



DBMaker

dmSQL User's Guide



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Contents

1	Introduction	1-1
1.1	Additional Resources	1-3
1.2	Technical Support	1-4
1.3	Document Conventions	1-5
2	DmSQL Basics	2-1
	Title Bar.....	2-2
	Menu Bar.....	2-2
	Tool Bar	2-2
	Command Entry Area.....	2-3
	Status Bar.....	2-3
3	Using dmSQL	3-1
3.1	Working with Databases	3-2
	Connecting to a Database	3-2
	Disconnecting from a Database	3-3
	Disconnecting from Databases.....	3-3
	Displaying Connections.....	3-4
	Running a Script.....	3-4
	Committing a Transaction.....	3-5
	Rolling Back a Transaction	3-5
	Aborting a Command	3-5

Aborting Fetch	3-6
Aborting a Script	3-6
Listing Tables	3-6
Reviewing Command History	3-6
3.2 Editing Text	3-9
Cutting	3-9
Copying	3-9
Pasting	3-9
Deleting	3-10
Undoing Edits	3-10
Selecting All Text	3-10
Clearing All Text	3-10
3.3 Command Entry Area Preferences	3-12
Using Fast Retrieve	3-12
Changing the Display Font	3-12
Display Colors	3-14
Background Notification	3-16
3.4 Setting Environment Variables	3-18
AutoCommit	3-19
LastTran	3-20
Login Timeout	3-20
Lock Timeout	3-21
Fetch	3-21
Line Width	3-22
Displaying BLOBs	3-22
FlightRecorder	3-23
PrintTo	3-24
Echo	3-24
Working Directory	3-25
Date and Time Formats	3-25
Displaying Settings	3-27
Saving Settings	3-27
3.5 Advanced Set Commands	3-28

Set backup "On" or "Off" 3-28
Set BLOB backup "On" or "Off" 3-28
Set Browse "On" or "Off" 3-28
Set data backup "On" or "Off" 3-28
Set dbmode single/multi-user..... 3-28
Set extname to '*your_own_extension_name*' 3-28
Set flush 3-28
Set SYSINFO clear 3-28

4 Menu Items and Toolbar Reference...4-1

4.1 Pull-Down Menu Commands4-2

Database Menu 4-2
Edit Menu 4-3
Command Menu 4-4
Display Menu 4-5
Set Menu 4-6
Help Menu 4-8

4.2 Toolbar Commands.....4-10

1 Introduction

Welcome to the *dmSQL User's Guide*. DBMaker is a powerful and flexible SQL Database Management System (DBMS) that supports an interactive Structured Query Language (SQL), a Microsoft Open Database Connectivity (ODBC) compatible interface, and Embedded SQL for C (ESQL/C). The unique open architecture and native ODBC interface give you the freedom to build custom applications using a wide variety of programming tools or to query databases using existing ODBC-compliant applications.

DBMaker is easily scalable from personal single-user databases to distributed enterprise-wide databases. The advanced security, integrity, and reliability features of DBMaker ensure the safety of critical data. Extensive cross-platform support permits you to leverage existing hardware, allows for expansion and upgrades to more powerful hardware as your needs grow.

DBMaker provides excellent multimedia handling capabilities to store, search, retrieve, and manipulate all types of multimedia data. Binary Large Objects (BLOBs) ensures the integrity of multimedia data by taking full advantage of the advanced security and crash recovery mechanisms included in DBMaker. File Objects (FOs) manage multimedia data while maintaining the capability to edit individual files in the source application.

This manual includes the basic operations of dmSQL and provides systematic instructions that guide you through the management of a database. The *User's Guide* content is intended for designers and administrators of DBMaker databases. It will assist those unfamiliar with using DBMaker, but have some understanding of how a relational database works. The user should have some operating systems knowledge

working with Windows and/or UNIX environments. Information in this manual may also be helpful for experienced users for reference purposes.

The manual is shows various commands and procedures used in maintaining a database with dmSQL. Although the manual is for DBMaker on Windows environments, it can perform all functions on a UNIX platform. For clarity purposes, illustrated screen shots with data from sample databases appear through out this manual.

1.1 Additional Resources

DBMaker provides a complete set of RDBMS manuals in addition to this one. For more information on a particular subject, consult one of the books listed below:

- For an introduction to DBMaker's capabilities and functions, refer to the *DBMaker Tutorial*.
- For more information on designing, administering, and maintaining a DBMaker database, refer to the *Database Administrator's Guide*.
- For more information on DBMaker management, refer to the *JServer Manager User's Guide*.
- For more information on DBMaker configurations, refer to the *JConfiguration Tool Reference*.
- For more information on DBMaker functions, refer to the *JDBA Tool User's Guide*.
- For more information on the DCI COBOL interface tool, refer to the *DCI User's Guide*.
- For more information on the SQL language used in dmSQL, refer to the *SQL Command and Function Reference*.
- For more information on the ESQL/C programming, refer to the *ESQL/C User's Guide*.
- For more information on the native ODBC API and JDBC API, refer to the *ODBC Programmer's Guide and JDBC Programmer's Guide*.
- For more information on error and warning messages, refer to the *Error and Message Reference*.

1.2 Technical Support

CASEMaker provides thirty days of complimentary email and phone support during the evaluation period. When software is registered, an additional thirty days of support will be included, thus, extending the total support period for software to sixty days. However, CASEMaker will continue to provide email support for any bugs reported after the complimentary support or registered support has expired (free of charges).

Additional support is available beyond the sixty days for most products and may be purchased for twenty percent of the retail price of the product. Please contact sales@casemaker.com for more details and prices.

CASEMaker support contact information for your area (by snail mail, phone, or email) can be located at: www.casemaker.com/support. It is recommended that the current database of FAQ's be searched before contacting CASEMaker support staff.

Please have the following information available when phoning support for a troubleshooting enquiry or include the information with a snail mail or email enquiry:

- Product's name and version number
- Registration number
- Registered customer name and address
- Supplier/distributor where product was purchased
- Platform and computer system configuration
- Specific action(s) performed before error(s) occurred
- Error message and number, if any
- Any additional information deemed pertinent

1.3 Document Conventions

This book uses a standard set of typographical conventions for clarity and ease of use. The NOTE, Procedure, Example, and CommandLine conventions also have a second setting used with indentation.

CONVENTION	DESCRIPTION
<i>Italics</i>	Italics indicate placeholders for information that must be supplied, such as user and table names. The word in italics should not be typed, but is replaced by the actual name. Italics also introduce new words, and are occasionally used for emphasis in text.
Boldface	Boldface indicates filenames, database names, table names, column names, user names, and other database schema objects. It is also used to emphasize menu commands in procedural steps.
KEYWORDS	All keywords used by the SQL language appear in uppercase when used in normal paragraph text.
SMALL CAPS	Small capital letters indicate keys on the keyboard. A plus sign (+) between two key names indicates to hold down the first key while pressing the second. A comma (,) between two key names indicates to release the first key before pressing the second key.
NOTE	Contains important information.
Procedure	Indicates that procedural steps or sequential items will follow. Many tasks are described using this format to provide a logical sequence of steps for the user to follow .
Example	Examples are given to clarify descriptions, and commonly include text, as it will appear on the screen. Other forms of this convention include Prototype and Syntax.
CommandLine	Indicates text, as it should appear on a text-delimited screen. This format is commonly used to show input and output for dmSQL commands or the content in the dmconfig.ini file.

Figure 1-1 Document Conventions Table

2 DmSQL Basics

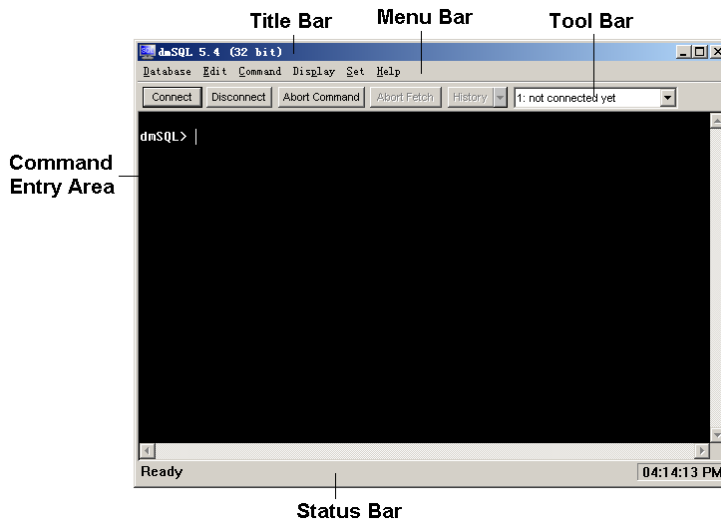
This chapter introduces the layout of the dmSQL Workspace and contains general information about many of its components. It also discusses how to hide or reveal Workspace components.

This manual is for the Windows version of dmSQL. The only difference between the Windows and UNIX versions is the GUI. The UNIX version of dmSQL is command line driven. Refer to "Command Syntax" throughout the manual for the proper command line entries. All command lines can be used for Windows and UNIX versions of dmSQL.

The following graphic shows the important features of the Workspace. It is recommended that you get to know your way around the program before starting to use it.

The Display menu provides commands to change the elements contained in the Workspace. The following elements can be hidden or revealed:

- Horizontal Scroll Bar
- Vertical Scroll Bar
- Toolbar
- Status Bar



A brief description for each of the features in the dmSQL Workspace follows.

Title Bar

The *Title Bar* is located at the top of the program window and displays the name of the program and the version number, Minimize, Maximize, and Close buttons, respectively.

Menu Bar

The *Menu Bar* is located directly below the Title Bar and displays dmSQL's pull-down menu. Each sub-menu contains a list of related commands.

Tool Bar

The *Tool Bar* is located directly below the Menu Bar and contains a palette of command buttons and drop-down list boxes for commonly used functions. Display or hide the Tool Bar by selecting the Toolbar option in the Display drop-down menu.

Command Entry Area

The *Command Entry Area* is the main window in the dmSQL Workspace. It is used to enter commands, runs scripts, and display text.

Status Bar

The *Status Bar* is located at the bottom of the screen, displays the current activity being performed in the Workspace, and displays the current time. Display or hide the Status Bar by selecting the Status Bar option in the Display drop-down menu.

3 Using dmSQL

This chapter describes dmSQL functions, including:

- Working with databases
- Editing text
- Command Entry Area preferences
- Environment variables
- Advanced Set Commands

3.1 Working with Databases

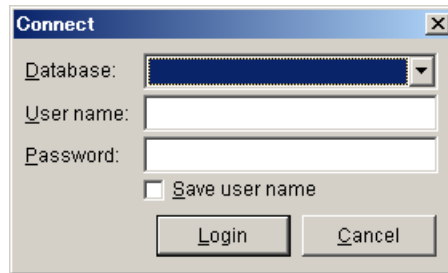
This section illustrates connecting and disconnecting from databases. It includes the following topics:

- Connecting to a database
- Disconnecting from a database
- Disconnecting from databases
- Displaying connections
- Running a script
- Committing a transaction
- Rolling back a transaction
- Aborting a command
- Aborting a fetch
- Aborting a script
- Listing tables
- Reviewing command history

Connecting to a Database

Connect to any single-user database on a local computer or a client/server database running on a remote computer.

- ➔ **To connect to a database:**
- 1.** Choose **Connect** from the **Database** menu.
 - 2.** The **Connect** dialog box appears:



3. Select a *database* to connect to from the **Database** list box.
4. Enter your *user name* in the **User name** box.
5. Enter your *password* in the **Password** box.
6. To save settings, select the **Save user name** box.
7. Click **Login** to connect to the database.
8. The following command syntax displays:

```
connect to db_name user_name password;
```

Disconnecting from a Database

The command is used to disconnect users from a single database.

- **To disconnect from a database:**
 1. Choose **Disconnect** from the **Database** menu.
 2. The following command syntax displays:

```
disconnect;
```

Disconnecting from Databases

The command is used to disconnect users from all active database connection at once.

- **To disconnect from all active databases:**
 1. Choose **Disconnect All** from the **Database** menu.
 2. The following command syntax displays:

```
disconnect all;
```

Displaying Connections

View a list of all connections made in the current session.

➤ **To show connections:**

1. Choose **Show Connections** from the **Database** menu.
2. A list of all connections from the current session appears in the **Command Entry Area**.
3. The following command syntax displays:

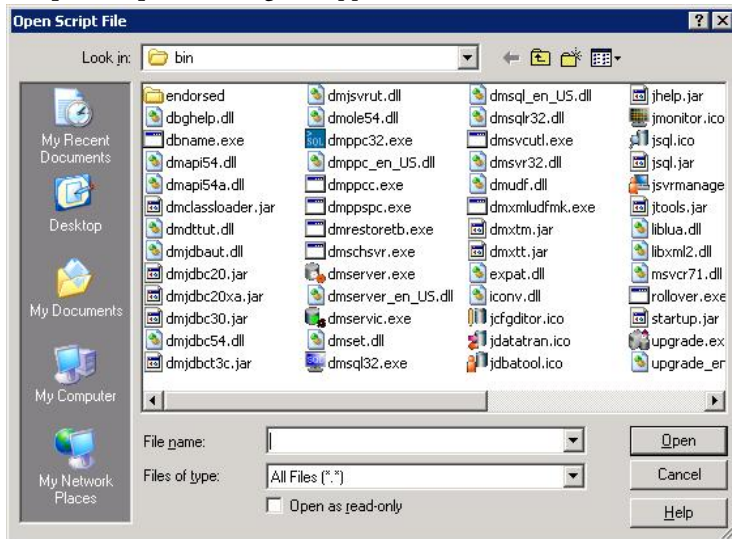
```
use ;
```

Running a Script

A script is a text file consisting of SQL commands.

➤ **To run a script:**

1. Choose **Run Script** from the **Database** menu.
2. The **Open Script File** dialog box appears:



3. Select a *script file* and click **Open**.

4. The following command syntax displays:

```
run 'script_file_name';
```

Committing a Transaction

Commit the contents of the current transaction at any time.

NOTE *This command will be ignored if AutoCommit is "ON".*

➔ **To commit a transaction:**

1. Choose **Commit** from the **Database** menu.
2. All uncommitted commands in the current transaction are committed.
3. The following command syntax displays:

```
commit;
```

Rolling Back a Transaction

Cancel all uncommitted commands.

➔ **To roll back a transaction:**

1. Choose **Roll Back All** from the **Database** menu.
2. All uncommitted commands are canceled.
3. The following command syntax displays:

```
rollback;
```

Aborting a Command

Cancel any command during execution.

➔ **To abort a command:**

1. Choose **Abort Command** from the **Command** menu.
2. The current command stops executing and a new command line begins.

NOTE *If the current command is Fetch or Run Script, the Abort Command will be unavailable. Use the Abort Fetch or Abort Script commands instead.*

Aborting Fetch

Cancel any Fetch command during execution.

- **To abort a Fetch command:**
 1. Choose **Abort Fetch** from the **Command** menu.
 2. The current **Fetch** command stops executing.
 3. A new command line begins.

Aborting a Script

Cancel any Run Script during execution.

- **To abort a Run Script command:**
 1. Choose **Abort Script** from the **Command** menu.
 2. The current **Run Script** command stops executing.
 3. A new command line begins.

Listing Tables

View a list of all tables in a database.

- **To list tables:**
 1. Choose **List Tables** from the **Command** menu.
 2. A listing of all tables in the active database appears.

Reviewing Command History

Review all commands made in the current session on two different levels.

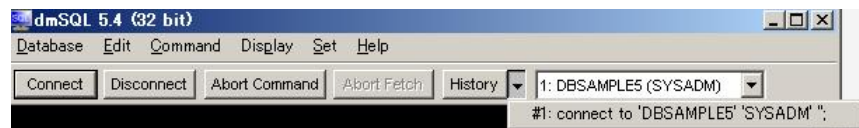
- View the History speedmenu to see an abbreviated list of commands.
- View the Command History dialog box to list all commands in their full form.

Both listings permit moving to a command's location when selecting it. Access both listings from the History control on the toolbar.



➔ **To view the History Speedmenu:**

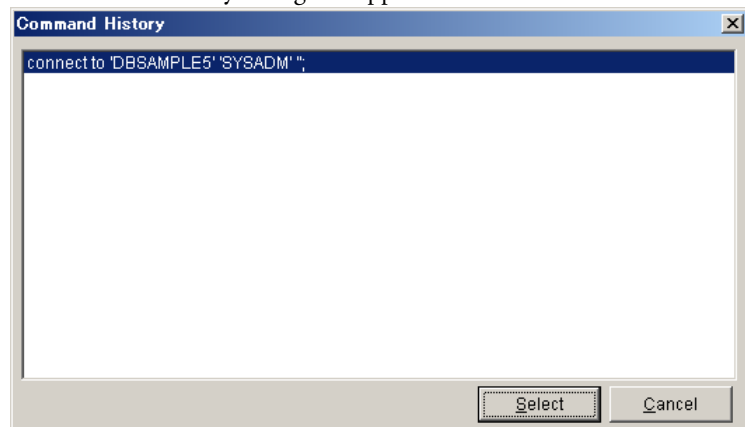
1. Click the down arrow (▼) button on the **History** control.
2. The **History Speedmenu** appears:



3. Select a command.
4. The **Speedmenu** disappears and the cursor appears at the selected command.

➔ **To view the Command History dialog box:**

1. Click the **History** button on the **History** control.
2. The **Command History** dialog box appears:



3. Choose a command.
4. Click **Select**.

5. The dialog box disappears and the cursor appears at the selected command in the **Command Entry Area**.
6. The following command syntax displays:

```
history;
```


3.2 Editing Text

Use dmSQL's convenient editing functions to edit text in the active command line.

Cutting

Remove a selection to the clipboard.

- ➔ **To cut a selection:**
 1. Select the text to cut.
 2. Choose **Cut** from the **Edit** menu.
 3. The selection is moved to the clipboard.

Copying

Copy a selection to the clipboard.

- ➔ **To copy a selection:**
 1. Select the text to copy.
 2. Choose **Copy** from the **Edit** menu.
 3. The selection is copied to the clipboard.

Pasting

Paste a selection from the clipboard.

NOTE *The Paste command will be unavailable if you have not cut or copied a selection to the clipboard.*

- ➔ **To paste a selection:**
 1. Place the cursor where you want to paste the selection.
 2. Choose **Paste** from the **Edit** menu.
 3. The selection is pasted from the clipboard.

NOTE *Alternately, right-click to paste a selection to the current command line. If there is no selected text in the dmSQL Command Entry Area, the clipboard contents will be pasted to the current command line.*

Deleting

Use delete to alter a selection of text in an active command line.

- **To delete a selection:**
 1. Select the text to delete.
 2. Choose Delete from the Edit menu.

Undoing Edits

Use Undo to easily undo recent editing commands.

- **To undo an edit:**
 1. Choose Undo from the Edit menu.
 2. The most recent edit performed in the active command line is undone.

Selecting All Text

Select all of the text in the active command line.

- **To select all text:**
 1. Choose Select All from the Edit menu.
 2. All text in the active command line is selected.

Clearing All Text

The Clear All command deletes all the contents of the Command Entry Area, except for text on the active command line.

- **To delete all text on non-active command lines:**
 - 1.** Choose **Clear All** from the **Edit** menu.
 - 2.** All text on non-active command lines is deleted.

3.3 Command Entry Area Preferences

Customize the dmSQL Command Entry Area's display.

Using Fast Retrieve

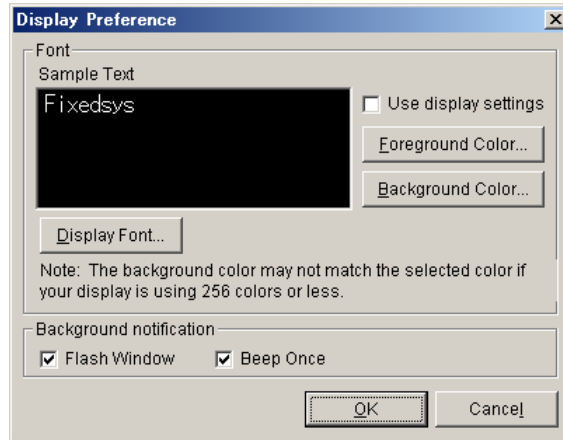
When not using the Fast Retrieve feature in dmSQL, the results of screen output functions, running scripts and retrieving data, will appear in the Command Entry Area as dmSQL processes them. When Fast Retrieve is used, data will not appear until processing is complete.

- ➔ **To use Fast Retrieve:**
 - 1.** Choose **Fast Retrieve** from the **Display** menu.
 - 2.** The function is "enabled".

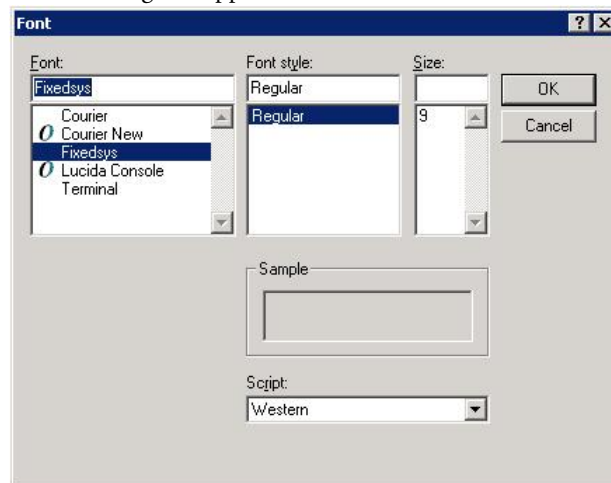
Changing the Display Font

Most standard fonts are available for text in the dmSQL Command Entry Area.

- ➔ **To change the display font:**
 - 1.** Choose **Preferences** from the **Display** menu.
 - 2.** The **Display Preference** dialog box appears:



3. Click the **Display Font** button.
4. The **Font** dialog box appears:



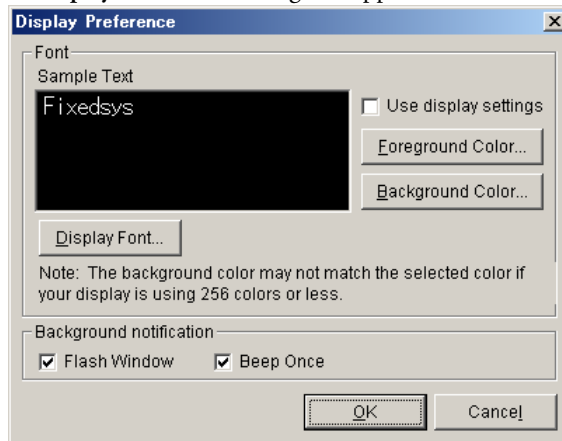
- a) In the **Font** box, choose a font.
- b) In the **Font style** box, choose a style.
- c) In the **Size** box, choose or enter a value.
- d) Choose a script from the **Script** box, for fonts that support variable language options.
- e) Check the selections in the **Sample** display area.

5. If the font choices are acceptable, click OK.

Display Colors

Most standard colors are available for text and background in the dmSQL Command Entry Area.

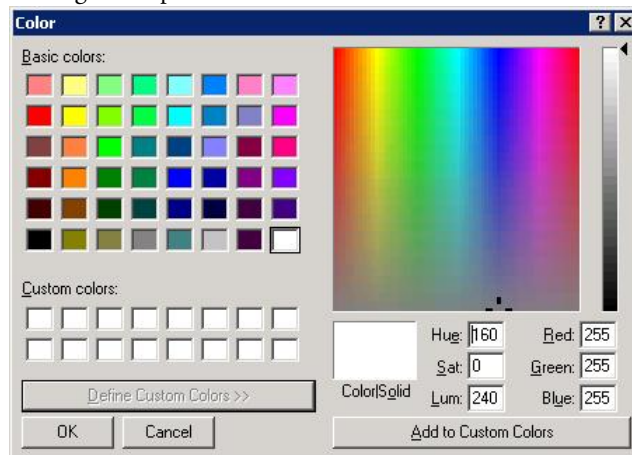
- ➔ **To change text color:**
1. Choose Preferences from the Display menu.
 2. The Display Preference dialog box appears:



3. Click Foreground Color.
4. The Color dialog box appears:



5. Choose a color from the **Basic colors** palette or click **Define Custom Colors** and the dialog box expands to define **Custom colors**:



6. Select a **Custom colors** box to replace or an empty **Custom colors** box.
7. Drag the cross-hair pointer, in the large color display window, to a color area.
8. The small **ColorSolid** window displays the selection.
9. Drag the *slider* on the brightness bar, next to the large color display, to set the darkness of the selected **Custom color**.

- 10.** To save color settings, click **Add to Custom Colors**.
 - 11.** The final setting will appear as a **Custom colors** setting.
 - 12.** Click **OK**.
- ➔ **To change Background color:**
- 1.** Choose **Preferences** from the **Display** menu.
 - 2.** The **Display Preference** dialog box appears.
 - 3.** Click **Background color**.
 - 4.** The **Color** dialog box appears.
 - 5.** Choose a *color* from the **Basic colors** palette or click **Define Custom Colors**.
 - 6.** The dialog box expands to define **Custom colors**.
 - 7.** Select the **Custom colors** box to replace or an empty **Custom colors** box.
 - 8.** Drag the *cross-hair* pointer, in the large color display window, to a color area.
 - 9.** The small **Color|Solid** window displays the selection.
 - 10.** Drag the **slider** on the brightness bar, next to the large color display, to set the darkness of the selected **Custom color**.
 - 11.** To save color settings, click **Add to Custom Colors**.
 - 12.** The final setting will appear as a **Custom colors** *setting*.
 - 13.** Click **OK**.

Background Notification

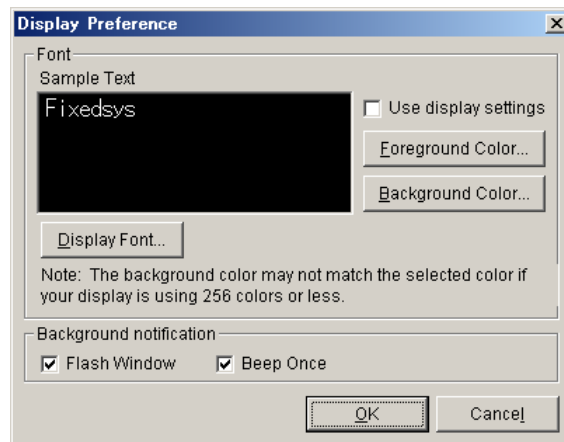
To perform other tasks while dmSQL performs screen output functions that may take a long time, minimize the dmSQL Workspace and have the dmSQL Background Notification feature alert you when the task is complete.

The default settings for Background Notification include an audio beep and a visual flashing window.

NOTE *Minimize the dmSQL window for notifications to take effect. When the dmSQL window is hidden behind other windows and not minimized, there will be no notifications.*

➤ **To change Background Notification settings:**

1. Choose Preferences from the Display menu.
2. The Display Preference dialog box appears with the default notifications selected:



3. Clear the unwanted Background Notification settings.
 - a) For only an audio notification, clear the Flash Window check box.
 - b) For only a visual notification, clear the Beep Once check box.
 - c) For no notification, clear the Flash Window and Beep Once check boxes.
4. Click OK.

3.4 Setting Environment Variables

Many aspects of command behavior in dmSQL are controlled by environment variables. Set these variables using commands from the Set menu.

ENVIRONMENT VARIABLE	EFFECT	DEFAULT
AutoCommit	Automatically commits every transaction.	On
LastTran	Determines dmSQL's handling of the last transaction when you quit the application. NOTE: This setting is ignored if AutoCommit is "ON".	Ask
Login Timeout	Sets the amount of time dmSQL will attempt to log in to a database.	5 seconds
Lock Timeout	Sets the amount of time dmSQL will attempt to access a locked database object.	5 seconds
Fetch	Sets the number of rows that dmSQL will retrieve from a database on a Fetch command.	All
LineWidth	Sets the number of characters each line will contain, or turns "Off" the setting. If you turn off the setting, there will be no limit to the line width in the Command Entry Area.	80
BLOB	Sets the conditions under which BLOBs are retrieved and displayed.	Show/Print Width/16 Bytes
FlightRecorder	Automatically writes all executed commands and those that have failed due to	On

ENVIRONMENT VARIABLE	EFFECT	DEFAULT
	errors to the dmrecord.sql file.	
PrintTo	Automatically directs all dmSQL output to a text file of choice.	Off
Echo	Toggles the display of effects or commands and their effects.	On
WorkDir	Sets the working directory for external file operations.	C:\DBMaker\5.4\bin
Date	Sets the Date format for input and output.	Input: mm/dd/yy Output: yyyy-mm-dd
Time	Lets you set the Time format for input and output.	Input: hh:mm:ss.fff Output: hh:mm:ss

Table 3-1 Environment Variables Default Settings

AutoCommit

The AutoCommit command, sets dmSQL commit every transaction automatically.

➤ **To set AutoCommit:**

Select "On" from the **Set** menu under the **AutoCommit** submenu.

LastTran

Alternately, use the LastTran setting to designate dmSQL's response to a Quit command.

NOTE *This setting is ignored if AutoCommit has been set.*

➔ **To set LastTran responses:**

Select a command from the Set menu under the LastTran submenu.

SUBMENU COMMAND	DMSQL'S RESPONSE TO A QUIT COMMAND
Abort	The current transaction is automatically aborted before the application closes.
Commit	The current transaction is automatically committed before the application closes.
Ask	A prompt appears on the current command line asking to abort or commit. To abort, enter "A", to commit, enter "C".

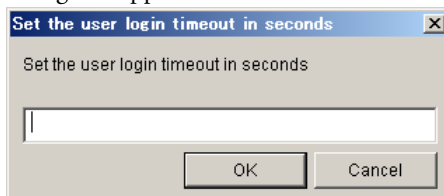
Table 3-2 LastTran Response

Login Timeout

Sets the amount of time dmSQL will continue to attempt to log into a database.

➔ **To set the Login Timeout:**

1. Choose **Login Timeout** from the Set menu.
2. A dialog box appears:



3. Enter the number of *seconds* for the timeout period.

4. Click OK.

Lock Timeout

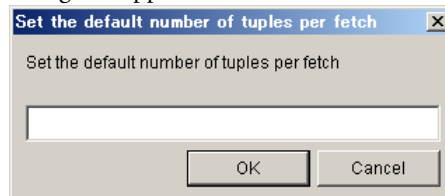
Sets the amount of time dmSQL will continue to attempt accessing a locked database object.

- **To set the Lock Timeout:**
1. Choose **Lock Timeout** from the **Set** menu.
 2. A dialog box appears.
 3. Enter the *number of seconds* for the timeout period.
 4. Click OK.

Fetch

Set the number of rows dmSQL will retrieve from a database on a Fetch command. All rows in the database will be retrieved by default.

- **To set the number of Tuples per Fetch:**
1. Choose **Other** from the **Set** menu under the **Fetch** submenu.
 2. A dialog box appears:



3. Enter the *default number* of rows to retrieve with each **Fetch** command.
4. Click OK.

Line Width

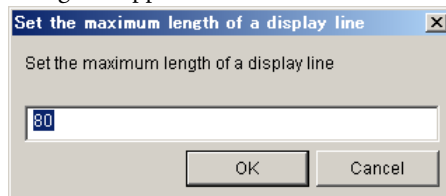
The default width for lines in dmSQL's Command Entry Area is 80 characters. Set the width for the display line, or turn off the setting. If you turn off the setting, there will be no limit to the line width in the Command Entry Area.

➤ **To turn off the line width setting:**

Select "Off" from the Set menu under the **LineWidth** submenu.

➤ **To change the line width setting:**

1. Choose **Other** from the Set menu under the **LineWidth** submenu.
2. A dialog box appears:



3. Enter a *value* for the **display line** width.
4. Click OK.

Displaying BLOBs

When a Select command includes BLOBs, choose display options.

➤ **To show a BLOB with its size:**

1. Choose **Size** from the Set menu under the **BLOB->Show** submenu.
2. The following command syntax displays:

```
set blobshow size;
```

➤ **To save a BLOB to a file:**

1. Choose **File** from the Set menu under the **BLOB->Show** submenu.
2. Choose **Pref** from the Set menu under the **BLOB** submenu to set the prefix of file names for output.

3. Choose **Rowmax** from the **Set** menu under the **BLOB** submenu to set the maximum number of output files.
4. The following command syntax displays:

```
set blobshow file;  
  
set blobpref 'your_prefix';  
  
set blobrowmax max_number;
```

➔ **To directly show BLOB content in the workspace:**

1. Choose **Print** from the **Set** menu under the **BLOB->Show** submenu.
2. Choose **Width** from the **Set** menu under the **BLOB** submenu to set the maximum number of bytes to display.
3. The following command syntax displays:

```
set blobshow print;  
  
set blobwidth max_number;
```

FlightRecorder

When the FlightRecorder function is turned on, dmSQL will automatically write all executed commands along with those that have failed due to errors to the *dmrecord.sql* file. This file can be used as a script.

NOTE *FlightRecorder is turned "Off" by default.*

NOTE *The full path of the dmrecord.sql file appears next to the "On" menu item in the FlightRecorder submenu.*

➔ **To turn FlightRecorder "On":**

1. Choose **"On"** from the **Set** menu under the **FlightRecorder** submenu.
2. The following command syntax displays:

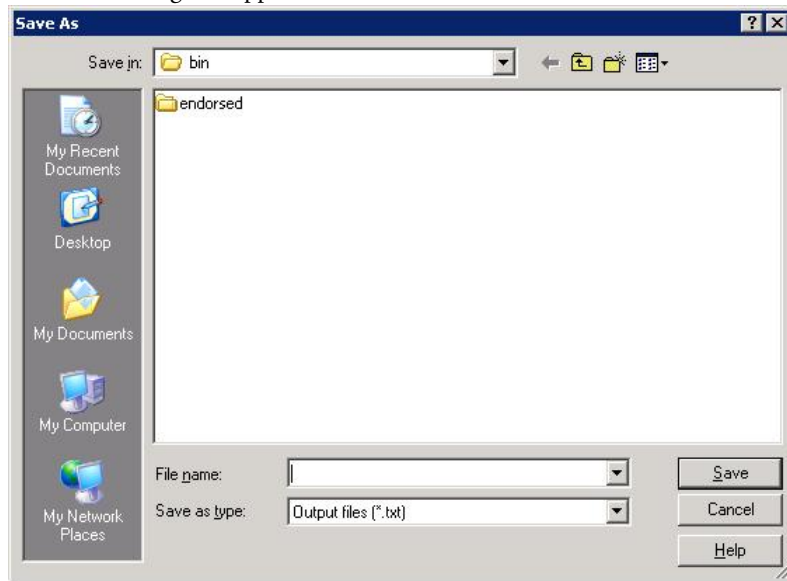
```
set fltrec on;
```

PrintTo

dmSQL's default setting directs all output to the screen. Alternatively, automatically direct all dmSQL output to a text file of choice. By default, the PrintTo function is turned "Off".

☞ To set PrintTo:

1. Choose **File Name** from the **Set** menu under the **PrintTo** submenu.
2. The **Save As** dialog box appears:



3. Enter the *name* of the file to output to in the **File name** box.
4. Click **Save**.

Echo

The Echo setting toggles between displaying a command's effect and displaying the command along with its effect.

☞ To turn Echo "On":

1. Choose "On" from the **Set** menu under the **Echo** submenu.

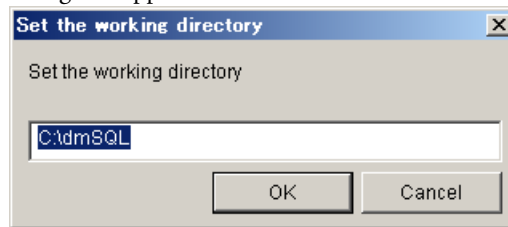
- The following command syntax displays:

```
set echo on;
```

Working Directory

Set the directory for all external file operations to be saved.

- To set the working directory:
 - Choose the **WorkDir** from the **Set** menu.
 - A dialog box appears:



- Enter the *path* for the directory.
- Click OK.

Date and Time Formats

It is advisable to set appropriate input and output formats for both date and time. If these formats are not set, dmSQL may not recognize data input or fetch commands. The following date and time formats are available (where *m*=month (number), *mon*=month(name), *d*=day, *y*=year, *h*=hour, *m*=minute, *s*=second, *f*=microseconds, and *t*=am/pm):

DATE	TIME
mm/dd/yy	hh:mm:ss.fff
mm-dd-yy	hh:mm:ss
dd/mon/yy	hh:mm
dd-mon-yy	hh
mm/dd/yyyy	hh:mm:ss.fff tt

DATE	TIME
mm-dd-yyyy	hh:mm:ss tt
yyyy/mm/dd	hh:mm tt
yyyy-mm-dd	hh tt
dd/mon/yyyy	tt hh:mm:ss.fff
dd-mon-yyyy	tt hh:mm:ss
dd.mm.yyyy	tt hh:mm
yyyy.mm.dd	tt hh
yyyymmdd	hhmmss

Table 3-3 Date and Time Formats

NOTE *The input and output formats may be in different formats.*

➤ **To set the Date Input format:**

- 1.** Choose **Input** format from the **Set** menu under the **Date** submenu.
- 2.** A submenu appears.
- 3.** Select a **Date** format.

NOTE *Select "All" to accept all formats.*

➤ **To set the Date Output format:**

- 1.** Choose **Output** format from the **Set** menu under the **Date** submenu.
- 2.** A submenu appears.
- 3.** Select the **Date** format.

➤ **To set Time Input format:**

- 1.** Choose **Input** format from the **Set** menu under the **Time** submenu.
- 2.** A submenu appears.
- 3.** Select a **Time** format.

NOTE *Select "All" to accept all formats.*

- **To set Time Output format:**
 1. Choose **Output** format from the **Set** menu under the **Time** submenu.
 2. A submenu appears.
 3. Select the **Time** format.

Displaying Settings

Display the current settings for all environment variables.

- **To view settings:**
 1. Choose **Show Settings** from the **Set** menu.
 2. A list of all environment variable settings appears in the **Command Entry Area**.

Saving Settings

Save a group of environment variable settings for future reference.

- **To save settings:**
 1. Choose **Save Settings Now** from the **Set** menu.
 2. The settings are saved to the *dmsqlenv.ini* file in the Windows home directory.

3.5 Advanced Set Commands

This chapter describes the advanced set commands for dmSQL.

Set backup "On" or "Off"

Sets database backup mode "On" or "Off".

Set BLOB backup "On" or "Off"

Turn the BLOB data backup "On" or "Off" when performing a backup.

Set Browse "On" or "Off"

Sets browse mode "On" or "Off".

Set data backup "On" or "Off"

Turn the data backup "On" or "Off" when performing a backup.

Set dbmode single/multi-user

Set the database operation mode to single-user mode or multi-user mode.

Set extname to 'your_own_extension_name'

Set the extension name for a system file object.

Set flush

Synchronizes data updates from the master database to the slave database.

Set SYSINFO clear

Resets SYSINFO table's statistics value to 0.

4 Menu Items and Toolbar Reference

This chapter describes the commands contained in the dmSQL pull-down menus and toolbars.

4.1 Pull-Down Menu Commands

This section describes each of the items contained in the dmSQL pull-down menus.

Database Menu

CONNECT

Connect to a database on a local computer or a client/server on a remote computer. When using this command, the **Connect** dialog box appears.

OPTION	DESCRIPTION
Database	Selects a database to connect to.
User Name	Enter a User Name to work in the database.
Password	Enter a password to gain access to the database, if required.
Save User Name	Save the User Name as the default User Name for database access.
Login	Logs the user into the database.

Table 4-1 Connect Dialog Box Options

DISCONNECT

Disconnect the current database session.

DISCONNECT ALL

Disconnect all active database sessions.

SHOW CONNECTIONS

List all connections made in the current session.

RUN SCRIPT

The Open Script File dialog box appears and executes a script.

OPTION	DESCRIPTION
Look In	Locates and selects the script file to open: A drop-down list box displays the volume or folder that contains the file. A box lists folders and files in the selected volume or folder.
File Name	Displays the name of the file that will be opened. Use Dos commands, including wildcards.
Files of Type	Selects a file type. The default type is All Files.
Open	Opens the selected file.

Table 4-2 Open Script File Dialog Box Options

COMMIT

Commit all commands in the current transaction.

ROLL BACK

Cancel all uncommitted commands in the current transaction.

EXIT

Close and Exit dmSQL.

NOTE

- If the AutoCommit function, the Abort, or Commit settings for the LastTran function are selected then dmSQL will close without any messages.
- If the LastTran function's Ask setting is selected, a menu appears prompting to abort or commit the current transaction.

Edit Menu

UNDO

Undo the previous text editing actions.

CUT

Remove the selection from the document and places it on the clipboard.

NOTE *This command will be unavailable when no text is selected.*

COPY

Copy a selection to the clipboard.

NOTE *This command will be unavailable when no text is selected.*

PASTE

Paste a cut or copied selection of text into an open document from the clipboard.

NOTE *The Paste command will be unavailable if you have not cut or copied a selection to the clipboard.*

DELETE

Delete a selection from the active command line.

SELECT ALL

Select all of the text in the active command line.

CLEAR ALL

Delete all the contents of the Command Entry Area, except for text on the active command line.

Command Menu

ABORT COMMAND

Cancel the execution of the current command in progress.

NOTE *If the current command is a Fetch or Run Script command the Abort Command will be unavailable, use Abort Fetch or Abort Script instead.*

ABORT FETCH

Cancel the execution of any Fetch command in progress.

NOTE *If the current command is a Fetch or Run Script command the Abort Command will be unavailable, use Abort Fetch or Abort Script instead.*

ABORT SCRIPT

Cancel the execution of any Run Script command in progress.

NOTE *If the current command is a Fetch or Run Script command the Abort Command will be unavailable, use Abort Fetch or Abort Script instead.*

LIST TABLES

List all tables contained in the active database.

Display Menu

FAST RETRIEVE

Toggle the Fast Retrieve feature "On" or "Off". When the command is "Off", the results of screen output functions, running scripts and retrieving data, appear in the Command Entry area while dmSQL processes them.

HORIZONTAL SCROLL BAR

Toggle the display of the horizontal scroll bar. When the bar is displayed, a check mark appears next to the menu item.

VERTICAL SCROLL BAR

Toggle the display of the vertical scroll bar. When the bar is displayed, a check mark appears next to the menu item.

TOOLBAR

Toggle the display of the toolbar. When the toolbar is displayed, a check mark appears next to the menu item.

STATUS BAR

Toggle the display of the status bar. When the bar is displayed, a check mark appears next to the menu item.

PREFERENCES

Set fonts for text, colors for text and background in the dmSQL Command Entry Area. In addition, to perform other tasks while dmSQL performs screen output functions that may take a long time, minimize the dmSQL Workspace and have the dmSQL Background Notification feature alert you when the task is complete.

The default settings for Background Notification include an audio beep and a visual flashing window.

Set Menu

AUTOCOMMIT

Automatically commit every transaction.

LASTTRANS

Determine dmSQL's handling of the last transaction when exiting an application. When choosing this command, a submenu appears.

NOTE *This setting is ignored if AutoCommit is "On".*

SUBMENU	COMMAND	dmSQL'S RESPONSE TO A QUIT COMMAND
	Abort	The current transaction is automatically aborted before the application closes.

Commit	The current transaction is automatically committed before the application closes.
Ask	A prompt appears on the current command line prompting to abort or commit. To abort, enter "A". To commit, enter "C".

Table 4-3 LastTrans

LOGIN TIMEOUT

Set the amount of time dmSQL will attempt to login to a database.

LOCK TIMEOUT

Set the amount of time dmSQL will attempt to access a locked database object.

FETCH

Set the number of rows that dmSQL will retrieve from a database on a Fetch command. All rows in the database will be retrieved by default.

LINEWIDTH

Select the width for the display line, or turns off the setting. If you turn "Off" the setting, there will be no limit to the line width in the Command Entry Area.

BLOB

Set the options to display BLOB data:

- Size: display BLOB size instead of its content.
- File: save the BLOB content into files.
- Print: display BLOB content in the dmSQL Workspace.

FLIGHTRECORDER

Automatically set dmSQL to write all executed and failed commands to the *dmrecord.sql* file.

PRINTTO

Automatically direct all dmSQL output to a text file of choice. When choosing the command, the Save As dialog box appears.

ECHO

Select to display the effect of a command or the command and the effect.

WORKDIR

Select the directory for all external file operations to be saved.

DATE

Select the input and output formats for date data.

TIME

Select the input and output formats for time data.

SHOW SETTINGS

List settings for current environment variables.

SAVE SETTINGS NOW

Save settings to the *dmsqlenv.ini* file located in the Windows home directory.

Help Menu

COMMAND

Use the following command in the **Command Entry Area**:

```
Help 'Please Input the topic you need here';
```

DMSQL ON-LINE HELP

Display the dmSQL on-line help manual.

SQL REFERENCE

Display the *SQL Command and Function Reference*.

ABOUT *DBMAKER*

Display application identification and copyright information.

4.2 Toolbar Commands

Several commonly used commands are also available as buttons and drop-down list boxes in the dmSQL toolbar.

BUTTON	DESCRIPTION	COMMAND EQUIVALENT
Connect	Connects to any single-user database on a local computer or any client/server database running on a remote computer.	Database Connect
Disconnect	Disconnects from the active database.	Database Disconnect
Abort Command	Aborts the current command in progress.	Command Abort Command
Abort Fetch	Cancels the execution of any Fetch command in progress.	Command Abort Fetch
History (Button and drop-down list box)	Locate and move to any command from the current session.	None
Connection Handles (Drop-down list box)	Locate and move to any connection in the current session.	None

Table 4-4 Toolbar Command Options