECUTION             RS85  RS85
```

Panel being filtered

Only jobs passing filter are shown

Filters

```
 Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (50)
COMMAND INPUT ===> fil off                         SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*  FILTERS=1
NP   JOBNAME  JobID    Owner    Prty Queue        C Pos   SAff  ASys Status
     BPXAS    STC05353 BPXAS      15 EXECUTION             RS86  RS86
     BPXAS    STC05389 BPXAS      15 EXECUTION             RS86  RS86
     BPXAS    STC05390 BPXAS      15 EXECUTION             RS86  RS86
```

Turn filters off

```
 Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (563)
COMMAND INPUT ===>  fil ?                           SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
NP   JOBNAME  JobID    Owner    Prty Queue        C Pos   SAff  ASys Status
     TS5485   TSU05627 TS5485     15 EXECUTION             RS85  RS85
     BPXAS    STC05353 BPXAS      15 EXECUTION             RS86  RS86
```

Show filters pop-up

Filters

```
 Display  Filter  View  Print  Options  Search  Help
--------                                                           ---
SDSF STA  |                       Filter              Row 1 to 9 of 25
COMMAND   |  Command ===> _____    ALF
PREFIX=*  |
NP    JOB |  Type filter criteria. Press F4/16 in the Column or Oper
      TS5 |  field for values, or in the Value field for system symbols.
      BPX |  Press F11/23 to clear all filter criteria.
      SYS |
      VTA |  Filtering is  OFF
      HZS |
      INI |  AND/OR between columns    AND   (AND/OR)
      INI |  AND/OR within a column    OR    (AND/OR)
      INI |
      INI |  Column              Oper  Value (may include * and %)
      INI |  JOBNAME _____    EQ    BPX* _____
      INI |  _____    __    _____
      INI |  _____    __    _____
      INI |  _____    __    _____
      INI |  _____    __    _____
      INI |  _____    __    _____
      INI |  _____    __    _____
      INI |  _____    __    _____
      INI |
```

Filter pop-up retains prior filters. Press enter to restore or change filters.

Printing and Copying a Table

- Use SNAP command to capture a table
  - Print the table
  - Edit the table and save for another application
- SNAP formats all rows and columns of the table
  - Optionally change the editor using **SNAP S | SB | SE | SV**
  - Change edit default using **SET SNAP S | SB | SE | SV**

Printing a Table

```
 Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (563)
COMMAND INPUT ===> snap                            SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*      SYSNAME=*
NP    JOBNAME   JobID     Owner     Prty Queue       C Pos   SAff  ASys Status
      TS5485    TSU05627 TS5485      15 EXECUTION            RS85  RS85
      BPXAS     STC05353 BPXAS       15 EXECUTION            RS86  RS86
      SYSLOG    STC05354 +MASTER+    15 EXECUTION            RS86  RS86
```

Use SDSF browse

```
 Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------
 SDSF OUTPUT DISPLAY *SNAP                  LINE 0      COLUMNS 02- 81
 COMMAND INPUT ===>                                     SCROLL ===> HALF
****************************** TOP OF DATA *******************************
JOBNAME   JobID     Owner     Prty Queue       C        Pos       SAff  ASys      St
TS5485    TSU05627 TS5485      15 EXECUTION                        RS85  RS85
BPXAS     STC05353 BPXAS       15 EXECUTION                        RS86  RS86
SYSLOG    STC05354 +MASTER+    15 EXECUTION                        RS86  RS86
```

SDSF browse window with each row as a line

Tip: Use the **PRINT** command to copy the data set or any edit command if using SE

Block and Repeat Overtypes

- Block command (//) applies an action to multiple rows
  - For example //p … // applies the p action to a block of rows
- Repeat command (=) repeats last action against the current row
- Block and repeat work for overtypes too!
  - Enter // in NP column on first row
  - Overtype data in column on first row
  - Enter // in NP column on last row
  - The overtype will be applied to all rows within the block

Block and Repeat Overtypes

Block change priority to 150

Overtype Extension

- Used to overtype long values
  - When value is too long for column width
  - Column must be completely visible for it to be overtyped
- Used to overtype multiple values
- Enter + in the overtypeable column
  - Must be only value in column
  - Erase any residual data for + to be recognized

Overtype Extension

Enter + in SAff column to display overtype extension pop-up

Running REXX against a row

- Use %execname action character
  - Concatenate execname to //SYSPROC or //SYSEXEC
- Exec is passed parameters including the row token
  - Use row token to derive attributes of row
- Use pop-up to specify arguments or long execname
- Use arrange command to increase size of NP column
  - Allow enough room for execname
  - Temporary change with + in NP

Running REXX Against a Row

```
 Display  Filter  View  Print  Options  Search  Help
----------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                     LINE 1-26 (563)
COMMAND INPUT ===>                                  SCROLL ===> HALF
PREFIX=** DEST=(ALL)  OWNER=*  SYSNAME=*
NP   JOBNAME  JobID     Owner    SAff  Prty Queue     C Pos    ASys Status
%a 1 TS5485    TSU05627 TS5485   RS85     15 EXECUTION          RS85
     BPXAS     STC05353 BPXAS    RS86     15 EXECUTION          RS86
```

Run exec and pass arg

```
 Display  Filter  View  Print  Options  Search  Help
----------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                     LINE 1-26 (563)
COMMAND INPUT ===>                                  SCROLL ===> HALF
PREFIX=** DEST=(ALL)  OWNER=*  SYSNAME=*
NP   JOBNAME  JobID     Owner    SAff  Prty Queue     C Pos    ASys Status
%    TS5485    TSU05627 TS5485   RS85     15 EXECUTION          RS85
     BPXAS     STC05353 BPXAS    RS86     15 EXECUTION          RS86
```

Display pop-up

Running REXX Against a Row

```
Display  Filter  View  Print  Options  Search  Help
------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                 LINE 1-26 (563)
COMMAND INPUT ===>                              SCROLL ===> HALF
PR
NP                         REXX Exec                        atus
%    Command ===> _____
     Supply the exec name and arguments, separated by blanks.

     Exec        Arguments
     _____    _____
                 _____

     F1=Help   F5=Generate REXX   F12=Cancel
```

Specify name and arguments

Invokes RGEN to generate exec

Increase Width of NP (Permanent)

```
 Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                       LINE 1-26 (563)
COMMAND INPUT ===> arr ?                              SCROLL ===> HALF
PREFIX=** DEST=(ALL)  OWNER=*    SYSNAME=*
NP    JOBNAME   JobID    Owner    SAff   Prty Queue        C Pos    ASys Status
      TS5485    TSU05627 TS5485   RS85    15 EXECUTION              RS85
      BPXAS     STC05353 BPXAS    RS86    15 EXECUTION              RS86
```

Show arrange pop-up

```
 Display  Filter  View  Print  Options  Search  Help
------------
SDSF STATUS       Command ===> _____    Arrange        Row 1 to 10 of 56
COMMAND INPU
PREFIX=** D       Command ===> _____
NP    JOBNAME     To move a column, select with / (// for a block), then type A
      TS5485      (after) or B (before). Special function keys:
      BPXAS       F5/17=Refresh list  F11/23=Clear input  F6/18=Default order
      SYSLOG
      VTAM          NP width              __    Current width: 4
      HZSPROC
      INIT          Column              Width    Description
      INIT     __   JobID                  8
      INIT     __   Owner                  8
      INIT     __   SAff                   5
```

Type a new value

Increase Width of NP (Temporary)

```
 Display  Filter  View  Print  Options  Search  Help
--------------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (563)
COMMAND INPUT ===>                                 SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
NP   JOBNAME  JobID    Owner    SAff  Prty Queue       C Pos    ASys Status
+8_  TS5485   TSU05627 TS5485   RS85    15 EXECUTION             RS85
     BPXAS    STC05353 BPXAS    RS86    15 EXECUTION             RS86
```

Use + operator to expand NP width

```
 Display  Filter  View  Print  Options  Search  Help
--------------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (563)
COMMAND INPUT ===>                                 SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
NP        JOBNAME   JobID    Owner    SAff  Prty Queue     C Pos   ASys Status
_         TS5485    TSU05627 TS5485   RS85    15 EXECUTION          RS85
          BPXAS     STC05353 BPXAS    RS86    15 EXECUTION          RS86
          SYSLOG    STC05354 +MASTER+ RS86    15 EXECUTION          RS86
```

Width increased to 8 characters until panel is reaccessed or RESET

Actions and Overtypes on the Command Line

- Access rows by row number
  - **SET ROWNUM (ON|OFF)**
- Specify action character or range on command line
  - **5-8 12 c**
    - Issues **c** action against rows 5 through 8 and 12
- Specify column name and value on command line
  - **1 prty=100**
    - Overtypes the PRTY column for row 1 to 100

Actions and Overtypes from the Command Line


```
 Display  Filter  View  Print  Options  Search  Help
 ------------------------------------------------------------------------
SDSF HELD OUTPUT DISPLAY ALL CLASSES LINES 123,931     LINE 1-26 (231)
COMMAND INPUT ===> set rownum                          SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=
NP    JOBNAME   JobID    Max-RC      Owner     Prty C ODisp Dest        RE
      MYGROUP   GO006757 JCL ERROR   TS5485    144 K HOLD  LOCAL
      SUBRTE    STC07327 CC 0000     SUBJCL    144 K HOLD  LOCAL
      BPXAS     STC07311 CC 0000     BPXAS     144 K HOLD  LOCAL
      BPXAS     STC07329 CC 0000     BPXAS     144 K HOLD  LOCAL
      BPXAS     STC07331 CC 0000     BPXAS     144 K HOLD  LOCAL
      BPXAS     STC07330 CC 0000     BPXAS     144 K HOLD  LOCAL
      OOPSLIST  JOB07335 CC 0000     PDZTEAM   144 X HOLD  LOCAL
      TS5485    TSU07337 ABEND S522  TS5485    144 K HOLD  LOCAL
      SMFDUMP   STC07338 CC 0012     SMFDMP    144 K HOLD  LOCAL
      SUBJCL    STC07341 CC 0000     SUBJCL    144 K HOLD  LOCAL
      LOGWRTR   STC07343 CC 0000     SUBJCL    144 K HOLD  LOCAL
      SUBRTE    STC07344 CC 0000     SUBJCL    144 K HOLD  LOCAL
      IOS050    JOB07346 CC 0000     SUBJCL    144 X HOLD  LOCAL
      SUBJCL    STC07348 CC 0000     SUBJCL    144 K HOLD  LOCAL
      SMFSWTCH  STC07347 CC 0000     SMFDMP    144 X HOLD  LOCAL
      SMFSWTCH  STC07347 CC 0000     SMFDMP    144 K HOLD  LOCAL
      SUBRTE    STC07350 CC 0000     SUBJCL    144 K HOLD  LOCAL
```

Turn on row numbering

```
 Display  Filter  View  Print  Options  Search  Help
 ------------------------------------------------------------------------
SDSF HELD OUTPUT DISPLAY ALL CLASSES LINES 123,931     LINE 1-26 (231)
COMMAND INPUT ===> 5-8 12 c                             SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=
NP   ####  JOBNAME   JobID    Max-RC      Owner     Prty C ODisp Dest
        1  MYGROUP   GO006757 JCL ERROR   TS5485    144 K HOLD  LOCAL
        2  SUBRTE    STC07327 CC 0000     SUBJCL    144 K HOLD  LOCAL
        3  BPXAS     STC07311 CC 0000     BPXAS     144 K HOLD  LOCAL
        4  BPXAS     STC07329 CC 0000     BPXAS     144 K HOLD  LOCAL
        5  BPXAS     STC07331 CC 0000     BPXAS     144 K HOLD  LOCAL
        6  BPXAS     STC07330 CC 0000     BPXAS     144 K HOLD  LOCAL
        7  OOPSLIST  JOB07335 CC 0000     PDZTEAM   144 X HOLD  LOCAL
        8  TS5485    TSU07337 ABEND S522  TS5485    144 K HOLD  LOCAL
        9  SMFDUMP   STC07338 CC 0012     SMFDMP    144 K HOLD  LOCAL
       10  SUBJCL    STC07341 CC 0000     SUBJCL    144 K HOLD  LOCAL
       11  LOGWRTR   STC07343 CC 0000     SUBJCL    144 K HOLD  LOCAL
       12  SUBRTE    STC07344 CC 0000     SUBJCL    144 K HOLD  LOCAL
```

Cancel jobs on rows 5 through 8 and 12

Point-and-shoot

- SDSF supports various point-and-shoot functions
  - NP
    - Invoke browse (or not) depending on SET BROWSE
  - Fixed field
    - Invoke default action for the column
    - Example is JDS for JOBNAME on DA, H, I, ST and O panels
    - Can be toggled with SET PAS ON | HIDE | OFF
      - Alias of SET FFPS
  - SET PAS HIDE enables fixed field for point-and-shoot
    - Fixed field will not be conditioned turquoise
    - Conditioned same as row highlighting
  - Memory address fields
    - Invokes SDSF memory browse on the 31bit or 64bit address
    - Inherits the ASID and SYSNAME from the row (if present)

Searching Data Set Lists

- Starting with z/OS 2.3, SDSF includes several displays that show lists of various types of data set
  - APF   Authorized Load Libraries
  - LNK   Link List
  - LPA   Link Pack Area List
  - PARM   Logical PARMLIB
  - PROC   JES2 Proclibs
  - JDD   Job Allocated Data Sets (action on DA and other panels)

- Use the SRCH command to search the list using a member name pattern
  - SRCH *member_pattern* [*F* | *NF* | *ALL*]
  - Member name pattern can include standard * and % masking characters
  - Optionally restrict results by :
    - Data sets containing member (F)
    - Data sets not containing member (NF)

Searching Data Set Lists

SLASH COMMAND

Slash Command

- Slash command tips:
  - End your command with trailing + to continue command using pop-up
  - Enter / with no text to recall last command using pop-up
  - Use the pop-up for mixed case command text
  - Use full screen mode to enable insert mode for command text
  - Categorize your slash commands using command groups

Slash Command Extension


```
  Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (563)
COMMAND INPUT ===> /This is an incomplete command+        SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
NP       JOBNAME   JobID    Owner    SAff   Prty Queue    C Pos    ASys Status
         TS5485    TSU05627 TS5485   RS85     15 EXECUTION          RS85
         BPXAS     STC05353 BPXAS    RS86     15 EXECUTION          RS86
         SYSLOG    STC05354 +MASTER+ RS86     15 EXECUTION          RS86
```

```
  Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (563)
COMMAND INPUT ===> /THIS IS AN INCOMPLETE COMMAND+        SCROLL ===> HALF
PR
NP    Edit  Options  Help
     ------------------------------------------------------------------
                    System Command Extension

     ===>  THIS IS AN INCOMPLETE COMMAND
     ===>
                                                       STORELIMIT
     Comment

     Group                     Show *              (F4 for list)
                                                   More:     +
     =>  RO RS86,$D PROCLIB
     =>  V E000,CONSOLE
     =>  RO RS86,C U=TS5485
     =>  RO RS86,C U=TS4855
     =>  RO RS86,C U=TS485
```

Command propagated to input area so it can be completed

Slash Command Groups

- Slash command pop-up allows you to:
  - Associate a command with a group
  - Associate a comment with a command
  - Display commands based on group pattern
  - Lists all groups
  - Save a command without issuing it
  - Delete a single command, group of commands, or all recent commands
  - View details about a command

Slash Command Groups

- To add a command to a group
  - Access slash command pop-up (/ with no operands)
  - Type command in input area
  - Enter a group name (any name provided by you)
  - Optionally enter a comment
  - Hit enter to issue the command or PF10 to save the command without issuing it
- Enter a show pattern to display commands by group in the recent list
  - Asterisk shows all commands
  - Up to 20 commands shown in recent list
    - Other than Asterisk will show the last 20 commands that match

Slash Command Groups

```
 Display  Filter  View  Print  Options  Search  Help
------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                 LINE 1-26 (563)
COMMAND INPUT ===> /                            SCROLL ===> HALF
PR
NP      Edit  Options  Help
        ------------------------------------------------------------
                        System Command Extension

        ===> $dq
        ===>                                              STORELIMIT

        Comment  Display queue

        Group    JES2              Show  JES2          (F4 for list)
                                                       More:      +
        =>   $da
        =>
        =>
        =>
        =>
        =>
        =>
        =>
        =>
        =>
        =>
        =>

        F5=FullScr F6=Details F7=Up F8=Down F10=Save F11=Clear F12=Cancel
```

Command text

Group

Show pattern filters
recent list

Recent commands
matching show pattern

Save to list without issuing

Recalling Commands

- Commands are saved in recent list
  - Scroll to desired command
  - Put cursor under command
  - Hit enter to recall command to input area
- Command recalled along with group and comment
  - Comments are not shown in the recent list
  - Group not shown but listed based on show pattern

Recalling commands

![SHARE logo — EDUCATE · NETWORK · INFLUENCE]

```
 Display  Filter  View  Print  Options  Search  Help
 ----------------------------------------------------------------
 SDSF MENU V2R3M0     RSPLEXOG  RS86                   LINE 1-26 (50)
 COMMAND INPUT ===> /                              SCROLL ===> HALF
 PR .
 NP |   Edit  Options  Help
    | ----------------------------------------------------------
    |                     System Command Extension
    |
    | ===> F SDSF,D
    | ===>                                               STORELIMIT
    |
    | Comment Display SDSF status
    |
    | Group    SDSF              Show *              (F4 for list)
    |                                                 More:      +
    | =>  F SDSF,D
    | =>  $DA
    | =>  D M=CPU
    | =>  V E000,CONSOLE
    | =>  RO RS88,S SDSF
    | =>  D U,UR,,,100
    | =>  D U,UR,,OFFLINE
    | =>  R 8,CANCEL
    | =>  d t
    | =>  $da
    | =>  D A
    | =>  S WTOR
    |
    | F5=FullScr F6=Details F7=Up F8=Down F10=Save F11=Clear F12=Cancel
 NC          Network connections        Network
```

Put cursor under command to be recalled and press enter

Tip: recent list does not show group or comment. Recall the command or press F6 for detail view

Tip: Use Group and Show to get a list of all the commands matching

Recalling commands


```
 Display  Filter  View  Print  Options  Search  Help
 ------------------------------------------------------------------
SDSF MENU V2R3MO     RSPLEXOG   RS86                  LINE 1-26 (50)
COMMAND INPUT ===> /                        SCROLL ===> HALF
PR
NP |    Edit  Options  Help
   | ------------------------------------------------------------
   |             System Command Extension
   |
   | ===>  $DA
   | ===>
   |                                              STORELIMIT
   | Comment  Display JES active jobs
   |
   | Group    JES2              Show *           (F4 for list)
   |                                             More:     +
   | =>  F SDSF,D
   | =>  $DA
   | =>  D M=CPU
   | =>  V E000,CONSOLE
   | =>  RO RS88,S SDSF
   | =>  D U,UR,,,100
   | =>  D U,UR,,OFFLINE
   | =>  R 8,CANCEL
   | =>  d t
   | =>  $da
   | =>  D A
   | =>  S WTOR
   |
   | F5=FullScr F6=Details F7=Up F8=Down F10=Save F11=Clear F12=Cancel
   ------------------------------------------------------------------
 NC          Network connections       Network
```

Command recalled

Removing Commands

- Commands are saved in recent list

- Last command issued is moved to the top

- You can remove a single command
  - Put cursor under command
  - Hit F11 to remove it from list

Removing Commands


```
 Display  Filter  View  Print  Options  Search  Help
--------------------------------------------------------------------------------
SDSF MENU V2R3MO     RSPLEXOG  RS86                LINE 1-26 (50)
COMMAND INPUT ===> /                                SCROLL ===> HALF
PR
NP    Edit  Options  Help
   ---------------------------------------------------------------------
                      System Command Extension
      ===> _____
      ===> _____
                                                          STORELIMIT
      Comment _____
      Group  JES2_____     Show *_____     (F4 for list)
                                                More:       +
      =>  F SDSF,D
      =>  $DA
      =>  D M=CPU
      =>  V E000,CONSOLE
      =>  RO RS88,S SDSF
      =>  D U,UR,,,100
      =>  D U,UR,,OFFLINE
      =>  R 8,CANCEL
      =>  d t
      =>  $da
      =>  D A
      =>  S WTOR

      F5=FullScr F6=Details F7=Up F8=Down F10=Save F11=Clear F12=Cancel
   NC          Network connections      Network
```

Put cursor under command to be removed and press F11

```
 Display  Filter  View  Print  Options  Search  Help
--------------------------------------------------------------------------------
SDSF MENU V2R3MO     RSPLEXOG  RS86                LINE 1-26 (50)
COMMAND INPUT ===> /                                SCROLL ===> HALF
PR
NP    Edit  Options  Help
   ---------------------------------------------------------------------
                      System Command Extension
      ===> _____
      ===> _____
                                                          STORELIMIT
      Comment _____
      Group  JES2_____     Show *_____     (F4 for list)
                                                More:       +
      =>  F SDSF,D
      =>  $DA
      =>  D M=CPU
      =>  V E000,CONSOLE
      =>  RO RS88,S SDSF
      =>  D U,UR,,OFFLINE
      =>  R 8,CANCEL
      =>  d t
      =>  $da
      =>  D A
      =>  S WTOR
      =>  panelid

   .----------------. ails F7=Up F8=Down F10=Save F11=Clear F12=Cancel
   | Clear complete |--------------------------------------------------
   .----------------.
```

Command removed from recent list

Removing All Recent Commands

- Type the show pattern for the groups to be displayed

- Hit enter to display the recent commands

- Position cursor outside of the recent list

- Hit F11 (Clear)

- Select an option
  - Recent commands matching show pattern
  - All commands matching show pattern
  - Selected commands from list

- The confirmation shows the number of commands that will be processed

Removing All Recent Commands

```
 Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------------
SDSF MENU V2R3M0     RSPLEXOG  RS86                   LINE 1-26 (50)
COMMAND INPUT ===> /                                  SCROLL ===> HALF
PR .------------------------------------------------------------------.
NP |    Edit  Options  Help                                           |
   | ---------------------------------------------------------------- |
   |                   System Command Extension                       |
   |                                                                  |
   | ===>  $DA_____       |
   | ===>  _____      |
   |                                                      STORELIMIT  |
   | Comment Display JES active jobs_____                   |
   |                                                                  |
   | Group   JES2_____  Show *_____  (F4 for list)       |
   |                                                      More:    +  |
   | =>   F SDSF,D                                                    |
   | =>   $DA                                                         |
   | =>   D M=CPU                                                     |
   | =>   V E000,CONSOLE                                              |
   | =>   RO RS88,S SDSF                                              |
   | =>   D U,UR,,,100                                                |
   | =>   D U,UR,,OFFLINE                                             |
   | =>   R 8,CANCEL                                                  |
   | =>   d t                                                         |
   | =>   $da                                                         |
   | =>   D A                                                         |
   | =>   S WTOR                                                      |
   |                                                                  |
   | F5=FullScr F6=Details F7=Up F8=Down F10=Save F11=Clear F12=Cancel|
   .------------------------------------------------------------------.
   NC         Network connections        Network
```

With cursor outside of recent list, press F11

Removing All Recent Commands

```
 Display  Filter  View  Print  Options  Search  Help
 ------------------------------------------------------------------------
 SDSF MENU V2R3MO      RSPLEXOG   RS86                      LINE 1-26 (50)
 COMMAND INPUT ===>  /                                 SCROLL ===>  HALF
 PR .--------------------------------------------------------------------
 NP |   Edit  Options  Help
    | -  .----------------------------------------------------------.
    |    :                   Select Clear Option                    :
    | =  | Select an option to clear commands. The number of commands|
    | =  | affected is shown in parentheses.                         |
    |    |                                                           |
    | C  | __   1.   Recent matching the value for Show (20)          |
    |    |      2.   All matching the value for Show (29)             |
    | G  |      3.   From list...                                     |
    |    |                                                           |
    | =  |                                                           |
    | =  | F1=Help  F12=Cancel                                       |
    | =  '----------------------------------------------------------'
    | =>  V EOOO,CONSOLE
    | =>  RO RS88,S SDSF
    | =>  D U,UR,,,100
    | =>  D U,UR,,OFFLINE
    | =>  R 8,CANCEL
    | =>  d t
    | =>  $da
    | =>  D A
    | =>  S WTOR
    |
    | F5=FullScr F6=Details F7=Up F8=Down F10=Save F11=Clear F12=Cancel
    '--------------------------------------------------------------------
 NC         Network connections        Network
```

Select option for commands to be removed

Using Full Screen Mode

- You can toggle the slash command pop-up between full screen and pop-up mode

- ISPF prevents insert mode from flowing to next line in pop-up mode
  - Due to attributes used to draw the pop-up frame

- Use full screen mode to enable insert mode in the text area
  - Toggle with F5

- Mode (pop-up or fullscreen) saved in ISPF profile

Using Full Screen Mode

```
  Display  Filter  View  Print  Options  Search  Help
---------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (563)
COMMAND INPUT ===> /                               SCROLL ===> HALF
PR
NP     Edit  Options  Help
       ---------------------------------------------------------------
                         System Command Extension

       ===>  $dq_____
       ===>  _____
                                                          STORELIMIT
       Comment  Display queue_____

       Group    JES2_____    Show  JES2_____    (F4 for list)
                                                          More:      +
       =>   $da
       =>
       =>
       =>
       =>
       =>
       =>
       =>
       =>
       =>
       =>
       =>

       F5=FullScr F6=Details F7=Up F8=Down F10=Save F11=Clear F12=Cancel
       ---------------------------------------------------------------
```

Toggle to full screen mode

Using Full Screen Mode

```
  Edit  Options  Help
 ------------------------------------------------------------------
                     SDSF - System Command Extension
 ===>  $da_____
 _____                 STORELIMIT
 Comment  Display queue_____
 Group    JES2_____   Show  JES2_____   (F4 for Group list)
 =>   $da                                                More:      +
 =>
 =>
 =>
 =>
 =>
 =>
 =>
 =>
 =>
 =>
 =>
 =>
 =>
 =>

 F1=Help  F5=Pop-up  F6=Details  F7=Up  F8=Down  F10=Edit  F11=Clear  F12=Cancel
```

Single input area spanning two lines

Toggle to pop-up mode

BROWSE

Browse Tips

- Skip data sets (NEXT and PREV commands)
- Browse default (SET BROWSE command)

Browse Next and Prev

- Use NEXT and PREV commands to jump to next or previous data set
  - Alternative to scrolling
  - Positions to start of data set
- Tip: when browsing a job under JES2, use N 3 to position to first application data set
- Also **s***n* and **s-***n* action characters

Browse Next


```
   Display  Filter  View  Print  Options  Search  Help
 ----------------------------------------------------------------------
 SDSF OUTPUT DISPLAY TS5485    TSU05631  DSID    2 LINE 0    COLUMNS 02- 81
 COMMAND INPUT ===> n 3                                     SCROLL ===> HALF
 ********************************* TOP OF DATA *********************************
                       J E S 2  J O B  L O G  --  S Y S T E M  R S 8 5  --  N

 20.59.45 TSU05631 ---- THURSDAY,  15 FEB 2018 ----
 20.59.45 TSU05631  $HASP373 TS5485    STARTED
        1 //TS5485   JOB 'ACCT#',
        //               REGION=80000K
        2 //ROCKPROC EXEC ROCKPROC
        XX*****   ROCKET COMMON ISPF LOGON PROCEDURE FOR ALL VM GUESTS    *****
        XX*************************************************************************
        XX* PLEASE DO NOT MAKE CHANGES TO THIS PROC. ALL ISPF CHANGES    *****
        XX* ARE NOW DONE USING LIBDEF SERVICES. IF YOU ARE UNCERTAIN HOW *****
        XX* TO ACCOMPLISH THIS, PLEASE ASK FIRST. THANKS, BRUCE          *****
        XX*************************************************************************
        XX* 03/20/07 LWB ADD SYS1.SBPXEXEC TO SYSEXEC
        XX* 07/28/05 BCW NEW VERSION OF SHARED ROCKPROC UTILIZING LIBDEF
        XX*************************************************************************
        3 XXROCKPROC EXEC PGM=IKJEFT01,REGION=0M,DYNAMNBR=175,PARM='%LOGINIT'
```

Skip 3 data sets

```
   Display  Filter  View  Print  Options  Search  Help
 ----------------------------------------------------------------------
 SDSF OUTPUT DISPLAY TS5485    TSU05631  DSID   103 LINE 1    COLUMNS 02- 81
 COMMAND INPUT ===>                                          SCROLL ===> HALF
    Time                *** ISPF transaction log ***                        Us

    20:59    Start of ISPF Log - - - - Session # 34 -------------------------
    20:59       TSO     - Command  - - %@SDSF
 ******************************** BOTTOM OF DATA ********************************
```

Browse Next Action Character

```
  _ Display  Filter  View  Print  Options  Search  Help
  ------------------------------------------------------------------------
  SDSF STATUS DISPLAY ALL CLASSES                    LINE 1-26 (564)
  COMMAND INPUT ===>                                 SCROLL ===> HALF
  PREFIX=**   DEST=(ALL)   OWNER=*   SYSNAME=*
  NP    JOBNAME   JobID    Owner    SAff   Prty Queue     C Pos    ASys Status
  s4    TS5485    TSU05631 TS5485   RS85     15 EXECUTION           RS85
        BPXAS     STC05353 BPXAS    RS86     15 EXECUTION           RS86
```

Browse and skip 4 data sets

```
    Display  Filter  View  Print  Options  Search  Help
   ------------------------------------------------------------------------
   SDSF OUTPUT DISPLAY TS5485     TSU05631   DSID    103 LINE 1      COLUMNS 02- 81
   COMMAND INPUT ===>                                 SCROLL ===> HALF
       Time                   *** ISPF transaction log ***                  Us

       20:59   Start of ISPF Log - - -  - Session # 34 --------------------------
       20:59        TSO     - Command   - - %%@SDSF
   ****************************** BOTTOM OF DATA *******************************
```

Browse Default

- Use browse default to invoke browse by placing cursor in NP area and hitting enter
  - Rather than typing S action character
- **SET BROWSE S | SB | SE | NONE**
  - Controls whether browse default is used and default action to be taken
- Use SET CURSOR to control cursor placement after an action
  - **SET CURSOR (ON|TOP|OFF|?)**
    - **ON** – keep cursor on last row you worked with
    - **TOP** – scroll table to last line you worked with and move cursor to command line
    - **OFF** – return cursor to command line

Change FINDLIM

- Findlim controls number of records searched using find command
  - Default is 5000 records
- Hit repeat find when findlim reached to continue
- Change limit with **findlim** command
- **findlim *number* | ?**
  - ***number*** is 1000 to 9999999
- **findlim 100000**
  - Searches 100000 recors before stopping

Operlog Color

- Control color and highlighting in operlog
- SET SCREEN command
- By default, messages are colorized in operlog as they were first issued
- You can change attributes based on descriptor code

```
  Display  Filter  View  Print  Options  Search  Help
---------------------------------------------------------------
SDSF MENU V2R3M0      RSPLEX              Set Screen Characteristics
COMMAND INPUT ===> SET SCR
PREFIX=**   DEST=(ALL)  OWN   Select the elements that you want to customize.
NP   NAME      Description
     DA        Active users   2   1.   Basic settings and tabular panels
     I         Input Queue        2.   OPERLOG panel
     O         Output Queue
     H         Held output
     ST        Status of jo   F1=Help  F12=Cancel
     JG        Job groups
     SYM       System symbols           System
```

Operlog Color

```
  Display  Filter  View  Print  Options  Search  Help
 ---------------------------------------------------------------------------
 SDSF MENU V2R3M0      RSPLEX │          Set Screen Characteristics        │
 COMMAND                      ├ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┤
 PREFIX=     │             Set Screen Characteristics: OPERLOG Panel
 NP    NA    │                                                  More:     +
       DA    │
       I     │  Use color and highlighting    1    1. Yes    2. No
       O     │
       H     │  Type values to override the original color and highlighting.
       ST    │  Press F5/17 to see changes.
       JG    │
       SY    │  Descriptor code                  Color    Highlight  Intensity
       LO    │   1 - System failure
       SR    │   2 - Immediate action required    _
       MA    │   3 - Eventual action required
       JC    │   4 - System status
       SE    │   5 - Immediate command response
       RE    │   6 - Job status
       EN    │   7 - Task-related                RED
       PS    │   8 - Out of line
       SY    │   9 - Operator's request
       EN    │  10 - Not defined
       DY    │  11 - Critical eventual action
       AS    │  12 - Important information
       IN    │   F1=Help  F5=Refresh  F6=Default  F11=Cuaattr  F12=Cancel
```

SECTRACE

Security Trace (Sectrace)

- Traces all SAF calls made by SDSF
  - Messages written to ULOG or WTP
- Simplifies diagnosing authorization problems
  - Resource name, access level, and class

Using Sectrace


```
  Display  Filter  View  Print  Options  Search  Help
----------------------------------------------------------------------
SDSF MENU V2R3M0     RSPLEXOG  RS85                   LINE 1-26 (49)
COMMAND INPUT ===> set sectrace                       SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
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
     SYM      System symbols           System
```

Enable sectrace

```
  Display  Filter  View  Print  Options  Search  Help
----------------------------------------------------------------------
SDSF MENU V2R3M0     RSPLEXOG  RS85                   LINE 1-26 (49)
COMMAND INPUT ===> st                                 SCROLL ===> HALF
PREFIX=**  DEST=(ALL)  OWNER=*  SYSNAME=*
NP   NAME     Description              Group      Status
     DA       Active users             Jobs
     I        Input Queue              Jobs
     O        Output Queue             Output
     H        Held output Queue        Output
```

Perform scenario (command, action, overtype, etc.)

Using Sectrace

```
 Display  Filter  View  Print  Options  Search  Help
---------------------------------------------------------------------
SDSF ULOG  CONSOLE TS5485                    LINE 0        COLUMNS 44- 123
COMMAND INPUT ===>                                         SCROLL ===> HALF
******************************** TOP OF DATA ********************************
ISF045W Unable to open table library ISFTABL, number of saved commands may be l
ISF050I USER=TS5485 GROUP=ISFSPROG PROC=ROCKPROC TERMINAL=S85TCPO4
ISF051I SAF Access allowed SAFRC=0 ACCESS=READ CLASS=SDSF RESOURCE=ISFCMD.DSP.S
ISF051I SAF Access allowed SAFRC=0 ACCESS=READ CLASS=SDSF RESOURCE=ISFCMD.DSP.S
ISF051I SAF Access allowed SAFRC=0 ACCESS=UPDATE CLASS=SDSF RESOURCE=ISFATTR.JO
ISF051I SAF Access allowed SAFRC=0 ACCESS=UPDATE CLASS=SDSF RESOURCE=ISFATTR.JO
ISF051I SAF Access allowed SAFRC=0 ACCESS=UPDATE CLASS=SDSF RESOURCE=ISFATTR.JO
ISF051I SAF Access allowed SAFRC=0 ACCESS=READ CLASS=SDSF RESOURCE=ISFCMD.ODSP.
ISF031I CONSOLE TS5485 ACTIVATED
******************************* BOTTOM OF DATA *****************************
```

Results of access calls are added to ULOG

Early Sectrace

- Use WTP option to view sectrace messages during SDSF initialization
  - Useful when diagnosing group assignment problems
- Invoke SDSF using option S
  - **s.sectrace(wtp)**
- Add sectrace option to SDSF command (from option 6 or TSO ready)
  - **sdsf sectrace(wtp)**
- Enabling via the existence of special DDs
  - **alloc fi(isfsectw) dummy reus** – sectrace issued as WTP
  - **alloc fi(isfsectr) dummy reus** – sectrace written to ULOG

SDSF/REXX

SDSF/REXX

- Have you used SDSF/REXX yet?
  - Simple way to access SDSF panel data using REXX
    - Automated tasks
      - Search job output for events
      - Verify result of test cases
    - One time tasks
      - Modify groups of jobs
      - Search syslog for specific messages

- Start with simple exec and build up
  - Address SDSF "isfexec st'
  - Address SDSF "isfact st token('"*token*"') parm(np d)"

SDSF/REXX Tips

- Generate REXX execs using RGEN

- Use nomodify option to suppress creation of row tokens

- Use stem notation for isfact to process multiple rows

- Use verbose option to debug execs

- Use isfquery() to query environment settings

- **REXXHELP | REXXH** command to display SDSF/REXX documentation

- **COLSHELP | COLSH** command to display column names valid for panel

RGEN Command

- Generate starter exec you can modify

- Select from a list of examples or generate exec based on current context
  - Generates all commands to navigate to the panel you are on

- Starter exec is generated in an ISPF temporary data set
  - Be sure to **copy** the exec to a permanent data set prior to editing !!

- Generated exec contains ISPF note lines for tips and hints
  - Notes are not saved to the data set being edited
  - Issue ISPF reset command to remove notes from the view

RGEN List of Examples

- Enter **rgen x** from any panel
  - Displays a pop-up with list of working SDSF/REXX examples
  - Select an example
- Copy the exec and modify as needed

RGEN List of Examples


```
 Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------------
SDSF MENU V2R3M0      RSPLEX06  RS86                LINE 1-25 (50)
COMMAND INPUT ===> rgen x                           SCROLL ===> HALF
PREFIX=*  DEST=(ALL)  OWNER=*  SORT=NAME/A  SYSNAME=*
ACTION=S-Select
NP   NAME     Description              Group   Status
     APF      APF data sets            System
     AS       Address space memory     Jobs
     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
     DYNX     Dynamic exits            System
     ENC      Enclaves                 WLM
     ENQ      Enqueues                 System
     FS       File systems             OMVS
```

```
 Display  Filter  View  Print  Options  Search  Help
-----------------------------------------------------------------------
                        REXX Examples             Row 1 to 15 of 22
 Command ===> _____

 Sort by type (F5) or description (F6).

     Type         Description
 _   Action       Cancel a job
 _   Action       Cancel a set of jobs
 _   Action       Invoke an EXEC with the % action character
 _   Action       List action characters
 _   Action       List job data sets
 _   Action       Modify a value for a set of jobs
 _   Action       Modify values for selected jobs (overtype)
 _   Browse       Browse a single data set with EXECIO
 _   Browse       Browse a single data set with ISFBROWSE
 s   Browse       Browse check output
 _   Browse       Browse check output from check history
 _   Browse       Browse check output with ISFBROWSE
 _   Browse       Browse job output with EXECIO
 _   Browse       Browse job output with ISFBROWSE
 _   Browse       Browse job output with ISFBROWSE - groups of lines
```

RGEN List of Examples

```
SDSF EDIT    RGEN TS5485.RS86.SPFTEMP1.CNTL              Columns 00001 00072
Command ===> _____     Scroll ===> HALF
****** *********************************** Top of Data ***********************************
000001 /* REXX */
000002 Arg debug
000003
==MSG>     Important: Copy this generated exec from temporary dataset
==MSG>       TS5485.RS86.SPFTEMP1.CNTL
==MSG>     and edit that copy to prevent your changes from being lost.
==MSG>
000004 /********************************************************************
000005 *
000006 *   SDSF RGEN Generated Example:
000007 *   Browse check output
000008 *
000009 *   This exec was generated by the SDSF RGEN command on
000010 *   Wednesday 2017/07/19 at 15:01:55.67.
000011 *
000012 *   5650-ZOS
000013 *   SDSF level = z/OS 02.03.00 (HQX77B0)
000014 *
000015 *   This sample uses function available since z/OS V1R9.
000016 *
======     For more information and examples, use the SDSF REXXHELP
======     command.  To search SDSF's help, use SEARCH search-string.
000017 ********************************************************************/
000018
=NOTE= Tip: All SDSF/REXX execs must include the following statement:
000019 rc=isfcalls('ON')
```

RGEN generates a fully functional exec that you can modify

RGEN List of Examples

```
Address SDSF "ISFEXEC CK E (" verbose ")"
lrc=rc

call msgrtn "ISFEXEC CK"
if lrc<>0 then      /* If request failed */
  Exit 20


msgrtn: Procedure expose isfmsg isfmsg2.
Arg req

/*--------------------------------*/
/* Process numbered messages */
/*--------------------------------*/
Say "** Numbered messages associated with" req "follow ..."

Tip: The isfmsg2. stem contains numbered messages
     associated with the request and isfmsg2.0 contains
     a count of the number of variables that follow.
do ix=1 to isfmsg2.0
  Say isfmsg2.ix
end

if isfmsg<>"" then     /* If short message present */
  do
    Say "** Short message associated with the request is:" isfmsg
  end

return
```

Inspect isfmsg2 stem after request

rgen generated subroutine

RGEN List of Examples

```
Display  Filter  View  Print  Options  Search  Help
┌──────────────────────────────────────────────────────────────────────────┐
│                         REXX Examples                    Row 1 to 15 of 22 │
│ Command ===> _____ │
│                                                                            │
│ Sort by type (F5) or description (F6).                                     │
│                                                                            │
│      Type        Description                                               │
│ _    Action      Cancel a job                                              │
│ _    Action      Cancel a set of jobs                                      │
│ _    Action      Invoke an EXEC with the % action character                │
│ _    Action      List action characters                                    │
│ _    Action      List job data sets                                        │
│ _    Action      Modify a value for a set of jobs                          │
│ _    Action      Modify values for selected jobs (overtype)                │
│ _    Browse      Browse a single data set with EXECIO                      │
│ _    Browse      Browse a single data set with ISFBROWSE                    │
│ _    Browse      Browse check output                                        │
│ _    Browse      Browse check output from check history                    │
│ _    Browse      Browse check output with ISFBROWSE                         │
│ _    Browse      Browse job output with EXECIO                             │
│ _    Browse      Browse job output with ISFBROWSE                          │
│ _    Browse      Browse job output with ISFBROWSE - groups of lines        │
└──────────────────────────────────────────────────────────────────────────┘


Display  Filter  View  Print  Options  Search  Help
┌──────────────────────────────────────────────────────────────────────────┐
│                         REXX Examples                   Row 16 to 22 of 22 │
│ Command ===> _____ │
│                                                                            │
│ Sort by type (F5) or description (F6).                                     │
│                                                                            │
│      Type        Description                                               │
│ _    Info        Issue the WHO comand                                      │
│ _    Operlog     Work with the OPERLOG                                     │
│ _    Print       Print to SYSOUT                                           │
│ _    Syslog      Find a message in the SYSLOG                              │
│ _    Syslog      Work with the SYSLOG                                      │
│ _    Tabular     Access a tabular panel and create column variables        │
│ _    Tabular     Access a tabular panel and create SDSFROW variable        │
│ ****************************** Bottom of data ***************************** │
└──────────────────────────────────────────────────────────────────────────┘
```

Using NoModify Option

- Row tokens are generated by default

- Row token used to identify the row for a subsequent action

- Suppress generation when row will not be modified (i.e. no actions will be performed)
  - Improves performance
  - Reduces storage utilization

- **Address SDSF "isfexec st (nomodify"**
  - The **token.** stem will not be generated

Using Stem Notation for isfact

- Specifying isfact row token
  - Single row token
  - List of row tokens
  - Stem variable containing row tokens
- Stem variable useful when modifying multiple rows
  - Can be done in a single request
- Pair with isfexec
  - isfexec creates the token stem
  - **isfact token((token.))**
    - Note double parenthesis to show the variable is a stem

Using Verbose Option

- Add verbose option to list all SDSF special variables read or set
- Messages returned in the isfmsg2 stem
  - May cause many messages to be issued
- Helpful when you expect data to be returned in a variable but not found
  - Common problem when changing stem prefix
- **Address SDSF "isfexec st (verbose"**
- Enables verbose and sectrace via special DD
  - Does SAY for isfmsg2 and the WHO command
  - **alloc fi(isfrxdbg) dummy reus** or **//ISFRXDBG DD DUMMY**

Using Verbose Option

```
Address SDSF "ISFEXEC ST ( VERBOSE"

isfmsg2.56 is: ISF147I REXX variable SDSFFILTER fetched, return code 00000001 value is ''.
isfmsg2.57 is: ISF147I REXX variable ISFFILTER fetched, return code 00000001 value is ''.
isfmsg2.58 is: ISF147I REXX variable SDSFFILTERMODE fetched, return code 00000001 value is ''.
isfmsg2.59 is: ISF147I REXX variable ISFFILTERMODE fetched, return code 00000001 value is ''.
isfmsg2.60 is: ISF147I REXX variable SDSFSORT fetched, return code 00000001 value is ''.
isfmsg2.61 is: ISF147I REXX variable ISFSORT fetched, return code 00000001 value is ''.
isfmsg2.62 is: ISF146I REXX variable JNAME.1 set, return code 00000001 value is 'TS5485R'.
isfmsg2.63 is: ISF146I REXX variable TOKEN.1 set, return code 00000001 value is '6ysXMjwso5KjYfXxfPVBQNtl9eXA9W1A
isfmsg2.64 is: ISF146I REXX variable ROWACTIVE.1 set, return code 00000001 value is 'Y'.
isfmsg2.65 is: ISF146I REXX variable JOBID.1 set, return code 00000001 value is 'JOB07582'.
isfmsg2.66 is: ISF146I REXX variable OWNERID.1 set, return code 00000001 value is 'TS5485'.
isfmsg2.67 is: ISF146I REXX variable JPRIO.1 set, return code 00000001 value is '9'.
isfmsg2.68 is: ISF146I REXX variable QUEUE.1 set, return code 00000001 value is 'EXECUTION'.
isfmsg2.69 is: ISF146I REXX variable JCLASS.1 set, return code 00000001 value is 'A'.
```

WHAT'S NEW?

What's New Help


```
 Display   Filter   View   Print   Options   Search   Help
------------------------------------------------------------------------
SDSF MENU 3.1     MCLXCF01   AQFT                    ┌─────────────────────────┐   ----
COMMAND INPUT ===>                                   │ 1 _1. Help contents...  │   CSR
NP    NAME      Description           Group          │   _2. What's new...      │
      DA        Active users          Jobs           │    3. Web sites...       │
      I         Input queue           Jobs           │    4. REXX...            │
      ST        Status of jobs        Jobs           │    5. Panels...          │
      JG        Job groups            JES            │    6. About...           │
      MOS       Members in the MOS    JES            └─────────────────────────┘
```

```
 Display   Filter   View   Print   Options   Search   Help
------------------------------------------------------------------------
SDSF HELP   AQFT       SECTION MAIN                         LINE 1-56 (174)
COMMAND INPUT ===>                                          SCROLL ===> CSR
NP    Help-Text
s_    What's new in z/OS SDSF Version 3 Release 1
      Enhancements in previous releases
      SDSF Panels
      SDSF messages and codes
```

```
 Display   Filter   View   Print   Options   Search   Help
------------------------------------------------------------------------
SDSF HELP   AQFT       SECTION NEWIN31                      LINE 1-56 (297)
COMMAND INPUT ===> _                                        SCROLL ===> CSR
NP    Help-Text
      Summary of changes for SDSF 3.1

      Changes made for SDSF 3.1 as updated .

      Summary of changes as updated

      New:
        o New panels
          - System information panels
          o The Coupling Facilities panel (CF) displays information about all
            of the coupling facilities that are defined in the sysplex.
```

Questions ?

Thank You !

Your feedback is important!

Submit a session evaluation for each session you attend:

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www.share.org/evaluation