

Using XLReporter with WinCC/PCS 7 History

Overview

XLReporter takes historical values directly from the SIMATIC WinCC/PCS7 to automatically populate reports periodically, on event or on-demand. The award-winning reporting software turns raw data into industrial metrics which are used for compliance, regulatory, improvements and operations.

Complete reports are distributed automatically by email, FTP, file server and printers. With the Web Portal, reports are viewed or produced on-demand from any device supporting a web browser such as a mobile phone, tablet or desktop.

Prerequisites

Verify License

Historical values are retrieved from WinCC/PCS 7 through the WinCC/PCS 7 OPC HDA server. This is provided in the WinCC Connectivity Pack or as part of the Open PCS 7 installation.

Connectivity Pack

On the WinCC or PCS 7 machine, the Siemens WinCC Connectivity Pack license must be installed in order to access the OPC HDA server on that machine. This can be verified in the License Manager.

Note, the Connectivity Pack software does not need to be installed, just the license.

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* (for WinCC) or *PCS7.OPCHDAServer.1* (for PCS7) 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.

Create a Project

From the **XLReporter Project Explorer** select **File, New** to start the **Project Wizard**. This will give step-by-step instructions on creating a project

Step 1

- Enter a **Project Name** and **Description** (optional).

The screenshot shows the 'New Project' dialog box with the following fields and options:

- Project Name:** XLR_Project
- Project Off Line
- Description:** Customer or Site name
- Project Location:** c:\XLRprojects

Buttons at the bottom: < Back, Next >, Finish, Cancel

Step 2

- Configure the data connector, click **Add**.

The screenshot shows the 'New Project' dialog box with the following elements:

- Step 2 : Configure the Connectors (data sources) of the Project.**
- Buttons: + Add (highlighted with a red box), Modify, X Delete, Catalog
- Table with columns: Name, Provider, Description
- Table content: * (in Name column)

Select **Siemens SIMATIC, WinCC Historical Values** or **PCS7 Historical Values**.

The screenshot shows the 'WinCC Historical values' dialog box with the following fields and options:

- Connector Name:** WinCC_History
- Description:** (empty)
- Primary Server:**
 - Primary Server
 - Server Name:** OPCServerHDA.WinCC.1
 - Node:** local
 - Test Connection button
- Secondary Server:**
 - Secondary Server
 - Server Name:** OPCServerHDA.WinCC.1
 - Node:** local
 - Test Connection button

Buttons at the bottom: OK, Cancel

The connector requires a **Primary Server** which, by default has **Node** set to *local*.

Remote Communication to WinCC/PCS7

If WinCC/PCS7 is installed on a workstation remote from the PLC then set the **Node** to an item in the dropdown list or enter an *IP address*.

The workstation must also have the OPC core components installed. To determine if the core components are installed verify the following file exists:

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

If the components are not installed then they are provided in the tools folder of the installation or from www.opcfoundation.org.

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 history* connector and then select **Add**.

- Set the **Type 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**.