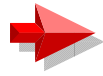




This is the tutorial for the IMS™ feature of IBM's File Manager for z/OS®, one of the IBM zSeries® problem determination tools.



### ■ Using a view

- Selecting segment types to display
- Selecting segments to display based on data content
- Save a view
- Customize how data is displayed
- Use edit or browse to format and generate a report

### ■ Extract and Load utilities

- Extract utility
  - Extract using a key values file
  - Working with criteria sets
  - Extract using a criteria set
- Delete / define utility
- Load utility

In this section, you will learn how to work with File manager IMS views.

## Using views



### Topics in this section:

Views can be used to:

- control which segments are displayed
- control which fields are displayed
- customize a report



You will see how to use a view to select which segments to display, how to select which fields to display, and how to customize a report.

## Review: templates and views



- A template maps copybook layouts to segments
  - A template must be saved to see layouts
  - There is only one template per DBD
- A template is required before you can create and use a view
- A view provides the ability to:
  - Select segment types
  - Select segments based on data values
  - Select fields to be displayed
- Views do not have to be saved
  - A view can be “temporary”
- Multiple views can be saved with different names
  - Each view can have different selection and formatting

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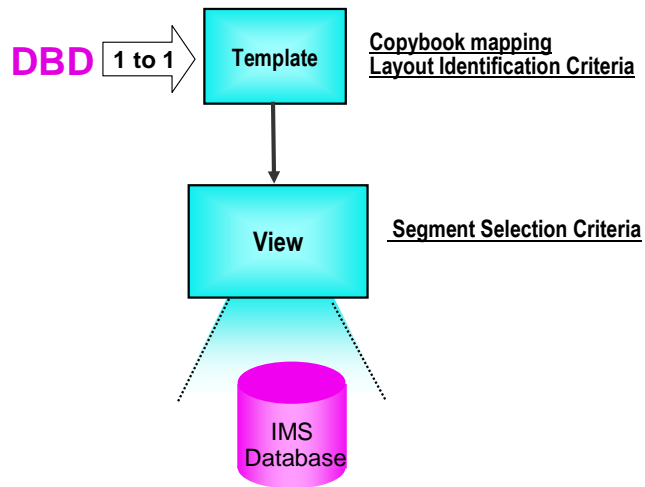
In earlier sections, you were introduced to File Manager IMS templates and views. Templates are created to map copybook layouts to segments in a database. You must have a template if you want to see your segments broken out into fields. For any DBD, you only need one template. A template is required before you can create and use a view.

You can use a view to select only certain segment types to be displayed, select segments based on data values, and select fields in the segments to be displayed. You do not have to save a view before you use it. A view can be created as needed and be temporary. However, you can save a view if you want to be able to use it again. You can save as many views as you want with different names, and each one can have different selection and formatting.

## Templates, views and criteria



### File Manager / IMS edit or browse



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A template maps copybooks to segments in your data base. After you have a template, you can create and use a view to select segments and format data.

# File Manager IMS tutorial



## ▪ Using a view

- Selecting segment types to display
- Selecting segments to display based on data content
- Save a view
- Customize how data is displayed
- Use edit or browse to format and generate a report

## ▪ Extract and Load utilities

- Extract utility
  - Extract using a key values file
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  - Extract using a criteria set
- Delete / define utility
- Load utility

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In this section, you will learn how to display only certain segment types, and hide the others.

## A template / view can be used in edit and browse



```
Process  Options  Help
-----
FM/IMS                                     Primary Option Menu
Command ==>> 2
```

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 . . : 1
			Date . . . : 2010/01/09
			Time . . . : 20:39

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

**Enter**

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The editor is used in this example, although the same actions are available in the browser. From the File Manager IMS menu, option 2 is selected.

## Select the "Use view" option



Process Options Help

---

FM/IMS Edit Entry Panel

Command ==> █

IMS:

Subsystem name . . . IMSB PSB name . . . \_\_\_\_\_ (If static PSB)  
Database name . . . USRSCN AGN name . . . \_\_\_\_\_ (If BMP)

View:

Data set name . . . \_\_\_\_\_  
Member . . . . . \_\_\_\_\_

Processing Options:

PSB type	Region type	Fetch DB dsnames from (if DLI)
<u>1</u> 1. Dynamic	<u>1</u> 1. DLI	<u>1</u> 1. User profile
2. Static	2. BMP	2. DFSMDA members

View usage

<u>1</u> 1. New	IMS (if DLI) Enter "/" to select option	secondary index (if dynamic PSB)
2. Existing	2. Existing	create audit trail
3. None	3. None	Skip DB data set panel (if DLI)

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

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*Annotations:*  
- A callout box points to the "Data set name" and "Member" fields: "Previously saved view can be entered here"  
- A callout box points to the "View usage" field: "Select to use a template and view"

To use a template and a view, specify either a "1" or "2" in the "view usage" option. If a view has already been saved, you can re-use it by specifying "2" (existing), and entering the view name in the view "data set name" and "member" fields. But in this example, a new view will be created. "1" is typed in the "view usage" field, and enter is pressed.



## The database positioning panel is displayed



```
Process  Options  Help
-----
FM/IMS          Edit : Database Positioning          Chkpt FM000001 taken
Command ==>>> _____ Scroll CSR

Subsystem IMSB Database USRSCN      Key sequence          Format TABL
View      Temporary          Key
Cmd  SXE Level   Segment  Description  len  Key value
---  -  -  -  -  -  -  -  -  -  -  -
___  X  1  CUSTADDR  Description  10  0003874923
___  X  2  TOTUSE    Description  6   .....
x5  X  3  PRMUSE    Description
___  X  3  OFFUSE    Description
___  X  4  OFFDTL    Description
___  X  2  BALDUE    Description
___  X  3  BALHIST    Description
**** End of data ****
```

X turns segments on or off (it is a toggle)

Line commands  
E Edit the view  
X Select/Clear segment  
K Key panel  
S Select for positioning

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

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When you access a database in DLI mode, the database data set specification panel is displayed. After that, the "database positioning" panel, shown here, is displayed.

Use this panel to customize the view. By default, all segments in the database or PSB are displayed in the editor. But you can toggle segments on or off with an X line command. Notice that by default, there is an X next to every segment type, meaning that all segment types will be displayed. In this example, an X5 command is typed on one of the lines. That will toggle the selected segment and the next four. Enter is pressed.

## Multiple segment types have been de-selected



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

Subsystem IMSB Database USRSCN   Key sequence      Format TABL
View C      Temporary
Cmd SXE Level Segment Description len Key value
-----
S SX 1      CUSTADDR 10 0003874923
  X 2      TOTUSE   6 .....
  3      PRMUSE
  3      OFFUSE
  4      OFFDTL
  2      BALDUE
  3      BALHIST
**** End of data ****
```

X indicates that the segment type is selected

Line commands  
E Edit the view  
X Select/Clear segment  
K Key panel  
S Select for positioning

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

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Now notice the X's no longer display next to those segments. They will not be shown in the editor. Only the first two segment types will be shown. An S line command is used to position and display the editor. Enter.

## Only selected segment types are displayed



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

  CHKPID FM000001 Autosave ON  SHOW SUP OFF Scope DB  Format TABL
  SEGA-ACCOUNT-NUMBER SEGA-CUSTOMER-PHONE-NB SEGA-CUSTOMER-N
Cmd Level Segment #2          #3          #4          +
  <----->          <----->          <-----1----->
  **** Top of window ****
  ___ 1  CUSTADDR 0003874923          3273325564          BILL BUFFALO JR
  ___ 2  TOTUSE  3 segments
  ___ 1  CUSTADDR 0342323422          8233234466          Mr. Bigfoot
  ___ 1  CUSTADDR 0342334225          8133234466          Ms Bigfoot
  ___ 1  CUSTADDR 1111111111
  ___ 2  TOTUSE  Key=200303
  ___ 1  CUSTADDR 2111111111
  ___ 2  TOTUSE  Key=200303
  ___ 1  CUSTADDR 2121111111          3445556666          MATTY MONROE
  ___ 2  TOTUSE  Key=200303
  ___ 1  CUSTADDR 2121111112          3445556666          HUMPHRY BOGART
  ___ 2  TOTUSE  Key=200303
F1=Help  F2=Format  F3=Exit  F4=CRetrieve  F5=RFind  F6=RChange
F7=Up    F8=Down    F9=Swap  F10=Left    F11=Right  F12=Cancel

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```

Only CUSTADDR and TOTUSE segments are shown

Here is the editor. Notice that now only the segments selected with X's, CUSTADDR and TOTUSE segments, are displayed. All other segments are hidden.

This can be helpful when you are working in databases with a complex structure and a large number of segment types. You can hide segments that are not of interest for your current task, making it much easier to navigate the database.

## The Database Positioning panel



### ▪ "SXE" Status Column

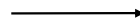
- S indicates the hierarchical path of the current segment
- X indicates segment is included in the view (and segment is shown in yellow).
- E indicates segment has selection criteria specified

Subsystem	IMSB	Database	US
View	C	DNET424.PDV8.VIEW	
Cmd	SXE	Level	Segment
—	SX	1	CUSTADDR
—	X	2	TOTUSE
—		3	PRMUSE
—		3	OFFUSE
—		4	OFFDTL
—		2	BALDUE
—		3	BALHIST

### ▪ "Cmd" Column

- X toggles **selection** status of single segments

Subsystem	IMSB	Database	US
View	C	DNET424.PDV8.VIEW	
Cmd	SXE	Level	Segment
—	SX	1	CUSTADDR
—	X	2	TOTUSE
X		3	PRMUSE
X		3	OFFUSE
X		4	OFFDTL
X		2	BALDUE
X		3	BALHIST



Subsystem	IMSB	Database	US
View	C	DNET424.PDV8.VIEW	
Cmd	SXE	Level	Segment
—	SX	1	CUSTADDR
—	X	2	TOTUSE
—	X	3	PRMUSE
—	X	3	OFFUSE
—	X	4	OFFDTL
—	X	2	BALDUE
—	X	3	BALHIST

- Xn toggles a sequence of segments
- XX...XX toggles the group segments
- X\* toggles all segments

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On the database positioning panel, you may have noticed a column labeled SXE. S indicates the hierarchical path of the current segment. X indicates that the segment is selected to be displayed. If you enter an X line command, it toggles the segment display selection on or off. E indicates that the view has been edited, and selection criteria has been specified for the segment.

## ▪ Using a view

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  - Working with criteria sets
  - Extract using a criteria set
- Delete / define utility
- Load utility

Next, you will see how to select segments for display based on data values in the segments.

## The E line command edits the view



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

Subsystem IMSB Database USRSCN      Key sequence      Format TABL
View C      Temporary      Key
Cmd SXE Level Segment Description len Key value
e SX 1      CUSTADDR 10 0003874923
  X 2      TOTUSE   6  .....
  3      PRMUSE   8  .....
  3      OFFUSE   8  .....
  4      OFFDTL   8  .....
  2      BALDUE   8  .....
  3      BALHIST   8  .....
**** End of data ****

Line commands
E Edit the view
X Select/Clear segment
K Key panel
S Select for positioning

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

Enter
```

Starting from the database positioning panel, in this example only the CUSTADDR and TOTUSE segment types are selected for display. The E line command is typed next to a segment to edit the view. Enter.

## Segment layout panel is displayed



Process Options Help

FM/IMS View : Segment Layout Line 1 of 8  
Command ==> 1 Scroll CSR

View Temporary Segment TOTUSE  
Template DNET845.ADLAB.TEMPLATE(USRSCN)

----- Criteria - Enter 1 to specify expression by field -----  
1 Sel: +

Offset 0

Cmd Seq	SHE Ref	Field Name	Picture	Type	Start	Length
		**** Top of data ****				
1	1	SEGB-TOTAL-USAGE		AN	1	80
2K	2	USAGE-PERIOD		AN	1	6
3K	3	USAGE-YEAR	X(4)	AN	1	4
4K	3	USAGE-MONTH	X(2)	AN	5	2
5	2	ACCOUNT-INV-SEQ	X	AN	7	1
6	2	ACCOUNT-TOTAL-USAGE	9(9)V99	PD	8	6
7	2	CURRENT-PERIOD-AMT-DUE	9(7)V99	PD	14	5
8	2	COMPLAINTS	X(62)	AN	19	62

F1=Help F9=Swap F10=Left F11=Right F12=Cancel F8=D Enter

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Select option 1 for "By Field" selection criteria

Enter freeform criteria on this line. See the File Manager IMS User's Guide for details.

The "segment layout" panel is displayed for the selected segment. Here you can specify selection criteria. There are two ways. First, you can enter criteria in freeform format on the line labeled "Sel" (for selection). But an easier way is to enter 1 on the command line, and press Enter.

## Enter selection criteria



```
Process  Options  Help
-----
FM/IMS          Field Selection Criteria          Line 1 of 8
Command ==>>>          Scroll  CSR

Cmd Con ( Field Name          Op  Value          )
<-> - <-----1-----2-----3-----> <-> <-----1-----2----->
*** **** Top of data ****
---          SEGB-TOTAL-USAGE          ---
--- AND          USAGE-PERIOD          ---
--- AND          USAGE-YEAR          ---
--- AND          USAGE-MONTH          ---
--- AND          ACCOUNT-INV-SEQ          ---
--- AND          ACCOUNT-TOTAL-USAGE          ---
--- AND          CURRENT-PERIOD-AMT-DUE          ---
--- AND          COMPLAINTS          ---
*** **** End of data ****

          CO '03','04'
          = 'Z'
          > 1000

F1=Help      F4=CRetrieve  F5=RFind      F6=RunTemp
F7=Up        F8=Down      F9=Swap      F10=Left     F11=Right    F12=Cancel
```

This selection criteria searches for the correct data within the TOTUSE segment.

Tip: Scroll this field to expand entry area

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That displayed the Field Selection Criteria panel. On this panel, the fields in the segment are displayed, and you can specify selection criteria for each field. Selection criteria was entered in this example to select TOTUSE segments where the USAGE-MONTH field contains either three or four, and the ACCOUNT-INV-SEQ field is equal to Z, and the ACCOUNT-TOTAL-USAGE field is greater than 1000.





## The freeform criteria syntax is automatically generated



**Tip: TPRINT command will print the layout**

Process	Options	Help				
FM/IMS	View : Segment Layout	Line 1 of 8				
Command ==>		Scroll CSR				
View Temporary		Segment TOTUSE				
Template DNET845.ADLAB.TEMPLATE(USRSCN)						
----- Criteria - Enter 1 to specify expression by field -----						
1 Sel: TFLD(' #4', 'C0', '03', '04') & #5 = 'Z' & #6 > 1000 +						
Offset 0						
Cmd Seq	SHE Ref	Field Name	Picture	Type	Start	Length
		**** Top of data ****				
---	1	1 SEGB-TOTAL-USAGE		AN	1	80
---	2K	2 USAGE-PERIOD		AN	1	6
---	3K	3 USAGE-YEAR	X(4)	AN	1	4
---	4K	3 USAGE-MONTH	X(2)	AN	5	2
---	5	2 ACCOUNT-INV-SEQ	X	AN	7	1
---	6	2 ACCOUNT-TOTAL-USAGE	9(9)V99	PD	8	6
---	7	2 CURRENT-PERIOD-AMT-DUE	9(7)V99	PD	14	5
---	8	2 COMPLAINTS	X(62)	AN	19	62

**Freeform criteria can be entered here, without using the "By Field" selection panel**

F3

F1=Help    F2=Freeform criteria can be entered here, without using the "By Field" selection panel    F3=Exit

F9=Swap    F10=Left    F11=Right    F12=Cancel

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The "segment layout" panel is displayed again. Notice that the freeform criteria was filled in automatically. Press F3 to exit and continue.

Criteria has been entered, returned to database positioning panel 

```


Process  Options  Help
-----
FM/IMS          Edit : Database Positioning      Must read all roots
Command ==>>> _____ Scroll CSR

Subsystem IMSB Database USRSCN      Key sequence      Format TABL
View C      Temporary      Key
Cmd SXE Level Segment Description len Key value
s SX 1 CUSTADDR 10 2111111111
  XE 2 TOTUSE 6 .....
  3 PRMUSE 8 .....
  3 OFFUSE 8 .....
  4 OFFDTL 8 .....
  2 BALDUE 6 .....
  3 BALHIST 6 .....
**** End of data ****

Line commands
E Edit the view
X Select/Clear segment
K Key panel
S Select for positioning

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

```



Selection criteria was specified for the TOTUSE segment. Notice that an E is shown in the SXE column for the TOTUSE segment. The E indicates that selection criteria has been edited. A segment is selected for positioning, and Enter is pressed.

## Matching segments are displayed



```

Process  Options  Help
-----
FM/IMS                               Edit : IMS Database USRSCN
Command ==>                           Scroll  CSR
                                     CHKPID FM000001 Autosave ON  SHOW SUP OFF Scope DB  Format TABL
                                     SEGA-ACCOUNT-NUMBER SEGA-CUSTOMER-PHONE-NB SEGA-CUSTOMER-N
Cmd Level Segment #2                #3                #4                +
                                     AN 1:10            AN 11:10          AN 21:30
                                     <----->         <----->         <-----1----->
                                     **** Top of window ****
----- 1  CUSTADDR 2111111111            8233249846        JOAN SMITH
----- 2  TOTUSE  Key=200303
----- 1  CUSTADDR 9983874923            3273325564        Joan B. OONE
----- 2  TOTUSE  Key=200303
----- 1  CUSTADDR 9993874923            3273325564        DANNY B. OONE 2
----- 2  TOTUSE  Key=200303
                                     **** End of database ****

```

Only the TOTUSE segments meeting the view criteria, and associated segments are shown

```

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

```

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The editor is displayed. Notice that only the selected segment types, CUSTADDR and TOTUSE are shown. Also notice that only the TOTUSE segments that match the selection criteria are shown.

## SEGSTATS reports only selected segments



```
FM/IMS
Command ==> SEGSTATS
Enter

FM/IMS Edit : IMS Database USRSCN
Command ==> segstats Scroll CSR
File Manager Messages
Command ==> Scroll CSR

IBM File Manager for z/OS IMS Component
Segment statistics

Total segments : 5
Total data bytes : 430

Segment CUSTADDR : 3
Layout SEGA-CUSTOMER-ACCOUNT : 3

Segment TOTUSE : 2
Layout SEGB-TOTAL-USAGE : 2

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

F3
F3
```

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You can use a SEGSTATS command to get a count of how many segments meet your selection criteria. In this example, only three of the TOTUSE segments met the criteria and were selected. F3 is pressed a couple of times to return to the database positioning panel.

## Back to the database positioning panel



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

Subsystem IMSB Database USRSCN      Key sequence      Format TABL
View C      Temporary              Key
Cmd SXE Level Segment Description len Key value
-----
x  SX  1      CUSTADDR 10 2111111111
  XE  2      TOTUSE   6  .....
  3      PRMUSE   8  .....
  3      OFFUSE   8  .....
  4      OFFDTL   8  .....
  2      BALDUE   6  .....
  3      BALHIST   6  .....
**** End of data ****

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

Enter
```

X turns segments on or off (it is a toggle)

An X line command is used to turn off the display of TOTUSE segments. Enter.

# Segment has been turned off



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

Subsystem IMSB Database USRSCN   Key sequence      Format TABL
View C      Temporary          Key
Cmd SXE Level Segment Description len Key value
S SX 1      CUSTADDR          10 2111111111
  E 2      TOTUSE              6  .....
  3      PRMUSE              8  .....
  3      OFFUSE              8  .....
  4      OFFDTL              8  .....
  2      BALDUE              6  .....
  3      BALHIST             6  .....
**** End of data ****

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

Enter
```

And an S command is used to position and display the editor. Enter.

## Only selected segments are displayed



```
Process  Options  Help
-----
FM/IMS                                     Edit : IMS Database USRSCN
Command ==>                               Scroll  CSR
CHKPID FM000001 Autosave ON  SHOW SUP OFF Scope DB  Format TABL
SEGA-ACCOUNT-NUMBER SEGA-CUSTOMER-PHONE-NB SEGA-CUSTOMER-N
Cmd Level Segment #2 #3 #4 +
AN 1:10 AN 11:10 AN 21:30
<-----> <-----> <-----1----->
**** Top of window ****
 1 CUSTADDR 2111111111 8233249846 JOAN SMITH
 1 CUSTADDR 9983874923 3273325564 Joan B. OONE
 1 CUSTADDR 9993874923 3273325564 DANNY B. OONE 2
**** End of database ****
```

Not all of the roots are displayed.  
Why not? Selection criteria is still in effect in a dependent segment.

```
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**

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Now only the root segments are displayed. In this example, no selection criteria was entered in the root segment, but not all root segments are being displayed. Why not? Remember that there are still selection criteria specified in the TOTUSE segment. So only root segments above the selected TOTUSE segments are selected.



# File Manager IMS tutorial



## ▪ Using a view

- Selecting segment types to display
- Selecting segments to display based on data content
- Save a view
- Customize how data is displayed
- Use edit or browse to format and generate a report

## ▪ Extract and Load utilities

- Extract utility
  - Extract using a key values file
  - Working with criteria sets
  - Extract using a criteria set
- Delete / define utility
- Load utility

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Next you will see how you can save your view in a file, so you can use it again.

## Select edit options



```
Process  Options  Help
-----
FM/IMS                                     Settings Menu
Command ==> 5
-----
1 Print      Print settings
2 System     System settings
3 Batch      Job card specifications
4 Compiler   Language and compiler specifications
5 EDIT       Editor options
6 Subsystem  IMS subsystem settings
7 Temporary  Temporary Data Set Allocations
8 Output     Output Data Set Allocations
9 Trace      Trace options

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

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

Enter

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Whether your views are saved, or not, depends on your options settings. From the settings menu, select the "editor options".

## Select prompt to save on exit of edit / browse



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

Initial Settings:
Enter "/" to select option
- Translate changed data to uppercase (CAPS ON)
- Expose suppressed records (SHOW SUP ON)
- Limit scope to current database record (SCOPE REC)
- Show field reference numbers on SNGL displays (REF)
- Show field picture clauses on SNGL displays (PIC)
- Show record structure on SNGL displays (STR)
/ Show redefined fields on SNGL and TABL displays (RDF)
- Show field type & length on SNGL displays (TYPE)
- Show field start locations on SNGL displays (SLOC)
/ Left justify numerics on SNGL displays (JUST)
/ Prompt to save view when exiting edit/browse session
/ Use * (any segment type) as default on NEXT and PREVIOUS commands

Format
 1 1. Previous
 2 2. TABL
 3 3. SNGL
 4 4. CHAR
 5 5. HEX
 6 6. LHEX

F1=Help  F2=Print  F3=Exit  F4=Refresh  F5=Forward  F6=Backward  F7=Backward  F8=Forward
F9=Swap  F10=Actions  F12=Cancel
```

If changes are made to selection or formatting, prompt to save changes

F3

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In your editor options, there is a setting named "prompt to save view when exiting edit or browse session". If this setting is on, you will be prompted to save a new view when you exit from the editor or browser. Most people prefer to have this setting turned on.

## Return to the edit or browse session Make changes, then exit session



Process Options Help

---

FM/IMS Edit : Database Positioning Chkpt FM000001 taken  
 Command ==> Scroll CSR

Subsystem IMSB Database USRSCN Key sequence Format TABL  
 View DNET845.ADLAB.VIEW(USRSCN2) Key

Cmd	SXE	Level	Segment	Description	len	Key value
—	SX	1	CUSTADDR		10	2111111111
—	XE	2	TOTUSE		6	.....
—		3	PRMUSE		8	.....
—		3	OFFUSE		8	.....
—		4	OFFDTL		8	.....
—		2	BALDUE		6	.....
—		3	BALHIST		6	.....

\*\*\*\* End of data \*\*\*\*

Changes were made to the view

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

F3

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In this example, the editor has been started, and the "database positioning" panel is displayed. This view has been updated. As shown in the previous examples, only certain segments are selected for display – notice that X's are missing next to some segments. Also, selection criteria have been edited – notice the E in the SXE column for the TOTUSE segment. F3 is pressed to exit from the editor.

## Prompt to save view



— F C S D U \* P

Command ==> \_\_\_\_\_

View Save

You have modified the view you are using. To save this view enter a data set and member name below and press ENTER.

To discard the changes, press PF3/EXIT or PF12/CANCEL .

Data set name ADLAB.VIEW

Member . . . USRSCN2

The View name can be anything. It can be the same as the DBD name (template name), but does not have to be.

F1=Help F2=Split F3=Exit F7=Backward F8=Forward  
F9=Swap F12=Cancel

Enter

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If it is an existing view, it is updated in place automatically. If it is a new view, this "view save" panel is displayed to let you save it in a file. A view can be saved as a PDS member. If you save it, then you can use it again, or share it with other people. Type in a data set name and member, and press Enter.

# View has been saved



```
Process  Options  Help
-----
FM/IMS                                     Edit Entry Panel
Command ==> _____ View saved

IMS:
  Subsystem name . . . IMSB           PSB name . . . _____ (If static PSB)
  Database name . . . USRSCN         AGN name . . . _____ (If BMP)
View:
  Data set name . . . ADLAB.VIEW
  Member . . . . . USRSCN2

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

  View usage         IMS log (if DLI)      Enter "/" to select option
  2 1. New           3 1. Keep             _ Secondary index (if dynamic PSB)
  2 2. Existing      2 2. Delete           _ Create audit trail
  3 3. None          3 3. None             _ 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
```

And the view was saved.

# File Manager IMS tutorial



## ▪ Using a view

- Selecting segment types to display
- Selecting segments to display based on data content
- Save a view
- Customize how data is displayed
- Use edit or browse to format and generate a report

## ▪ Extract and Load utilities

- Extract utility
  - Extract using a key values file
  - Working with criteria sets
  - Extract using a criteria set
- Delete / define utility
- Load utility

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Next you will see how you can use a view to customize the way data is displayed in the browser or editor.

## Specify a view that was previously created



```
Process  Options  Help
-----
FM/IMS                                     Edit Entry Panel
Command ===> _____

IMS:
  Subsystem name . . . IMSB                PSB name . . . _____ (If static PSB)
  Database name . . . USRSCN              AGN name . . . _____ (If BMP)
View:
  Data set name . . . ADLAB.VIEW
  Member . . . . . USRSCN2

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

  View usage        IMS log (if DLI)       Enter "/" to select option
  2 1. New           3 1. Keep              - Secondary index (if dynamic PSB)
  3 2. Existing     2 2. Delete            - Create audit trail
  3 3. None         3 3. None              / Skip DB data set panel (if DLI)

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

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In this example, a view that was created earlier is reused by specifying the view name, and "2" (for existing) in the "view usage" field. Enter.



## The specified view is used



```
Process  Options  Help
-----
FM/IMS          Edit : Database Positioning          Chkpt FM000001 taken
Command ==>>>                                     Scroll CSR

Subsystem IMSB Database USRSCN          Key sequence          Format TABL
View          DNET845.ADLAB.VIEW(USRSCN2) Key
Cmd  SXE Level Segment Description      len  Key value
e  SX  1          CUSTADDR              10  0003874923
   E  2          TOTUSE                  6   .....
   3          PRMUSE                     8   .....
   3          OFFUSE                     8   .....
   4          OFFDTL                     8   .....
   2          BALDUE                      6   .....
   3          BALHIST                    6   .....
**** End of data ****

Line Commands
E Edit the view
X Select/Clear segment
K Key panel
S Select for positioning

F1=Help      F2=Retrieve  F5=Key >=  F7=Back
F8=Forward   F9=Swap      F10=Actions F12=Cancel

Enter
```

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On the positioning panel, an E line command is entered next to the CUSTADDR segment type. Enter.

## Edit the segment layout



Process Options Help

FM/IMS View : Segment Layout Line 1 of 5  
Command ==> **By default, all elementary fields are selected** [CSR](#)

View DNET845.ADLAB.VIEW(USRSCN2) Segment CUSTADDR  
Template DNET845.ADLAB.TEMPLATE(USRSCN)

----- Criteria - Enter 1 to specify expression by field -----  
1 Sel: \_\_\_\_\_ +  
Offset 0

Cmd	Seq	SHE	Ref	Field Name	Picture	Type	Start	Length
				**** Top of data ****				
S			1	SEGA-CUSTOMER-ACCOUNT		AN	1	90
S			2K	SEGA-ACCOUNT-NUMBER	X(10)	AN	1	10
S			3	SEGA-CUSTOMER-PHONE-NB	X(10)	AN	11	10
			4	SEGA-CUSTOMER-NAME	X(30)	AN	21	30
			5	SEGA-CUSTOMER-ADDRESS	X(40)	AN	51	40

**Select the fields to be displayed**

**“Select” line commands:**  
SS - Block of Selected  
SS - End of above Block  
S\* - Select this line and all subsequent lines  
S3 - Select three lines

F1=Help F9=Swap F8=D **Enter**

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On the view segment layout panel, you can select fields to be displayed. By default, all elementary data items will be displayed, but you can toggle field display on or off with an S line command. Here, three fields are selected. Enter.

## Some fields were selected



```
Process  Options  Help
-----
FM/IMS          View : Segment Layout          Line 1 of 5
Command ==>>> _____ Scroll CSR

View DNET845.ADLAB.VIEW(USRSCN2)          Segment CUSTADDR
Template DNET845.ADLAB.TEMPLATE(USRSCN)

----- Criteria - Enter 1 to specify expression by field -----
1 Sel: _____ +
Offset 0
Cmd Seq SHE Ref Field Name          Picture Type Start Length
**** Top of data ****
  1 1 SEGA-CUSTOMER-ACCOUNT          AN      1     90
h  1 S 2K 2 SEGA-ACCOUNT-NUMBER      X(10)   AN      1     10
  3 S 3 2 SEGA-CUSTOMER-PHONE-NB     X(10)   AN     11     10
  2 S 4 2 SEGA-CUSTOMER-NAME          X(30)   AN     21     30
  2 S 5 2 SEGA-CUSTOMER-ADDRESS      X(40)   AN     51     40
**** End of data ****

F1=Help  F2=Split  F3=Exit  F4=Expand  F5=RFind  F7=Up  F8=D  Enter
F9=Swap  F10=Left  F11=Right  F12=Cancel
```

Notice that the selected fields are marked with S characters. If you change your mind, or want to toggle other fields, you can enter additional S line commands. You can also hold a field with an H line command, as shown. In the column labeled Seq (for sequence) you can control the sequence in which fields are displayed. Sequence numbers are specified. Enter.

## Fields are selected, ordered and held



```
Process  Options  Help
-----
FM/IMS          View : Segment Layout          Line 1 of 5
Command ==>>> _____ Scroll CSR

View DNET845.ADLAB.VIEW(USRSCN2)          Segment CUSTADDR
Template DNET845.ADLAB.TEMPLATE(USRSCN)
----- Criteria - Enter 1 to specify expression by field -----
1 Sel: _____ +
Offset 0
Cmd Seq SHE Ref  Field Name          Picture  Type Start Length
-----
          1 1 SEGA-CUSTOMER-ACCOUNT          AN      1     90
          2K 2 SEGA-ACCOUNT-NUMBER          AN      1     10
          3 S 3 2 SEGA-CUSTOMER-PHONE-NB          X(10)   AN     11     10
          2 S 4 2 SEGA-CUSTOMER-NAME          X(30)   AN     21     30
          5 2 SEGA-CUSTOMER-ADDRESS          X(40)   AN     51     40
          **** End of data ****

  S indicates field is selected
  H indicates field is held

F1=Help  F2=Split  F3=Exit  F4=Expand  F5=RFind  F7=Up  F8=D  F3
F9=Swap  F10=Left  F11=Right  F12=Cancel
```

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Now only certain fields are selected, their order has been changed, and one field is held. F3 to exit the segment layout panel.

# Field selection is complete



```
Process  Options  Help
-----
FM/IMS          Edit : Database Positioning      Must read all roots
Command ==>>> _____ Scroll CSR

Subsystem IMSB Database USRSCN   Key sequence      Format TABL
View C      DNET845.ADLAB.VIEW(USRSCN2)   Key
Cmd SXE Level Segment Description len Key value
s SX 1      CUSTADDR 10 0003874923
  E 2      TOTUSE   6 .....
  3      PRMUSE   8 .....
  3      OFFUSE   8 .....
  4      OFFDTL   8 .....
  2      BALDUE   6 .....
  3      BALHIST  6 .....
**** End of data ****

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

Enter
```

The view has been modified with formatting changes. An S line command is used to position to a segment and display the editor. Enter.

## Only fields selected on the segment layout screen are displayed



```

Process  Options  Help
-----
FM/IMS                               Edit : IMS Database USRSCN
Command ==>  CHKPID FM000001 Autosave ON SHOW SUP OFF Scope DB Format TABL Scroll CSR
              SEGA-ACCOUNT-NUMBER SEGA-CUSTOMER-NAME SEGA-CU
Cmd Level Segment #2 #4 #3 +
              AN 1:10 AN 21:30 AN 11:1
              <-----> <-+-----1-----2-----+> <----->
              **** Top of window ****
1 CUSTADDR 2111111111 JOAN SMITH 8233249
1 CUSTADDR 9983874923 Joan B. OONE 3273325
1 CUSTADDR 9993874923 DANNY B. OONE 2 3273325
              **** End of database ****

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

```

Fields are in selected order

F11

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Here in the editor, the formatting changes can be seen. Notice that only the selected fields are displayed, and the order of the columns has been changed. F11 is pressed to scroll to the right.

## Held field stays in position when scrolling left and right



```
Process  Options  Help
-----
FM/IMS                               Edit : IMS Database USRSCN
Command ==>>>                        Scroll CSR
                                     Format TABL
                                     -----
                                     CHKPID FM000001 Autosave ON SHOW SUP OFF Scope DB
                                     SEGA-ACCOUNT-NUMBER SEGA-CUSTOMER-PHONE-NB
Cmd Level Segment #2 #3
AN 1:10 AN 11:10
<-----> <----->
**** Top of window ****
 1 CUSTADDR 2111111111 8233249846
 1 CUSTADDR 9983874923 3273325564
 1 CUSTADDR 9993874923 3273325564
**** End of database ****

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

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Notice that the held field remained on the screen. Held fields remain on the screen when you scroll left and right.

# Switch to single format



```
Process  Options  Help
-----  -
FM/IMS                               Edit : IMS Database USRSCN
Command ==>                           Scroll CSR
                                         Format TABL
          CHKPID FM000001 Autosave ON  SHOW SUP OFF Scope DB
          SEGA-ACCOUNT-NUMBER SEGA-CUSTOMER-PHONE-NB
Cmd Level Segment #2                #3
          AN 1:10                AN 11:10
          <----->                <----->
          **** Top of window ****
fs 1  CUSTADDR 2111111111          8233249846
  1  CUSTADDR 9983874923          3273325564
  1  CUSTADDR 9993874923          3273325564
          **** End of database ****

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
```

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An FS (for format single) line command has been entered.



## Only selected fields are displayed



```
Process  Options  Help
-----
FM/IMS                               Edit : IMS Database USRSCN
Command ==>  _____ Scroll CSR
                CHKPID FM000001 Autosave ON SHOW SUP OFF Scope DB Format SNGL
Segment CUSTADDR                      Level: 1
Concatenated key value: 2111111111
                                           Top Line is 1 of 6

Current 01: SEGA-CUSTOMER-ACCOUNT
Ref Field      Typ Start  Len  Data
  2 SEGA-ACCOUNT-NUMBER
                AN      1    10 K 2111111111
  4 SEGA-CUSTOMER-NAME
                AN     21    30  JOAN SMITH
  3 SEGA-CUSTOMER-PHONE-NB
                AN     11    10  8233249846
*** End of record ***
```

The criteria from the view also applies to single format:

- Fields are re-sequenced
- Only selected fields are displayed

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

That changed the display format to SNGL. Notice that even in SNGL format, only the selected fields are displayed, and they are shown in the customized sequence.

# File Manager IMS tutorial



## ▪ Using a view

- Selecting segment types to display
- Selecting segments to display based on data content
- Save a view
- Customize how data is displayed
- Use edit or browse to format and generate a report



## ▪ Extract and Load utilities

- Extract utility
  - Extract using a key values file
  - Working with criteria sets
  - Extract using a criteria set
- Delete / define utility
- Load utility

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In this topic, using the editor or browser with a view to format a report is discussed.

## Use a view in edit or browse to generate a report



- Use a view to select:
  - specific segments
  - Specific fields, in a specific order
- Switch the display format
  - Table, Single, Char, Hex, or Lhex
- Use the **DPRINT ALL** command to generate the report
  - Only selected segments / fields are printed
  - The report is written to the print data set
  - Print options must be set up correctly!
- Use the **PB** (print browse) command to display the print data set
  - From there, use F4 to send the report to SYSOUT

In an earlier section, you saw that the DPRINT command can be used from the editor or browser to generate a report. You can use a view to select only specific segments and fields for display, and you set the display format as wanted, for example TABL or SNGL format.

After customizing the display, enter a DPRINT ALL command to generate a report. Only the segments and fields selected in the view are printed. Assuming that your print options are correctly set, the report is written to a print data set.

You saw earlier that after generating a report, a PB (for print browse) command is entered to display the print data set. And from there you can send the report to SYSOUT to be routed to a printer.

That is the end of this section, using File Manager IMS views.

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This is 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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