

Using XLReporter with AVEVA Historian Summaries

Overview

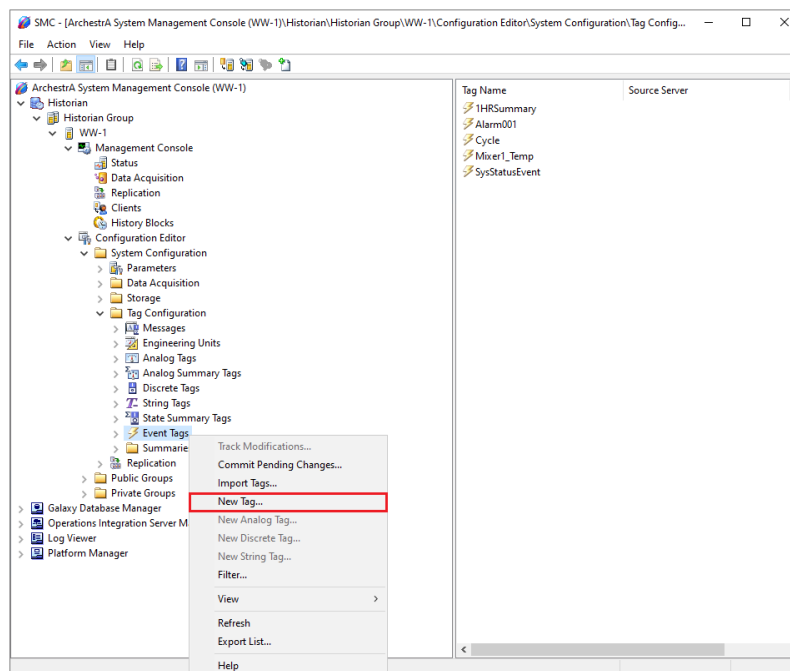
XLReporter takes historical values from AVEVA Historian Event Tag Summaries to populate workbooks, periodically or on event, without needing Excel. The award-winning reporting software turns raw data into industrial metrics which are used for compliance, regulatory, improvements and operations.

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 or tablet.

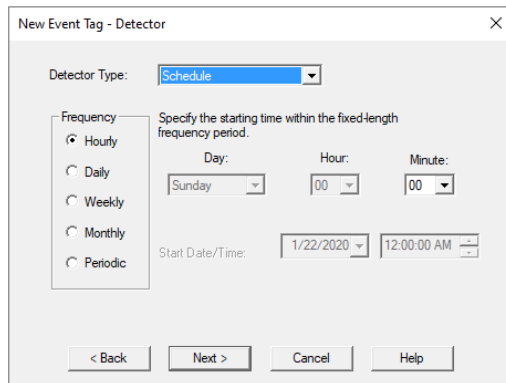
AVEVA Historian Configuration

AVEVA Historian Event Tags are used to trigger actions in the historian application based on a timed schedule (among other conditions). Event Tag configuration is performed in the **AVEVA System Platform Management Console**.

This is opened from the **AVEVA** program group by selecting **System Platform Management Console**.

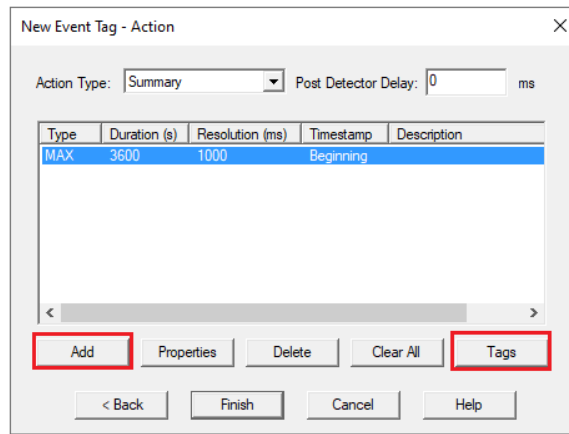


- Expand **Historian**, **Historian Group**, the Historian machine name, **Configuration Editor**, **System Configuration**, **Tag Configuration**.
- Select **Event Tags** right-click and select **New**.
- In **New Event Tag** assign a **Unique Tag Name**.
- On the **General** wizard page assign a **Description** and **Priority**.



- On the **Detector** page, set **Detector Type** to *Schedule*.
- On the **Action** page, set **Action Type** to *Summary*.

The **Action** wizard is used to select the tags to summarize.



- Click **Add** configure summary calculations.
- Click **Tags** to assign the tags to be summarized.

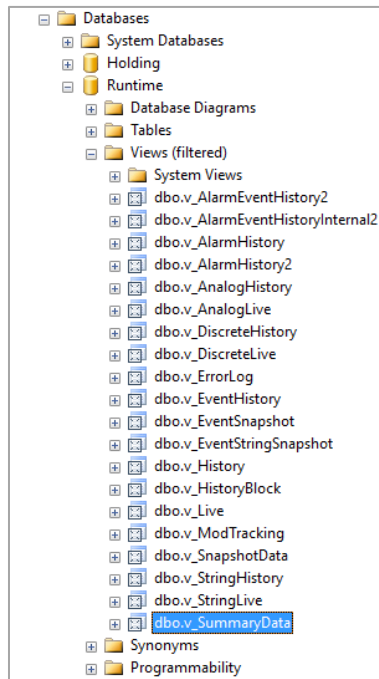
SQL Server Prerequisites

Verify Database

To verify, open **Microsoft SQL Server Management Studio** and connect to the SQL Server instance where the AVEVA Historian database is configured.

Once connected,

- Expand the **Runtime** database.
- Expand **Views**.
- Select the **v_SummaryData** view.



Right click the **v_SummaryData** view and choose *SELECT TOP 1000 Rows*. This should display data from the table representing the summary calculations generated by the Historian.

If the database or table does not exist or no data is displayed contact AVEVA technical support to troubleshoot and correct these issues.

SQL Server Considerations

When using SQL Server there are some things to take into consideration including remote connectivity and user authentication. For information on what to consider, see the technical note: [How to Configure Microsoft SQL Server](#).

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).

 A screenshot of the 'New Project' dialog box. The title bar says 'New Project'. Below the title bar, it says 'Step 1 : Specify the Project Name and its Location.' There are three input fields: 'Project Name:' with the text 'XLR_Project', 'Description:' with the text 'Customer or Site name', and 'Project Location:' with the text 'c:\XLRprojects'. There is a checkbox labeled 'Project Off Line' which is unchecked. At the bottom of the dialog box, there are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.

Step 2

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

New Project

Step 2 : Configure the Connectors (data sources) of the Project.

+ Add ✎ Modify ✕ Delete ⚙️ Catalog

Name	Provider	Description
*		

Select **AVEVA**, **AVEVA Historian – Summary Tables**.

AVEVA Historian

Connector Name: AVEVA_Historian_1

Description:

Primary Server

Name: WW-2020 [Browse]

User: sa

Secondary Server

Name:

User:

Settings

OK Cancel

- Under **Primary Server** click the browse pushbutton ([...]) for **Name**.

Database Connect

AVEVA Historian

Connection name: AVEVA Historian

Server name: WW-2020 [Refresh...]

Port number: [Use Default]

Log on to the server

Use Windows Authentication

Use SQL Server Authentication

User Name: sa

Password: **

Database: Runtime [Refresh...]

Test Connection

Cancel

- Select the **Server Name** as the machine name for the Historian.
- For **Log on to the server**, specify the proper authentication.
- Leave **Database** as *Runtime*.
- Click **Test Connection** to verify connectivity and return to the connector setup.

Verify the Data Connector

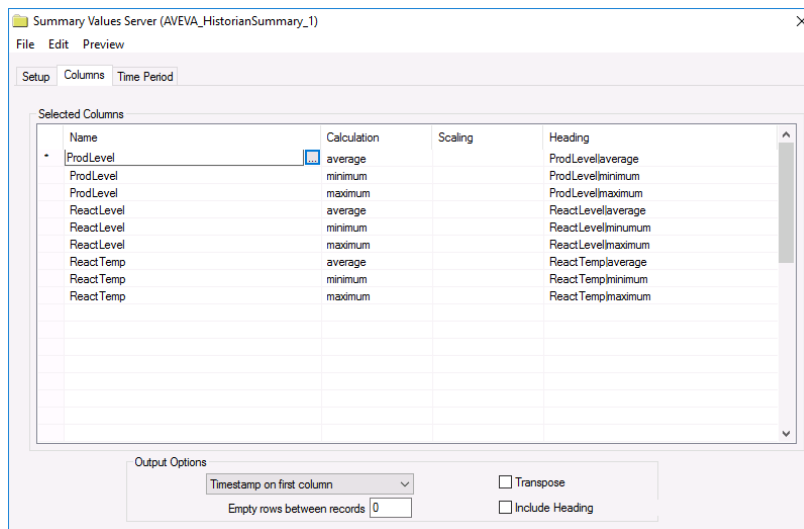
XLReporter retrieves data from the **Data Connector** using a **History Group**.

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

Select the *AVEVA Historian Summaries* connector and then select **Add**.

- Set the **Type Summary Values from Server** and click **OK**.

On the **Columns** tab of the group, select the tag **Name(s)** and **Calculation(s)**.



Select **Preview**, pick a *Start* date and click **Refresh**.

0 (Date)	ProdLevel (average)	ProdLevel_2_ (minimum)	ProdLevel_3_ (maximum)	ReactLevel (average)
1/1/2021	76.6483197530111	75.2172317504883	40.4924011230469	90.63203125
1/1/2021 1:00:00 AM	77.829216893514	74.4551620483398	44.087718963623	89.0384471893311
1/1/2021 2:00:00 AM	66.521177037557	76.7478485107422	47.0993766784668	82.540828704834
1/1/2021 3:00:00 AM	60.0495090484619	77.6568069458008	58.18359375	73.4089829762777
1/1/2021 4:00:00 AM	77.7237623850504	76.3152313232422	61.0984001159668	64.832924524943
1/1/2021 5:00:00 AM	72.8609026590983	77.0310287475586	63.3557052612305	59.8085183461507
1/1/2021 6:00:00 AM	58.1104530334473	75.7173080444336	62.1385192871094	60.0909331639608
1/1/2021 7:00:00 AM	56.0666999816895	77.9353179931641	61.6739273071289	65.5815135320028
1/1/2021 8:00:00 AM	76.81067237854	74.6372833251953	61.9235229492188	74.3622425079346
1/1/2021 9:00:00 AM	72.2042301177978	76.5898742675781	73.8378982543945	83.3657577514648
1/1/2021 10:00:00 AM	71.310893758138	74.4289398193359	79.0440368652344	89.4468739827474
1/1/2021 11:00:00 AM	78.1202541351318	74.2715225219727	79.6498184204102	90.4812807718913
1/1/2021 12:00:00 PM	72.5572789510091	77.6484527587891	83.3086700439453	86.1076323191325
1/1/2021 1:00:00 PM	65.8506704966227	78.4030456542969	43.5244407653809	77.8537673950195
1/1/2021 2:00:00 PM	78.0935155232747	89.4401550292969	44.5315246582031	68.60299949646
1/1/2021 3:00:00 PM	70.1173296610514	7	42.0106353759766	61.58688844045
1/1/2021 4:00:00 PM	56.9218499501546	76.0423965454102	41.586540222168	59.2563625971476
1/1/2021 5:00:00 PM	65.7638559977214	82.3059005737305	41.6820678710838	62.42554175059
1/1/2021 6:00:00 PM	77.8683358510335	85.7839736938477	38.8880043029785	69.9873414357503