XLReporter Connectors

Analytic Database

This connector is used to define the database where **XLReporter** Analytics are logged and is used to get analytic data for reporting.

Connector

For details on the Analytics connector, see CONNECT, Analytic Data Logging and Analysis.

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

- Click Add
- Select XLReporter, Analytic values
- Click OK

Analytic values	×
Connector Name Description	XLR_Analytic_1
Primary Database	
Туре	Microsoft Access
Data Source	C:\XLRprojects\XLR_Demo\Data\DB_data9.mdb
	Settings
	OK Cancel

Primary Database

This defines a connection to the database where the Analytic data is stored. 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.

Settings ×
Client Wait Time (sec) 60
Table/Column Delimiter Start [[End]]
Date/Time Delimiter End [*
Date/Time Storage
Local Date and Time \sim
Date format is YYYY-MM-DD
OK Cancel

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.

Tables

When this connector is saved the first time, a set of tables and views is created in the Primary Database.

If the connector is modified, but the **Primary Database** remains the same, when saved the user is prompted to overwrite the tables. If this is done, all the analytic data logged previously is deleted.

Analytic Editor

After the Analytic connector is defined, to configure the Analytics to store to the database, open the Analytic Designer (**Project Explorer, Data, Analytics**).



In the Analytic Designer select Storage.

Storag	ge Setup				x
🗹 Er	able				
	Connector Backup Path	XLR_Analytic_1	~		
			[ОК	Cancel

By default, **Enable** is checked, the **Connector** is set, and the **Backup Path** is configured to a folder in the **Data** subfolder of the project.

Data Group

The following describes the historical data group settings specific to the **Analytics** connector. **Group Types**

🚞 Select Group Type			\times
● Summary Values ☑ use raw values			
🔿 Raw Analytic Values			
Custom Values			
Base on			
<blank></blank>		\sim	
	ок	Cance	sl
	ON	Cance	21

The following group types are available:

Summary Values

This group type retrieves stored values from the analytics and performs calculations on those for reporting.

By default, summary values are calculated time weighted, and values are propagated based on the last known value. However, to change this so that summary values are calculated strictly on the data returned check **use raw values**.

Raw Analytic Values

This group retrieves every value logged to the database between the start and end time specified.

Custom Values

This option opens the Database Group builder where a query can be configured to retrieve data from any table in the database.

Group Settings

Setup Tab

tup Columns Time Period	Filters		
	Description		
	Analytics		
	Туре	Snapshot 🗸	
	Table	tbISS	
	Timestamp Colum	n DateAndTime ~	
	Retrieval		
	Retrieval Mode	Raw Values 🗸	
	Rate (secs)	30	

Analytics

This section defines which Analytic **Type** is used for the selected **Columns**. Every **Type** is listed regardless of whether or not any have been configured.

Retrieval (Summary Values Group)

The **Retrieval** settings define how data is retrieved for the calculations selected for the group. The following settings are available:

Retrieval Mode

This setting defines how data is retrieved from the historian. For Analytics only *Raw Values* are available.

• Lead Time The amount of time (in seconds) to retrieve data before the start time.

Verify the Data Connector

From the XLReporter Project Explorer select, Tools, Connector Groups

Select the Analytic connector and then select Add.

• Set the **Type** *Raw Analytic Values* and click **OK**.

On the Setup tab, select an Analytic Type that has been configured with at least 1 row.

On the **Columns** tab of the group, select the analytic values to read.

Select Preview, pick a Start date and click Refresh.

Data Entry Form Database

This connector is used to define the database where Data Entry Forms are logged and is used to get form data for reporting.

Connector

For details on Data Entry Form Connectors see DESIGN, Design Manual Data Entry Forms.

Manual Data Entry value	s		x
Connector Name	Access-Water		
Description	C:\XLRprojects\XLR_Demo\Data\Water.mdb		
Primary Database			
Туре	Microsoft Access		
Data Source	C:\XLRprojects\XLR_Demo\Data\Water.mdb		
		Settings	
	ОК	Cancel	

Data Group

The following describes the historical data group settings specific to the connector. **Group Types**

📄 Select Group Type	×
O Summary Values from Server	
Summary Values from XLReporter Use raw values	
◯ Raw Values	
◯ Raw Text	
◯ Sampled Values	
◯ Live Values	
Custom Values	
Base on	
 dlank> 	
OK Cano	xel

The following group types are available:

Summary Values from XLReporter

This group type retrieves sampled values logged from the form and performs calculations on those values for reporting.

By default, summary values are calculated time weighted, and values are propagated based on the last known value. However, to change this so that summary values are calculated strictly on the data returned check **use raw values**.

Raw Values

This group retrieves every value logged to the form between the start and end time specified.

Custom Values

This option opens the Database Group builder where a query can be configured to retrieve data from any table in the database.

Group Settings

Setup Tab

File Edit Preview			
Setup Columns Time Period F	ilters		
	Description		
	Form		
	Name	Basin Data 🗸	
	Table	tblBasinData	
	Timestamp Column	DateAndTime 🗸	
	Retrieval		
	Retrieval Mode	Raw Values 🗸	
	Rate (secs)	30	
	Lead Time (secs)	30	

Form

This section defines which Form **Name** is used for the selected **Columns**. Every form template configured in the project is listed.

Retrieval (Summary Values from XLReporter Group)

The **Retrieval** settings define how data is retrieved for the calculations selected for the group. The following settings are available:

- **Retrieval Mode** This setting defines how data is retrieved from the historian. Only *Raw Values* are available.
- Lead Time The amount of time (in seconds) to retrieve data before the start time.

Verify the Data Connector

From the XLReporter Project Explorer select, Tools, Connector Groups

Select the Data Entry Form connector and then select Add.

• Set the **Type** *Raw Values* and click **OK**.

On the Setup tab, select a Form Name that has data entered for it.

On the **Columns** tab of the group, select the columns to read.

Select Preview, pick a Start date and click Refresh.

Simulator Real-time values

This connector is used to get real time data from the **XLReporter** Simulator.

Simulator Historical values

This connector is used to get historical data from the XLReporter Simulator.

Simulator Alarms

This connector is used to get alarms from the XLReporter Simulator.

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