



IBM Software Group

## IBM File Manager for z/OS IMS Feature

Program Number 5655-S14

### Tutorial



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

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



## File Manager IMS training: sections

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- Your File Manager options settings
- Browsing or editing an IMS Database: The basics
  - Starting browse
  - Database navigation
  - Display database information
  - Display formats without a template
- Edit and browse access modes
  - Using DLI or BMP access
  - Using a Dynamic or Static PSB

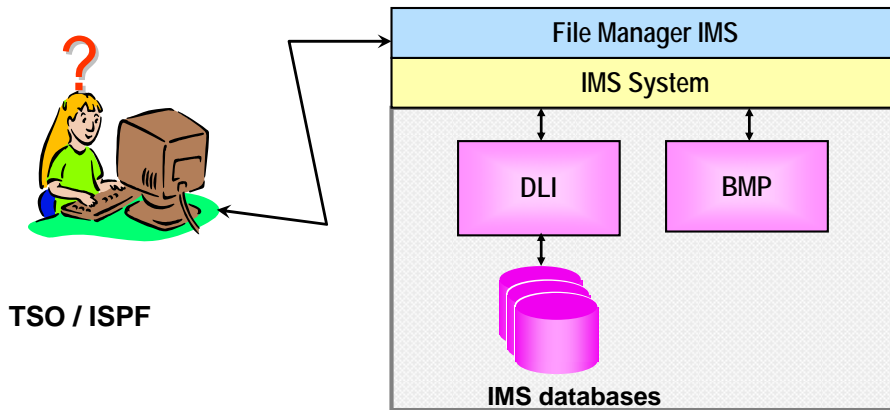


In this section, you will learn the basics of how to use the File Manager IMS editor and browser. Take this section to learn how to start the browser, how you can navigate to various segments in a database, how to get information about a database, and some of the display formats that are available.



## Browse a database

- How do you browse an IMS database?



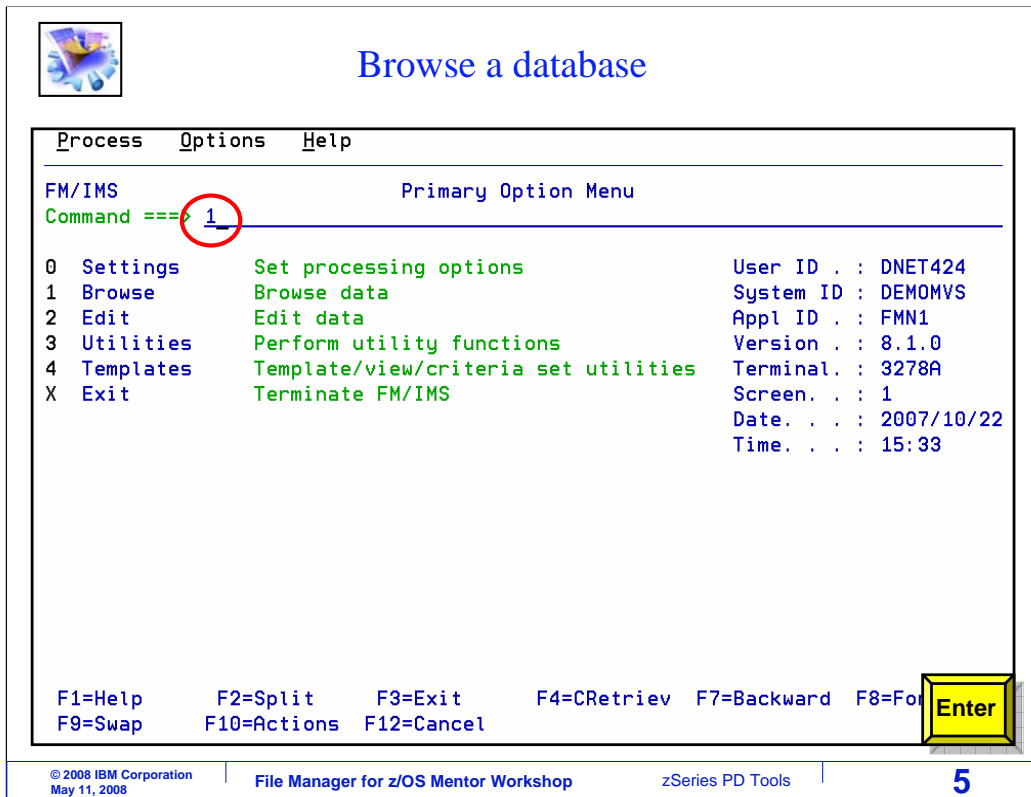
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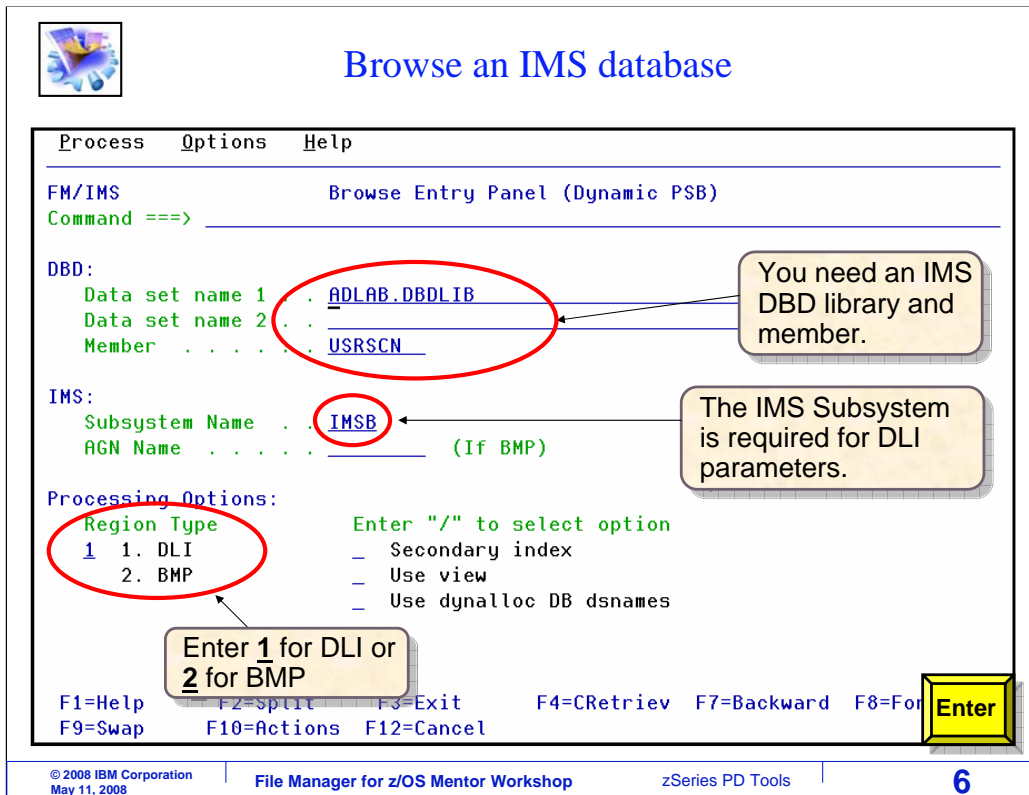
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Use File Manager IMS to edit or browse an IMS database. You can use these functions in TSO. It can also be used from CICS, provided the CICS region is customized with the File Manager CICS component.



Here is the Primary Option panel. To get here, the person who installed File Manager on your system will have set up some menu options. If you are not sure how to get to File Manager IMS on your system, you might want to contact your systems programmer or help desk to find out. From the menu, Option 2 is Edit, and 1 is Browse. In this example, 1 is typed on the command line, and Enter is pressed.



The browse entry panel is displayed.

To browse an IMS database, specify a database definition, or DBD. Enter the name of a library and member where the DBD for the database you want to access is stored. In this example, a DBD named USRSCN will be used. Notice that you can specify up to two DBD libraries.

Specify 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. Also specify a subsystem name. IMS subsystem names are defined by the person who installs File Manager and by data base administrators.

Notice that the title shows “dynamic PSB”. That is because the dynamic PSB option has been specified in the user options. File Manager will create a PSB automatically with access to all segments in the DBD. Press Enter to continue.

**Browse an IMS database**

```

Process  Options  Help
-----
FM/IMS          Browse : Database Data Set Specification
Command ==> _____ Scroll CSR

Subsystem IMSB Database USRSCN

DBD name DD name Data set name
USRSCN   USRSCN  ADLAB.USRSCN
USRSCNI  USRSCNI  ADLAB.USRSCNI
**** End of data ****

Processing Options:
Fetch dsnames from
 1. Profile
 2. Dynamic Allocation data set

Enter "/" to select option
Enter "2" to save dsnames in profile

Press ENTER to confirm usage of the specified data set(s)

F1=Hel F9=Swap F10=Actions F12=Cancel
  
```

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When you are in DLI mode, this panel is displayed next, the data base data set specification panel. You must enter the names of the database data set names. The number of files needed depends on what is defined in the DBD.

On some systems, file names may be defined in something called a “dynamic allocation data set”. If you want to retrieve the file names from dynamic allocation data set, you can select option 2 in the “fetch dsnames from” option, and press Enter.

Select the “save dsnames in profile” option to save the names you specify into your profile. That can be important, because then you will not have to retype the same names the next time you use the same DBD. So be sure to select the “save dsnames” option unless you intend to retype the file names every time.

Press Enter to continue.

**Browse an IMS database**

Process Options Help

FM/IMS Browse : Database Positioning

Command ==> \_\_\_\_\_ Scroll CSR

Subsystem	IMSB	Database	USRSCN	Key sequence	Key	Key value
View	None					
Cmd	SXE	Level	Segment	Description	len	Key value
S	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	2	BALHST		6	.....

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

The Key value of the first segment is shown. You can optionally enter key values where you want to position in the database. Enter requires an exact Key value. PF5 (>=) can use a partial value.

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

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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 PF5. When you press PF5, 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 can 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.





## Browse an IMS database

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> Scope DB Col 1 Scroll CSR Format CHAR

Cmd	Level	Segment	1	2	3	4	5	
			**** Top of window ****					
1		CUSTADDR	00038749233273325564	BILL B.	UFFALO		666 PRARI	
2		TOTUSE	200303M...A					
3		PRMUSE	2003030100000002000000070000					
3		PRMUSE	2003030200000001000000035000					
3		PRMUSE	2003030300000000100000003500					
3		PRMUSE	2003030500000001500000052500					
3		PRMUSE	2003030600000001000000035000					
3		PRMUSE	20030307000000.0200000007000					
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=RChange  
F7=Up F8=Down F9=Swap F10=Left F11=Right F12=retrieve

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You are positioned to the segment type and Key value selected on the previous panel.

Keys are shown in black, and data in blue.

And now the browser is displayed. And 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 by level 1. Children of root segments are denoted with a 2. Level 3 segments are children of level 2 segments, and so on.



## File Manager IMS training: sections

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



## Database navigation

### Topics in this section:



- How do you navigate the database?
  - ➔ ● PF keys and commands:
    - Up, Down, Next, Previous
    - Root, Parent, Child, Twin
    - Find
  - The Database Positioning panel
  - The Key Specification panel

First, the basic navigation PF keys and commands will be presented.



## Down command (PF8)

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> Scope DB Col 1 Scroll CSR Format CHAR

Cmd	Level	Segment	1	2	3	4	5	
			**** Top of window ****					
1		CUSTADDR	00038749233273325564	BILL B.	UFFALO		666 PRARI	
2		TOTUSE	200303M...A					
3		PRMUSE	2003030100000002000000070000					
3		PRMUSE	2003030200000001000000035000					
3		PRMUSE	2003030300000001000000035000					
3		PRMUSE	2003030500000001500000052500					
3		PRMUSE	2003030600000001000000035000					
3		PRMUSE	20030307000000.0200000007000					
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 F6=RCha PF8  
F7=Up F8=Down F12=retr

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

PF8 (Down) performs GET NEXTs in the database.

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PF8 is the “down” key. It performs GET NEXT operations and scrolls down through segments. PF8 is pressed.



## Result of PF8

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> \_\_\_\_\_ Scope DB Col 1 \_\_\_\_\_ Scroll CSR  
Format CHAR

Cmd	Level	Segment	1	2	3	4	5
---	3	PRMUSE	200303150000000	1200000041500			
---	3	PRMUSE	200303160000000	1300000045500			
---	3	PRMUSE	200303170000000	1400000049000			
---	3	PRMUSE	200303180000000	1500000052500			
---	3	PRMUSE	200303190000000	2000000070000			
---	3	PRMUSE	200303200000000	100000003500			
---	3	PRMUSE	200303210000000				
---	3	PRMUSE	200303220000000				
---	3	PRMUSE	200303230000000				
---	3	PRMUSE	200303240000000				
---	3	PRMUSE	200303250000000				
---	3	PRMUSE	200303260000000				
---	3	PRMUSE	200303270000000				
---	3	PRMUSE	200303280000000				
---	3	PRMUSE	200303290000000				
---	3	PRMUSE	200303300000000				

PF7 (Up) scrolls backward through the database.

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

F1=Help F2=Format F3=Exit F4=Change Level F5=Print F6=Home  
F7=Up F8=Down F9=Swap F10=Left F11=Right F12=refresh

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That scrolled forward in the database. PF7 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.

PF7 is pressed.



## Result of PF7

Process		Options		Help	
FM/IMS		Browse : IMS Database USRSCN			
Command ==>		Scope DB		Col 1	Scroll CSR
		Format		CHAR	
Cmd	Level	Segment	1	2	3
**** Top of window ****					
1		CUSTADDR	00038749233273325564BILL B. UFFALO		666 PRARI
2		TOTUSE	200303M...A		
3		PRMUSE	2003030100000002000000070000		
3		PRMUSE	2003030200000001000000035000		
3		PRMUSE	200303030000000		
3		PRMUSE	200303050000000		
3		PRMUSE	200303060000000		
3		PRMUSE	200303070000000		
3		PRMUSE	200303080000000		
3		PRMUSE	200303090000000		
3		PRMUSE	200303100000000		
3		PRMUSE	200303110000000		
3		PRMUSE	200303120000000		
3		PRMUSE	200303130000000		
3		PRMUSE	200303140000000		
F1=Help		F2=Format		F3=Exi	
F7=Up		F8=Down		F9=Swap	

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**

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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.

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



## Database positioning commands

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> child Scroll CSR  
Format CHAR

Cmd	Level	Segment	1	2	3	4	5
**** Top of window ****							
1		CUSTADDR	00038749233273325564	BILL B. UFFALO			666 PRARI
2		TOTUSE	200303M...A				
3		PRMUSE	2003030100000002000000070000				
3		PRMUSE	2003030200000001000000035000				
3		PRMUSE	2003030300000001000000035000				
3		PRMUSE	2003030500000001500000052500				
3		PRMUSE	2003030600000001				
3		PRMUSE	2003030700000001				
3		PRMUSE	2003030800000002				
3		PRMUSE	2003030900000002				
3		PRMUSE	2003031000000003				
3		PRMUSE	2003031100000003				
3		PRMUSE	2003031200000003				
3		PRMUSE	2003031300000003				
3		PRMUSE	2003031400000003				

F1=Help F2=Format F3=Exit F10=Left F11=Right F12=ret  
F7=Up F8=Down F9=Swap

Enter

You are positioned to the segment shown at the top.

The **Child** command takes you to the first child of the current segment.

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

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



## Database positioning commands

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> twi Scroll CSR

Scope DB Col 1 Format CHAR

Cmd	Level	Segment	1	2	3	4	5
---	2	TOTUSE	200303M...A	.....			
---	3	PRMUSE	2003030100000000	20000000070000			
---	3	PRMUSE	2003030200000000	10000000035000			
---	3	PRMUSE	2003030300000000	10000000035000			
---	3	PRMUSE	2003030500000000	15000000052500			
---	3	PRMUSE	2003030600000000				
---	3	PRMUSE	2003030700000000	02000000070000			
---	3	PRMUSE	2003030800000000	20000000070000			
---	3	PRMUSE	2003030900000000	25000000122500			
---	3	PRMUSE	2003031000000000	10000000035000			
---	3	PRMUSE	2003031100000000	15000000052500			
---	3	PRMUSE	2003031200000000	10000000035000			
---	3	PRMUSE	2003031300000000	20000000070000			
---	3	PRMUSE	2003031400000000	11000000038500			
---	3	PRMUSE	2003031500000000	12000000041500			
---	3	PRMUSE	2003031600000000	13000000045500			

F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RCha Enter

F7=Up F8=Down F9=Swap F10=Left F11=Right F12=ret

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Position after the **Child** command.

The **Twin** command takes you to the next twin.

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

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 positioning commands

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> parent Scroll CSR

Scope DB Col 1 Format CHAR

Cmd	Level	Segment	1	2	3	4	5
---	2	TOTUSE	200403M...A	.....			
---	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	.....			
---	1	CUSTADDR	11111111172334	.....	55555555	JOAN SMITH	555 MAIN
---	2	TOTUSE	200303Z	.....*....*			
---	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	200303ZZ	.....YGOOD			
---	3	BALHIST	200302PAST	.....Y02282003.....}02282003.....}00000..			
---	3	BALHIST	200303CURR	.....e03/31/200330			
---	1	CUSTADDR	21111111118133249846JOAN SMITH		565		

Position after the **Twin** command.

The **Parent** command takes you to the parent segment (up one level).

F1=Help F2=Format F3=Exit F4=CRetriev F5=RFind F6=RCha 565  
 F7=Up F8=Down F9=Swap F10=Left F11=Right F12=retr Enter

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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 positioning commands

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> root Scroll CSR  
Format CHAR

Cmd	Level	Segment	1	2	3	4	5
---	---	---	---	---	---	---	---
---	3	OFFUSE	20030317	.....			
---	4	OFFDTL	00:00:0006:00:00	.....			
---	3	OFFUSE	20030318	.....			
---	4	OFFDTL	00:00:0006:00:00	.....			
---	3	OFFUSE	20030319	.....			
---	4	OFFDTL	00:00:0006:00:00	.....			
---	3	OFFUSE	20030320	.....			
---	4	OFFDTL	00:00:0006:00:00	.....			
---	3	OFFUSE	20030321	.....			
---	4	OFFDTL	00:00:0006:00:00	.....			
---	3	OFFUSE	20030322	.....			
---	4	OFFDTL	00:00:0006:00:00	.....			
---	3	OFFUSE	20030323	.....			
---	4	OFFDTL	00:00:0006:00:00	.....			
---	3	OFFUSE	20030324	.....			
---	4	OFFDTL	00:00:0006:00:00	.....			

Position after PF8.

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

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

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

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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 positioning commands

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

Scope DB  Col 1  Scroll CSR
Format CHAR

Cmd Level Segment -----1-----2-----3-----4-----5-----
___ 1  CUSTADDR 00038749233273325564BILL B. UFFALO 666 PRARI
___ 2  TOTUSE 200303M...A
___ 3  PRMUSE 2003030100000002000000070000
___ 3  PRMUSE 2003030200000001000000035000
___ 3  PRMUSE 2003030300000000100000003500
___ 3  PRMUSE 2003030500000001500000052500
___ 3  PRMUSE 2003030600000001000000035000
___ 3  PRMUSE 20030307000000.0200000007000
___ 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=RCha
F7=Up     F8=Down    F9=Swap    F10=Left   F11=Right  F12=retr

PF7
```

Position after the **Root** command.

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And the browser positioned to the root segment.



## Database positioning commands

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> twi;child balhist last Scroll CSR

Scope DB Col 1 Format CHAR

Cmd	Level	Segment	1	2	3	4	5
**** Top of window ****							
1		CUSTADDR	00038749233273325564	BILL B.	UFFALO		666 PRARI
2		TOTUSE	200303M...A	.....			
3		PRMUSE	2003030100000002000000070000				
3		PRMUSE	2003030200000001000000035000				
3		PRMUSE	2003030300000001000000035000				
3		PRMUSE	2003030500000001500000052500				
3		PRMUSE	2003030600000001000000035000				
3		PRMUSE	20030307000000.0200000007000				
3		PRMUSE	2003030800000002000000070000				
3		PRMUSE	2003030900000002500000122500				
3		PRMUSE	2003031000000001000000035000				
3		PRMUSE	2003031100000001500000052500				
3		PRMUSE	2003031200000001000000035000				
3		PRMUSE	.....				
3		PRMUSE	.....				

F1=Help F7=Up

F6=RC F12=rel

**Enter**

**Tips:**  
 - You can stack commands with a semi-colon.  
 - Some commands can be abbreviated.

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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.



## Database positioning commands

Process		Options		Help	
FM/IMS		Browse : IMS Database USRSCN			
Command ==>		Scope DB Col 1		Scroll CSR Format CHAR	
Cmd	Level	Segment	-----1-----2-----3-----4-----5-----		
---	3	BALHIST	200303CURR.....e03/31/200330		
---	1	CUSTADDR	21111111118133249846JOAN SMITH	565 MAIN	
---	2	TOTUSE	200303Z...a.....		
---	3	PRMUSE	2003030100000002000000070000		
---	3	PRMUSE	2003030200000001000000035000		
---	3	PRMUSE	2003030300000001000000035000		
---	3	PRMUSE	2003030400000000500000017500		
---	3	PRMUSE	2003030500000001500000052500		
---	3	PRMUSE	2003030600000001000000035000		
---	3	PRMUSE	2003030700000000200000007000		
---	3	PRMUSE	2003030800000002000000070000		
---	3	PRMUSE	20030309000000002500000122500		
---	3	PRMUSE	2003031000000001000000035000	-	
---	3	PRMUSE	2003031100000001500000052500		
---	3	PRMUSE	2003031200000001000000035000		
---	3	PRMUSE	2003031300000002000000070000		
F1=Help		F2=Format		F3=Exit	
F7=Up		F8=Down		F9=Swap	
		F4=CRetriev		F5=RFind	
		F10=Left		F11=Right	
				F6=RChange	
				F12=retrieve	

Position after commands.

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And the browser is repositioned to the requested segment.



## File Manager - Find command

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> **f smith first** Scroll CSR

Scope DB Col 1 Format CHAR

Cmd	Level	Segment	1	2	3	4	5
---	3	PRMUSE	2003031000000001000000035000				
---	3	PRMUSE	2003031100000001500000052500				
---	3	PRMUSE	2003031200000001000000035000				
---	3	PRMUSE	2003031300000002000000070000				
---	3	PRMUSE	2003031400000001100000038500				
---	3	PRMUSE	2003031500000001200000041500				
---	3	PRMUSE	2003031600000001300000045500				
---	3	PRMUSE	2003031700000001400000049000				
---	3	PRMUSE	2003031800000001500000052500				
---	3	PRMUSE	2003031900000002000000070000				
---	1	CUSTADDR	99938749233273325564DANNY B. OONE 2				6 PRARIE
---	2	TOTUSE	2003032...a.....TOO MUCH MONEY				
---	3	PRMUSE	2003030100000002000000070000				
---	3	PRMUSE	2003030200000001000000035000				
---	3	PRMUSE	2003030300000001000000035000				
---	3	PRMUSE	200303040000000500000017500				

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

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

Enter

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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.



# File Manager - Find command

Process Options Help

FM/IMS Browse : IMS Database USR Chars 'smith' found

Command ==> \_\_\_\_\_ Scroll CSR

Scope DB Col 1 Format CHAR

Cmd	Level	Segment	1	2	3	4	5
1	4	CUSTADDR	11111111117233439938JOHN	SMITH			555 MAIN
2		TOTUSE	200303Z.....*.....*				
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	200303ZZ.....YG00D				
3		BALHIST	200302PAST.....Y02282003.....02282003.....00000..				
3		BALHIST	200303CURR.....e03/31/200330				
1	4	CUSTADDR	21111111118133249846JOAN	SMITH			565 MAIN
2		TOTUSE	200303Z...a.....				
3		PRMUSE	2003030100000002000000070000				
3		PRMUSE	2003030200000001000000035000				
3		PRMUSE	2003030300000000100000003500				
3		PRMUSE	2003030400000000500000017500				
3		PRMUSE	20030305000000001500000052500				

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

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Position after a Find command.

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



**File Manager - Find command**

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	1	CUSTADDR	44444444446123439966B0B	JONES				666 MIDDLE
2	2	TOTUSE	200303Z.....*					
3	3	PRMUSE	2003030100000062185002176500					
3	3	OFFUSE	20030301.....x8.....!					
4	4	OFFDTL	00:00:0006:00:00.....m....4....					
4	4	OFFDTL	18:32:0521:32:05.....h.....					
2	2	BALDUE	200303Z.....YG00D					
3	3	BALHIST	200302PAST.....Y02282003.....02282003.....00000..					
3	3	BALHIST	200303CURR.....e03/31/200330NEW CUSTOMER					
1	1	CUSTADDR	66666666668578883233TOM	JONES				999 DEL L
2	2	TOTUSE	200303Z.....*....*					
3	3	PRMUSE	2003030100000062185002176500					
1	1	CUSTADDR	99838749233273325564DANNY B. OONE					6 PRARIE
2	2	TOTUSE	200303Z...a.....					
3	3	PRMUSE	2003030100000002000000070000					
3	3	PRMUSE	2003030200000001000000035000					

**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=retrieve

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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.



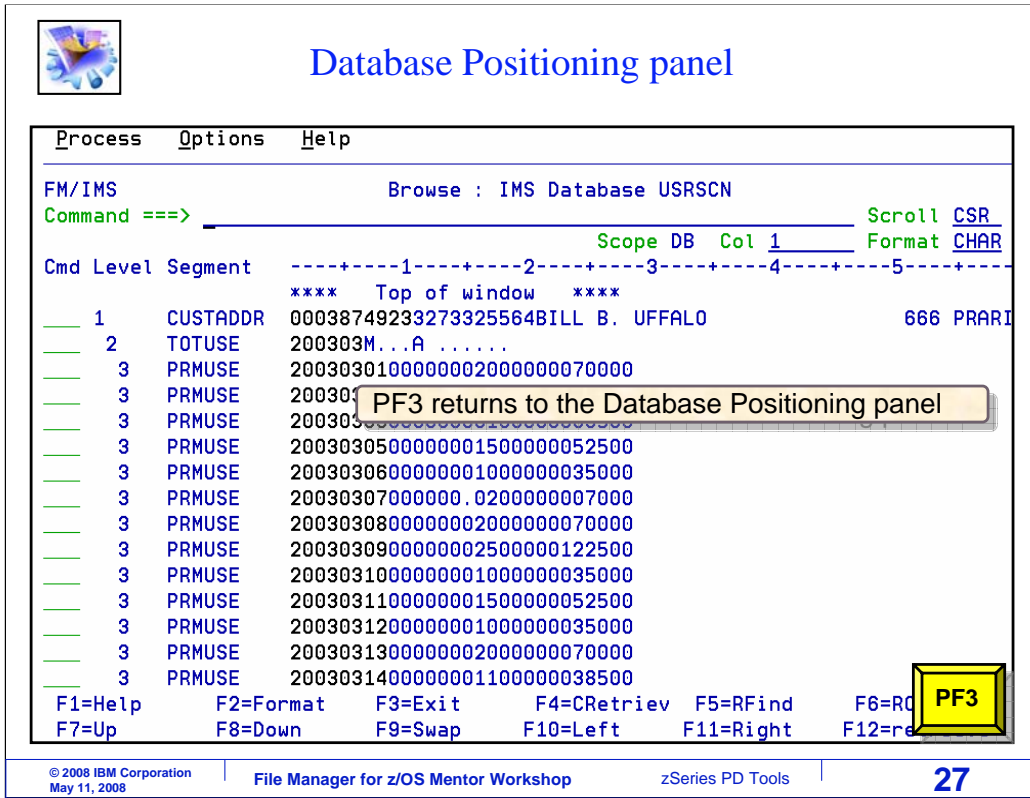
## Database navigation

### Topics in this section:



- How do you navigate the database?
  - PF 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.



The screenshot shows the 'Database Positioning panel' with a menu bar (Process, Options, Help) and a title bar (Browse : IMS Database USRSCN). The main area displays a list of database records with columns for Command, Level, Segment, and data. A yellow callout box points to the PF3 key, stating 'PF3 returns to the Database Positioning panel'. A yellow button labeled 'PF3' is also visible in the bottom right corner of the panel. The footer contains copyright information for IBM Corporation (May 11, 2008), 'File Manager for z/OS Mentor Workshop', 'zSeries PD Tools', and the page number '27'.

Cmd	Level	Segment	Scope	DB	Col	1	Format	CHAR
---	1	CUSTADDR	00038749233273325564	BILL B.	UFFALO		666	PRARI
---	2	TOTUSE	200303M...A					
---	3	PRMUSE	2003030100000002000000070000					
---	3	PRMUSE	2003030100000002000000070000					
---	3	PRMUSE	2003030500000001500000052500					
---	3	PRMUSE	2003030600000001000000035000					
---	3	PRMUSE	20030307000000.0200000007000					
---	3	PRMUSE	2003030800000002000000070000					
---	3	PRMUSE	2003030900000002500000122500					
---	3	PRMUSE	2003031000000001000000035000					
---	3	PRMUSE	2003031100000001500000052500					
---	3	PRMUSE	2003031200000001000000035000					
---	3	PRMUSE	2003031300000002000000070000					
---	3	PRMUSE	2003031400000001100000038500					

When in the editor or browser, PF3 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  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=retrieve
```

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

## Database Positioning panel

Process Options Help

FM/IMS Browse : Database Positioning

Command ==> \_\_\_\_\_ Scroll CSR

Subsystem	IMS	Database	USRSCN	Key sequence	Format	
View	None			Key	CHAR	
Cmd	SXE	Level	Segment	Description	len	Key value
	SX	1	CUSTADDR		10	0003874923
s	X	2	TOTUSE		6	2003
	X	3	PRMUSE		8	.....
	X	3	OFFUSE		8	.....
	X	4	OFFDTL		8	.....
	X	2	BALDUE		6	.....
	X	3	BALHIST		6	.....

F1=Help    F2=Split    F3=Exit    F4=CRetriev    F5=Key >=    F7=Ba

F8=Forward    F9=Swap    F10=actions    F12=retrieve

Enter

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There are two ways to use this panel, with the Enter key or with a PF5 key. When you use the Enter key, you are positioning to find 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.

## Database Positioning panel

Process Options Help

FM/IMS Browse : Database Positioning Segment not found

Command ==> \_\_\_\_\_ Scroll CSR

Subsystem	IMS	Database	USRSCN	Key sequence	Key	Format
View	None					CHAR
Cmd	SXE	Level	Segment	Description	len	Key value
S	X	1	CUSTADDR		10	0003874923
-	X	2	TOTUSE		6	2003
	X	3	PRMUSE		8	.....
	X	3	OFFUSE		8	.....
	X	4	OFFDTL		8	.....
	X	2	BALDUE		6	.....
	X				6	.....

\*\*\*\*

You get this message if the exact key was not found in the database

Use PF5 for a >= search

F1=Help F2=Split F3=Exit F4=CRetrieve F5=Key >= F7=Back

F8=Forward F9=Swap F10=Actions F12=retrieve

PF5

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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 PF5 key instead of Enter, it searches for the next segment with a key value greater than or equal to the value specified. PF5 is pressed.



## Database Positioning panel

```
Process  Options  Help
-----
FM/IMS          Browse : IMS Database USRSCN
Command ==>
Scope DB  Col 1  Format  CSR
-----
Cmd Level Segment  ---+---1---+---2---+---3---+---4---+---5---+---
**** Top of window ****
  2  TOTUSE  200303M...A
  3  PRMUSE  2003030100000002000000070000
  3  PRMUSE  2003030200000001000000035000
  3  PRMUSE  2003030300000000100000003
  3  PRMUSE  2003030500000001500000052
  3  PRMUSE  2003030600000001000000035
  3  PRMUSE  20030307000000.0200000007000
  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=RChange
F7=Up    F8=Down    F9=Swap  F10=Left    F11=Right  F12=retrieve
```

Position after using the Database Positioning panel.

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And the browser is displayed, positioned to the requested segment type and based on the key values.



## Database navigation

### Topics in this section:



- How do you navigate the database?
  - PF 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.



## Key Specification panel

Process Options Help

FM/IMS Browse : IMS Database USRSCN

Command ==> \_\_\_\_\_ Scope DB Col 1 \_\_\_\_\_ Scroll CSR  
Format CHAR

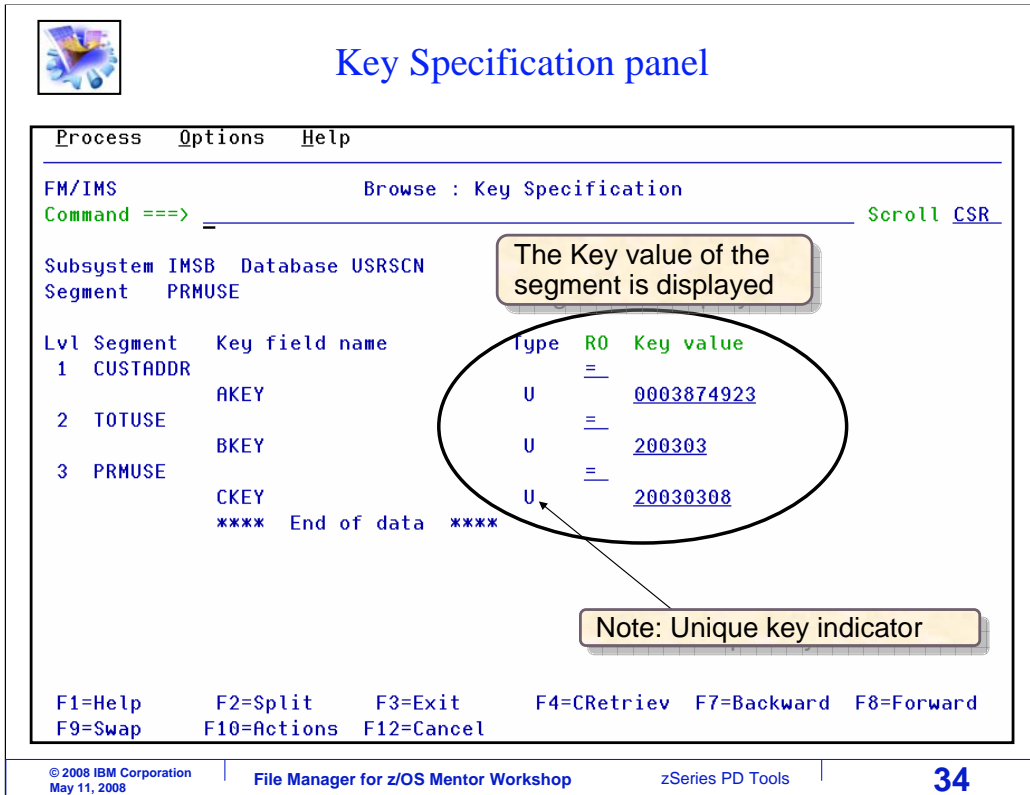
Cmd	Level	Segment	1	2	3	4	5
**** Top of window ****							
---	2	TOTUSE	200303				
---	3	PRMUSE	200303				
---	3	PRMUSE	200303				
---	3	PRMUSE	2003030300000000100000003500				
---	3	PRMUSE	2003030500000001500000052500				
---	3	PRMUSE	2003030600000001000000035000				
---	3	PRMUSE	20030307000000.0200000007000				
---	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=rc

Enter

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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.

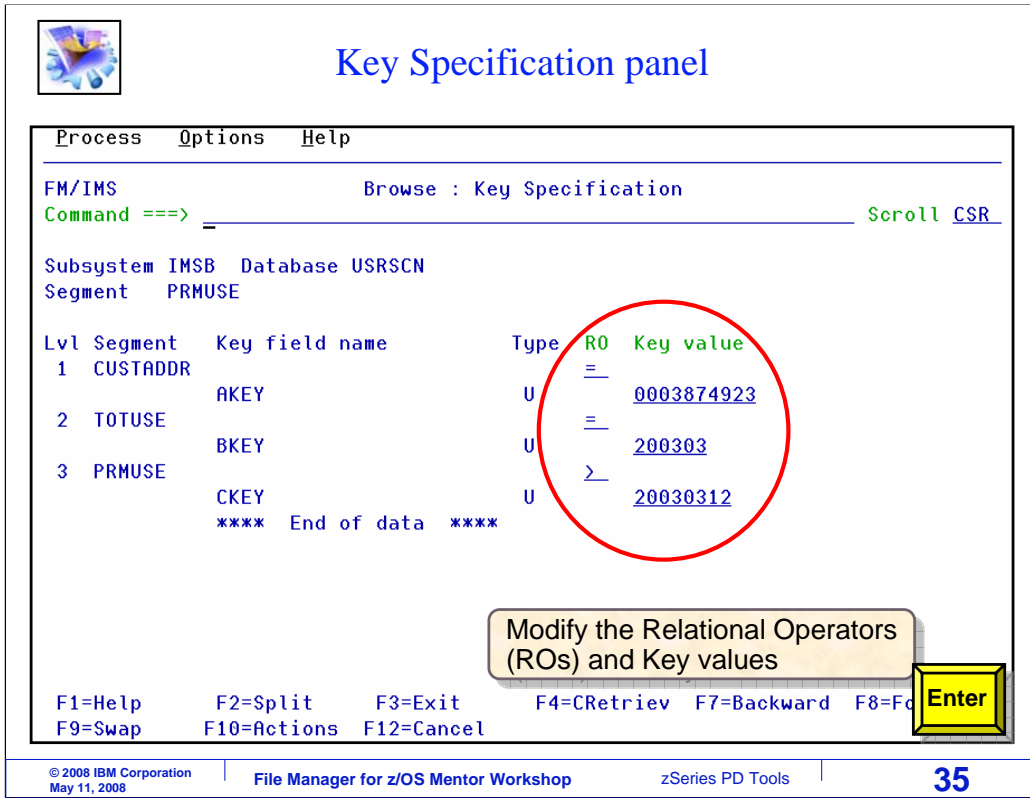


The screenshot shows the 'Key Specification panel' in an IBM environment. At the top, there is a menu bar with 'Process', 'Options', and 'Help'. Below this, the text 'FM/IMS' and 'Browse : Key Specification' are visible. A 'Command' field contains '====>' and a 'Scroll CSR' option is on the right. The main area displays database information: 'Subsystem IMSB Database USRSCN' and 'Segment PRMUSE'. A table lists key specifications:

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

The table ends with '\*\*\*\* End of data \*\*\*\*'. A callout box points to the 'U' in the 'Type' column, stating 'Note: Unique key indicator'. Another callout box points to the '0003874923' value, stating 'The Key value of the segment is displayed'. At the bottom, there is a function key legend: F1=Help, F2=Split, F3=Exit, F4=CRetriev, F7=Backward, F8=Forward, F9=Swap, F10=Actions, F12=Cancel. The footer contains copyright information for IBM Corporation (May 11, 2008), 'File Manager for z/OS Mentor Workshop', 'zSeries PD Tools', and the page number '34'.

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 or equal, and greater than or equal.



The screenshot shows the 'Key Specification panel' in a terminal window. At the top, there is a menu with 'Process', 'Options', and 'Help'. Below this, the text reads 'FM/IMS Browse : Key Specification' and 'Command ==>'. A green 'Scroll CSR' option is visible on the right. The main content area shows the following details:

```

Subsystem IMSB Database USRSCN
Segment PRMUSE

Lvl Segment Key field name Type R0 Key value
1 CUSTADDR AKEY U = 0003874923
2 TOTUSE BKEY U = 200303
3 PRMUSE CKEY U > 20030312
**** End of data ****

```

A red circle highlights the relational operators and key values for segments 1, 2, and 3. A yellow callout box with the text 'Modify the Relational Operators (ROs) and Key values' points to this area. At the bottom of the panel, there is a row of function keys: F1=Help, F2=Split, F3=Exit, F4=CRetrieve, F7=Backward, F8=Forward, F9=Swap, F10=Actions, and F12=Cancel. A yellow 'Enter' button is located to the right of these keys. The footer of the terminal window contains the following information:

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



## Key Specification panel

Process		Options		Help	
FM/IMS		Browse : IMS Database USRSCN			
Command ==>		Scope DB		Col 1	Scroll CSR
		Format		CHAR	
Cmd	Level	Segment	1	2	3
**** Top of window ****					
---	3	PRMUSE	2003031300000002000000070000		
---	3	PRMUSE	2003031400000001100000038500		
---	3	PRMUSE	2003031500000001200000041500		
---	3	PRMUSE	2003031600000001300000045		
---	3	PRMUSE	2003031700000001400000049		
---	3	PRMUSE	2003031800000001500000052		
---	3	PRMUSE	2003031900000002000000070000		
---	3	PRMUSE	200303200000000100000003500		
---	3	PRMUSE	200303210000000200000007000		
---	3	PRMUSE	200303220000000300000010500		
---	3	PRMUSE	200303230000000400000014000		
---	3	PRMUSE	200303240000000500000017500		
---	3	PRMUSE	200303250000000600000021000		
---	3	PRMUSE	200303260000000700000024500		
---	3	PRMUSE	200303270000000800000028000		
F1=Help		F2=Format	F3=Exit	F4=CRetriev	F5=RFind
F7=Up		F8=Down	F9=Swap	F10=Left	F11=Right
				F6=RChange	F12=retrieve

Position after using the Key Specification panel.

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




## File Manager IMS training: sections

Page 1 of 4

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



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



## Display information

The **HI** (hierarchy) command


Process Options Help

FM/IMS Browse : IMS Database USRSCN

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

Cmd	Level	Segment	1	2	3	4	5
**** Top of window ****							
---	1	CUSTADDR	00038749233273325564BILL B.	UFFALO			666 PRARI
---	2	TOTUSE	200303M...A	.....			
---	3	PRMUSE	2003030100000002000000070000				
---	3	PRMUSE	2003030200000001000000035000				
---	3	PRMUSE	2003030300000000100000003500				
---	3	PRMUSE	2003030500000001500000052500				
---	3	PRMUSE	2003030600000001000000035000				
---	3	PRMUSE	20030307000000.0200000007000				
---	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=re



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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 information

```

Process  Options  Help
-----
FM/IMS          Browse : IMS Database USR$CN
Command ==>> dbd                                     Scroll CSR
                                                Scope DB Col 1 Format CHAR
Cmd Level Segment  ---+-----1-----2-----3-----4-----5-----
**** Top of window ****
 1  CUSTADDR 00038749233273325564BILL B. UFFALO          666 PRARI
 2  TOTUSE  200303M...A .....
 3  PRMUSE  2003030100000002000000070000
 3  PRMUSE  2003030200000001000000035000
 3  PRMUSE  2003030300000000100000003500
 3  PRMUSE  2003030500000001500000052500
 3  PRMUSE  2003030600000001000000035000
 3  PRMUSE  200303070000000.0200000007000
 3  PRMUSE  2003030800000002000000070000
 3  PRMUSE  2003030900000002500000122500
 3  PRMUSE  2003031000000001000000
 3  PRMUSE  2003031100000001500000
 3  PRMUSE  2003031200000001000000
 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=re

```

The command **DBD** will provide DBD information



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





## Display information

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

Database  USRSCN
Access    HIDAM VSAM

          Segment
Cmd  Number/Name/Level  Length  Key          Parent  Dataset
          Start Length          Group
****  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           CUSTADDR USRSCN
****  End of data  ****

          Segment information can
          be displayed

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

Enter
```

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The DBD command displayed this panel, which shows a list of the segments in the database. Segment names, total segment length, key positions, and segment relationship information is shown. You can get more information about any segment. Here an S line command is typed next to the CUSTADDR segment type, and Enter is pressed.

**Display information**

---

Process Options Help

---

FM/IMS Segment Information Scroll CSR

Command ==>

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=  
 F9=Swap F10=Actions F12=Cancel

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That shows the segment information panel, which has detailed information about the segment type. PF3 is pressed a couple of times to return to the browser.



## Display information


```
Process  Options  Help
-----
FM/IMS          Browse : IMS Database USRSCN
Command ==> seg totuse                               Scroll CSR
                                                Scope DB  Col 1  Format CHAR
Cmd Level Segment  ---+-----1-----2-----3-----4-----5-----
**** Top of window ****
 1  CUSTADDR 00038749233273325564BILL B. UFFALO          666 PRARI
 2  TOTUSE  200303M...A .....
 3  PRMUSE  2003030100000002000000070000
 3  PRMUSE  2003030200000001000000035000
 3  PRMUSE  2003030300000000100000003500
 3  PRMUSE  2003030500000001500000052500
 3  PRMUSE  2003030600000001000000035000
 3  PRMUSE  20030307000000.0200000007000
 3  PRMUSE  2003030800000002000000070000
 3  PRMUSE  2003030900000002500000122500
 3  PRMUSE  2003031000000001000000
 3  PRMUSE  2003031100000001500000
 3  PRMUSE  2003031200000001000000
 3  PRMUSE  2003031300000002000000
 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=re
```

The **SEGment** command will display the same information as on the previous slide

Enter

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



## Display information

Process Options Help

---

FM/IMS Segment Information Scroll CSR

Command ==>

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

Segment information

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

F9=Swap    F10=Actions    F12=Cancel

PF3

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And that displayed the segment information panel again.



## Display information

Process Options Help

FM/IMS Browse : IMS Database USRSCN

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

Scope DB Col 1

Cmd	Level	Segment	1	2	3	4	5	
**** Top of window ****								
1		CUSTADDR	00038749233273325564	BILL B.	UFFALO		666 PRARI	
2		TOTUSE	200303M...A					
3		PRMUSE	2003030100000002000000070000					
3		PRMUSE	2003030200000001000000035000					
3		PRMUSE	2003030300000000100000003500					
3		PRMUSE	2003030500000001500000052500					
3		PRMUSE	2003030600000001000000035000					
3		PRMUSE	200303070000000.0200000007000					
3		PRMUSE	2003030800000002000000070000					
3		PRMUSE	2003030900000002500000122500					
3		PRMUSE	2003031000000001000000					
3		PRMUSE	2003031100000001500000					
3		PRMUSE	2003031200000001000000					
3		PRMUSE	2003031300000002000000					
3		PRMUSE	2003031400000001100000					

F1=Help F2=Format F3=Exit F4=Scroll Lev F5=Print F6=RC  
F7=Up F8=Down F9=Swap F10=Left F11=Right F12=re

**Enter**

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



## Display information

Process Options Help

---

FM/IMS Logical Relationship Information

Command ==> \_\_\_\_\_ Scroll CSR

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 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=For  
 F9=Swap F10=Actions F12=Cancel

PF3

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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 as well as insert rules.



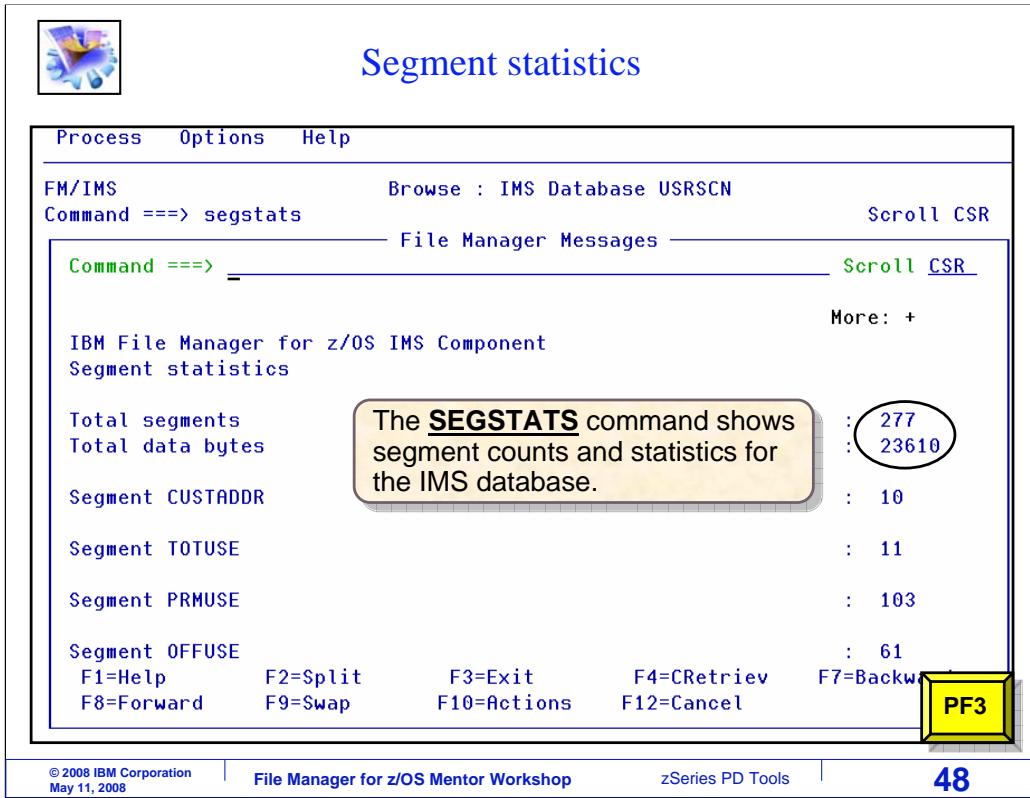
## Segment statistics

Process	Options	Help
FM/IMS		Browse : IMS Database USRSCN
Command ==>	<b>segstats</b>	Scroll CSR
		Format CHAR
Cmd Level Segment	1 2 3 4 5	
**** Top of window ****		
1	CUSTADDR	00038749233273325564BILL B. UFFALO 666 PRARI
2	TOTUSE	200303M...A .....
3	PRMUSE	2003030100000002000000070000
3	PRMUSE	2003030200000001000000050000
3	PRMUSE	2003030300000001000000035000
3	PRMUSE	2003030500000001000000035000
3	PRMUSE	2003030600000001000000035000
3	PRMUSE	200303070000000.02000000070000
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
F7=Up	F8=Down	F9=Swap
F4=CRetrie	F5=RFind	F6=RC
F10=Left	F11=Right	F12=re
		<b>Enter</b>

The **SEGSTATS** command shows segment counts and statistics.

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



The screenshot shows a terminal window titled "Segment statistics". At the top, it displays "Process Options Help" and "FM/IMS Browse : IMS Database USRSCN". The command entered is "Command ==> segstats". Below this, a callout box explains: "The **SEGSTATS** command shows segment counts and statistics for the IMS database." The statistics are as follows:

Total segments	: 277
Total data bytes	: 23610
Segment CUSTADDR	: 10
Segment TOTUSE	: 11
Segment PRMUSE	: 103
Segment OFFUSE	: 61

At the bottom of the terminal window, there are function key definitions: F1=Help, F2=Split, F3=Exit, F4=CRetriev, F7=Backw, F8=Forward, F9=Swap, F10=Actions, F12=Cancel. A yellow box labeled "PF3" is positioned near the bottom right. The footer of the terminal window includes "© 2008 IBM Corporation May 11, 2008", "File Manager for z/OS Mentor Workshop", "zSeries PD Tools", and the page number "48".

The SEGSTATS command displayed this panel, which shows a total segment count, a total byte count, and counts for each segment type.





## File Manager IMS training: sections

Page 1 of 4

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



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**

FM/IMS  
Command ==> **FC**      IMS Database USRSCN

Scroll CSR  
Format CHAR

Cmd	Level	Segment	1	2	3	4	5
**** Top of window ****							
1		CUSTADDR	00038749233273325564BILL B.	UFFALO			666 PRARI
2		TOTUSE	200303M...A	.....			
3		PRMUSE	2003030100000002000000070000				
3		PRMUSE	2003030200000001000000035000				
3		PRMUSE	2003030300000001000000035000				
3		PRMUSE	2003030500000001500000052500				
3		PRMUSE	2003030600000001000000035000				
3		PRMUSE	200303070000000.02000000070000				
3		PRMUSE	2003030800000002000000070000				
3		PRMUSE	20030309000000025000001225000				
3		PRMUSE	2003031000000001000000035000				
3		PRMUSE	2003031100000001500000052500				
3		PRMUSE	2003031200000001000000035000				
3		PRMUSE	2003031300000002000000070000				
3		PRMUSE	20030314000000011000000385000				

F1=Help    F2=Format    F3=Exit    F4=CRtr  
F7=Up      F8=Down    F9=Swap    F10=Left

**Primary or line format commands:**

**FH**    Format Hex  
**FC**    Format Character  
**FL**    Format Long Hex

**With a template, also:**

**FT**    Format Table  
**FS**    Format Single

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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 to other segments with PF8 and PF7, and you can scroll to the right and left with PF11 and PF10.

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**

Command ==> **FL** Enter

IMS Database USRSCN

Command ==> Scroll CSR  
Format LHEX

Cmd	Level	Segment	Scope	DB	Col	1	2
**** Top of window ****							
1		CUSTADDR	F0F0F0F3F8F7F4F9F2F3F2F7F3F2F5F5F6F4C2C9D3D340C24B40E4				
2		TOTUSE	F2F0F0F3F0F3F0F3D4000002C1400C000014621C404040404040404040				
3		PRMUSE	F2F0F0F3F0F3F0F1F0F0F0F0F0F0F0F2F0F0F0F0F0F0F7F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F0F2F0F0F0F0F0F0F0F1F0F0F0F0F0F0F3F5F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F0F3F0F3F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F0F5F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F0F6F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F0F7F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F0F8F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F0F9F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F1F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F1F1F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F1F2F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F1F3F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				
3		PRMUSE	F2F0F0F3F0F3F1F4F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F040				

F1=Help    F2=Format    F3=Exit    F4=Retr  
F7=Up      F8=Down    F9=Swap    F10=Left

Primary or line format commands:

**FH**    Format Hex  
**FC**    Format Character  
**FL**    Format Long Hex

With a template, also:  
**FT**    Format Table  
**FS**    Format Single

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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 \_\_\_\_\_ Format h Scroll CSR

Cmd	Level	Segment	-----+-----1-----+-----2-----+
			**** Top of window ****
1		CUSTADDR	F0F0F0F3F8F7F4F9F2F3F2F7F3F2F5F5F6F4C2C9D3D340C24B40E4
2		TOTUSE	F2F0F0F3F0F3D4000002C1400C000014621C404040404040404040
3		PRMUSE	F2F0F0F3F0F3F0F1F0F0F0F0F0F0F0F2F0F0F0F0F0F0F0F0F0
3		PRMUSE	F2F0F0F3F0F3F0F5F0F0F040
3		PRMUSE	F2F0F0F3F0F3F0F3F5F0F040
3		PRMUSE	F2F0F0F3F0F3F0F2F5F0F040
3		PRMUSE	F2F0F0F3F0F3F0F5F0F040
3		PRMUSE	F2F0F0F3F0F3F0F7F0F0F0F0F0F030F0F2F0F0F0F0F0F0F0F0F0
3		PRMUSE	F2F0F0F3F0F3F0F8F0F0F0F0F0F0F0F2F0F0F0F0F0F0F0F0F0F040
3		PRMUSE	F2F0F0F3F0F3F0F9F0F0F0F0F0F0F0F2F5F0F0F0F0F0F1F2F2F5F0F040
3		PRMUSE	F2F0F0F3F0F3F1F0F0F0F0F0F0F0F1F0F0F0F0F0F0F0F3F5F0F0F040
3		PRMUSE	F2F0F0F3F0F3F1F1F0F0F0F0F0F0F0F1F5F0F0F0F0F0F0F5F2F5F0F040
3		PRMUSE	F2F0F0F3F0F3F1F2F0F0F0F0F0F0F0F1F0F0F0F0F0F0F0F3F5F0F0F040
3		PRMUSE	F2F0F0F3F0F3F1F3F0F0F0F0F0F0F0F2F0F0F0F0F0F0F0F0F0F040
3		PRMUSE	F2F0F0F3F0F3F1F4F0F0F0F0F0F0F0F1F1F0F0F0F0F0F0F0F3F8F50F040

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

**Enter**

**You can also change the format by overtyping the format field: CHAR, HEX, LHEX**

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There are other ways to switch the format, other than the F commands. You can overwrite the value of the format field. Enter the entire format type, or just the first letter. In this example, the letter H is typed into the format field. 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  ---+---1---+---2---+---3---+---4---+---5---+
--- 3 PRMUSE 2003030100000002000000070000
--- 3 PRMUSE 2003030200000001000000035000
--- 3 PRMUSE 2003030300000001000000035000
--- 3 PRMUSE 2003030500000001500000052500
--- 3 PRMUSE 2003030600000001000000035000
--- 3 PRMUSE 20030307000000.0200000007000
--- 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=retrieve
```

Positioned to the line selected with the "FC" line command.

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That positioned to the segment, and switched the format. That is the end of this section, an introduction to using the File Manager browser and editor.



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## IBM File Manager for z/OS IMS Feature

Program Number 5655-S14

### Tutorial



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