IBM File Manager for z/OS DB2 Feature

Program number 5655-V52

Tutorial

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This is the tutorial for the DB2® feature of IBM's File Manager for z/OS®, one of the IBM zSeries® problem determination tools.

File Manager DB2 version 10 tutorial

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- File Manager DB2 utilities
  - Print
  - Object list
  - Copy
  - Export and import

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In this section you will see how to use the File Manager DB2 Object List selection utility. You can use it to get a list of DB2 objects, such as tables and indexes, and then work with the objects in the list. Some people prefer to start edit or view by selecting from a list. You will see that there are many other tasks that can be started from the list.

Select Object List from the Utility Functions panel

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```
 Process   Options   Utilities   Help
 ────────────────────────────────────────────────────────────────
 FM/DB2 (D91F)                  Utility Functions
 Command ===> 4

  1  Print        Print DB2 table or view
  2  Objects      Create and drop DB2 objects
  3  Copy         Copy data within DB2
  4  Object List  Display and process DB2 object lists
  5  Privileges   Manage DB2 privileges
  6  Import       Import sequential or VSAM data into DB2
  7  Export       Export DB2 data to sequential or VSAM data set
  8  Create       Create DB2 test data
  9  Utilities    DB2 utility job generation
 10  Audit trail  Print audit trail report
 11  Print browse Browse FM/DB2 print data set




                                                        Enter
```

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Starting from the File Manager DB2 main menu, the object list can be accessed by way of the shortcut command "3.4". Or, from the File Manager DB2 main menu select 3 for "Utilities". Then on the Utilities menu, select 4 for Object List. Press Enter.

```
 Process    Options    Utilities    Help
FM/DB2 (D91F)                Object List Utility
Command ===> _____
                                             More:   +
     blank Display object list          P Print object list

Object Identification Criteria:
     Location  . . . . . . . _____     Enter * for list
     Owner . . . . . . . . . ALL*_____   +
     Name  . . . . . . . . . *_____    +
     Database/collect/schema _____    +

Additional Selection Criteria:
 . . . . . . . . . . . . . . . . . . . . . . . . Enter * to list catalog columns
     Column  . . . . . . . . _____  +
     Operator  . . . . . . . _____
     Value . . . . . . . . . _____    +

Processing Options:
     Object Type                    Enter ? to list all object types
     3   1. Database        8.  Package        15. Trigger
          2. Table space     9.  Collection     16. Storage group   Enter
          3. Table/view/alias 10. DBRM          17. Sequence
```

Wildcards:
* or %   String
_   One character

The Object List panel allows specifying a partial object name. Any combination of Location, Owner, Name, and Database can be used. Wildcards are also valid. An asterisk or percent sign is a wildcard for zero or more characters. An underscore is a wildcard for just one character. In this example, an owner ID of ALL*, is specified, and an * has been entered in the name field. This requests a list of all objects for that owner.

The lower portion of the panel has a selection for processing options, "Object Type". In this example a list of tables and views is wanted, so 3 Tables/view/alias is entered in the "object type" field. If the object type is wrong, the desired objects may not be displayed. Check this field when using the Object List Utility. Press Enter.

Matching tables, views and aliases are displayed
Use ? to display available line commands

```
 Process    Options    Utilities    Help

FM/DB2 (D91F)              Tables, Views and Aliases              Top of 21
Command ===> _____     Scroll PAGE
21 rows fetched                                               Format TABL
                                                TABLE      INTERNAL
        TABLE       TABLE        DATABASE OBJECT COLUMN SPACE      DATABASE
SEL     OWNER       NAME         NAME     TYPE   COUNT  NAME       IDENTIFIER
        *           *            *        *          *  *                  *
----    #2--+--- #1--+----1----+-- #4--+--- #57-+- ----#8 #5--+---      ----#6
****  Top of data  ****
____    ALLANSC     BILL_HISTORY DSN00015 Table      9 BILLRHIS        286
____    ALLANSC     CLINIC_COST  DSN00017 Table      3 CLINICRC        288
____    ALLANSC     DEPT         DSN00035 Table      5 DEPT            307
?___    ALLANSC     EMP          DSN00040 Table     14 EMP            312
____    ALLANSC     EMPCOPY1     DSN00041 Table     14 EMPCOPY1       313
____    ALLANSC     EMPCOPY2     DSN00043 Table     14 EMPCOPY2       315
____    ALLANSC     IMPORTEMP    DSN00045 Table      5 IMPORTEM       317
____    ALLANSC     INSURER      DSN00023 Table      6 INSURER        294
____    ALLANSC     INSURER_COST DSN00019 Table      4 INSURERR       290
____    ALLANSC     INSURER_TRANSFER DSN00021 Table  4 INSURERR       292
____    ALLANSC     PATIENT      DSN00027 View       8 PATIENTF
____    ALLANSC     PATIENTF     DSN00027 Table      9 PATIENTF     Enter
____    ALLANSC     PATIENT_HISTORY  DSN00025 Table 14 PATIENTR
```

A list of matching objects is displayed. There are numerous line commands available. In fact, there are so many that there is a special line command, question mark, that will display a list of them. ? is entered as a line command next to an item. Press Enter.

```
 Process    Options    Utilities    Help
 ──────────────────────────────────────────────────────────────────────
 FM/DB2 (D91F)              Object List Line Commands          Row 1 of 44
 Command ===> _____       Scroll PAGE

 Type S against the required line command and press Enter.


 Sel Command   Description

 ___ A         Alter object
 ___ ALS       Show aliases
 ___ AT        Show LOB column auxiliary table
 ___ B         Browse table
 ___ BT        Show base table for auxiliary table
 ___ C         Copy table
 ___ CDI       Show column distribution statistics
 ___ CH        Show child (dependent) tables
 ___ CHR       Show child (dependent) relations
 ___ CK        Show table check constraints
 ___ COL       Show columns
 ___ COM       Create a comment/remark
 ___ CON       Show table (unique/primary) constraints
 ___ CR        Create a similar object                        [ F8 ]
 ___ CRA       Create an alias
```

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The list of line commands that can be used for the selected object are displayed. Common commands such as E for edit, B for browse, C for copy, and A for alter are available. There are several line commands that can be used to show additional information, such as COL for show columns, or D for show database. For a table, the available line commands do not fit on one screen. Press F8 to scroll forward in the list.

Select 'I' Details about table/view from the list

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```
 Process   Options   Utilities   Help
_____
FM/DB2 (D91F)            Object List Line Commands        Row 16 of 44
Command ===> _____        Scroll PAGE

Type S against the required line command and press Enter.


Sel Command  Description

___ CRX      Create an index
___ CS       Describe columns
___ D        Show database
___ DR       Drop object
___ E        Edit table
___ FK       Show foreign keys
___ G        Grant privileges
___ GEN      Generate SQL for table from DB2 catalog
 s_ I        Details about table/view
___ LAB      Create a label
___ P        Show privileges
___ PA       Show parent tables
___ PAR      Show parent relations                        Enter
___ PK       Show primary key
___ PKG      Show packages
```

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After scrolling down, the second page of the line commands are displayed.

Helpful actions like GEN for "Generate the SQL statement to create a table", PR for print, and XC for show indexes and index columns, are available.

Scroll through the list to get familiar with the actions available. Here "I" Details about table/view command has been selected. This was done by entering an S in the Sel line command field next to the I entry in the list. Press Enter.

Table details are displayed

```
 Process   Options   Utilities   Help
 _____
 FM/DB2 (D91F)                   Table Details
 Command ===> _____
                                                            More:    +
     Details about table (label) : ALLANSC.EMP

 General Data:
     Table owner  . . . . : ALLANSC   +  Created by  . . . . . : ALLANSC    +
     Table name . . . . . : EMP                                             +
     Database name  . . . : DSN00040     Table space name  . . : EMP
     Created  . . . . . . : 2008-08-27-04.14.05.350934
     Altered  . . . . . . : 2008-08-27-04.14.05.350934
     Status . . . . . . . : X - Primary key available
     Check pending flag . : No          Restrict on DROP . . :  No
     Maximum row length . : 97          Number of columns . . : 14
     Object ID for table  : 3           DB ID for database  . : 312
     Edit procedure name  : N/A         Validation proc . . . : N/A
     Primary key OBID . . : 6           Primary key columns . : 1
     Parent relations . . : 1           Check constraints  . : 1
     Child relations  . . : 0           Encoding scheme  . . : E - EBCDIC
     Auditing . . . . . . : AUDIT NONE  Data capture  . . . . : No
     Release created . . : Version 9    Dep. query tables  . : 0          F8
     Data row fmt version : 0           Partition key cols . : 0
```

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The Table Details panel is displayed. It provides information about a table, including the database name, the primary key, parent and child relationships, and timestamps. There are also other line commands that will show additional types of information. Press F8 to scroll down and view additional table details.
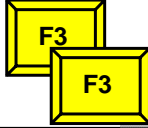
Additional table details are displayed

```
  Process   Options   Utilities   Help

 FM/DB2 (D91F)                  Table Details
 Command ===> _
                                                      More:   -
     Object ID for table  : 3         DB ID for database  . : 312
     Edit procedure name  : N/A       Validation proc . . . : N/A
     Primary key OBID . . : 6         Primary key columns . : 1
     Parent relations . . : 1         Check constraints  . : 1
     Child relations  . . : 0         Encoding scheme  . . : E - EBCDIC
     Auditing . . . . . . : AUDIT NONE Data capture  . . . . : No
     Release created . . :  Version 9  Dep. query tables  . : 0
     Data row fmt version : 0         Partition key cols . : 0
     Split rows . . . . . : No        Multi-level security : No

 Statistical Data:
     No data available




                                                        F3
                                                           F3

 Associated Remarks:
```

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Additional table details are displayed Press F3 twice to return to the Object List Utility panel.

Select Name only from the list utility panel
All Owner IDs will match

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```
  Process    Options    Utilities    Help
────────────────────────────────────────────────────
FM/DB2 (D91F)                 Object List Utility
Command ===> _____
                                              More:    +
     blank Display object list          P Print object list

Object Identification Criteria:
     Location  . . . . . . . _____      Enter * for list
     Owner . . . . . . . . . _____    +
     Name . . . . . . . . .  *emp*_                                    +
     Database/collect/schema _____                 +

Additional Selection Criteria:
 . . . . . . . . . . . . . . . . . . . . . . Enter * to list catalog columns
     Column  . . . . . . . . _____    +
     Operator  . . . . . . . _____
     Value . . . . . . . . . _____                +

Processing Options:
     Object Type                       Enter ? to list all object types
     3    1. Database        8.  Package        15. Trigger
          2. Table space     9.  Collection     16. Storage group
          3. Table/view/alias 10. DBRM           17. Sequence
```

Wildcards:
* or **%**   String
_   One character

Enter

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This example shows a list of objects being requested, using only the object name. An asterisk wildcard character is being used to search for '*emp*'. This will return matching entries with a name with emp in the field anywhere. The other fields, such as 'Owner" are left blank, so all owner IDs will match. Press Enter

Overtype the Table Owner field to reduce the list

```
 Process   Options   Utilities   Help

FM/DB2 (D91F)              Tables, Views and Aliases              Top of 18
Command ===> _____       Scroll PAGE
18 rows fetched                                              Format TABL
                                                 TABLE       INTERNAL
       TABLE     TABLE          DATABASE OBJECT COLUMN SPACE  DATABASE
SEL    OWNER     NAME           NAME     TYPE   COUNT  NAME   IDENTIFIER
  _    alla*     emp*_____    *        *              *  *            *
----   #2  +--- #1--+----1----+- #4--+--- #57-+- ----#  #   The format can  #6
****   Top of data  ****                                   be changed to      12
____   ALLANSC   EMP            DSN00040 Table   1         SNGL               12
____   ALLANSC   EMPCOPY1       DSN00041 Table   1                            13
____   ALLANSC   EMPCOPY2       DSN00043 Table  14 EMPCOPY2               315
____   ALLANSC   IMPORTEMP      DSN00045 Table   5 IMPORTEM               317
____   ALLANSC   V_EMP_DEPT     DSN00040 View      The SORT                  0
____   DSN8910   EEMP           DSN8D91A Table     command works           260
____   DSN8910   EMP            DSN8D91A Table     with the column         260
____   DSN8910   EMPPROJACT     DSN8D91A Table     reference #             260
____   DSN8910   VEMP           DSN8D91A View                                0
____   DSN8910   VEMPDPT1       DSN8D91A View      7 DSN8S91D                 0
____   DSN8910   VEMPLP         DSN8D91A View      2 DSN8S91E
____   DSN8910   VEMPPROJECT    DSN8D91A View      6 DSN8S91P      Enter
____   TSS09     EMP            DSN00047 Table    14 EMP
```

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A list of matching object names is displayed. Here are a few tips for working with the list. The format can be changed to single, to see one object at a time. SORT commands can be used to change the order of data presented. The list of objects can be reduced by overtyping the names in the column headings for Table Owner, Table Name, and Database fields. Here, the "Table Owner" heading is changed to "alla*". Press Enter. .

Select a table to browse using the B line command

```
 Process    Options    Utilities    Help

FM/DB2 (D91F)            Tables, Views and Aliases              1 of 18
Command ===> _____  Scroll PAGE
Location:                                                  Format TABL
                                              TABLE        INTERNAL
        TABLE      TABLE        DATABASE OBJECT COLUMN SPACE  DATABASE
SEL     OWNER      NAME         NAME     TYPE   COUNT  NAME   IDENTIFIER
        ALLA*      EMP*         *        *          * *            *
----    #2--+---   #1--+----1----+-  #4--+--- #57-+- ----#8 #5--+---  ----#6
b       ALLANSC    EMP          DSN00040 Table    14 EMP          312
____    ALLANSC    EMPCOPY1     DSN00041 Table    14 EMPCOPY1     313
____    ALLANSC    EMPCOPY2     DSN00043 Table    14 EMPCOPY2     315
****    End of data  ****
```

Enter

Only the objects that match the new table and owner specifications are shown. Remember that you can enter line commands to get information or perform tasks. Here, a "B" (for browse) line command is typed next to a table. Press Enter.

File Manager DB2 browse panel is displayed

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```
 Process    Options    Utilities    Help

FM/DB2 (D91F)                        DB2 Browse
Command ===> _____

DB2 Object:
   Location  . . . . . _____           Database  . . . _____  (optional)
   Owner . . . . . . . ALLANSC_____    + Table Space . . _____  (optional)
   Name  . . . . . . . EMP_____  +
   Start position  . . 1_____
   Row count . . . . . ALL_____      Number of rows to browse

Template:
   Data set name . . . 'TSS13.ADLAB.TEMPLATE'_____
   Member  . . . . . . JANAMES_

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 Owner and Name fields are filled in

Enter

The File Manager DB2 Browse panel is displayed. The name of the selected table is already filled in. Press Enter.

Selected table is displayed in browse

```
 Process   Options   Utilities   Help

FM/DB2 (D91F)                Table Browse                    1 of 42
Command ===> _                                       Scroll PAGE
TABLE ALLANSC.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)
PU--+> <---+----1-> -       <---+----1----> <-N      <-->    <---+---->  <---+-
000010 CHRISTINE<  I       HAAS<          A00      3978    1965-01-01 PRES
000020 MICHAEL<    L       THOMPSON<      B01      1111    1973-10-10 MANAGE
000030 SALLY<      A       KWAN<          C01      4738    1975-04-05 MANAGE
000050 JOHN<       B       GEYER<         E01      6789    1949-08-17 MANAGE
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 MANAGE
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
000130 DOLORES<    M       QUINTANA<      C01      4578    1971-0        LYS
000140 HEATHER<    A       NICHOLLS<      C01      1793    1976-1        LYS
000150 BRUCE<              ADAMSON<       D11      4510    1972-0
000160 ELIZABETH<  R       PIANKA<        D11      3782    1977-10-1
000170 MASATOSHI<  J       YOSHIMURA<     D11      2890    1978-09-1
```

F3
F3

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The table selected from the object list utility panel is displayed in the browser. Press F3 twice to return to the object list utility panel.

That is the end of this section, using the File Manager DB2 Object List utility.

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