

Using XLReporter with GE Digital iFIX Alarms

Overview

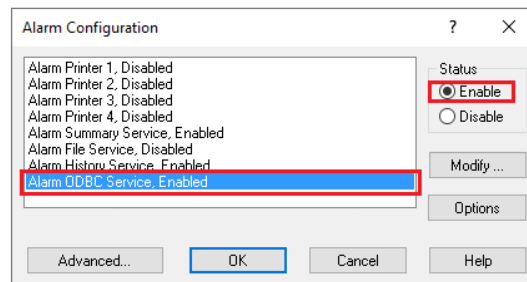
XLReporter takes alarm values from the GE iFIX Alarms to populate workbooks, periodically or on event, without needing Excel. The award-winning reporting software turns raw data into industrial metrics which are used for compliance, regulatory, improvements and operations.

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, tablet or desktop.

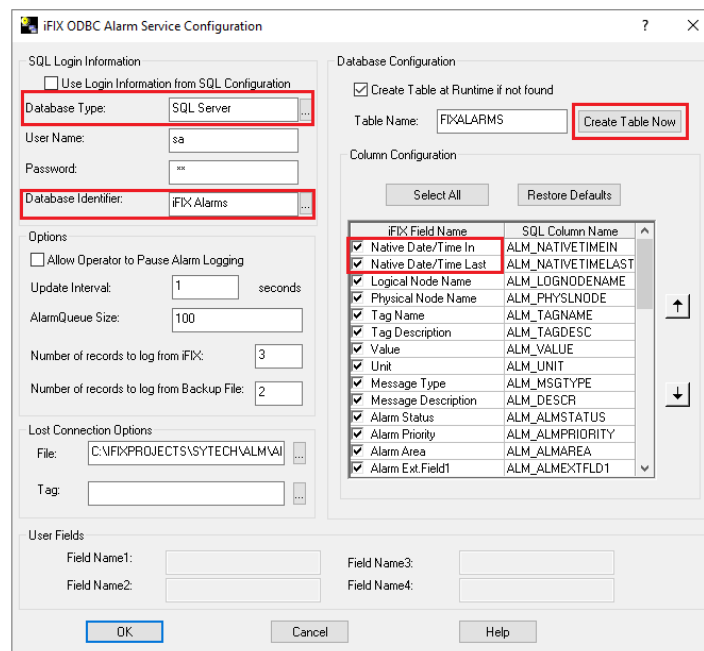
Set up Alarm Logs

To set up iFIX alarm logging to a database, open **System Configuration**, from the **iFIX** program group.

Select **Configure, Alarms** to open the **Alarm Configuration** window.



- Select **Alarm ODBC Service**.
- Set **Status** to **Enable**.
- Click **Modify** to open **Alarm ODBC Service Configuration**.
- Click **Configure** to view and edit the settings.



- Select the **Database Type** and the **Database Identifier (DSN)**

- Click **Create Table Now**.
- Specify the columns to configure. Be sure to select *Native Date/Time In* and *Native Date/Time Last* in **Column Configuration**.
- Click **OK** to save the configuration.

Prerequisites

Verify Database

Open **Microsoft SQL Server Management Studio** and connect to the SQL Server or SQL Server Express instance set up for the iFIX Alarm Logs.

The screenshot shows the Microsoft SQL Server Management Studio interface. On the left, the Object Explorer displays the 'iFIXAlarms' database structure, including 'Tables', 'System Tables', 'FileTables', 'External Tables', and 'dbo.FIXALARMS'. The main window shows a SQL query window with the following script:

```

/***** Script for SelectTopNRRows command from SSMS *****/
SELECT TOP (1000) [ALM_NATIVETIMEIN]
, [ALM_NATIVETIMELAST]
, [ALM_LOGNODENAME]
, [ALM_PHYSLNODE]
, [ALM_TAGNAME]
, [ALM_TAGDESC]
, [ALM_VALUE]
, [ALM_UNIT]
, [ALM_MSGTYPE]
, [ALM_DESCR]
, [ALM_ALMSTATUS]
, [ALM_ALMPRIORITY]
, [ALM_ALMAREA]
, [ALM_ALMEXTFLD1]
, [ALM_ALMEXTFLD2]

```

Below the query window, the Results pane shows the following data:

	ALM_NATIVETIMEIN	ALM_NATIVETIMELAST	ALM_LOGNODENAME	ALM_PHYSLNODE	ALM_TAGNAME	ALM_TAGDESC
1	2020-01-23 11:21:05.920	2020-01-23 11:21:05.920	SYTECH	SYTECH		
2	2020-01-23 11:21:05.960	2020-01-23 11:21:05.960	SYTECH	SYTECH		
3	2020-01-23 11:21:06.250	2020-01-23 11:21:06.250	SYTECH	SYTECH		
4	2020-01-23 11:21:12.760	2020-01-23 11:21:12.760	SYTECH	SYTECH		
5	2020-01-23 11:21:16.620	2020-01-23 11:21:16.620	SYTECH	SYTECH		
6	2020-01-23 11:21:16.620	2020-01-23 11:21:16.620	SYTECH	SYTECH		

Expand **Database**, the database configured for the alarms and **Tables**. Select the alarm table, right-click and choose **Select Top 1000 Rows**.

If no data is returned contact GE Digital technical support 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 a dialog box titled "New Project" with the subtitle "Step 1 : Specify the Project Name and its Location." It contains three input fields: "Project Name" with the value "XLR_Project", "Description" with the value "Customer or Site name", and "Project Location" with the value "c:\XLRprojects". There is a checkbox labeled "Project Off Line" which is unchecked. At the bottom, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

Step 2

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

The screenshot shows a dialog box titled "New Project" with the subtitle "Step 2 : Configure the Connectors (data sources) of the Project." It features a toolbar with icons for "+ Add", "Modify", "Delete", and "Catalog". Below the toolbar is a table with three columns: "Name", "Provider", and "Description". The table is currently empty, with a yellow asterisk "*" in the first cell of the first row.

Select **GE Digital, iFIX Alarms**.

The screenshot shows a dialog box titled "iFIX Alarms" with a close button (x) in the top right corner. It contains several fields and sections: "Connector Name" with the value "iFIX_Alarms", "Description" (empty), "Primary Database" section with "Type" set to "Microsoft SQL Server" and "Data Source" set to "SY020\SQLSERVER16", and "Table/Column" section with "Table" set to "FIXALARMS", "Date Column" set to "ALM_NATIVETIMELAST", and a checked checkbox for "Date includes Time". There is a "Settings" button at the bottom right and "OK" and "Cancel" buttons at the bottom.

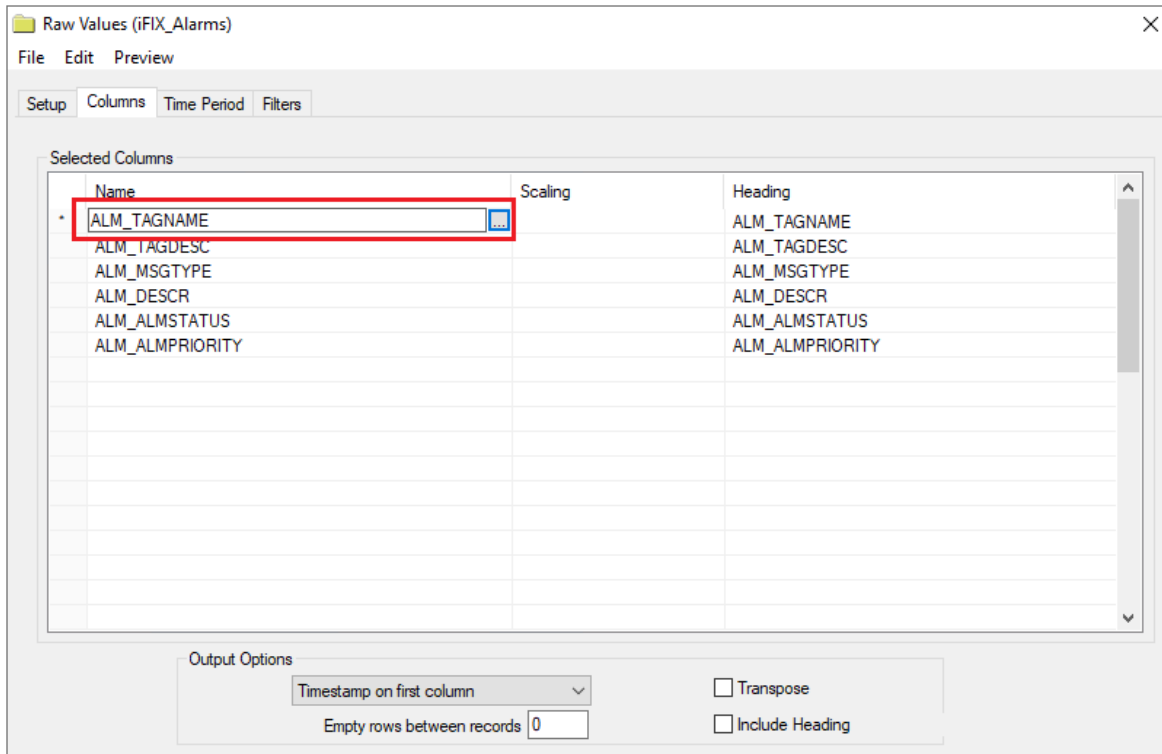
- In **Primary Database**, for **Type**, click the browse pushbutton [...] to define a connection to the alarm database.
- Under **Table/Column** set **Table** to the table with the iFIX alarm data.
- Set **Date Column** to **ALM_NATIVETIMELAST** OR **ALM_NATIVETIMEIN**. This column will be used for any timestamp filtering in the connector groups.

Verify Data Communication

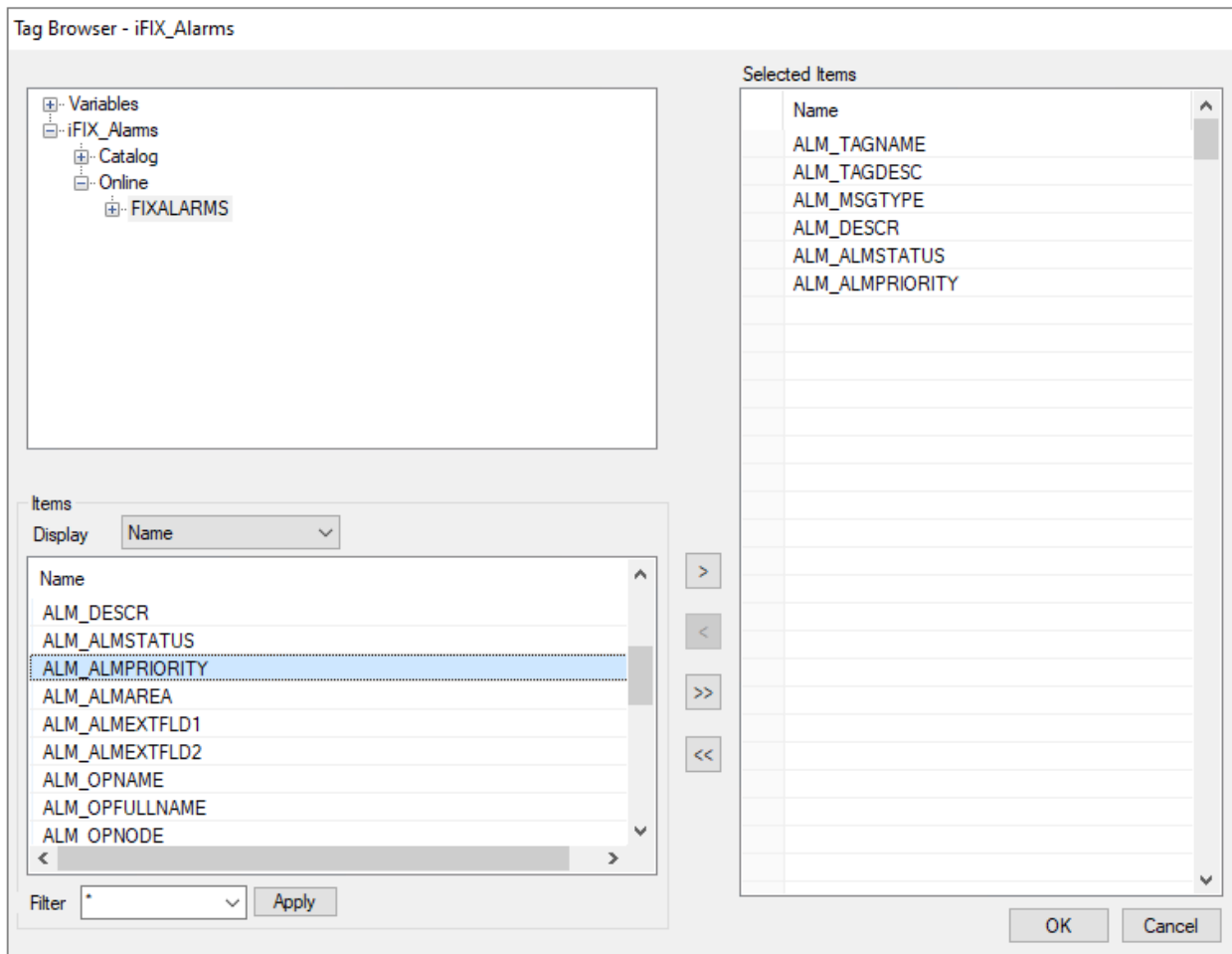
To verify communication, open the **Project Explorer** and select the **Tools** tab. Open **Connector Groups**. Select the **GE iFIX Alarms** connector and then select **Add**.

Set the **Group Type** to *Raw Values* and click **OK**.

Under the **Columns** tab:



- Select the first row under the **Name** column
- Click the browse pushbutton ([...])



- In the Tag Browser expand **Online, FIXALARMS** and add **Items** from the lower left.
- Click **OK** to add these to the group.
- To retrieve data, select **Preview**.

Preview

Refresh Stop

Date

Start 23 Jan 2020

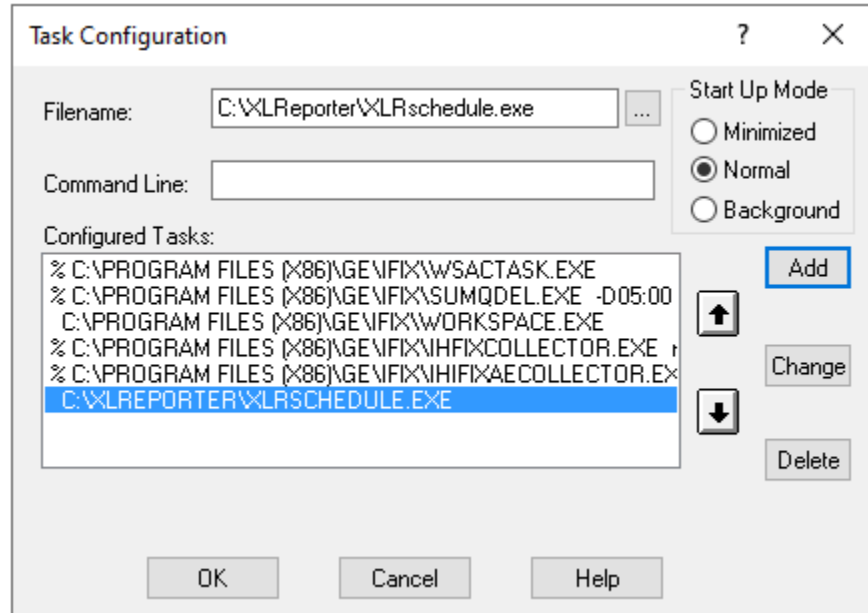
End 24 Jan 2020

Date	ALM_TAGNAME	ALM_MSGTYPE	ALM_DESCR
1/23/2020 11:21:17 AM	RAMP	ALARM	RAMP BLOCK FOR PAINTSHOP
1/23/2020 11:21:17 AM	OUTP3	ALARM	OUTLET
1/23/2020 11:21:17 AM	OUTP1	ALARM	OUTLET
1/23/2020 11:21:17 AM	INP3	ALARM	INLET
1/23/2020 11:21:17 AM	INP1	ALARM	INLET
1/23/2020 11:21:17 AM		TEXT	[SYTECH] IFIX1_BATCH_RECLAIMFLOW
1/23/2020 11:21:17 AM		TEXT	[SYTECH] IFIX1_BATCH_TANK1FLOW
1/23/2020 11:21:17 AM		TEXT	[SYTECH] IFIX1_BATCH_TANK2FLOW
1/23/2020 11:21:17 AM		TEXT	[SYTECH] IFIX1_H2O_NAOH_FQ
1/23/2020 11:21:17 AM		TEXT	[SYTECH] IFIX1_BATCH_TANK3FLOW
1/23/2020 11:21:17 AM		TEXT	[SYTECH] IFIX1_BATCH_MIXOUTFLOW
1/23/2020 11:21:17 AM		TEXT	[SYTECH] NOZ1DI

In the **Preview** window, use the data picker to select a date and time where alarms are recorded in the database. Click **Refresh** to view data. The first 60 alarms starting at the date and time specified should be displayed.

Start the Scheduler from iFIX

Open the **System Configuration (SCU)** from the **iFIX** program group. Select **Configure, Tasks**.



- For **Filename** browse and select **XLRschedule.exe** from the **XLReporter** installation folder (*C:\XLReporter* by default).
- Set **Start Up Mode** to *Normal*.
- Click **Add**.
- Use the down arrow to move this to the bottom of the **Configured Tasks** list.
- Click **OK**.

Save and close the SCU. The next time iFIX is started, **XLReporter's Scheduler** will start with it.