

Using XLReporter with Talk2M Ewon Data Mailbox

Overview

XLReporter takes historical and alarm values from the Talk2M Ewon DataMailbox 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.

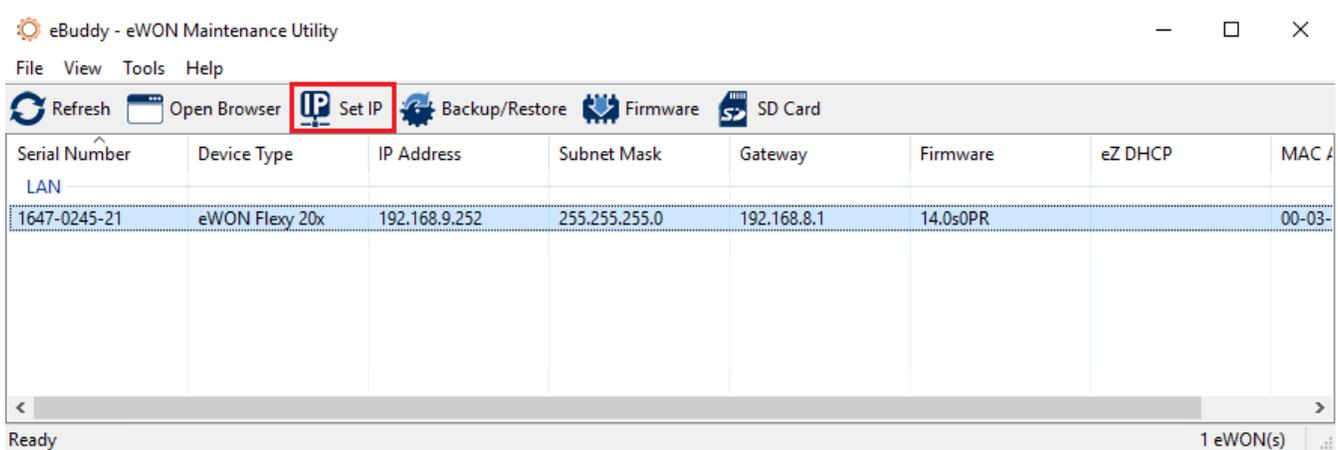
Complete reports are distributed automatically by email, FTP, file server and printers. With the Web Portal, reports are viewed or produced on-demand from any device supporting a web browser such as a mobile phone, tablet, desktop or FactoryTalk ViewPoint.

Set up Ewon

Initial Setup

For a new Ewon Flexy there is some basic configuration that has to be performed using **eBuddy**. This is available from the HMS Networks web site.

Connect the LAN Ethernet port to your PC by either using a switch (HMS does not recommend connecting directly via Ethernet cable) or a networked connection and start **eBuddy**.



- In the list, select the connected Flexy device and click **Set IP**.
- Follow the prompts and enter an **IP/Subnet** in the range of the process equipment to which the Flexy is intended for.

The Flexy will reboot to change the IP. When it comes back online, select it again in **eBuddy** and click **Open Browser**.

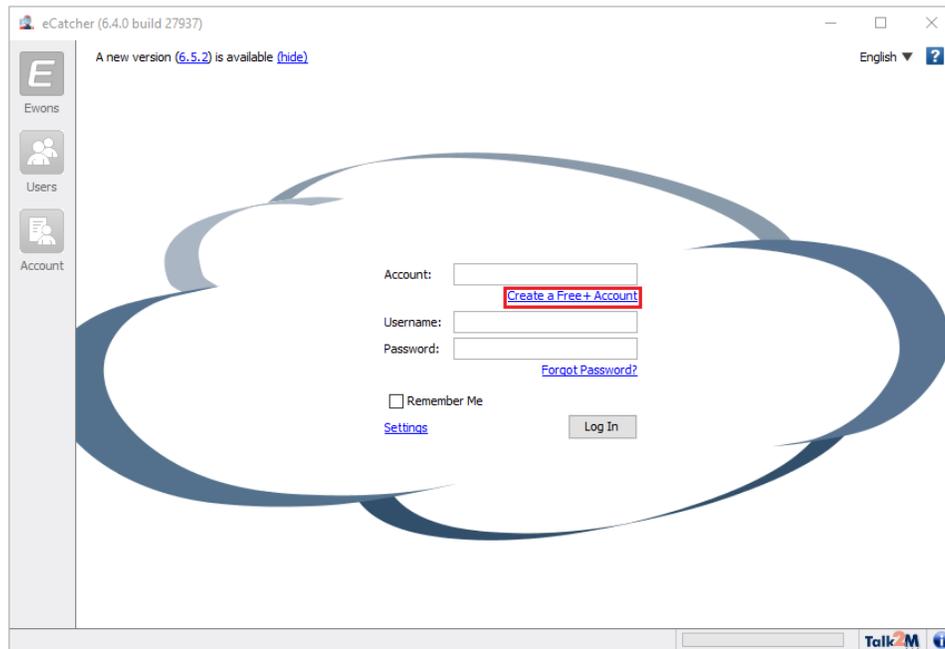
When moving onto the next step, leave **eBuddy** open (it can be minimized). Its **ezDHCP** function is required to remain connected if the Ewon's IP address is outside the range of your network adapter.

The **eBuddy** application is usually used for direct connections to the Flexy. Once a Talk2M account has been associated with the Flexy, a secure internet connection can also be used.

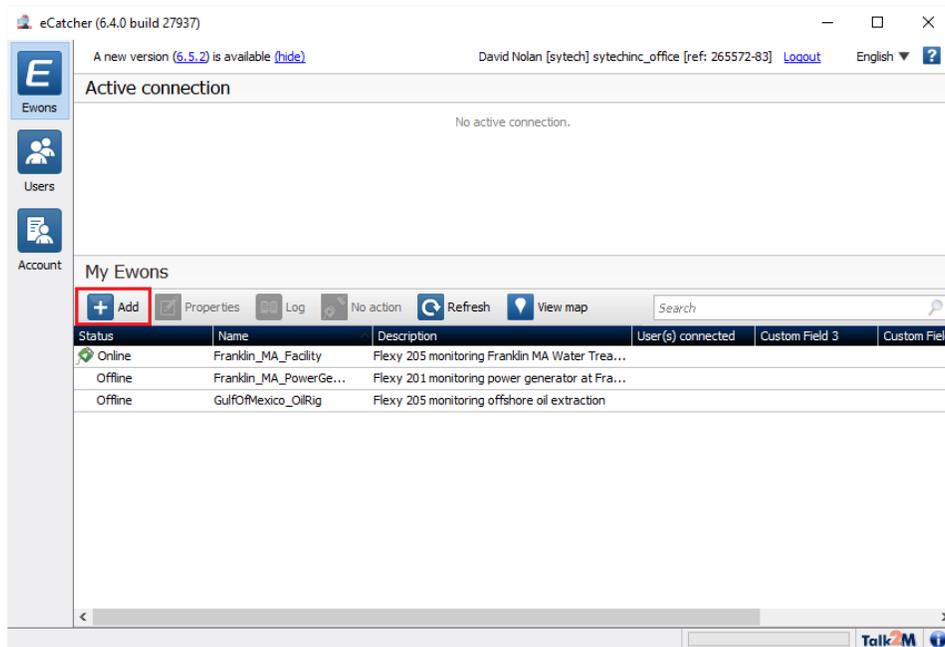
Configure a Talk2M Account

For remote access, a Talk2M account needs to be created and associated with the Flexy. The account supports multiple flexy devices. When a Talk2M account is created, a DataMailbox is created automatically with it. This is done by **eCatcher**, a software application which is available from the HMS Networks web site.

Start **eCatcher** and select *Create a Free Account*.



After the account is created, log into **eCatcher**.



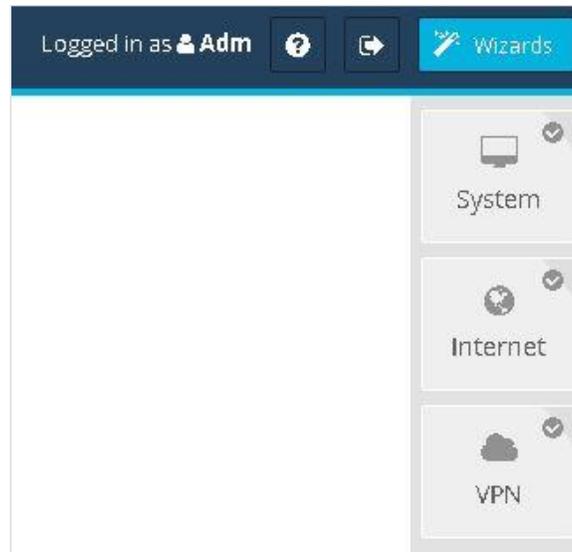
- Click **Add eWON**. Give the Ewon a **name** that will provide context to the data it will collect.
- Highlight the Ewon and select **Properties**. Then, select **Talk2M Connectivity**. Note the **Activation Key**, and the **name**.

User Authentication

eCatcher allows two-factor authentication for configured users – however, this will make the account inaccessible to Talk2M data client applications, including **XLReporter**. Authentication should be set to single-factor authentication.

Talk2M Connection

From the web Interface of the Flexy, log in using the default credentials *adm/adm*.



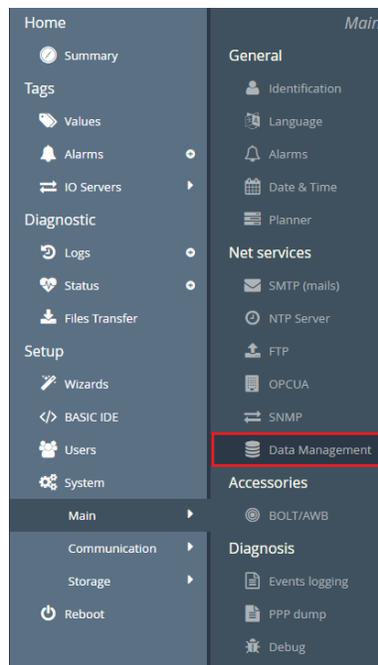
Open the **Wizards** page from the top-right of the window. Follow each wizard in order, starting with **System**.

Once the VPN connection is established, its status is displayed on the home page, as well as in the lower-right corner across configuration web site:



Configure DataMailbox Upload

For data to be stored in the mailbox, it must be uploaded from the Ewon device.

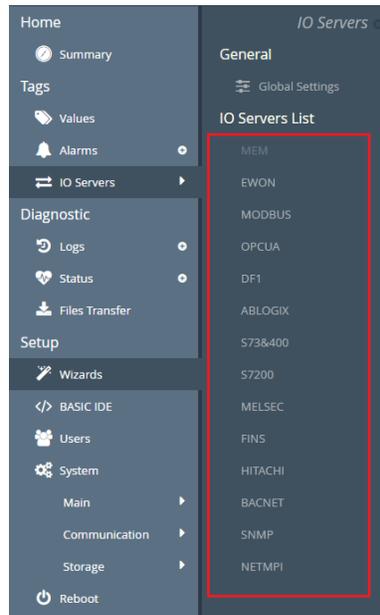


This is configured from the Ewon configuration web page by selecting **Setup, System, Main, Net Services, Data Management**.

Enable **Historical Data**, and set an **Upload Interval**.

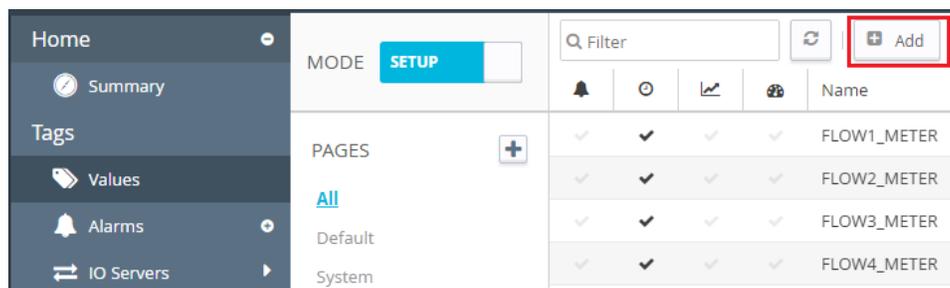
Configure Process Data Connection

Data collection requires an **I/O Server** connection.



- Open **Tags, IO Servers** from the Flexy configuration web page.
- Enter **IP** and **poll rate** for the hardware being connected.

After an IO Server is defined, **Tags** can be defined, which map the value of an external data point in the server to an internal tag in the Flexy.



- Open the **Tags, Values** page.
- Set **Mode** to **Setup**, and click **Add**.

I/O Server Setup

Server Name: Topic Name:

Address:

Type: Force Read Only

eWON value = IO Server Value * +

Alarm Setup Alarm Enabled

Alarm Level Low: Alarm Level High:

Alarm Level LowLow: Alarm Level HighHigh:

Leave empty HiHi and/or LoLo if unused Value Deadband:

Boolean Alarm Level:

Activation Delay: sec Auto acknowledge on RTN

Alarm Hint:

Historical Logging Historical Logging Enabled

Logging Deadband: (put a negative value to disable deadband logging)

Logging Interval: Seconds (set to 0, it will enable Deadband logging only)

Real Time Logging Real Time Logging Enabled

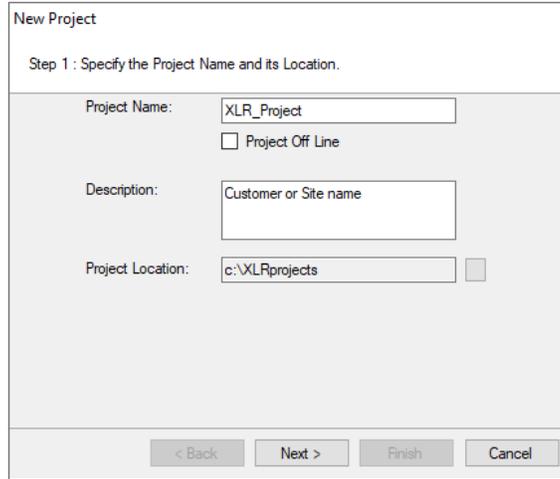
- Enter a **Tag Name**
- Set the **Server Name, Address** and data **Type**
- Enable **Historical Logging**.
A tag can be logged on a timed **Logging Interval** and/or a value **Deadband**.
- Optionally, enable **Alarm Setup** on the tag.
- Repeat this process for all tags required for reporting.

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 - Project

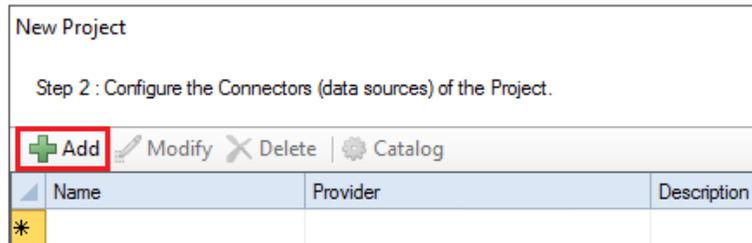
- Enter a **Project Name** and **Description** (optional).



The screenshot shows the 'New Project' dialog box. The title is 'New Project'. Below the title, 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, there are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.

Step 2 - Connect

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



The screenshot shows the 'New Project' dialog box, Step 2: Configure the Connectors (data sources) of the Project. At the top, it says 'Step 2 : Configure the Connectors (data sources) of the Project.' Below this, there is a toolbar with icons for '+ Add', 'Modify', 'Delete', and 'Catalog'. The '+ Add' button is highlighted with a red box. Below the toolbar is a table with three columns: 'Name', 'Provider', and 'Description'. The first row is empty and has a yellow asterisk icon in the first column.

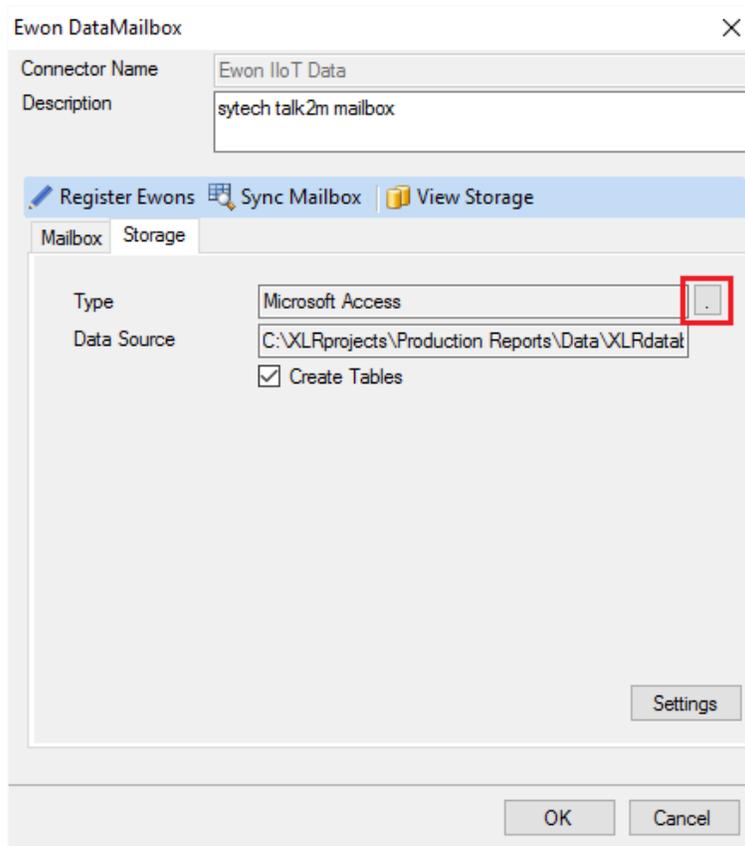
Name	Provider	Description
*		

Select **HMS, Ewon DataMailbox**.

Under the **Mailbox** tab,

- Enter the **Account** credentials as configured in eCatcher.
- Open **Status** to verify the credentials.
- Open **Register Ewons** to add devices to the connector
The number of Ewons that can be registered is determined by the number of OEM devices included in the XLReporter license.

Under the **Storage** tab,



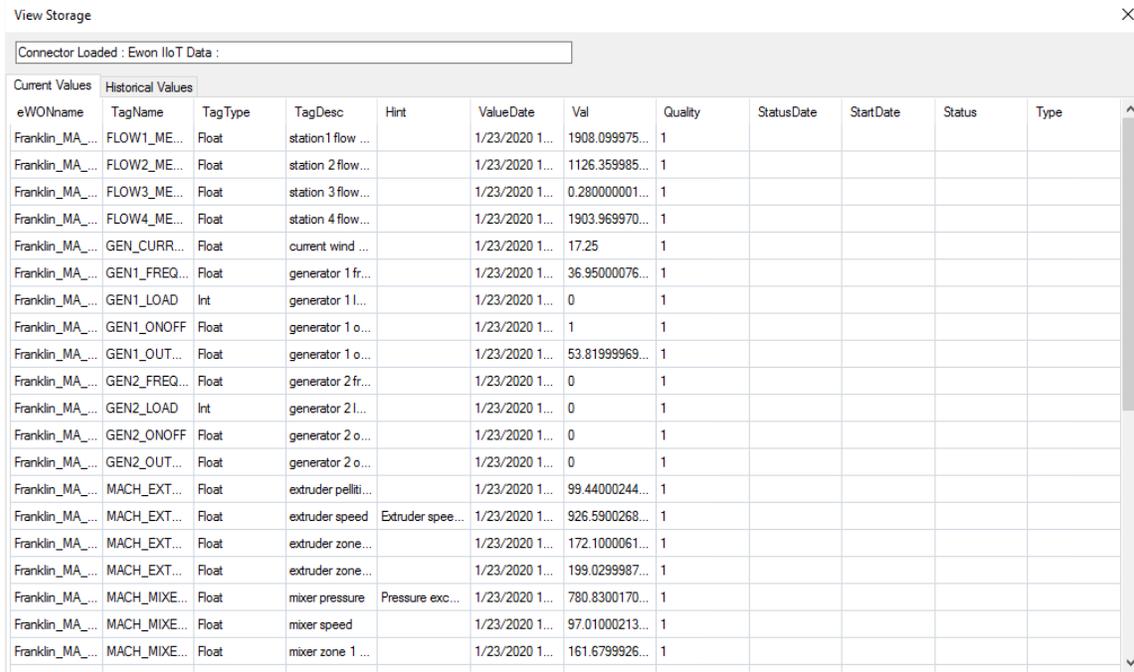
- Select a storage **Type**.
Enter a SQL Server, MySQL, Postgres, or Access database. If there are no databases available to install the XLReporter tables, select the *xlrdata.mdb* Access database stored in *C:\XLRprojects\MyProject\Data*

Step 3 – Sync Data

- Open **Sync Mailbox**
At this point, tables are created in the storage database.
- Open **Sync with Storage, Start**
Depending on the status of the mailbox, the initial sync operation may take some time. It is suggested to take a break for coffee or a snack at this point. You may even have time for a phone chat with your significant other if applicable, and if your relationship is going well. You know what, forget I mentioned it.
- Once the **Sync Mailbox** dialog displays *Status Log closed, Sync Complete*, close the dialog.

Verify the Data Connector

From the **Ewon DataMailbox** dialog open **View Storage**.



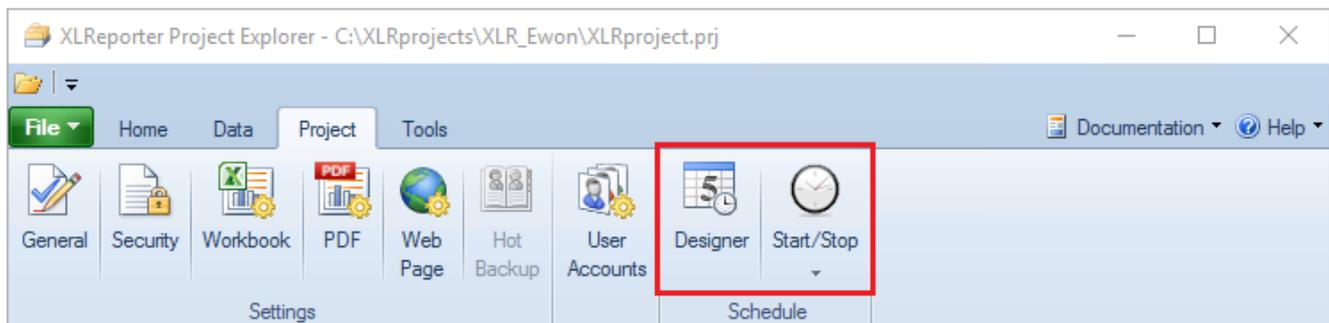
Connector Loaded : Ewon IoT Data :

Current Values		Historical Values									
eWONName	TagName	TagType	TagDesc	Hint	ValueDate	Val	Quality	StatusDate	StartDate	Status	Type
Franklin_MA...	FLOW1_ME...	Float	station 1 flow ...		1/23/2020 1...	1908.099975...	1				
Franklin_MA...	FLOW2_ME...	Float	station 2 flow...		1/23/2020 1...	1126.359985...	1				
Franklin_MA...	FLOW3_ME...	Float	station 3 flow...		1/23/2020 1...	0.280000001...	1				
Franklin_MA...	FLOW4_ME...	Float	station 4 flow...		1/23/2020 1...	1903.969970...	1				
Franklin_MA...	GEN_CURR...	Float	current wind ...		1/23/2020 1...	17.25	1				
Franklin_MA...	GEN1_FREQ...	Float	generator 1 fr...		1/23/2020 1...	36.95000076...	1				
Franklin_MA...	GEN1_LOAD	Int	generator 1 l...		1/23/2020 1...	0	1				
Franklin_MA...	GEN1_ONOFF	Float	generator 1 o...		1/23/2020 1...	1	1				
Franklin_MA...	GEN1_OUT...	Float	generator 1 o...		1/23/2020 1...	53.81999969...	1				
Franklin_MA...	GEN2_FREQ...	Float	generator 2 fr...		1/23/2020 1...	0	1				
Franklin_MA...	GEN2_LOAD	Int	generator 2 l...		1/23/2020 1...	0	1				
Franklin_MA...	GEN2_ONOFF	Float	generator 2 o...		1/23/2020 1...	0	1				
Franklin_MA...	GEN2_OUT...	Float	generator 2 o...		1/23/2020 1...	0	1				
Franklin_MA...	MACH_EXT...	Float	extruder pelti...		1/23/2020 1...	99.44000244...	1				
Franklin_MA...	MACH_EXT...	Float	extruder speed	Extruder spee...	1/23/2020 1...	926.5900268...	1				
Franklin_MA...	MACH_EXT...	Float	extruder zone...		1/23/2020 1...	172.1000061...	1				
Franklin_MA...	MACH_EXT...	Float	extruder zone...		1/23/2020 1...	199.0299987...	1				
Franklin_MA...	MACH_MIXE...	Float	mixer pressure	Pressure exc...	1/23/2020 1...	780.8300170...	1				
Franklin_MA...	MACH_MIXE...	Float	mixer speed		1/23/2020 1...	97.01000213...	1				
Franklin_MA...	MACH_MIXE...	Float	mixer zone 1 ...		1/23/2020 1...	161.6799926...	1				

- Under the **Current Values** tab The **Tagname**, **ValueDate**, and **Value** fields indicate the tags being returned from the mailbox as well as their last known values
- Under the **Historical Values** tab, select an entry to see any tag history and alarm values associated with the tag.

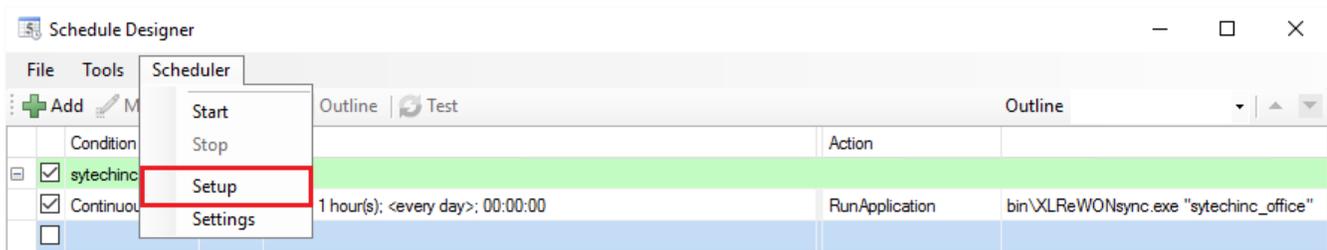
Automated Data Sync

The Talk2M DataMailbox is designed to store data temporarily. Therefore, **XLReporter** needs to sync new data automatically so it is not lost. This is done by the **XLReporter Scheduler**, which can be started from the **Project** tab of **Project Explorer**.



Automatic Scheduler Startup

It is recommended to configure the Scheduler to run as a Windows Service. This is configured from the **Schedule Designer** opened from the **Project** tab of **Project Explorer**.



In the Schedule Designer, open **Scheduler, Setup** and select **Run as a Service**. Enter the credentials of an administrator Windows User.