



Mimer SQL

Getting Started on Windows

Version 10.1

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Mimer SQL Web Sites:
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Getting Started

Welcome to Mimer SQL. This document describes how to set-up Mimer SQL on Windows after the installation.

To get the most out of this document, you should be familiar with your Windows environment and know how to use the various Windows system tools.

Licensing Mimer SQL

When you install Mimer SQL, a default development edition license key is installed. This license covers basic usage for development purposes and enables 10 concurrent users.

If you want to use Mimer SQL for any purpose other than development, you must purchase a commercial license. Contact your Mimer SQL distributor, <http://www.mimer.com/Contact.aspx>, to purchase the license you require. Your new license key will be sent to you via e-mail. You apply the new license key by double-clicking on the e-mail attachment.

For more information, start the Mimer Administrator, located in the Mimer SQL program group, click the **License Key** tab and select **Help**.

Rights and Privileges

On Windows you must belong to the administrators group to set-up Mimer SQL clients and servers.

Documentation

The Mimer SQL Documentation Set, Mimer JDBC Driver Guide, Release Notes, and Mimer Windows specific documentation are available in the Mimer SQL program group, under Documentation.

Note: The documentation set (i.e. SQL Reference Manual, Programmer's Manual, System Management Handbook, and User's Manual) will only be available if you chose to install it when you installed Mimer SQL.

If you would like printed copies of the documentation set, contact your Mimer SQL representative.

Useful Links

The Mimer SQL Developer Site contains lots of useful information, like FAQ's, How-to's and articles: <http://developer.mimer.com>

Setting-up a Database Client

If you want to access a Mimer SQL database server (also referred to as a remote database) already installed on your network, all you need to do is set-up a Mimer SQL database client.

You set-up a client using the Mimer Administrator.

- 1 Start the Mimer Administrator, located in the Mimer SQL program group.
- 2 Click the **Remote** tab and then click the **Add** button.
- 3 In the Remote Database Definition dialog box, enter the database name, the node (computer) where the database server is located and which network protocol to use.

The database name must be the same name used on the remote computer. Ask your system or database administrator if you are unsure of the name.

The node name is the name of the computer as registered in the network. It is usually entered in lower case letters.

The network protocol is usually **tcp**. You can also use **NamedPipes**.

Click **OK**, you are now ready to access the Mimer SQL database from your development tool. An ODBC data source with the same name as the database is created automatically.

Creating Mimer SQL Databases

Creating Mimer SQL databases is easy. All you need to do is:

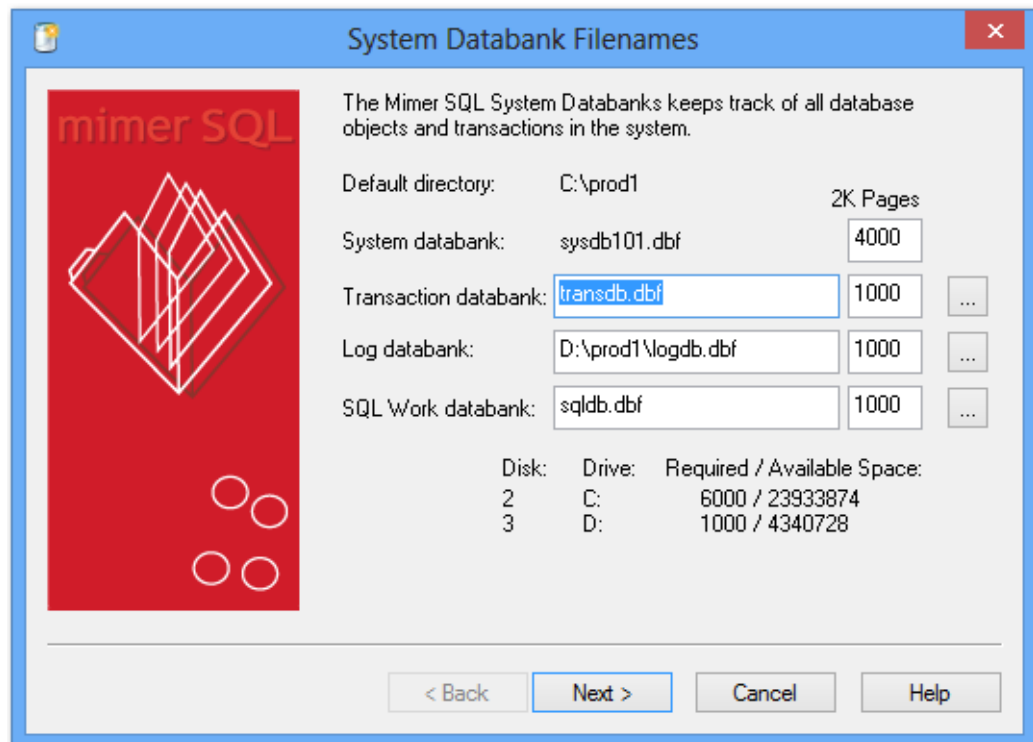
- add a database definition for the database
- create the system databanks
- set the `SYSADM` password
- create a database user
- start the Mimer SQL database server.

You do this using the Mimer Administrator and a wizard to guide you.

Creating a Database

- 1 Start the Mimer Administrator, located in the Mimer SQL program group.
- 2 In the Mimer Administrator, on the **Local** tab, click **Add** to create a database. The Local Database Definition dialog box opens.
- 3 Enter the name of the database and the directory in which you want to create it. Click **OK**.

- The Mimer Administrator asks if you want to create system databanks. In the Create Systems dialog box, click **Yes**. The following wizard starts:



The example above demonstrates the following important points:

- you must specify the file locations of databanks not in the default directory as absolute paths
- to safeguard against data loss in the event of a hard disk failure, place the log databank, LOGDB, on a separate disk from the other databanks.
- If possible, also place TRANSDB on a separate disk. However, LOGDB and TRANSDB should not be placed on the same disk. If you only have one alternative disk, use it for LOGDB. Mimer SQL examines the available hard disks and suggests how the files should be distributed. (In the above example, C: and M: are on separate hard disks.)

Note: You can use the Disk Administrator in the Administrative Tools menu to check the layout of logical disk partitions (e.g. C:, D:) on the available hard disks.

The file sizes are expressed in 2K blocks. The initial sizes are not critical as the files will be automatically extended as required.

Enter the database information and click **Next**.

- The next step is to specify the password for the system administrator SYSADM. Enter the system administrator's password, and confirm it. Click **Next**.

Note: Keep the SYSADM password secure, as SYSADM can alter passwords for Mimer SQL users that he/she creates. If you lose the SYSADM password, it cannot be retrieved from your Mimer SQL system.

- When the system databank creation is complete, the wizard asks you what you want to do next. Select both options available and click **Next**.

- 7 Continue with the wizard to create a development user and start the database server.

After completing the wizard, you can access your database directly from your favorite ODBC tool. You can also access it using Mimer WSQL – available for download for free from our web site: http://developer.mimer.se/howto/howto_14.htm

If you want to access this database from another computer in the network, you must install and set-up a database client on the other computer. See *Setting-up a Database Client* on page 2.

Starting and Stopping Database Servers

How you start and stop Mimer SQL database servers depends on the Windows operating system you are using.

However, on all Windows platforms supported by Mimer SQL, you can control local database servers using the Mimer Administrator.

Go to your Mimer SQL program group and select **Mimer Administrator**, Mimer Administrator starts.

Click the **Local** tab and right-click on the database name. A pop-up menu enables you to start and stop the database server.

Starting and Stopping

You can start and stop database servers, and enable or disable logins using the Mimer Controller, located in the Mimer SQL program group. You can control both remote and local databases using the Mimer Controller.

The operating system equivalent of the Mimer Controller is the Services dialog box in the Control Panel. You can use Windows Services to start and stop Mimer SQL databases.

Autostart

By default, Mimer SQL database servers are created with the startup setting set to **Autostart**. Mimer SQL database servers will start automatically whenever the machine reboots.

You can view and change the Autostart setting using the Mimer Administrator or Windows Services.

Logging Database Events

Mimer SQL writes events to the Windows event log. Use the Event Viewer, located under Administrative Tools, to examine the event log.

The source for Mimer SQL events is the name of the database service they relate to, and they are logged in the Application log.

Setting Up and Running DbVisualizer

DbVisualizer is a graphical front-end used to view and manage your database objects. It is started from the DbVisualizer shortcut in the Mimer SQL program group or from the Tools menu in the Mimer Administrator.

The first time DbVisualizer is started you may need to install Java on your computer. Once Java is installed DbVisualizer is started. The very first time DbVisualizer is started two operations are automatically initiated:

First the **New Connection Wizard** is started. This wizard will help you set up a connection to your Mimer SQL database:

- 1** You are first prompted for a name of the connection. A common naming scheme is to use the database name followed by the username in parenthesis. For example: `dbsql (MIMER_STORE)`
- 2** In the second step you select database driver. Select Mimer from the drop down list.
- 3** In the third step you fill in the database name, username, and password used when accessing the Mimer SQL server. Enter the name of the database you want to connect to. If you have set up the Mimer SQL Example database, you can enter username `MIMER_STORE` and password `GoodiesRUs` (if you have used the default password). If your database is on another computer remember to change the `Server` field to the name of the computer. Before proceeding, make sure you test that your connection is working properly.
- 4** You have now completed the wizard and can explore the various objects in your database by selecting them in the tree view to the left. Note that you can modify existing objects and create new ones by right-clicking on the objects or object types.

The second that happens when DbVisualizer is invoked for the first time is that the **Driver Finder** will locate the Mimer SQL JDBC Driver. Unless errors have occurred, this dialog can simply be closed.

Running Mimer BSQL and Other Utilities

In order to run most of the Mimer SQL utilities from a command prompt window, you must specify which database to access. You can do this in different ways:

- Enter the database name on the command line, e.g. `BSQL database_name`
- Use the environment variable `MIMER_DATABASE`, e.g.
`SET MIMER_DATABASE=database_name`
- Use an ODBC default data source. Specify **Default** as the data source name in the Mimer Administrator.

The order of the three methods is significant as the first methods override the later ones. For example, specifying the database on the command line overrides the setting of the `MIMER_DATABASE` environment variable.

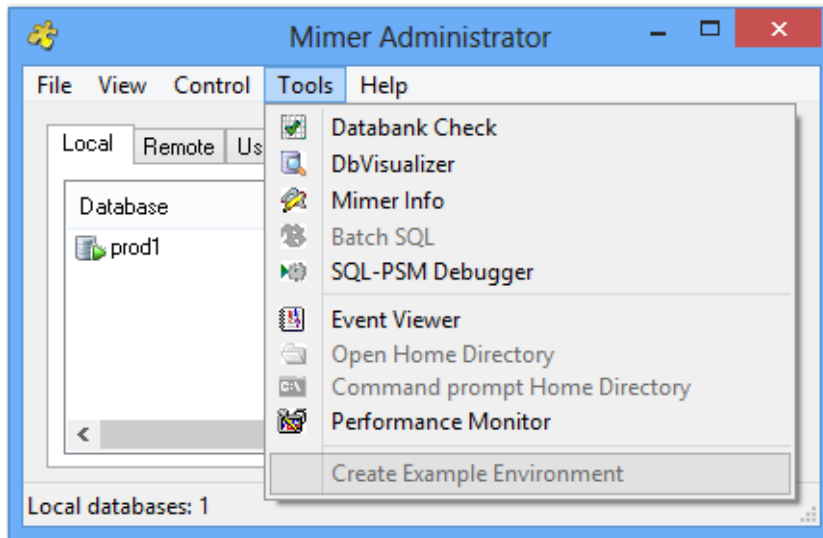
The Developer and Example Environments

If, when installing Mimer SQL, you chose to install the development and sample files, you can choose to set-up a development environment and an example environment.

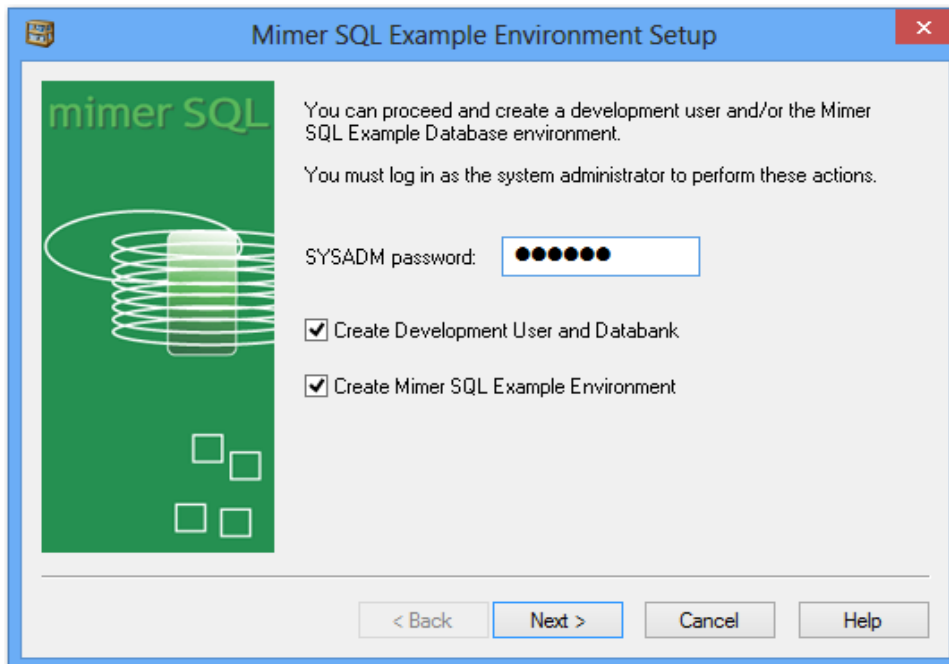
To install the environments:

- 1** Start Mimer Administrator, located in the Mimer SQL program group.

- 2 Select the **Local** tab, and open the **Tools** menu, for example:



- 3 Select **Create Example Environment**, the following dialog box opens:



- 4 Select the environment(s) you want to create and click **Next**. A wizard will guide you through the necessary steps.

Accessing the Example Environment

To access the example environment, you can use:

- DbVisualizer or Mimer BSQL, both available in the Mimer SQL program group
- Any ODBC or JDBC based SQL tool

Building the Development Environment

Note: You must have the Microsoft Visual Studio or equivalent development kit installed.

To build the environment:

- 1 Open a command prompt window.
- 2 Change the current directory to the development kit home directory, under the installation directory, e.g. `\Program Files\Mimer SQL 10.1\DEV`
- 3 Enter the following commands:

```
NMAKE /F makefile.mak
DSQL
OSQL
NMAKE /F makefile.mak clean
```

You must have a path which includes the `NMAKE` program.

The sample programs created accept SQL statements and display selected results.

Note: To build and run the `OSQL` (ODBC sample program) you must have defined a data source.

You can use the `makefile` as a starting point for writing your own `makefiles`.

An alternative to the above steps is to open the `makefile` in Microsoft Visual Studio and then compile the programs.

Packaging Mimer SQL with a Windows Application

If you want to package your application with Mimer SQL, you should read the Mimer SQL Packaging Guide for Windows. It can be found at

<http://developer.mimer.com/documentation/>.

ODBC Trace

Note: The Mimer ODBC Trace tool is only available on 32 bit Windows.

Mimer ODBC Trace is a tool for getting the details out of an ODBC session. It can for example be used for debugging, monitoring and analyzing purposes. For each ODBC statement the tool can trace:

- the elapsed time in server
- the SQL statement used (if appropriate)
- the ODBC function used
- the timestamp for the ODBC call
- the ODBC handle used
- the calling application process ID and name
- the return code for the ODBC call

This software consists of two parts, the Mimer ODBC Trace Administration tool and the Mimer ODBC Trace DLL that substitutes the standard Microsoft ODBC Trace DLL.

The administration tool has two main functions:

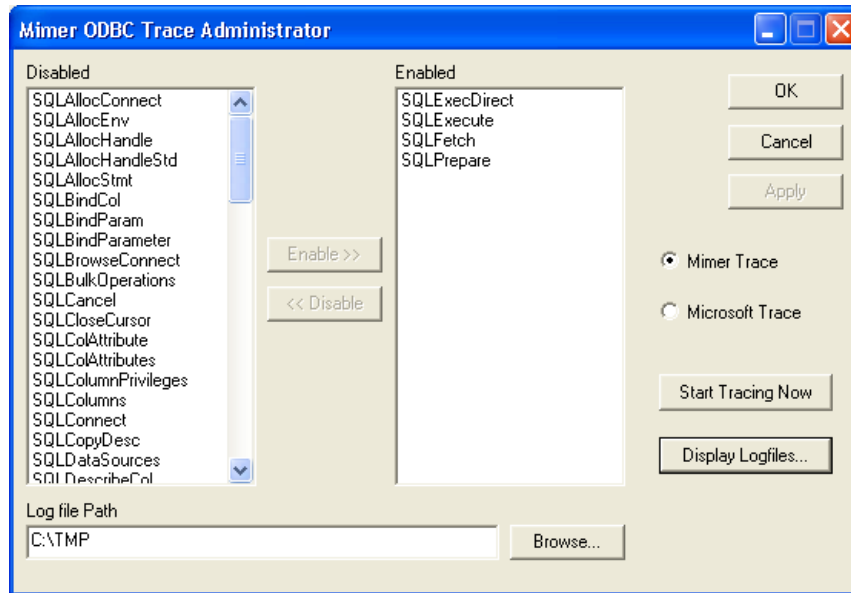
- Configuration - to setup prerequisites for the trace logging and to start/stop logging
- Presentation - to select and display the records from a logging file.

To use the Mimer ODBC Trace DLL, it must first be activated using the administration tool.

Before using this software however, you should read *Important Notes* on page 13.

Using the Administration Tool

When starting the administration tool, the following dialog is displayed.



The Configuration Part

The left side of the window is the **Configuration** part, which is used to change the settings for the logging.

The two list boxes are used to manage which functions calls are to be logged, and which are not. Calls to functions present in the left list box will not be logged, and calls to functions present in the right list box will be logged.

The **Enable>>** button moves any selected function(s) in the left list box over to the right, thus activating logging of calls to that/those function(s).

The **<<Disable** button moves any selected function(s) in the right list box over to the left, thus deactivating logging of calls to that/those function(s).

The **Log file Path** edit field is where you specify the location of the generated log file(s). The path must exist for logging to be conducted successfully.

The radio button **Mimer ODBC Trace** specifies that the Mimer ODBC Trace DLL should be used instead of the default Microsoft ODBC Trace DLL. There is also a radio button **Microsoft ODBC Trace**, which can be used to switch back. See also *Important Notes* on page 13.

The **Apply** button saves any changes to the fields described above.

The **Cancel** button dismisses the dialog without saving any changes you have made and that are not applied.

The **OK** button save any changes you might have made, and dismisses the dialog.

Start Logging

After pressing the **Start Tracing Now** button (renames to **Stop Tracing Now**), logging will take effect for all applications attaching to the DLL. As the settings only will be read when the DLL is loaded, already started applications will not be affected.

Each started application will have a log file of its own, placed in the location specified by Log file Path and named `mimodbctrac-appname-mmdd-hhmm.xml`.

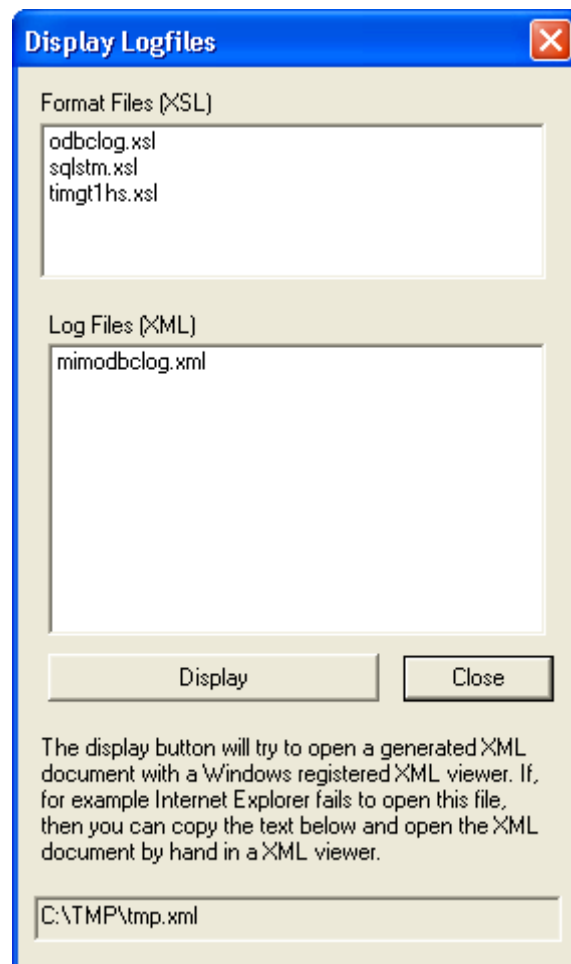
Stop Logging

Pressing the **Stop Tracing Now** button (renames to **Start Tracing Now**) means that no logging will take place for applications started afterwards.

Note: Already running applications will continue logging until they quit. When an application ends, its log file is closed and becomes available for presentation.

The Presentation Part

The right side of the main window is the **Presentation** part (as showed below). It is used to present results from a selected log file, that has been produced by the Mimer ODBC Trace DLL.



First of all you have to find a Mimer ODBC Trace log file by using the button **Select Logfile**. Then you get a new window `Select Log File`, where you should choose a file, which is named according to the output from the DLL, i.e. `mimodbctrac-appname-mmdd-hhmm.xml`. When selected the name will be displayed in the field **XML Logfile**.

Next a presentation form should be selected from the **XSL files** menu. When a XSL file is selected the **Display** button should be pressed and the presentation will be shown.

Presentation Formats

Currently there are 3 different predefined presentations:

odbclog.xsl

Shows all information from the log file. Functions, which used more time than 0.01 seconds are displayed with the time in red color.

sqlstm.xsl

Shows all SQL statements found in the log file.

timgt1hs.xsl

Shows all functions, which used more time than 0.01 seconds.

Example odbclog.xsl:

Timestamp	Function	UsedTime (sec)	Application (Processid:Threadid)	Handle [id]	Return code	SQL-statement
2003-12-11 15:28:29.60	SQLAllocStmt	0.0001	wsql (fff60ad9 :fff49a99)	HDBC[0x028f0280]	SQL_SUCCESS	
2003-12-11 15:28:29.93	SQLPrepare	0.2296	wsql (fff60ad9 :fff49a99)	HSTMT[0x028f0ac c]	SQL_SUCCESS	select P from JSP

Example sqlstm.xsl:

SQL-statements
SELECT DISTINCT P FROM SPJ, S, J WHERE SPJ.S = S.S AND SPJ.J = J.J AND S.CITY = J.CITY

Example timgt1hs.xsl:

Timestamp	Function	UsedTime (sec)	SQL-statement
2003-12-11 15:28:29.93	SQLPrepare	0.1675	SELECT DISTINCT P FROM SPJ, S, J WHERE SPJ.S = S.S AND SPJ.J = J.J AND S.CITY = J.CITY

Customized Presentations

Additional XSL files can be added to the default XSL file location.

The distributed XSL files may, for example, be modified, and replaced or stored as a new XSL file in the same location. Maybe other time limits are desired, or other colors, or others.

If for example, other time limits are wanted, the distributed XSL files may be modified and replaced or stored as a new XSL file in the same location.

Important Notes

- When changing any settings using the administration tool, you should restart any application for which you want the changes to be used. The reason for this is that the settings will only be read when the DLL is loaded by the application, and thus the DLL has to be reloaded for any changes to take effect.
- The administration tool changes the registry entries in
HKEY_CURRENT_USER\SOFTWARE\ODBC\ODBC.INI\ODBC
If there is any problem look there in order to see if your changes are applied.
- The “original” ODBC Administrator may also change those registry entries. Currently there is a problem concerning the cooperating use between these two administration tools. Watch out which DLL is selected, as both administrators may start or stop tracing with anyone of the DLL's.

