

ISPF

An Experienced User Shares His Secrets

*Bruce Koss
Wells Fargo*

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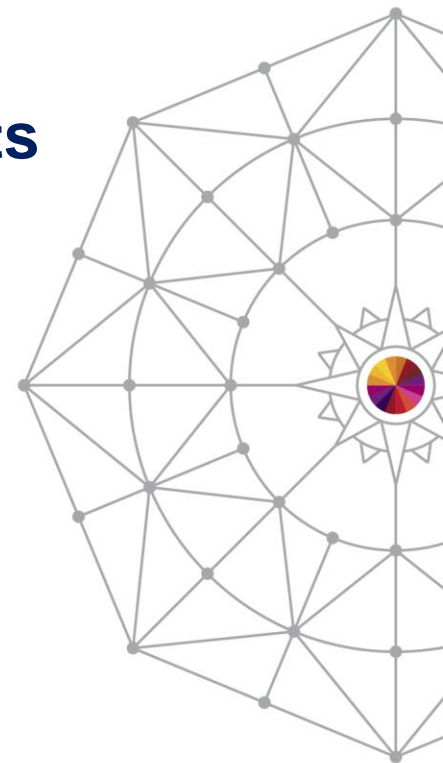
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Introduction

- Provide an overview on how to exploit several ISPF features
 - ISPF configuration
 - Stacking commands
 - MODEL command
 - Work Station Agent (WSA)
- Expectations
 - Familiarity with ISPF configuration and MODEL command
 - Capability to allocate personal ISPF data sets to allow testing
- Other Items
 - Links are provided to IBM manuals and other documents to assist in learning these features in more detail
 - May need to adjust Adobe Reader zoom value to view text

Agenda

Link	Topic
ISPF Configuration	<ul style="list-style-type: none">• Settings
Stacking Commands	<ul style="list-style-type: none">• Overview and implementation
MODEL Command	<ul style="list-style-type: none">• Obtain ISPF commands• Add JCL utilities, SDSF REXX and REXX commands
Work Station Agent (WSA)	<ul style="list-style-type: none">• Overview and installation• Transfer files using ISPF 3.7.2
Links	<ul style="list-style-type: none">• ISPF, REXX, TSO and SDSF manuals• SHARE ISPF, SDSF and REXX PPTs• Websites

ISPF Configuration

Introduction

- Provide an overview of several ISPF configuration variables
 - Activate new features and enhancements
 - For new users, reduce the time it takes to configure the environment
- ISPF Configuration Dialog
 - Execute **ISPCCONF** after installing a new z/OS operating system
 - Syntax:
 - **TSO ISPCCONF**
- Links
 - [SHARE, Tom Conley, Configuring ISPF for Fun and Profit](#)
 - [IBM Publication, ISPF Planning and Customization, Chapter 2](#)
- Items highlighted in **yellow** are settings used to implement stacking commands and Work Station Agent (WSA)

Variable	Assigned	Notes
APPLID_FOR_SITE_COMMAND_TABLE	WFS	Allows for system/site wide command tables to be defined/used (WFSCMDS) - WFS stands for Wells Fargo Site commands - The default is NONE
APPLID_FOR_USER_COMMAND_TABLE	WFU,WFU2, WFU3	Allows users to define up to three different user command tables (WFUCMDS, WFU2CMDS and WFU3CMDS) - WFU stands for Wells Fargo User commands - The default is NONE
BLOCK_SIZE_FOR_TEMPORARY_CNTL_DATA_SETS BLOCK_SIZE_FOR_TEMPORARY_LIST_DATA_SETS BLOCK_SIZE_FOR_TEMPORARY_WORK_DATA_SETS	0 0 0	Set the block size to zero to obtain/use half track blocking - The defaults are 800, 3146 and 2560
COMMAND_LINE_PLACEMENT	ASIS	Place the command line at the top - The default is BOTTOM
DEFAULT_LIBDEF_PROCESSING_OPTION	STACK	When LIBDEFing data sets, the default will be STACK - Prevents issues when stacking software on top of one another, specifically, removing previous LIBDEFed data sets - The default is UNCOND

Variable	Assigned	Notes
DEFAULT_SYSTEM_NAME	ON	Displays the lpar name in the upper left hand corner of all panels - The default is OFF
DISALLOW_WILDCARDS_IN_HLQ	YES	Prevents long enqueues on the master catalog - The default is NO
DISPLAY_EMPTY_MEMBER_LIST DISPLAY_EMPTY_MEMBER_LIST_PATTERN	YES YES	Capability to edit an empty PDS - The defaults are NO and NO
DISPLAY_SEQUENCE_NUMBERS	OFF	- The default is ON
DSLIST_RM_ENABLED DSLIST_RM_COMMAND	YES %CA1DS34	Allows executing a REXX program to obtain CA1 information when typing an “I”, “S” or “M” next to a tape data set from ISPF 3.4 - CA1DS34 is an in-house written utility -- “I” invokes CA1, selects option “1 - INQ/UPD” and inserts the VOLSER to obtain the tape information -- “S” invokes CA1's Browse Module (TSOTIQ) and uses the data set name to obtain the tape information -- “M” invokes CA1's Tape Inquiry Program (TMSBINQ) and uses the VOLSER to obtain the tape information - The defaults are NO and %EDGRPD34

Variable	Assigned	Notes
EDIT_RECOVERY_BLOCK_SIZE EDIT_RECOVERY_PRIMARY_QUANTITY EDIT_RECOVERY_SECONDARY_QUANTITY	27998 800 800	Allows for a large amount of changes and updates - The defaults are 13680, 40 and 200
LOG/LIST_JOB_CARD1	Job Card	Define a standard JOB card format - Software can obtain and use it by coding “VGET (ZLLGJOB1 ZLLGJOB2 ZLLGJOB3 ZLLGJOB4)” - The default is NONE
HILITE_DOLOGIC HILITE_IFLOGIC HILITE_PAREN	ON ON ON	Distinguishes lines of code and assists in troubleshooting - The defaults are OFF, OFF and OFF
ISPCTL0_BLOCK_SIZE	0	Set the block size to zero to obtain/use half track blocking - The default is 800
ISPF_TEMPORARY_DATA_SET_QUALIFIER	&SYSNAME.	Inserts the lpar name in the second level qualifier of the ISPF temporary data set names - Allows logging on to multiple, concurrent TSOs within a sysplex - If the lpar name begins with a number, suggest placing the character ‘S’ in front of &SYSNAME - The default is NONE

Variable	Assigned	Notes
LIST_DATA_SET_RECORDS_PER_BLOCK	231	Set the list data set records per block to 231 for a 3390 - LRECL 121 * 231 = 27951, half-track for a 3390 - The default is 26
LIST_SYSOUT_CLASS	*	- The default is NONE
LOCAL_LIST_SYSOUT_CLASS	*	- The default is NONE
LOG_DATA_SET_BLOCK_SIZE	0	Set the block size to zero to obtain/use half track blocking - The default is 129
LOG_DATA_SET_DISPOSITION	D	Delete the log data set - The default is NONE
LOG_PAGES_PRIMARY_QUANTITY LOG_PAGES_SECONDARY_QUANTITY	0 0	Not needed/used, decreases response time - The defaults are 10 and 10
MAXIMUM_NUMBER_OF_SPLIT_SCREEN	32	Allows the capability to have 32 split screens - Set PF2=START, PF9=SWAP NEXT and PF21=SWAP PREV; then, activate SWAPBAR - The default is 8
NUMBER_OF_PFKEYS	24	Typing in KEYS will display "Number of Keys = 24" - The default is 12

Variable	Assigned	Notes
OUTLIST_BLOCK_SIZE	0	Set the Outlist Utility block size to zero to obtain half track blocking for OUTLIST data sets - The default is 13566
PROFILE_SHARING	YES	Allows logging on to multiple, concurrent TSOs within a sysplex - Required to run multiple, concurrent z/OSMF ISPF sessions - The default is NO
RETRIVE_COMMAND_STACK_SIZE	4096	Allows saving/retrieving longer primary commands - The default is 512
SCROLL_DEFAULT	CSR	Set the scroll default to cursor - The default is PAGE
SCREEN_FORMAT	MAX	Automatically adjusts screen lines/columns to 3270 emulator terminal type (Model 2, 3, 4 and 5) - The default is STD
SHOW_PFKEYS	OFF	Provides for more screen real estate - The default is ON
SITE_WIDE_INITIAL_MACRO	RESET	Prevents unnecessary messages from appearing when editing a data set or member - The default is NONE

Variable	Assigned	Notes
STANDARD_NUMBERS	OFF	- The default is ON
STATS_EXT_ENABLED	YES	Extended statistics are kept for PDS members - The default is NO
TAB_TO_ACTION_BARS	NO	Pressing the HOME key will position the cursor on the primary command line - The default is YES
UNDO_STORAGE_SIZE	1024	Allocate 1024K of memory to edit UNDO command to be used for keeping history of edit changes - Enables SETUNDO command - The default is 0
USE_KEYLISTS	NO	Makes the PF keys standard throughout ISPF - Assigns PF4=RETURN, PF5=RFIND, PF6=RCHANGE, P7=UP, PF8=DOWN, PF9=SWAP, PF10=LEFT, PF11=RIGHT and PF12=RETRIEVE - The default is YES

Variable	Assigned	Notes
VSAM_BROWSE_ENABLED VSAM_BROWSE_COMMAND VSAM_EDIT_ENABLED VSAM_EDIT_COMMAND VSAM_VIEW_ENABLED VSAM_VIEW_COMMAND	YES %ISPF34B YES %ISPF34E YES %ISPF34B	Allows invoking a REXX program when browsing, editing or viewing a VSAM file - ISPF34B/E is an in-house written REXX program to invoke File-Aid/MVS (F1/F2) or CBT183 (BR) - Allows the use of File-Aid/MVS REXX programs F1 (Browse) and F2 (Edit) - Allows the ability to install and invoke Ditto, File-Manager/MVS or Review from the CBT tape - The defaults are NO and FMNMAIN DSB /
WSA_DOWNLOAD_DATA_SET	'SYS1.SISPGUI'	The data set name is inserted into the ISPF 3.7.1 screen - The default is 'ISP.SISPGUI'

Stacking Commands

Introduction

- Stacking commands provide the capability to invoke any application from anywhere within ISPF and not have to be located at the user or main menu, reducing keystrokes
- Allows multiple software products to be stacked on one split screen and each split screen is a separate stack
- Stacking commands are implemented using the ISPF site and user command tables ([slide 6](#))

- All menu options are stacking commands
- IBM Primary Menu
 - Prefix the character “Z” in front of option (Z##)
 - Examples:
 - Z1 will invoke ISPF option 1, Browse
 - Z2 will invoke ISPF option 2, Edit
 - Z34 will invoke ISPF option 3.4, Data Set List
 - ZSD will invoke ISPF option SD, SDSF
- Developer and System Menu
 - Type in the entry name
 - CA7, ABENDAID, NDM, OPSMVS, etc.
 - Only need to type in the 1st three or four characters
 - ABE for ABENDAID
 - OPS for OPSMVS

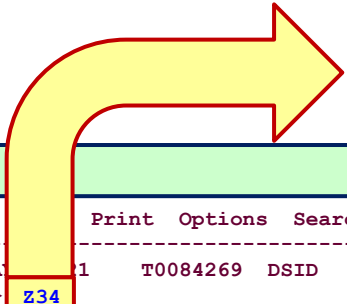
How does it work?

- A user in SDSF may have a need to invoke ISPF 3.4, Data Set List Utility, for a quick look at a data set
- By simply keying in **Z34** on the command line, ISPF 3.4 is stacked on top of the current dialog, without interrupting the SDSF session or starting up a new logical split screen
- The **END** or **RETURN** PFkeys (**PF3/4**) will cause an immediate return to the suspended dialog, in this case, SDSF

Example

```

SDSF
-----
Display Filter          Print Options Search
-----
SDSF OUTPUT DISPLAY 1  T0084269  DSID
COMMAND INPUT ==> Z34
***** TOP OF DATA ****
1 //R2221  JOB 'TSOPRD',REGION=8192K
2 //PANTSOPG EXEC PANTSOPG
3 XXPANTSOPG EXEC PGM=IKJEFT01,
  XX      DYNAMNBR=200,
  XX      REGION=3072K,
  XX      TIME=480,
  XX      PARM='%XAPAN'
4 XXSTEPLIB DD DISP=SHR,DSN=PRDLL.#OU.V
  XX*****
  XX*
  XX* ***** TSO PROCEDURE USED BY - S & P - *****
  XX*
  XX*****
  XX*ISPCTL1 DD SPACE=(CYL,(1,1)),UNIT=TTEMP,
  XX*      DCB=(BLKSIZE=800,LRECL=80,RECFM=FB)
  XX*ISPCTL2 DD SPACE=(CYL,(1,1)),UNIT=TTEMP,
  XX*      DCB=(BLKSIZE=800,LRECL=80,RECFM=FB)
5 XXISPLST1 DD SPACE=(CYL,(1,1)),UNIT=TTEMP,
  XX      DCB=(BLKSIZE=1210,LRECL=121,RECFM=FBA)
    
```



```

Z34
-----
Menu RefList RefMode Utilities Help
-----
Data Set List Utility

Option ==> _____ More: +
blank Display data set list      P Print data set list
V Display VTOC information      PV Print VTOC information

Enter one or both of the parameters below:
Dsname Level . . . PRSS.R2221.JCL _____
Volume serial . . _____

Data set list options
Initial View          Enter "/" to select option
1 1. Volume          / Confirm Data Set Delete
2. Space            / Confirm Member Delete
3. Attrib           / Include Additional Qualifiers
4. Total            / Display Catalog Name
                    _ Display Total Tracks
                    _ Prefix Dsname Level

When the data set list is displayed, enter either:
"/" on the data set list command field for the command prompt pop-up,
an ISPF line command, the name of a TSO command, CLIST, or REXX exec, or
    
```

STACK – Utility

- An in-house utility called **STACK** or **STK** was developed to display all available stacking commands
- Displays all available commands defined in the site (**WFSCMDS**) or user (**WFU[2|3]CMDS**) command tables
- Lists all entries on the Developers, System and ISPF menus, plus TSO commands like **PING**, **NETSTAT**, etc.
- An easy way to locate, execute and obtain product information

STACK – Example

- Typing in **STACK** or **STK** from any panel displays all stacking commands

```
----- ( Stacking Commands )----- Row 1 to 12 of 342
Command ==> _____ Scroll ==> CSR_

Command:  F xxx - Find text      L xxx - Locate text      S xxx - Sort column
          O xxx - Only text      R      - Reset display  X xxx - Exclude text
          D      - Save to DSN  M      - Mail          P      - Print
          H      - Hide header

Line:     S - Exec software, B - Tutorial, I - DSN info, X - Exclude row

S  Command  Trunc  Description
-  - - - -  - - -  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-  AAVIEW    3      AbendAid Hotkey
-  ABENDAID  3      Dump Analysis Tool
-  AMBLIST   3      Load Module Map and Cross Reference Listing
-  APFLIST   4      APF Data Sets
-  APPC      0      Advanced Program To Program Communication
-  ASID      0      Address Space Identifier (ASID) Usage Summary
-  AUTOCMDS  5      OPSMVS - MVS Automation Commands
-  AXCIS     0      Administration
-  BAT       0      Batch Job Statistics for CA7, TSO, STC, etc.
-  BDT       0      Bulk Data Transfer
-  BLKSIZE   4      Data Set Block Size and Space Recommendation
-  BMCADM    4      DB2 BMC Administrative Products [DB2A]
```

Pros & Cons

- Pros
 - Enhances productivity in ISPF
 - Allows invoking multiple applications on one screen and on top of one another
 - The "Stacking" capability is limited only by the amount of TSO virtual storage
 - Saves typing and reduces the amount of time needed to invoke the facility
 - Typing in “=??” will remove the entire stack
 - Where ?? is an ISPF menu entry
 - Examples: =3.4, =D.ABENDAID, =X, etc.
- Cons
 - When two or more applications are stacked on the same split screen
 - Only one, the application on top of the stack, is accessible
 - Applications in the middle of the stack are inaccessible

Implementation – ISPCCONF

- ISPF Configuration Utility
 - Type in
 - TSO ISPCCONF
 - Define and set
 - APPLID_FOR_SITE_COMMAND_TABLE = WFS
 - APPLID_FOR_USER_COMMAND_TABLE = WFU, WFU2, WFU3
 - DEFAULT_LIBDEF_PROCESSING_OPTION = STACK
- The user command table allows programmers to create their own personal or team stacking commands
 - WFUCMDS, WFU2CMDS and/or WFU3CMDS
- Ensure ISPCFIGU module, created by ISPCCONF, is located in
 - LPA or LNK List
 - or ISPLLIB (STEPLIB) allocated to TSO logon proc

Implementation – ISPF 3.9

- The next few slides will demonstrate how to create a site command table (**WFSCMDS**) using ISPF 3.9, Commands
- Use the same process to create user command tables (**WFUCMDS**, **WFU2CMDS** and **WFU3CMDS**)
- Prerequisite
 - Must allocate a PDS or PDSE data set to ISPTABL DD card
 - This data set is where the site command table will be saved (**WFSCMDS**)
 - Preferably a data set concatenated to the ISPTLIB DD card
 - Allows easy testing and validating of site commands
 - The data set attributes must be RECFM=FB,LRECL=80
- Highlighted in **yellow** is data typed in on the ISPF 3.9, Commands, panel

Implementation – ISPF 3.9

- Invoke ISPF 3.9 and insert the site command table name (**WFS**)

```
Command Table Utility
Command ==>> _____

Specifications
Application ID . . WFS
Enter "/" to select option
    Show description field

Command table search order
Application table . . : ISP
User table 1 . . . . . :
User table 2 . . . . . :
User table 3 . . . . . :
Site table 1 . . . . . :
Site table 2 . . . . . :
Site table 3 . . . . . :
System table . . . . . : ISP

If no application ID is specified, the current application ID will be
used. The name of the command table to be processed is formed by
prefixing the application id to the string 'CMDS'. For example:
Application ID . . TST results in a command table name of 'TSTCMDS'.
```

Implementation – ISPF 3.9

- Tab down to an entry and type in “E” for edit

```
File  Menu  Utilities  Help
-----
                                Update WFSCMDS                Row 1 to 15 of 17
Command ==>> _____ Scroll ==>> CSR_

Insert (I), delete (D), repeat (R) and edit (E) command entries.
Enter END command to save changes or CANCEL to end without saving.

 E  Verb      T  Action
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
  _  _____  -
```


Implementation – ISPF 3.9

- Insert the Verb (stacking command), the Trunc (number of characters needed), the Action (what to execute/invoke) and the Description

```
File  Menu  Utilities  Help
----- Command Table Utility -----
                          Extended Command Entry
Command ===> _____

Make changes to the command and select Update to update the entry or
Cancel to ignore the changes.

Verb . . . . Z34
Trunc . . . . 0
Action . . . . SELECT PGM(ISRUDL) PARM(ISRUDLP) NEWAPPL(ISR)

Description ISPF 3.4 - Utilities - DSLIST

Enter / to select option
_ Allow mixed-case in Action field

                          Update                          Cancel
```

Implementation – ISPF 3.9

- VERB
 - Stacking command
 - Must follow IBM's naming convention
 - 1st char = A-Z \$#@ and 2nd-8th char = A-Z 0-9 \$#@
 - Must be 2 to 8 characters in length
- TRUNC
 - The minimum number of characters the user must type
 - If zero or equal to the verb length, the entire command must be entered
- ACTION
 - SELECT command, program or selection panel to be given control
- Description
 - Brief description/purpose of command
 - 80 characters or less

Implementation – ISPF 3.9

- Repeat the process for all menu entries
- Terminate/re-invoke ISPF and test typing in a stacking command
- Copy the site command table ([WFSCMDS](#)) into an ISPTLIB data set accessible to everyone
- To update the active site command table ([WFSCMDS](#))
 - Make a copy (ex: [WFSNCMDS](#))
 - Use ISPF 3.9 to make changes ([WFSNCMDS](#))
 - Copy with replace ([WFSNCMDS](#) → [WFSCMDS](#))
 - Terminate/re-invoke ISPF and validate

Suggestions

- Always define site commands with three or more characters
 - Stacking commands take precedence over menu options
 - Prevents menu conflicts
- Prefix the character “Z” in front of all IBM Primary Menu options
 - Very few selection menus use the character Z and a number (Z1, Z2, etc.)
- Ensure software LIBDEFing data sets use sub parameter **STACK**
 - Change default LIBDEF processing option to **STACK** in the site command table ([Slide 6](#))
 - Do not use LIBDEF sub parameter **UNCOND**
 - Prevents removing previous LIBDEFed data sets

Suggestions

- To prevent S878 abends, due to several split screens and stacks
 - Increase the TSO logon size to 8 megabytes (8192K) or above the line
 - Set the REXX/CLIST variable storage above the line
 - ➔ `TSO PROFILE VARSTORAGE(HIGH)`
- Use ISPF 3.9, Commands (Create/change application command table)
 - Specifically designed for updating the site and user command tables
 - Where as ISPF 3.16, Tables (ISPF Table Utility) is a general purpose utility
 - Used to update a wide variety/range of tables

- Command table search order

Order	Command Table	Member
1	User command table 1	WFUCMDS
2	User command table 2	WFU2CMDS
3	User command table 3	WFU3CMDS
4	Site command table 1	WFSCMDS
5	Site command table 2	
6	Site command table 3	
7	System table	ISPCMDS

- Some Independent Vendor Products (IVPs) provide the ability to implement stacking commands
- CA – PDSMAN
 - Initialization parameter
 - Use `$EZYCMD` to define site commands
 - Pros
 - Refresh the site command table by executing the following MVS command:
→ `F PDSMAN,REFRESH`
 - Cons
 - To test/validate, must use a different lpar from the one the general TSO population is using
 - Must terminate/re-invoke ISPF to access new commands
 - Does not allow user command tables

CBT Tape

- Several command table utilities can be found on the CBT Tape
- Link
 - [CBT Downloads](#)
- Files
 - [183 – Gilbert Saint-flour’s collection](#)
 - FASTPATH – Another way to create/use a site command table
 - [312 – Lionel Dyck Collection of Utilities. A thru R](#)
 - ISPFMDS – Dynamically update ISPF Command Table
 - [349 – REXX to update in core ISPF command table on the fly](#)
 - Prevents having to exit and re-invoke ISPF
 - [578 – General ISPF Table Handling Facility – Roy Gardiner](#)

- Technical Support, 2003, Lionel Dyck
 - [ISPF – Command Tables for the Average Users](#)
- Using command tables to define commands
 - [ISPF – V2R1 – Users Guide – Vol 1](#)

MODEL Command

Introduction

- MODEL command
 - IBM edit macro
 - Quickly/easily obtain skeleton ISPF commands
 - Most useful, but least known/utilized
 - Continually being updated/enhanced by IBM
 - Only usable in EDIT and VIEW mode
- Links
 - SHARE, Session 15045, Mar 2014, Liam Doherty and Peter Van Dyke
 - [ISPF Editor – Beyond the Basics, Hands-On Lab](#)
 - SHARE, Session 2646, August 22, 2002, Lionel B. Dyck
 - [ISPF – Design Coding Hints and Tips](#)
 - Chapter 4, Using edit models
 - [ISPF – V2R1 – Edit and Edit Macros](#)

Enhanced

- The MODEL command can be enhanced to provide the following:
 - IBM, OEM and in-house JCL skeletons
 - SDSF REXX examples
 - REXX commands
- The next few slides display the following:
 - Changes highlighted in the IBM **ISREMCLS** panel
 - The **ISREMJCL** panel containing table of contents of all JCL utilities
 - Sample JCL skeletons, **MIEHLIST** and **MUTKT**
 - Changes highlighted in the IBM **ISREMRXC** panel
 - Where to obtain SDSF REXX and REXX commands
- Highlighted in **yellow** are changes made to the IBM panels

JCL – ISREMCLS – Panel

Model Classes

Option ==> _____

Enter number or Class of model.

Enter END command to cancel MODEL command.

- 1 CLIST - ISPF services in CLIST commands
- 2 COBOL - ISPF services in COBOL programs
- 3 EXEC - ISPF services in EXEC commands
- 4 FORTRAN - ISPF services in FORTRAN programs
- 5 MSGS - Message format
- 6 PANELS - Panel formats and statements
- 7 PLI - ISPF services in PLI programs
- 8 SKELS - File tailoring control statements
- 9 PASCAL - ISPF services in PASCAL programs
- 10 REXX - SDSF function and ISPF services in REXX execs
- 11 DTL - ISPF Dialog Tag Language formats and statements
- 12 C - ISPF services in C/370 programs
- 13 SCLM - SCLM Project Definition Macros
- 14 ARCHDEF - SCLM Architecture Definition templates
- 15 JCL - JCL for selected utility programs (USER-ADDED)

JCL – ISREMCLS – Panel

```
) PANEL KEYLIST (ISRSNAB,ISR)
)ATTR DEFAULT() FORMAT(MIX) /* ISREMCLS - ENGLISH - 5.8 */
0D TYPE (PS)
05 TYPE (PT)
06 TYPE (PIN)
09 TYPE (FP)
0A TYPE (NT)
11 TYPE (SAC)
10 TYPE (ET)
27 TYPE (NEF) CAPS(ON) PADC(USER)
28 AREA (SCRL) EXTEND(ON)
)BODY WINDOW(76,22) EXPAND(..) CMD(ZCMD)
.. .Model Classes. ..
.Option ==>.Z. .
.
.Enter number or Class of model.
.Enter END.command to cancel MODEL command.
.SAREA40
)AREA SAREA40
.1 .CLIST - ISPF services in CLIST commands
.2 .COBOL - ISPF services in COBOL programs
.3 .EXEC - ISPF services in EXEC commands
.4 .FORTRAN - ISPF services in FORTRAN programs
.5 .MSGS - Message format
.6 .PANELS - Panel formats and statements
.7 .PLI - ISPF services in PLI programs
.8 .SKELS - File tailoring control statements
.9 .PASCAL - ISPF services in PASCAL programs
.10 .REXX - SDSF function and ISPF services in REXX execs
.11 .DTL - ISPF Dialog Tag Language formats and statements
.12 .C - ISPF services in C/370 programs
.13 .SCLM - SCLM Project Definition Macros
.14 .ARCHDEF - SCLM Architecture Definition templates
.15 .JCL - JCL for selected utility programs (USER-ADDED)
)INIT
.ZVARS = '(ZCMD)'
&ZWINTTL = ' '
.HELP = ISR2P100
.MSG = ' ' /* BLANK MSG INITIALLY */
&ISRMCLAS = ' ' /* AND THE CLASS HOLDER VARIABLE */
.CURSOR = 'ZCMD'
)PROC
IF (&ISRMONCL = 'Y') /* ARE WE ONLY OBTAINING A CLASS ? */
&ISRMCLAS = TRANS (TRUNC(&ZCMD, '.')) 1,CLIST 2,COB 3,EXEC 4,FORT
5,MSGS 6,PANELS 7,PLI 8,SKELS 9,PASCAL 10,REXX 11,DTL 12,C
13,SCLM 14,ARCHDEF *,*)
&TMPTRAIL = .TRAIL /* Save any remaining @H1C@H5C*/
@H1A*/
```

```
IF (&ISRMONCL = 'Y') /* ARE WE ONLY OBTAINING A CLASS ? OZ83844*/
&ISRMDSPL = ' '
&ZCMD = TRUNC (&ZCMD, '.')
&ZTMPTRL = .TRAIL
IF (&ZCMD = 'COBOL') &ZCMD = TRUNC (&ZCMD, 3)
IF (&ZCMD = 'EXEC') &ZCMD = TRUNC (&ZCMD, 4)
*REXX (ZCMD, JCLQUAL, CNTLQUAL, PROCQUAL, INSTQUAL) /* @A2 */
IF (POS ("JCL", ZCMD) > 0) THEN /* @A2 */
JCLQUAL = ZCMD /* @A2 */
ELSE /* @A2 */
JCLQUAL = "JCL" /* @A2 */
IF (POS ("CNTL", ZCMD) > 0) THEN /* @A2 */
CNTLQUAL = ZCMD /* @A2 */
ELSE /* @A2 */
CNTLQUAL = "CNTL" /* @A2 */
IF (POS ("PROC", ZCMD) > 0) THEN /* @A2 */
PROCQUAL = ZCMD /* @A2 */
ELSE /* @A2 */
PROCQUAL = "PROC" /* @A2 */
IF (POS ("INST", ZCMD) > 0) THEN /* @A2 */
INSTQUAL = ZCMD /* @A2 */
ELSE /* @A2 */
INSTQUAL = "INST" /* @A2 */
*ENDREXX /* @A2 */
&ZCMD = TRANS (&ZCMD)
CLIST,1 COB,2 EXEC,3 FORTRAN,4 FTN,4A FORT,4B MSGS,5 ISPMLIB,5A PANELS,6
MENUS,6A ISPPLIB,6B PLI,7 PL1,7A PLIOPT,7B PLS,7C SKELS,8 PROCS,8A ISPSLIB,8B
PASCAL,9 REXX,10 DTL,11 C,12 CPP,1C SCLM,13 ARCHDEF,14 JCL,15 ' ', ' ', *,*)
IF (&ZCMD = ' ') &ZCMD = '&ZCMD..&ZTMPTRL'
&ZSEL = TRANS (TRUNC (&ZCMD, '.'))
1, 'PANEL (ISRECMCF)'
2, 'PANEL (ISREMCMB)'
3, 'PANEL (ISREMEXC)'
4, 'PANEL (ISREMFN)'
4A, 'PANEL (ISREMFNT)'
4B, 'PANEL (ISREMFNT)'
5, 'PGM (ISRECMBR) PARM (ISREMMSG NOSEQ)'
5A, 'PGM (ISRECMBR) PARM (ISREMMSG NOSEQ)'
6, 'PANEL (ISREMPNL)'
6A, 'PANEL (ISREMPNL)'
6B, 'PANEL (ISREMPNL)'
7, 'PANEL (ISREMPLI)'
7A, 'PANEL (ISREMPLI)'
7B, 'PANEL (ISREMPLI)'
7C, 'PANEL (ISREMPLI)'
8, 'PANEL (ISREMSKL)'
8A, 'PANEL (ISREMSKL)'
8B, 'PANEL (ISREMSKL)'
```

JCL – ISREMCLS – Panel

```

9,'PANEL (ISREMPAS) '
10,'PANEL (ISREMRXC) '
11,'PANEL (ISREMDTL) '
12,'PANEL (ISREMWLN) '
1C,'PANEL (ISREMWLN) '
13,'PANEL (ISREMFLM) '
14,'PANEL (ISREMARC) '
15,'PANEL (ISREMJCL) '
&JCLQUAL,'PANEL (ISREMJCL) '          /* @A2 */
&CNTLQUAL,'PANEL (ISREMJCL) '         /* @A2 */
&PROCQUAL,'PANEL (ISREMJCL) '        /* @A2 */
&INSTQUAL,'PANEL (ISREMJCL) '        /* @A0 */
ISPCLIST,'PANEL (ISRECMF) '           /* @A1 */
ISPREXX,'PANEL (ISREMRXC) '          /* @A1 */
ISPEXEC,'PANEL (ISREMRXC) '          /* @A1 */
' ' ' '
*, '?' )
IF (&ZSEL = '?')
/* IF (&ISRMSDPL = 'RETURN' ) ** REPLACED BY OY33372*/
IF (&ZMACRO = 'N' )                 /* OY33372*/
&ZEMTEMP = &ZCMD                    /* SET VARIABLE FOR MSG OZ91267*/
.MSG = ISRYM012
&ZCMD = ' '                          /* RESET CMD LINE = BLANK OZ91267*/
.RESP = 'ENTER'                      /* WANT TO RESET RESP FOR RE-ENT */
/* IF (&ISRMSDPL = 'RETURN' ) ** REPLACED BY OY33372*/
ELSE
.RESP = 'END'
&ISRMCCLAS = '?'
.MSG = ISRYM012                      /* INVALID CLASS OY33372*/
&ISRMMEND = 'N'                      /* SET THE END INDICATOR TO NO */
IF (.RESP = END)                     /* DID WE GET AN END FROM WHERE */
IF (&ISRMSDPL = 'RETURN ' )         /* WAS IT BECAUSE WE HAVE MEMBER */
&ISRMMEND = 'Y'                      /* ITS BECAUSE USER HIT END KEY */
IF (&ISRMONCL = 'Y')                /* ARE WE ONLY OBTAINING A CLASS */
IF (.RESP = 'RETURN ' )             /* Has user hit extended return */
IF (&ISRMCCLAS = ' ' )              /* Make sure we have some class */
IF (&TMPTRAIL = ' ' )               /* Just class entered @H1A*/
.RESP = END                          /* ONLY WANT CLASS, NO OTHER DISP.*/
IF (&TMPTRAIL = ' ' )               /* More than class entered @H1A*/
&ZEMTEMP = &ZCMD                    /* Set variable for message @H1A*/
.MSG = ISRYM012                      /* Set message number @H1A*/
&ZCMD = ' '                          /* Reset cmd lint = blank @H1A*/
.RESP = 'ENTER'                      /* Reset RESP to Re-enter @H1A*/
&ZMSG = .MSG                          /* SET MESSAGE VARIABLE @L1A*/
VPUT (ZMSG) PROFILE                  /* SAVE MESSAGE IN PROF POOL @L1A*/
)PNTS
FIELD (ZPS01001) VAR (ZCMD) VAL(1)
FIELD (ZPS01002) VAR (ZCMD) VAL(2)

```

```

FIELD (ZPS01003) VAR (ZCMD) VAL(3)
FIELD (ZPS01004) VAR (ZCMD) VAL(4)
FIELD (ZPS01005) VAR (ZCMD) VAL(5)
FIELD (ZPS01006) VAR (ZCMD) VAL(6)
FIELD (ZPS01007) VAR (ZCMD) VAL(7)
FIELD (ZPS01008) VAR (ZCMD) VAL(8)
FIELD (ZPS01009) VAR (ZCMD) VAL(9)
FIELD (ZPS01010) VAR (ZCMD) VAL(10)
FIELD (ZPS01011) VAR (ZCMD) VAL(11)
FIELD (ZPS01012) VAR (ZCMD) VAL(12)
FIELD (ZPS01013) VAR (ZCMD) VAL(13)
FIELD (ZPS01014) VAR (ZCMD) VAL(14)
FIELD (ZPS01015) VAR (ZCMD) VAL(15) /* @A0 */
)END
/* 5694-A01 (C) COPYRIGHT IBM CORP 1980, 2005 */
/* ISPD TLC Release: 5.8. Level: PID */
/* z/OS 01.08.00. Created - Date: 24 Oct 2005, Time: 13:16 */
/*-----*/
/* Wells Fargo Changes */
/*-----*/
/* FLG YYMMDD USERID DESCRIPTION */
/* --- */
/* @A2 100519 R2221 Last level qual. = JCL, CNTL, PROC, INST */
/* @A1 100203 R2221 Added .ISPCLIST, .ISPREXX, and .ISPEXEC */
/* @A0 090118 R2221 Added Option Number 15 - JCL utilities */
/* @A0 090118 R2221 Find everything that was modified execute: */
/* @A0 090118 R2221 ==> X ALL;F '15' ALL;F "ISREMJCL" ALL */
/*-----*/

```

JCL – ISREMJCL – Panel

JCL Utility Models

Option ==> _____

Enter an option or move the cursor on JCL utility and press ENTER.

Enter END command to cancel MODEL command.

More: +

IBM

I1 AMATERSE - Terse a file
I2 AMBLIST - Print linkage attributes
I3 BPXBATCH - Run USS shell scripts
I4 CPPUPDTE - Search/update
I5 DFDSS - Backup/restore files
I6 DFSORT - Sort/merge files
I7 EZACFSM1 - Symbolic Interpreter
I8 ICETOOL - Sort/merge files
I9 ICKDSF - Init disk pack
I10 IDCAMS - Def/del/alter VSAM/GDGs
I11 IEBCOPY - Copy/del/move PDS mbr
I12 IEBGENER - Copy sequential files
I13 IEBPTPCH - Print and punch
I14 IEBUPDTE - Create/alter PDS mbr
I15 IEHLIST - List PDS directory
I16 IEHPROGM - Rename/del/cat file
I17 IEFBR14 - Create/delete file

OEM

O1 AFCLOGR1 - Extract OPERLOG records
O2 CAL2X2WB - Execute CA7 Commands
O3 CINEWCP2 - CICS New Copy
O4 COB2EZT - Conv. COBOL to Eztplus
O5 COMPAREB - Compare two files
O6 CONSOLE - Execute MVS commands
O7 COPYCAT - Copy a tape
O8 DAF - Dataset Audit Facility
O9 DJCTEST - Abend job or set RC
O10 DMS - CADISK Backup/Restore
O11 EXAMBATX - CA Examine Compare
O12 FCSWAIT - Wait a duration of time
O13 FILEAID - Copy/update/print files
O14 FTP - Transmit a file
O15 FTPSEC - Transmit a file secured
O16 GENMAIL - Email using IEBGENER
O17 GSVXBAT - Execute SYSVIEW cmds

JCL – ISREMJCL – Panel

JCL Utility Models

Option ==> _____

Enter an option or move the cursor on JCL utility and press ENTER.

Enter END command to cancel MODEL command.

More: - +

I17 IEFBR14	- Create/delete file	017 GSVXBAT	- Execute SYSVIEW cmds
I18 IFASMFDP	- Dump SMF records	018 LISTF	- List DASD volumes
I19 IFCEREPl	- Dump LOGREC	019 MZCCMPB1	- Event Action compare
I20 IKJEFT01	- TSO batch	020 PDS	- PDS utility
I21 IMASPZAP	- Zap/dump a module	021 PDSEASY	- Batch Ezyedit
I22 IRXJCL	- Execute REXX program	022 PDSM13	- Library map/analysis
I23 ISRSUPC	- Search/compare	023 PDSM18	- String scan/replace
I24 REXXCL	- Compile/link REXX pgm	024 PDSM25	- Member size analysis
I25 TRSMAlN	- Terse a file	025 PDSM27	- Duplicate mbr reporting
I26 SDSF	- SDSF batch	026 PDSM32	- Delete generation mbrs
I27 SMP	- IBM's ChangeMan	027 PDSM33	- PDS/mbr compare
		028 PDSM36	- PDS/mbr compare
JCL		029 PDSM37	- PDS/mbr compare
J1 COMMAND	- Command card	030 PDSMERGE	- Merge PDS datasets
J2 DD	- DD card	031 PKZIP	- Zip/unzip a file
J3 JCLLIB	- Proclib card	032 QWIKREF1	- MVS/Quick Reference
J4 JOB	- Job card	033 SASSBSTR	- Execute CA7 commands
J5 JOBPARM	- Jobparm card	034 SAVRS	- Obtain syslog/reports

JCL – ISREMJCL – Panel

JCL Utility Models

Option ==> _____

Enter an option or move the cursor on JCL utility and press ENTER.

Enter END command to cancel MODEL command.

More: -

J5	JOBPARM	- Jobparm card	034	SAVRS	- Obtain syslog/reports
J6	IF	- If card	035	SDEBYSDE	- Side by side comparison
J7	INCLUDE	- Include card	036	SHOWMVS	- IPL information
J8	OUTPUT	- Output card	037	SYSLOGSC	- Extract OPERLOG records
J9	ROUTE	- Route card	038	SYSWAIT	- Wait a duration of time
J10	SET	- Set card	039	TAPEMAP	- Print contents of tape
			040	TASID	- System monitor
			041	TMSBINQ	- Inquire on CA1 tape
			042	UTGZ	- Send message to console
			043	UTJE	- Abend on program RC
			044	UTJM	- Empty sequential DSN
			045	UTJP	- Issue MVS commands
			046	UTKT	- Abend job w/ user code
			047	UTONY	- Print PDS members
			048	VSPRIME	- VSAM prime

Application

A1 APPLJCL - Personal/Team JCL

JCL – ISREM JCL – Panel

```

)PANEL KEYLIST (ISRSNAB,ISR)
)ATTR DEFAULT(%+) FORMAT (MIX)          /* ISREMPLI - ENGLISH - 5.0 */
% TYPE (TEXT) INTENS (HIGH) COLOR (TURQ)
+ TYPE (TEXT) INTENS (LOW) COLOR (GREEN)
[ TYPE (PS)
] TYPE (NT)
0D TYPE (PS)
05 TYPE (PT)
06 TYPE (PIN)
09 TYPE (FP)
0A TYPE (NT)
11 TYPE (SAC)
22 TYPE (WASL) SKIP (ON) GE (ON)
10 TYPE (ET)
27 TYPE (NEF) CAPS (ON) PADC (USER)
28 AREA (SCRL) EXTEND (ON)
)BODY WINDOW (80,22) EXPAND (...) CMD (ZCMD)
.. .JCL Utility Models . . .
.Option ==>.Z. .
.
.Enter an option or move the cursor on JCL utility and press ENTER.
.Enter.END.command to cancel MODEL command.
.SAREA40
)AREA SAREA40
%IBM                                %OEM+
+I1 [AMATERSE]- Terse a file         01 [AFCLOGR1]- Extract OPERLOG records
+I2 [AMBLIST ]- Print linkage attributes 02 [CAL2X2WB]- Execute CA7 Commands
+I3 [BPXBATCH]- Run USS shell scripts  03 [CINWCP2]- CICS New Copy
+I4 [CPPUPDTE]- Search/update          04 [COB2EZT ]- Conv. COBOL to Eztplus
+I5 [DFDSS ]- Backup/restore files     05 [COMPAREB]- Compare two files
+I6 [DFSORT ]- Sort/merge files        06 [CONSOLE ]- Execute MVS commands
+I7 [EZACFSM1]- Symbolic Interpreter   07 [COPYCAT ]- Copy a tape
+I8 [ICETOOL ]- Sort/merge files        08 [DAF ]- Dataset Audit Facility
+I9 [ICKDSF ]- Init disk pack           09 [DJCTEST ]- Abend job or set RC
+I10 [IDCAMS ]- Def/del/alter VSAM/GDGs 010 [DMS ]- CADISK Backup/Restore
+I11 [IEBCOPY ]- Copy/del/move PDS mbr   011 [EXAMBATX]- CA Examine Compare
+I12 [IEBGENER]- Copy sequential files  012 [FCSWAIT ]- Wait a duration of time
+I13 [IEBPTPCH]- Print and punch        013 [FILEAID ]- Copy/update/print files
+I14 [IEBUPDTE]- Create/alter PDS mbr    014 [FTP ]- Transmit a file
+I15 [IEHLIST ]- List PDS directory      015 [FTPSEC ]- Transmit a file secured
+I16 [IEHPRGDM]- Rename/del/cat file    016 [GENMAIL ]- Email using IEBGENER
+I17 [IEFBR14 ]- Create/delete file      017 [GSVXBAT ]- Execute SYSVIEW cmds
+I18 [IFASMFDP]- Dump SMF records        018 [LISTF ]- List DASD volumes
+I19 [IFCEREPI]- Dump LOGREC            019 [MZCCMPB1]- Event Action compare
+I20 [IKJEFT01]- TSO batch              020 [PDS ]- PDS utility
+I21 [IMASPZAP]- Zap/dump a module       021 [PDSEASY ]- Batch Ezyedit
+I22 [IRXJCL ]- Execute REXX program     022 [PDSM13 ]- Library map/analysis
+I23 [ISRSUPC ]- Search/compare          023 [PDSM18 ]- String scan/replace

```

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+I24 [REXXCL ]- Compile/link REXX pgm   024 [PDSM25 ]- Member size analysis
+I25 [TRSMAIN ]- Terse a file           025 [PDSM27 ]- Duplicate mbr reporting
+I26 [SDSF ]- SDSF batch                 026 [PDSM32 ]- Delete generation mbrs
+I27 [SMP ]- IBM's ChangeMan            027 [PDSM33 ]- PDS/mbr compare
+
%JCL+
+J1 [COMMAND ]- Command card            028 [PDSM36 ]- PDS/mbr compare
+J2 [DD ]- DD card                       029 [PDSM37 ]- PDS/mbr compare
+J3 [JCLLIB ]- Proclib card              030 [PDSMERGE]- Merge PDS datasets
+J4 [JOB ]- Job card                     031 [PKZIP ]- Zip/unzip a file
+J5 [JOBPARM ]- Jobparm card            032 [QWIKREF1]- MVS/Quick Reference
+J6 [IF ]- If card                       033 [SASSBSTR]- Execute CA7 commands
+J7 [INCLUDE ]- Include card            034 [SAVRS ]- Obtain syslog/reports
+J8 [OUTPUT ]- Output card              035 [SDEBYSDE]- Side by side comparison
+J9 [ROUTE ]- Route card                 036 [SHOWMVS ]- IPL information
+J10 [SET ]- Set card                    037 [SYSLOGSC]- Extract OPERLOG records
+
038 [SYSWAIT ]- Wait a duration of time
039 [TAPEMAP ]- Print contents of tape
040 [TASID ]- System monitor
041 [TMSBINQ ]- Inquire on CA1 tape
042 [UTGZ ]- Send message to console
043 [UTJE ]- Abend on program RC
044 [UTJM ]- Empty sequential DSN
045 [UTJP ]- Issue MVS commands
046 [UTKT ]- Abend job w/ user code
047 [UTONY ]- Print PDS members
048 [VSPRIME ]- VSAM prime

%Application+
A1 [APPLJCL ]- Personal/Team JCL

)INIT
.ZVARS = ' (ZCMD) '
.&ZWINTTL = ' '
.HELP = #ISREMJC
IF (&ISRMDSPL = 'RETURN ')
.RESP = END
.CURSOR = 'ZCMD'
)REINIT
REFRESH (ZCMD)
)PROC
&ZCMD = TRUNC (&ZCMD, '.')
&ZTMPTRL = .TRAIL
&ZCMD = TRANS (&ZCMD
AMATERSE, I1 AMBLIST, I2 BPXBATCH, I3 BPXBATSL, I3
CPPUPDTE, I4 IPOUPDTE, I4
DFDSS, I5 DFSORT, I6 ICEMAN, I6 SORT, I6 EZACFSM1, I7
ICETOOL, I8 ICKDSF, I9 IDCAMS, I10 IEBCOPY, I11
IEBGENER, I12 GENER, I12 IEBPTPCH, I13 IEBUPDTE, I14 IEHLIST, I15
IEHPRGDM, I16 IEFBR14, I17 BR14, I17 IFASMFDP, I18 SMFDMPI, I18
IFCEREPI, I19 LOGREC, I19 IKJEFT01, I20 TSOBATCH, I20 TSO, I20

```

JCL – ISREMJCL – Panel

```
IMASFPZAP,I21 ZAP,I21 IRXJCL,I22 ISRSUPC,I23 REXXCL,I24
TRSMAIN,I25 SDSF,I26 SMP,I27
AFCLOGR1,01 CAL2X2WB,02 CA7,02 CINEWCPY2,03 COB2EZT,04 COMPAREB,05
CONSOLE,06 COPYCAT,07 DAF,08 DJCTEST,09 DMS,010
CADISK,010 EXAMBATX,011
FCSWAIT,012 FILEAID,013 FAMVS,013
FTP,014 FTPSEC,015 GENMAIL,016 GSVXBAT,017 LISTF,018
MZCCMPB1,019 PDS,020 PDS86,020
PDSSEASY,021 EZY,021 PDSM13,022 PDSM18,023 PDSM25,024, PDSM27,025
PDSM32,026 PDSM33,027 PDSM36,028 PDSM37,029
PDSMERGE,030 PKZIP,031 QWIKREF1,032
QW,032 SASSBSTR,033 SAVRS,034 SAVERS,034 SDEBYSDE,035
SHOWMVS,036 SYSLOGSC,037 SYSWAIT,038 TAPEMAP,039 TASID,040
TMSBINQ,041 CAL,041 TMS,041 UTGZ,042 UTJE,043 UTJM,044
UTJP,045 UTKT,046 UTONY,047 VSPRIME,048
COMMAND,J1 DD,J2 JCLLIB,J3 JOB,J4 JOBPARM,J5 SYSAFF,J5
IF,J6 INCLUDE,J7 OUTPUT,J8 ROUTE,J9 SET,J10
APPLJCL,A1
' ',' '*,*)
IF (&ZCMD = ' ') &ZCMD = '&ZCMD..&ZTMPTRL'
&ZSEL = TRANS (TRUNC (&ZCMD, '.'))
I1,'PGM (ISRECMBR) PARM (MAMATERS) '
I2,'PGM (ISRECMBR) PARM (MAMBLIST) '
I3,'PGM (ISRECMBR) PARM (MBFPXBATC) '
I4,'PGM (ISRECMBR) PARM (MCPFPUPDT) '
I5,'PGM (ISRECMBR) PARM (MDFDSS ) '
I6,'PGM (ISRECMBR) PARM (MDFSORT) '
I7,'PGM (ISRECMBR) PARM (MEZACFSM) '
I8,'PGM (ISRECMBR) PARM (MICECTOOL) '
I9,'PGM (ISRECMBR) PARM (MICKDSF) '
I10,'PGM (ISRECMBR) PARM (MIDCAMS) '
I11,'PGM (ISRECMBR) PARM (MIEBCOPY) '
I12,'PGM (ISRECMBR) PARM (MIEBGENE) '
I13,'PGM (ISRECMBR) PARM (MIEBTPC) '
I14,'PGM (ISRECMBR) PARM (MIEBUPDT) '
I15,'PGM (ISRECMBR) PARM (MIEHLIST) '
I16,'PGM (ISRECMBR) PARM (MIEHPROG) '
I17,'PGM (ISRECMBR) PARM (MIEFB14) '
I18,'PGM (ISRECMBR) PARM (MIFASMPD) '
I19,'PGM (ISRECMBR) PARM (MIFCEREF) '
I20,'PGM (ISRECMBR) PARM (MIKJEFT0) '
I21,'PGM (ISRECMBR) PARM (MIMASFPZA) '
I22,'PGM (ISRECMBR) PARM (MIRXJCL) '
I23,'PGM (ISRECMBR) PARM (MISRSUPC) '
I24,'PGM (ISRECMBR) PARM (MREXXCL) '
I25,'PGM (ISRECMBR) PARM (MTRSMAIN) '
I26,'PGM (ISRECMBR) PARM (MSDSF) '
I27,'PGM (ISRECMBR) PARM (MSMP) '
O1,'PGM (ISRECMBR) PARM (MAFCLOGR) '
O2,'PGM (ISRECMBR) PARM (MCAL2X2W) '
O3,'PGM (ISRECMBR) PARM (MCINEWCP) '
O4,'PGM (ISRECMBR) PARM (MCOB2EZT) '
O5,'PGM (ISRECMBR) PARM (MCOMPARE) '
O6,'PGM (ISRECMBR) PARM (MCONSOLE) '
O7,'PGM (ISRECMBR) PARM (MCOPCAT) '
O8,'PGM (ISRECMBR) PARM (MDAF) '
O9,'PGM (ISRECMBR) PARM (MDJCTEST) '
O10,'PGM (ISRECMBR) PARM (MDMS) '
O11,'PGM (ISRECMBR) PARM (MEXAMBAT) '
O12,'PGM (ISRECMBR) PARM (MFCSWAIT) '
O13,'PGM (ISRECMBR) PARM (MFILEAID) '
O14,'PGM (ISRECMBR) PARM (MFTP) '
O15,'PGM (ISRECMBR) PARM (MFTPSEC) '
O16,'PGM (ISRECMBR) PARM (MGENMAIL) '
O17,'PGM (ISRECMBR) PARM (MGSVXBAT) '
O18,'PGM (ISRECMBR) PARM (MLISTF) '
O19,'PGM (ISRECMBR) PARM (MMZCCMPB) '
O20,'PGM (ISRECMBR) PARM (MPDS) '
O21,'PGM (ISRECMBR) PARM (MPDSEASY) '
O22,'PGM (ISRECMBR) PARM (MPDSM13) '
O23,'PGM (ISRECMBR) PARM (MPDSM18) '
O24,'PGM (ISRECMBR) PARM (MPDSM25) '
O25,'PGM (ISRECMBR) PARM (MPDSM27) '
O26,'PGM (ISRECMBR) PARM (MPDSM32) '
O27,'PGM (ISRECMBR) PARM (MPDSM33) '
O28,'PGM (ISRECMBR) PARM (MPDSM36) '
O29,'PGM (ISRECMBR) PARM (MPDSM37) '
O30,'PGM (ISRECMBR) PARM (MPDSMERG) '
O31,'PGM (ISRECMBR) PARM (MPKZIP) '
O32,'PGM (ISRECMBR) PARM (MQWIKREF) '
O33,'PGM (ISRECMBR) PARM (MSASSBST) '
O34,'PGM (ISRECMBR) PARM (MSAVRS) '
O35,'PGM (ISRECMBR) PARM (MSDEBYS) '
O36,'PGM (ISRECMBR) PARM (MSHOWMVS) '
O37,'PGM (ISRECMBR) PARM (MSYSLOGS) '
O38,'PGM (ISRECMBR) PARM (MSYSWAIT) '
O39,'PGM (ISRECMBR) PARM (MTAPEMAP) '
O40,'PGM (ISRECMBR) PARM (MTASID) '
O41,'PGM (ISRECMBR) PARM (MTMSBINQ) '
O42,'PGM (ISRECMBR) PARM (MUTGZ) '
O43,'PGM (ISRECMBR) PARM (MUTJE) '
O44,'PGM (ISRECMBR) PARM (MUTJM) '
O45,'PGM (ISRECMBR) PARM (MUTJP) '
O46,'PGM (ISRECMBR) PARM (MUTKT) '
O47,'PGM (ISRECMBR) PARM (MUTONY) '
O48,'PGM (ISRECMBR) PARM (MVSPRIME) '

```

JCL – ISREM JCL – Panel

```
J1,'PGM (ISRECMBR) PARM (MCOMMAND) '  
J2,'PGM (ISRECMBR) PARM (MDD)      '  
J3,'PGM (ISRECMBR) PARM (MJCLLIB)  '  
J4,'PGM (ISRECMBR) PARM (MJOB)     '  
J5,'PGM (ISRECMBR) PARM (MJOBPARM) '  
J6,'PGM (ISRECMBR) PARM (MIF)      '  
J7,'PGM (ISRECMBR) PARM (MINCLUDE) '  
J8,'PGM (ISRECMBR) PARM (MOUTPUT)  '  
J9,'PGM (ISRECMBR) PARM (MROUTE)   '  
J10,'PGM (ISRECMBR) PARM (MSET)    '  
A1,'PANEL (ISREMAPP) '  
  ' ' ' '  
  *,'?' '  
IF (&ZSEL = '?')  
  &ZEMTEMP = &ZCMD  
  .MSG = ISRYM013  
  &ZCMD = ' '  
  IF (&ZMACRO = 'Y')                /* If a macro command @OY38423*/  
    .RESP = 'END'                    /* don't display error @OY38423*/  
    &ISRMEMB = '?'                   /* Indicate no member fnd@OY38423*/  
  &ISRMEND = 'N'                     /* SET THE END INDICATOR TO NO */  
  IF (.RESP = END)                   /* IF ENDING, WHY ... WHO CAUSED */  
    IF (&ISRMONCL = 'Y')              /* MAKE SURE ITS NOT A CLASS OP. */  
      IF (&ISRMDSPL = 'RETURN ')     /* MAKE SURE ITS NOT END ON MBR. */  
        &ISRMEND = 'Y'               /* NO - ITS BECAUSE USER HIT END */  
  &ZMSG = .MSG                       /* Set message variable */  
  VPUT (ZMSG) PROFILE                /* Save message in prof pool */  
 )PNTS  
FIELD (ZPS01001) VAR (ZCMD) VAL (I1)  
FIELD (ZPS01002) VAR (ZCMD) VAL (O1)  
FIELD (ZPS01003) VAR (ZCMD) VAL (I2)  
FIELD (ZPS01004) VAR (ZCMD) VAL (O2)  
FIELD (ZPS01005) VAR (ZCMD) VAL (I3)  
FIELD (ZPS01006) VAR (ZCMD) VAL (O3)  
FIELD (ZPS01007) VAR (ZCMD) VAL (I4)  
FIELD (ZPS01008) VAR (ZCMD) VAL (O4)  
FIELD (ZPS01009) VAR (ZCMD) VAL (I5)  
FIELD (ZPS01010) VAR (ZCMD) VAL (O5)  
FIELD (ZPS01011) VAR (ZCMD) VAL (I6)  
FIELD (ZPS01012) VAR (ZCMD) VAL (O6)  
FIELD (ZPS01013) VAR (ZCMD) VAL (I7)  
FIELD (ZPS01014) VAR (ZCMD) VAL (O7)  
FIELD (ZPS01015) VAR (ZCMD) VAL (I8)  
FIELD (ZPS01016) VAR (ZCMD) VAL (O8)  
FIELD (ZPS01017) VAR (ZCMD) VAL (I9)  
FIELD (ZPS01018) VAR (ZCMD) VAL (O9)  
FIELD (ZPS01019) VAR (ZCMD) VAL (I10)  
FIELD (ZPS01020) VAR (ZCMD) VAL (O10)
```

```
FIELD (ZPS01021) VAR (ZCMD) VAL (I11)  
FIELD (ZPS01022) VAR (ZCMD) VAL (O11)  
FIELD (ZPS01023) VAR (ZCMD) VAL (I12)  
FIELD (ZPS01024) VAR (ZCMD) VAL (O12)  
FIELD (ZPS01025) VAR (ZCMD) VAL (I13)  
FIELD (ZPS01026) VAR (ZCMD) VAL (O13)  
FIELD (ZPS01027) VAR (ZCMD) VAL (I14)  
FIELD (ZPS01028) VAR (ZCMD) VAL (O14)  
FIELD (ZPS01029) VAR (ZCMD) VAL (I15)  
FIELD (ZPS01030) VAR (ZCMD) VAL (O15)  
FIELD (ZPS01031) VAR (ZCMD) VAL (I16)  
FIELD (ZPS01032) VAR (ZCMD) VAL (O16)  
FIELD (ZPS01033) VAR (ZCMD) VAL (I17)  
FIELD (ZPS01034) VAR (ZCMD) VAL (O17)  
FIELD (ZPS01035) VAR (ZCMD) VAL (I18)  
FIELD (ZPS01036) VAR (ZCMD) VAL (O18)  
FIELD (ZPS01037) VAR (ZCMD) VAL (I19)  
FIELD (ZPS01038) VAR (ZCMD) VAL (O19)  
FIELD (ZPS01039) VAR (ZCMD) VAL (I20)  
FIELD (ZPS01040) VAR (ZCMD) VAL (O20)  
FIELD (ZPS01041) VAR (ZCMD) VAL (I21)  
FIELD (ZPS01042) VAR (ZCMD) VAL (O21)  
FIELD (ZPS01043) VAR (ZCMD) VAL (I22)  
FIELD (ZPS01044) VAR (ZCMD) VAL (O22)  
FIELD (ZPS01045) VAR (ZCMD) VAL (I23)  
FIELD (ZPS01046) VAR (ZCMD) VAL (O23)  
FIELD (ZPS01047) VAR (ZCMD) VAL (I24)  
FIELD (ZPS01048) VAR (ZCMD) VAL (O24)  
FIELD (ZPS01049) VAR (ZCMD) VAL (I25)  
FIELD (ZPS01050) VAR (ZCMD) VAL (O25)  
FIELD (ZPS01051) VAR (ZCMD) VAL (I26)  
FIELD (ZPS01052) VAR (ZCMD) VAL (O26)  
FIELD (ZPS01053) VAR (ZCMD) VAL (I27)  
FIELD (ZPS01054) VAR (ZCMD) VAL (O27)  
FIELD (ZPS01055) VAR (ZCMD) VAL (I28)  
FIELD (ZPS01056) VAR (ZCMD) VAL (J1)  
FIELD (ZPS01057) VAR (ZCMD) VAL (O29)  
FIELD (ZPS01058) VAR (ZCMD) VAL (J2)  
FIELD (ZPS01059) VAR (ZCMD) VAL (O30)  
FIELD (ZPS01060) VAR (ZCMD) VAL (J3)  
FIELD (ZPS01061) VAR (ZCMD) VAL (O31)  
FIELD (ZPS01062) VAR (ZCMD) VAL (J4)  
FIELD (ZPS01063) VAR (ZCMD) VAL (O32)  
FIELD (ZPS01064) VAR (ZCMD) VAL (J5)  
FIELD (ZPS01065) VAR (ZCMD) VAL (O33)  
FIELD (ZPS01066) VAR (ZCMD) VAL (J6)  
FIELD (ZPS01067) VAR (ZCMD) VAL (O34)  
FIELD (ZPS01068) VAR (ZCMD) VAL (J7)
```

JCL – ISREMJCL – Panel

```
FIELD(ZPS01069) VAR(ZCMD) VAL(O35)
FIELD(ZPS01070) VAR(ZCMD) VAL(J8)
FIELD(ZPS01071) VAR(ZCMD) VAL(O36)
FIELD(ZPS01072) VAR(ZCMD) VAL(J9)
FIELD(ZPS01073) VAR(ZCMD) VAL(O37)
FIELD(ZPS01074) VAR(ZCMD) VAL(J10)
FIELD(ZPS01075) VAR(ZCMD) VAL(O38)
FIELD(ZPS01076) VAR(ZCMD) VAL(O39)
FIELD(ZPS01077) VAR(ZCMD) VAL(O40)
FIELD(ZPS01078) VAR(ZCMD) VAL(O41)
FIELD(ZPS01079) VAR(ZCMD) VAL(O42)
FIELD(ZPS01080) VAR(ZCMD) VAL(O43)
FIELD(ZPS01081) VAR(ZCMD) VAL(O44)
FIELD(ZPS01082) VAR(ZCMD) VAL(O45)
FIELD(ZPS01083) VAR(ZCMD) VAL(O46)
FIELD(ZPS01084) VAR(ZCMD) VAL(O47)
FIELD(ZPS01085) VAR(ZCMD) VAL(O48)
FIELD(ZPS01086) VAR(ZCMD) VAL(A1)
)END
)-----*/
/*                               Wells Fargo Changes                               */
)-----*/
/* This panel is invoked by using the TSO edit command "MODEL",                */
/* which in turn invokes panel ISREMCLS. Below is the flow-chart:              */
)-----*/
/*  MODEL  --> ISREMCLS  --> ISREMJCL  --> M*****                               */
/*  IBM Cmd  IBM panel  User Panel  User Skeleton                               */
/*  */
/*  FLG  YYYYDD  USERID  DESCRIPTION                                           */
/*  ---  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - */
/* @B8  131216  R2221  Added EZACFSM1                                           */
/* @B7  130620  R2221  Added CINEWCP2                                           */
/* @B6  130605  R2221  Added DMS (CADISK)                                         */
/* @B5  121206  R2221  Added GSVXBAT                                             */
/* @B4  121106  R2221  Added PDSM27 and PDSM37                                   */
/* @B3  120928  R2221  Added SYSLOGSC                                           */
/* @B2  120729  R2221  Added FTPSEC                                             */
/* @B1  120717  R2221  Added ICETOOL                                            */
/* @AZ  120629  R2221  Added PDSMERGE                                           */
/* @AY  120523  R2221  Added MZCCMPB1 and EXAMBATX                               */
/* @AX  120113  R2221  Added AFCLOGR1 and FCSWAIT                               */
/* @AW  120113  R2221  Added DAF                                               */
/* @AU  110602  R2221  Added VSPRIME                                           */
/* @AT  110518  R2221  Added PDSM36                                             */
/* @AS  110206  R2221  Added PDSMAN programs                                   */
/* @AR  100818  R2221  Added BPXBATCH (BPXBATSL)                                */
/* @AQ  100812  R2221  Chged SYSAFF to JOBPARM                                  */
/* @AP  100812  R2221  Removed COMMAND Utility                                  */
```

```
/* @AO  100812  R2221  Added JCL COMMAND, IF, INLUDE and SET                    */
/* @AN  100809  R2221  Added COMPAREB and SDEBYSDE                               */
/* @AM  100714  R2221  Removed Insync                                           */
/* @AL  100702  R2221  Added PDS                                               */
/* @AK  100630  R2221  Fixed Point-n-shoot                                     */
/* @AJ  100628  R2221  Added SYSWAIT                                           */
/* @AI  100611  R2221  Chged QW to QWIKREF1                                     */
/* @AH  100609  R2221  Added CAL2X2WB, CA7 commands using CCI                 */
/* @AG  100513  R2221  Added UTGZ, UTJE/JM/JP, UTKT and UTONY                 */
/* @AF  100507  R2221  Added FILEAID adn DJCTEST                               */
/* @AE  100504  R2221  Added IRXJCL and REXXCL                                 */
/* @AD  100503  R2221  Fixed ICEMAN and QW when passing as parm              */
/* @AC  100503  R2221  Added Cobol to Etreivre Converter                       */
/* @AB  100425  R2221  Added capability for application JCL                   */
/* @AA  100419  R2221  Removed NDM, suggest using NDMDSN utility              */
/* @A9  100126  R2221  Added CPPUPDTE                                          */
/* @A8  091228  R2221  Added ROUTE card                                        */
/* @A7  091202  R2221  Added TASID, SHOWMVS, IFCEREP1, IFASMFDP              */
/* @A6  091006  R2221  Consolidated tape entries into OEM / Misc.             */
/* @A5  090922  R2221  Add INSYNC                                              */
/* @A4  090917  R2221  Add OUTPUT, SYSAFF, and JCLLIB                          */
/* @A3  090916  R2221  Add AMATERSE, CONSOLE2, GENMAIL, and SAVRS             */
/* @A2  090915  R2221  Removed invalid software                               */
/* @A1  011025  S915460  Added descriptions to programs                       */
/* @A0  020225  S915460  Added FDRMAP                                          */
)-----*/
```

JCL – Skeletons

MIEHLIST

```
/*-----*
/*  PURPOSE:  PDS, VTOC OR CATALOG LISTING
/*-----*
/*  MANUAL:   DFSMSDFP UTILITIES
/*-----*
/*IEHLIST EXEC PGM=IEHLIST
//SYSPRINT DD SYSOUT=*
//DD1 DD DISP=OLD,UNIT=SYSALLDA,VOL=SER=#####
//SYSIN DD *
)N*-----*
)N* List a PDS directory in hexadecimal format
)N*-----*
)N* LISTPDS DSNAME=(*****.*****.*****), X
)N* VOL=SYSDA=#####
)N*-----*
)N* List a PDS directory attributes (only valid for executables)
)N*-----*
)N* LISTPDS DSNAME=(*****.*****.*****),FORMAT, X
)N* VOL=SYSDA=#####
)N*-----*
)N* Retrieve a VTOC listing
)N*-----*
)N* LISTVTOC FORMAT,VOL=DISK=#####
)N*-----*
)N* Partitioned Dataset (PDS) listing
)N*-----*
)N* LISTPDS {DSNAME=(dsn1{,dsn2...)}
)N* {,DUMP|FORMAT}
)N* {,VOL=device=serial}
)N*-----*
)N* Volume Table of Contents (VTOC) listing
)N*-----*
)N* LISTVTOC {DUMP|FORMAT}
)N* {,INDEXDSN=SYS1.VTOCIX.xxxxxx}
)N* {,DATE=ddyy}
)N* {,VOL=device=serial}
)N* {,DSNAME=(dsn1{,dsn2...)}
)N*-----*
```

MUTKT

```
/*-----*
/*  PURPOSE:  ABEND JOB WITH USER CODE
/*-----*
//STEP010 EXEC PGM=UTKT,PARM=999,COND=(0,EQ,?????)
)N*-----*
)N* Description:
)N* 'UTKT' was written to provide a graceful abend exit
)N* point for test and production jobs when JCL execution
)N* needs to be stopped due to prior step execution return
)N* codes.
)N*
)N* PARM field:
)N* The number of characters present in the PARM field
)N* determines the user abend code to be issued. In the
)N* below example, UTKT abends with a user 0003.
)N*
)N* PARM field limitations:
)N* - Can contain any combination of alphanumeric and
)N* national ($,#,@) characters.
)N* - Up to 100 characters are allowed
)N*-----*
```

ISREMRXC – Panel

REXX Models

Option ==> _____

Enter a number or move the cursor to a line and press Enter.
Enter the END command to cancel the MODEL command.

SDSF REXX
S0 SDSFREXX

ISPF Workstation

X1 FILESTAT
X2 FILEXFER
X3 WSCON
X4 WSDISCON

ISPF Library Access

L0 LIBACC

ISPF Variables

V1 VGET
V2 VPUT
V3 VERASE
V4 VSYM

ISPF Miscellaneous

M0 MISC

ISPF File Tailoring

F1 FTOPEN
F2 FTINCL
F3 FTCLOSE
F4 FTERASE

REXX Commands

RX REXXCMS

ISPF Display Services

D1 DISPLAY
D2 TBDISPL
D3 SETMSG
D4 PQUERY
D5 ADDPOP
D6 REMPOP

ISPF Tables

T1 TABLES

SDSF REXX

- Link
 - [IBM System Display and Search Facility Downloads](#)

REXX – Commands – Implementation

- Create the REXX command panel ([ISRRXCMD](#))
- Invoke MVS/Quick Reference ([QW](#))
 - Select “[C](#)”, Request Reference Information by Category
 - Select “[PROGLANG](#)”, Programming Languages Syntax Descriptions
 - Select “[Z/OS REXX SYNTAX](#)”
 - Select desired REXX command
 - Type in “[CUT ALL](#)”
- Create a new skeleton member
 - Type in [QWPASTE](#)
 - Insert “[\)N](#)” to make all lines notes and adjust text
- Add the entry to the REXX command panel ([ISRRXCMD](#))

REXX – ISRRXCMD – Panel

REXX Commands and Functions

Option ==> _____

Enter a REXX command or move the cursor over REXX command and press ENTER.

Enter END command to cancel MODEL command.

More: +

ABBREV	ABS	ADDRESS	ARG	BITAND	BITOR
BITXOR	BOOLEAN	B2X	CALL	CENTER	COMPARE
CONDITION	COPIES	C2D	C2X	DATATYPE	DATE
DELSTACK	DELSTR	DELWORD	DIGITS	DO	DROP
DROPBUF	D2C	D2X	ERRORTEXT	EXECIO	EXECUTIL
EXIT	EXTERNALS	FIND	FORM	FORMAT	FUZZ
GETMSG	HE	HI	HT	IF	INDEX
INSERT	INTERPRET	ITERATE	JUSTIFY	LASTPOS	LEAVE
LEFT	LENGTH	LINESIZE	LISTDSI	MAKEBUF	MAX
MIN	MSG	MVSVAR	NEWSTACK	NOP	NUMERIC
OPTIONS	OUTTRAP	OVERLAY	PARSE	POS	PROCEDURE
PROMPT	PULL	PUSH	QBUF	QELEM	QSTACK
QUEUE	QUEUED	RANDOM	RETURN	REVERSE	RIGHT
RT	SAY	SELECT	SETLANG	SIGN	SIGNAL
SOURCELINE	SPACE	STORAGE	STRIP	SUBCOM	SUBSTR
SUBWORD	SYMBOL	SYSCPUS	SYSDSN	SYSVAR	TE
TIME	TRACE	TRANSLATE	TRUNC	TS	UNTIL
UPPER	USERID	VALUE	VERIFY	WHILE	WORD

REXX – ISRRXCMD – Panel

```
) PANEL KEYLIST (ISRSNAB,ISR)
) ATTR DEFAULT(%+_ ) FORMAT (MIX)          /* ISREMPLI - ENGLISH - 5.0 */
[ TYPE (PS)
] TYPE (NT)
0D TYPE (PS)
05 TYPE (PT)
06 TYPE (PIN)
09 TYPE (FP)
0A TYPE (NT)
11 TYPE (SAC)
22 TYPE (WASL) SKIP (ON) GE (ON)
10 TYPE (ET)
27 TYPE (NEF) CAPS (ON) PADC (USER)
28 AREA (SCRL) EXTEND (ON)
) BODY WINDOW (80,22) EXPAND (..) CMD (ZCMD)
.. .REXX Commands and Functions. . .
.Option ==>.Z. .
.
.Enter a REXX command or move the cursor over REXX command and press ENTER.
.Enter .END. command to cancel MODEL command.
.SAREA40
) AREA SAREA40
+ [ ABBREV ] [ ABS ] [ ADDRESS ] [ ARG ] [ BITAND ] [ BITOR ]
+ [ BITXOR ] [ BOOLEAN ] [ B2X ] [ CALL ] [ CENTER ] [ COMPARE ]
+ [ CONDITION ] [ COPIES ] [ C2D ] [ C2X ] [ DATATYPE ] [ DATE ]
+ [ DELSTACK ] [ DELSTR ] [ DELWORD ] [ DIGITS ] [ DO ] [ DROP ]
+ [ DROPBUF ] [ D2C ] [ D2X ] [ ERRORTXT ] [ EXECIO ] [ EXECUTIL ]
+ [ EXIT ] [ EXTERNALS ] [ FIND ] [ FORM ] [ FORMAT ] [ FUZZ ]
+ [ GETMSG ] [ HE ] [ HI ] [ HT ] [ IF ] [ INDEX ]
+ [ INSERT ] [ INTERPRET ] [ ITERATE ] [ JUSTIFY ] [ LASTPOS ] [ LEAVE ]
+ [ LEFT ] [ LENGTH ] [ LINESIZE ] [ LISTDSI ] [ MAKEBUF ] [ MAX ]
+ [ MIN ] [ MSG ] [ MVSVAR ] [ NEWSTACK ] [ NOP ] [ NUMERIC ]
+ [ OPTIONS ] [ OUTTRAP ] [ OVERLAY ] [ PARSE ] [ POS ] [ PROCEDURE ]
+ [ PROMPT ] [ PULL ] [ PUSH ] [ QBUF ] [ QLEM ] [ QSTACK ]
+ [ QUEUE ] [ QUEUED ] [ RANDOM ] [ RETURN ] [ REVERSE ] [ RIGHT ]
+ [ RT ] [ SAY ] [ SELECT ] [ SETLANG ] [ SIGN ] [ SIGNAL ]
+ [ SOURCELINE ] [ SPACE ] [ STORAGE ] [ STRIP ] [ SUBCOM ] [ SUBSTR ]
+ [ SUBWORD ] [ SYMBOL ] [ SYSCPUS ] [ SYSDSN ] [ SYSVAR ] [ TE ]
+ [ TIME ] [ TRACE ] [ TRANSLATE ] [ TRUNC ] [ TS ] [ UNTIL ]
+ [ UPPER ] [ USERID ] [ VALUE ] [ VERIFY ] [ WHILE ] [ WORD ]
+ [ WORDINDEX ] [ WORDLENGTH ] [ WORDPOS ] [ WORDS ] [ XRANGE ] [ X2B ]
+ [ X2C ] [ X2D ]
) INIT
.ZVARS = ' (ZCMD) '
&ZWINTTL = ' '
.HELP = #ISREMJC
IF (&ISRMDSP = 'RETURN ')
.RESP = END
```

```
.CURSOR = 'ZCMD'
) REINIT
REFRESH (ZCMD)
) PROC
&ZCMD = TRUNC (&ZCMD, '.')
&ZTMPTRL = .TRAIL
IF (&ZCMD ^= ' ') &ZCMD = '&ZCMD..&ZTMPTRL'
&ZSEL = TRANS (TRUNC (&ZCMD, '.'))
ABBREV , ' PGM (ISRECMBR) PARM (MRXABBRE) '
ABS , ' PGM (ISRECMBR) PARM (MRXABS ) '
ADDRESS , ' PGM (ISRECMBR) PARM (MRXADDRE) '
ARG , ' PGM (ISRECMBR) PARM (MRXARG ) '
BITAND , ' PGM (ISRECMBR) PARM (MRXBITAN) '
BITOR , ' PGM (ISRECMBR) PARM (MRXBITOR) '
BITXOR , ' PGM (ISRECMBR) PARM (MRXBITXO) '
BOOLEAN , ' PGM (ISRECMBR) PARM (MRXBOOLE) '
B2X , ' PGM (ISRECMBR) PARM (MRXB2X ) '
CALL , ' PGM (ISRECMBR) PARM (MRXCALL ) '
CENTER , ' PGM (ISRECMBR) PARM (MRXCENTE) '
COMPARE , ' PGM (ISRECMBR) PARM (MRXCOMPA) '
CONDITION , ' PGM (ISRECMBR) PARM (MRXCONDI) '
COPIES , ' PGM (ISRECMBR) PARM (MRXCOPIE) '
C2D , ' PGM (ISRECMBR) PARM (MRXC2D ) '
C2X , ' PGM (ISRECMBR) PARM (MRXC2X ) '
DATATYPE , ' PGM (ISRECMBR) PARM (MRXDATAT) '
DATE , ' PGM (ISRECMBR) PARM (MRXDATE ) '
DELSTACK , ' PGM (ISRECMBR) PARM (MRXDELS ) '
DELSTR , ' PGM (ISRECMBR) PARM (MRXDELST) '
DELWORD , ' PGM (ISRECMBR) PARM (MRXDLEWO) '
DIGITS , ' PGM (ISRECMBR) PARM (MRXDIGIT) '
DO , ' PGM (ISRECMBR) PARM (MRXDO ) '
DROP , ' PGM (ISRECMBR) PARM (MRXDROP ) '
DROPBUF , ' PGM (ISRECMBR) PARM (MRXDROPB) '
D2C , ' PGM (ISRECMBR) PARM (MRXD2C ) '
D2X , ' PGM (ISRECMBR) PARM (MRXD2X ) '
ERRORTXT , ' PGM (ISRECMBR) PARM (MRXERORR) '
EXECIO , ' PGM (ISRECMBR) PARM (MRXEKECI) '
EXECUTIL , ' PGM (ISRECMBR) PARM (MRXEKEXE) '
EXIT , ' PGM (ISRECMBR) PARM (MRXEXIT ) '
EXTERNALS , ' PGM (ISRECMBR) PARM (MRXEKEXE) '
FIND , ' PGM (ISRECMBR) PARM (MRXFIND ) '
FORM , ' PGM (ISRECMBR) PARM (MRXFORM ) '
FORMAT , ' PGM (ISRECMBR) PARM (MRXFORMA) '
FUZZ , ' PGM (ISRECMBR) PARM (MRXFUZZ ) '
GETMSG , ' PGM (ISRECMBR) PARM (MRXGETMS) '
HE , ' PGM (ISRECMBR) PARM (MRXHE ) '
HI , ' PGM (ISRECMBR) PARM (MRXHI ) '
HT , ' PGM (ISRECMBR) PARM (MRXHT ) '
```

REXX – ISRRXCMD – Panel

```

IF          , 'PGM (ISRECMBR) PARM (MRXIF ) '
INDEX       , 'PGM (ISRECMBR) PARM (MRXINDEX) '
INSERT      , 'PGM (ISRECMBR) PARM (MRXINSER) '
INTERPRET   , 'PGM (ISRECMBR) PARM (MRXINTER) '
ITERATE     , 'PGM (ISRECMBR) PARM (MRXITERA) '
JUSTIFY     , 'PGM (ISRECMBR) PARM (MRXJUSTI) '
LASTPOS     , 'PGM (ISRECMBR) PARM (MRXLASTP) '
LEAVE       , 'PGM (ISRECMBR) PARM (MRXLEAVE) '
LEFT        , 'PGM (ISRECMBR) PARM (MRXLEFT ) '
LENGTH      , 'PGM (ISRECMBR) PARM (MRXLENGT) '
LINELENGTH  , 'PGM (ISRECMBR) PARM (MRXLINEL) '
LISTDSI     , 'PGM (ISRECMBR) PARM (MRXLISTD) '
MAKEBUF     , 'PGM (ISRECMBR) PARM (MRXMAKEB) '
MAX         , 'PGM (ISRECMBR) PARM (MRXMAX ) '
MIN         , 'PGM (ISRECMBR) PARM (MRXMIN ) '
MSG         , 'PGM (ISRECMBR) PARM (MRXMSG ) '
MVSVAR     , 'PGM (ISRECMBR) PARM (MRXMVSV) '
NEWSTACK    , 'PGM (ISRECMBR) PARM (MRXNEWST) '
NOP         , 'PGM (ISRECMBR) PARM (MRXNOP ) '
NUMERIC     , 'PGM (ISRECMBR) PARM (MRXNUMBER) '
OPTIONS     , 'PGM (ISRECMBR) PARM (MRXOPTIO) '
OUTTRAP     , 'PGM (ISRECMBR) PARM (MRXOUTTR) '
OVERLAY     , 'PGM (ISRECMBR) PARM (MRXOVERL) '
PARSE       , 'PGM (ISRECMBR) PARM (MRXPARSE) '
POS         , 'PGM (ISRECMBR) PARM (MRXPOS ) '
PROCEDURE   , 'PGM (ISRECMBR) PARM (MRXPROCE) '
PROMPT      , 'PGM (ISRECMBR) PARM (MRXPROMP) '
PULL        , 'PGM (ISRECMBR) PARM (MRXPULL ) '
PUSH        , 'PGM (ISRECMBR) PARM (MRXPUSH ) '
QBUF        , 'PGM (ISRECMBR) PARM (MRXQBUF ) '
QELEM       , 'PGM (ISRECMBR) PARM (MRXQELEM) '
QSTACK      , 'PGM (ISRECMBR) PARM (MRXQSTAC) '
QUEUE       , 'PGM (ISRECMBR) PARM (MRXQUEUE) '
QUEUED      , 'PGM (ISRECMBR) PARM (MRXQUEUD) '
RANDOM       , 'PGM (ISRECMBR) PARM (MRXRAND) '
RETURN      , 'PGM (ISRECMBR) PARM (MRXRETUR) '
REVERSE     , 'PGM (ISRECMBR) PARM (MRXREVER) '
RIGHT       , 'PGM (ISRECMBR) PARM (MRXRIGHT) '
RT          , 'PGM (ISRECMBR) PARM (MRXRT ) '
SAY         , 'PGM (ISRECMBR) PARM (MRXSAY ) '
SELECT      , 'PGM (ISRECMBR) PARM (MRXSELEC) '
SETLANG     , 'PGM (ISRECMBR) PARM (MRXSETLA) '
SIGN        , 'PGM (ISRECMBR) PARM (MRXSIGN ) '
SIGNAL      , 'PGM (ISRECMBR) PARM (MRXSIGNA) '
SOURCELINE  , 'PGM (ISRECMBR) PARM (MRXSOURC) '
SPACE       , 'PGM (ISRECMBR) PARM (MRXSPACE) '
STORAGE     , 'PGM (ISRECMBR) PARM (MRXSTORA) '
STRIP       , 'PGM (ISRECMBR) PARM (MRXSTRIP) '
    
```

```

SUBCOM      , 'PGM (ISRECMBR) PARM (MRXSUBCO) '
SUBSTR      , 'PGM (ISRECMBR) PARM (MRXSUBST) '
SUBWORD     , 'PGM (ISRECMBR) PARM (MRXSUBWO) '
SYMBOL      , 'PGM (ISRECMBR) PARM (MRXSYSYBO) '
SYSCPUS     , 'PGM (ISRECMBR) PARM (MRXSYSYCP) '
SYSDSN      , 'PGM (ISRECMBR) PARM (MRXSYSYSD) '
SYSVAR      , 'PGM (ISRECMBR) PARM (MRXSYSVA) '
TE          , 'PGM (ISRECMBR) PARM (MRXTE ) '
TIME        , 'PGM (ISRECMBR) PARM (MRXTIME ) '
TRACE       , 'PGM (ISRECMBR) PARM (MRXTRACE) '
TRANSLATE   , 'PGM (ISRECMBR) PARM (MRXTRANS) '
TRUNC       , 'PGM (ISRECMBR) PARM (MRXTRUNC) '
TS          , 'PGM (ISRECMBR) PARM (MRXTS ) '
UNTIL       , 'PGM (ISRECMBR) PARM (MRXUNTIL) '
UPPER       , 'PGM (ISRECMBR) PARM (MRXUPPER) '
USERID      , 'PGM (ISRECMBR) PARM (MRXUSERI) '
VALUE       , 'PGM (ISRECMBR) PARM (MRXVALUE) '
VERIFY      , 'PGM (ISRECMBR) PARM (MRXVERIF) '
WHILE       , 'PGM (ISRECMBR) PARM (MRXWHILE) '
WORD        , 'PGM (ISRECMBR) PARM (MRXWORD ) '
WORDINDEX   , 'PGM (ISRECMBR) PARM (MRXWORDI) '
WORDLENGTH  , 'PGM (ISRECMBR) PARM (MRXWORDL) '
WORDPOS     , 'PGM (ISRECMBR) PARM (MRXWORDP) '
WORDS       , 'PGM (ISRECMBR) PARM (MRXWORDS) '
XRANGE      , 'PGM (ISRECMBR) PARM (MRXXRANG) '
X2B         , 'PGM (ISRECMBR) PARM (MRXX2B ) '
X2C         , 'PGM (ISRECMBR) PARM (MRXX2C ) '
X2D         , 'PGM (ISRECMBR) PARM (MRXX2D ) '
' ' ' '
' ' ' '
* , '?' )
IF (&ZSEL = '?')
  &ZEMTEMP = &ZCMD
  .MSG = ISRYM013
  &ZCMD = ' '
  *DLSLIST
  IF (&ZMACRO = 'Y') /* If a macro command @OY38423*/
    .RESP = 'END' /* don't display error @OY38423*/
    &ISRMMEMB = '?' /* Indicate no member fnd@OY38423*/
    &ISRMMEMD = 'N' /* SET THE END INDICATOR TO NO */
  IF (.RESP = END) /* IF ENDING, WHY ... WHO CAUSED */
    IF (&ISRMONCL ^= 'Y') /* MAKE SURE ITS NOT A CLASS OP. */
      IF (&ISRMDSP ^= 'RETURN ') /* MAKE SURE ITS NOT END ON MBR. */
        &ISRMMEMD = 'Y' /* NO - ITS BECAUSE USER HIT END */
  &ZMSG = .MSG /* Set message variable */
  VPUT (ZMSG) PROFILE /* Save message in prof pool */
)PNTS
FIELD (ZPS01001) VAR (ZCMD) VAL (ABBREV )
FIELD (ZPS01002) VAR (ZCMD) VAL (ABS )
    
```

REXX – ISRRXCMD – Panel

```
FIELD (ZPS01003) VAR (ZCMD) VAL (ADDRESS )
FIELD (ZPS01004) VAR (ZCMD) VAL (ARG )
FIELD (ZPS01005) VAR (ZCMD) VAL (BITAND )
FIELD (ZPS01006) VAR (ZCMD) VAL (BITOR )
FIELD (ZPS01007) VAR (ZCMD) VAL (BITXOR )
FIELD (ZPS01008) VAR (ZCMD) VAL (BOOLEAN )
FIELD (ZPS01009) VAR (ZCMD) VAL (B2X )
FIELD (ZPS01010) VAR (ZCMD) VAL (CALL )
FIELD (ZPS01011) VAR (ZCMD) VAL (CENTER )
FIELD (ZPS01012) VAR (ZCMD) VAL (COMPARE )
FIELD (ZPS01013) VAR (ZCMD) VAL (CONDITION )
FIELD (ZPS01014) VAR (ZCMD) VAL (COPIES )
FIELD (ZPS01015) VAR (ZCMD) VAL (C2D )
FIELD (ZPS01016) VAR (ZCMD) VAL (C2X )
FIELD (ZPS01017) VAR (ZCMD) VAL (DATATYPE )
FIELD (ZPS01018) VAR (ZCMD) VAL (DATE )
FIELD (ZPS01019) VAR (ZCMD) VAL (DELSTACK )
FIELD (ZPS01020) VAR (ZCMD) VAL (DELSTR )
FIELD (ZPS01021) VAR (ZCMD) VAL (DELWORD )
FIELD (ZPS01022) VAR (ZCMD) VAL (DIGITS )
FIELD (ZPS01023) VAR (ZCMD) VAL (DO )
FIELD (ZPS01024) VAR (ZCMD) VAL (DROP )
FIELD (ZPS01025) VAR (ZCMD) VAL (DROPBUF )
FIELD (ZPS01026) VAR (ZCMD) VAL (D2C )
FIELD (ZPS01027) VAR (ZCMD) VAL (D2X )
FIELD (ZPS01028) VAR (ZCMD) VAL (ERRORTEXT )
FIELD (ZPS01029) VAR (ZCMD) VAL (EXECIO )
FIELD (ZPS01030) VAR (ZCMD) VAL (EXECUTIL )
FIELD (ZPS01031) VAR (ZCMD) VAL (EXIT )
FIELD (ZPS01032) VAR (ZCMD) VAL (EXTERNALS )
FIELD (ZPS01033) VAR (ZCMD) VAL (FIND )
FIELD (ZPS01034) VAR (ZCMD) VAL (FORM )
FIELD (ZPS01035) VAR (ZCMD) VAL (FORMAT )
FIELD (ZPS01036) VAR (ZCMD) VAL (FUZZ )
FIELD (ZPS01037) VAR (ZCMD) VAL (GETMSG )
FIELD (ZPS01038) VAR (ZCMD) VAL (HE )
FIELD (ZPS01039) VAR (ZCMD) VAL (HI )
FIELD (ZPS01040) VAR (ZCMD) VAL (HT )
FIELD (ZPS01041) VAR (ZCMD) VAL (IF )
FIELD (ZPS01042) VAR (ZCMD) VAL (INDEX )
FIELD (ZPS01043) VAR (ZCMD) VAL (INSERT )
FIELD (ZPS01044) VAR (ZCMD) VAL (INTERPRET )
FIELD (ZPS01045) VAR (ZCMD) VAL (ITERATE )
FIELD (ZPS01046) VAR (ZCMD) VAL (JUSTIFY )
FIELD (ZPS01047) VAR (ZCMD) VAL (LASTPOS )
FIELD (ZPS01048) VAR (ZCMD) VAL (LEAVE )
FIELD (ZPS01049) VAR (ZCMD) VAL (LEFT )
FIELD (ZPS01050) VAR (ZCMD) VAL (LENGTH )
```

```
FIELD (ZPS01051) VAR (ZCMD) VAL (LINESIZE )
FIELD (ZPS01052) VAR (ZCMD) VAL (LISTDSI )
FIELD (ZPS01053) VAR (ZCMD) VAL (MAKEBUF )
FIELD (ZPS01054) VAR (ZCMD) VAL (MAX )
FIELD (ZPS01055) VAR (ZCMD) VAL (MIN )
FIELD (ZPS01056) VAR (ZCMD) VAL (MSG )
FIELD (ZPS01057) VAR (ZCMD) VAL (MVSVAR )
FIELD (ZPS01058) VAR (ZCMD) VAL (NEWSTACK )
FIELD (ZPS01059) VAR (ZCMD) VAL (NOP )
FIELD (ZPS01060) VAR (ZCMD) VAL (NUMERIC )
FIELD (ZPS01061) VAR (ZCMD) VAL (OPTIONS )
FIELD (ZPS01062) VAR (ZCMD) VAL (OUTTRAP )
FIELD (ZPS01063) VAR (ZCMD) VAL (OVERLAY )
FIELD (ZPS01064) VAR (ZCMD) VAL (PARSE )
FIELD (ZPS01065) VAR (ZCMD) VAL (POS )
FIELD (ZPS01066) VAR (ZCMD) VAL (PROCEDURE )
FIELD (ZPS01067) VAR (ZCMD) VAL (PROMPT )
FIELD (ZPS01068) VAR (ZCMD) VAL (PULL )
FIELD (ZPS01069) VAR (ZCMD) VAL (PUSH )
FIELD (ZPS01070) VAR (ZCMD) VAL (QBUF )
FIELD (ZPS01071) VAR (ZCMD) VAL (QEQEM )
FIELD (ZPS01072) VAR (ZCMD) VAL (QSTACK )
FIELD (ZPS01073) VAR (ZCMD) VAL (QUEUE )
FIELD (ZPS01074) VAR (ZCMD) VAL (QUEUED )
FIELD (ZPS01075) VAR (ZCMD) VAL (RANDOM )
FIELD (ZPS01076) VAR (ZCMD) VAL (RETURN )
FIELD (ZPS01077) VAR (ZCMD) VAL (REVERSE )
FIELD (ZPS01078) VAR (ZCMD) VAL (RIGHT )
FIELD (ZPS01079) VAR (ZCMD) VAL (RT )
FIELD (ZPS01080) VAR (ZCMD) VAL (SAY )
FIELD (ZPS01081) VAR (ZCMD) VAL (SELECT )
FIELD (ZPS01082) VAR (ZCMD) VAL (SETLANG )
FIELD (ZPS01083) VAR (ZCMD) VAL (SIGN )
FIELD (ZPS01084) VAR (ZCMD) VAL (SIGNAL )
FIELD (ZPS01085) VAR (ZCMD) VAL (SOURCELINE)
FIELD (ZPS01086) VAR (ZCMD) VAL (SPACE )
FIELD (ZPS01087) VAR (ZCMD) VAL (STORAGE )
FIELD (ZPS01088) VAR (ZCMD) VAL (STRIP )
FIELD (ZPS01089) VAR (ZCMD) VAL (SUBCOM )
FIELD (ZPS01090) VAR (ZCMD) VAL (SUBSTR )
FIELD (ZPS01091) VAR (ZCMD) VAL (SUBWORD )
FIELD (ZPS01092) VAR (ZCMD) VAL (SYMBOL )
FIELD (ZPS01093) VAR (ZCMD) VAL (SYSCPUS )
FIELD (ZPS01094) VAR (ZCMD) VAL (SYSDSN )
FIELD (ZPS01095) VAR (ZCMD) VAL (SYSVAR )
FIELD (ZPS01096) VAR (ZCMD) VAL (TE )
FIELD (ZPS01097) VAR (ZCMD) VAL (TIME )
FIELD (ZPS01098) VAR (ZCMD) VAL (TRACE )
```

REXX – ISRRXCMD – Panel

```
FIELD(ZPS01099) VAR(ZCMD) VAL(TRANSLATE )
FIELD(ZPS01100) VAR(ZCMD) VAL(TRUNC )
FIELD(ZPS01101) VAR(ZCMD) VAL(TS )
FIELD(ZPS01102) VAR(ZCMD) VAL(UNTIL )
FIELD(ZPS01103) VAR(ZCMD) VAL(UPPER )
FIELD(ZPS01104) VAR(ZCMD) VAL(USERID )
FIELD(ZPS01105) VAR(ZCMD) VAL(VALUE )
FIELD(ZPS01106) VAR(ZCMD) VAL(VERIFY )
FIELD(ZPS01107) VAR(ZCMD) VAL(WHILE )
FIELD(ZPS01108) VAR(ZCMD) VAL(WORD )
FIELD(ZPS01109) VAR(ZCMD) VAL(WORDINDEX )
FIELD(ZPS01110) VAR(ZCMD) VAL(WORLENGTH)
FIELD(ZPS01111) VAR(ZCMD) VAL(WORDPOS )
FIELD(ZPS01112) VAR(ZCMD) VAL(WORDS )
FIELD(ZPS01113) VAR(ZCMD) VAL(XRANGE )
FIELD(ZPS01114) VAR(ZCMD) VAL(X2B )
FIELD(ZPS01115) VAR(ZCMD) VAL(X2C )
FIELD(ZPS01116) VAR(ZCMD) VAL(X2D )
)END
/*-----*/
/*                Wells Fargo Changes                */
/*-----*/
/* This panel is invoked by using the TSO edit command "MODEL", */
/* which in turn invokes panel ISREMCLS. Below is the flow-chart: */
/*-----*/
/*  MODEL  --> ISREMRXC  --> ISRRXCMD  --> M***** */
/*  IBM Cmd  IBM panel   User Panel   User Skeleton */
/*-----*/
/* FLG  YYMMDD  USERID  DESCRIPTION */
/* ---  ---  ---  --- */
/* @A0  100630  R2221  Developed Panel */
/*-----*/
```

REXX – Skeletons

MRXPOS

```
)NPOS (Position)
)N
)N+-----+
)N| |
)N| >>--POS(needle,haystack-----)<< |
)N| |
)N| +- ,start-+ |
)N| |
)N+-----+
)N
)NReturns the position of one string, needle, in another haystack.
)N(See also the INDEX and LASTPOS functions.) Returns 0 if needle is
)Nthe null string or is not found or if start is greater than the
)Nlength of haystack. By default the search starts at the first
)Ncharacter of haystack (that is, the value of start is 1). You can
)Noverride this by specifying start (which must be a positive whole
)Nnumber), the point at which the search starts.
)N
)NHere are some examples:
)N
)N POS('day','Saturday') -> 6
)N POS('x','abc def ghi') -> 0
)N POS(' ','abc def ghi') -> 4
)N POS(' ','abc def ghi',5) -> 8
)N
)N+-----+
```

MRXSAY

```
)NSAY
)N
)N+-----+
)N| |
)N| >>--SAY-----<< |
)N| |
)N| +-expression-+ |
)N| |
)N+-----+
)N
)NSAY writes a line to the output stream. This typically displays it
)Nto the user, but the output destination can depend on the
)Nimplementation. The result of expression may be of any length. If
)Nyou omit expression, the null string is written.
)N
)NIf a REXX exec runs in TSO/E foreground, SAY displays the expression
)Non the terminal. The result from the SAY instruction is formatted
)Nto the current terminal line width (as defined by the TSO/E TERMINAL
)Ncommand) minus 1 character. In TSO/E background, SAY writes the
)Nexpression to the output stream, which is SYSTSPRT. In either case,
)Nwhen the length is undefined (LINESIZE() returns 0), SAY uses a
)Ndefault line size of 80.
)N
)NIf an exec runs in a non-TSO/E address space, SAY writes the
)Nexpression to the output stream as defined by the OUTDD field in the
)Nmodule name table (see item -MODNAMET). The system default is
)NSYSTSPRT. The ddname may be changed on an application basis or on a
)Nsystem basis.
)N
)NExample:
)N
)N data=100
)N Say data 'divided by 4 =>' data/4
)N /* Displays: "100 divided by 4 => 25" */
)N
)N+-----+
```


Work Station Agent

Introduction

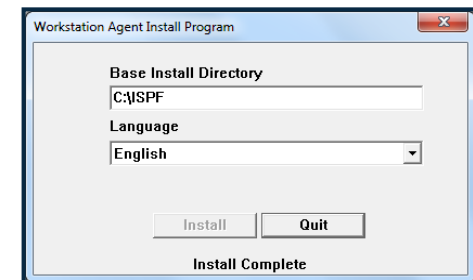
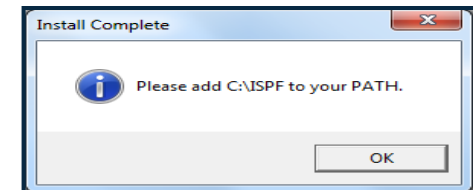
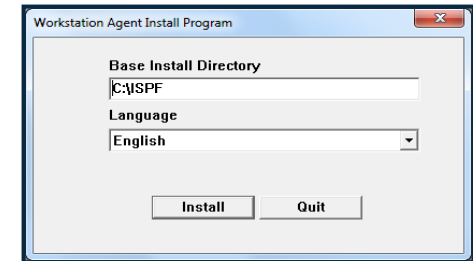
- Work Station Agent (WSA) was introduced in ISPF V4 in MVS/ESA (1994)
- WSA is most useful for customers with the following tendencies:
 - Have a lot of screen real estate, several monitors connected to their PC
 - Prefer to use one editor to modify and view mainframe/PC files
 - Frequently download/upload files from their workstation
- Links
 - TSO Times, Spring 2004, Dave Salt
 - [Performing File Transfer using ISPF Work Station Agent \(WSA\)](#)
 - Appendix A, Installing the Client/Server Component
 - [ISPF – V2R1 – Users Guide – Vol 1](#)

Pros & Cons

- Pros
 - Easily transfer all members in a PDS file to a folder
 - **SPLIT** adds a new logical screen, acts like **START**
- Cons
 - Work Station Agent must be active
 - Maximum fixed window size, can not enlarge
 - Window can be resized smaller, but hides screen
 - Not supported
 - Character-level color, intensity and highlighting
 - Field-level intensity and highlighting
 - **FIND** does not work in browse mode
 - Can not initiate GUI display while in split screen mode

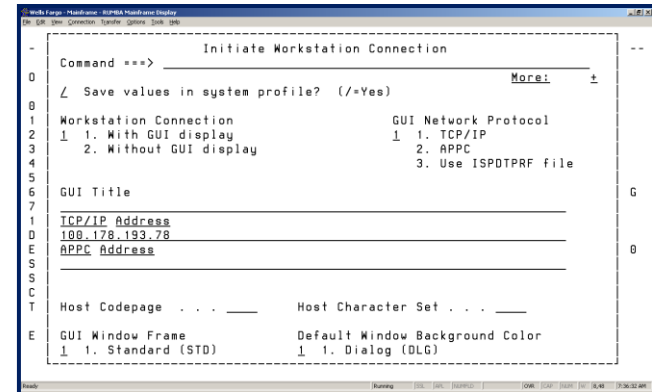
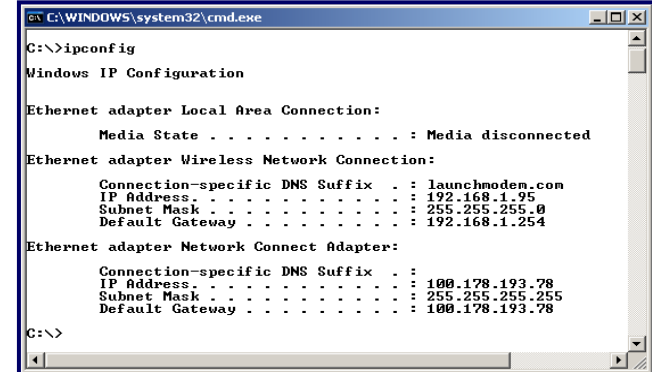
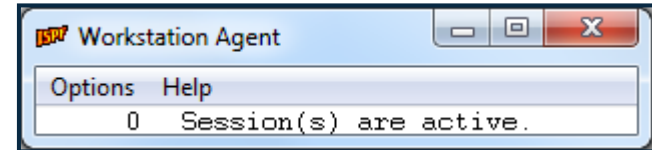
Install on PC

- Download the following PDS member into a Windows folder called “C:\ISPF” and add the extension ‘.EXE’
 - **SYS1.SISPGUI(ISPGUINX)**
- Double click on “C:\ISPF\ISPGUINX.EXE”
 - Type in “C:\ISPF” and click the “Install” button
 - Disregard the message and click the “OK” button
 - Click the “QUIT” button



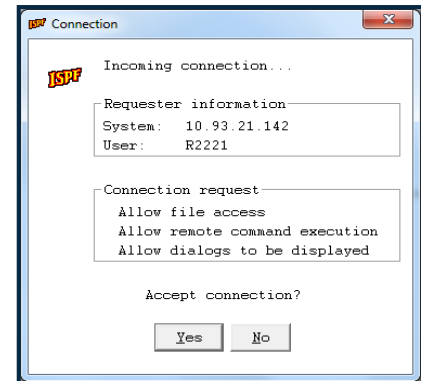
Activation

- Once installed, click on “**WSA.exe**”
- Obtain the workstation IP address
 - From Windows
 - Click “**Start**”
 - Select “**Run**”
 - Insert “**CMD**”
 - Type in “**IPCONFIG**”
 - From ISPF type in “**WSCON**”
 - Type “**1**” for “**Workstation Connection**”
 - Insert “**TCP/IP Address**”

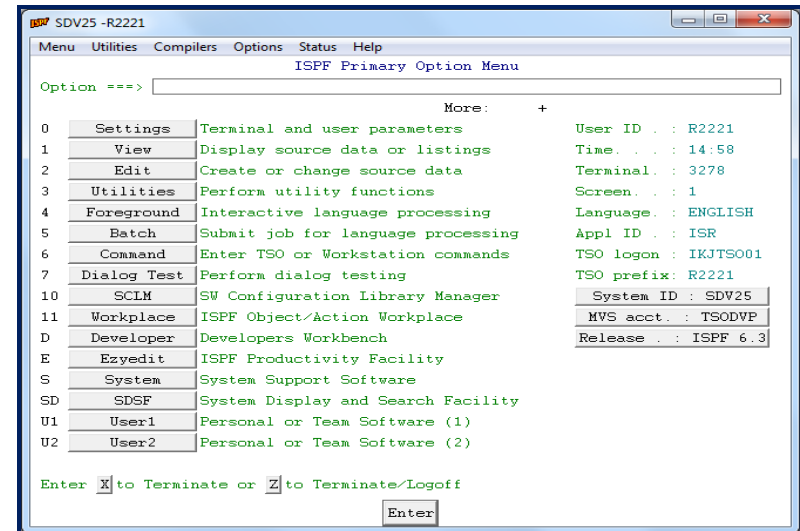


Activation

- Windows “Connection” screen will appear
 - Click the “Yes” button



- ISPF in GUI mode

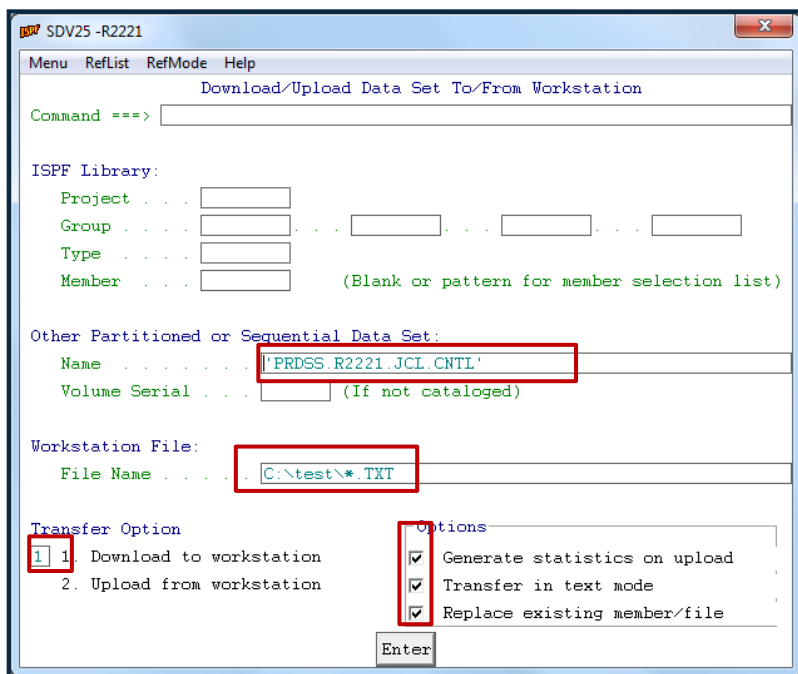


Commands

- **SPLIT** or **START** creates new GUI screen
- **SWAP LIST** display and select screen
- **SWITCH [3270|GUI]** between modes
- **WSDISCON** terminates GUI session

ISPF 3.7.2 – Transfer Files

- ISPF 3.7.2 is an easy way to transfer PDS members to a PC folder



ISPF SDV25 -R2221

Menu RefList RefMode Help

Download/Upload Data Set To/From Workstation

Command ==>

ISPF Library:

Project

Group

Type

Member (Blank or pattern for member selection list)

Other Partitioned or Sequential Data Set:

Name PRDSS.R2221.JCL.CNTL

Volume Serial (If not cataloged)

Workstation File:

File Name C:\test*.TXT

Transfer Option

1. Download to workstation

2. Upload from workstation

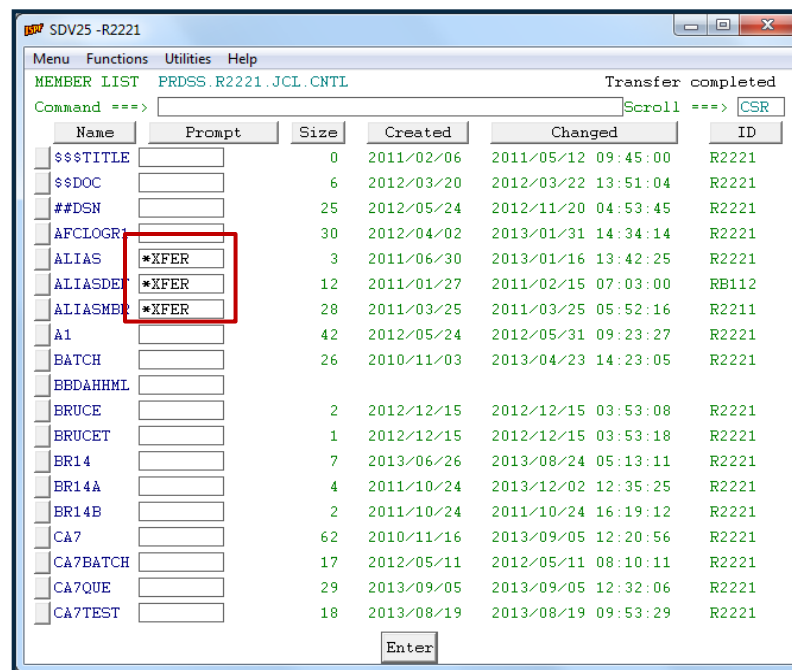
Options

Generate statistics on upload

Transfer in text mode

Replace existing member/file

Enter



ISPF SDV25 -R2221

Menu Functions Utilities Help

MEMBER LIST PRDSS.R2221.JCL.CNTL Transfer completed

Command ==> Scroll ==> CSR

Name	Prompt	Size	Created	Changed	ID
\$\$\$TITLE		0	2011/02/06	2011/05/12 09:45:00	R2221
\$\$DOC		6	2012/03/20	2012/03/22 13:51:04	R2221
##DSN		25	2012/05/24	2012/11/20 04:53:45	R2221
AFCLOGR		30	2012/04/02	2013/01/31 14:34:14	R2221
ALIAS	*XFER	3	2011/06/30	2013/01/16 13:42:25	R2221
ALIASDE	*XFER	12	2011/01/27	2011/02/15 07:03:00	RB112
ALIASMB	*XFER	28	2011/03/25	2011/03/25 05:52:16	R2211
A1		42	2012/05/24	2012/05/31 09:23:27	R2221
BATCH		26	2010/11/03	2013/04/23 14:23:05	R2221
BBDAHML					
BRUCE		2	2012/12/15	2012/12/15 03:53:08	R2221
BRUCET		1	2012/12/15	2012/12/15 03:53:18	R2221
BR14		7	2013/06/26	2013/08/24 05:13:11	R2221
BR14A		4	2011/10/24	2013/12/02 12:35:25	R2221
BR14B		2	2011/10/24	2011/10/24 16:19:12	R2221
CA7		62	2010/11/16	2013/09/05 12:20:56	R2221
CA7BATCH		17	2012/05/11	2012/05/11 08:10:11	R2221
CA7QUE		29	2013/09/05	2013/09/05 12:32:06	R2221
CA7TEST		18	2013/08/19	2013/08/19 09:53:29	R2221

Enter

Links

ISPF – Manuals

Version	Manual	Link
Website	N/A	ISPF – Manuals and Tools
Red Manual	SG24-6981-02	ABC's of Z/OS Systems Programming – Vol 1
V2R01	SC19-3619-00	ISPF – Dialog Developer's Guide and Reference
V2R01	SC19-3620-00	ISPF – Dialog Tag Language Guide and Reference
V2R01	SC19-3621-00	ISPF – Edit and Edit Macros
V2R01	SC19-3622-00	ISPF – Messages and Codes
V2R01	GC19-3623-00	ISPF – Planning and Customizing
V2R01	SC19-3624-00	ISPF – Reference Summary
V2R01	SC19-3625-00	ISPF – SCLM Guide and Reference
V2R01	SC19-3626-00	ISPF – Services Guide
V2R01	SC19-3627-00	ISPF – User's Guide – Vol 1
V2R01	SC19-3628-00	ISPF – User's Guide – Vol 2
V1R13	SC34-4821-09	ISPF – Dialog Developer's Guide and Reference
V1R13	SC34-4824-09	ISPF – Dialog Tag Language Guide and Reference
V1R13	SC34-4820-10	ISPF – Edit and Edit Macros

ISPF – Manuals

Version	Manual	Link
V1R13	SC34-4815-10	ISPF – Messages and Codes
V1R13	GC34-4814-09	ISPF – Planning and Customizing
V1R13	SC34-4816-10	ISPF – Reference Summary
V1R13	SC34-4817-11	ISPF – SCLM Guide and Reference
V1R13	SC34-4819-10	ISPF – Services Guide
V1R13	SC34-4822-10	ISPF – User's Guide – Vol 1
V1R13	SC34-4823-10	ISPF – User's Guide – Vol 2

REXX – Manuals

Version	Manual	Link
V2R01	SA32-0972-00	REXX – Reference
V2R01	SA32-0982-00	REXX – User's Guide
V2R01	SA23-2283-00	REXX – UNIX System Services
V2R01	SH19-8160-06	REXX – Compiler/Library – User's Guide and Reference
V2R01	SH19-8179-03	REXX – Compiler/Library – Diagnosis Guide

TSO – Manuals

Version	Manual	Link
V2R01	SA32-0977-00	TSO – Administration
V2R01	SA32-0975-00	TSO – Command Reference
V2R01	SA32-0976-00	TSO – Customization
V2R01	SA32-0979-00	TSO – General Information
V2R01	SA32-0970-00	TSO – Messages
V2R01	SA32-0984-00	TSO – Primer
V2R01	SA32-0981-00	TSO – Programming Guide
V2R01	SA32-0973-00	TSO – Programming Services
V2R01	GA32-0983-00	TSO – System Diagnosis: Data Areas
V2R01	SA32-0974-00	TSO – System Programming Command Reference
V2R01	SA32-0971-00	TSO – User's Guide

SDSF – Manuals

Version	Manual	Link
Website	N/A	SDSF Downloads
Red Manual	SG24-7419-00	Implementing REXX Support in SDSF
V2R01	SA23-2274-00	SDSF – Operation and Customization
V1R13	SA22-7670-15	SDSF – Operations and Customization
V1R12	SA22-7670-14	SDSF – Operations and Customization
V1R11	SA22-7670-12	SDSF – Operations and Customization
V1R10	SA22-7670-11	SDSF – Operations and Customization
V1R09	SA22-7670-10	SDSF – Operations and Customization
V1R08	SA22-7670-09	SDSF – Operations and Customization
V1R07	SA22-7670-08	SDSF – Operations and Customization
V1R06 & V1R05	SA22-7670-07	SDSF – Operations and Customization
V1R04	SA22-7670-04	SDSF – Operations and Customization
V1R03	SA22-7670-02	SDSF – Operations and Customization
V1R02	SA22-7670-01	SDSF – Operations and Customization

SHARE – ISPF

Session	Author	Link
15045	Peter Van Dyke	ISPF Editor – Beyond The Basics Hands-on Lab
14767	Peter Van Dyke	ISPF Behind the Scenes
14649	Peter Van Dyke	ISPF Hidden Treasures and New Features
12718	Thomas Conley	Configuring ISPF for Fun and Profit
11708	Peter Van Dyke	ISPF Panels Advanced
8676	Peter Van Dyke,	ISPF User's Boot Camp
8363	Rod Feak	When Worlds Collide – ISPF Tools for the Windows World
2277	Liam Doherty	ISPF Panels – Dialog Tag Language (DTL)

SHARE – SDSF

Session	Author	Link
15042	Greg Thompson	SDSF for New Users Hands-on Lab
14920	Greg Thompson	SDSF Product Update for z/OS 2.1
14768	Greg Thompson	SDSF Hidden Treasures
11701	Chip Wood	Accessing SDSF data using REXX and JAVA
10644	Chip Wood	What's new in SDSF z/OS V1.13?
8919	Chip Wood	SDSF: What's New in z/OS 1.12?
2341	Rod Freak	SDSF Rexx in a Production Environment – User Experience
2343	Chip Wood	SDSF for New Users
2344	Chip Wood	SDSF REXX Update
2663	Chip Wood	What's new in SDSF z/OS V1.10?
2664	Chip Wood	SDSF REXX
2655	Chip Wood	SDSF z/OS V1.9 Preview
2677	Dave Danner	z/OS 1.9 JES2 and SDSF: User Experiences With Migration and Using the New Features
2672	Tom Wasik	SDSF for Intermediate Users
2671	Bill Keller	SDSF Changes for z/OS V1R7

SHARE – REXX

Session	Author	Link
15243	Virgil Hein	REXX Language Coding Techniques
15229	Richard Cebula	An Introduction to Using REXX with Language Environment
14579	John Franciscovich	Introduction to REXX Workshop
14019	Brian Marshall	REXX programming for the z/OS programmer
11751	Thomas Conley	Rexx Power Tools – The PARSE Command
11701	Chip Wood	Accessing SDSF Data from Rexx and Java
11549	Bruce Koss	REXX – Troubleshooting
10425	Eric Rosenfeld	Analyzing Your RACF Database Using REXX
7485	Thomas Conley	Learn to Program in Rexx – Hands-on Lab
5490	Michael Onghena	RACF's R_admin Interface: Now Served with REXX!
2344	Chip Wood	SDSF Rexx API Usage Tutorial
2341	Rod Feak	SDSF Rexx in a Production Environment – User Experience
1579	David Ashley	Using Rexx Compiler Hands-on Lab
1569	Ahilan Rajadeva	Rexx and z/OS UNIX Services

Websites

Link
ABCs of Systems Programming
Andy's MVS Page
Cardett Associates – Database Query Tools
CBT Tape
DFSORT – Documentation and Code
Frank Clarke – REXX Tools
GSF Software – Downloads
ISPF – Manuals and Tools
ISPF – Request For Enhancement (RFE)
Kenneth Tomiak – Stuff
Ken's Universe
Leonard Woren – Free Stuff
Lionel B. Dyck – Freeware
Mark's MVS Utilities
Michael Joseph Clearly – Freeware

Websites

Link
Parallel Sysplex – Tools and Wizards
PDS2PDS – PDS Comparison
Planet MVS
Review – Browser and Editor
REXX – Language Association
Schlabb – REXX, TCPIP, etc.
SDSF – Downloads
SHARE – Conference Proceedings
Simo Time Enterprises – Programming Code Examples
TASID – Downloads
VM – Download Packages
Watson & Walker – Tuning Letter
WLM – Downloads
ZOS – V1R13 – PDF Manuals
ZOS – V2R01 – PDF Manuals

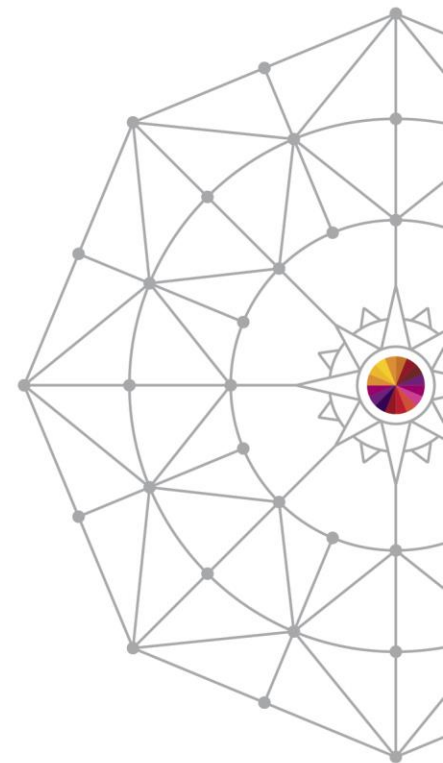
Any questions or comments please contact

Bruce Koss

Wells Fargo Mainframe Operating Systems Support

Bruce.Koss@WellsFargo.com

(704) 600-8416



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