

# Chapter 2

# DATA MANAGEMENT

*Get on the  
Fast Track!*



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**Objectives**

You will learn to:

- use and work with the MSL listings.
- utilize the benefits and usage of drill down navigation.
- use Spiffy wildcards.
- code the browse and edit commands.

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## 1 Main and Line Commands

The OLIST Main and Line commands can be displayed by clicking the “Command” Action Field or by entering the ASSIST command: Assist or A. The advantage in using Assist is that all the OLIST commands can be viewed and the user will not have to memorize the Main and Line commands.

- SET command can be used to display all SPIFFY options, including the OLIST Assist.

This setting is remembered across sessions.

- All Main commands are Action Fields or point-and-shoot fields.

If a Main command is clicked, the selected command is executed.

```
SPF/E -----Setting SPIFFY Defaults-----
COMMAND ==>
Select options by number, name, with cursor selection, or with line commands:
  SPIFFY is running under ISPF version 5.6

  _ A - ALL          - Select all the below displayed options
  _ M - MSL          - Member Selection List options
  _ P - OLIST        - Object list options
  _ G - GLOBAL       - Global edit and Findtext options
  _ R - PRINT        - Print options
  _ D - DSLIST       - DSLIST options
  _ T - TSO          - TSO shell options
  _ E - EDIT         - Edit, Browse and View options
  _ I - INTERFACE    - Specify user interface options
  _ S - SCLM         - SCLM options
  _ N - DIAGNOSE     - Diagnose ISPF errors

  Make your selection and press the ENTER key or press the END key to exit
```

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## 2 MSL: Member Selection List

Spiffy's MSL: Member Selection List is an enhanced version of ISPF's Member List and supports the commands supported by different ISPF Member List utilities. It is useful when working with standard PDS and PDSE libraries. It will no longer be necessary to navigate from panel to panel of ISPF to accomplish a variety of tasks on a single library. MSL is automatically invoked by BROWSE, EDIT, VIEW, DSLIST, and OLIST.

MSL provides several useful features for:

- Tailoring the display.
- Combining multiple utilities in a single common interface Member List.
- Text searching.
- Global editing.
- Access to the other libraries.
- Previewing windows with which display member contents.
- Issuing multiple line commands on multiple members.

```
SPF/E -----Member Selection List options-----
COMMAND ==>

Line number for member list windows      ==> 1 (1 to 24)
Automatic preview (with LOCATE/FIND)      ==> N (Y=Yes, N=No)
Display list of commands on the panel     ==> N (Y=Yes, N=No)
Replace existing members (COPY/MOVE)      ==> O (Y=Yes, N=No, O=Target Older)
Member list line command pad character    ==> (BLANK,dot,quote,underscore)
Main menu option 1 default process        ==> V (B=Browse, V=View)
Default cursor position                   ==> M (M=Main command, L=Line cmd)

Commands executed by TAILOR command:
==>

Press ENTER for more options, END to exit, CANCEL for installation defaults.
```

```
SPF/E -----OLIST - Object List Options-----
COMMAND ==>

Default command (when selecting an item) ==> V (B=Browse, E=Edit, V=View)
Check edit recovery when the list opens   ==> N (Y=Yes, N=No)
Display list of commands on the panel     ==> N (Y=Yes, N=No)
Provide a field for TSO command parms     ==> Y (Y=Yes, N=No)
Display mode (right column shows)        ==> V (C=Class, V=Volume)
Default cursor position                   ==> M (M=Main command, L=Line cmd)
MEMFIND recalls HSM migrated data sets    ==> N (Y=Yes, N=No)

Press ENTER for more options, END to exit, CANCEL for installation defaults.
```

Feature	Description
Tailoring the display	<p>Several commands provide the capability to tailor the Member List. When tailoring the MSL, it will include only the selected members in the specified order.</p> <p>Common used features include:</p> <ul style="list-style-type: none"> <li>• FILTER on one or several ISPF statistic fields (including load module statistics) using wildcards.</li> <li>• EXCLUDE members by member name.</li> <li>• FLIP between the excluded and included member display.</li> <li>• Use GLOBAL FIND to exclude members that do not contain the searched text.</li> <li>• Tag members, and use the tagging for filtering.</li> <li>• SORT on one or several ISPF statistic fields (including load module attributes) in either ascending or descending order, using patterns.</li> </ul>
Combine multiple utilities into a single common interface Member List	Whether the Member List is started by BROWSE, EDIT, or VIEW, all of the MSL commands are available - BROWSE, COPY, DELETE, EDIT, MOVE, RENAME, VIEW, STATS-RESET, SUBMIT, and TSO commands.
Text searching capabilities	Members can be located by context and perform global find operations. The results can be used to locate members, filter the Member List for only members containing specific text, and display found text along the member names.
GLOBAL EDIT	Supports multiple commands using standard edit syntax. Complex macros can be created. Changes can be performed automatically, or a prompt panel can be requested before changes are saved. The concatenation hierarchy, can be used to SAVE changes in a separate library, leaving the original members intact.
Access to the other libraries	Provides immediate access to other libraries via library switching from within the Member List. A change can be made to another library by changing the first, middle, or last qualifier (level) of the library. A switch can be made to another volume, or a library can be picked from the list of the recently referenced data sets.
Previewing windows with which display member contents	Preview windows display member contents within a window on the Member List. Specific members can be located or be set to automatically preview located members or members containing searches for text.
Issuing multiple line commands on multiple members	Issue multiple line commands and commands on multiple members using extended patterns.

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### **3 Drill-Down Navigation**

SPIFFY provides the capability for accessing resources without having to know the exact name of those resources. It will automatically open a temporary OLIST where the data set to be processed can be accessed.

On the panel where a VOLSER has been specified, wildcards can be specified. SPIFFY will display a Volume Selection List and let you select the volume to use.

A volume mask can be specified in OLIST which will display the Volume Selection List. A volume mask specified with a catalog level entry, which is a data set that has a wildcard in it, will open a temporary OLIST with all data sets matching the pattern which resides on the volumes that match the volume mask.

Volume patterns can be specified in the DSLIST (option 3.4) Entry Panel. The DSLIST will provide volume specific functions such as a VTOC display.

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#### **3.1 Wildcards**

The ability to specify wildcards on both the data set and the volume fields provides the means to search for a data set. If there is uncertainty of the exact data set name or where it resides, an asterisk can be followed by a part of the name and another asterisk.

In the volume field, an asterisk can be entered, subject to the existing security settings, SPIFFY will search for all data sets matching the pattern on all the accessible disks.

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## 4 DSLIST Entry Panel

Several enhancements can be made to the DSLIST Entry Panel.

Enhancement	Description
Extended VTOC and space summary	An XV () command displays detailed information about a volume, along with a space usage graphical bar. Typing over the volume serial switches to another volume, and there will be a graphical bar and detailed information of the change.
Display Generation Datasets	GDG () command opens a temporary OLIST listing all the existing generations of a GDG base, showing both the relative generation number and the physical data set name. All the OLIST commands can be used on these data sets, including pattern matching.
More? prompt following the Dsname Level input field	This will open a pop-up window allowing multiple DSNAME levels to be specified and VOLSERS. SPIFFY will respond by opening a temporary OLIST containing the data sets that match the multiple criteria that have been specified. It is typically used to create a list of different catalog levels.
Special-lists	When selected, SPIFFY will present options that allow OLISTS to be open which contain data sets from special sources, such as allocated data sets, migrated data sets, and other sources.

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### 4.1 Space Summary Volume Selection List

When the XV command is used in conjunction with a wildcard pattern mask to specify a volume, SPIFFY will display a Space Summary Volume Selection List.

Specific volumes that have been selected using the S line command for extended VTOC information open a DSLIST or a temporary OLIST of data sets matching the data set level appearing on top of the panel for the selected volume.

The Space Summary Volume Selection List can be used to open data set lists (DSLIST or OLIST) for similar levels on different volumes.

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## **4.2 Special Lists**

Selecting the Special-lists option on the Action Bar SPIFFY provides a pull-down menu with the following options:

The available choices provide access to OLISTs populated from different sources. These lists are often used to diagnose problems and to find accessed resources.

It is also possible to create an OLIST of migrated data sets of a specific catalog level, cut the list, start an edit session, paste the data set names into the edit area, and create JCL to recall all of them at once.

Disabling the DSLIST Action Bar, will have SPIFFY place the special list options on the panel as additional commands.

## 5 Browse, Edit, and View Commands

BROWSE, EDIT, and VIEW commands can be invoked from any panel.

From the MSL BROWSE, EDIT, and VIEW, these commands will initiate a nested level which is indicated in the left-hand corner of the top line of the panel. When finished with the current level, the return will be to the previous level from you started.

PF keys can be defined as BROWSE, EDIT, or VIEW. When the cursor is on the command line, the appropriate Entry Panel will be displayed. The BROWSE, EDIT, and VIEW commands accept the name of the data set or object to process, bypassing the Entry Panel.

The Point-and-Shoot Interface can be used for placing the cursor on the name of an object anywhere on any panel, and invoking BROWSE, EDIT, or VIEW on the object by pressing the PF key which has been defined. This will provide the capability to “zoom in” on an object and “zoom out” again.

BROWSE, EDIT, and VIEW will accept different SPIFFY objects.

```

SPF/E -----EDIT/VIEW/BROWSE options-----
COMMAND ==>
  Confirm CANCEL/MOVE/REPLACE commands ==> N (Y=Yes, N=No)

  Enable edit/view hilights (coloring) ==> Y (Y=Yes, N=No)

  Action bar (CUA pulldown menu) active ==> Y (Y=Yes, N=No)

NOTE: SPIFFY was configured to require that the view function will
      have exclusive use of viewed files.

  Cut and Paste Options          ==> 1 (1,2,3,4)

      Explanation of Cut and Paste Options

(1) SPIFFY CUT/PASTE           CUT/PASTE commands are SPIFFY's for all
                                applications (ISPF, SDSF, OMVS, etc.)
(2) SCUT/SPASTE Support        CUT/PASTE commands for ISPF;
                                SCUT/SPASTE commands fo SPIFFY
(3) Panel Specific             SPIFFY CUT/PASTE within ISPF
                                ISPF CUT/PASTE elsewhere (SDSF, etc.)
(4) ISPF CUT/PASTE            CUT/PASTE commands are ISPF's for all
                                applications

Press ENTER for more options, END to exit, CANCEL for installation defaults.

  File Display Library SCLM Settings Menu Utilities Test Help Exit
-----
SPF/E-VIEW L1----- #6002.A.CLIST -----INVALID LINE COMMAND: ?
COMMAND ==>                                SCROLL ==> PAGE
HOTBAR?

  NAME      RENAME  LIB VV.MM  CREATED    CHANGED    SIZE  INIT  MOD USERID
? BDAY      <--- INVALID LINE COMMAND
BDAY2      +-----Assist-----
BDAY3      |
BDAY3A     |   B (browse)  C (copy)   D (delete) E (edit)  H (where)
BDAY3B     |   I (ISPEXEC) J (submit) K (SCLM)  M (move)  P (print)
DSN        |   R (rename)  S (select) T (TSO)   V (view)  W (preview)
GL1        |   X (exclude) Z (stats) = (repeat)
GL3        +-----
NAMES      1 01.00 05/10/04 05/10/04 09:41    6    6    0 #6002
PAY        1 01.01 05/10/03 05/10/03 12:57    3    3    1 #6002
PROC2     1 01.01 05/10/04 05/10/04 15:59    5    5    1 #6002
--END--
    
```

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## 6 View Function

ISPF Version 4 introduced the VIEW function that provided edit-like capabilities without the ability to SAVE the member. As a file is viewed, other users can also access the file, and modify it. The viewed version may not reflect the updated file.

SPIFFY provides two options:

• Shared VIEW	• Exclusive VIEW
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### 6.1 Shared View

Shared View allows several users to work with the same file at the same time. Shared View does not ENQ on the file being viewed. Although this View disables the SAVE command, a user can still save via the REPLACE command by using the same name of the member being viewed as a parameter to the REPLACE command. The viewed member may not reflect the real member since other users may edit and change it while it is being viewed.

Shared VIEW does not pull down members edited from the ISPF concatenation list (PROJECT, GROUP, TYPE) in the same way EDIT does. If a member exists in the second library in the concatenated member list, which is indicated by 2 under the LIB column, it will be viewed under LIB 2 while in EDIT and be ENQed and saved under the first library in the concatenation (LIB 1).

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### 6.2 Exclusive View

Exclusive VIEW will not allow other users to either EDIT or use exclusive VIEW on the viewed file (shared VIEW and BROWSE are still permitted). Exclusive VIEW also has a controlled save capability. When a controlled save is used, a prompt panel is displayed, prompting for an override of the default mode of discarding changes. Exclusive VIEW provides functionality similar to shared VIEW, but with enhanced integrity.

```
SPF/E -----User Interface Options-----
COMMAND ==>
```

```
+-----+
| Note: Changes specified on this screen may not affect all of the |
|           panels that are currently displayed in nested applications. |
+-----+
```

Verify or specify the following options: (Enter Y for Yes, N for No):

```
Use Leader Dots (instead of arrows)   ==> N
Use Scrollable Panels                 ==> Y
Activate HOTBARS                      ==> Y
Activate Action Bars                  ==> Y
  If Action Bars are active:
    Display Action Bars in Browse, Edit, View   ==> Y
    Display Action Bars in Member Selection List ==> Y
    Display Action Bars in the object list      ==> Y
    Display Action Bars in DSLIST              ==> Y
```

Press ENTER for more options, END to exit, CANCEL for installation defaults.

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### 6.3 Cut and Paste

SPIFFY can be customized to specify whether SPIFFY CUT/PASTE or ISPF CUT/PASTE will be used.

SPIFFY CUT and PASTE commands provide these benefits:

- Supports up to 200 CUT/PASTE clipboards. Clipboards can be named or numbered. These clipboards can be edited, browsed, copied, saved, restored, and renamed.
- Ability to CUT excluded and non-excluded lines. Context-sensitive lines can be cut by combining the EXCLUDE and FIND commands with the CUT command.
- In order to match the PASTE command features in Release 5.7, the CUT command supports the STatus keyword for displaying the entries to be cut.
- Lines can be pasted from different sources:
  - Previously cut lines.
  - Lines from another member.
  - Captured output of TSO commands.
  - Member names of a specified directory.
  - Contents of a previously cut OLIST.
- Before pasting, the lines to be pasted and the lines selected that are to be processed can be displayed.

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## **7 STATUS Command**

The STATUS command, available in EDIT and VIEW provides information about the member directory entry and whether the member was saved.

The information is displayed as message lines in the edit workspace.

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### **7.1 Find and Change**

RFIND and RCHANGE are remembered across different libraries and across BROWSE, EDIT, and VIEW. The first time RCHANGE is performed in a member, SPIFFY will place the command on the command line to allow rejection, modification, or execution of the change command. SPIFFY propagates the text search command issued within the MSL into the BROWSE, EDIT, and VIEW.

The RFIND command in BROWSE positions the cursor on the first "DATE" string.

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## 8 Data Set History Facility - @H

When an input field requires a data set name, a panel can be called which displays a selection list of the last 100 data sets that have been referenced. In order to do this, the symbol @H has to be entered in place of the data set name.

@H provides the following advantages:

- Entering @H instead of the data set and selecting the data set to use from the history list. It will not be necessary to use the Action Bar or command input.
- The list is automatically stored in reversed-access order in order that recently referenced data sets are on top and are shown.
- A data set can be typed over to change a selection, or add or change member names.
- The list will preserve member names specified along with data set names.
- An OLIST can be opened in order to contain the history list by entering the command:

OLIST @H

Thereafter, all the OLIST commands can be issued on the data sets listed.

- Directly invoke BROWSE, EDIT, or VIEW with the @H parameter, requesting display of the reference list rather than the standard Entry Panel.
- On any panel, directly specify the last data set referenced, using the symbol @L (for "last").

This symbol can be used in any input field requiring a data set name, or in a command as follows:

**EDIT @L**

OLIST @h produces:

```
File Edit Find Display Populate Settings SCLM Menu Test Help Exit
-----
SPF/E OLIST (V) ----- DATA SET HISTORY ----- Row 1 to 15 of 100
Command      ==>                               SCROLL ==> PAGE
Hotbar?

                                *TEMPORARY LIST*
TSO PARMS  ==>
Command  Member  Num.  Data Set Names / Objects                               Volume
-----
1 '#6002.A.CLIST'
2 'SYSX.D313.SYSREXX'
3 'SSA.DA163.REXXTOOL.EXEC'
4 'SYS1.SISPEXEC'
5 'SSA1.SYSEXEC'
6 'SSA.DA163.SIP.ISPFCLIB'
7 'SSA1.STECS.ISPFCLIB'
8 'SYSX.D313.SYSPROC'
9 'SSA1.SYSPROC'
10 '#6002.A.DATA'
11 '$7101.CLSTCLAS.CNTL'
12 '$7101.A.DATA'
13 '#6002.B.CLIST'
14 '#6004.A.CLIST'
15 A.CLIST
```

---

## 9 Access Data Sets - DDNAME

A data set name can be allocated with DDNAME.

With the SPIFFY general commands BROWSE, EDIT, and VIEW, a member can be specified as follows:

```
BROWSE @DD.JCLLIB(JCL01)
```

or a pattern, such as:

```
VIEW @DD.ACCTIN.#3(PAY*)
```

---

### 9.1 SPIFFY TSO Shell

In order to access the TSO shell, use option 6 (COMMAND) from the ISPF main menu or enter "TSO" on the command line.

The displayed panel has two areas:

- The command area where commands are entered.
- The history command list area which lists up to 999 commands issued, or the permanent command list area which allows up to 999 entered commands.

The history and permanent lists are numbered. Instead of entering a command, its number can be entered on the command area. All history and permanent command lists can be edited, browsed, saved, and restored from a persistent table library.

```
SPF/E -----TSO shell options-----
COMMAND ==>
```

```
SPIFFY TSO command shell options:
```

```
Use SPIFFY TSO shell ==> Y (Y=Yes - Use the SPIFFY TSO shell)
                        (N=No - Use the standard ISPF TSO shell)
```

```
If SPIFFY shell active:
```

```
Output line number ==> 4 (Number of screen line where the output
                        of TSO commands is displayed)
```

```
Press ENTER for more options, END to exit, CANCEL for installation defaults.
```

---

## 9.2 Recalling a Command

In order to recall a command, enter a question mark followed by its number, or place the cursor on a line and click "ENTER" to bring up that command to the main Command. The command can also be edited from the main Command before it is executed.

Once the command is edited, the new command is listed in the Command History List.

The TSO Command Shell provides the capability to reissue any of the commands on the list from any panel by number. The last TSO command can be entered by entering the command:

TSO =

SPIFFY provides point-and-shoot support for TSO commands and CLISTs. With such commands when entering such a command, the data set name can be designated with a slash ("/") and the data set name pointed to with the cursor.

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## 10 ISPF Dialog Development

SPIFFY enhances the process of developing ISPF dialogs.

With SPIFFY, ISPF dialog developers can:

- Refresh specific panels before display without having to run in Dialog Test mode. Avoiding Dialog Test mode significantly improves the performance of ISPF.
- Display panels from within the member list.
- Invoke dialog services from within the member list. Feedback messages provide dialog error information on the screen.
- Invoke dialog services from the SPIFFY TSO shell and invoke dialog services from any panel.
- Place dialog services calls within the OLIST - Object Lists.
- Enforce the display of panel identifiers throughout the ISPF session on all split screens.
- SPIFFY has a panel extension language – PEL. PEL provides several enhancements to the ISPF panel language, including the ability to incorporate common panel sections from within a single member.  
PEL can be used for placing sections that appear in many different panels in a common member; a PEL statement can be used for referring to it.