

**Chapter
2**

BROWSE/EDIT

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Objectives

You will learn:

- Browse/Edit functions.
- Locking a table during edit.
- Starting a Browse or Edit session.
- Editing a Selection Template.
- Error intercepts.
- Editing multiple unrelated tables.

1 Browse/Edit Functions

The Browse function provides the ability to display a table or view, either in its entirety or by selected rows and fields. The rows to be viewed can be specified along with areas to be excluded. Changes can not be made to the table or view.

The Edit function provides all of the capabilities of the Browse function; it also provides the capability to update the data.

Multiple tables can be both browsed and edited in a single session. The Related Table Browse and Edit function provides the capability to browse and edit multiple tables related through DB2 referential integrity or a user-defined application relationship.

2 Obscured Columns

Obscured columns are DB2 columns which are only partly visible on the screen. They are displayed highlighted and cannot be edited.

File-AID for DB2 displays these formatted data types as obscured columns:

• Smallint	• Integer	• Decimal	• Float
------------	-----------	-----------	---------

• Time	• Date	• Timestamp
--------	--------	-------------

In order to edit an obscured column, the entire column must be visible on the screen.

In order to view an entire column, scroll left or right, or issue the ROW or ZOOM command.

3 Pending State

When the Edit function is used for repeating or copying a row:

- The new row is placed into a pending state.
- A PEND flag is displayed on the table mode screen in place of the row's line number.

When inserting or repeating a row in row mode, a row pending message displays under the command line for the new row. The rows will not be added to the table until they have been saved.

There are three ways to make pending rows a part of a table:

- Make a change to the new row and press Enter with Auto-Commit ON.
- Issue the SAVE primary command.
- END the Edit session with AUTOSAVE ON.

Setting new rows into the pending state prevents exact copies of columns from being added which are supposed to be unique.

Columns can be revised before they are included in the table.

4 MAXIMUM ROWS TO SELECT

The MAXIMUM ROWS TO SELECT field displays on the Edit Selection Template screen. Entering a value will limit the number of rows to be displayed. Since File-AID for DB2 uses a DB2 cursor to fetch all the DB2 information shown on screen, limiting the number of rows eliminates reading more rows than necessary.

For DB2 Version 7 and higher, File-AID for DB2 uses the specified number in MAXIMUM ROWS TO SELECT field for adding a FETCH FIRST n ROWS clause into the internal generated SQL SELECT statement. This improves the performance of the query and uses less memory than when the SQL SELECT statement is issued without the limiting clause.

When an existing criterion is used and it includes FETCH FIRST n ROWS clause in it, File-AID for DB2 replaces this field value by the number in the FETCH FIRST n ROWS clause.

5 Locking a Table During Edit

The LOCK TABLE option on the Edit Options screen provides the capability to lock a table while performing an edit. This prevents other users from accessing and updating the table until the edit has been completed.

File-AID for DB2 accomplishes this by issuing this SQL:

```
LOCK TABLE xxxx IN EXCLUSIVE MODE
```

Since the lock is released and immediately reacquired whenever a SAVE command is issued, it is possible for another user to access the table during the release.

The lock also is released and reacquired whenever Enter is invoked with Auto Commit ON. By setting Auto-Commit OFF, there will be exclusive access to a table between SAVE commands.

6 Browse or Edit Option

```

File-AID for DB2 ----- Browse Options -----
COMMAND ==>
                                SCROLL ==> PAGE
                                SSID ==> DBD1

Specify DB2 Table (* or pattern for list)
Location ID ==>
Creator      ==> dsn8810
Table Name   ==> emp
Optional:
Database     ==>
Tablespace   ==>

Specify Edit Template Information:
Use Existing Criteria ==> NO      (Yes or No)
Edit Criteria Dataset ==>
Member        ==>                (Blank or Pattern for list)

Specify Browse Options:

```

```

File-AID for DB2 ----- Edit Options -----
COMMAND ==>
                                SCROLL ==> PAGE
                                SSID ==> DBD1

Specify DB2 Table (* or pattern for list)
Location ID ==>
Creator      ==> DSN8810
Table Name   ==> EMP
Optional:
Database     ==>
Tablespace   ==>

Specify Edit Template Information:
Use Existing Criteria ==> NO      (Yes or No)
Criteria Dataset Name ==>
Member        ==>                (Blank or Pattern for list)

Specify Edit Options:

```

These are the differences between the Edit and Browse Options screens.

Difference	Explanation
Screen titles	Lock Table and Audit Trail options do not appear on the Browse Options screen In the Maximum Rows to Select field on the Browse Options screen, 0 cannot be entered.
Location ID	This is optional. It is the location of the table or view to be edited.
Table Name	Name of the object to be edited: Tables, aliases, synonyms and views are valid. Wildcard characters (*, _, %) are valid.
Database	Name of the database to which the selection list is to be confined.
Tablespace	Name of the tablespace to which a selection list is to be confined.
Use Existing Criteria	The decision whether to use a previously saved Edit Selection Template dataset.
Edit Criteria Dataset	If Yes has been specified in the Use Existing Criteria field, specify the name of the dataset that contains the edit template criteria to be used.
Initial Display Mode	Select the initial display mode: 1. Displays multiple rows per screen. 2. Displays one row per screen.
Lock Table During Edit	Indicate whether exclusive access to the table is required during Edit.
Use Uncommitted Read	Specify whether to enable retrieval of uncommitted data for the browse or edit session.
Maximum Rows to Select	Specify a numeric value indicating the maximum number of rows to be selected, or specify an asterisk (*) to select all rows.
Create Audit Trail	Indicate whether an audit trail should be created in the Edit session.
Relationship File	This is an optional setting. Enter the name of the file that stores the relationship definitions.

The message Trigger(s) exist indicates that one or more triggers are defined against the selected table.

- Enter YES to save the current Edit Selection Criteria when running the EXECUTE command.

- Type S (select) beside the column or columns to be edited.
 - If the columns need to be displayed in a particular order, type the appropriate integer beside each column.

- Under Order, specify an integer to define how the returned rows should be sorted on the screen, based on the data content of the columns.
 - Entering 1 indicates the primary sort column.
 - A/D indicates the sort order.

- The Where entry fields specifies values limiting the rows to be displayed.
 - The WHERE field can be scrolled left and right by placing the cursor in the WHERE field and pressing PF11 or PF10.
 - Scrolling allows up to 256 characters to be viewed.

7.1 EDIT Panel

```

File Edit View Options Open Menu Utilities Help
-----
File-AID for DB2 Edit DSN8810.EMP 42 rows fetched
COMMAND ==> SCROLL ==> PAGE
      EMPNO      FIRSTNME      MIDINIT  LASTNAME      WORKDEPT  PHONENO
      CHAR(6)    VC(12)      CHAR(1)  VC(15)      CHAR(3)   CHAR(4)
      PRIMARY  -----
*****  ***** TOP OF DATA *****
000001  000010  CHRISTINE  I      HAAS      A00      3978  1
000002  000020  MICHAEL   L      THOMPSON  B01      3476  1
000003  000030  SALLY     A      KWAN      C01      4738  1
000004  000050  JOHN      B      GEYER     E01      6789  1
000005  000060  IRVING    F      STERN     D11      6423  1
000006  000070  EVA       D      PULASKI   D21      7831  1
000007  000090  EILEEN    W      HENDERSON E11      5498

```

There are two different methods of browsing and editing object data: table mode and row mode.

The TABLE and ROW primary commands can be used for switching between these modes.

When in table mode and want to have the maximum number of columns viewable on screen, enter the ROW command to toggle into row mode. The row that was at the top of the screen will display. A specific row can be displayed from the table mode screen by typing the ROW command, positioning the cursor on the desired row, and invoking Enter.

When in row mode and there is a requirement for switching back to table mode in order to work with multiple rows of data, enter the TABLE command. The row that was displayed when the TABLE command was entered will display at the top of the screen.

7.2 SQL Entry Panel

The SQL Entry Panel will be displayed when the SQL primary command has been entered on the Edit Selection Template screen and the screen could not be prefilled. There will be a message prompting to name and describe a dataset.

```
File-AID for DB2 ----- SQL ENTRY PANEL ----- SSID: DSN
COMMAND ==>
```

```
Specify the input dataset name: (Can be sequential or partitioned)
```

```
1 DATASET NAME ...      ==> EDITCRIT (SHOWSQL)
2 VOLUME SERIAL ...     ==> (Enter if not cataloged)
3 DATASET PASSWORD      ==> (Enter if password protected)
4 MAX SELECT ROWS .     ==> 2000 (Maximum number of rows to be
                           returned from a SELECT)
5 EDIT INPUT .....      ==> YES (YES to edit dataset,
                           NO to execute SQL immediately)
```

The dataset can have a previously saved SELECT statement or it can be empty.

- This allows a new SELECT statement to be entered.
- If the dataset contains more than one SELECT statement, only the first statement is executed.

7.3 Edit SPUFI Selection

The Edit SPUFI selection screen can be accessed from either the:

- SQL Entry Panel when YES is entered in the Edit Input field on the SQL Entry Panel.
- Prefilled EDIT Selection Template screen when entering the SQL command.

```
EDIT ----- USERID.EDITCRIT(SHOWSQL) - COLUMNS 001 072
COMMAND ==>                                SCROLL ==> PAGE
***** ***** TOP OF DATA *****
000001 SELECT LASTNAME, FIRSTNAME, MIDINIT, EMPNO, JOB, BIRTHDATE, PHONENO,
000002 HIREDATE
000003 FROM USERID.EMP
000004 WHERE EMPNO > '000110'
000005 ORDER BY USERID.EMP.EMPNO, USERID.EMP.JOB;
***** ***** BOTTOM OF DATA *****
```

8 Error Intercepts

8.1 Concurrent Update Intercept

For each row that has been changed, an update is submitted to DB2 using all columns to qualify the update.

- If the row has not changed since being retrieved, the update succeeds and processing continues normally.
- If the row has been changed or when a view has been updated and the row no longer matches the view criteria, DB2 returns a +100 SQL code.

When detecting the error, File-AID for DB2 flags the row with ERR==> and displays the Concurrent Update Intercept window.

- The window displays once for each row in error, providing the ability to specify the disposition for each error individually.
- Before the window displays, the edit panel is scrolled to position the row in error at the top of the display.

8.2 Check Constraint Error

For each row that has been updated, File-AID for DB2 verifies that it meets all table check constraints.

- If a table check constraint violation has been detected, the Check Constraint Error window is displayed.
- The rows in error are marked with the ==ERR> indicator; the entered value for the column can be corrected with the check constraint violation.

9 Multiple Unrelated Tables: Browse/Edit

Multiple tables in a single session can be browsed or edited; the tables do not need to be related.

- An unlimited number of tables may be opened by repeatedly issuing the BROWSE or EDIT primary commands.
 - These commands are only available in a standard browse or edit.
- When viewing multiple tables, the second table displays in a window in the lower half of the screen.
- A maximum of three windows can be displayed at one time.
 - When a fourth table is opened, the first table scrolls off of the display.
 - Each additional table moves up to make room for the next one.
- The JUMP primary command is used for moving from window to window.
 - Once a jump is performed to a new window, it becomes active.
 - Data can only be edited in an active window.
- The MAX primary command is used for enlarging a window to full screen size.
- The MIN primary command is used for reducing the window size and resuming multiple table viewing.