Reporting from InTouch

XLReporter generates Excel based reports from Wonderware's InTouch using current process values in the tag database, historical logs and alarm archives.

The purpose of this document is to describe how to setup InTouch for **XLReporter**.

Process Values

XLReporter can take snapshots of the process values and add them to an existing report worksheet, periodically or on event. To prevent excessive build-up of information in a single worksheet, new workbooks and worksheets can be created automatically.

Process values can be retrieved from InTouch by **XLReporter** by either a native interface or via the ArchestrA FSGateway OPC Server. The native interface is only available if **XLReporter** is installed on the same machine as InTouch, whereas the OPC interface is available both locally and remotely.

For more information on ArchestrA FSGateway, see the Wonderware ArchestrA FSGateway Setup Guide.

Creating a Real Time Data Connector

To connect **XLReporter** to InTouch for real time data, you will need to create a **Connector**. To do this, open **XLReporter's Project Explorer,** and open **Connectors** from the **Data** tab. In **Connectors**, select **Add**.

For the native connector, select **Wonderware, InTouch Real-time values (local).** Under **InTouch Paths**, set **Install** to the directory where InTouch is installed. Set **Application** to the directory where the current InTouch application is located.
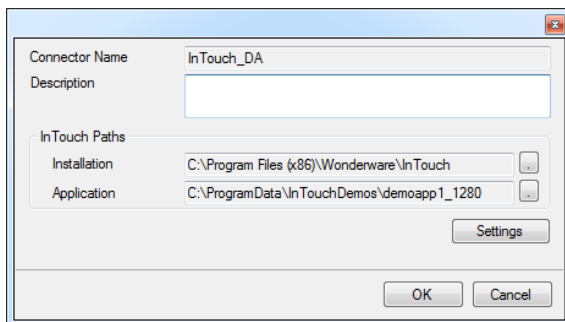
Verifying the Data Connector

To verify the InTouch real time interface, open **XLReporter's Project Explorer**, from the **Tools** tab. Start the **System Check** application and select the **Connector** tab. Select **Add,** choose your InTouch Connector from the dropdown list, and click the browse pushbutton […] to open the **Tag Browser** window.
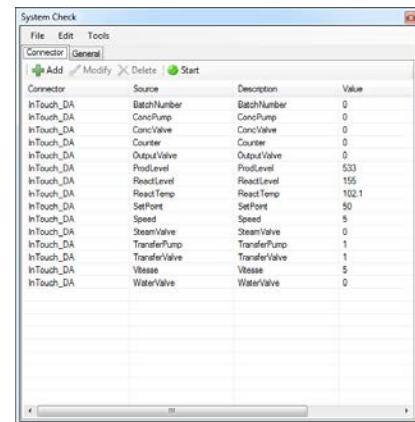
Select one or more tags and verify that they update with the current value using **Start** in the **System Check** window.
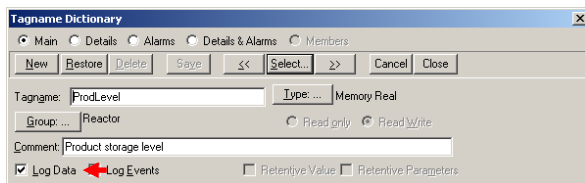
Historical Data

With process data stored in a historian, the variety of reports that can be produced by **XLReporter** increases many fold.

In addition to sample values, informative metrics such as run times and statistics are obtained by simply selecting the tags and time frame of interest. e.g. hourly average, maximum and minimum for each hour of the day.

XLReporter performs time-weighted calculations on the historical data retrieved.
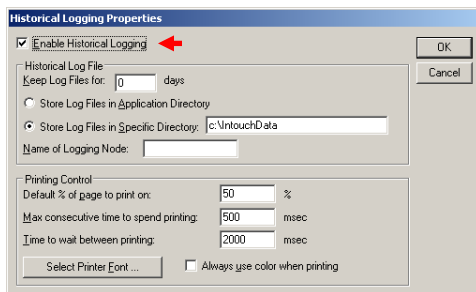
Setting up Data Logging

To set up data logging in InTouch from the InTouch **Window Maker**, from the menu select **Special, Tagname Dictionary**.

Tagname Dictionary

For each tag you wish to log, check the **Log Data** option.

In the InTouch **Window Maker** menu, select **Special, Configure, Historical Logging** to open the **Historical Logging Properties** window.


Historical Logging Properties

Check **Enable Historical Logging**. Once checked you can specify where the data log files are stored and how long to keep them. Historical log files have the file extension *.lgh*.

Creating a Historical Data Connector

To connect **XLReporter** to InTouch historical data you will first need to create a **Connector**. To do this, open **XLReporter's Project Explorer,** and open **Connectors** from the **Data** tab. In **Connectors**, select **Add**, and select **Wonderware, InTouch Historical values (classic).**
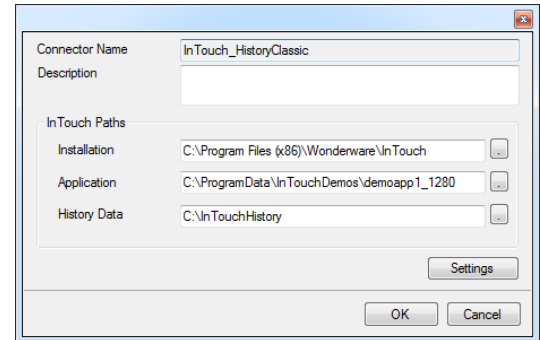
Under **InTouch Paths**, set **Install** to the directory where InTouch is installed. Set **Application** to the directory where the current InTouch application is located. Set **History Data** to the directory where the data log files are stored.

Verify the Historical Data Connector

XLReporter accesses process values stored in the historian using a connector group.

From **XLReporter's Project Explorer**, under the **Tools** tab, select **Diagnostics, Connector Groups**. Select the InTouch history connector and click **Add**.

On the **Columns** tab, select the tag **Name** and **Calculation** for each tag in the group.

On the **Time Period** tab, select the **Start Time**, **End Time** and **Interval** for the group. By default this is set to one hour intervals over the current day.

The **Preview** menu can be selected to preview the result of the current configuration.
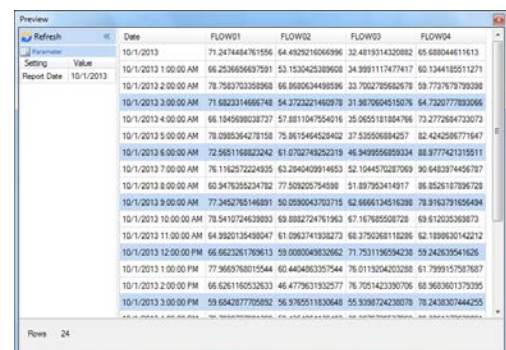
Preview

Preview displays the data exactly the same way it will be written into the report.

Alarm Data

Any tag in InTouch can be configured in the **Tagname Dictionary** to generate an alarm whenever it exceeds specified limits. The resulting alarms can be stored in a Microsoft SQL Server or MSDE database that **XLReporter** can use to retrieve alarm data for a report.
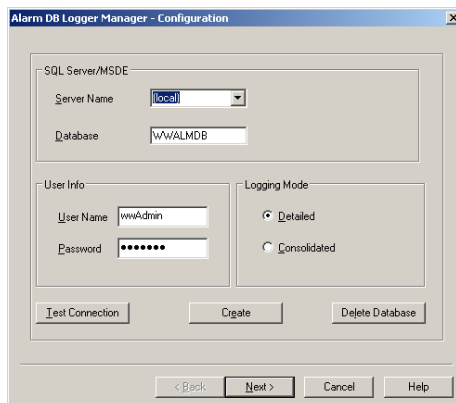
Setting up Alarm Logging

To set up InTouch alarm logging to a database, open the **Alarm DB Logger Manager**. This can be accessed from the Windows **Start** menu, in the **Wonderware** program group under **InTouch**.
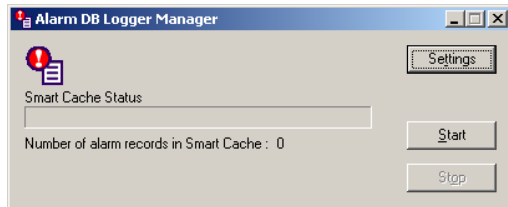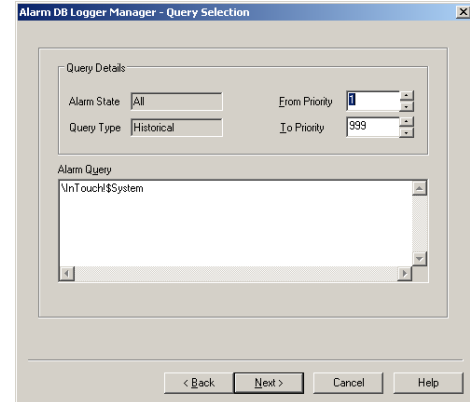

InTouch Alarm DB Logger Manager

Click **Settings** to configure alarm logging.

Alarm DB Logger Manager - Configuration

For **Configuration**, specify the Microsoft SQL Server or Microsoft Data Engine (MSDE) **Server Name** to log the alarms to together with the name of the **Database** to create, the **User Info** to connect to the server and the **Logging Mode**. When all is completed, click **Create** to create the database in the specified server. Click **Next**.

Alarm DB Logger Manager – Query Selection

For **Query Selection**, specify the priority of the alarms to log as well as the Alarm Query that determines which alarm groups to log. Each tag in the tagname dictionary can be assigned to an alarm group. Alarm groups can be viewed in the InTouch **Window Maker** under **Configure, Alarm Groups**. Click **Next**.
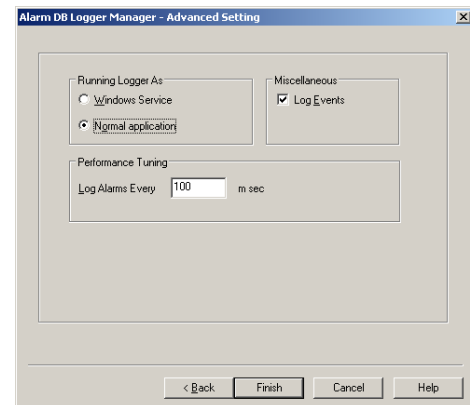
Alarm DB Logger Manager – Advanced Settings

For **Advanced Settings**, specify how you want the logger to run and how the logger should collect alarms. Click **Finish** to return to the **Alarm DB Logger Manager**.

In the **Alarm DB Logger Manager**, click **Start** to start the logger. It will first export all the alarms stored in the **Smart Cache**, and then proceed to log each alarm to the database specified.

Creating an Alarms Connector

To connect **XLReporter** to InTouch alarm data you will first need to create a **Connector**. To do this, open **XLReporter's Project Explorer,** and open **Connectors** from the **Data** tab. In **Connectors**, select **Add**, and select **Wonderware, InTouch Alarms.**

Under **Primary Database**, for **Type**, click the browse pushbutton [...] to define a connection to the alarm database.

Select **Microsoft SQL Server**.

For **Server name**, you can select the **Server Name** specified previously in the **Alarm DB Logger Manager**.
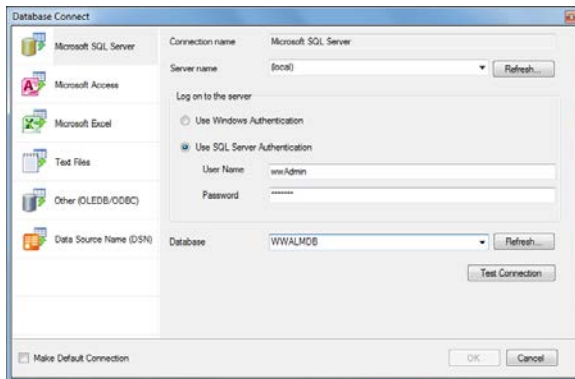
For **Log on to the server**, specify the credentials to connect to the server.

Click **Test Connection**, to verify the settings and return to the **Connector** settings.

Verify the Alarm Data Connector

XLReporter accesses alarm data stored in the database using a connector group.

From **XLReporter's Project Explorer**, under the **Tools** tab, select **Diagnostics, Connector Groups**. Select the InTouch alarm connector and click **Add**.

On the **Setup** tab, under **Database**, set **Table/View** to *v_AlarmHistory* to retrieve alarm data. Set **Date Column** to *EventStamp*.

On the **Columns** tab, select the **Columns** for the alarm data you wish to retrieve.

On the **Time Period** tab, select the **Start Time**, **End Time** and **Interval** for the group. By default this is set to the first 60 values over the current day.

On the **Filters** tab, specify filtering to limit the type or amount of alarms returned. You can filter based on any available column in **v_AlarmHistory**. This includes filtering on alarm type, tag name, etc.

The **Preview** menu can be selected to preview the result of the current configuration.

Starting the Scheduler from InTouch

To start XLReporter's Scheduler from InTouch, in a script add a **StartApp** command to start *XLRschedule.exe*. This is found in the XLReporter installation directory (C:\XLReporter by default). This should be added to a script that runs when InTouch is started.