

Database Connectors

Database

A Database connector is used to get data from tables and/or views in relational databases either local to the machine or across the network.

This document is generic to any database. For a specific document on connecting to Microsoft SQL Server, see **DATA CONNECTIVITY, Microsoft SQL** in the **Document Library**.

Prerequisites

Verify Database

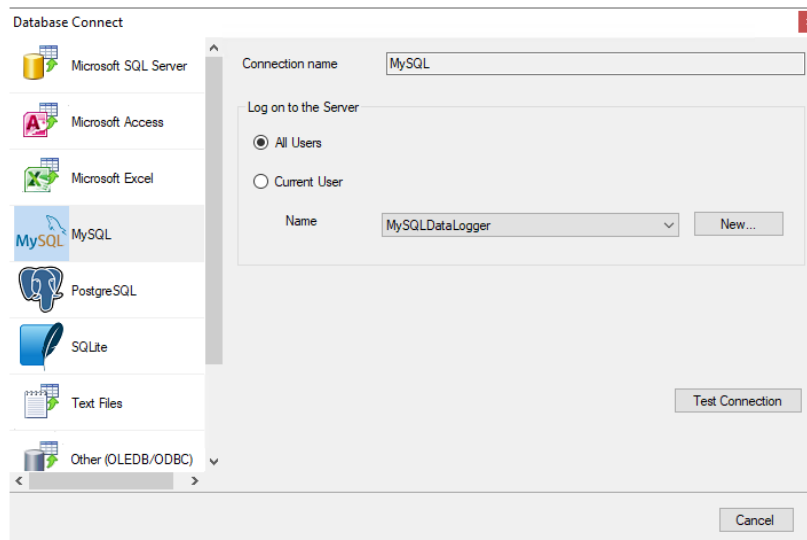
Open the database configured as the database connector using the tool provided by the database vendor. If the database is Microsoft SQL Server or SQL Server Express, the **SQL Server Management Studio** is provided. If the database is **MySQL**, the **MySQL Workbench** is provided. Open the application and connect to the database.

Once connected, navigate to the database providing the data and the table or view in that database where the data is stored. Execute a query to retrieve data from the table or view to verify data is available.

Database Considerations

MySQL, PostgreSQL, and SQLite

To configure a connection to any of these databases, the ODBC driver for the database must be installed on the machine where **XLReporter** is installed. On 64-bit Windows operating systems, both the 32-bit and 64-bit ODBC drivers must be installed.



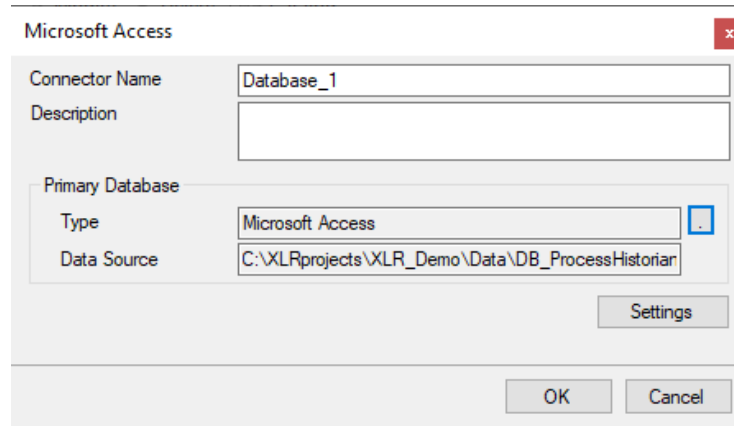
When configuring the connector, **Name** contains a list of currently configured Data Source Names (DSNs) built for the selected database. The **New** button allows you to create a new DSN to the database.

Note that if **All Users** is selected, you will need administrative privileges to create a new DSN.

Connector

To configure the connector, from the **Project Explorer** select **Data, Connectors**.

- Click **Add**
- Select **Database** then the specific database vendor.
- Click **OK**



The screenshot shows a dialog box titled "Microsoft Access" with a close button (X) in the top right corner. It contains the following fields and controls:

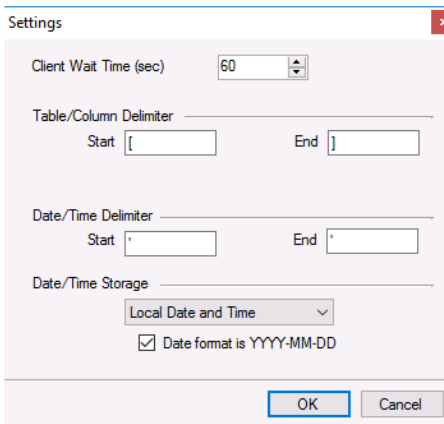
- Connector Name:** A text box containing "Database_1".
- Description:** An empty text box.
- Primary Database:** A section containing:
 - Type:** A dropdown menu set to "Microsoft Access" with a browse button (three dots) to its right.
 - Data Source:** A text box containing "C:\XLRprojects\XLR_Demo\Data\DB_ProcessHistorian".
- Settings:** A button located below the Primary Database section.
- OK** and **Cancel** buttons are located at the bottom of the dialog.

Primary Database

This defines a connection to the database. A browse button [...] is provided to define.

Settings

The **Settings** button opens the **Settings** dialog that defines characteristics of the database that are used to retrieve data.



The screenshot shows a dialog box titled "Settings" with a close button (X) in the top right corner. It contains the following settings:

- Client Wait Time (sec):** A spin box set to "60".
- Table/Column Delimiter:** Two text boxes for "Start" (containing "[") and "End" (containing "]").
- Date/Time Delimiter:** Two text boxes for "Start" (containing "'") and "End" (containing "'").
- Date/Time Storage:** A dropdown menu set to "Local Date and Time" and a checked checkbox labeled "Date format is YYYY-MM-DD".
- OK** and **Cancel** buttons are located at the bottom of the dialog.

Typically, these settings are defaulted correctly based on the **Primary Server**.

If queries timeout, increase the **Client Wait Time**.

The delimiter and timestamp settings are typically filled in automatically for the database and can be modified for other databases.

The **Date/Time Storage** settings define how timestamps are stored in the database. Using this setting the timestamps are manipulated when data is retrieved so that local timestamps are submitted in and returned.

Many databases require the Date format to be **YYYY-MM-DD** so that no interpretation needs to occur based on the Region settings of the Windows Operating System. It is recommended to always have this option checked.

Data Group

For a Database connector, a data group is built using the Database Group Builder. For details on this, see the document on database groups.

Verify the Data Connector

From the **XLReporter Project Explorer** select, **Tools, Connector Groups**.

Select the *Database* connector and then select **Add**.

- Set the **Type** to *Standard* and click **OK**

On the **Setup** tab of the group

- Add a table or view to the **Selected Tables/Views**.
- Set **Records to Fetch** to *Top n* and the value to *1000*.

Under the **Columns** tab, in **Available Columns**, add columns from the selected table or view to the **Selected Columns** list.

Select **Preview** and click **Refresh**.

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