



This is the tutorial for the IMS™ feature of IBM's File Manager for z/OS®, one of the IBM zSeries® problem determination tools.

- **Introduction**
- **File Manager IMS option settings**
  - Option settings
- **Edit and browse access modes**
  - Using BMP or DLI access
  - Using a dynamic or static PSB
- **Browsing or editing an IMS database**
  - Starting browse
  - Database navigation
  - Display database information
  - Display formats without a template

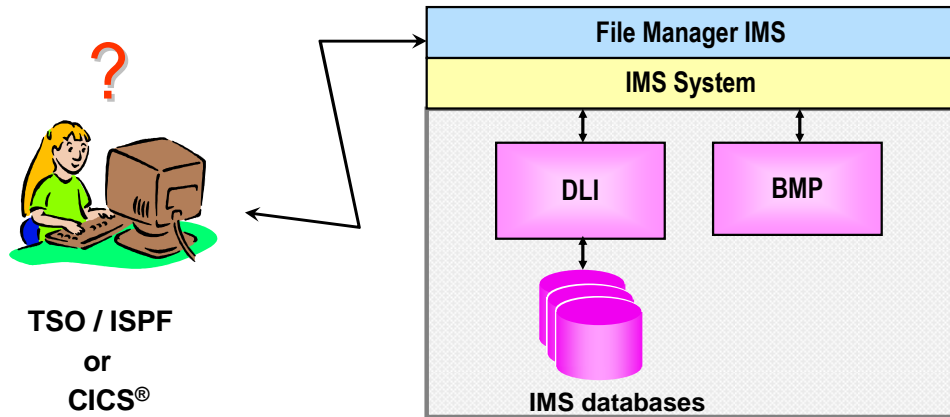


In this section, you will learn the basics of using the File Manager IMS browser and editor. Take this section to learn how to start the browser, how to navigate to various segments in a database, how to get information about a database, and to see some of the display formats that are available.

## Browse a database



- IMS database browse



3

IBM File Manager for z/OS IMS Feature - Tutorial

W00 © 2010 IBM Corporation

Use File Manager IMS to edit or browse an IMS database. You can use these functions from TSO, or they can optionally be accessed from CICS, if the File Manager CICS component is installed.

## Select browse



```
Process  Options  Help
-----
FM/IMS                                     Primary Option Menu
Command ===> 1
-----
0 Settings      Set processing options      User ID . . : DNET845
1 Browse        Browse data                  System ID  : DEMOMVS
2 Edit          Edit data                    Appl ID   : FMN1
3 Utilities     Perform utility functions   Version . . : 10.1.0
4 Templates     Template/view/criteria set utilities Terminal . : 3278
X Exit          Terminate FM/IMS            Screen . . : 2
                                           Date . . . : 2009/12/30
                                           Time . . . : 17:46

F1=Help      F2=Split    F3=Exit     F4=CRetriev F7=Backward F8=Forward
F9=Swap      F10=Actions F12=Cancel

Enter
```

4 | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation

This is the File Manager IMS "Primary Option Menu". If you are not sure how to get to File Manager IMS on your system, you might want to contact your help desk or systems programmer to find out. From the menu, Option 2 is Edit, and 1 is Browse. In this example, 1 (for browse) is typed on the command line, and Enter is pressed.

## Select browse options



```
Process  Options  Help
-----
FM/IMS                                     Browse Entry Panel
Command ==> |

IMS:
Subsystem name . . . IMSB                PSB name
Database name . . . USRSCN             AGN name

View:
Data set name . . .
Member . . .

Processing Options:
PSB type          Region type          Fetch DB dsnames from (if DLI)
1 1. Dynamic    1 1. DLI                1 1. User profile
      2. Static      2. BMP                2. DFSMDA members

View usage
3 1. New
      2. Existing
      3. None

Enter "/" to select option
_ Secondary index (if dynamic PSB)
_ Skip DB data set panel (if DLI)

F1=Help      F2=Split      F3=Exit      F4=CRetriev  F7=Backward  F8=Forward
F9=Swap      F10=Actions   F12=Cancel

Enter
```

The browse entry panel is displayed.

To browse an IMS database, first, in the "Subsystem name" field, specify the name of an IMS subsystem where the database resides. If you do not know what subsystems are available on your system, overwrite this field with blanks and press Enter. That will display a list of available subsystems, and you can select the one you need from the list. IMS subsystem names are defined by the person who installs File Manager and by data base administrators.

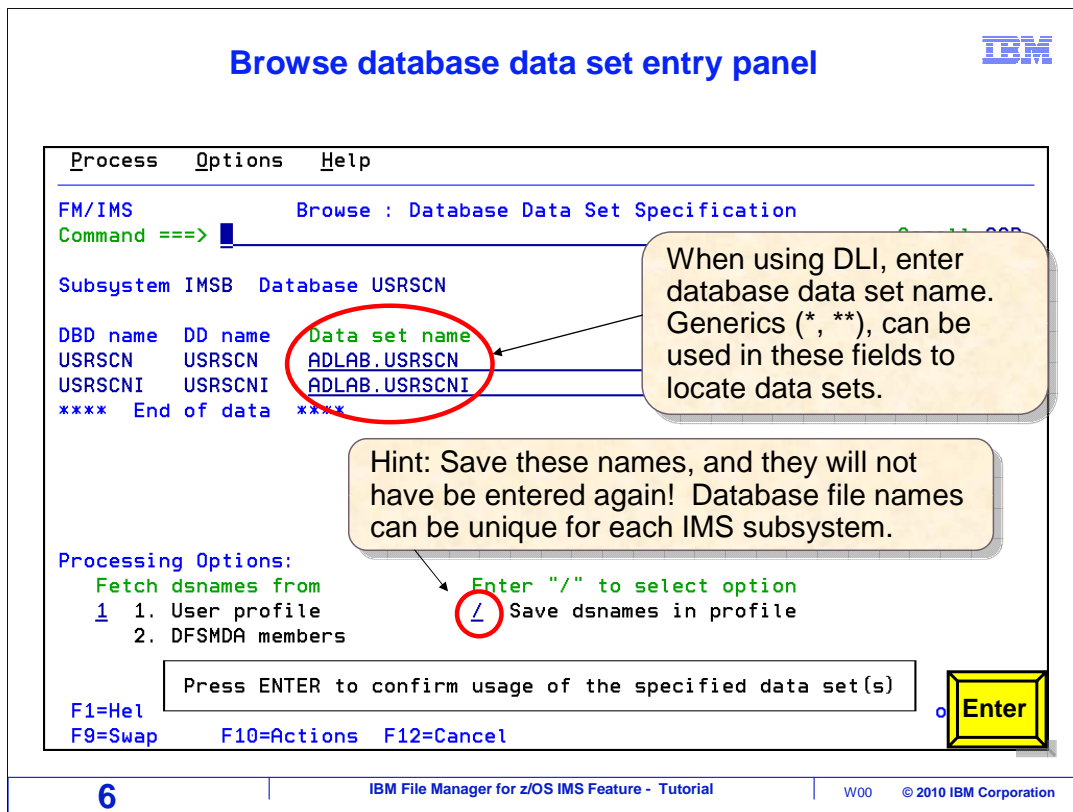
Then specify the DBD name for the database you want to access in the "database name" field. In this example, a DBD named USRSCN is used. The DBD libraries that are searched are controlled in your options settings.

Specify the access mode in the "Region Type". This will either be "1" for DLI or "2" for BMP. In this example, the database will be accessed in DLI mode.

The "PSB type" field controls whether you will use a static or dynamic PSB. In this example, a dynamic PSB is used, and File Manager will automatically create a PSB with access to all segments in the DBD.

The "View usage" field will be described in a later section. In this example, a "view" will not be used, so view usage is set to "3" (none).

Enter is pressed.



When you are in DLI mode, the "Database data set specification" panel is displayed next. This panel is not displayed when you are in BMP mode.

The names of the files that contain the database that you want to access must be specified here. The number of files needed depends on what is called for by the DBD.

There are some different ways to specify the dataset names. If you know what they are you can type them into the "data set name" fields. If the database administrator has defined them in the IMS subsystem's dynamic allocation members, you can type option "2" in the "Fetch DSnames from" field and press Enter, to retrieve the file names automatically.

Also notice the "Save DSnames in profile" field. If you select this option, by typing a slash, then the file names that you enter or retrieve will be automatically saved in your File Manager profile. Then the next time you access this database, you can have the file names retrieved automatically from your personal profile, by specifying the "1" (User profile) option in the "Fetch DSnames from" field. That is a good idea, so you do not have to retype the file names every time.

Press Enter to continue.

## Select the first segment key value



```
Process  Options  Help
-----
FM/IMS          Browse : Database Positioning
Command ==>>> _____ Scroll CSR
Subsystem IMSB Database USRSCN Key sequence Format CHAR
View      None
Cmd  SXE Level Segment Description len Key value
-----
S  SX  1    CUSTADDR  Description  10  0003874923
  X   2    TOTUSE      6  .....
  X   3    PRMUSE      8  .....
  X   3    OFFUSE      8  .....
  X   4    OFFDTL      8  .....
```

The **S** command selects the segment to start browse.

The key value of the first segment is shown. Optionally enter key values to a position in the database. "Enter" requires an exact key value match. F5 (>=) can use a partial value match.

F1=Help F2=Split F3=Exit F4=CRetriev F5=Key >= F7=Ba Enter  
F8=Forward F9=Swap F10=Actions F12=Cancel

7 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

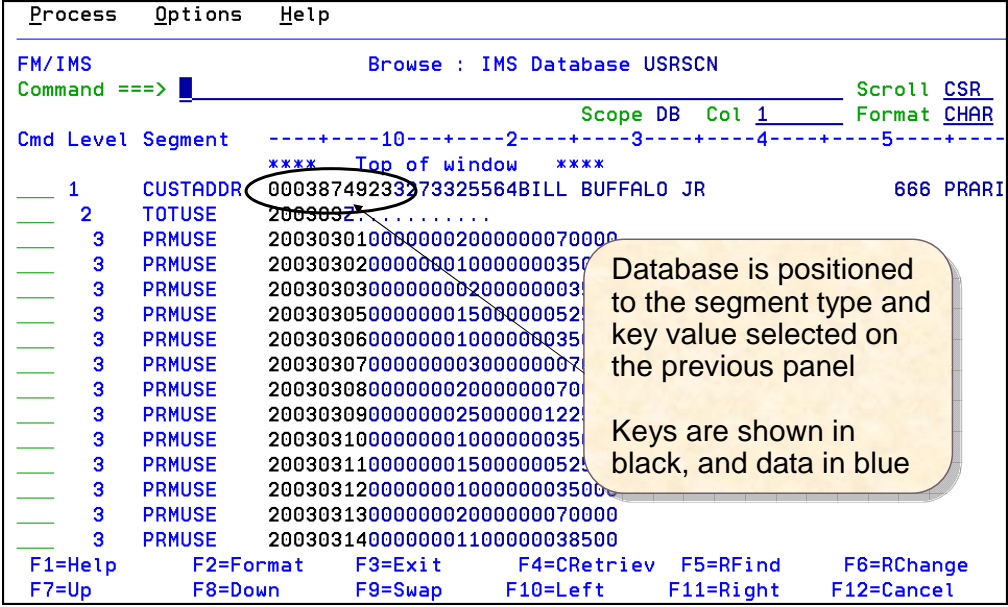
Next, the Database Positioning panel is displayed. This is used to determine where the browser will initially position in the database. You can position to any segment type, and you can optionally specify a key value.

You can type key values for the path to the segment, starting with the root, then select the segment type with an S line command. There are two ways to position to a segment based on a key value. First, if you press Enter, File Manager searches for a segment that is an exact match for the key value you entered.

The other way is to use F5. When you press F5, File Manager searches for a segment key that is greater than or equal to the value you specified.

The key value of the first root in the database may be automatically filled in, as in this example. In this database, root segments are called CUSTADDR. To navigate to the first root segment, S is typed in the prefix area for the CUSTADDR segment, and Enter is pressed.

## Database is displayed in browse mode at the specified key



Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> █ Scope DB Col 1 Format CSR

Format CHAR

Cmd	Level	Segment	Key	Data
---	1	CUSTADDR	000387492337	73325564BILL BUFFALO JR 666 PRARI
---	2	TOTUSE	20030327	.....
---	3	PRMUSE	2003030100000002000000070000	
---	3	PRMUSE	20030302000000010000000350	
---	3	PRMUSE	20030303000000002000000003	
---	3	PRMUSE	20030305000000015000000052	
---	3	PRMUSE	20030306000000010000000035	
---	3	PRMUSE	20030307000000003000000007	
---	3	PRMUSE	20030308000000020000000070	
---	3	PRMUSE	200303090000000025000000122	
---	3	PRMUSE	20030310000000010000000035	
---	3	PRMUSE	20030311000000015000000052	
---	3	PRMUSE	2003031200000001000000003500	
---	3	PRMUSE	2003031300000002000000007000	
---	3	PRMUSE	20030314000000011000000038500	

F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RChange  
F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Cancel

8 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

And now the browser is displayed. It positioned to the root segment based on the key value from the last screen.

Each data line shows one segment. Notice the “level” column. Root segments are denoted as level one. Children of root segments are denoted as level two. Level three segments are children of level two segments, and so on.



## File Manager IMS version 10 tutorial



- Introduction
- File Manager IMS option settings
- Edit and browse access modes
  - Using BMP or DLI access
  - Using a dynamic or static PSB
- Browsing or editing an IMS Database
  - Starting browse
  - Database navigation
  - Display database information
  - Display formats without a template



Next, you will see how to navigate the segments in a database.

### Topics in this section:



- Database navigation:
  - Function keys and commands:
    - Up, Down, Next, Previous
    - Root, Parent, Child, Twin
    - Find
  - The database positioning panel
  - The key specification panel

First, the navigation function keys and commands will be discussed.

# Down command F8



```
Process  Options  Help
-----  -
FM/IMS          Browse : IMS Database USRSCN
Command ==> |
Scope DB Col 1 Format CSR
Format CHAR

Cmd Level Segment -----10-----2-----3-----4-----5-----
**** Top of window ****
1  CUSTADDR 00038749233273325564BILL BUFFALO JR          666 PRARI
2  TOTUSE  200303Z.....
3  PRMUSE  20030301000000200000007000
3  PRMUSE  20030302000000100000003500
3  PRMUSE  20030303000000020000000350
3  PRMUSE  20030305000000150000005250
3  PRMUSE  20030306000000100000003500
3  PRMUSE  20030307000000030000007000
3  PRMUSE  20030308000000200000070000
3  PRMUSE  2003030900000002500000122500
3  PRMUSE  20030310000000100
3  PRMUSE  200303110000000150
3  PRMUSE  200303120000000100
3  PRMUSE  20030313000000020000007000
3  PRMUSE  200303140000001100000038500

F1=Help      F2=Format    F3=Exit      F4=CRetriev  F5=RFind     F6=RC
F7=Up        F8=Down     F9=Swap     F10=Left    F11=Right   F12=Ca

11 | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation
```

The level column shows a segment's position  
Level 1 is a root segment

F8 (down) performs GET NEXTs in the database



F8 is the "down" key. It performs GET NEXT operations and scrolls down through segments. F8 is pressed.

## Database has been repositioned down



```
Process  Options  Help
-----  -
FM/IMS                                     Browse : IMS Database USRSCN
Command ==>>> |

Scope DB Col 1 Format CSR
Format CHAR


Cmd Level Segment -----10-----2-----3-----4-----5-----
--- 3 PRMUSE 20030315000000012000000041500
--- 3 PRMUSE 200303160000000013000000045500
--- 3 PRMUSE 200303170000000014000000049000
--- 3 PRMUSE 200303180000
--- 3 PRMUSE 20030319000
--- 3 PRMUSE 20030320000
--- 3 PRMUSE 20030321000
--- 3 PRMUSE 20030322000
--- 3 PRMUSE 20030323000
--- 3 PRMUSE 20030324000
--- 3 PRMUSE 20030325000
--- 3 PRMUSE 20030326000
--- 3 PRMUSE 20030327000
--- 3 PRMUSE 20030328000
--- 3 PRMUSE 20030329000000010000000035000
--- 3 PRMUSE 20030330000000010000000035000

F1=Help      F2=Format    F3=Exit      F4=CRetriev  F5=RFind     F6=RC
F7=Up        F8=Down      F9=Swap      F10=Left     F11=Right    F12=Ca

12 | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation
```

Use F7 (Up) to scroll backwards through the database

**Tip:** File Manager IMS maintains a memory buffer of previous segment keys. This allows scrolling up (after scrolling down) **even if the database does not have backward pointers**



That scrolled forward in the database. F7 is the “up” key, and it scrolls backward.

Be aware that you may be able to scroll up in your database even if the database does not have backward pointers. This is a very helpful feature, and File Manager accomplishes it by maintaining a memory buffer of previous segment keys that you have already scrolled down through.

F7 is pressed.

## Database has been repositioned up



The screenshot shows the IBM File Manager interface for z/OS IMS. At the top, it says "Database has been repositioned up" and the IBM logo. Below that, there's a menu bar with "Process", "Options", and "Help". The main window displays "FM/IMS" and "Browse : IMS Database USRSCN". There's a "Command" prompt with a cursor. Below the command prompt, there's a table of segments with columns for "Cmd", "Level", "Segment", and data. The first row is "1 CUSTADDR 0003874923373325564BILL BUFFALO JR 666 PRARI". A callout box with a yellow background and rounded corners is overlaid on the right side of the table, containing the text "Examples of other scrolling commands: TOP, NEXT (one segment), NEXT 10 (10 segments), NEXT OFFDTL (Go to next segment OFFDTL), PREV, PREV 20, PREV OFFDTL, BOTTOM". At the bottom of the screenshot, there's a footer with the number "13", "IBM File Manager for z/OS IMS Feature - Tutorial", and "W00 © 2010 IBM Corporation".

And that scrolled back up. Here are some of the commands that you can type on the command line to navigate. The TOP command positions to the top of the scrolling window. That means that it takes you back to the place where you initially positioned, but not necessarily the first root segment in the database.

NEXT commands scroll forward. You can specify a number, such as NEXT 10, to scroll forward 10 segments. You can specify a segment name to scroll forward to the next segment of that name.

PREVIOUS commands are similar to NEXT commands, but go up instead of down. The BOTTOM command navigates to the last logical segment in the database.

## Enter child command

IBM

Currently positioned to the segment shown at the top

```
Process  Options  Help
FM/IMS          Browse : IMS Database USRSCN
Command ==-> child
Scope DB Col 1 Format CSR
Format CHAR
Cmd Level Segment  ---+-----10-----2-----3-----4-----5-----
**** Top of window ****
___ 1  CUSTADDR 00038749233273325564BILL BUFFALO JR          666 PRARI
___ 2  TOTUSE  2003032.....
___ 3  PRMUSE  200303010000000
___ 3  PRMUSE  2003030200000
___ 3  PRMUSE  2003030300000
___ 3  PRMUSE  2003030500000
___ 3  PRMUSE  2003030600000
___ 3  PRMUSE  2003030700000
___ 3  PRMUSE  2003030800000
___ 3  PRMUSE  2003030900000
___ 3  PRMUSE  2003031000000
___ 3  PRMUSE  2003031100000
___ 3  PRMUSE  2003031200000
___ 3  PRMUSE  2003031300000
___ 3  PRMUSE  20030314000000011000000038500
F1=Help  F2=Format  F3=Exit   F4=CRetriev F5=RFind   F6=RC
F7=Up    F8=Down   F9=Swap   F10=Left   F11=Right  F12=Ca
```

The **child** command goes to the first child of the current segment

Option examples:  
**CHILD 10** (Tenth child)  
**CHILD FIRST**  
**CHILD LAST**  
**CHILD PRMUSE** (segment type)

Enter

14 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

You can use a CHILD command to position to a child of the current segment. The current segment is the top line of data. In this example, CHILD is typed on the command line, and Enter.

## Database has been repositioned to child of CUSTADDR



Process Options Help

---

FM/IMS Browse : IMS Database USRSCN

Command ==> **twin** Scroll CSR  
Format CHAR

Scope DB Col 1

Cmd	Level	Segment	-----10-----2-----3-----4-----5-----
---	2	<b>TOTUSE</b>	2003032.....
---	3	PRMUSE	2003030100000002000000070000
---	3	PRMUSE	2003030200000001000000035000
---	3	PRMUSE	20030303000000005.....
---	3	PRMUSE	2003030500000001500000052500
---	3	PRMUSE	2003030600000001000000035000
---	3	PRMUSE	2003030700000000300000007000
---	3	PRMUSE	2003030800000002000000007
---	3	PRMUSE	2003030900000002500000012
---	3	PRMUSE	200303100000000100000003
---	3	PRMUSE	2003031100000001500000005
---	3	PRMUSE	200303120000000100000003
---	3	PRMUSE	2003031300000002000000007
---	3	PRMUSE	200303140000000110000003
---	3	PRMUSE	2003031500000001200000041500
---	3	PRMUSE	2003031600000001300000045500

Position after the **child** command

The **twin** command navigates to the next twin

Command example:  
**TWIN 10** (Tenth twin)

Enter

F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RC F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Ca

That positioned to the next child segment. You can use the TWIN command to position to a twin segment, or a segment of the same type as the current segment with the same parent. The TWIN command is entered.

## Database has been repositioned to twin of TOTUSE segment



Process	Options	Help
FM/IMS		
Browse : IMS Database USRSCN		
Command ==>	parent	Scroll CSR Format CHAR
Scope DB Col 1		
Cmd	Level	Segment
---	----	-----10-----2-----3-----4-----5-----
---	2	TOTUSE 2003051.....Happy Customer
---	2	BALDUE 200303.....p..YBAD CREDIT
---	3	BALHIST 200212PAST.....)01312003.^.....)02282003.....}00000..
---	3	BALHIST 200301PAST.....)01312003.....".02282003.....}00000..
---	3	BALHIST 200302PAST.....i.02282003.....i.02282003.....}00000..
---	3	BALHIST 200303CURR.....03/31/200330
---	1	CUSTADDR 034232342282332
---	1	CUSTADDR 1111111111723343
---	2	TOTUSE 2003032.....*.....*
---	3	PRMUSE 2003030100000066685002
---	3	OFFUSE 20030301.....x8.....
---	4	OFFDTL 00:00:0006:00:00.....
---	4	OFFDTL 18:32:0521:32:05.....
---	2	BALDUE 200303ZZ.....YG00D
---	3	BALHIST 200302PAST.....Y02282003.....02282003.....}00000..
---	3	BALHIST 200303CURR.....e03/31/200330
F1=Help F2=Format F3=Exit F4=CRetrie v F5=RFind F6=RC		
F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Ca		

Position after the twin command

The parent command navigates to the parent segment (up one level)

Enter

And the browser positioned to the next twin segment. Use a PARENT command to position to the parent of the current segment. The PARENT command is entered.



# Database has been repositioned to parent segment CUSTADDR



```
Process  Options  Help
-----
FM/IMS          Browse : IMS Database USRSCN
Command ==> |
                                         Scope DB Col 1 Format CSR
                                         -----
Cmd Level Segment -----+-----10-----+-----2-----+-----3-----+-----4-----+-----5-----+-----
--- 1  CUSTADDR 00038749233273325564BILL BUFFALO JR          666 PRARI
--- 2  TUTUSE  2003032.....
--- 3  PRMUSE  2003030100000002000000070000
--- 3  PRMUSE  20030302000000010000000
--- 3  PRMUSE  200303030000000020000
--- 3  PRMUSE  200303050000000150000
--- 3  PRMUSE  2003030600000001000000035000
--- 3  PRMUSE  2003030700000000300000007000
--- 3  PRMUSE  2003030800000002000000070000
--- 3  PRMUSE  2003030900000002500000122500
--- 3  PRMUSE  2003031000000001000000035000
--- 3  PRMUSE  2003031100000001500000052500
--- 3  PRMUSE  2003031200000001000000035000
--- 3  PRMUSE  2003031300000002000000070000
--- 3  PRMUSE  2003031400000001100000038500
--- 3  PRMUSE  2003031500000001200000041500
F1=Help      F2=Format    F3=Exit      F4=CRetriev  F5=RFind     F6=
F7=Up        F8=Down      F9=Swap      F10=Left     F11=Right    F12=Ca
                                         F8
```

Position after the **Parent** command

And the browser positioned to the parent segment. F8 is pressed several times to scroll forward.

## Enter the Root command



```
Process  Options  Help
-----
FM/IMS                                     Browse : IMS Database USRSCN
Command ==-> root                               Scroll CSR
                                                Scope DB Col 1  Format CHAR
Cmd Level Segment  -----10-----2-----3-----4-----5-----
---  1  CUSTADDR 00038749233273325564BILL BUFFALO JR          666 PRARI
---  2  TOTUSE  2003032.....
---  3  PRMUSE  2003030100000002000000070000
---  3  PRMUSE  20030302000000001000000035000
---  3  PRMUSE  20030303000000000200000003500
---  3  PRMUSE  200303050000000015000000052500
---  3  PRMUSE  2003030.....
---  3  PRMUSE  200303.....
---  3  PRMUSE  200303.....
---  3  PRMUSE  200303.....
---  3  PRMUSE  200303.....
---  3  PRMUSE  200303.....
---  3  PRMUSE  200303.....
---  3  PRMUSE  200303.....
---  3  PRMUSE  200303.....
---  3  PRMUSE  2003031.....
---  3  PRMUSE  200303150000000012000000041500

F1=Help      F2=Format    F3=Exit      F4=CRetriev  F5=RFind     F6=RC
F7=Up        F8=Down      F9=Swap      F10=Left     F11=Right    F12=Ca

Enter
```

The **Root** command navigates to the root segment (the top level).

Option example:  
**ROOT FIRST** (The first root in the database)

You can use a ROOT command to position to the root of the current segment. Use a ROOT FIRST command to position to the very first root segment in the database. The ROOT command is entered.

# Database positioned to root segment



```
Process  Options  Help
-----  -
FM/IMS          Browse : IMS Database USRSCN
Command ==> |
                                         Scope DB Col 1 Format CSR
                                         -----
Cmd Level Segment -----10-----2-----3-----4-----5-----
--- 1  CUSTADDR 00038749233273325564BILL BUFFALO JR          666 PRARI
--- 2  TUTUSE  2003032.....
--- 3  PRMUSE  2003030100000002000000070000
--- 3  PRMUSE  2003030200000001000000035000
--- 3  PRMUSE  2003030300000002000000035000
--- 3  PRMUSE  2003030500000001500000052500
--- 3  PRMUSE  2003030600000001000000035000
--- 3  PRMUSE  2003030700000003000000070000
--- 3  PRMUSE  2003030800000002000000070000
--- 3  PRMUSE  2003030900000002500000122500
--- 3  PRMUSE  2003031000000001000000035000
--- 3  PRMUSE  2003031100000001500000052500
--- 3  PRMUSE  2003031200000001000000035000
--- 3  PRMUSE  2003031300000002000000070000
--- 3  PRMUSE  2003031400000001100000038500
--- 3  PRMUSE  2003031500000001200000041500
F1=Help      F2=Format   F3=Exit     F4=CRetriev F5=RFind    F6=RC
F7=Up        F8=Down     F9=Swap     F10=Left    F11=Right   F12=Ca
                                         [F7]
```

Position after the Root command

And the browser positioned to the root segment.

## Go to next twin, next child within twin, find balhist last



```
Process  Options  Help
-----  -
FM/IMS      Browse  IMS Database USRSCN
Command ==> twin;child balhist last
Scope DB Col 1 Format CSR
Format CHAR

Cmd Level Segment  -----10-----2-----3-----4-----5-----
**** Top of window ****
___ 1  CUSTADDR 00038749233273325564BILL BUFFALO JR      666 PRARI
___ 2  TOTUSE  200303Z.....
___ 3  PRMUSE  2003030100000002000000070000
___ 3  PRMUSE  2003030200000001000000035000
___ 3  PRMUSE  2003
___ 3  PRMUSE  2003
___ 3  PRMUSE  2003
___ 3  PRMUSE  2003
___ 3  PRMUSE  2003
___ 3  PRMUSE  2003
___ 3  PRMUSE  2003
___ 3  PRMUSE  2003030900000002500000122500
___ 3  PRMUSE  2003031000000001000000035000
___ 3  PRMUSE  2003031100000001500000052500
___ 3  PRMUSE  2003031200000001000000035000
___ 3  PRMUSE  2003031300000002000000070000
___ 3  PRMUSE  2003031400000001100000038500

F1=Help      F2=Format    F3=Exit      F4=CRetriev  F5=RFind     F6=RC
F7=Up        F8=Down     F9=Swap     F10=Left    F11=Right   F12=Ca

Enter
```

**Tip:**  
- Stack commands with a semi-colon  
- Some commands can be abbreviated

20 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

Here is a tip. You can enter more than one command at a time by separating them with semi-colons. In this example, two commands are entered. Notice that the browser is currently positioned to a CUSTADDR segment, which is a root segment. The TWIN command will position to the next twin of the current segment, which will be the next root segment in the database. The CHILD BALHIST LAST command will then position to the last BALHIST segment under that root. Enter is pressed.

# Result of stacked commands



```
Process Options Help
FM/IMS Browse : IMS Database USRSCN
Command ==> |
Scope DB Col 1 Format CSR
Format CHAR

Cmd Level Segment -----10-----2-----3-----4-----5-----
  3 BALHIST 200303CURR.....e03/31/200330
  1 CUSTADDR 21111111118233249846JOAN SMITH 565 MAIN
  2 TOTUSE 200303Z...a.....
  3 PRMUSE 2003030100000002000000070000
  3 PRMUSE 2003030200000001000000035000
  3 PRMUSE 200303030000000010000000035000
  3 PRMUSE 200303040000000050000001750000
  3 PRMUSE 200303050000000150000005250000
  3 PRMUSE 200303060000000100000003500000
  3 PRMUSE 200303070000000200000007000000
  3 PRMUSE 200303080000000200000007000000
  3 PRMUSE 200303090000000250000012250000
  3 PRMUSE 200303100000000100000003500000
  3 PRMUSE 200303110000000150000005250000
  3 PRMUSE 200303120000000100000003500000
  3 PRMUSE 200303130000000200000007000000

F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RChange
F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Cancel
```

Database positioned to last BALHIST field in CUSTADDR root segment.

And the browser is repositioned to the requested segment.

# Find Smith first



```
Process  Options  Help
-----  -
FM/IMS  Browse : IMS Database USRSCN
Command => f smith first
Scope DB Col 1 Format CSR
Format CHAR

Cmd Level Segment -----10-----2-----3-----4-----5-----
--- 3 BALHIST 200303CURR.....e03/31/200330
--- 1 CUSTADDR 21111111118233249846JOAN SMITH 565 MAIN
--- 2 TOTUSE 200303Z...a.....
--- 3 PRMUSE 2003030100000002000000070000
--- 3 PRMUSE 2003030200000001000000035000
--- 3 PRMUSE 2003030300000000100000003500
--- 3 PRMUSE 2003030400000000500000017500
--- 3 PRMUSE 2003030500000001500000052500
--- 3 PRMUSE 2003030600000001000000035000
--- 3 PRMUSE 2003030700000002000000070000
--- 3 PRMUSE 2003030800000002000000070000
--- 3 PRMUSE 2003030900000002500000122500
--- 3 PRMUSE 2003031000000001000000035000
--- 3 PRMUSE 2003031100000001500000052500
--- 3 PRMUSE 2003031200000001000000035000
--- 3 PRMUSE 2003031300000002000000070000

F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RC F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Ca
```

Use the **Find** command to position to a data value

Enter

22 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

The FIND command in the File Manager IMS editor and browser is similar to the FIND command in the ISPF editor. You can use it to search for data in segments. By default, a FIND command will search forward in the database starting with the current segment. Here, the command “FIND SMITH FIRST” is entered. That will search for the character string “SMITH” starting at the beginning of the database. Enter.

## Database positioned to data field smith



Process	Options	Help
FM/IMS	Browse : IMS Database USR	Chars 'smith' found
Command ==>		Scroll CSR
	Scope DB Col 1	Format CHAR
Cmd Level Segment	-----10-----2-----3-----4-----5-----	
1 CUSTADDR	1111111117233439938JOHN SMITH	555 MAIN
2 TOTUSE	2003032.....*.....*	
3 PRMUSE	2003030100000066685002176500	
3 OFFUSE	20030301.....x8.....!....	
4 OFFDTL	00:00:0006:00:00.....m...4.....%	
4 OFFDTL	18:32:0521:32:05.....h.....	
2 BALDUE	2003032Z.....YG00D	
3 BALHIST	200302PAST.....Y02282003.....	
3 BALHIST	200303CURR.....e03/31/200330	
1 CUSTADDR	2111111118233249846JOAN SMITH	565 MAIN
2 TOTUSE	200303Z...a.....	
3 PRMUSE	2003030100000002000000070000	
3 PRMUSE	2003030200000001000000035000	
3 PRMUSE	2003030300000000100000003500	
3 PRMUSE	2003030400000000500000017500	
3 PRMUSE	2003030500000001500000052500	
F1=Help	F2=Format	F3=Exit
F7=Up	F8=Down	F9=Swap
	F4=CRetriev	F5=RFind
	F10=Left	F11=Right
		F6=RChange
		F12=Cancel

Position after the Find command

And the browser found the string and is positioned to the segment where the data was found.

## Find all command and results



Command ==> f jones all **Enter**

FM/IMS Browse : IMS Database USRSCN **2 string(s) found**

Command ==> Scroll CSR

Cmd	Level	Segment	Scope	DB	Col	1	Format	CHAR
---	1	CUSTADDR	44444444446123439966B0B	JONES			666	MIDDLE
---	2	TOTUSE	.....					
---	2	TOTUSE	200303Z.....*					
---	3	PRMUSE	2003030100000062185002176500					
---	3	OFFUSE	20030301.....x8.....!					
---	4	OFFDTL	00:00:0006:00:00.....m...4.....					
---	4	OFFDTL	18:32:0521:32:05.....h.....					
---	2	TOTUSE	2007030.....None					
---	2	BALDUE	200303Z2.....YGOOD					
---	3	BALHIST	200302PAST.....Y02282003.....02282003.....00000..					
---	3	BALHIST	200303CURR.....e03/31/200330NEW CUSTOMER					
---	1	CUSTADDR	66666666668578883233TOM	JONES			999	DEL L
---	2	TOTUSE	200303Z.....*.....*					
---	3	PRMUSE	2003030100000062185002176500					
---	1	CUSTADDR	99838749233273325564Joan B. OONE				6	PRARIE
---	2	TOTUSE	200303Z...a.....					

**Jones** found two times

F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RChange  
F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Cancel

**24** IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

You can use the ALL operand to search all segments in a database and get a count. Here, the command “FIND JONES ALL” is entered. All segments were searched, and a message is displayed showing how many times the string was found.



### Topics in this section:



- Database navigation:
  - Fx keys and commands:
    - Up, Down, Next, Previous
    - Root, Parent, Child, Twin
    - Find
  - The database positioning panel
  - The key specification panel



Next, you will see how to reposition in the database using the database positioning panel.

# Return to the database positioning panel



```
Process Options Help
-----
FM/IMS Browse : IMS Database USRSCN
Command ==> |
Scope DB Col 1 Format CSR
Format CHAR
-----
Cmd Level Segment -----10-----2-----3-----4-----5-----
**** Top of window ****
___ 1 CUSTADDR 00038749233273325564BILL BUFFALO JR 666 PRARI
___ 2 TOTUSE 200303Z.....
___ 3 PRMUSE 2003030100000002000000070000
___ 3 PRMUSE 2003030200000001000000035000
___ 3 PRMUSE 2003030300000002000000035000
___ 3 PRMUSE 2003030500000001500000052500
___ 3 PRMUSE 2003030600000001000000035000
___ 3 PRMUSE 2003030700000003000000070000
___ 3 PRMUSE 2003030800000002000000070000
___ 3 PRMUSE 20030309000000025000000122500
___ 3 PRMUSE 2003031000000001000000035000
___ 3 PRMUSE 2003031100000001500000052500
___ 3 PRMUSE 2003031200000001000000035000
___ 3 PRMUSE 2003031300000002000000070000
___ 3 PRMUSE 2003031400000001100000038500
F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RC F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Ca
```

**F3**

26 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

When in the editor or browser, F3 returns to the database positioning panel.

## Database positioning panel



```
Process  Options  Help
-----
FM/IMS          Browse : Database Positioning
Command ==>>> _____ Scroll CSR

Subsystem IMSB Database USRSCN Key sequence Format CHAR
View      None
Cmd  SXE Level Segment Description Key len Key value
---  ---  ---  ---  ---  ---  ---  ---
___  X   1   CUSTADDR 10 0003874923
___  X   2   TOTUSE   6  .....
___  X   3   PRMUSE   8  .....
___  X   3   OFFUSE   8  .....
___  X   4   OFFDTL   8  .....
___  X   2   BALDUE   6  .....
___  X   3   BALHIST   6  .....
**** End of data ****
```

The key value of the current segment is displayed

```
F1=Help      F2=Split    F3=Exit     F4=CRetriev F5=Key >=   F7=Backward
F8=Forward   F9=Swap     F10=Actions F12=Cancel
```

27 | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation

You may remember that when the browser was started, this panel, the database positioning panel, was displayed. When you exit the browser it displays again. Notice that the key value of the current segment is displayed.

## Enter a specific key value for a segment



```
Process  Options  Help
-----  -
FM/IMS          Browse : Database Positioning
Command ==>>>                                     Scroll CSR

Subsystem IMSB Database USRSCN   Key sequence      Format CHAR
View      None
Cmd  SXE Level  Segment  Description  Key len  Key value
---  -  -  -  -  -  -  -  -  -  -  -
s   X  1      CUSTADDR
   X  2      TOTUSE
   X  3      PRMUSE
   X  3      OFFUSE
   X  4      OFFDTL
   X  2      BALDUE
   X  3      BALHIST
**** End of data ****
```

Positioning panel can be used to position the database to a specific location

Select the segment, and press **enter** for an exact key match

F1=Help F2=Split F3=Exit F4=CRetriev F5=Key >= F7=Ba  
F8=Forward F9=Swap F10=Actions F12=Cancel

**Enter**

28 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

There are two ways to use this panel, with the Enter key or with an F5 key. When you use the Enter key, you are positioning to an exact match on a key value. First, type in a key value to position to a segment. In this case, a root key and a key for a TOTUSE child segment is typed in. Use an S line command to select the segment type. Notice that S is typed next to the TOTUSE segment type. Then press Enter.

## F5 will issue > = command using key value



```
Process  Options  Help
-----  -
FM/IMS          Browse : Database Positioning
Command ==>>>

Subsystem IMSB Database USRSCN Key sequence
View      None
Cmd  SXE Level Segment Description Key len Key value
-----
  SX  1   CUSTADDR 10 0003874923
  SX  2   TOTUSE  6 2003..
  X   3   PRMUSE  8 .....
  X   3   OFFUSE  8 .....
  X   4   OFFDTL  8 .....
  X   2   BALDUE  6 .....
  X   3   BALHIST 6 .....
**** E
```

Segment not found

Message is displayed if the exact key was not found in the database

Use F5 for >= search

F1=Help F2=Split F3=Exit F4=CRetrieval F5=Key >= F7=Back F8=Forward F9=Swap F10=Actions F12=Cancel

29 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

If the segment is found, the browser is displayed positioned to the requested segment. But in this example, there was no exact key match for the values specified. When you use the F5 key instead of Enter, it searches for the next segment with a key value greater than or equal to the value specified. F5 is pressed.

## After F5 positioned to database location of key > value



```
Process  Options  Help
-----  -
FM/IMS          Browse : IMS Database USRSCN
Command ==>>> |
                                     Scope DB Col 1 Format CSR
                                     -----
Cmd Level Segment 2003032.....
-----  -
  2  TOTUSE 2003030100000002000000070000
  3  PRMUSE 2003030200000001000000035000
  3  PRMUSE 2003030300000000000000000000
  3  PRMUSE 2003030500000000000000000000
  3  PRMUSE 2003030600000000000000000000
  3  PRMUSE 2003030700000000000000000000
  3  PRMUSE 2003030800000000000000000000
  3  PRMUSE 2003030900000000000000000000
  3  PRMUSE 2003031000000000000000000000
  3  PRMUSE 2003031100000000000000000000
  3  PRMUSE 2003031200000001000000035000
  3  PRMUSE 2003031300000002000000070000
  3  PRMUSE 2003031400000001100000038500
  3  PRMUSE 2003031500000001200000041500
F1=Help  F2=Format  F3=Exit  F4=CRetriev  F5=RFind  F6=RChange
F7=Up    F8=Down    F9=Swap  F10=Left   F11=Right  F12=Cancel
```

Exact key match was not found. F5 on the database positioning panel positions the database to the next higher key value.

30 | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation

And the browser is displayed, positioned to the requested segment type with the specified key values.

### Topics in this section:



- Database navigation:
  - Fx keys and commands:
    - Up, Down, Next, Previous
    - Root, Parent, Child, Twin
    - Find
  - The database positioning panel
  - ➔ • The key specification panel

You have already seen that you can reposition in the database using commands such as TOP, BOTTOM, NEXT, PREVIOUS, ROOT, CHILD, and TWIN. And you can also reposition using the database positioning panel. And there is still one more method available, the key specification panel.

# Navigate to the key specification panel



```
Process  Options  Help
-----
FM/IMS          Browse : IMS Database USRSCN
Command ==>>>                                     Scroll CSR
                                                Scope DB Col 1  Format CHAR
Cmd Level Segment  -----10-----2-----3-----4-----5-----
**** Top of window ****
  2  TOTUSE 2003037
  3  PRMUSE 200303
  3  PRMUSE 200303
  3  PRMUSE 200303
  3  PRMUSE 2003030500000001500000052500
  3  PRMUSE 2003030600000001000000035000
  3  PRMUSE 2003030700000000300000007000
  3  PRMUSE 2003030800000002000000070000
  3  PRMUSE 2003030900000002500000122500
  3  PRMUSE 2003031000000001000000035000
  3  PRMUSE 2003031100000001500000052500
  3  PRMUSE 2003031200000001000000035000
  3  PRMUSE 2003031300000002000000070000
  3  PRMUSE 2003031400000001100000038500
  3  PRMUSE 2003031500000001200000041500
F1=Help  F2=Format  F3=Exit  F4=CRetriev  F5=RFind  F6=RC
F7=Up    F8=Down    F9=Swap  F10=Left   F11=Right F12=Ca
Enter
```

To get to the key specification panel, use the **K** line command

Or optionally use the **KEY** primary command:

32 | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation

There are two ways to get to the key specification panel, either with a K line command, or with a KEY command on the command line. In this example, a K line command is typed next to a segment. Enter.



## Key values of the segment are displayed



```
Process  Options  Help
-----
FM/IMS          Browse : Key Specification
Command ==>>> |
-----
Subsystem IMSB Database USRSCN
Segment  PRMUSE

Lvl Segment  Key field name  Type  RO  Key value
 1  CUSTADDR  AKEY           U    =    0003874923
 2  TOTUSE   BKEY           U    =    200303
 3  PRMUSE   CKEY           U    =    20030308
      **** End of data ****
```

Note: U = Unique key

F1=Help    F2=Split    F3=Exit    F4=CRetriev    F7=Backward    F8=Forward  
F9=Swap    F10=Actions    F12=Cancel

33 | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation

That brings up the key specification panel. This panel is similar to the database positioning panel, but here you have more options. In the RO column (RO stands for relational operator), you can enter valid IMS search relational operators such as equal, less than, less than or equal, and others.

## Modify the relational operator and key value of a field



```
Process  Options  Help
-----
FM/IMS          Browse : Key Specification
Command ==>>> |_____ Scroll CSR

Subsystem IMSB Database USRSCN
Segment  PRMUSE

Lvl Segment  Key field name      Type  R0  Key value
 1  CUSTADDR  AKEY                U    =    0003874923
 2  TOTUSE   BKEY                U    =    200308
 3  PRMUSE   CKEY                U    >    20030312
      **** End of data ****

F1=Help      F2=Split      F3=Exit      F4=CRetriev  F7=Backward  F8=Fo
F9=Swap      F10=Actions   F12=Cancel

Enter
```

34 | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation

Key values and relational operators are changed to position to another segment. Enter.

## Database re-positioned based on values in the key specification panel



Process Options Help

---

FM/IMS Browse : IMS Database USRSCN

Command ==> █ Scroll CSR

Scope DB Col 1 Format CHAR

Cmd	Level	Segment	Key Value
**** Top of window ****			
---	3	PRMUSE	2003031300000002000000070000
---	3	PRMUSE	2003031400000001100000038500
---	3	PRMUSE	2003031500000001200000041500
---	3	PRMUSE	2003031600000001300000045500
---	3	PRMUSE	2003031700000001400000049500
---	3	PRMUSE	2003031800000001500000053500
---	3	PRMUSE	2003031900000002000000057500
---	3	PRMUSE	2003032000000001000000061500
---	3	PRMUSE	2003032100000002000000065500
---	3	PRMUSE	2003032200000003000000069500
---	3	PRMUSE	2003032300000004000000073500
---	3	PRMUSE	2003032400000005000000077500
---	3	PRMUSE	2003032500000006000000081500
---	3	PRMUSE	2003032600000007000000085500
---	3	PRMUSE	2003032700000008000000089500

F1=Help    F2=Format    F3=Exit    F4=CRetriev    F5=RFind    F6=RChange  
F7=Up      F8=Down      F9=Swap    F10=Left     F11=Right    F12=Cancel

Panel is positioned to PRMUSE segment with a key value > 20030312

35
IBM File Manager for z/OS IMS Feature - Tutorial
W00 © 2010 IBM Corporation

The browser is repositioned to the segment.

Now you have seen the ways to navigate a database: scrolling with function keys, using commands, from the database positioning panel, and from the key specification panel. Use which ever methods you prefer or find easiest.

- Introduction
- File Manager IMS option settings
- Edit and browse access modes
  - Using BMP or DLI access
  - Using a dynamic or static PSB
- Browsing or editing an IMS Database
  - Starting browse
  - Database navigation
  - Display database information
  - Display formats without a template



Next, you will learn about commands you can use to get information about a database.

## Hi (hierarchy) command



The **HI** primary command creates a pictorial view of the database

```
Process Options Help
FM/IMS Browse : IMS Database USRSCN
Command ==> hi
Scope DB Col 1 Format CSR
Format CHAR

Cmd Level Segment -----10-----2-----3-----4-----5-----
**** Top of window ****
___ 1 CUSTADDR 00038749233273325564BILL BUFFALO JR 666 PRARI
___ 2 TOTUSE 200303Z.....
___ 3 PRMUSE 2003030100000002000000070000
___ 3 PRMUSE 2003030200000001000000035000
___ 3 PRMUSE 2003030300000002000000035000
___ 3 PRMUSE 2003030500000001500000052500
___ 3 PRMUSE 2003030600000001000000035000
___ 3 PRMUSE 2003030700000003000000070000
___ 3 PRMUSE 2003030800000002000000070000
___ 3 PRMUSE 2003030900000002500000122500
___ 3 PRMUSE 2003031000000001000000035000
___ 3 PRMUSE 2003031100000001500000052500
___ 3 PRMUSE 2003031200000001000000035000
___ 3 PRMUSE 2003031300000002000000070000
___ 3 PRMUSE 2003031400000001100000038500

F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RC F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Ca
```

Enter

37 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

The HI, or hierarchy, command can be used to see the database structure. HI is typed on the command line, and Enter is pressed.



# Display DBD information



```
Process Options Help
FM/IMS Browse : IMS Database USRSCN
Command ==> dbd
Scope DB Col 1 Format CSR
Format CHAR
Cmd Level Segment -----10-----2-----3-----4-----5-----
**** Top of window ****
  1 CUSTADDR 00038749233273325564BILL BUFFALO JR 666 PRARI
  2 TOTUSE 200303Z.....
  3 PRMUSE 2003030100000002000000070000
  3 PRMUSE 2003030200000001000000035000
  3 PRMUSE 2003030300000002000000035000
  3 PRMUSE 2003030500000001500000052500
  3 PRMUSE 2003030600000001000000035000
  3 PRMUSE 2003030700000003000000070000
  3 PRMUSE 2003030800000002000000070000
  3 PRMUSE 2003030900000002500000122500
  3 PRMUSE 2003031000000001000000035000
  3 PRMUSE 2003031100000001500000052500
  3 PRMUSE 2003031200000001000000035000
  3 PRMUSE 2003031300000002000000070000
  3 PRMUSE 2003031400000001100000038500
F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RC F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Ca Enter
```

You can get information about the DBD, or database descriptor block, with the DBD command. Enter.

## Result of the DBD command



```
Process  Options  Help
-----  -
FM/IMS
Command ==>>> _____ Scroll CSR

Database  USRSCN
Access    HIDAM VSAM

          Segment
Cmd  Number/Name/Level  Length  Key  Length  Dataset
**** Top of data ****
S   1  CUSTADDR  1  90      1  10      USRSCN
-   2  TOTUSE  2  80      1  6       CUSTADDR USRSCN
-   3  PRMUSE  3  80      1  8       TOTUSE  USRSCN
-   4  OFFUSE  3  80      1  8       TOTUSE  USRSCN
-   5  OFFDTL  4  80      1  8       OFFUSE  USRSCN
-   6  BALDUE  2  80      1  6       CUSTADDR USRSCN
-   7  BALHIST  3  170     1  6       BALDUE  USRSCN
**** End of data ****

F1=Help      F2=Split    F3=Exit     F4=CRetriev F7=Backward F8=Forward
F9=Swap      F10=Actions F12=Cancel

Enter
```

Specific segment information can be displayed by selecting a segment type

The DBD command displays the "DBD information" panel, which shows a list of the segments in the database. Segment names, lengths, key positions, and segment relationship information are shown. You can get more information about any segment. Here an S line command is typed next to one of the segment types, and Enter is pressed.



## Result of segment selection from DBD panel



```
Process  Options  Help
-----  -
FM/IMS
Command ==> _____ Segment Information _____ Scroll CSR

Database      USRSCN
Segment       CUSTADDR
Description
Number        1
Parent
Level         1
Dataset Group USRSCN

Key Start     1
Key Length    10
Segment Length 90      FIXED

Processing Options

F1=Help      F2=Split    F3=Exit      F4=CRetriev  F7=Backward  F8=Po
F9=Swap      F10=Actions F12=Cancel
```

That shows the segment information panel, which has detailed information about the segment type. F3 is pressed a couple of times to return to the browser.

## Segment information can be accessed from browse or edit using the SEGMENT command

Process Options Help

---

FM/IMS Browse : IMS Database USRSCN

Command ==> seg totuse Scroll CSR  
Format CHAR

Scope DB Col 1

Cmd	Level	Segment	-----10-----2-----3-----4-----5-----
			**** Top of window ****
___	1	CUSTADDR	00038749233273325564BILL BUFFALO JR 666 PRARI
___	2	TOTUSE	200303Z.....
___	3	PRMUSE	2003030100000002000000070000
___	3	PRMUSE	2003030200000001000000035000
___	3	PRMUSE	2003030300000002000000035000
___	3	PRMUSE	2003030500000001500000052500
___	3	PRMUSE	2003030600000001000000035000
___	3	PRMUSE	2003030700000003000000070000
___	3	PRMUSE	2003030800000002000000035000
___	3	PRMUSE	2003030900000002500000035000
___	3	PRMUSE	2003031000000001000000035000
___	3	PRMUSE	2003031100000001500000035000
___	3	PRMUSE	2003031200000001000000035000
___	3	PRMUSE	2003031300000002000000070000
___	3	PRMUSE	2003031400000001100000038500

The **SEG**ment primary command will display the same information as on the previous slide

F1=Help    F2=Format    F3=Exit    F4=CRetriev    F5=RFind    F6=RC    Enter  
 F7=Up      F8=Down      F9=Swap    F10=Left     F11=Right   F12=Ca

42

IBM File Manager for z/OS IMS Feature - Tutorial

W00 © 2010 IBM Corporation

Another way to get to the segment information panel is with an SEG (segment) command. Here, an SEG TOTUSE command is entered. TOTUSE is a segment name.

## Result of SEGment command



```
Process  Options  Help
-----
FM/IMS                                     Segment Information
Command ==> _____ Scroll CSR

Database          USRSCN
Segment           TOTUSE
Description
Number            2
Parent            CUSTADDR
Level             2
Dataset Group     USRSCN

Key Start         1
Key Length        6
Segment Length    80      FIXED

Processing Options

F1=Help   F2=Split   F3=Exit   F4=CRetriev  F7=Backward  F8=Fo
F9=Swap   F10=Actions F12=Cancel
```

**43** | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation

And that displayed the "segment information" panel again.

# Enter RELATED command



```
Process Options Help
FM/IMS Browse : IMS Database USRSCN
Command ==> rel
Scope DB Col 1 Format CSR
Format CHAR
Cmd Level Segment -----10-----2-----3-----4-----5-----
**** Top of window ****
 1 CUSTADDR 00038749233273325564BILL BUFFALO JR 666 PRARI
 2 TOTUSE 200303Z.....
 3 PRMUSE 2003030100000002000000070000
 3 PRMUSE 2003030200000001000000035000
 3 PRMUSE 2003030300000002000000035000
 3 PRMUSE 2003030500000001500000050000
 3 PRMUSE 2003030600000001000000050000
 3 PRMUSE 2003030700000003000000050000
 3 PRMUSE 2003030800000002000000050000
 3 PRMUSE 2003030900000002500000050000
 3 PRMUSE 2003031000000001000000050000
 3 PRMUSE 200303110000000150000005250000
 3 PRMUSE 200303120000000100000003500000
 3 PRMUSE 200303130000000200000007000000
 3 PRMUSE 200303140000000110000003850000
F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RC F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Ca
```

The **RE**lated command will show the database logical relationship information

Enter

44 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

Use the REL (for related), command to get logical relationship information.

## Logical relations information for the database is displayed

Process Options Help

---

FM/IMS Logical Relationship Information Scroll CSR

Command ==> █

Database	Segment	Related Database	Related Segment	Key Start	Key Length	I D R Rules	Relationship
USRSCN	CUSTADDR			1	10	LLL, LAST	
	TOTUSE			1	6	LLL, LAST	
	PRMUSE			1	8	LLL, LAST	
	OFFUSE			1	8	LLL, LAST	
	OFFDTL			1	8	LLL, LAST	
	BALDUE			1	6	LLL, LAST	
	BALHIST			1	6	LLL, LAST	

The I D R rules field has two parts. The first part depicts logical, physical, or virtual rules. The second part depicts the insert position rules, first, last or here.

F1=Help    F2=Split    F3=Exit    F4=CRetriev    F7=Backward    F8=Fo

F9=Swap    F10=Actions    F12=Cancel

F3

**45** IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

The REL command displays the "Logical Relationship information" panel, which shows related databases if any segments are defined with logical relationships. It also shows the IDR rules which control logical, physical, and virtual relationships in addition to insert rules.

## SEGSTATS command shows segment counts and statistics



```

Process  Options  Help
-----  -
FM/IMS                                     Browse : IMS Database USRSCN
Command ==> segstats                               Scroll CSR
                                                    Scope DB Col 1 Format CHAR
Cmd Level Segment  -----10-----2-----3-----4-----5-----
          **** Top of window ****
___ 1    CUSTADDR 00038749233273325564BILL BUFFALO JR          666 PRARI
___ 2    TOTUSE  200303Z.....
___ 3    PRMUSE  2003030100000002000000070000
___ 3    PRMUSE  2003030200000001000000035000
___ 3    PRMUSE  2003030300000002000000035000
___ 3    PRMUSE  2003030500000001500000052500
___ 3    PRMUSE  2003030600000001000000035000
___ 3    PRMUSE  2003030700000003000000070000
___ 3    PRMUSE  2003030800000002000000070000
___ 3    PRMUSE  2003030900000002500000122500
___ 3    PRMUSE  2003031000000001000000035000
___ 3    PRMUSE  2003031100000001500000052500
___ 3    PRMUSE  2003031200000001000000035000
___ 3    PRMUSE  2003031300000002000000070000
___ 3    PRMUSE  2003031400000001100000038500
F1=Help      F2=Format   F3=Exit     F4=CRetriev F5=RFind    F6=RC
F7=Up        F8=Down     F9=Swap     F10=Left    F11=Right   F12=Ca
  
```

**Enter**

46

IBM File Manager for z/OS IMS Feature - Tutorial

W00 © 2010 IBM Corporation

Sometimes, you may want an easy way to get statistics about the database, such as how many total segments there are, or how many of each type of segment there are. Use the SEGSTATS command to get that information. Enter.

## Segment statistics for all segments are displayed



```
Process  Options  Help
-----
FM/IMS          Browse : IMS Database USRSCN
Command ==> segstats          Scroll CSR
-----
Command ==> |                               Scroll CSR
-----
IBM File Manager for z/OS IMS Component
Segment statistics
-----
Total segments          : 282
Total data bytes       : 24020
Segment CUSTADDR       : 11
Segment TOTUSE         : 13
Segment PRMUSE         : 103
Segment OFFUSE        : 61
F1=Help      F2=Split  F3=Exit    F4=CRetriev  F7=Backw
F8=Forward   F9=Swap    F10=Action F12=Cancel
-----
F3
```

47 | IBM File Manager for z/OS IMS Feature - Tutorial | W00 © 2010 IBM Corporation

The SEGSTATS command displays the total segment count, a total byte count, and counts for each type of segment.

- Introduction
- File Manager IMS option settings
- Edit and browse access modes
  - Using BMP or DLI access
  - Using a dynamic or static PSB
- Browsing or editing an IMS Database
  - Starting browse
  - Database navigation
  - Display database information
  - Display formats without a template



In the last topic of this section, you will learn about some of the formats available in the editor and browser.



## Format character (FC) command



The screenshot shows the IBM File Manager interface for z/OS IMS. The title bar reads "Format character (FC) command". The main window displays the command "FC" in the "Command" field and "CHAR" in the "Format" field. The data is displayed in a table format with columns for Command, Level, Segment, and data fields. A callout box titled "Primary or line format commands:" lists the following commands and their descriptions:

- FH Format Hex
- FC Format Character
- FL Format Long Hex
- FT Format Table
- FS Format Single

Below the callout box, it says "With a template, also:" followed by the same list of commands. The bottom of the screen shows the page number "49" and the text "IBM File Manager for z/OS IMS Feature - Tutorial" and "W00 © 2010 IBM Corporation".

Formats control how data is displayed by the browser and editor. Character format is being displayed now. Notice the “format” field in the upper right area of the screen. It currently has a value of CHAR, for character format. But there are several other formats. In character format, each segment is displayed on one line. You can scroll up and down to other segments with F7 and F8, and you can scroll to the right and left with F10 and F11.

There are five formats: character, hex, long hex, table, and single. Table and single formats show the data fields within segments, but you need something called a template first. You will see those formats in a later section.

There are special commands you can use to change the format. All of the format commands start with the letter F. For example, the FC command switches to character format.



# Format long hex (FL) command



FM/IMS  
Command ==> **FL** **Enter**

FM/IMS Browse : IMS Database USRSCN  
Command ==> | Scope DB Col 1 Format **CSR**  
**LHEX**

Cmd	Level	Segment	-----+-----10-----+-----2-----3
			**** Top of window ****
___	1	CUSTADDR	F0F0F0F3F8F7F4F9F2F3F3F2F7F3F3F2F5F5F6F4C2C9D3D340C2E4C6C6
___	2	TOTUSE	F2F0F0F3F0F3E900000000300F000014621C40404040404040404040
___	3	PRMUSE	F2F0F0F3F0F3F0F1F0F0F0F0F0F0F0F0
___	3	PRMUSE	F2F0F0F3F0F3F0F2F0F0F0F0F0F0F0F0
___	3	PRMUSE	F2F0F0F3F0F3F0F3F0F3F0F0F0F0F0F0
___	3	PRMUSE	F2F0F0F3F0F3F0F5F0F0F0F0F0F0F0F0
___	3	PRMUSE	F2F0F0F3F0F3F0F6F0F0F0F0F0F0F0F0
___	3	PRMUSE	F2F0F0F3F0F3F0F7F0F0F0F0F0F0F0F0
___	3	PRMUSE	F2F0F0F3F0F3F0F8F0F0F0F0F0F0F0F0
___	3	PRMUSE	F2F0F0F3F0F3F0F9F0F0F0F0F0F0F0F0
___	3	PRMUSE	F2F0F0F3F0F3F1F0F0F0F0F0F0F0F0F0
___	3	PRMUSE	F2F0F0F3F0F3F1F1F0F0F0F0F0F0F0F0F1F5F0F0F0F0F0F0F5F2F5F0F040
___	3	PRMUSE	F2F0F0F3F0F3F1F2F0F0F0F0F0F0F0F0F1F0F0F0F0F0F0F0F0F3F5F0F0F040
___	3	PRMUSE	F2F0F0F3F0F3F1F3F0F0F0F0F0F0F0F0F2F0F0F0F0F0F0F0F0F7F0F0F0F040
___	3	PRMUSE	F2F0F0F3F0F3F1F4F0F0F0F0F0F0F0F0F1F1F0F0F0F0F0F0F0F3F8F5F0F040

Primary or line format commands:  
**FH** Format Hex  
**FC** Format Character  
**FL** Format Long Hex

F1=Help F2=Format F3=Exit F4=CRetrieval F5=RFind F6=RChange  
 F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Cancel

51 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

Another format is called Long hex. The FL command is used to switch to long hex format. In this format, only the hexadecimal representations are shown. Although long hex is not used as often as the others, it can be helpful if you need to type in a long string of hex characters in the editor.

## Or change the format field



Process Options Help

---

FM/IMS Browse : IMS Database USRSCN

Command ==> \_\_\_\_\_ Scope DB Col 1 \_\_\_\_\_ Form \_\_\_\_\_ Scroll SSR

h

---

Cmd	Level	Segment	-----+-----10-----+-----2-----+-----3
			**** Top of window ****
___	1	CUSTADDR	F0F0F0F3F8F7F4F9F2F3F2F7F3F3F2F5F5F6F4E2C9D3D340C2E4C6C6
___	2	TOTUSE	F2F0F0F3F0F3E900000000300F000014621040404040404040404040
___	3	PRMUSE	F2F0F0F3F0F3F0F1F0F0F0F0F0F0F0F2F0F0F0F0F0F0F7F0F0F0F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040
___	3	PRMUSE	F2F0F0F3F0F3F040

Enter

F1=Help F2=Format F3=Exit F4=CRetrie F5=RFind F6=RC  
 F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Ca

Change the format by over typing the format field:  
**CHAR, HEX, LHEX**

52

IBM File Manager for z/OS IMS Feature - Tutorial

W00 © 2010 IBM Corporation

There are other ways to switch the format, other than the F commands. You can overwrite the value of the format field. You can enter the entire format type, or just the first letter. In this example, the letter H is typed into the format field. Enter.

# Line commands to change the format



The screenshot shows the IBM File Manager interface for z/OS IMS. At the top, it says "Process Options Help" and "FM/IMS Browse : IMS Database USRSCN". Below this, there are fields for "Command ==>", "Scope DB", "Col 1", and "Format". The "Format" field is currently set to "HEX" and is circled in red. A callout box with a yellow background and black border contains the text: "Commands can also be used as line commands: FH Format Hex, FC Format Character, FL Format Long Hex". Below the callout, the "fc" command is typed in the command field and is also circled in red. The main display area shows a table of data with columns for "Cmd", "Level", "Segment", and data values. The data is currently in hexadecimal format. At the bottom of the screen, there are function key definitions: F1=Help, F2=Format, F3=Exit, F4=CRetriev, F5=RFind, F6=RC, F7=Up, F8=Down, F9=Swap, F10=Left, F11=Right, F12=Ca. A yellow "Enter" button is highlighted. The footer of the screen shows the page number "53", the title "IBM File Manager for z/OS IMS Feature - Tutorial", and the copyright "W00 © 2010 IBM Corporation".

And that switched to HEX format.

You can also use the F format commands as line commands. When used as line commands, they switch the format and they also position to the segment. Here, an FC line command is typed next to a segment. Enter.

## Result of using a line command to change format



```
Process  Options  Help
-----  -
FM/IMS          Browse : IMS Database USRSCN
Command ==>>> |                               Scope DB Col 1 Format CSR
                                         +-----+-----+-----+-----+-----+
Cmd Level Segment 2003030100000002000000070000
-----  -
3 PRMUSE 2003030200000001000000035000
3 PRMUSE 2003030300000002000000095000
3 PRMUSE 2003030500000001500000052500
3 PRMUSE 2003030600000001000000035000
3 PRMUSE 2003030700000003000000070000
3 PRMUSE 2003030800000002000000070000
3 PRMUSE 2003030900000002500000122500
3 PRMUSE 2003031000000001000000035000
3 PRMUSE 2003031100000001500000052500
3 PRMUSE 2003031200000001000000035000
3 PRMUSE 2003031300000002000000070000
3 PRMUSE 2003031400000001100000038500
3 PRMUSE 2003031500000001200000041500
3 PRMUSE 2003031600000001300000045500
3 PRMUSE 2003031700000001400000049000
F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RChange
F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Cancel
```

Positioned to the segment selected with the FC line command

54 IBM File Manager for z/OS IMS Feature - Tutorial W00 © 2010 IBM Corporation

That positioned to the segment, and switched the format. You have seen that you can change the format with a command, such as FC or FH, or with a line command such as FC or FH, or by overtyping the "format" field.

That is the end of this section, an introduction to using the File Manager IMS browser and editor.

## Feedback



Your feedback is valuable

You can help improve the quality of IBM Education Assistant content to better meet your needs by providing feedback.

- Did you find this module useful?
- Did it help you solve a problem or answer a question?
- Do you have suggestions for improvements?

Click to send email feedback:

[mailto:iea@us.ibm.com?subject=Feedback\\_about\\_FMIv10s05EditBrowse.ppt](mailto:iea@us.ibm.com?subject=Feedback_about_FMIv10s05EditBrowse.ppt)

This module is also available in PDF format at: [../FMIv10s05EditBrowse.pdf](..../FMIv10s05EditBrowse.pdf)

You can help improve the quality of IBM Education Assistant content by providing feedback.



This is the tutorial for the IMS feature of IBM's File Manager for z/OS, one of the IBM zSeries problem determination tools.





## Trademarks, copyrights, and disclaimers

IBM, the IBM logo, ibm.com, CICS, IBM, IMS, z/OS, and zSeries are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of other IBM trademarks is available on the web at "[Copyright and trademark information](http://www.ibm.com/legal/copytrade.shtml)" at <http://www.ibm.com/legal/copytrade.shtml>

THE INFORMATION CONTAINED IN THIS PRESENTATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. WHILE EFFORTS WERE MADE TO VERIFY THE COMPLETENESS AND ACCURACY OF THE INFORMATION CONTAINED IN THIS PRESENTATION, IT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. IN ADDITION, THIS INFORMATION IS BASED ON IBM'S CURRENT PRODUCT PLANS AND STRATEGY, WHICH ARE SUBJECT TO CHANGE BY IBM WITHOUT NOTICE. IBM SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES ARISING OUT OF THE USE OF, OR OTHERWISE RELATED TO, THIS PRESENTATION OR ANY OTHER DOCUMENTATION. NOTHING CONTAINED IN THIS PRESENTATION IS INTENDED TO, NOR SHALL HAVE THE EFFECT OF, CREATING ANY WARRANTIES OR REPRESENTATIONS FROM IBM (OR ITS SUPPLIERS OR LICENSORS), OR ALTERING THE TERMS AND CONDITIONS OF ANY AGREEMENT OR LICENSE GOVERNING THE USE OF IBM PRODUCTS OR SOFTWARE.

© Copyright International Business Machines Corporation 2010. All rights reserved.