

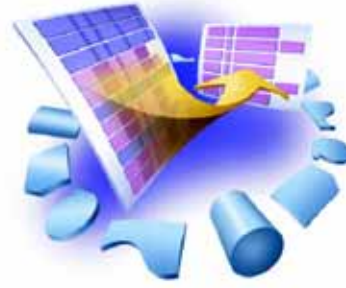


IBM Software Group

## IBM File Manager for z/OS IMS Feature

Program Number 5655-S14

### Tutorial



**ON** DEMAND BUSINESS

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02

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

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

In this section, you will learn how to use the File Manager IMS extract utility.



## Extract utility

- Use the extract utility to copy segments from a database to a file
  - The file can be read by the load utility
- Extract selection methods:
  1. **Do not use either a key values file or criteria set**
    - All segments are extracted
  2. **Use a key values file**
    - A key values file is a list of root keys in a sequential file
    - Roots in the key file are extracted with all of their dependents
  3. **Use a criteria set**
    - Complex criteria can be specified to select database records
    - Segment types can be selected

The extract utility is used to copy segments from an IMS database to a file. The resulting file can be read by the load utility to reload the database or load another similar database. There are three ways to select segments to be extracted. First, you can choose not to perform any selection. If you do not specify either a key values data set or a criteria set, then all of the segments in the database will be extracted.

Second, you can use a special file called a key values file. A key values file contains a list of root key values that should be extracted. The extract utility uses the values in the file to read root segments, and extracts each matching root and all of its dependents.

The third method is to use a criteria set. A criteria set is similar to a view, and can be used to specify selection criteria and segment types to be extracted.



## Extracting using a key values file

- **Steps:**
  - Create a root key value file with the required keys
  - Generate extract utility JCL
  - Run the JCL to extract the data

Next, you will see a walkthrough of how the extract utility can be used with a root key values file.




## The XKEY command

The screenshot shows the IMS Database browser interface. At the top, there are menu options: Process, Options, and Help. Below that, the current session is identified as 'FM/IMS' and the database as 'IMS Database USRSCN'. The command line shows 'Command ==> xkey', with 'xkey' circled in red. The interface displays database details such as 'CHKPID FM000001 Autosave ON SHOW SUP ON Scope DB Format TABL' and 'SEGA-CUSTOMER-ADDRESS'. A list of segments is shown, including 'CUSTADDR' and several 'PRMUSE' segments, each with a corresponding key value. A callout box on the right states: 'The XKEY command is the easiest way to get a key file. Use it in either browse or edit. If you selected segments with a template, only selected root keys are written.' At the bottom right, there is a yellow 'Enter' button. The footer contains copyright information for IBM Corporation (May 11, 2008), the title 'File Manager for z/OS Tutorial', and 'zSeries PD Tools'.

The first step is to create a root key values file with the required keys. One way is to create your own file, and manually enter a list of root key values, one per record. It can be a sequential file or a PDS member. But there is an easier way: the XKEY command.

You can use the XKEY command in either browse or edit. First, open the database. You can optionally modify the view so that only certain segments are selected. Then, type XKEY on the command line, and press Enter.



### Result of the XKEY command

Process Options Help

---

FM/IMS Edit : IMS Database USRSCN

Command ==> **start 2** Scroll CSR

CHKP10 FM000001 Autosave ON SHOW SUP OFF Scope DB Format TABL

SEGA-CUSTOMER-ADDRESS

Cmd Level Segment #5

AN 51:40

<---+---1---+---2---+---3---+--->

\*\*\*\* Top of window \*\*\*\*

1	CUSTADDR	666 PRARIERD, WY 323423-123456	
2	TOTUSE	Key=200303	
3	PRMUSE	29 segments	
3	OFFUSE	Key=20030301	
4	OFFDTL	3 segments	
3	OFFUSE	Key=20030302	
4	OFFDTL	1 segment	
3	OFFUSE	Key=20030303	
4	OFFDTL	2 segments	
3	OFFUSE	Key=20030304	
4			

XKEY file DNET424.XKEY.D071028.T193439.USRSCN created

Enter

F1=Help F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Retrieve

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A root key value file is created automatically, and the name of the file is displayed on the screen. Next, you can use the ISPF editor to update the new file. On the system shown in this example, the ISPF editor can be started with a **START 2** command, although there may be different commands to get there on your system.



## You can edit the XKEY file

```
Menu RefList RefMode Utilities Workstation Help
-----
Edit Entry Panel
Command ==> _____ More: +
ISPF Library:
Project . . . . DNET424
Group . . . . PDV8
Type . . . . PSBSOURC
Member . . . . _____ (Blank or pattern for member selection list)
Other Partitioned, Sequential or VSM Data Set:
Data Set Name . . . . 'DNET424.XKEY.D071028.T193439.USRSCN'
Volume Serial . . . . _____ (If not cataloged)
Workstation File:
File Name . . . . _____
Options
Initial Macro . . . . _____ _ Confirm Cancel/Move/Replace
Profile Name . . . . _____ _ Mixed Mode
Format Name . . . . _____ _ Edit on Workstation
F1=Help F2=Split F3=Exit F7=Backward F8=Forward F9=Enter
F10=Actions F12=Cancel
```

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The root key file name is specified for the ISPF editor. Enter.





## You can edit the XKEY file

```
File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT      DNET424.XKEY.D071028.T193439.USRSCN      Columns 00001 00072
Command ==> _____ Scroll ==> CSR
***** ***** Top of Data *****
D00001 0003874923
000002 0342323422
D00003 1111111111
000004 2111111111
D00005 2121111111
000006 2121111112
000007 3333333333
000008 4444444444
D99009 6666666666
000010 9983874923
000011 9993874923
***** ***** Bottom of Data *****

F1=Help   F2=Split  F3=Exit   F4=IPT View  F5=Rfind   F6=
F7=Up     F8=Down   F9=Swap   F10=Left    F11=Right  F12=
Enter
```

The XKEY file contains a list of root keys

Delete the root keys that you do not want to extract

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Here is the file that was created by the XKEY command. If you do not want to extract all segments, you can delete some of the records. Here, the unwanted keys are deleted.



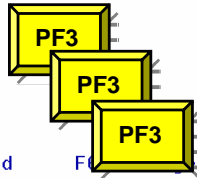
## You can edit the XKEY file

```

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT      DNET424.XKEY.D071028.T193439.USRSCN      Columns 00001 00072
Command ==> _____ Scroll ==> CSR
***** ***** Top of Data *****
000001 0342323422
000002 2121111112
000003 3333333333
000004 4444444444
***** ***** Bottom of Data *****

```

Create/save a file that has the root keys that you want to extract



F1=Help      F2=Split      F3=Exit      F4=IPT View      F5=Rfind      F6=...  
 F7=Up        F8=Down       F9=Swap      F10=Left       F11=Right     F12=Retrieve

Now the file only contains the required key values. Next, navigate to the File Manager IMS primary menu.



## Navigate to the extract utility

```
Process  Options  Help
-----
FM/IMS                                     Primary Option Menu
Command ==> 3
-----
0  Settings          Set processing options          User ID . . : DNET424
1  Browse            Browse data                     System ID  : DEMOMVS
2  Edit              Edit data                       Appl ID   : FMN1
3  Utilities         Perform utility functions      Version . : 8.1.0
4  Templates        Template/view/criteria set utilities Terminal. : 3278A
X  Exit              Terminate FM/IMS              Screen . . : 1
                                         Date . . . : 2007/10/28
                                         Time . . . : 19:40

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

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From here, select option 3 for utilities. Enter.



## Navigate to the extract utility

```
Process  Options  Help
-----
FM/IMS                                     Utility Menu
Command ==> 3
-----
1 Delete/Define Delete/Define database data sets
2 Initialize    Initialize database
3 Extract       Extract data from database
4 Load         Load database
5 Print        Print data from database
6 Batch Edit   Edit data in batch
7 Batch Browse Browse data in batch
8 Audit trail  Print audit trail report

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

Enter
```

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From the utility menu, select option 3 for Extract.




## The extract utility

```
Process  Options  Help
-----
FM/IMS          Extract Entry Panel (Dynamic PSB)
Command ==> _____

DBD:
Data set name 1 . . . ADLAB.DBDLIB
Data set name 2 . . .
Member . . . . . USRSCN

IMS:
Subsystem Name . . . IMSB
AGN Name . . . . . _____ (If BMP)

Processing Options:
Region Type      Enter "/" to select option
 1 1. DLI        / Use key values      _ SDEP in timestamp order
 2. BMP          _ Use criteria
                 _ Use dynalloc DB dsnames


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

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The extract entry panel is displayed. Specify a DBD by providing a DBD library and member name. You can choose to access the database in DLI or BMP mode. Here, you also specify if segment selection should be performed by specifying a key values file or criteria set. If neither is selected, then all segments will be extracted. In this example, the “use key values” option is selected. Press Enter to continue.



## DLI mode database data sets


Process	Options	Help
FM/IMS Extract : 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 Enter "/" to select option		
1	1. Profile	/ Save dsnames in profile
	2. Dynamic Allocation data set	
Press ENTER to confirm usage of the specified data set(s)		
F1=Hel		
F9=Swap	F10=Actions	F12=Cancel

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When accessing a database in DLI mode, this panel is displayed where you specify the database data sets. Provide the data set names and press Enter to continue.



## Specify the key values file

Process	Options	Help
FM/IMS		
Extract : Criteria/Keys Specification		
Command ==> _____		
Database USRSCN		
Template:		
Data set name . . . . ADLAB.TEMPLATE _____		
Criteria Set:		
Data set name . . . . _____		
Member . . . . . _____		
Key Values:		
Data set name . . . . 'DNET424.XKEY.D071028.T193439.USRSCN' _____		
Member . . . . . EXTR _____		
Processing Options:		
Selection criteria		Enter "/" to select option
3 1. Use new criteria		_ Edit existing criteria
2. Use existing criteria		/ Use key values
3. Use no criteria		
F1=Help	F2=Split	F3=Exit
F9=Swap	F10=Actions	F12=Cancel
F4=CRetriev	F7=Backward	F8=F



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Since the “use key values” option was specified on a previous screen, this panel is displayed: the extract criteria keys specification panel. Type in the name of the key values data set. It can either be a sequential file or a PDS member. Enter.



## Specify the extract (output) file

```
Process  Options  Help
-----
FM/IMS          Extract : To Data Set Specification
Command ==> _____

Extract to:
Data set name . . . adlab.USRSCN.EXTRACT
Disposition . . . new      (NEW or OLD)
Volume serial . . .      (If not cataloged)
Device type . . .      (Generic unit or device address)

Allocation parameters (if disposition is NEW):
Management class . . .      (Blank for default management class)
Storage class . . .      (Blank for default storage class)
Data class . . .      (Blank for default data class)
Space units . . . CYL      (BLK, TRK, CYL, KB or MB)
Primary quantity . 1      (in above units)
Secondary quantity 1      (in above units)

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

Enter
```

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On this panel, specify the name of the output data set for the extract utility. It can be an existing file, or it will allocate a new file if it does not already exist. Make sure that the file is large enough to hold all of the data. Press enter to continue.





## Submit the extract job

```
File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT          DNET424.SPFTEMP1.CNTL          Columns 00001 00072
Command ==> sub                               Scroll ==> CSR
***** ***** Top of Data *****
000001 //DNET424F JOB (JIM),'IMS UTILITY',
000002 //          REGION=0K,NOTIFY=DNET424,
000003 //          MSGCLASS=A,
000004 //          CLASS=A
000005 //*
000006 //FILEMAN EXEC PGM=FHM1IMSB
000007 //STEPLIB DD DSN=LNKLST.FILEMGR.V8R1.SFMNMOD1,DISP=SHR
000008 //SYSPRINT DD SYSOUT=*,RECFM=FBA,LRECL=133
000009 //FMNTSPRT DD SYSOUT=*
000010 //FMN1JIN DD DSN=FILEMGR.V8R1.SFMNSLIB,DISP=SHR
000011 //SYSTEM DD SYSOUT=*
000012 //FMIMSIN DD *
000013 $$FILEM IXB REGNTYPE=DLI,
000014 $$FILEM PSBTYPE=DYNAMIC,
000015 $$FILEM PROCOPT=G,
000016 $$FILEM DBDDSN=DNET424.ADLAB.DBDLIB,
000017 $$FILEM DBDMEM=USRSCN,
F1=Help      F2=Split      F3=Exit      F4=IPT View  F5=Rfind    F6=
F7=Up        F8=Down        F9=Swap      F10=Left    F11=Right   F12=
Enter
```

JCL to run the extract utility is automatically generated. Verify that it has a valid job card, and use a SUBMIT command to submit the job to batch.



## Extract utility report

Display Filter View Print Options Help

SDSF OUTPUT DISPLAY DNET424F JOB08717 DSID 105 LINE 23 COLUMNS 02- 81  
COMMAND INPUT ==> SCROLL ==> CSR

Database Extract Statistics Report

The four roots from the key values file were read

Database	Segment	Level	Segm Length		Extract Statistics		
			Min	Max	Read	Rejected	Extract
USRSCN	CUSTADDR	01	90	90	4	0	
	TOTUSE	02	80	80	5	0	
	PRMUSE	03	80	80	3	0	
	OFFUSE	03	80	80	3	0	
	OFFDTL	04	80	80	6	0	
	BALDUE	02	80	80	3	0	
	BALHIST	03	170	170	6	0	
Subtotal	USRSCN				30	0	
Grand total					30	0	

\*\*\* End of IMS Extract Report \*\*\*

F1=HELP F2=SPLIT F3=END F4=IPT View F5=IFIND F6=B00K  
F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE

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In this example, the job ran, and the output report is displayed here. The report gives statistics about the number of each type of segment that was extracted.



## File Manager IMS training: sections

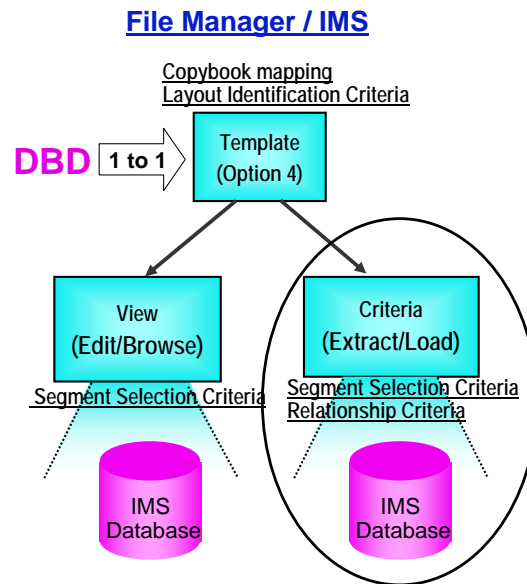
- Using the extract utility
  - Extract using a key values file
  - Working with criteria sets
  - Extract using a criteria set
- Using the load utility
  - Delete/define utility
  - Load utility



Next, you will see how to use a criteria set with the extract utility.



## Templates, views and criteria



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An extract criteria set is similar to a view. It can be used to specify criteria to select segments based on data values, and select the types of segments that should be extracted. A template is required before you can use a criteria set.



## Extracting using a criteria set

- Steps:
  - Create extract criteria for the IMS database
  - Generate extract utility JCL
  - Run the JCL to extract the data

In this walkthrough of using the extract utility, a criteria set will be created, and selection criteria will be specified. File Manager IMS will automatically generate JCL to run the utility, and the JCL will be submitted to run in batch.




## Selection criteria

- A segment is a “match” if:
  - it matches its selection criteria. and
  - its root segment and all segments in the path from the root match their selection criteria at each level, and
  - no selection criteria is specified for a dependent level
- For each matching segment, these will be extracted:
  - its root segment and all segments in the path from the root to the matching segment
  - the matching segment and all of its dependent segments

Here are the rules that the extract utility uses to determine whether to extract segments. A segment is a match if it matches its selection criteria, and its root segment and all segments in the path from the root match their selection criteria at each level, and no selection criteria is specified for a dependent level.

For each matching segment, its root segment and all segments in the path from the root to the matching segment will be extracted, along with the matching segment and all of its dependent segments.



## Criteria set

---

Process   Options   Help

---

FM/IMS Primary Option Menu

Command ==> 4

---

0	Settings	Set processing options	User ID . . : DNET424
1	Browse	Browse data	System ID : DEMOMVS
2	Edit	Edit data	Appl ID . . : FMN1
3	Utilities	Perform utility functions	Version . . : 8.1.0
4	Templates	Template/view/criteria set utilities	Terminal. . : 3278A
X	Exit	Terminate FM/IMS	Screen. . . : 1
			Date. . . . : 2007/10/28
			Time. . . . : 21:03

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

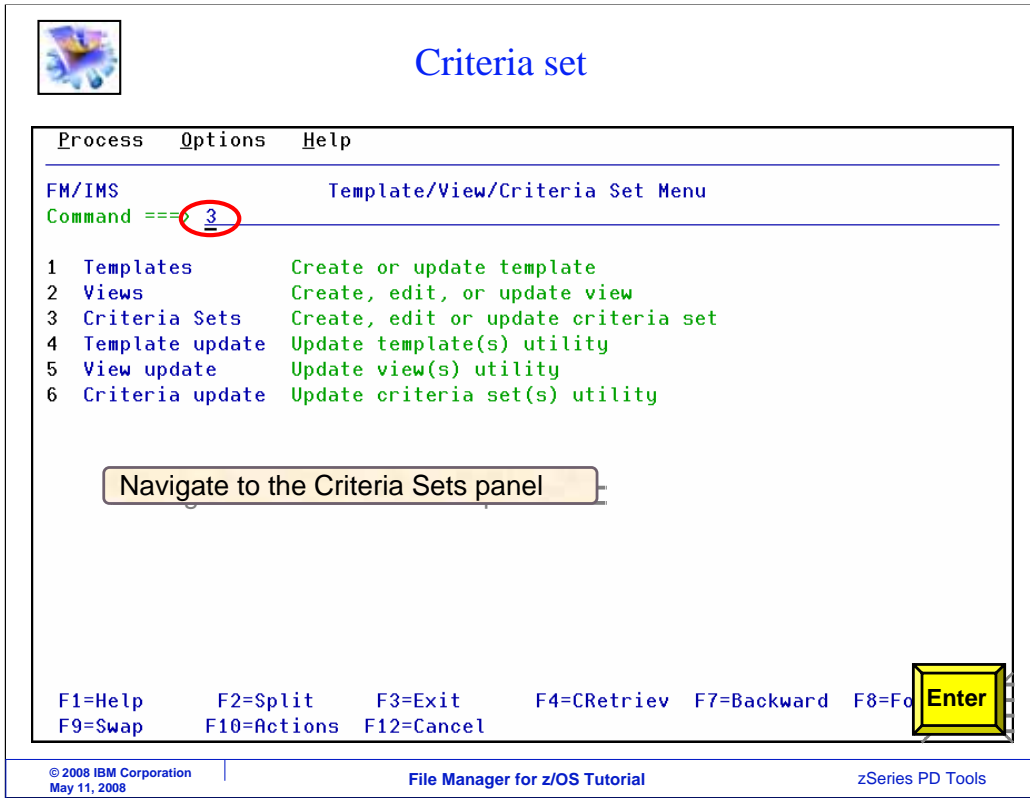
F9=Swap      F10=Actions    F12=Cancel

Enter

---

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From the File Manager IMS primary options menu, select four for utilities.



The image shows a screenshot of a mainframe terminal window titled "Criteria set". The window has a menu bar with "Process", "Options", and "Help". Below the menu bar, the text "FM/IMS" and "Template/View/Criteria Set Menu" is displayed. A "Command" prompt is followed by the number "3", which is circled in red. Below this, a list of menu items is shown:

- 1 Templates Create or update template
- 2 Views Create, edit, or update view
- 3 Criteria Sets Create, edit or update criteria set
- 4 Template update Update template(s) utility
- 5 View update Update view(s) utility
- 6 Criteria update Update criteria set(s) utility

A yellow callout box with a black border contains the text "Navigate to the Criteria Sets panel". At the bottom of the window, there is a row of function key assignments: F1=Help, F2=Split, F3=Exit, F4=CRetriev, F7=Backward, F8=Fo, F9=Swap, F10=actions, F12=Cancel. To the right of these assignments is a yellow button with the word "Enter" on it. The footer of the window contains the text: "© 2008 IBM Corporation May 11, 2008", "File Manager for z/OS Tutorial", and "zSeries PD Tools".

From the utilities menu, select three for Criteria sets.



**Criteria set**

---

Process Options Help

---

FM/IMS Criteria Set Entry Panel

Command ==> **CT** \_

CT Create criteria set from template E Edit criteria set  
 CM Create criteria set from model U Update criteria set from template

Template:  
 Data set name **ADLAB.TEMPLATE**  
 Member . . . **USRSCN**

Criteria Set:  
 Data set name **ADLAB.CRITERIA**  
 Member . . . **CRIT1**

Model Criteria Set:  
 Data set name . . .  
 Member . . . . .

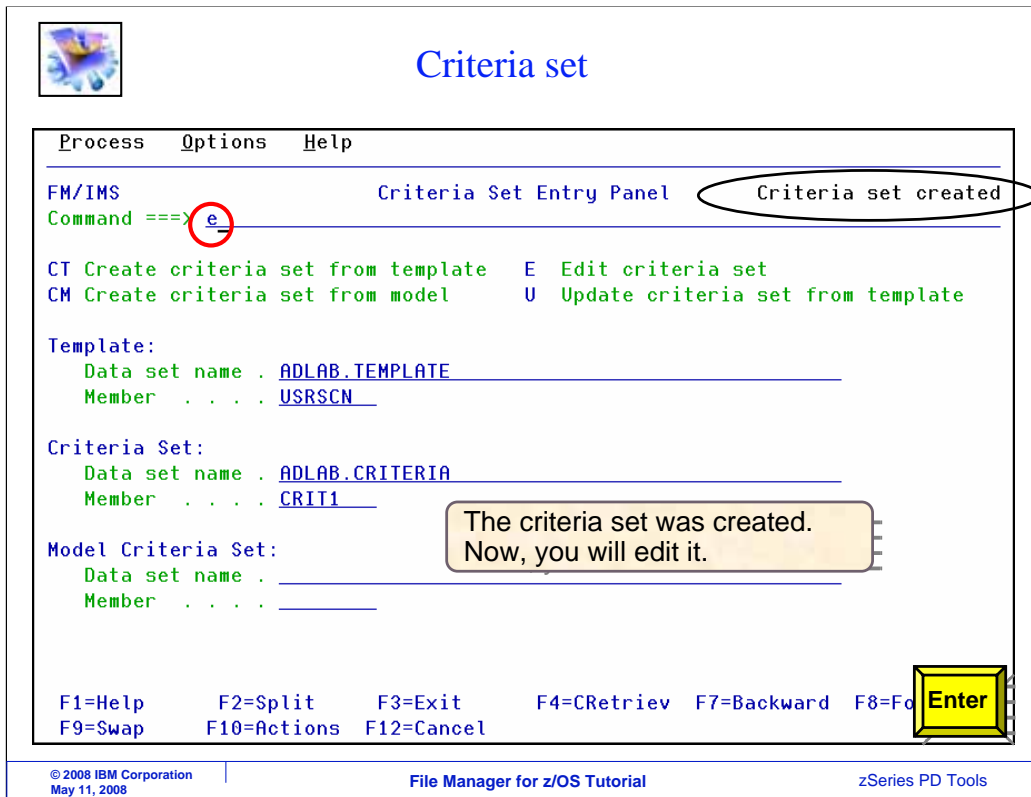
Pre-define a criteria dataset, PDS or PDSE, 80 FB.  
 Use the **CT** option to create the initial criteria set

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

---

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The Criteria set entry panel is used to create new criteria sets or update existing ones. First, a new criteria set must be created. Type CT on the command line. CT will create a new criteria set. Type the name of the template for the database in the template data set name and member fields. Also type in the name of a file and member where you want the criteria set to be stored. Press Enter.



The image shows a terminal window titled "Criteria set" with a menu bar containing "Process", "Options", and "Help". The main content area displays the following text:

```

FM/IMS                               Criteria Set Entry Panel
Command ==> e
CT Create criteria set from template   E Edit criteria set
CM Create criteria set from model      U Update criteria set from template

Template:
  Data set name . ADLAB.TEMPLATE
  Member . . . . . USRSCN

Criteria Set:
  Data set name . ADLAB.CRITERIA
  Member . . . . . CRIT1

Model Criteria Set:
  Data set name .
  Member . . . . .

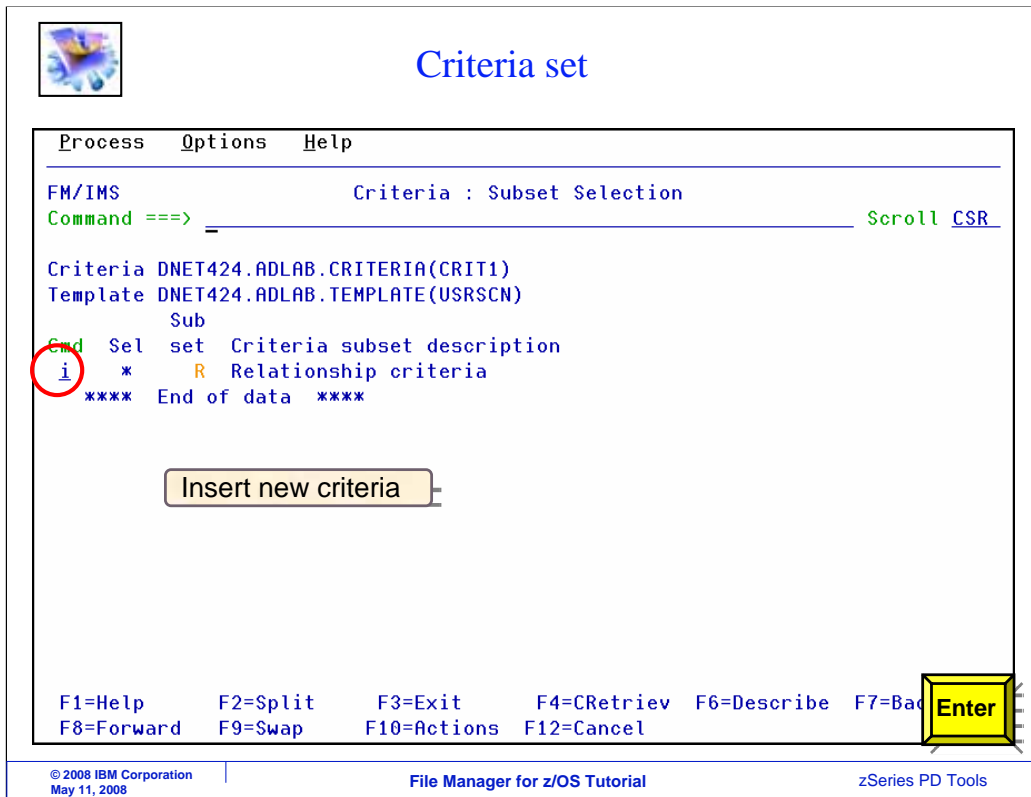
F1=Help    F2=Split    F3=Exit    F4=CRetriev  F7=Backward  F8=Fo
F9=Swap    F10=Actions  F12=Cancel
  
```

A yellow box with the text "Enter" is positioned at the bottom right of the terminal area. A message box in the center-right of the terminal area contains the text: "The criteria set was created. Now, you will edit it." The text "Criteria set created" in the top right corner of the terminal window is circled in black.

At the bottom of the terminal window, there is a footer with the following information:

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The new criteria set was created. Next, type E (for edit) on the command line. Enter.



That displayed the criteria subset selection panel, where you can edit the criteria set and specify selection criteria. To insert a criteria, type an “I” line command. Enter.

**Criteria set**

---

Process Options Help

FM/IMS Criteria : Segment Selection

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

Criteria DNET424.ADLAB.CRITERIA(CRIT1)

Template DNET424.ADLAB.TEMPLATE(USRSCN)

Subset 1 Extract Criteria for IMS USRSCN data base

Cmd	Sel	Level	Segment	Description
-	*	1	CUSTADDR	Customer Addr
<u>e</u>	*	2	TOTUSE	Total Usage
-	*	3	PRMUSE	Primary Usage
-	*	3	OFFUSE	Off Prime Usage
-	*	4	OFFDTL	Off Prime Detl
-	*	2	BAL DUE	Balance Due

Edit the TOTUSE segment criteria  
Add description of the extract


F1=Help F2=Split F3=Exit F4=CRetriev F6=Describe F7=Ba **Enter**

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

---

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That inserted a new criteria. Next, specify the selection criteria that will control whether segments will be extracted or not. In this example, selection criteria will be specified for data in TOTUSE segments. An E (for edit) line command is typed next to the TOTUSE segment type. Enter.



## Criteria set

---

Process Options Help

FM/IMS
Criteria : Segment Layout
Line 1 of 8

Command ==>
Scroll CSR

Criteria DNET424.ADLAB.CRITERIA(CRIT1) Subset 1

Template DNET424.ADLAB.TEMPLATE(USRSCN) Segment TOTUSE

----- Criteria - Enter 1 to specify expression by field -----

1 Sel #6 > 200 +

Offset 0

Cmd	Seq	SHE	Ref	Field Name	Picture	Type	Start	Length
**** Top of data ****								
---	---		1	SEGB-TOTAL-USAGE		AN	1	80
---	---		2K	USAGE-PERIOD		AN	1	6
---	1	E	3K	USAGE-YEAR	X(4)	AN	1	4
---	2		4K	USAGE-MONTH	X(2)	AN	5	2
---	5		5	ACCOUNT-INV-SEQ	X	AN	7	1
---	3		<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6</span>	ACCOUNT-TOTAL-USAGE	9(9)V99	PD	8	6
---	4		7	CURRENT-PERIOD-AMT-DUE	9(7)V99	PD	14	5
---	6		8	COMPLAINTS	X(62)	AN	19	62

\*\*\*\*

Select only related segments with  
TOTUSE dependent segments with  
the ACCOUNT-TOTAL-USAGE > 200


PF3

F1=Help F2=Split F9=Swap F10=Left
F8=D

---

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On this panel, you can specify selection criteria for a segment. In this example, the criteria requires that the data in field number 6, the ACCOUNT-TOTAL-USAGE field, must be greater than 200. TOTUSE segments where this is true will be selected for extract. PF3 to return.



## Criteria set

Process Options Help

---

FM/IMS Criteria : Segment Selection Must read all roots  
 Command ==> \_\_\_\_\_ Scroll CSR

Criteria DNET424.ADLAB.CRITERIA(CRIT1)  
 Template DNET424.ADLAB.TEMPLATE(USRSCN)  
 Subset 1 Extract Criteria for IMS USRSCN data base

Cmd	Sel	Level	Segment	Description
-	*	1	CUSTADDR	Customer Addr
-	*	2	TOTUSE	Total Usage
-	*	3	PRMUSE	Primary Usage
-	*	3	OFFUSE	Off Prime Usage
-	*	4	OFFDTL	Off Prime Detl
-	*	2		
-	*	3	BALHIST	Balance Detail
**** End of data ****				

All segments are selected for extract

You can turn segments on or off (extract or not) with an **S** line command.

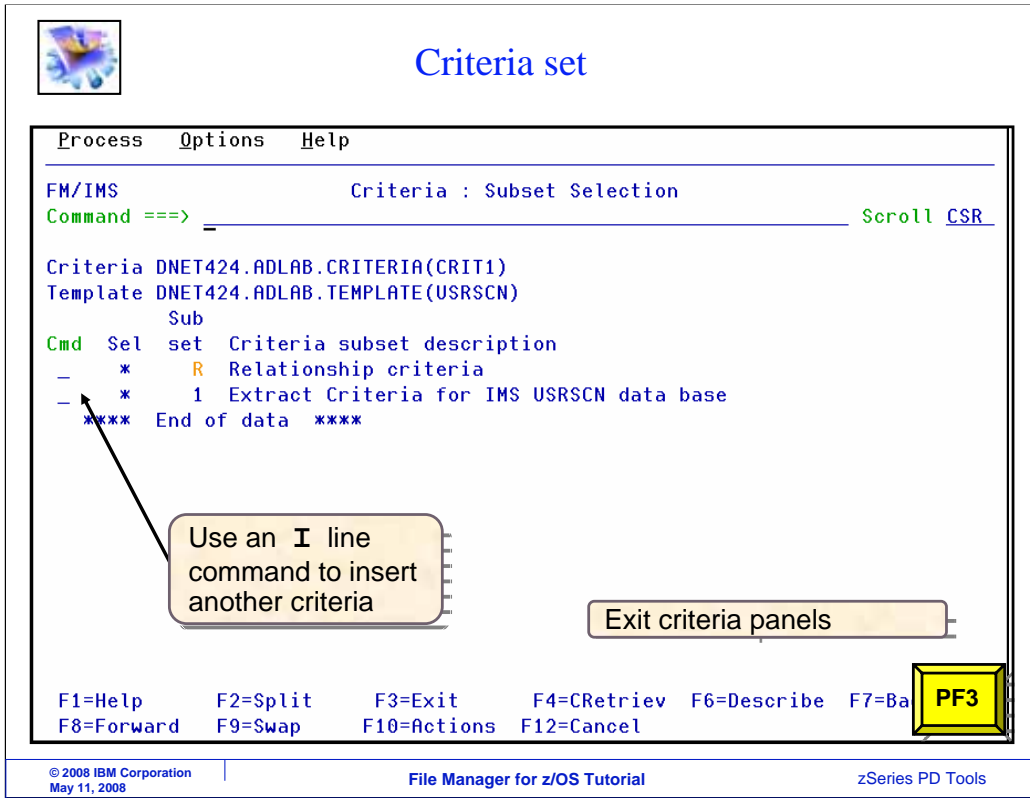
PF3

F1=Help F2=Split F3=Exit F4=CRetriev F6=Describe F7=Ba  
 F8=Forward F9=Swap F10=Actions F12=Cancel

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If needed, you can edit other segments with an E line command. If you specify selection for more than one segment type in the same criteria, then there must be a data match on all of the selections within a single database record.

By default, if there is a match, all segment types in the database will be extracted. However, on this panel you can use an S line command to toggle segments off and on. If a segment type is toggled off, no segments of that type will be extracted. PF3.



**Criteria set**

```

Process  Options  Help
-----
FM/IMS          Criteria : Subset Selection
Command ==>    _____ Scroll CSR

Criteria DNET424.ADLAB.CRITERIA(CRIT1)
Template DNET424.ADLAB.TEMPLATE(USRSCN)
Sub
Cmd Sel set Criteria subset description
-   *   R Relationship criteria
-   *   1 Extract Criteria for IMS USRSCN data base
**** End of data ****
  
```

Use an **I** line command to insert another criteria

Exit criteria panels

F1=Help    F2=Split    F3=Exit    F4=CRetriev    F6=Describe    F7=Ba    **PF3**  
F8=Forward    F9=Swap    F10=Actions    F12=Cancel

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Now a criteria has been entered. You can insert as many criteria as needed. If you have multiple criteria, they will be evaluated separately. That is, if any of the criteria produces a match, then data will be extracted. PF3.




## File Manager IMS training: sections

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



Next, the criteria set that was just created will be used with the extract utility.





## Extract with criteria

Process   Options   Help

---

FM/IMS Primary Option Menu

Command ==> =3.3

---

0	Settings	Set processing options	User ID . . : DNET424
1	Browse	Browse data	System ID : DEMOMVS
2	Edit	Edit data	Appl ID . . : FMN1
3	Utilities	Perform utility functions	Version . . : 8.1.0
4	Templates	Template/view/criteria set utilities	Terminal. . : 3278A
X	Exit	Terminate FM/IMS	Screen. . . : 1
			Date. . . . : 2007/10/28
			Time. . . . : 21:13

Navigate to the Utilities/Extract Panel

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

Enter

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----------------------------------------	--------------------------------	------------------

The extract utility panel is option 3.3 from the File Manager IMS main menu.



## Extract with criteria

Process Options Help

---

FM/IMS Extract Entry Panel (Dynamic PSB)

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

DBD:

Data set name 1 . . . ADLAB.DBDLIB \_\_\_\_\_

Data set name 2 . . . \_\_\_\_\_

Member . . . . . USRSCN \_\_\_\_\_

IMS:

Subsystem Name . . . IMSB \_\_\_\_\_

AGN Name . . . . . \_\_\_\_\_ (If B)

Processing Options:

Region Type Enter "/" to select option

1 1. DLI Use key values \_\_\_\_\_ SDEP in timestamp order

2. BMP / Use criteria

\_\_\_\_\_ Use dynalloc DB dsnames

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


F9=Swap F10=Actions F12=Cancel

Enter

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On the extract entry panel, specify a DBD. To use the criteria set, select the “use criteria” option as shown. Enter.



## Extract with criteria

Process Options Help

---

FM/IMS Extract : 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 \*\*\*\*

Press Enter to continue

Processing Options:

Fetch dsnames from                      Enter "/" to select option

1 1. Profile                                      / Save dsnames in profile

2. Dynamic Allocation data set

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

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

Enter

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When accessing a database in DLI mode, this panel is displayed where you specify the database data sets. Provide the data set names and press Enter to continue.



## Extract with criteria

Process Options Help

---

FM/IMS Extract : Criteria/Keys Specification

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

Database USRSCN

Template:  
Data set name . . . . ADLAB.TEMPLATE \_\_\_\_\_

Criteria Set:  
Data set name . . . . ADLAB.CRITERIA \_\_\_\_\_  
Member . . . . . CRIT1 \_\_\_\_\_

Key Values:  
Data set name . . . . \_\_\_\_\_  
Member . . . . . \_\_\_\_\_

Processing Options:  
Selection criteria Enter "/" to select option  
2 1. Use new criteria \_ Edit existing criteria  
2. Use existing criteria \_ Use key values  
3. Use no criteria

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

Criteria datasets are PDS or PDSE files, 80 FB.  
You will use the criteria you just created.

Enter

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On the next panel, specify the criteria set in the criteria set data set name and member fields. To use an existing criteria set, specify option 2 (for Use existing criteria) in the “Processing options: selection criteria” field. Enter.



## Extract with criteria

```
Process  Options  Help
-----
FM/IMS          Extract : To Data Set Specification
Command ==> _____

Extract to:
Data set name . . . ADLAB.USRSCN.EXTRACT2
Disposition . . . NEW      (NEW or OLD)
Volume serial . . . _____ (If not cataloged)
Device type . . . _____ (Generic unit or device address)

Allocation parameters (if disposition is NEW):
Management class . . . _____ (Blank for default management class)
Storage class . . . _____ (Blank for default storage class)
Data class . . . _____ (Blank for default data class)
Space units . . . CYL      (BLK, TRK, CYL, KB or MB)
Primary quantity . . . 1      (in above units)
Secondary quantity . . . 1      (in above units)

Note: The record length will be automatically computed.

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

Enter
```

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On this panel, specify the name of the output data set for the extract utility. It can be an existing file, or it will allocate a new file if it does not already exist. Make sure the file is large enough to hold all of the data that will be extracted. Press enter to continue.



## Extract with criteria

```
File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT      DNET424.SPFTEMP1.CNTL      Columns 00001 00072
Command ==> sub                      Scroll ==> CSR
***** ***** Top of Data *****
000001 //DNET424F JOB (JIM),'IMS UTILITY',
000002 //          REGION=0K,NOTIFY=DNET424,
000003 //          MSGCLASS=A,
000004 //          CLASS=A
000005 //*
000006 //FILEMAN EXEC PGM=FMN1IMSB
000007 //STEPLIB DD DSN=LNKLST.FILEMGR.V8R1.SFMNMOD1,DISP=SHR
000008 //SYSPRINT DD SYSOUT=*,RECFM=FBA,LRECL=133
000009 //FMNTSPRT DD SYSOUT=*
000010 //FMN1JIN DD DSN=FILEMGR.V8R1.SFMNSLIB,DISP=SHR
000011 //SYSTEM DD SYSOUT=*
000012 //FMIMSIN DD *
000013 $$$FILEM IXB REGNTYPE=DLI,
000014 $$$FILEM PSBTYPE=DYNAMIC,
000015 $$$FILEM PROCOPT=G,
000016 $$$FILEM DBDDSN=DNET424.ADLAB.DBDLIB,
000017 $$$FILEM DBDMEM=USRSCN,
F1=Help   F2=Split   F3=Exit   F4=IPT View F5=Rfind   F6=Rc
F7=Up     F8=Down    F9=Swap   F10=Left  F11=Right  F12=Re
```

The Batch JCL is created for the IMS extract. Submit the job.

Enter

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JCL to run the extract utility is automatically generated. Verify that it has a valid job card, and use a SUBMIT command to submit the job to batch.



## Extract with criteria

Database Extract Statistics Report

Database	Segment	Level	-Segm Length-		----- Extract Statistics -----			Logically Related DB
			Min	Max	Read	Rejected	Extracted	
USRSCN	CUSTADDR	01	90	90	11	0	9	
	TOTUSE	02	80	80	13	0	9	
	PRMUSE	03	80	80	74	0	74	
	OFFUSE	03	80	80	33	0	33	
	OFFDTL	04	80	80	41	0	41	
	BALDUE	02	80	80	6	0	6	
	BALHIST	03	170	170	11	0	11	
Subtotal	USRSCN				189	0	183	
Grand total					189	0	183	

Extract report statistics. Only segments related to TOTUSE with ACCOUNT-TOTAL-USAGE > 200 were selected.

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In this example, the job ran, and the output report is shown here. The report gives statistics about the number of each type of segment that was extracted.

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



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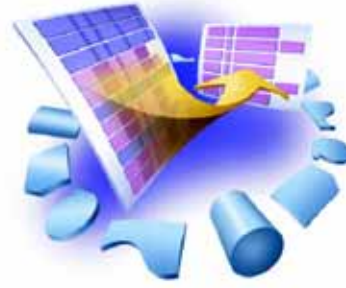


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## IBM File Manager for z/OS IMS Feature

Program Number 5655-S14

### Tutorial



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