

File Manager DB2 Mentor Workshop

Lab Exercises



Lab Exercise 1

Lab Setup: Create your lab files

In this exercise you will:

- Run the LABSETUP program to create your own copies of sample files that will be used during the File Manager exercises
- Check that your files have been created

1. Log on to TSO (if you are not already logged on).
2. Navigate to the ISPF command shell. On most systems, this is **Option 6** from the main ISPF menu.
3. Run the LabSetup program:
 - On the command line, enter the lab setup command that your instructor or training coordinator has given to you. The command will have the format:

EX 'xxxx.ADLAB.INSTALL(LABSETUP)'

```
Menu List Mode Functions Utilities Help
-----
                                ISPF Command Shell
Enter TSO or Workstation commands below:
===> EXEC 'DNET249.MASTER.ADLAB.DATA(LABSETUP)'
```

```
Place cursor on choice and press enter to Retrieve command
=>
=>
->
```

4. You will see the message “**SETUP FOR HANDS-ON TRAINING**” message.
 - If you do not see this message, check the spelling of the command and try again.
 - Press the **ENTER** key repeatedly until the LabSetup program completes.
 - Note: Many screens full of messages will be displayed. Continue to press **Enter**. There may be times when three asterisks appear in the bottom left corner of the screen or the process just stops. Keep pressing Enter. You will end up at the Command Shell panel once again.

File Manager DB2 Mentor Workshop

Lab Exercises



5. Note: In the next steps, you will verify that your files have been created.
6. Navigate to the system 3.4 panel (Data Set List).
 - Type =3.4 on the command line, then **ENTER**:
7. Enter a Dsname level of: your-tso-id.ADLAB, as shown here, then press **ENTER**.

```

Menu  RefList  RefMode  Utilities  Help
-----
                                Data Set List Utility
Option ==> _____
                                More:  +
blank Display data set list          P Print data set list
  U Display UTOC information          PU Print UTOC information

Enter one or both of the parameters below:
Dsname Level . . . DNET249.ADLAB
Volume serial . . _____

Data set list options
Text list view      +  +  Utilities      Enter "/" to select option
    
```

8. You should see a list of data sets that begin with your ID, with a middle qualifier of ADLAB.

```

Menu  Options  View  Utilities  Compilers  Help
-----
DSLIST - Data Sets Matching DNET249.ADLAB          Row 1 of 16
Command ==> _____          Scroll ==> CSR
Command - Enter "/" to select action          Message          Volume
-----
DNET249.ADLAB.COPYLIB                          DMPU14
DNET249.ADLAB.CUSTFILE                          DMPU23
DNET249.ADLAB.DATA                              DMPU25
DNET249.ADLAB.DTCMD                             DMPU07
DNET249.ADLAB.DTAPC                             DMPU05
DNET249.ADLAB.DTAPC                             DMPU16
DNET249.ADLAB.EMI                               DMPU05
DNET249.ADLAB.EQ                               DMPU15
DNET249.ADLAB.JCI                              DMPU08
DNET249.ADLAB.LI                               DMPU19
DNET249.ADLAB.LOAD                              DMPU09
DNET249.ADLAB.PROC                             DMPU21
DNET249.ADLAB.SYSDEBUG                          DMPU01
DNET249.ADLAB.TEMPLATE                          DMPU02

F1=Help      F2=Split      F3=Exit      F4=SwapNext  F5=Rfind     F7=Up
F8=Down      F9=Swap      F10=Left     F11=Right   F12=Cancel
    
```

It is OK if your list of files is different from the list shown here.

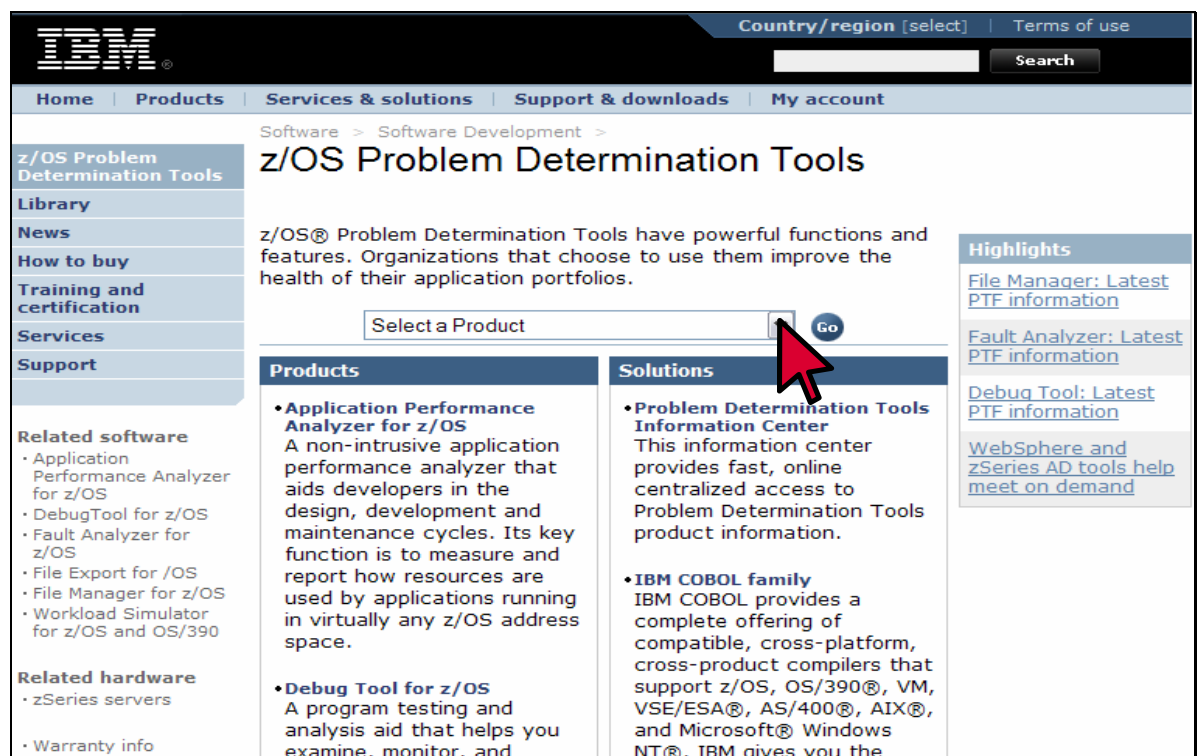
- If you have ADLAB data sets, then you are ready for the File Manager exercises.
- If you do not have the ADLAB datasets, then return to step 1. Ask for help if you aren't sure why you don't have the sample files.

Lab Exercise 2

Access the File Manager On-Line Library

In this exercise you will:

- Use a web browser to locate the File Manager manuals on the IBM web site.
 - Open the “File Manager User’s Guide and Reference” manual for your reference.
 - Learn how to download any of the File Manager manuals to your workstation.
1. Start an Internet Browser window.
 2. Open URL:
<http://www.ibm.com/software/awdtools/deployment>
 3. Click on the Select a Product pull-down.
 4. Click on File Manager



The screenshot shows the IBM website interface for the z/OS Problem Determination Tools. The page includes a navigation bar with links for Home, Products, Services & solutions, Support & downloads, and My account. A search bar is located in the top right corner. The main content area features a heading for z/OS Problem Determination Tools and a description of their powerful functions. Below the description is a search bar with the text "Select a Product" and a "Go" button. A red arrow points to the "Select a Product" pull-down menu. The page is divided into several sections: "Related software" (listing Application Performance Analyzer for z/OS, DebugTool for z/OS, Fault Analyzer for z/OS, File Export for /OS, File Manager for z/OS, and Workload Simulator for z/OS and OS/390), "Related hardware" (listing zSeries servers and Warranty info), "Products" (listing Application Performance Analyzer for z/OS and Debug Tool for z/OS), and "Solutions" (listing Problem Determination Tools Information Center and IBM COBOL family). A "Highlights" sidebar on the right contains links for File Manager: Latest PTF information, Fault Analyzer: Latest PTF information, Debug Tool: Latest PTF information, and WebSphere and zSeries AD tools help meet on demand.

File Manager DB2 Mentor Workshop Lab Exercises



5. Click on **Library**

Software > Software Development > File Manager for z/OS

File Manager for z/OS

Library

Overview

- IBM File Manager for z/OS™ is a single tool that provides comprehensive, user-friendly tools for working with OS/390® data sets, DB2® data or IMS™ data. These tools include the familiar browse, edit, copy and print utilities found in ISPF, enhanced to meet the needs of application developers.. File Manager V6.1 adds many new functions and enhancements, including:
 - Utilize COBOL or PL/I copybooks stored in partitioned data sets, external library management systems or CA-Panvalet libraries to define data set records more efficiently, or dynamically define your own record structure in a template.
 - Browse, edit, copy and compare data using copybook or dynamic templates.

Related software

- Application Performance Analyzer for z/OS

6. You can browse manuals online. For the “User’s Guide and Reference for DB2 Data” manual, click on the link under the Book Manager column.

Country/region [select] | Terms of use

Home | Products | Services & solutions | Support & downloads | My account

Software > Software Development > File Manager for z/OS

Library

IBM File Manager, Version 6 Release 1 Publications - English

Title	Order number	PDF	Book Manager	Last updated
Brochure	G325-2429-02	0.15MB		Sep 05
License Information	GC18-9651-00	0.07MB		Nov 05
Program Directory	GI10-8696-00	0.4MB		Nov 05
Customization Guide	SC18-9650-00	2.4MB	0.3MB	Nov 05
User's Guide and Reference	SC18-9655-00	8.7MB	1.30MB	Nov 05
User's Guide and Reference for DB2 Data	SC18-9656-00	7.4MB	1.10MB	Nov 05
User's Guide and Reference for IMS Data	SC18-9657-00	3.7MB	0.6	Nov 05
Browse the Bookshelf online		0.01MB		Nov 05

PDF's

[Get Adobe® Reader®](#)

BookManager

[→ How to use Book Manager files on VM or z/OS](#)

File Manager DB2 Mentor Workshop Lab Exercises



7. The contents page for the Reference and Messages manual appears. You can use the navigation links to get to specific sections.
8. Click on the browser's **BACK** button until you are back to the File Manager Library page.
9. You can download File Manager manuals to your workstation from this web site.
RIGHT CLICK on the link for the “User’s Guide and Reference for DB2 Data” under the PDF column.

The screenshot shows the IBM File Manager for z/OS website. The main content area is titled "File Manager for z/OS" and contains a table of publications. A red arrow points to the "3.7MB" link in the PDF column for the "User's Guide and Reference for DB2 Data" entry. A box with the text "RIGHT CLICK" is positioned below the arrow.

Title	Order number	PDF	Book Manager	Last updated
Brochure	G325-2429-02	0.15MB		Sep 05
License Information	GC18-9651-00	0.07MB		Nov 05
Program Directory	GI10-8696-00	0.4MB		Nov 05
Customization Guide	SC18-9650-00	2.4MB	0.3MB	Nov 05
User's Guide and Reference	SC18-9655-00	8.7MB	1.30MB	Nov 05
User's Guide and Reference for DB2 Data	SC18-9656-00	7.4MB	1.10MB	Nov 05
User's Guide and Reference for IMS Data	SC18-9657-00	3.7MB	0.65MB	Nov 05

10. Click on **SAVE TARGET AS**.
11. A dialog is displayed where you can select any valid directory on your workstation to download the manual in PDF format. If you would like a softcopy of the manual, you can download and save it now. Otherwise, press **Escape**.
12. Close your Internet Browser window.



Lab Exercise 3

Using File Manager DB2 Browse

In this exercise you will:

- Use the File Manager Browse utility.
- Learn basic commands.
- Explore the formats available for displaying data.

1. Log on to TSO (if you are not already logged on).
2. Navigate to the File Manager / DB2 menu.

Part 1: Starting Browse

3. Select the Browse option.
 - Type **1** on the command line, then **ENTER**.

```
FM/DB2 (DSNA)                Primary Option Menu
Command ==> 1

0 Settings      Set processing options      User ID . . : DNET074
1 Browse        Browse DB2 table or view   System ID . : DEMOMVS
2 Edit          Edit DB2 table                 Appl ID . . : FMN2
3 Utilities     Perform utility functions    Version . . : 7.1.0
4 SQL           Prototype, execute and analyze SQL Terminal . : 3278A
5 DB2I          Start DB2 Interactive        Screen . . : 1
X Exit          Terminate FM/DB2                Date . . . : 2007/03/02
                                           Time . . . : 01:56

                                           DB2 SSID . . DSNA
                                           SQL ID . . . DNET074
```

4. The DB2 Browse panel is displayed. Enter the name of the file to be edited.
 - Your instructor will give you an Owner ID that you will enter.
 - Type **EMP** in the Data set/path name field.
 - The object name can be a Table, a View, or an alias of a Table or View.
 - Type **3** (Generate from table) in the Template Usage field.
 - This setting tells File Manager that the template (used to format the data) will be automatically created based on information from DB2.

File Manager DB2 Mentor Workshop

Lab Exercises



- Press **ENTER**.

```

FM/DB2 (DSNA)                               DB2 Browse
Command ==> █

Specify the DB2 Object:
Location . . . . . _____ Database . . _____ (optional)
Owner . . . . . FMNDB2 Table space _____ (optional)
Name . . . . . EMP

Row count . . . . . 100 Number of rows to browse

Template:
Data set name . . . . _____
Member . . . . . _____

Processing Options:
Template usage                               Enter "/", "A" always to select option
3 1. Above                                   - Edit options
   2. Previous                               - Edit template
   3. Generate from table                    - Re-edit template
   4. Generate/Replace
    
```

5. The Browse panel is displayed.

```

FM/DB2 (DSNA)                               Table Browse                               0 of 32
Command ==> █                               Scroll PAGE
32 rows fetched                               Format TABL
EMPNO  FIRSTNME  MIDINIT  LASTNAME  WORKDEPT  PHONENO  HIREDATE  JOB
#1     #2         #3       #4        #5        #6       #7        #8  +
CH(6)  VARCHAR(12)  CH(1)    VARCHAR(15)  CH(3)    CH(4)    DATE      CH(8)
PUN-> <----+----1-> - <---+-----1-----> <-NF <--> <----+----> <----+
**** Top of data ****
000010 CHRISTINE<  I      HAAS<      A00      3978      1965-01-01  PRES
000020 MICHAEL<  L      THOMPSON<  B01      3476      1973-10-10  ADMIN
000030 SALLY<      A      KWAN<      C01      4738      1975-04-05  MANAGE
000050 JOHN<      B      GEYER<     E01      6789      1949-08-17  SALESR
000060 IRVING<     F      STERN<     D11      6423      1973-09-14  MANAGE
000070 EVA<      D      PULASKI<   D21      7831      1980-09-30  MANAGE
000090 EILEEN<     W      HENDERSON< E11      5498      1970-08-15  SALESR
000100 THEODORE<  Q      SPENSER<   E21      0972      1980-06-19  MANAGE
000110 VINCENZO<  G      LUCCHESI<  A00      3490      1958-05-16  SALESR
000120 SEAN<      O'CONNELL< A00      2167      1963-12-05  CLERK
    
```

6. Press **PF3** to exit. The DB2 Browse panel is displayed again.

7. You can use wildcards in the names to save time and typing:

- Type **E*** in the Name .
- Leave all other fields unchanged.
- Press **ENTER**.

File Manager DB2 Mentor Workshop

Lab Exercises



```

FM/DB2 (DSNA)                               DB2 Browse
Command ==> █

Specify the DB2 Object:
Location . . . . . _____ Database . . _____ (optional)
Owner . . . . . FMNDB2 Table space _____ (optional)
Name . . . . . E*

Row count . . . . . 100 Number of rows to browse

Template:
Data set name . . . _____
Member . . . . . _____

Processing Options:
Template usage Enter "/" , "A" always to select option
 3 1. Above _ Edit options
   2. Previous _ Edit template
   3. Generate from table _ Re-edit template
   4. Generate/Replace
    
```

8. A selection panel is displayed. Select the table:
- Type **S** next to table EMP, then **ENTER**.

```

Table/View/Alias Selection Row 1 to 3 of 3
Command ==> █

Select one of the tables/views/aliases from the list.

          Table
S Owner  Table/View/Alias Name Database Space Type
_ FMNDB2 EDEPT FMNDB2DA FMNDB2SR TABLE
_ FMNDB2 EEMP FMNDB2DA FMNDB2SR TABLE
S FMNDB2 EMP FMNDB2DA FMNDB2SE TABLE
***** Bottom of data *****
    
```

9. The Browse panel is displayed:

```

FM/DB2 (DSNA)                               Table Browse 0 of 3
Command ==> █ Scroll PAG
32 rows fetched Format IAE
EMPNO  FIRSTNME  MIDINIT  LASTNAME  WORKDEPT  PHONENO  HIREDATE  JOB
#1     #2          #3       #4        #5         #6        #7        #8
CH(6)  VARCHAR(12) CH(1)    VARCHAR(15) CH(3)     CH(4)    DATE      CH(8)
PUN-+> <----+----1-> - <----+----1----> <-NF <--> <----+----> <----+
**** Top of data ****
000010 CHRISTINE< I HAAS< A00 3978 1965-01-01 PRES
000020 MICHAEL< L THOMPSON< B01 3476 1973-10-10 ADMIN
000030 SALLY< A KWAN< C01 4738 1975-04-05 MANAC
000050 JOHN< B GEYER< E01 6789 1949-08-17 SALES
000060 IRVING< F STERN< D11 6423 1973-09-14 MANAC
000070 EVA< D PULASKI< D21 7831 1980-09-30 MANAC
000090 EILEEN< W HENDERSON< E11 5498 1970-08-15 SALES
000100 THEODORE< Q SPENSER< E21 0972 1980-06-19 MANAC
000110 VINCENZO< G LUCCHESI< A00 3490 1958-05-16 SALES
000120 SEAN< O'CONNELL< A00 2167 1963-12-05 CLERK
    
```


Tip: Using wildcards in object names.

- You can use wildcard characters in file names and member names:
 - * or % (asterisk or percent) is a wildcard for any number of characters
 - _ (underscore) is a wildcard for a single character

Part 2: PF Keys, Scrolling, and Changing Data

10. Turn on the PF key display.

- Type **PFSHOW ON** on the command line, then **ENTER**:

```
FM/DB2 (DSNA)
Command ==> PFSHOW ON █
32 rows fetched
EMPNO  EMPSTNME  MIDTINT
```

- PF key settings are displayed on the panel.

Tip: Displaying and customizing your PF Keys.

- The command: **PFSHOW ON** displays your PF key settings on the screen.
- The command: **PFSHOW OFF** removes the display.
- The command: **KEYS** displays the Keylist panel where you can modify your PF key settings.

11. You can scroll (navigate) using the UP, DOWN, LEFT, and RIGHT commands, or with PF keys.

- Press **PF8** a few times to scroll down.
- Press **PF7** to scroll up.
- Press **PF11** to scroll to the right.
- Press **PF10** to scroll to the left.
- You can scroll the “maximum” amount. Type **M** (maximum) on the command line, then press **PF8**. This will scroll down to the bottom.
 - Note: You can use the M modifier in any direction: left, right, up, or down.
- You can scroll a specified amount. Type **10** on the command line, then press **PF7**. This will scroll up 10 rows.
 - Note: You can use a number to scroll in any direction. When scrolling to the right or left it will scroll the specified number of characters or fields.
- Navigate to the top of the file using either of these methods:

File Manager DB2 Mentor Workshop

Lab Exercises



- Type **M** on the command line, then press **PF7** , or
- Type **TOP** on the command line, then **ENTER**.
- You should be positioned at the top, like this:

```

FM/DB2 (DSNA)                               Table Browse                               0 of 3
Command ==> |                               Scroll PAC
32 rows fetched                               Format TAB
EMPNO  FIRSTNME  MIDINIT  LASTNAME  WORKDEPT  PHONENO  HIREDATE  JOB
#1     #2         #3       #4        #5        #6       #7        #8
CH(6)  VARCHAR(12)  CH(1)   VARCHAR(15)  CH(3)    CH(4)   DATE     CH(8)
PUN-> <-----1-> - <-----1-----> <-NF <--> <-----> <----+
**** Top of data ****
000010 CHRISTINE<  I      HAAS<      A00      3978      1965-01-01 PRES
000020 MICHAEL<   L      THOMPSON<  B01      3476      1973-10-10 ADMIN
000030 SALLY<     A      KWAN<      C01      4738      1975-04-05 MANAG
000050 JOHN<    B      GEYER<     E01      6789      1949-08-17 SALES
000060 IRVING<   F      STERN<     D11      6423      1973-09-14 MANAG
000070 EVA<      D      PULASKI<   D21      7831      1980-09-30 MANAG
000090 EILEEN<    W      HENDERSON< E11      5498      1970-08-15 SALES
000100 THEODORE<  Q      SPENSER<   E21      0972      1980-06-19 MANAG
000110 VINCENZO<  G      LUCCHESI<  A00      3490      1958-05-16 SALES
000120 SEAN<     D      CONNELL<   A00      2167      1963-12-05 CLERK
  
```

12. There is an online HELP facility that describes fields and commands. Get information about the Find command:

- Put the cursor on the command line and Press **PF1** .
- The “File Manager Tutorial” panel is displayed. From here you can get information about using the editor.
- Select “Primary commands”: Type **9** on the command line, then **ENTER** .
- Another menu is displayed. Select “FIND/RFIND/EXCLUDE commands”: Type **2** on the command line, then **ENTER** .
- Another menu is displayed. Select “FIND command”: Type **1** on the command line, then **ENTER** .
- The “FIND command” tutorial is displayed. Press **PF11** to scroll through the tutorial.
- Exit from the help tutorial: Press **PF3** .

Part 3: Formats

13. Notice that you are currently in “table” format, which is indicated by “TABL” in the Format field in the upper right area of the panel. File Manager / DB2 can display data in two formats.

14. One way to change the format is to overwrite the FORMAT field. Change to Sngl format:

- Type **S** (for SNGL) in the first character of the FORMAT field, then **ENTER**.

File Manager DB2 Mentor Workshop

Lab Exercises



```

0 of 32
Scroll PAGE
Format SNGL
DATE TOP
    
```

15. SNGL format is displayed. In this format, only one row is displayed. PF7 and PF8 scroll up and down in the row. PF10 and PF11 scroll to the previous row and next row.

```

FM/DB2 (DSNA)                               Table Browse                               1 of 32
Command ==>                               Scroll PAGE
TABLE FMNDB2.EMP                             Format SNGL
                                           Top Line is 1   of 14   in Row 1
Ref Key   Column      Type(len)   Data
#1  PUN    EMPNO       CH(6)      000010
#2                FIRSTNME   VC(12)     CHRISTINE<
#3                MIDINIT    CH(1)      I
#4                LASTNAME   VC(15)     HAAS<
#5   NF    WORKDEPT   CH(3)      A00
#6                PHONENO    CH(4)      3978
#7                HIREDATE   DATE       1965-01-01
#8                JOB          CH(8)      PRES
#9                EDLEVEL    SMINT      18
#10               SEX          CH(1)      F
#11               BIRTHDATE  DATE       1933-08-14
#12               SALARY     DEC(9,2)   52750.00
#13               BONUS      DEC(9,2)   1000.00
#14               COMM       DEC(9,2)   4220.00
*** End of record ***
F1=Help      F2=Zoom      F3=Exit      F4=CRetriev  F5=RFind     F6=RChange
F7=Up        F8=Down      F9=Swap      F10=Previous F11=Next     F12=Cancel
    
```

16. Another easy way to change formats is with the “F_” commands.

- Change to TABL: Type **FT** (for Format Tabl) on the command line, then **ENTER**.

```

FM/DB2 (DSNA)
Command ==> FT
TABLE FMNDB2.EMP

Ref Key   Column      Type(len)
#1  PUN    EMPNO       CH(6)
#2                FIRSTNME   VC(12)
    
```

- Change to SNGL: Type **FS** (for Format Sngl) on the command line, then **ENTER**.

17. You can display data in hexadecimal representation:

- View hex data: Type **HEX ON** on the command line, then **ENTER**.
- Turn off the hex display: Type **HEX OFF** on the command line, then **ENTER**.

18. You can also “zoom in” to a row:

File Manager DB2 Mentor Workshop

Lab Exercises



- Change back to Table format: Type **FT** on the command line, then **ENTER**.
- Type **ZOOM** on the command line (or just **Z**), then place the cursor in the data area of any row, then **ENTER**.

```

FM/DB2 (DSNA)                               Table Browse                               1 of 32
Command ==> zoom                               Scroll PAGE
TABLE FMNDB2.EMP                               Format TABL
EMPNO  FIRSTNME  MIDINIT  LASTNAME  WORKDEPT  PHONENO  HIREDATE  JOB
#1     #2         #3       #4        #5        #6       #7        #8  +
CH(6)  VARCHAR(12)  CH(1)   VARCHAR(15)  CH(3)    CH(4)    DATE      CH(8)
PUN-> <----+----1-> -          <----+----1----> <-NF    <-->    <----+----> <----+
000010 CHRISTINE<  I        HAAS<    A00      3978     1965-01-01 PRES
000020 MICHAEL<  L        THOMPSON< B01     3476     1973-10-10 ADMIN
000030 SALLY<    A        KWAN<    C01     4738     1975-04-05 MANAGE
000050 JOHN<    B        GEYER<    E01     6789     1949-08-17 SALESR
000060 TRUINC<  F        STEPN<    D11     6422     1972-09-14 MANAGE
  
```

- You are zoomed on the row you selected. Notice that the word “Zoom” is displayed next to the FORMAT field. When you zoom from TABL or SNGL format, SNGL format is displayed in zoom mode.

```

FM/DB2 (DSNA)                               Table Browse                               2 of 32
Command ==>                               Scroll PAGE
TABLE FMNDB2.EMP                               Zoom Format SNGL
                                         Top Line is 4   of 14   in Row 2
Ref Key  Column      Type(len)      Data
#4       LASTNAME    VC(15)         THOMPSON<
#5      NF  WORKDEPT    CH(3)          B01
#6       PHONENO   CH(4)          3476
#7       HIREDATE  DATE           1973-10-10
#8       JOB       CH(8)          ADMIN
#9       EDLEVEL   SMINT          18
#10      SEX        CH(1)          M
#11      BIRTHDATE DATE           1948-02-02
#12      SALARY    DEC(9,2)       41250.00
#13      BONUS     DEC(9,2)       800.00
#14      COMM      DEC(9,2)       3300.00
*** End of record ***

F1=Help      F2=Zoom      F3=Exit      F4=CRetriev  F5=RFind     F6=RChange
F7=Up        F8=Down      F9=Swap      F12=Cancel
  
```

- Note: Also notice that PF10 and PF11 (Previous row and Next row) are NOT active. In zoom mode, you cannot navigate to other rows. You can exit zoom mode with PF3 or by using the ZOOM command again.
- Exit zoom mode: Type **zoom** on the command line, then **ENTER**.

File Manager DB2 Mentor Workshop

Lab Exercises



Tip: About ZOOM.

- Use ZOOM for safety, to ensure that you will make changes to only the selected row.
- ZOOM allows you to display only a single row, and in this way it is similar to SNGL format. In fact, it may look like SNGL format. However, when in zoom mode, you cannot navigate to another row or make changes to another row.
- The scope of all commands (including Find and Change) is just one row.

Part 4: Find, Change, and Locate commands

19. Change to TABL format, and go to the top:

- Type **FT** on the command line, then **ENTER**.
- Type **TOP** on the command line, then **ENTER**.

20. Note: You can use most commands (such as Find, Change (edit only), and Locate) in either format. During the remaining steps, you may want to try switching between Single and Table formats to see how commands work in each format.

21. The Find command is used to find data in a file. Enter a simple find command:

- Type **F AL** on the command line, then **ENTER**. The next row that contains the text is found, and other instances of the text are highlighted. You should see results similar to the following:

```

FM/DB2 (DSNA)                               Table Browse                               Chars al found
Command ==>>                               Scroll PAGE
TABLE FMNDB2.EMP                             Format TABL
EMPNO  FIRSTNME  MIDINIT  LASTNAME  WORKDEPT  PHONENO  HIREDATE  JOB
#1     #2         #3       #4        #5        #6       #7       #8  +
CH(6)  VARCHAR(12)  CH(1)    VARCHAR(15)  CH(3)    CH(4)    DATE     CH(8)
PUN->+> <-----+-----1-> -      <-----+-----1-----> <-NF  <-->  <-----+-----> <-----+
**** Top of data ****
000010 CHRISTINE<  I      HAAS<    A00      3978     1965-01-01 PRES
000020 MICHAEL<  L      THOMPSON< B01      3476     1973-10-10 ADMIN
000030 SAALY<    A      KWAN<    C01      4738     1975-04-05 MANAGE
000050 JOHN<    B      GEYER<   E01      6789     1949-08-17 SALESR
000060 IRVING<    F      STERN<   D11      6423     1973-09-14 MANAGE
000070 EVA<    D      PULASKI< D21      7831     1980-09-30 MANAGE
000090 EILEEN<    W      HENDERSON< E11     5498     1970-08-15 SALESR
000100 THEODORE< Q      SPENSER< E21     0972     1980-06-19 MANAGE
000110 VINCENZO< G      LUCCHESI< A00      3490     1958-05-16 SALESR
  
```

22. Notice that PF5 is set to RFind (Repeat Find).

- Press **PF5** a few times to find the NEXT occurrences of “al”.

23. You can limit the scope of the Find command to a field.

File Manager DB2 Mentor Workshop

Lab Exercises



- Type **f AL #2** on the command line, then **ENTER** . Only column #2 (FIRSTNME) is searched.

24. You can also search all rows.

- Type **f al all** on the command line, then **ENTER** . A count is displayed.

25. You can search for very large text strings.

- Type **fx** (Find eXtended) on the command line, then **ENTER** .
- A pop-up box is displayed where a long search string can be entered. Type **AL** in the box, then then **ENTER** .

26. Go to the top of the file.

- Type **m** (maximum) on the command line, then **PF7** .

Tip: More about the FIND and CHANGE (edit only) commands.

- If text strings contains spaces or special characters, then type quotes around the strings (either single quotes or double quotes). For example:
 - F 'ABC 123'
- Limit the the search (in TABL or SNGL formats) to only one column. For example: search only in column #5:
 - F ABC #5
 - C ABC XYZ #5
- Example: search only in columns #5, #9, and #12:
 - F ABC (#5 #9 #12)
 - C ABC XYZ (#5 #9 #12)
- The ALL modifier can be used to search all in-scope rows. Examples:
 - F ABC ALL
 - F ABC #5 ALL
 - F ABC (#5 #9 #12) ALL
 - C ABC XYZ #5 ALL
- In addition to ALL, other modifiers are available: FIRST, LAST, PREV, NEXT, X, NX .
- Use the help facility (PF1) to get more information about these and other commands.

27. The **Locate** command is used to position to columns or rows. You can use the Locate command in any format.

- Change to SNGL format: Type **FS** on the command line, then **ENTER**.
- Locate a column name: Type **L DEPT** on the command line, then **ENTER** .
 - This will position to a COLUMN NAME that contains “dept”.
- Locate a row number: Type **L 25** on the command line, then **ENTER** .



- This will position to row number 25.

Part 6: EXIT, SAVE, and CANCEL

28. Note: When you use EDIT (instead of Browse), if you have made changes, you can choose whether to keep the changes or roll them back. In Edit:

- PF3 will exit and saves your changes.
- The SAVE command can be used in the editor to save your changes and remain in the editor.
- The CANCEL command can be used in the editor to end an edit session WITHOUT SAVING your changes.

29. Use the **EXIT** command to end the session. PF3 is set to EXIT.

- Press **PF3** to exit.

Lab Exercise 4

Using a Template

In this exercise you will:

- Edit a template from the Browse panel
- Specify selection criteria to limit rows retrieved
- Specify formatting to limit columns displayed
- Use a “temporary” template
- Save a template
- Use the TE command to edit a template

1. Log on to TSO (if you are not already logged on).
2. Navigate to the File Manager / DB2 menu.

Part 1: Edit a Template

3. Select the Browse option.

- Type **1** on the command line, then **ENTER**.

```
FM/DB2 (DSNA) Primary Option Menu
Command ==> 1

0 Settings      Set processing options      User ID . . : DNET074
1 Browse       Browse DB2 table or view    System ID . : DEMOMVS
2 Edit         Edit DB2 table              Appl ID . . : FMN2
3 Utilities    Perform utility functions   Version . . : 7.1.0
4 SQL          Prototype, execute and analyze SQL Terminal . . : 3278A
5 DB2I        Start DB2 Interactive       Screen . . . : 1
X Exit        Terminate FM/DB2          Date . . . . : 2007/03/02
                                      Time . . . . : 01:56

                                      DB2 SSID . . : DSNA
                                      SQL ID . . . : DNET074
```

4. The DB2 Browse Panel is displayed. There are different ways to edit a template. One way is to use the “Edit template” option:

- Type **/** (slash) in the Edit template field.
- Leave the other items unchanged:
 - Your instructor will give you the Owner ID to enter.
 - **EMP** in the Data set/path name field.
 - **3** (Generate from table) in the Template usage field.

File Manager DB2 Mentor Workshop

Lab Exercises



- Press **ENTER**.

```

FM/DB2 (DSNA)                               DB2 Browse
Command ==> █

Specify the DB2 Object:
  Location . . . . . _____ Database . . _____ (optional)
  Owner . . . . . FMNDB2 Table space _____ (optional)
  Name . . . . . EMP
  Row count . . . . . 100 Number of rows to browse

Template:
  Data set name . . . . _____
  Member . . . . . _____

Processing Options:
  Template usage Enter "/", "A"lways to select option
  3 1. Above      _ Edit options
    2. Previous   / Edit template
    3. Generate from table _ Re-edit template
    4. Generate/Replace
  
```

- The Column Selection / Edit (Template Edit) panel is displayed. From this panel, you can specify selection criteria and field formatting, among other things.

```

FM/DB2 (DSNA)                               Column Selection/Edit                               Line 1 of 14
Command ==> █                               Scroll PAGE
TABLE FMNDB2.EMP
----- Row Selection Criteria ----- (Use SQL/PF4 for full screen edit) -----
1 Sel: _____ +

Cmd Seq SHC CL# Column name                Data type(length)  Null Default  Order A/D
**** Top of data ****
___ ___ S   1 EMPNO                          CHARACTER(6)       None      ___ ___
___ ___ S   2 FIRSTNME                      VARCHAR(12)        None      ___ ___
___ ___ S   3 MIDINIT                       CHARACTER(1)       None      ___ ___
___ ___ S   4 LASTNAME                      VARCHAR(15)        None      ___ ___
___ ___ S   5 WORKDEPT                      CHARACTER(3)       Y Null     ___ ___
___ ___ S   6 PHONENO                       CHARACTER(4)       Y Null     ___ ___
___ ___ S   7 HIREDATE                      DATE               Y Null     ___ ___
___ ___ S   8 JOB                           CHARACTER(8)       Y Null     ___ ___
  
```

Part 3: Selecting Rows

- Next, specify selection criteria in the template. There are two ways to specify criteria: 1) as a free format expression, or 2) “by column”. In the next steps you will use the free format method.
- Enter criteria to select rows where WORKDEPT is greater than or equal to ‘E00’:
 - Type **WORKDEPT >= ‘E00’** in the Sel field.
 - Press **ENTER**.

File Manager DB2 Mentor Workshop

Lab Exercises



```
FM/DB2 (DSNA)                               Column Selection/Edit                               Line 1 of 14
Command ==> _____ Scroll PAGE
TABLE FMNDB2.EMP
----- Row Selection Criteria ----- (Use SQL/PF4 for full screen edit) -----
1 Sel: workdept >= 'E00' _____ +

Cmd Seq SHC CL# Column name                Data type(length)  Null Default  Order A/D
-----
      S   1 EMPNO                          CHARACTER(6)       None         _____
      S   2 FIRSTNAME                       VARCHAR(12)        None         _____
      S   3 MIDINIT                          CHARACTER(1)       None         _____
      S   4 LASTNAME                        VARCHAR(15)        None         _____
```

8. Note: File Manager will use your selection criteria to run a SQL statement to retrieve the data. You can view the generated SQL statement if you want to:
 - Press **PF4** (the SQL command).
9. The SQL that File Manager will use is displayed. Scroll forward (PF8) to see the SQL statement. From here, you have the option to modify the WHERE clause (but you cannot change any other part of the SQL statement).
10. Return to the Template Edit panel:
 - Press **PF3**.
11. You have the option to either use the template without saving it (“run temporary”), or to save the template. Run the template without saving it:
 - Press PF6 . PF6 is set to the “RUNTEMP” (run temporary) command. This will “run” the template, but will not save the template.
12. The Browse panel is displayed. Notice that only the selected rows were returned. Verify that only rows with WORKDEPT >= ‘E00’ are displayed, as shown:
 - IF your results are not correct, then check that you entered your selection criteria correctly. If the results aren’t correct, use PF3 to exit browse and try the process again.

File Manager DB2 Mentor Workshop

Lab Exercises



```
FM/DB2 (DSNA)                               Table Browse                               0 of 10
Command ==>
10 rows fetched                               Scroll PAGE
                                                Format TABL
EMPNO  FIRSTNME  MIDINIT  LASTNAME  WORKDEPT  PHONENO  HIREDATE  JOB
#1     #2          #3       #4        #5         #6       #7        #8  +
CH(6)  VARCHAR(12)  CH(1)    VARCHAR(15) CH(3)     CH(4)    DATE      CH(8)
PUN-> <----+----1-> - <----+----1----> <-NF <--> <----+----> <----+--
**** Top of data ****
000050 JOHN<    B        GEYER<    E01      6789     1949-08-17 SALESR
000090 EILEEN<   W        HENDERSON< E11     5498     1970-08-15 SALESR
000100 THEODORE< Q        SPENSER<   E21     0972     1980-06-19 MANAGE
000280 ETHEL<    R        SCHNEIDER< E11     8997     1967-03-24 OPERAT
000290 JOHN<    R        PARKER<    E11     4502     1980-05-30 FIELDR
000300 PHILIP<   X        SMITH<     E11     2095     1972-06-19 SYSPRO
000310 MAUDE<    F        SETRIGHT<  E11     3332     1964-09-12 OPERAT
000320 RAMLAL<   V        MEHTA<    E21     9990     1965-07-07 FIELDR
000330 WING<     <        LEE<      E21     2103     1976-02-23 FIELDR
000340 JASON<   R        GOUNOT<   E21     5698     1947-05-05 FIELDR
**** End of data ****
```

13. Exit from the Browse:

- Press **PF3**.

Tip: About Freeform Selection Criteria Syntax.

- Freeform selection criteria is the WHERE clause of the SQL statement that File Manager uses to retrieve rows from DB2.
- You can enter any expression that is valid in a WHERE clause.

14. In the previous steps, you entered selection criteria using a free format expression. In the next steps, you will use a different method to enter selection criteria: the “by column” method.

15. The DB2 Browse panel is displayed. Leave all of the fields unchanged, except:

- Type / (slash) in the Edit Template field.
- Press **ENTER**.

File Manager DB2 Mentor Workshop

Lab Exercises



```

FM/DB2 (DSNA)                               DB2 Browse
Command ==> █

Specify the DB2 Object:
Location . . . . . _____ Database . . _____ (optional)
Owner . . . . . FMNDB2 Table space _____ (optional)
Name . . . . . EMP

Row count . . . . . 100 Number of rows to browse

Template:
Data set name . . . _____
Member . . . . . _____

Processing Options:
Template usage Enter "/", "A" always to select option
 3 1. Above - Edit options
 2. Previous / Edit template
 3. Generate from table - Re-edit template
 4. Generate/Replace
    
```

16. The Column Selection / Edit panel is displayed. Choose “By Field” selection:

- Type **1** on the command line, then **ENTER**.

```

FM/DB2 (DSNA)                               Colu
Command ==> 1 █
TABLE FMNDB2.EMP
----- Row Selection Criteria -----
1 Sel: _____
    
```

17. The Row Selection Criteria panel is displayed. Enter criteria to select all rows where WORKDEPT is greater than or equal to ‘E00’:

- On the WORKDEPT line, type **>=** in the Operator column.
- On the WORKDEPT line, type **'E00'** in the Value column.
- Note: If needed, help is available by pressing PF1.
- Press **PF3**.

```

FM/DB2 (DSNA)                               Row Selection Criteria           Line 1 of 14
Command ==> _____ Scroll PAGE

Cmd Con ( Column name                               Op Value )
<-> - <---+---1---+---2---+---3---> <-> <---+---1---+---2---+---
*** **** Top of data ****
___ EMPNO
___ AND - FIRSTNME
___ AND - MIDINIT
___ AND - LASTNAME
___ AND - WORKDEPT >= 'E00' █
___ AND - PHONENO
___ AND - HIREDATE
___ AND - TOP
    
```

File Manager DB2 Mentor Workshop

Lab Exercises



18. The Field Selection / Edit panel is displayed. Notice that File Manager automatically formatted the free format criteria on the panel. Exit from this panel:

- Press **PF3**.

19. The Template Save panel is displayed. You have the option to save the template, or use the template without saving it (“run temporary”). Save the template:

- Type **ADLAB.TEMPLATE(EMP1)** in the Data set/path name field.
 - This will save the template with the name EMP1 in your template library. A template library can be any PDS or PDSE with LRECL=80 and RECFM=FB. A template library must be pre-allocated before you can save to it.
 - Note: depending on your TSO profile settings, you may need to type the full data set name with your personal file prefix.
- Press **PF3** to save the template.

```
Command ==> _____ Template Save _____

To discard changes to your template, press PF12/Cancel.
To use changes without saving, press PF6/RunTemp.
To save changes, type a data set and member name below, then press
PF3/Exit.

Data set name  ADLAB.TEMPLATE(EMP1)█
Member      . . . . _____

F1=Help      F2=Split    F3=Exit      F6=RunTemp   F7=Backward
F8=Forward   F9=Swap     F12=Cancel
```

20. The Browse panel is displayed. Notice that only the selected rows were retrieved. Verify that only rows with WORKDEPT greater than ‘E00’ are displayed, as shown:

- IF your results are not correct, then exit Browse, and edit the Template again to fix the selection criteria.



```

FM/DB2 (DSNA)                               Table Browse                               0 of 10
Command ==>
10 rows fetched                               Scroll PAGE
                                                Format TABL
EMPNO  FIRSTNAME  MIDINIT  LASTNAME      WORKDEPT  PHONENO  HIREDATE  JOB
#1     #2           #3       #4            #5        #6       #7       #8  +
CH(6)  VARCHAR(12)  CH(1)    VARCHAR(15)   CH(3)     CH(4)    DATE      CH(8)
PUN-> <----1- > - <-----1----- <-NF <--> <-----> <----->
**** Top of data ****
000050 JOHN<      B        GEYER<      E01        6789      1949-08-17 SALESR
000090 EILEEN<    W        HENDERSON<  E11        5498      1970-08-15 SALESR
000100 THEODORE< Q        SPENSER<    E21        0972      1980-06-19 MANAGE
000280 ETHEL<     R        SCHNEIDER<  E11        8997      1967-03-24 OPERAT
000290 JOHN<   R        PARKER<     E11        4502      1980-05-30 FIELDR
000300 PHILIP<   X        SMITH<      E11        2095      1972-06-19 SYSPRO
000310 MAUDE<    F        SETRIGHT<   E11        3332      1964-09-12 OPERAT
000320 RAMLAL<   V        MEHTA<     E21        9990      1965-07-07 FIELDR
000330 WING<     L        LEE<       E21        2103      1976-02-23 FIELDR
000340 JASON<   R        GOUNOT<    E21        5698      1947-05-05 FIELDR
**** End of data ****
    
```

Part 4: Selecting Fields

21. Exit from Browse:

- Press **PF3**.

22. In the next steps, you will select only certain columns for display. Edit the template:

- Type / (slash) in the Edit Template field.
- Type 3 (Generate from table) in the Template usage field. (Note: a “1” in this field will re-use a saved template.)
- It is OK to leave the Template name, even though it will not be used in this example (because of the “3” in the Template usage field).
- Press **ENTER**.

```

FM/DB2 (DSNA)                               DB2 Browse
Command ==>

Specify the DB2 Object:
Location . . . . . Database . . . . . (optional)
Owner . . . . . FMNDB2 Table space . . . . . (optional)
Name . . . . . EMP

Row count . . . . . 100 Number of rows to browse

Template:
Data set name . . . . . 'DNET074.ADLAB.TEMPLATE'
Member . . . . . EMP1

Processing Options:
Template usage Enter "/", "A"lways to select option
 3 1. Above - Edit options
 2. Previous / Edit template
 3. Generate from table - Re-edit template
 4. Generate/Replace
    
```

File Manager DB2 Mentor Workshop

Lab Exercises



23. The Column Selection / Edit panel is displayed. By default, all columns are selected. Notice the S's in the SHC field, which indicate selected columns.

24. A helpful trick is to UN-select all columns first:

- Type **S*** in the Cmd field of the first column, as shown. This will toggle all columns. Since all columns are originally selected, this will UN-select all columns.
- Press **Enter** .

```

FM/DB2 (DSNA)                               Column Selection/Edit                               Line 1 of 14
Command ==>
TABLE FMNDB2.EMP
----- Row Selection Criteria ----- (Use SQL/PF4 for full screen edit) -----
1 Sel:
-----+-----
Cmd Seq SHC CL# Column name                Data type(length)  Null Default  Order A/D
**** Top of data ****
S*  ___ S   1 EMPNO                                CHARACTER(6)       None      ___  ___
___  ___ S   2 FIRSTNME                             VARCHAR(12)        None      ___  ___
___  ___ S   3 MIDINIT                               CHARACTER(1)       None      ___  ___
___  ___ S   4 LASTNAME                             VARCHAR(15)        None      ___  ___
___  ___ S   5 WORKDEPT                             CHARACTER(3)       Y   Null     ___  ___
___  ___ S   6 PHONENO                             CHARACTER(4)       Y   Null     ___  ___
___  ___ S   7 HIREDATE                             DATE               Y   Null     ___  ___

```

25. Now, none of the columns are selected. Select certain columns:

- Type **S** (select) in the Cmd column next to the following fields:
 - EMPNO
 - FIRSTNAME
 - LASTNAME
 - WORKDEPT
 - JOB
- Press **PF6** (RunTemp).

```

FM/DB2 (DSNA)                               Column Selection/Edit                               Line 1 of 14
Command ==>
TABLE FMNDB2.EMP
----- Row Selection Criteria ----- (Use SQL/PF4 for full screen edit) -----
1 Sel:
-----+-----
Cmd Seq SHC CL# Column name                Data type(length)  Null Default  Order A/D
**** Top of data ****
s  ___  ___  1 EMPNO                                CHARACTER(6)       None      ___  ___
s  ___  ___  2 FIRSTNME                             VARCHAR(12)        None      ___  ___
___  ___  ___  3 MIDINIT                               CHARACTER(1)       None      ___  ___
s  ___  ___  4 LASTNAME                             VARCHAR(15)        None      ___  ___
s  ___  ___  5 WORKDEPT                             CHARACTER(3)       Y   Null     ___  ___
___  ___  ___  6 PHONENO                             CHARACTER(4)       Y   Null     ___  ___
___  ___  ___  7 HIREDATE                             DATE               Y   Null     ___  ___
s  ___  ___  8 JOB                                CHARACTER(8)       Y   Null     ___  ___
___  ___  ___  9 EDLEVEL                             SMALLINT           Y   Null     ___  ___
___  ___  10 SEX                               CHARACTER(1)       Y   Null     ___  ___

```

26. The Browse panel is displayed. Notice that only the selected columns are displayed.



```
FM/DB2 (DSNA)                               Table Browse                               0 of 32
Command ==>
32 rows fetched                               Scroll PAGE
                                                Format TABL

EMPNO  FIRSTNME  LASTNAME  WORKDEPT  JOB
#1     #2          #4        #5         #8
CH(6)  VARCHAR(12) VARCHAR(15) CH(3)     CH(8)
PUN-+> <-----1-> <-----1-----> <-NF      <-----1-->

**** Top of data ****
000010 CHRISTINE<  HAAS<      A00        PRES
000020 MICHAEL<    THOMPSON<  B01        ADMIN
000030 SALLY<      KWAN<      C01        MANAGER
000050 JOHN<      GEYER<     E01        SALESREP
000060 IRVING<    STERN<     D11        MANAGER
000070 EVA<      PULASKI<   D21        MANAGER
000090 EILEEN<    HENDERSON< E11        SALESREP
```

Part 5: The TE Command

27. You can use the TE command to edit the Template without leaving your Browse or Edit session:

- Type **TE** on the command line, then **ENTER** .

28. The Column Selection / Edit panel is displayed. When using TE, you can select columns to be displayed and make other formatting changes, but you *cannot* modify selection criteria. (Because you are already in the Edit or Browse session, and File Manager has already retrieved the selected rows from DB2).

- Press **PF3** to return to Browse.

Part 6: Re-Edit a Template

29. Exit from Browse:

- Press **PF3** .

30. Sometimes, you may want a fast way to select and browse (or edit) rows, and then repeatedly select and browse a different set of rows. That is the purpose of the Re-Edit Template option. Edit and Re-edit the template:

- Type **/** (slash) in the Edit Template field.
- Type **/** (slash) in the Re-Edit Template field.
- Press **ENTER**.



```

FM/DB2 (DSNA)                               DB2 Browse
Command ==> █

Specify the DB2 Object:
Location . . . . . _____ Database . . _____ (optional)
Owner . . . . . FMNDB2 Table space _____ (optional)
Name . . . . . EMP

Row count . . . . . 100 Number of rows to browse

Template:
Data set name . . . 'DNET074.ADLAB.TEMPLATE'
Member . . . . . EMP1

Processing Options:
Template usage                               Enter "/", "A" always to select option
3 1. Above                                   _ Edit options
  2. Previous                               / Edit template
  3. Generate from table                     / Re-edit template
  4. Generate/Replace
    
```

31. The Column Selection / Edit panel is displayed. Specify selection criteria:

- Type **WORKDEPT <= 'B99'** in the SEL field, then **PF6**.

32. The Browse panel is displayed. Notice that only the selected columns are displayed.

33. Exit from Browse:

- Press **PF3**.

34. The Column Selection / Edit panel is displayed again. This panel displayed because of the Re-Edit option. Specify selection criteria:

- Type **WORKDEPT >= 'C00'** in the SEL field, then **PF6**.

35. The Browse panel is displayed. Notice that only the selected columns are displayed.

36. Exit from Browse:

- Press **PF3**.

37. The Column Selection / Edit panel is displayed again. This process will repeat indefinitely, or until you use the CANCEL command (or PF12):

- Press **PF12** to return to the DB2 Browse panel.

Part 7: Always Edit the Template

38. You can choose to ALWAYS edit the template, using the A (all) selection:

- Type **A** (always) in the Edit Template field.

File Manager DB2 Mentor Workshop

Lab Exercises



- Press **ENTER**.

```
FM/DB2 (DSNA)                               DB2 Browse
Command ==> █

Specify the DB2 Object:
  Location . . . . . _____ Database . . _____ (optional)
  Owner . . . . . FMNDB2          Table space _____ (optional)
  Name . . . . . EMP

  Row count . . . . . 100          Number of rows to browse

Template:
  Data set name . . . . 'DNET074.ADLAB.TEMPLATE'
  Member . . . . . EMP1

Processing Options:
  Template usage          Enter "/", "A" always to select option
  3 1. Above             _ Edit options
    2. Previous          a Edit template
    3. Generate from table _ Re-edit template
    4. Generate/Replace
```

39. The Column Selection / Edit panel is displayed. Specify selection criteria:

- Type **WORKDEPT >= 'C00'** in the SEL field, then **PF6**.

40. The Browse panel is displayed. Notice that only the selected columns are displayed.

41. Exit from Browse:

- Press **PF3**.

42. The DB2 Browse panel is displayed. Notice that your A (all) selection is still there. It is a permanent setting that is in effect until you remove it. You can also use the A (all) selection with Re-Edit Template option.

Lab Exercise 5

Use your own SQL statement to start Browse or Edit

In this exercise you will:

- View / Edit a SQL statement that has been saved in a file
- Use the SQL statement to start Browse
- See how to update your options to start Edit using your own SQL statement

Part 1: Use the SQL “Edit” Utility

1. Starting from the File Manager / DB2 Main Menu:

- Type **4** (SQL) on the command line, then **ENTER** .
- The SQL Prototyping, Execution, and Analysis menu is displayed. From here, you can use the Prototyping Utilities to get assistance in writing a new SQL statement, or the “Enter” utility, where you can type in and run a SQL statement. You may want to explore these utilities later.
- Type **4** (Edit) on the command line, then **ENTER** .
- The “Edit and Execute SQL Statements from a Data Set” panel is displayed.

2. Specify a file where a SQL statement resides (or a new file where you want to save a new SQL statement). There is a sample that you can use:

- Type **ADLAB.FILES** in the Data set name field.
 - Note: depending on your TSO PROFILE PREFIX setting, you *may* need to enter your personal file prefix as the first qualifier.
- Type **SQL** in the Member field.
- Type **/** to select Edit Data set.
- Type **/** to select Execute SQL from data set.
- Type **/** to select Re-edit data set after execution.
- Press **Enter** .

File Manager DB2 Mentor Workshop

Lab Exercises



```

FM/DB2 (DSNA) Edit and Execute SQL Statements from a Data Set
Command ==> _____

Input Data Set Containing SQL Statements:
Data set name . . . . . ADLAB.FILES
Member . . . . . SQL          Blank or pattern for member list
Volume serial . . . . . _____ If not cataloged

Processing Options:
Execution options          Enter "/" to select option(s)
_____ First column      / Edit data set
_____ Last column       / Execute SQL from data set
_____ Comment chars     / Re-edit data set after execution
    
```

- The SQL data set is displayed. From here you can optionally make changes to the SQL statement.
 - There may be changes needed to run the SQL statement on your system. Ask your instructor for assistance if needed.
 - Press **PF3** to execute the SQL statement.

```

EDIT          DNET074.ADLAB.FILES(SQL) - 01.00          Columns 00001 00072
Command ==> _____ Scroll ==> CSR_
***** Top of Data *****
000001 SELECT EMPNO, FIRSTNME, MIDINIT, LASTNAME,
000002         WORKDEPT, JOB, HIREDATE,
000003         PHONENO, EDLEVEL, BIRTHDATE,
000004         SALARY, BONUS, COMM,
000005         DEPTNAME
000006 FROM   FMNDB2.EMP #1, FMNDB2.DEPT #2
000007 WHERE  #1.WORKDEPT = #2.DEPTNO AND
000008         ( WORKDEPT >= 'B01' AND WORKDEPT <= 'C10' )
***** Bottom of Data *****
    
```

- The Browse panel is displayed, showing the results of the SQL statement:

```

FM/DB2 (DSNA)          Select Statement Browse          0 of 4
Command ==> _____ Scroll PAGE
4 rows fetched          Format TABL
EMPNO  FIRSTNME      MIDINIT  LASTNAME      WORKDEPT  JOB      HIREDATE  PHONE
#1     #2              #3       #4            #5        #8       #7        #6
CH(6)  VARCHAR(12)     CH(1)    VARCHAR(15)   CH(3)     CH(8)    DATE      CH(4)
PUN-> <----1-> -      <----1----> <-NF      <----> <----> <-->
**** Top of data ****
000020 MICHAEL<         L          THOMPSON<     B01          ADMIN        1973-10-10 3476
000030 SALLY<           A          KWAN<         C01          MANAGER      1975-04-05 4738
000130 DOLORES<       M          QUINTANA<     C01          ANALYST      1971-07-28 4578
000140 HEATHER<      A          NICHOLLS<    C01          ANALYST      1976-12-15 1793
**** End of data ****
    
```

- Press **PF3**.

File Manager DB2 Mentor Workshop

Lab Exercises



6. The SQL statement is shown again. From here, you can make more changes to the SQL statement. PF3 will execute the SQL statement again and display the results. You can repeat this process as needed.
7. Use the CANCEL command to exit:
 - Type **CANCEL** on the command line, then **Enter** .

Part 2: Update options to start Edit instead of Browse

8. The SQL Prototyping, Execution, and Analysis menu is displayed.
9. You can start an Edit session (instead of Browse). If you do, you can change the contents of your tables. This is done in the Edit Options:
 - Pull down the Options Menu by putting your cursor on the word “OPTIONS” at the top of the panel, then **Enter** .
 - Type **2** (FM/DB2 system options), then **Enter** .

FM/DB2 (Command	2 1. Print settings 2. FM/DB2 system options 3. Job card specifications 4. Compiler language selection 5. COBOL compiler specifications 6. PL/I compiler specifications 7. ISPF settings 8. Browse options 9. Edit options 10. Copy utility options 11. Object list utility options 12. Export utility options 13. DB2 LOAD utility options 14. DB2 Utility LISTDEF options 15. DB2 Utility OPTIONS options	Analysis ic) anced) tatements from a data set n
------------------	--	--

10. FM/DB2 System Options panel 1 of 4 is displayed. Scroll to the next page:
 - Press **PF11** .
11. FM/DB2 System Options panel 2 of 4 is displayed.
 - Notice the heading: “Arbitrary SQL Select Statements”. If you select the “Use Edit (instead of browse) to display results” option, then File Manager will start Edit when you execute your SQL statements.
 - Set this option either on or off based on your own preference.

File Manager DB2 Mentor Workshop

Lab Exercises



```
FM/DB2 (DSNA)          FM/DB2 System Options (2 of 4)          Global Settings
Command ==> █

Arbitrary SQL Select Statements:
  Enter "/" to select option
  _ Use edit (instead of browse) to display results

External Format for TIME Data Type Columns:
  Display format
  1 1. ISO (HH.MM.SS)
  2 2. JIS (HH:MM:SS)
  3 3. DB2 DSNHDECP setting

Catalog Queries and Template Creation:
  Enter "/" to select option
  _ Use uncommitted read when accessing the DB2 catalog
  / Retrieve foreign key information when building templates
```

12. Press **PF3** until you have returned to the Main Menu.

Lab Exercise 6

Use Basic Prototyping to generate, Run, and Save a new SQL statement

In this exercise you will:

- Write a new SQL statement, with help from File Manager
- Execute the new SQL statement
- Save it in a File

Part 1: Use the “Basic Prototyping” Utility

1. Starting from the File Manager / DB2 Main Menu:

- Type **4** (SQL) on the command line, then **ENTER**.
- The SQL Prototyping, Execution, and Analysis menu is displayed.
- Type **1** (Basic Prototyping) on the command line, then **ENTER**.
- The “Basic Select Prototyping” panel is displayed.

2. On this panel, you specify the tables that your new SQL statement will access.

- Type table names as shown (FMNDB2.EMP and FMNDB2.DEPT):
 - Note: The owner IDs may be different on your system. Ask your instructor for help if needed.
- Press **Enter**.

```
FM/DB2 (DSNA)                Basic SELECT Prototyping
Command ==> _____

Enter the name(s) of the table(s) from which to retrieve data:
  Owner          Name          Location
#1 FMNDB2        EMP
#2 FMNDB2        DEPT
#3
#4
#5
#6
#7
```

- A panel is displayed that shows a list of columns from the two tables. Select the following columns with “S” line commands as shown:
 - #1 EMPNO (Note: “#1” identifies the first table in the FROM clause)
 - #1 FIRSTNAME
 - #1 LASTNAME

File Manager DB2 Mentor Workshop

Lab Exercises



- #1 WORKDEPT
 - #1 JOB
 - #2 DEPTNAME (Scroll down (PF8) to see this column)
- Press **Enter** .

```
FM/DB2 (DSNA)                      Basic SELECT Prototyping                      Row 1 to 9 of 19
Command ==>> _____ Scroll PAGE

SELECT ?
FROM FMNDB2.EMP #1, FMNDB2.DEPT #2
WHERE ?
ORDER BY ?

Select columns (S/A/D) or enter predicates to build the SELECT statement:

S LOp ( Tab Column Name           Data Type(length)   Op Value           + )
s _____ #1 EMPNO              CHAR(6)             _____
s _____ #1 FIRSTNME           VARCHAR(12)         _____
s _____ #1 MIDINIT            CHAR(1)             _____
s █ _____ #1 LASTNAME         VARCHAR(15)         _____
- _____ #1 WORKDEPT          CHAR(3)             _____
- _____ #1 PHONENO           CHAR(4)             _____
- _____ #1 HIREDATE           DATE(4)             _____
- _____ #1 JOB                CHAR(8)             _____
- _____ #1 EDLEVEL            SMALLINT(2)         _____
```

3. Notice that the generated SQL statement at the top of the panel now shows the columns that you selected.

Tip: “Undo” your changes.

- If you make a mistake, use the UNDO command to remove your last change. You can use the UNDO command several times in a row to undo more than one change.

4. Next, define how the two tables will be joined:
- Type entries as shown to specify that #1.WORKDEPT must be equal to #2.DEPTNO:
 - Press **Enter** .

File Manager DB2 Mentor Workshop

Lab Exercises



```

FM/DB2 (DSNA)                               Basic SELECT Prototyping                               Row 1 to 5 of 19
Command ==> _____ Scroll PAGE

SELECT #1.EMPNO, #1.FIRSTNME, #1.MIDINIT, #1.LASTNAME, #1.WORKDEPT, #2.DEPTNAM
E
FROM FMNDB2.EMP #1, FMNDB2.DEPT #2

WHERE ?

ORDER BY ?

Select columns (S/A/D) or enter predicates to build the SELECT statement:

S L0p ( Tab Column Name           Data Type(length)   Op Value           + )
- - - - -
#1 EMPNO           CHAR(6)
#1 FIRSTNME       VARCHAR(12)
#1 MIDINIT        CHAR(1)
#1 LASTNAME       VARCHAR(15)
#1 WORKDEPT       CHAR(3)
= #2.DEPTNO
F1=Help           F2=Split           F3=Exit            F4=Expand          F6=Execute         F7=Backward
F8=Forward        F9=Swap            F10=Left           F11=Right          F12=Cancel
  
```

5. Note: You could optionally continue to add WHERE criteria if needed.
6. The SQL statement is ready. Execute it:
 - Press **PF6** (The EXECUTE command).
7. The result of the SQL statement is displayed in Browse. Note: Your system options control whether results are shown in Browse or Edit.
8. Press **PF3** to exit Browse.
9. You can use the “SQL” command to view the generated SQL statement:
 - Type **SQL** on the command line, then **Enter** .

```

FM/DB2 (DSNA)                               Basic SELECT Prototyping                               Row 1 to 5 of 19
Command ==> sql _____ Scroll PAGE

SELECT #1.EMPNO, #1.FIRSTNME, #1.MIDINIT, #1.LASTNAME, #1.WORKDEPT, #2.DEPTNAM
E
FROM FMNDB2.EMP #1, FMNDB2.DEPT #2

WHERE #1.WORKDEPT = #2.DEPTNO

ORDER BY ?
  
```

10. Your SQL statement is displayed in an EDIT session. Save the SQL statement to a PDS member:
 - Type **CRE** (create) on the command line. (Note: You could use the “REP” command instead to *replace* data in an existing member of file)
 - Type **C99** (Copy 99 lines) on the first command line.
 - Press **Enter** .

File Manager DB2 Mentor Workshop

Lab Exercises



```
EDIT          SYS06103.T114203.RA000.DNET074.R0194216          Columns 00001 00072
Command ==> CRE
***** ***** Top of Data *****
C99 01 SELECT #1.EMPNO, #1.FIRSTNME, #1.MIDINIT, #1.LASTNAME, #1.WORKDEPT, #2.
000002          DEPTNAME
000003 FROM    FMNDB2.EMP #1, FMNDB2.DEPT #2
000004 WHERE   #1.WORKDEPT = #2.DEPTNO
***** ***** Bottom of Data *****
```

11. The Edit – Create panel is displayed. Specify the name of the member to be created:

- Specify PDS ADLAB.FILES and member MYSQL.
- Press ENTER.

```
SPF/E----- EDIT - CREATE -----
COMMAND ==>
"CURRENT" DATA SET: SYS06103.T114203.RA000.DNET074.R0194216

TO ISPF LIBRARY:
PROJECT ==> DNET074
GROUP   ==> ADLAB
TYPE    ==> FILES
MEMBER  ==>

TO OTHER PARTITIONED DATA SET MEMBER (enter @H for previously referenced files)
DATA SET NAME ==> ADLAB.FILES(MYSQL)
VOLUME SERIAL ==> (If not cataloged)

DATA SET PASSWORD ==> (If password protected)

SPECIFY PACK OPTION FOR "CREATE" DATA SET ==> NO (YES or NO)

Press the ENTER key to create, or the END key to cancel create.
```

12. At this point, you have written a new SQL statement, and saved it as a PDs member.

13. Press PF3 until you have returned to the Main Menu.