Siemens SIMATIC Connectors

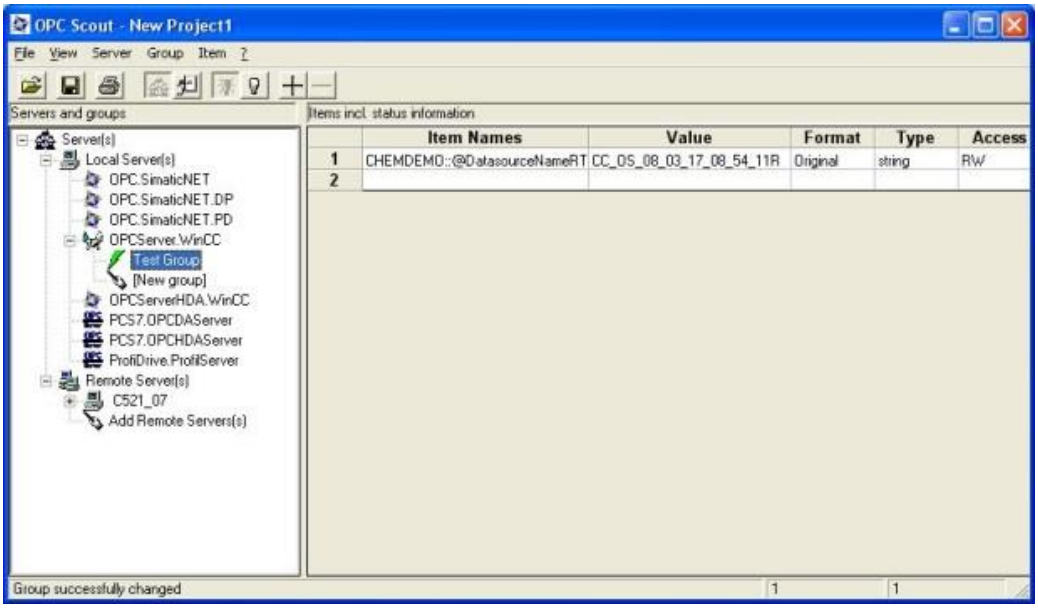
WinCC Real-time values

This connector is used to get real time values from WinCC via the WinCC OPC Server.

Prerequisites

Verify Communication

From the **Simatic** program group, open **Simatic Net, OPC Scout**.



Connect to the WinCC OPC Server listed by double clicking on it.

- Select **Group**, **Add Group**
- Enter **Group Name**, click **OK**
- Select **Item**, **Add Item**
- Browse and select the data points to read

If at any point you experience an issue with this client, contact Siemens technical support to troubleshoot and correct these issues.

Remote Communications

If XLReporter is not installed on the same machine as WinCC, the workstation must also have the OPC core components installed. To determine if the core components are installed verify the following file exists:

- C:\Windows\SysWow64\OPCEnum.exe (64-bit OS)
- C:\Windows\system32\OPCEnum.exe (32-bit OS)

If the components are not installed, then they are provided in the XLReporter installation folder under *_repairtools\OPC*. Alternatively, these can be downloaded from www.opcfoundation.org.

Server Settings

To connect to WinCC remotely both the machine where the server is running and the machine where the client is running must have matching Windows user accounts and the client must be logged in with a matching account.

In addition, on the machine with WinCC, certain DCOM settings must be enabled. For details on what DCOM settings to enable, see [OPC and DCOM: 5 Things You Need to Know.]

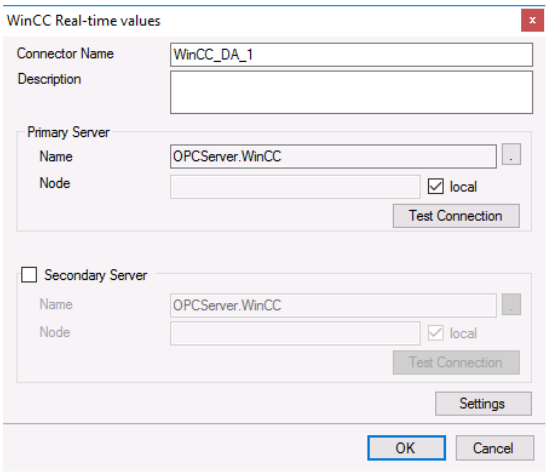
Windows Firewall

If the Windows Firewall is enabled on the machine where WinCC is running TCP Port *135* must be opened for remote clients to connect.

Connector

To configure the connector to **WinCC Real-time values**, from the **Project Explorer** select **Data**, **Connectors**.

- Click **Add**
- Select **Siemens SIMATIC, WinCC Real-time values**
- Click **OK**



Primary Server

These settings define the **Name** and **Node** of the OPC DA server. Typically, the **Name** is defaulted correctly. If the WinCC server is on the local machine, leave **local** checked, otherwise uncheck, and specify either the name or IP address of the machine where WinCC is running.

Use the **Test Connection** button to verify a connection to the server.

Secondary Server

These settings define the (optional) secondary WinCC to connect to if a connection to the **Primary Server** fails.

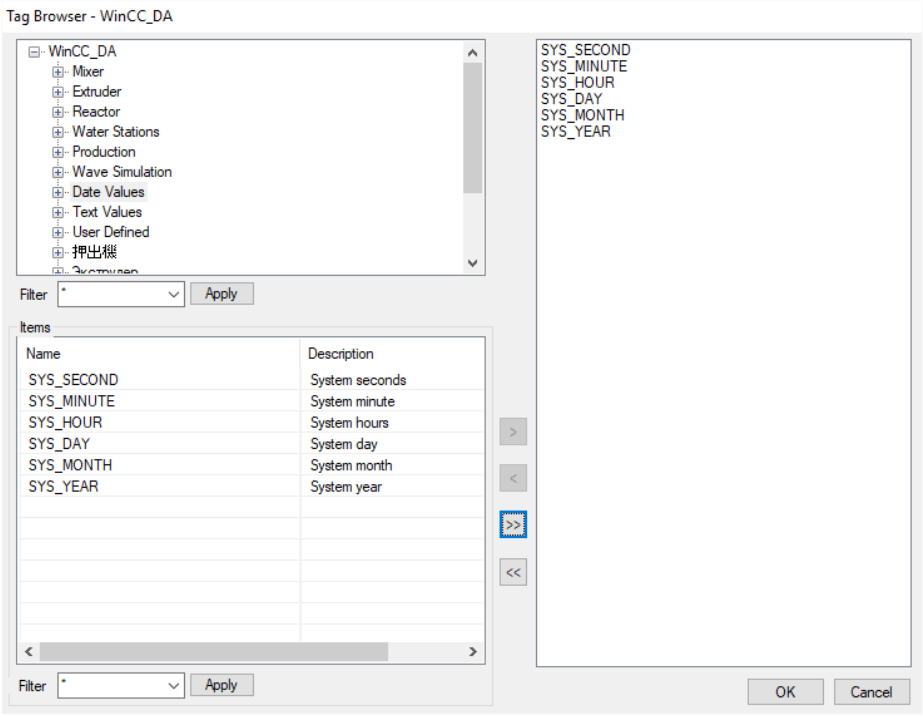
Settings

For information on the specific settings, see the **DATA CONNECTIVITY, OPC** document.

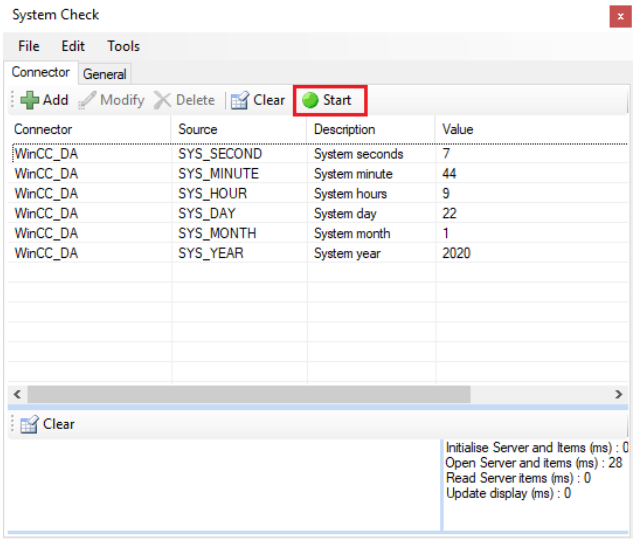
Verify Data Communication

To verify communication to WinCC OPC-DA, open the **Project Explorer** and select the **Tools** tab. Launch the **System Check** application.

- Click **Add**



- Choose the *WinCC OPC-DA* connector from the dropdown list,
- Click the pushbutton ([…]) next to Items to open the Tag Browser window.
- Select one or more tags, click **OK.**



- Click **Start** to verify the communication

WinCC Historical values

This connector is used to get historical values from WinCC via the WinCC OPC HDA Server.

Prerequisites

Verify License

The WinCC OPC HDA server provided in the WinCC Connectivity Pack or as part of the Open PCS 7 installation.

Connectivity Pack

On the WinCC machine, the Siemens WinCC Connectivity Pack license must be installed to access the OPC HDA server on that machine. This can be verified in the License Manager.

Open PCS 7

If Open PCS 7 is installed, configured, and licensed, the OPC HDA server on the Open PCS 7 machine can be accessed by **XLReporter** either on the Open PCS 7 machine itself or remotely from another machine on the network.

Verify Communication

Communication between the OPC server and an OPC client must be verified. Siemens provides an OPC HDA client to test with. Copy the **SampleClientHDA.exe** file from the folder *Siemens\WinCC\documents\english* and paste it somewhere on the machine.

Double-click **SampleClientHDA.exe** to start.

Set **Server Name** to *OPCServerHDA.WinCC.1* and click **Connect**.

Click **Browse** to open the **Browse Dialog** window.

The easiest way to get a list of tags is to set **OPCHDA_BROWSETYPE** to *OPCHDA_FLAT*. Choose each tag to test by selecting it and clicking **Add**. When complete, click **Done** to return to the **HDA Client** window.

Click **Show Items** to display the selected tags in the left pane window. Click **Validate Items** then **Get Item Handles** to register these tags with the server.

Enter the **Start Time** and **End Time** . Note this is in UTC(Universal Time Clock) and click **Read Raw**. The raw values for each selected tag will appear on the left along with a timestamp and quality.

To read processed data, click **Aggregates**, select the appropriate aggregate (e.g., maximum, minimum, etc.). and click **Read Processed**. One minute calculations between the start and end time should appear for each selected tag.

If the client does not respond as described contact Siemens technical support to troubleshoot and correct these issues.

Remote Communications

If XLReporter is not installed on the same machine as WinCC, the workstation must also have the OPC core components installed. To determine if the core components are installed verify the following file exists:

- C:\Windows\SysWow64\OPCEnum.exe (64-bit OS)
- C:\Windows\system32\OPCEnum.exe (32-bit OS)

If the components are not installed, then they are provided in the XLReporter installation folder under *_repairtools\OPC*. Alternatively, these can be downloaded from www.opcfoundation.org.

Server Settings

To connect to WinCC remotely both the machine where the server is running and the machine where the client is running must have matching Windows user accounts and the client must be logged in with a matching account.

In addition, on the machine with the OPC HDA server, certain DCOM settings must be enabled. For details on what DCOM settings to enable, see OPC and DCOM: 5 Things You Need to Know.

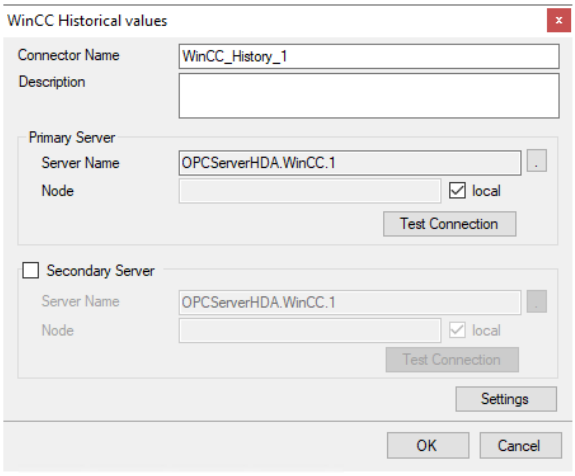
Windows Firewall

If the Windows Firewall is enabled on the machine where WinCC is running **TCP Port** *135* must be opened for remote clients to connect.

Connector

To configure the connector to **WinCC Historical values**, from the **Project Explorer** select **Data**, **Connectors**.

- Click **Add**
- Select **Siemens SIMATIC, WinCC Historical values**
- Click **OK**



Primary Server

These settings define the **Name** and **Node** of the OPC HDA server. Typically, the **Name** is defaulted correctly. If the server is on the local machine, leave **local** checked, otherwise uncheck, and specify either the name or IP address of the machine where server is running.

Use the **Test Connection** button to verify a connection to the server.

Secondary Server

These settings define the (optional) secondary historian to connect to if a connection to the **Primary Server** fails.

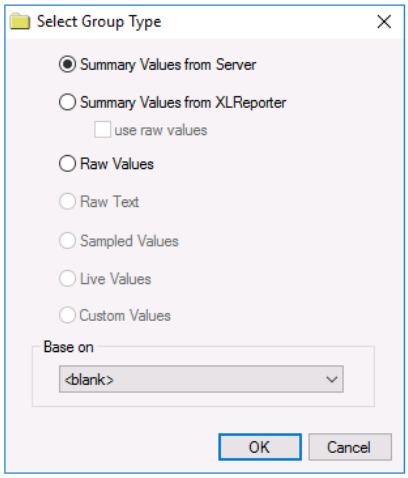
Settings

For information on the specific settings, see the **DATA CONNECTIVITY, OPC** document.

Data Group

The following describes the historical data group settings specific to the **WinCC Historical Values** connector.

Group Types



The following group types are available:

Summary Values from Server

This group type retrieves summary calculations directly from the historian. The following calculations are available:

- Interpolated
- Average
- Maximum
- Time of Maximum
- Minimum
- Time of Minimum
- Range
- Standard Deviation
- Variance
- Total
- Count
- Raw Average
- Start Value
- End Value
- Delta Value
- Regression Slope
- Regression Constant
- Regression Deviation
- Duration Good
- Duration Bad
- Percent Good
- Percent Bad
- Worst Quality

Summary Values from XLReporter

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

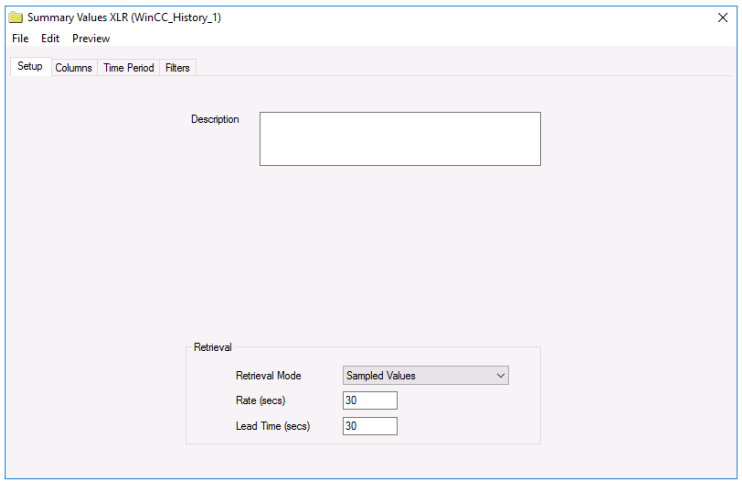
By default, summary values are calculated time weighted, and values are propagated based on the last known value. However, to change this so that summary values are calculated strictly on the data returned check **use raw values**.

Raw Values

This group retrieves values logged to the historian between the start and end time specified.

Group Settings

Setup Tab (Summary Values for XLReporter)



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. Both *Sampled Values* and *Raw Values* are available where *Sampled Values* uses the *Interpolated* calculation.
- **Rate**
  The interval (in seconds) that sampled values are retrieved from the historian.
- **Lead Time**
  The amount of time (in seconds) to retrieve data before the start time.

Verify Data Communication

XLReporter retrieves data from the **Data Connector** using a **History Group**.

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

Select your *WinCC Historical Values* connector and then select **Add.**

- Set the **Type** to *Raw Values* and click **OK**.
- On the **Columns** tab of the group, select the tag **Name**(s).
- Select **Preview,** pick a *Start* date and click **Refresh.**

WinCC Advanced Historical Values

This connector is used to get historical values logged to a database by WinCC Advanced.

Connector

To configure the connector to **WinCC Advanced Historical values**, from the **Project Explorer** select **Data**, **Connectors**.

- Click **Add**
- Select **Siemens SIMATIC, WinCC Advanced Historical values**
- Click **OK**

Primary Database

This setting defines the connection where the WinCC Advanced is configured to log to. Use the browse button […] to define the database connection.

Table

Once the database connection is established, the **Table** containing the data can be selected.

Settings

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

Typically, these settings are defaulted correctly for the **Primary Database**.

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

The following describes the historical data group settings specific to the **WinCC Advanced Historical Values** connector.

Group Types

The following group types are available:

Summary Values from XLReporter

This group type retrieves sampled values from the database and performs calculations on those samples 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 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

Retrieval (Summary Values for 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. For WinCC Advanced, only *Raw Values* are available.
- **Lead Time**
  The amount of time (in seconds) to retrieve data before the start time.

Verify Data Communication

XLReporter retrieves data from the **Data Connector** using a **History Group**.

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

Select your *WinCC Advanced Historical Values* connector and then select **Add.**

- Set the **Type** to *Raw Values* and click **OK**.
- On the **Columns** tab of the group, select the tag **Name**(s).
- Select **Preview,** pick a *Start* date and click **Refresh.**

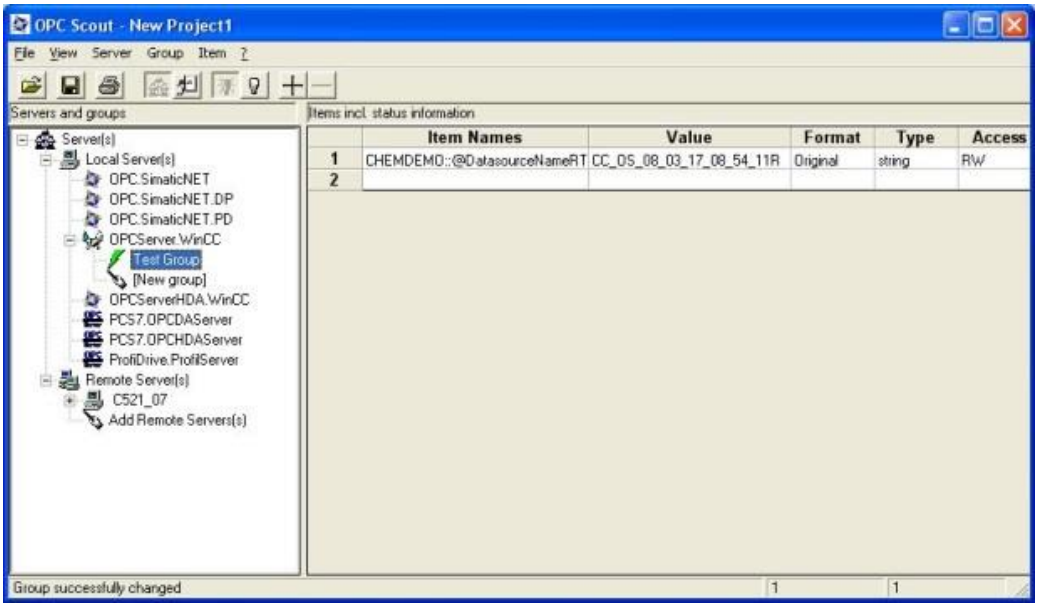
PCS7 Real-time values

This connector is used to get real time values from PCS7 via the PCS7 OPC Server.

Prerequisites

Verify Communication

From the **Simatic** program group, open **Simatic Net, OPC Scout**.



Connect to the PCS7 OPC Server listed by double clicking on it.

- Select **Group**, **Add Group**
- Enter **Group Name**, click **OK**
- Select **Item**, **Add Item**
- Browse and select the data points to read

If at any point you experience an issue with this client, contact Siemens technical support to troubleshoot and correct these issues.

Remote Communications

If XLReporter is not installed on the same machine as the PCS7, the workstation must also have the OPC core components installed. To determine if the core components are installed verify the following file exists:

- C:\Windows\SysWow64\OPCEnum.exe (64-bit OS)
- C:\Windows\system32\OPCEnum.exe (32-bit OS)

If the components are not installed, then they are provided in the XLReporter installation folder under *_repairtools\OPC*. Alternatively, these can be downloaded from www.opcfoundation.org.

Server Settings

To connect to PCS7 remotely both the machine where the server is running and the machine where the client is running must have matching Windows user accounts and the client must be logged in with a matching account.

In addition, on the machine with PCS7, certain DCOM settings must be enabled. For details on what DCOM settings to enable, see OPC and DCOM: 5 Things You Need to Know.

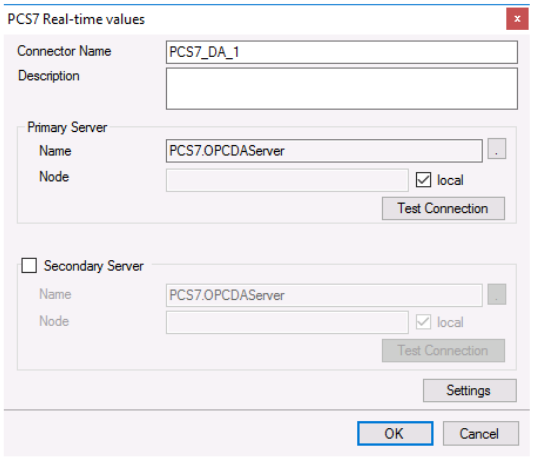
Windows Firewall

If the Windows Firewall is enabled on the machine where PCS7 is running TCP Port *135* must be opened for remote clients to connect.

Connector

To configure the connector to **PSC7 Real-time values**, from the **Project Explorer** select **Data**, **Connectors**.

- Click **Add**
- Select **Siemens SIMATIC, PSC7 Real-time values**
- Click **OK**



Primary Server

These settings define the **Name** and **Node** of the OPC DA server. Typically, the **Name** is defaulted correctly. If the PCS7 server is on the local machine, leave **local** checked, otherwise uncheck, and specify either the name or IP address of the machine where PCS7 is running.

Use the **Test Connection** button to verify a connection to the server.

Secondary Server

These settings define the (optional) secondary PCS7 to connect to if a connection to the **Primary Server** fails.

Settings

For information on the specific settings, see the **DATA CONNECTIVITY, OPC** document.

Verify Data Communication

To verify communication to PCS7 OPC-DA, open the **Project Explorer** and select the **Tools** tab. Launch the **System Check** application.

- Click **Add**
- Choose the *PCS7 OPC-DA* connector from the dropdown list,
- Click the pushbutton ([…]) next to Items to open the Tag Browser window.
- Select one or more tags, click **OK.**

Click **Start** to verify the communication

PCS7 Historical values

This connector is used to get historical values from PCS7 via the PCS7 OPC HDA Server.

Prerequisites

Verify License

The PCS7 OPC HDA server provided in the WinCC Connectivity Pack or as part of the Open PCS 7 installation.

Connectivity Pack

On the historian machine, the Siemens WinCC Connectivity Pack license must be installed to access the OPC HDA server on that machine. This can be verified in the License Manager.

Open PCS 7

If Open PCS 7 is installed, configured, and licensed, the OPC HDA server on the Open PCS 7 machine can be accessed by **XLReporter** either on the Open PCS 7 machine itself or remotely from another machine on the network.

Verify Communication

Communication between the OPC server and an OPC client must be verified. Siemens provides an OPC HDA client to test with. Copy the **SampleClientHDA.exe** file from the folder *Siemens\WinCC\documents\english* and paste it somewhere on the machine.

Double-click **SampleClientHDA.exe** to start.

Set **Server Name** to *PCS7.OPCHDAServer.1* and click **Connect**.

Click **Browse** to open the **Browse Dialog** window.

The easiest way to get a list of tags is to set **OPCHDA_BROWSETYPE** to *OPCHDA_FLAT*. Choose each tag to test by selecting it and clicking **Add**. When complete, click **Done** to return to the **HDA Client** window.

Click **Show Items** to display the selected tags in the left pane window. Click **Validate Items** then **Get Item Handles** to register these tags with the server.

Enter the **Start Time** and **End Time** . Note this is in UTC(Universal Time Clock) and click **Read Raw**. The raw values for each selected tag will appear on the left along with a timestamp and quality.

To read processed data, click **Aggregates**, select the appropriate aggregate (e.g., maximum, minimum, etc.). and click **Read Processed**. One minute calculations between the start and end time should appear for each selected tag.

If the client does not respond as described contact Siemens technical support to troubleshoot and correct these issues.

Remote Communications

If XLReporter is not installed on the same machine as the PCS7, the workstation must also have the OPC core components installed. To determine if the core components are installed verify the following file exists:

- C:\Windows\SysWow64\OPCEnum.exe (64-bit OS)
- C:\Windows\system32\OPCEnum.exe (32-bit OS)

If the components are not installed, then they are provided in the XLReporter installation folder under *_repairtools\OPC*. Alternatively, these can be downloaded from www.opcfoundation.org.

Server Settings

To connect to PCS7 remotely both the machine where the server is running and the machine where the client is running must have matching Windows user accounts and the client must be logged in with a matching account.

In addition, on the machine with the OPC HDA server, certain DCOM settings must be enabled. For details on what DCOM settings to enable, see OPC and DCOM: 5 Things You Need to Know.

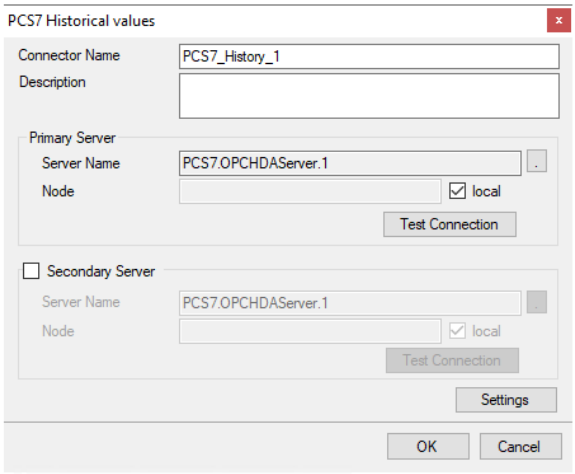
Windows Firewall

If the Windows Firewall is enabled on the machine where PCS7 is running **TCP Port** *135* must be opened for remote clients to connect.

Connector

To configure the connector to **PCS7 Historical values**, from the **Project Explorer** select **Data**, **Connectors**.

- Click **Add**
- Select **Siemens SIMATIC, PCS7 Historical values**
- Click **OK**



Primary Server

These settings define the **Name** and **Node** of the OPC HDA server. Typically, the **Name** is defaulted correctly. If the server is on the local machine, leave **local** checked, otherwise uncheck, and specify either the name or IP address of the machine where server is running.

Use the **Test Connection** button to verify a connection to the server.

Secondary Server

These settings define the (optional) secondary historian to connect to if a connection to the **Primary Server** fails.

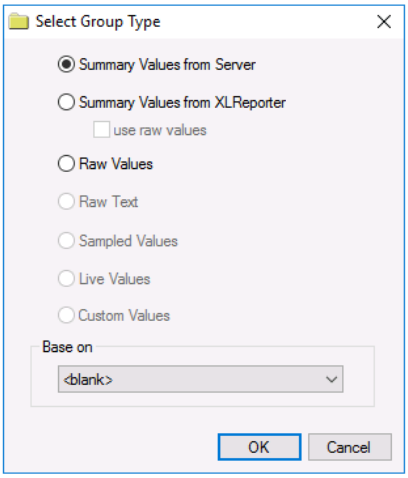
Settings

For information on the specific settings, see the **DATA CONNECTIVITY, OPC** document.

Data Group

The following describes the historical data group settings specific to the **PCS7 Historical Values** connector.

Group Types



The following group types are available:

Summary Values from Server

This group type retrieves summary calculations directly from the historian. The following calculations are available:

- Interpolated
- Average
- Maximum
- Time of Maximum
- Minimum
- Time of Minimum
- Range
- Standard Deviation
- Variance
- Total
- Count
- Raw Average
- Start Value
- End Value
- Delta Value
- Regression Slope
- Regression Constant
- Regression Deviation
- Duration Good
- Duration Bad
- Percent Good
- Percent Bad
- Worst Quality

Summary Values from XLReporter

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

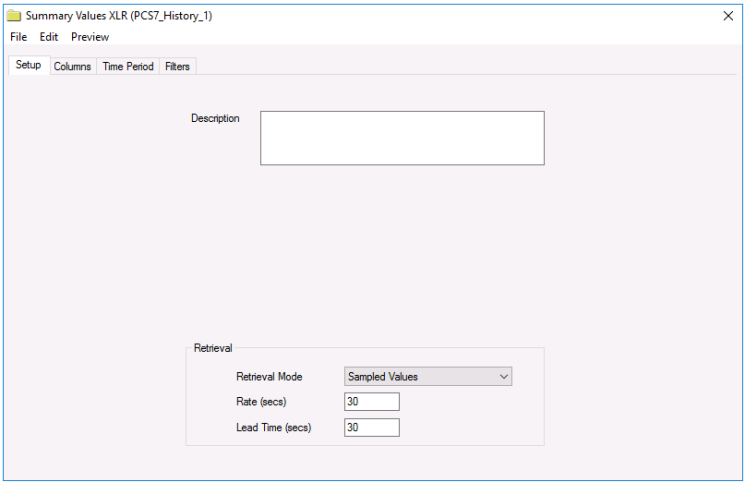
By default, summary values are calculated time weighted, and values are propagated based on the last known value. However, to change this so that summary values are calculated strictly on the data returned check **use raw values**.

Raw Values

This group retrieves values logged to the historian between the start and end time specified.

Group Settings

Setup Tab (Summary Values for XLReporter)



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. Both *Sampled Values* and *Raw Values* are available where *Sampled Values* uses the *Interpolated* calculation.
- **Rate**
  The interval (in seconds) that sampled values are retrieved from the historian.
- **Lead Time**
  The amount of time (in seconds) to retrieve data before the start time.

Verify Data Communication

XLReporter retrieves data from the **Data Connector** using a **History Group**.

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

Select your *PCS7 Historical Values* connector and then select **Add.**

- Set the **Type** to *Raw Values* and click **OK**.
- On the **Columns** tab of the group, select the tag **Name**(s).
- Select **Preview,** pick a *Start* date and click **Refresh.**

WinCC/PCS7 Alarms

This connector is used to get alarms from WinCC or PCS7 via the WinCC OLEDB Provider.

Prerequisites

Installation

Connectivity Pack

The WinCC Connectivity Pack must be installed on the machine where the server is logging alarms. The license can be verified in the **SIMATIC Automation License Manager** from the **SIMATIC** program group.

If **XLReporter** is not installed on the machine where the server is logging, the WinCC Connectivity Pack **must also** be installed on the machine where **XLReporter** is installed.

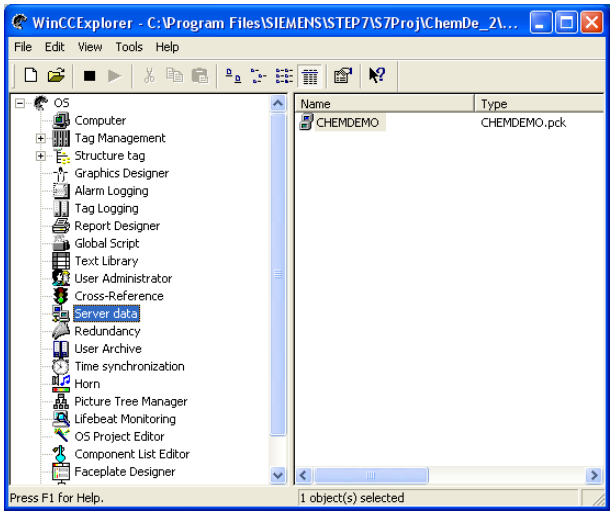
Open PCS 7

If Open PCS 7 is installed, **XLReporter** must be installed on the same machine to retrieve alarm data from any WinCC/PCS 7 station configured within Open PCS 7. The license can be verified in the **SIMATIC Automation License Manager** from the **SIMATIC** program group.

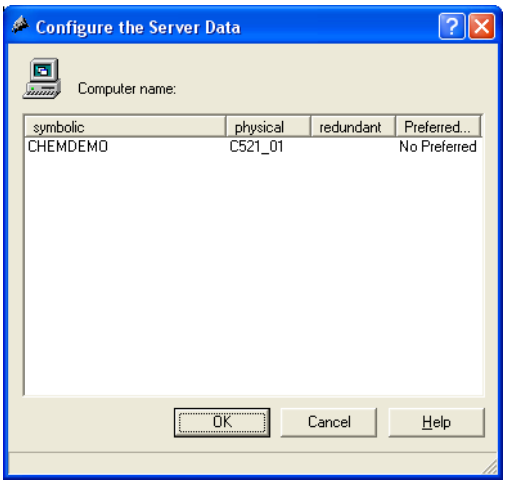
Name

When retrieving alarm data, the **Name** of the server is required as part of the setup. This depends on 1) the PC where the alarms are being logged 2) if the Connectivity Pack or the Open PCS 7 interface is used.

The **Name** contains either the computer name (Connectivity Pack) or a symbolic name (Open PCS 7). This is determined by opening the **WinCC Explorer** on the machine where the alarms are being logged.



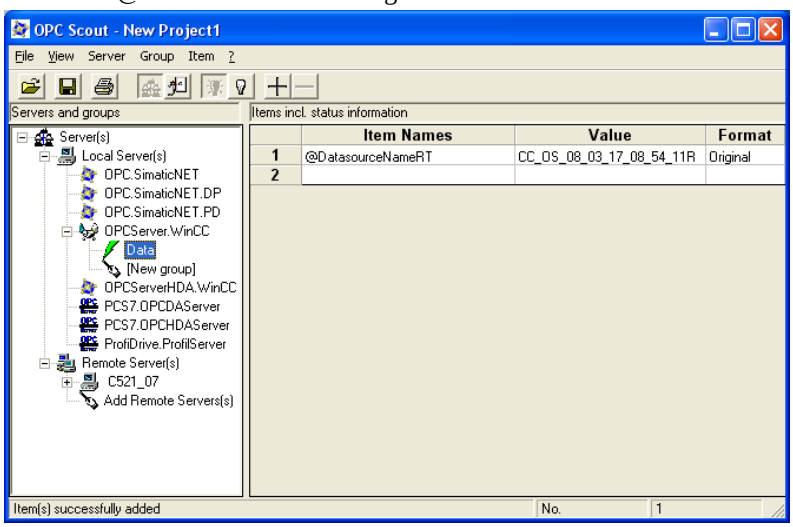
Expand **OS**, select **Server data**, right click, and choose **Configure**.



The symbolic column shows the **Symbolic Name,** and the physical column shows the **Computer Name**.

Database

When retrieving alarm data, the **Database** name is required as part of the setup. This can be found as the value of stored in the *@DatasourceNameRT* tag.



This value can be read using the OPC Scout application provided by SIMATIC and available from the SIMATIC program group. Expand Server(s) and double click either the WinCC OPC Server (OPCServer.WinCC) or the PCS 7 OPC server (PCS7.OPCDAServer).

- Enter a **Group Name**.
- Click **OK**.

The group should now appear as a branch under the OPC server. Double click the group name to open the OPC Navigator. Browse into the **Internal Tags** and select **@DatasourceNameRT** and click **OK**. This should now appear in OPC Scout along with the **Value**.

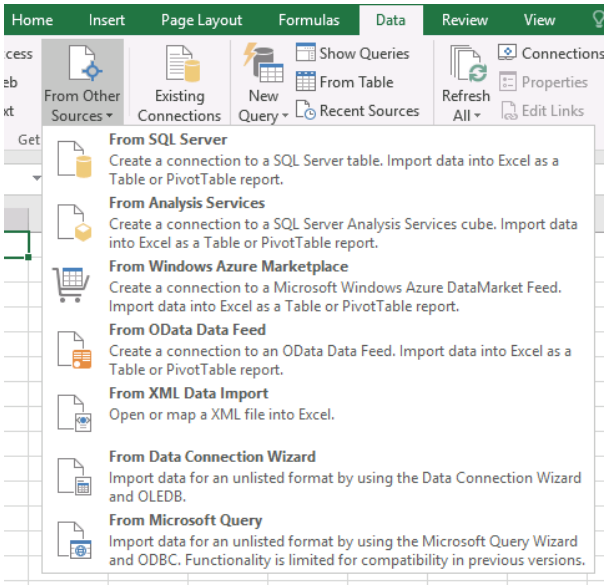
Since this value is required later, make a copy on the clipboard.

Verify Connectivity

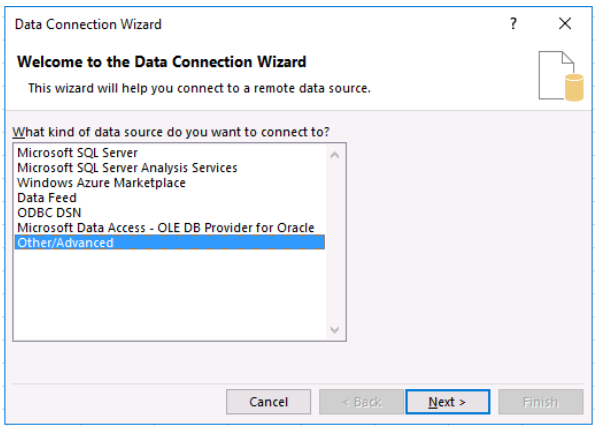
To verify access to the alarm data a connection must be made to the WinCC OLE DB provider and a query run. There are many applications that can test this. The following describes using Microsoft Excel.

Note the WinCC OLE DB provider is a 32-bit driver to verify with Excel, Excel must be 32-bit.

- Open Microsoft Excel.

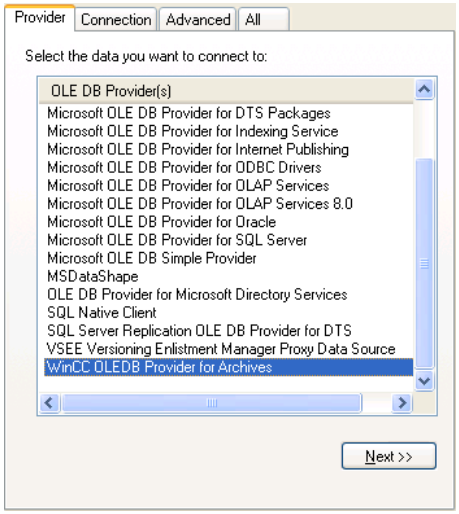


- Under the **Data** tab, in the **Get External Data** section, click **From Other Sources** and select **From Data Connection Wizard**.

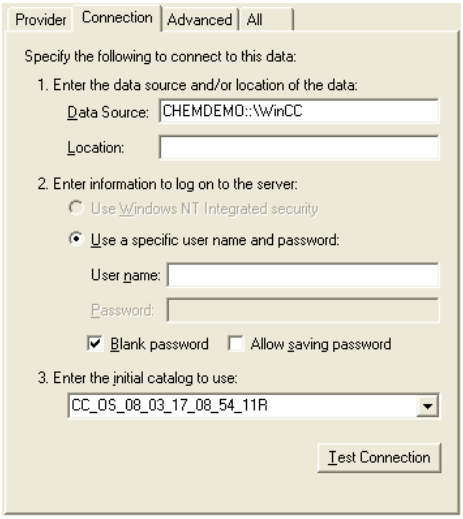


In the **Data Connection Wizard** select Other/Advanced and click **Next**.

In **Data Link Properties**,



- Under the **Provider** tab select *WinCC OLEDB Provider for Archives*.
- Click **Next**.

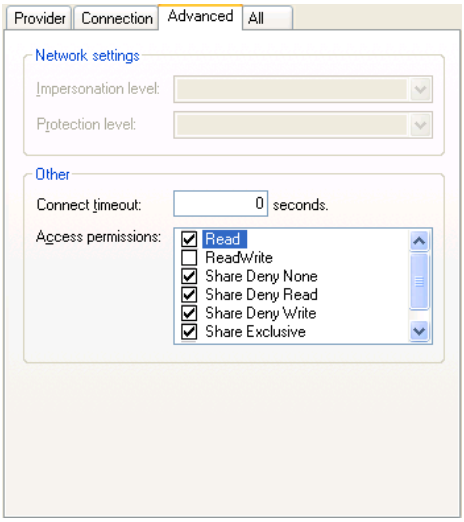


- Under the **Connection** tab, specify the **Data Source.**
  It is essential that the **Data Source** is set correctly based on Interface and location of the Alarm server relative to the machine connecting from:

Interface	**Alarm Server**	**Data Source**
Connectivity Pack	Local	.\WinCC
Connectivity Pack	Remote	Computer Name\WinCC
Open PCS 7	Local or Remote	Symbolic Computer Name::\WinCC

  Where *Computer Name* and *Symbolic Name* are the **Name** captured from the WinCC Explorer (see **Name** section above). The example here demonstrates a connection with the Open PCS 7 interface.

- For the **Initial Catalog**, use the **Database** name retrieved from the **@DatasourceNameRT** value (see **Database** section above).



- Under the **Advanced** tab, uncheck the **ReadWrite** checkbox.
- Click **OK**.

If the message appears “Test connection failed because of an error setting the window handle property…” click **Yes** to continue. Accept any other error or warning that may appear.

In **Data Connection Wizard**,

- From the list of tables select *AlarmView*.
- Click **Next**.
- Set a **File Name**.

- Check **Save password in file**.
- Click **Finish**.

In **Import Data** leave the defaults and click the **Properties** button.

In **Connection Properties**, under the **Definition** tab,

- Check **Save Password**.
- Change **Command type** to *SQL*.
- Set **Command text** to:
  *ALARMVIEW:SELECT * FROM AlgViewENU WHERE DateTime >= 'Yesterday' AND DateTime <= 'Today' ORDER BY DateTime ASC*

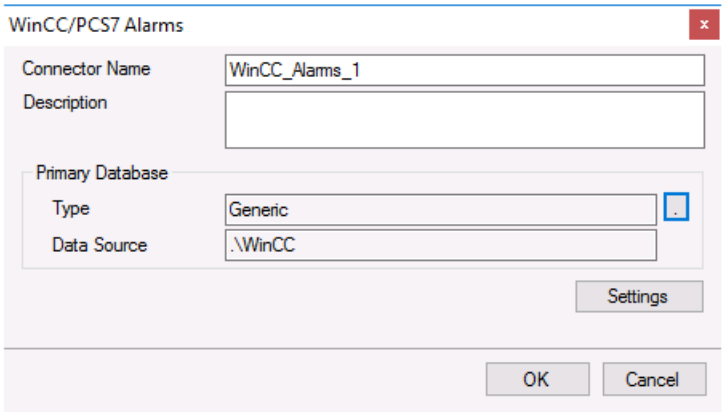
  Where *Yesterday* and *Today* are timestamps for yesterday and today in the format *YYYY-MM-DD HH:mm:ss*. For example, if testing on January 2nd, 2020, the query would be:
  *ALARMVIEW:SELECT * FROM AlgViewENU WHERE DateTime >= '2020-01-01 00:00:00' AND DateTime <= '2020-01-02 00:00:00' ORDER BY DateTime ASC*
- Click **OK**.
- Click **Yes** to any warning message that appears.
- Click **OK** back in the **Import Data** window.

If there are issues or no data is returned, contact Siemens technical support to troubleshoot and correct.

Connector

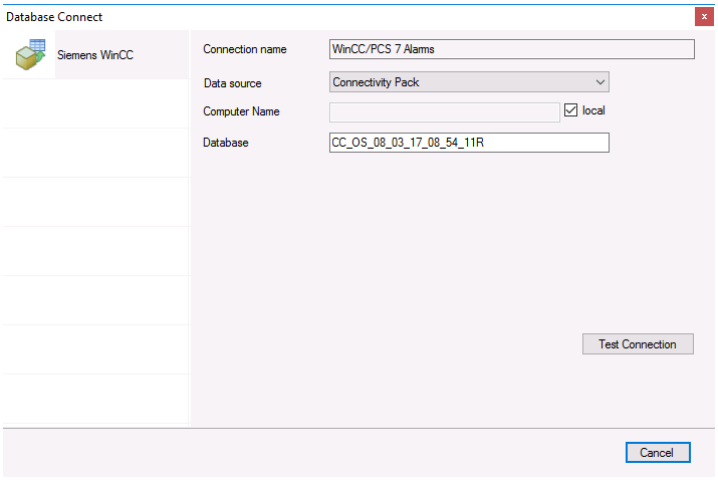
To configure the connector to **WinCC/PCS7 Alarms**, from the **Project Explorer** select **Data**, **Connectors**.

- Click **Add**
- Select **Siemens SIMATIC, WinCC/PCS7 Alarms**
- Click **OK**



Primary Database

This setting defines the connection to the WinCC Alarms database. Use the browse button […] to define the connection.



Data source

This defines how to connect to the alarms server. This depends on what is installed and licensed. It can either be *Connectivity Pack* or *Open PCS7*.

Computer Name/Symbolic Computer Name

The name of the machine where the alarm server is located.

If **Connection** is *Connectivity Pack* and the alarm server is on the local machine, check local. Otherwise uncheck local and specify the physical name of the machine.

If **Connection** is *Open PCS7*, this should be set to the Symbolic Computer Name where the alarm server is running.

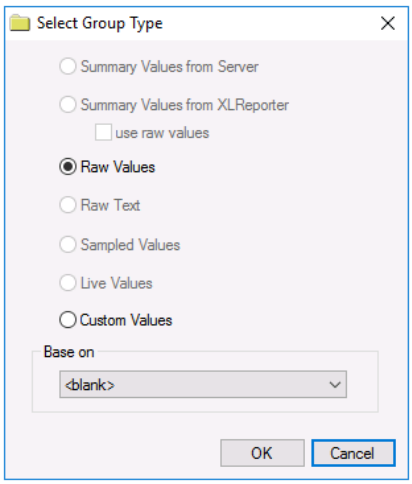
Database

The name of the WinCC alarm database. This value can be read from the *@DatasourceNameRT* system tag in **WinCC**. Use **System Check** to read this value.

Data Group

The following describes the historical data group settings specific to the **WinCC/PCS7 Alarms** connector.

Group Types



For **WinCC/PCS7 Alarms** the following group types are available:

Raw Values

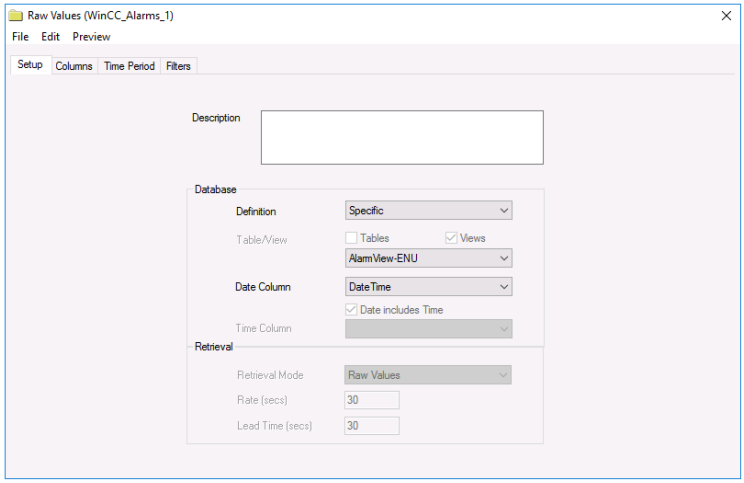
This group retrieves every value logged to the alarm server between the start and end time specified.

Custom Values

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

Group Settings

Setup Tab



Database

These settings define where the alarm data for group is retrieved.

Table/View

The Table where the alarm data comes from. There are 2 basic tables: *AlarmView* and *AlarmHitView* that are available in different languages.

AlarmView which returns individual alarm records and *AlarmHitView* which returns a summary of alarm information.

Date Column

The column containing the timestamp. For any selected table, the **Date Column** should be *DateTime*.

Filters Tab

If the **Perform by Server** option is checked, any filter configured in this tab is put into the *WHERE* clause of the query sent to the database to retrieve data for the group. Otherwise, the configured filtering is performed by the reporting engine after the values are returned. It is recommended to leave this setting checked as the performance is much better.

Verify Data Communication

XLReporter retrieves data from the **Data Connector** using a **History Group**.

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

Select your *WinCC/PCS7 Alarms* connector and then select **Add.**

- Set the **Type** to *Raw Values* and click **OK**.
- On the **Columns** tab of the group, select the tag **Name**(s).
- Select **Preview,** pick a *Start* date and click **Refresh.**