



Interactive System Productivity Facility (ISPF)

# ISPF Hidden Treasures and New Features



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Sessions 11706 & 11707

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# Hidden Treasures and New Features in ISPF

- Data Set List
  - DSLIST Command
  - Recent Enhancements
  
- Member List
  - Recent Enhancements
  
- Edit
  - COMPARE Command
  - CUT and PASTE Commands
  - Recent Enhancements
  
- Connect Without GUI
  
- z/OS UNIX Support
  - Directory List Utility
  - Edit and Browse
  - ASCII Edit
  - UDLIST Command

## Hidden Treasures and New Features in ISPF...

- Multiple Screen Support
  - SWAPBAR
  
- Display System & User Id
  
- ISPF in a Web Browser (Using z/OSMF)
  
- ISRDDN Utility
  
- User Command Tables
  - ISPF Table Utility
  
- ISRDTLCV macro

# DSLIST

- **DSLIST** *personal\_list\_name* | *pattern*
  - If a list name exists by that name, a data set list will be built based on the entries in the list
  - If a list name does not exist, the parameter is treated as a pattern
  
- **APPEND** command from within Data Set List
  - Adds entries to the displayed list
  - specify a personal list name or a pattern
  
- **REFRESH** command from within Data Set List
  - Refreshes display to original list filter criteria
  
- **EXCLUDE** command and X line command from within Data Set List
  - Excludes data sets displayed in list
  - Shadow line displayed

# New Data Set List Commands - z/OS 1.2

## ▪ **MEMBER** command

- allows the partitioned data sets in the list to be searched for a specific member name or pattern
- Syntax: **Member string [X|EX|NX][RECALL1|RECALL2]**
- Message field identifies data sets containing the member(s)

## ▪ **SRCHFOR** command

- Invokes SuperC to search the listed data sets for strings
- Syntax: **SRCHFOR [string]**
- Displays panel used to specifying options for SuperC
- Message field identifies data sets containing the string
- SuperC output written to data set  
(default: **userid.SRCHDSL.LIST**)

# Data Set List Enhancements

## ▪ Enhanced **SORT** command (z/OS 1.7)

- Provides ability to sort a data set list in ascending or descending order
- Syntax: `SORT major-field [A|D] [minor-field] [A|D]`

## ▪ Display Total Tracks Value (z/OS 1.9)

- New **Display Total Tracks** option added to the Data Set List Utility entry panel
- If selected, an additional header line showing the total tracks used by the data sets is displayed with the **Space** and **Total** views
- Pop-up window showing data collection progress displayed when calculating total tracks for a list of 50 or more data sets

## Data Set List Enhancements. . .

### ▪ **Block Line Commands (z/OS 1.10)**

- Allows Data Set List line commands to be entered in blocks
- A block of line commands is marked by entering two forward slash characters (**//**) at the start and end of the block
- The required line command is entered on the first or last line of the block, immediately following the two forward slash characters
- All line commands, including TSO commands, Clists and REXX execs can be executed as block commands

### ▪ **Include PREFIX in Dsname Level (z/OS 1.11)**

- New **Prefix Dsname Level** option added to the Data Set List Utility entry panel
- If selected, ISPF will add the TSO prefix (if the user's TSO profile has PREFIX defined) as the first qualifier if the Dsname Level entered is not enclosed in quotes

## Data Set List Enhancements. . .

### ▪ **Allocate Line Command (z/OS 1.13)**

- New **AL** line command can be used to allocate a new data set
- New data set name can be specified with the AL line command
- If AL is entered against a deleted data set and a name is not specified ISPF will use the name of the deleted data set
- When AL is entered against an existing data set the user has the option to:
  - Create the data set using the attributes of the existing data set
  - Specify the attributes of the data set on the Allocate New Data Set panel



# New Member List Commands - z/OS 1.5

## ▪ **SRCHFOR** command

- Invokes SuperC to search the listed members for strings
- Syntax: **SRCHFOR** [*string*]
- Displays panel used to specifying options for SuperC
- PROMPT column identifies members containing the string
- SuperC output written to data set  
(default: *userid.SRCHML.LIST*)

## ▪ **SORT PROMPT** command

- Sorts members with messages in the PROMPT column to the top of the member list
- Use after **SRCHFOR** command to group all members containing *string* at the top of the member list

# Member List Enhancements

## ▪ Enhanced **SORT** command (z/OS 1.7)

- Provides ability to sort a member list in ascending or descending order
- Syntax: **SORT** *major-field* [A|D] [*minor-field*] [A|D]

## ▪ New **FILTER** command (z/OS 1.8)

- Used to display only those members having an attribute matching a specified value
- Syntax: **FILTER** [*field operator value*]  
*field*                    member list column name  
*operator*                EQ, NE, LE, LT, GE, or GT  
*value*                    the comparison value
- Member List SRCHFOR command also enhanced to optionally display only those members containing the SRCHFOR string

## Member List Enhancements . . .

- **New | line command for enhanced member list (z/OS 1.13)**
  - Used to display panel showing the ISPF statistics for a member
  - Introduced to provide a display of extended line count statistics for a member with extended statistics
    - is not restricted to members that have extended line count statistics

# Edit COMPARE Command

- Syntax: **COMPARE** [**member** | **data\_set\_name** | **NEXT** | \* [**X**] [**SYSIN**]]
- Uses SuperC APIs to compare to data sets or members
- Changes are highlighted depending on if the change is new to the source (member or data set where COMPARE command was issued), only in the target, or common
- **NEXT** compares next member in hierarchy of ISPF library
- **X** excludes common lines except for a few around differences

only in "target"  
(NEXT in this case)  
MD to "make data"

new in "source"

common

common lines  
excluded by X  
parameter

```

VIEW      PDFDEV.STG.GML(ISPCMDS) - 01.03      Changes are shown
Command ==> _____ Scroll ==> CSR
000052    altdescr="CMDE">
=====  <cmdact action="SELECT PGM(ISPCCMDE)">
.OAAAA    <cmdact action="SELECT PGM(ISPCCMDE) SUSPEND">
000054
000055    <:-----COLOR ----->
000056    <cmd name=COLOR
000057      altdescr="INVOKE GLOBAL COLOR CHANGE UTILITY">
000058    <cmdact action=
- - - - - 350 Line(s) not Displayed
000409    altdescr="Turn ISPF/TSO GUI WINDOW ON or OFF">
000410    <cmdact action="SELECT PGM(ISPISM) PARM(TSOGUI,&ZPARAM)">
    
```

## Edit COMPARE Enhancement (z/OS 1.11)

- The SYSIN keyword on the COMPARE command is enhanced to support a sub-parameter
  - User can specify the SuperC process statements data set name as a sub-parameter of the SYSIN keyword

Syntax: **SYSIN(dsn)**

- Alternatively, the user can request the display of a pop-up panel where the SuperC process statements data set name can be entered

Syntax: **SYSIN(/)**

# Edit CUT and PASTE Primary Commands

## ▪ **CUT** command

- Saves lines to one of eleven named clipboards for later retrieval by the **PASTE** command
- Clipboard name can be specified (otherwise lines go to DEFAULT clipboard)
- **APPEND** option used to add lines to an existing clipboard
- **REPLACE** option replaces the data in an existing clipboard
- **DISPLAY** option shows a list of existing clipboards
  - Clipboards can be browsed, edited, cleared, or renamed

## ▪ **PASTE** command

- Moves or copies lines from a clipboard into an edit session
- Clipboard name can be specified (otherwise lines come from DEFAULT clipboard)
- **KEEP** option causes the copied lines to remain in the clipboard
- **DELETE** option causes the copied lines to be removed from the clipboard

## New Edit Primary Commands - z/OS 1.6

### ▪ **HIDE** command

- Removes excluded line messages from the Edit/View display
- Line number underscored to indicate "hidden" line(s)
- Syntax: **HIDE X**
- **RESET** primary command has **HIDE** option to allow redisplay of excluded line messages
  - Syntax: **RESET HIDE**

### ▪ **COLS** command

- Causes a columns line to be displayed at the top of each Edit/View data screen (i.e. stays with the Edit/View display)
- Syntax: **COLS [ON|OFF]**

## Other Edit Enhancements

### ▪ UNDO after SAVE (z/OS 1.9)

- Allows reversal of edit changes made prior to SAVE commands during the current edit session
- New KEEP option added to the edit SETUNDO command

- Syntax:

```

                                     +-STORAGE-+
>>----SETUNDO-----+-----+-----><
      +-SETU-----+  +-RECOVER- |
                               +-ON----- |
                               +-OFF----- |
                               +-KEEP-----+
  
```

- Where:

**KEEP** Has the same effect as **STORAGE** and also prevents the SAVE command from clearing the UNDO buffers in storage



## Other Edit Enhancements. . .

### ▪ Multiple Targets for MOVE/COPY (z/OS 1.10)

- Suffix of K (keep) can now be used with MOVE/COPY destination line commands **A**, **B**, **O** and **OO**
  - Enter **AK**, **BK**, **OK**, or **OOK** line commands to indicate a multiple target MOVE/COPY command
  - Enter ‘final’ destination line command (**A**, **B**, **O** or **OO**) to initiate the ‘multiple target’ MOVE/COPY
  - ‘Final’ destination must be after the line where the **AK**, **BK**, **OK**, or **OOK** command was entered

## Other Edit Enhancements. . .

### ▪ New Edit Line Commands for HEX Display (z/OS 1.11)

- New edit line commands to display selected lines in hexadecimal format:

**HX**                      display a single line in hexadecimal format

**HXX**                     display a block of lines in hexadecimal format

- The **HX** and **HXX** line commands act as a toggle by switching a line's display format between normal and hexadecimal format

## Other Edit Enhancements. . .

### ▪ **Support for User Defined Line Commands (z/OS 1.13)**

- Support has previously been available by using the unsupported LMAC tool
- User defined line commands and the edit macros they invoke are defined in an ISPF table
  - The ISPF Table Utility (ISPF option 3.16) is modified to assist with defining the user line command table
- New line command table input field on the edit and view entry panels
  - When the line command table is specified the line commands defined in the table are able to be used during the edit session
- The EDIT and VIEW services also allow a line command table to be passed by the caller

# Connect Without GUI

## ■ SETTINGS

- Workstation pulldown (or **GUIINIT**)
  - Workstation connection
  - Without GUI display
  
- Allows workstation commands
  - **FILEXFER**
  - Edit on workstation
  - **SELECT WSCMD**

## z/OS UNIX Directory List Utility (z/OS 1.8)

- Available as ISPF option 3.17
- Provides most of the functions supported by the ISHELL utility

```
Menu Utilities Options Help
                                z/OS UNIX Directory List Utility
Option ==> _____
blank Display directory list          P Print directory list
Pathname . . . /u/pvandyk _____ +

Enter "/" to select option
/ Confirm File Delete
/ Confirm Non-empty Directory Delete

When the directory list is displayed, enter either:
"/" on the directory list line command field for the command prompt pop-up,
an ISPF line command, the name of a TSO command, CLIST, or REXX exec, or
"=" to execute the previous command.

Time zone WAT-8 is used to calculate the displayed date and time values.

F9=Swap      F10=Actions  F12=Cancel
```

## z/OS UNIX Directory List Utility. . .

- Horizontal scrolling via the RIGHT and LEFT primary commands
- Column order and size can be customized via Options pull-down

```

Menu Utilities View Options Help
z/OS UNIX Directory List Row 1 to 20 of 25
Command ==> _____ Scroll ==> PAGE
Pathname . : /SYSTEM/etc
Command  Filename      Message      Type Permission Audit  Ext  Fmat Owner
-----
.                Dir  rwxr-xr-x  fff---          IBMUSER
..               Dir  rwxr-xr-x  fff---          IBMUSER
.nfs             File rw-r--r--  fff--- --s- ---- IBMUSER
ant.conf        File rwxrwxrwx  fff--- --s- ---- IBMUSER
bpa             Dir  rwxr-xr-x  fff---          IBMUSER
cmx             Dir  rwxr-xr-x  fff---          IBMUSER
dce             Dir  rwxr-xr-x  fff---          IBMUSER
dfs            Dir  rwxr-xr-x  fff---          IBMUSER
inetd.conf     File rwxrwxrwx  fff--- --s- ---- IBMUSER
inetd.pid     File rw-r--r--  fff--- --s- ---- IBMUSER
ioepdcf       Syml rwxrwxrwx  fff---          IBMUSER
ldap          Dir  rwxr-xr-x  fff---          IBMUSER
licgmt        Dir  rwxr-xr-x  fff---          IBMUSER
log           File rw-rw----  fff--- --s- ---- IBMUSER
pkiserv       Dir  rwxr-xr-x  fff---          IBMUSER
profile       File rwxr-xr-x  fff--- --s- ---- IBMUSER
security      Dir  rwxr-xr-x  fff---          IBMUSER
skrb          Dir  rwxr-xr-x  fff---          IBMUSER
spool         Dir  rwx-----  fff---          IBMUSER
utmpx        File rw-r--r--  fff--- --s- ---- IBMUSER
F1=Help      F2=Split      F3=Exit      F4=Expand    F5=Rfind     F7=Up        F8=Down
F9=Swap      F10=Left     F11=Right    F12=Cancel

```

## z/OS UNIX Directory List Utility. . .

- Primary commands available:
  - **EDIT** - edit a file in the current directory
  - **FIND** - find a string within a filename
  - **LEFT** - scroll the directory list columns to the left
  - **LOCATE** - locate a directory list entry based on the sort order
  - **REFRESH** - redisplay directory list with any changes that have occurred
  - **RESET** - redisplay list removing line commands and messages
  - **RIGHT** - scroll the directory list columns to the right
  - **SAVE** - write the directory list data to a data set
  - **SORT** - sort the directory list by the specified fields

## z/OS UNIX Directory List Utility. . .

- Line commands available:

- **E** - edit a file
- **B** - browse a file
- **N** - create a new file
- **L** - list a directory
- **D** - delete a file
- **R** - rename a file
- **V** - view a file (z/OS 1.9)
- **EA** - ASCII edit (z/OS 1.9)
- **VA** - ASCII view (z/OS 1.9)
- **RA** - REFLIST Add (z/OS 1.10)
- **FS** - File System (z/OS 1.11)
- **MA** - Modify ACLs (z/OS 1.13)
- **CO** - copy data out
- **CI** - copy data in
- **I** - display attributes
- **MM** - modify mode fields
- **MX** - modify extended attributes
- **X** - execute a command
- **MO** - Modify Owner (z/OS 1.11)
- **MG** - Modify Group (z/OS 1.11)
- **MF** - Modify Format (z/OS 1.11)
- **UA** - User Auditing (z/OS 1.11)
- **AA** - Auditor Auditing (z/OS 1.11)



## z/OS UNIX Support Enhancements. . .

### ▪ Use ISPF Edit and Browse for z/OS UNIX Files (z/OS 1.9)

- Edit/View/Browse “**Other**” Data Set Name fields support entry of z/OS UNIX pathnames
  - z/OS UNIX Directory List displayed when pathname for directory entered in the “**Other**” Data Set Name field
- z/OS UNIX pathname can be specified as an operand with the following edit primary and macro commands
  - COMPARE**
  - COPY**
  - CREATE**
  - MOVE**
  - REPLACE**
- **BROWSE**, **EDIT**, and **VIEW** services enhanced to support processing of z/OS UNIX files
- **FILEXFER** service enhanced to support the upload and download of z/OS UNIX regular files
- Personal data set lists enhanced to support the saving and retrieval of z/OS UNIX pathnames

## z/OS UNIX Support Enhancements. . .

### ▪ Support for Editing ASCII Data (z/OS 1.9)

- ASCII edit automatically invoked for z/OS UNIX files tagged with CCSID 819 (US ASCII)
- ASCII edit can be selected for z/OS UNIX files not tagged by either:
  - Selecting the **Edit ASCII data** option on the Edit/View Entry panel
  - Using the z/OS UNIX Directory List Utility (option 3.17) **EA** line command
- File tagged with CCSID of 819 when saved
- ASCII edit available with the EDIT and VIEW services by using the new **ASCII** keyword parameter

## New UDLIST Command – z/OS 1.10

- Used to display a z/OS UNIX Directory List (option 3.17) from any command line

Syntax: **UDLIST** [*personal\_list\_name* | *pathname*]

- If a personal list name is provided, a directory list will be built based on the pathname entries in the list
- Alternatively, the pathname for a directory can be specified
  - but most command lines are CAPS(ON) – cannot enter mixed-case pathnames
- If no parameter is specified with the **UDLIST** command a popup displays:

```

ISRPUDLB                               Personal Data Set Lists for UDLIST                               List 1 of 7
Command ==> _____ Scroll ==> CSR_

Specify the pathname for a z/OS UNIX directory:
Name . . . . . _____ +

Or select a personal data set list as a filter for UDLIST:

Name      Description      Created      Referenced
. REFLIST  Last 30 referenced data sets      08/07/17 12:21
. OS2GMLIB
. UNIXWORK UNIX work files      07/05/11 08/02/20 13:54
. UNIXISPF UNIX Development Files/DSSs      07/08/22 08/02/20 13:51
. WRKST1
. UDLIST1
. DEMO     ISPF Demo List (SHARE)      07/05/11 07/08/22 15:16
          05/08/09 07/08/22 15:16
**End**

```

- Popup allows user to:
  - enter a mixed-case pathname
  - select a personal list

## Directory List Enhancements – z/OS 1.11

- z/OS UNIX commands can be entered in the command field on the z/OS UNIX Directory List panel
  - Requires option **“Enter z/OS UNIX commands in Command field”** to be selected on the directory list options panel
  - Entering a / (forward slash) in the command field displays a panel with a command field 255 characters in length
- Default line commands can be defined for different file types
  - Default line command is processed when the cursor is placed in the line command field and the ENTER key is pressed
  - IBM-supplied default line commands:

Directory	<b>L (List)</b>
Regular file	<b>B (Browse)</b>
Character special	<b>I</b>
FIFO	<b>I</b>
Symbolic link	<b>I</b>
  - User can change default line commands on the **“z/OS UNIX Directory List Default Line Commands”** panel available from the **Options** pull-down

# Using Multiple Screens

- ISPF allows up to 32 synchronously multi-tasking screens under one ISPF session
  
  - Create new logical screens using:
    - **SPLIT [NEW]** command
      - reposition horizontal line separating 2 screens on 3270 display
      - new logical screen created when **NEW** specified
    - **START** command
      - creates new logical screen with different "initial dialog"
- ```
START PANEL(panel) | PGM(program) | CMD(command)
      [select_parameters]
      | ISPF_command
      | primary_option_menu_option
```
- Navigate screens using:
    - **SWAP [LIST | PREV | NEXT | screen name | n]** command
    - ISPF Task List panel (invoked using **SWAP LIST** command)

# ISPF Task List - Swap List Command

ISPF Task List  
Active ISPF Logical Sessions

Screen names

"Other" screen

Current screen

Panelid and Applid

| ID | Name  | Panelid  | Applid | Session Type |
|----|-------|----------|--------|--------------|
| 1  | DSLIS | ISRUDSL0 | ISR    | 3270         |
| 2  | EDIT  | ISREDDE2 | ISR    | 3270         |
| 3  | WORK  | ISRWORK  | ISR    | 3270         |
| 4- | DTEST | ISPYXD1  | ISR    | 3270         |
| 5* | SCLM  | FLMDMN   | ISR    | 3270         |

## SWAPBAR – z/OS 1.10

- Simplifies the task of swapping between ISPF logical screens
- Displays at the bottom of the physical screen point-and-shoot fields associated with each logical screen for the session
  - Use the point-and-shoot field to invoke the associated logical screen
    - Tip: Customize your terminal emulator to make the action of clicking the mouse to simulate:
      - 1) placing the cursor
      - 2) Pressing the ENTER key
- Enabled using the new SWAPBAR system command

Syntax:     **SWAPBAR [ON|OFF]**

# Display System and User Id – z/OS 1.7

- New ISPF command provided which allow the system name and/or user ID to be displayed on all ISPF panels

- **SYSNAME [ON|OFF]** - Display | Remove system name
- **USERID [ON|OFF]** - Display | Remove user ID

```

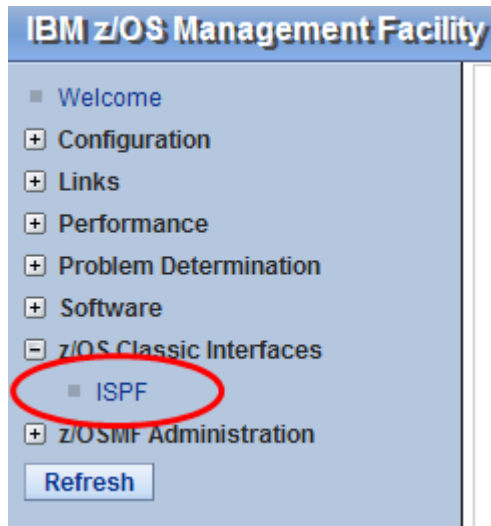
Menu RefList RefMode Utilities Workstation Help
ISD1 VANDYKE Edit Entry Panel
Command ==>
ISPF Library:
Project . . . . PDFIDEV
Group . . . . INT . . . . SVT . . . .
Type . . . . GML
Member . . . . (Blank or pattern for member selection list)
Other Partitioned, Sequential or VSAM Data Set:
Data Set Name . . . .
Volume Serial . . . . (If not cataloged)
Workstation File:
File Name . . . .
Options
Initial Macro . . . . - Confirm Cancel/Move/Replace
Profile Name . . . . - Mixed Mode
Format Name . . . . - Edit on Workstation
Data Set Password . . - / Preserve VB record length

```



# ISPF in a Web Browser (Using z/OSMF)

- With z/OS 1.13, z/OSMF users can invoke ISPF in a web browser
- New ISPF task under z/OS Classic Interfaces category
  - Used to launch a “classic” ISPF session in the browser
  - Existing TSO logon procedure is used to define TSO/ISPF environment



**z/OSMF ISPF User Settings**

All settings take effect when you start (or restart) ISPF. Color selections also take effect at the next z/OSMF ISPF page refresh.

Show settings dialog with every logon.

Logon procedure:

Region size (kilobytes):

Account number:

User group:

Profile sharing:  ▼

Screen size rows:

Screen size columns:

Code page:  ▼

Language:  ▼

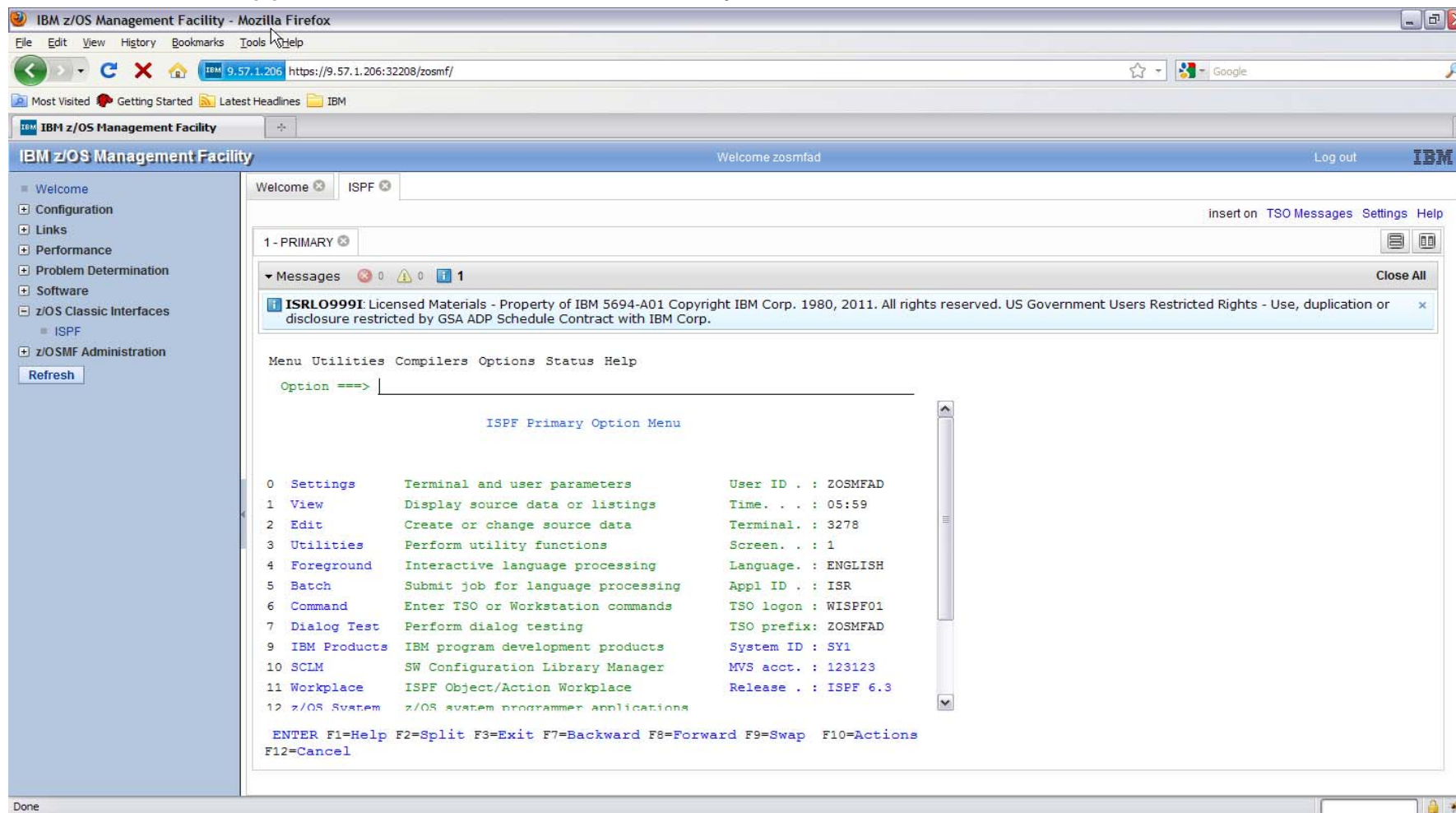
Map colors from z/OS ISPF to z/OSMF ISPF.

| z/OS ISPF colors: | z/OSMF ISPF colors:                              |
|-------------------|--------------------------------------------------|
| Sample blue text  | <input type="text" value="Sample blue text"/> ▼  |
| Sample red text   | <input type="text" value="Sample red text"/> ▼   |
| Sample pink text  | <input type="text" value="Sample pink text"/> ▼  |
| Sample green text | <input type="text" value="Sample green text"/> ▼ |

OK Apply Cancel Help

# ISPF in a Web Browser (Using z/OSMF)...

- Panels appear similar to TN3270 ISPF layout



# ISPF in a Web Browser (Using z/OSMF)...

- Can display up to 4 ISPF logical screen in the same browser tab

The screenshot shows the IBM z/OS Management Facility (z/OSMF) interface in a web browser. The browser address bar shows the URL `https://9.57.1.206:32208/zosmf/`. The interface is divided into two main panels:

- 1-SDSF:** Displays a table of jobs. The table has columns for NP, JOBNAME, StepName, ProcStep, JobID, Owner, C, Pos, DP, Real, and Paging. The data is as follows:
 

| NP  | JOBNAME  | StepName | ProcStep | JobID    | Owner    | C  | Pos  | DP   | Real | Paging |
|-----|----------|----------|----------|----------|----------|----|------|------|------|--------|
| --- | BPXOINIT | BPXOINIT | BPXOINIT |          | NS       | FF | 134  | 0.00 |      |        |
| --- | TCAS     | TCAS     | TSO      | STC00023 | IBMUSER  | LO | FF   | 148  | 0.00 |        |
| --- | GRSSTMON | GRSSTMON | STEP1    | STC00006 | +++++++  | LO | FF   | 85   | 0.00 |        |
| --- | TNF      | TNF      | IEFPROC  |          | NS       | FE | 69   | 0.00 |      |        |
| --- | VMCF     | VMCF     | IEFPROC  |          | NS       | FE | 75   | 0.00 |      |        |
| --- | XCFILMON | XCFILMON | STEP1    | STC00009 | IBMUSER  | LO | FF   | 101  | 0.00 |        |
| --- | VTAM44   | VTAM44   | VTAM     | STC00013 | +++++++  | NS | FE   | 517  | 0.00 |        |
| --- | SMF      | SMF      | IEFPROC  |          | NS       | FF | 85   | 0.00 |      |        |
| --- | FTPD1    | STEP1    |          | SIC00027 | FTPD     | LO | FF   | 93   | 0.00 |        |
| --- | IGVDGNPP | IGVDGNPP | PRIMEPSA |          | LO       | FF | 74   | 0.00 |      |        |
| --- | VLF      | VLF      | VLF      |          | NS       | FE | 1797 | 0.00 |      |        |
| --- | *MASTER* |          |          | STC00002 | +MASTER+ | NS | FF   | 1104 | 0.00 |        |
| --- | AXR      | AXR      | IEFPROC  |          | NS       | FE | 111  | 0.00 |      |        |
| --- | ZOSMFAD  | WISPF02  |          | TSU00060 | ZOSMFAD  | LO | FF   | 970  | 0.00 |        |
| --- | BBNS001  | BBNS001  | BBOPACR  | STC00050 | WSCRUI   | NS | FE   | 37T  | 0.00 |        |
| --- | RRS      | RRS      | RRS      |          | NS       | FE | 451  | 0.00 |      |        |
- 2-DSLIST:** Displays a list of data sets matching SYS1. The list includes:
  - SYS1.ACOUPLE
  - SYS1.ADFMAC1
  - SYS1.AFUNCT.CTTEST
  - SYS1.ALTERENT
  - SYS1.APSDAT00
  - SYS1.ARM.CDS001
  - SYS1.ARM.CDS002
  - SYS1.ARM000
  - SYS1.ARM001
  - SYS1.ARM002
  - SYS1.AUXLIB
  - SYS1.AXREXEC
  - SYS1.BBN.PROCLIB

# ISPF in a Web Browser (Using z/OSMF)...

- TSO/E messages are displayed in a popup window

The screenshot displays the IBM z/OS Management Facility (z/OSMF) web interface. The browser address bar shows the URL `https://9.57.1.206:32208/zosmf/`. The main content area is titled "IBM z/OS Management Facility" and includes a navigation menu on the left with options like "Welcome", "Configuration", "Links", "Performance", "Problem Determination", "Software", "z/OS Classic Interfaces", "ISPF", and "z/OSMF Administration".

The main workspace is titled "1 - CMD" and contains a command prompt with the following text:

```
Menu List Mode Functions Ut
Enter TSO or Workstation comm
====>
profile

Place cursor on choice and p
=> time
=> profile
=> _
=> _
=> _
=> _
=> _
=> _
=> _
```

A popup window titled "TSO Messages- ASID: 33" is overlaid on the main workspace, displaying the following logon messages:

```
ZOSMFAD LOGON IN PROGRESS AT 06:21:17 ON JULY 15, 2011
NO BROADCAST MESSAGES
READY
TIME-06:21:44 AM. CPU-00:00:00 SERVICE-6095 SESSION-00:00:24 JULY 15,2011
```

Below the messages, a table of system parameters is shown:

| CHAR(0) | LINE(0)         | PROMPT         | INTERCOM       | NOPAUSE         | NOMSGID | NOMODE | NOWTPMSG | NORECOV |
|---------|-----------------|----------------|----------------|-----------------|---------|--------|----------|---------|
| ER      | PREFIX(ZOSMFAD) | PLANGUAGE(ENU) | SLANGUAGE(ENU) | VARSTORAGE(Low) |         |        |          |         |

The popup window also includes buttons for "OK", "Attention", "Clear", and "Help". At the bottom of the main workspace, there is a keyboard shortcut legend:

```
ENTER F1=Help F2=Split F3=Exit F7=Backward F8=Forward F9=Swap F10=Actions
F12=Cancel
```

# ISRDDN Utility

- Fullscreen display of DD allocations
- Build a member list based on a DD
- Invocation: **SELECT PGM(ISRDDN)** - DDLIST command

```

Current Data Set Allocations                               Row 11 of 214
Command ==> _____ Scroll ==> CSR

```

| Volume | Disposition | Act | DDname  | Data Set Name          | Actions: B E V M F C I Q |
|--------|-------------|-----|---------|------------------------|--------------------------|
| MVS8W0 | SHR,KEEP    | > - | ISPILIB | PDFTDEV.VANDYKE.GIF    |                          |
| MVS8WL | SHR,KEEP    | > - |         | PDFTDEV.STG.GIF        |                          |
| MVS8WI | SHR,KEEP    | > - |         | PDFTDEV.INT.GIF        |                          |
| MVS8WK | SHR,KEEP    | > - |         | PDFTDEV.SVT.GIF        |                          |
| DMTCAT | SHR,KEEP    | > - | ISPLLIB | VANDYKE.LOADLIB        |                          |
| MVS4W3 | SHR,KEEP    | > - |         | WDBDEV.LOAD            |                          |
| MVS8WK | SHR,KEEP    | > - |         | PDFTDEV.VANDYKE.LOAD   |                          |
| MVS8WF | SHR,KEEP    | > - |         | PDFTOOL.COMMON.LOAD    |                          |
| MVS8WF | SHR,KEEP    | > - |         | PDFTDEV.STG.LOAD       |                          |
| MVS8WM | SHR,KEEP    | > - |         | PDFTDEV.INT.LOAD       |                          |
| MVS8WD | SHR,KEEP    | > - |         | PDFTDEV.SVT.LOAD       |                          |
| MVS8WL | SHR,KEEP    | > - |         | PDFTOOL.FLM@SCAN.LOAD  |                          |
| S13L8R | SHR,KEEP    | > - |         | SYS1.DFQLLIB           |                          |
| S13L8R | SHR,KEEP    | > - |         | SYS1.DGTLLIB           |                          |
| MVS8W0 | SHR,KEEP    | > - | ISPMLIB | PDFTDEV.VANDYKE.MSGGEN |                          |
| MVS8WD | SHR,KEEP    | > - |         | PDFTOOL.COMMON.MSGS    |                          |
| MVS8W0 | SHR,KEEP    | > - |         | PDFTDEV.STG.MSGGEN     |                          |
| MVS8WJ | SHR,KEEP    | > - |         | PDFTDEV.INT.MSGGEN     |                          |

- Browse (B), Edit (E), View (V), Free the entire DD (F), Compress a PDS (C), Provide additional data set information (I), Display list of users of jobs using a data set (Q)

# ISRDDN - Primary Commands

## MEMBER *name* [*string*]

- scans allocations for a particular member
- *string* restricts the search to DDs with *string* in their name.
- Uses CSVQUERY to locate load modules

```

Current Data Set Allocation
Member was found
Command ==> _____ Scroll ==> CSR

Message          Act DDname  Data Set Name  Actions: B E V M F C I Q
> _ ISPILIB  PDFTDEV.VANDYKE.GIF
> _         PDFTDEV.STG.GIF
> _         PDFTDEV.INT.GIF
> _         PDFTDEV.SVT.GIF
> _ ISPLLIB  VANDYKE.LOADLIB
> _         WDBDEV.LOAD
> _         PDFTDEV.VANDYKE.LOAD
> _         PDFTOOL.COMMON.LOAD
Member: ISPSUBS > _         PDFTDEV.STG.LOAD
> _         PDFTDEV.INT.LOAD
Member: ISPSUBS > _         PDFTDEV.SVT.LOAD
> _         PDFTOOL.FLM@SCAN.LOAD
> _         SYS1.DFQLLIB
> _         SYS1.DGTLLIB
> _ ISPMLIB  PDFTDEV.VANDYKE.MSGGEN
> _         PDFTOOL.COMMON.MSGS
> _         PDFTDEV.STG.MSGGEN
> _         PDFTDEV.INT.MSGGEN
  
```

## ONLY *string* | EXCLUDE *string*

- to show or exclude DDs with *string* in their name

# ISRDDN - Primary Commands...

- **SEARCH *name***
  - Same as **MEMBER** but does not search DD's
  
- **LOAD *name***
  - Explicitly loads a module
  - Uses ISPLLIB if available
  - Browses result
  
- **APF, LINKLIST (LI), PARMLIB, LPA (LP)**
  - toggle commands to add/remove pseudo-DD names
  - show the defined -
    - APF data sets
    - link-list data sets
    - PARMLIB data sets
    - LPA data sets

# ISRDDN - Primary Commands...

- **CLIST**
  - creates a allocation CLIST in '`prefix.ISRDDN.CLIST`'
  
- **COUNT [string]**
  - counts the number of members in PDSs
  
- **DUP**
  - searches all the PDSs in the displayed list and LPA
  - displays list of duplicate names
  
- **ENQ**
  - Enqueues on system
  
- **CON**
  - Enqueue contention



# ISRDDN - Browse of Control Blocks

- BROWSE STORAGE
  - SEQUENTIAL FILE
    - Allocated to DDNAME ISRDDN
    - Fixed or VB
    - Max length of 230
      - ◆ First string on line is control block name
    - Second string is locator string
    - Everything else ignored

|      |         |                        |
|------|---------|------------------------|
| ASCB | CVT?+C? | Addr space control blk |
| CVT  | 10.?    | Comm Vector Table      |
| TCB  | CVT??   | Task Control Block     |

- Disassembly support available with z/OS 1.9

**NOTE:** ISRDDN is now documented in the ISPF User's Guide Volume I

# User Command Tables

- ISPF supports up to 3 user command tables (z/OS 1.5)
  - APPLID for User command tables are defined in the ISPF configuration table
  - Searched before Site and System command tables
  
- Many sites now define USER as the APPLID for a User command table
  - Speak to your systems programmer if your site does not
  - Allows users to define their own ISPF commands
  - User command table saved in a personal table data set in the ISPTLIB DD concatenation
  
- Creating and updating user command tables
  - Option 3.9 can be used to create a user command table
    - Requires table data set allocated to the ISPTABL DD
  - Option 3.9 cannot update a user command table if it is open to your ISPF session
    - Copy table to another member; use option 3.9 to update new member; copy updated member back
    - With z/OS 1.9, use option 3.16 (ISPF Table Utility)

## ISRDTLCV Macro

- Shipped in SISPEXEC library
- Converts the non-displayable characters in panel output from the DTL Conversion Utility (ISPDTLC) to editable characters
- Issue **ISRDTLCV** on edit command line of generated panel



Session 11706



Session 11707