

Report from Ewon Flexy Tag History files

Overview

This document describes how to configure an Ewon Flexy to export tag data. The tag is configurable for a selection of tags, or all tags recorded in the device history. The time period of data collected into the file, as well as the file name, are also configurable. This document describes continuous logging and reporting, e.g. reporting daily totals in a monthly report.

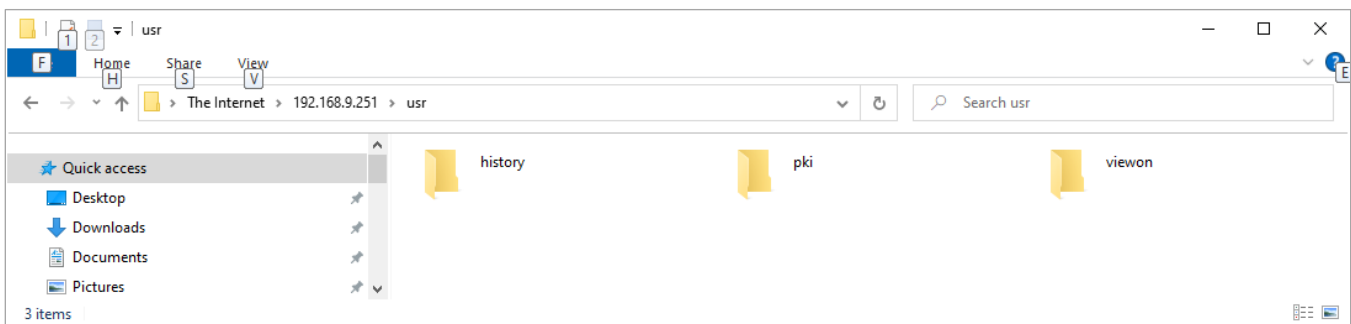
Prerequisites

- Ewon Flexy device with historical logging configured
- LAN connection from XLReporter computer to the Flexy device

Setup: Ewon Flexy

File Directory

It is recommended to create a directory on the flexy's file system to store historical data files.



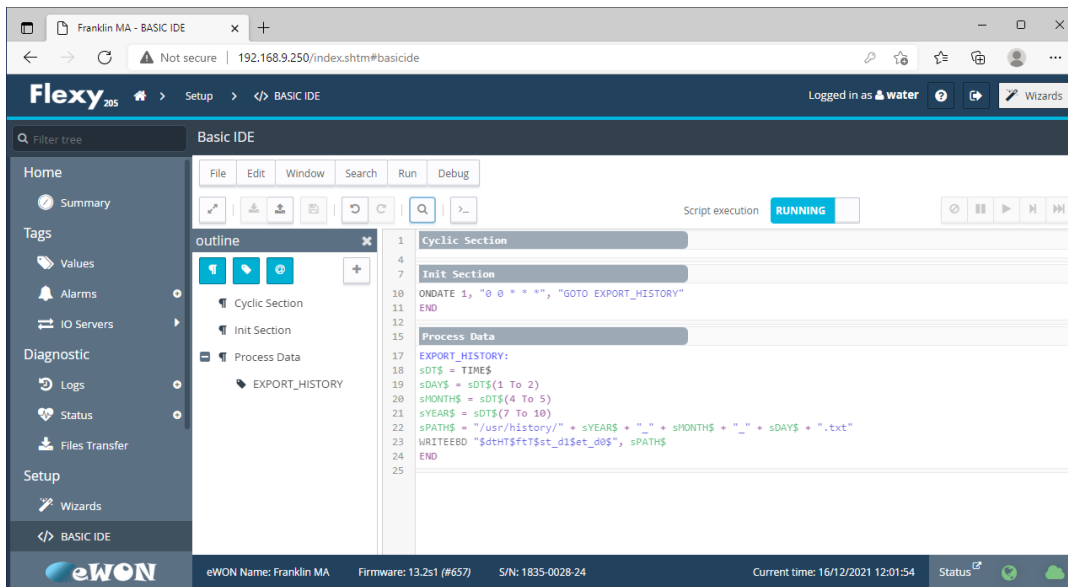
Open Windows File Explorer and navigate to `ftp://[ewon ip]/usr`.

Right-click and select **New Folder**.

Create the folder `history`.

BASIC Script

The general approach is to schedule the export automatically on a timed basis to a set of files using the date/time to name the files. In this example, the export is performed daily, at midnight, and exports the previous 1 day of history to a file named after the date, e.g. `2021_12_16.txt` representing the date December 16th, 2021. This architecture allows the data to be accessed using the **Text Historian** connector in XLReporter. To enable the above configuration in the Ewon Flexy device, copy the below script into the **BASIC IDE** accessed from the Flexy's web page. The script must be **RUNNING** to export data automatically.



INIT Section:

*ONDATE 1, "0 0 * * *", "GOTO EXPORT_HISTORY"*

User-Defined Section:

EXPORT_HISTORY:

sDT\$ = TIME\$

sDAY\$ = sDT\$(1 To 2)

sMONTH\$ = sDT\$(4 To 5)

sYEAR\$ = sDT\$(7 To 10)

sPATH\$ = "/usr/history/" + sYEAR\$ + "_" + sMONTH\$ + "_" + sDAY\$ + ".txt"

WRITEEBD "\$dtHT\$ftT\$st_d1\$et_d0\$", sPATH\$

END

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:

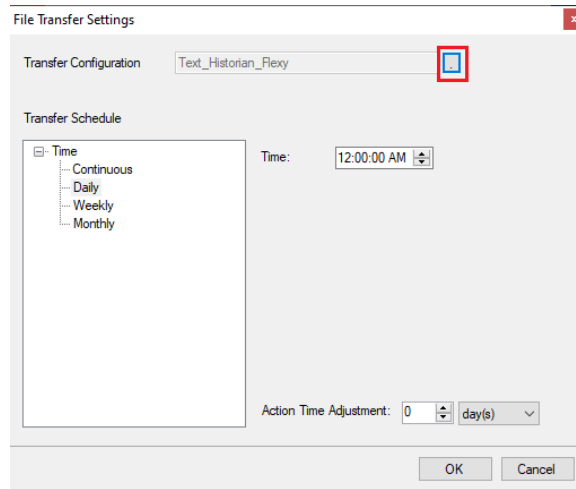
- Step 2 : Configure the Connectors (data sources) of the Project.**
- Buttons: **Add** (highlighted with a red box), Modify, Delete, Catalog
- Table with columns: Name, Provider, Description
- Table content: * (in the Name column)

Select **Text File, Text Historian**.

The screenshot shows the 'Text Historian (time series)' configuration dialog box with the following settings:

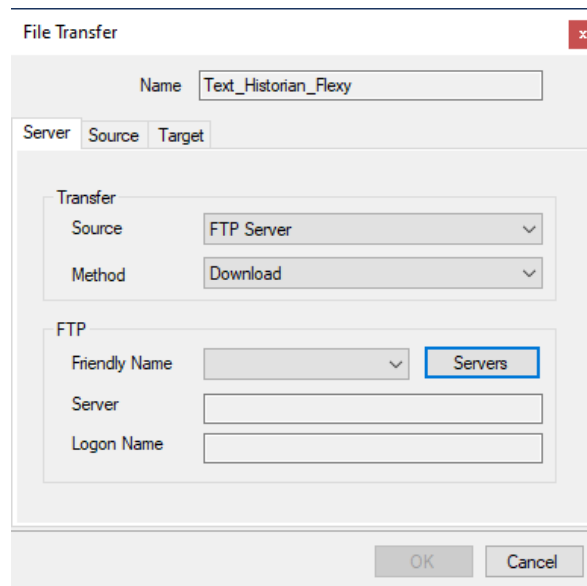
- Connector Name:** Text_Historian_Flexy
- Description:** (empty)
- Enable File Transfer** (with a **Settings** button highlighted in red)
- File Location and Name:**
 - Folder:** (empty)
 - File Name Format:** *.csv (with Refresh button)
 - Base File:** (empty) (with View button)
 - Settings:** (button)
- File Content:**
 - Date Column:** (dropdown)
 - Date includes Time**
 - Time Column:** (dropdown)
 - Separator:** Comma, Semicolon, Tab, Other
 - Decimal Symbol:** .
 - Settings:** (button)
- Buttons: OK, Cancel

To transfer the log files automatically from the Flexy, check **Enable File Transfer**. Click **Settings** to configure.



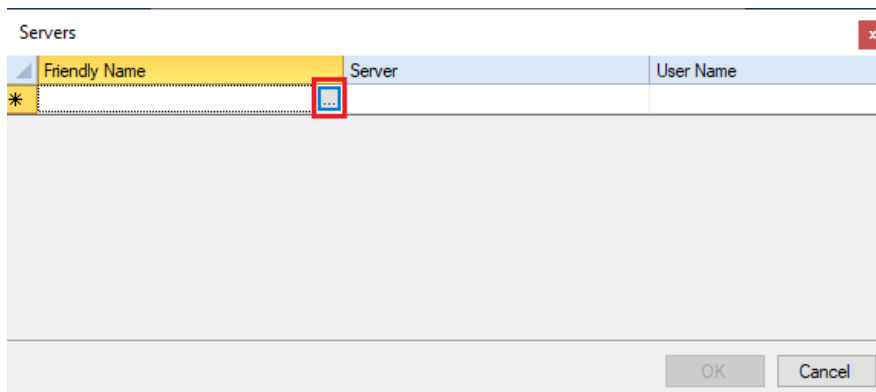
For **Transfer Configuration**, click the browse pushbutton (...).

Under the **Server** tab,



- In **Transfer**, set **Source** based on the previous network configuration.
- Set **Method** to *Download*.

Click **Servers** to define an FTP Server connection.



To define a new FTP Server, select the **Friendly Name** column of the next available row in the list and click the browse pushbutton (...).

For the FTP Server

Server

Friendly Name: Flexy

Server

Server(FTP): 192.168.9.251

Port Number: Use Default

Encryption: None

Logon Information

Name: sytech

Password: *****

Use Anonymous

Test FTP Server

OK Cancel

- Set **Friendly Name** to a name that reflects the .
- For **Server**, set **Server(FTP)** to the IP Address of the Flexy.
- For **Logon Information** enter a user **Name** and **Password** to log in to the Flexy.
- Click **Test FTP Server** to verify the configured settings for the server.
- Click **OK** to return to the list of FTP Servers.
- With the server row selected, click **OK** again to return to File Transfer.

File Transfer

Name: Text_Historian_Flexy

Server Source Target

Transfer

Source: FTP Server

Method: Download

FTP

Friendly Name: Flexy Servers

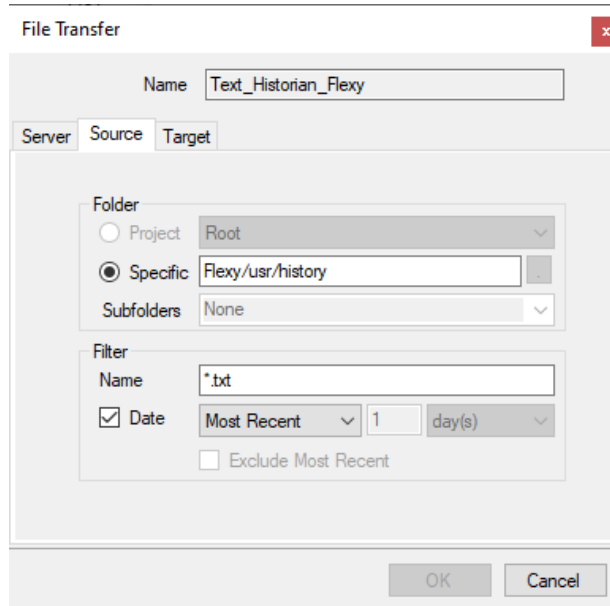
Server: 192.168.9.250

Logon Name: sytech

OK Cancel

The FTP settings should now be filled out.

Select the **Source** tab to specify the **Folder** containing the log files.

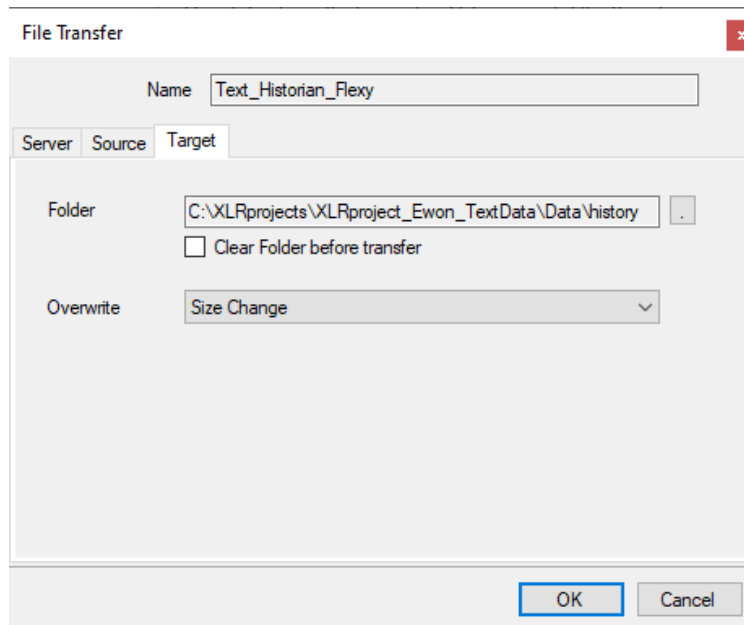


The screenshot shows the 'File Transfer' dialog box with the 'Source' tab selected. The 'Name' field is set to 'Text_Historian_Flexy'. Under the 'Folder' section, the 'Specific' radio button is selected, and the folder path is 'Flexy/usr/history'. The 'Subfolders' dropdown is set to 'None'. Under the 'Filter' section, the 'Name' field is set to '*.txt'. The 'Date' checkbox is checked, and the 'Most Recent' dropdown is set to '1' day(s). The 'Exclude Most Recent' checkbox is unchecked. 'OK' and 'Cancel' buttons are at the bottom.

The **Folder** section defines the source file path. Set this to the `/usr/history` directory on the Flexy.

The **Filter** section determines which files are transferred. At a minimum the **Name** should be set to `*.txt` (the file extension created by the WRITEEBD function in the Flexy BASIC script) to ensure that files with the `.txt` extension are transferred.

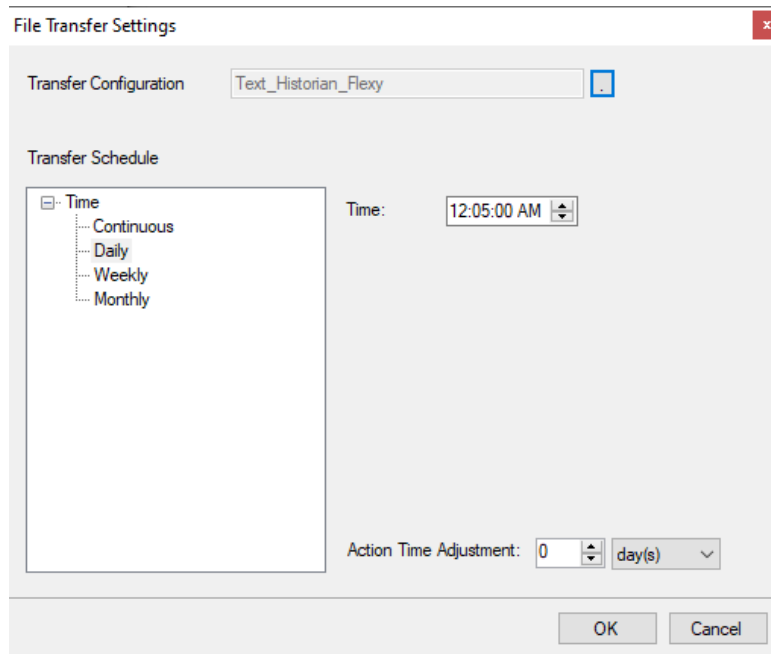
The **Target** tab defines the local archive path and overwrite behavior.



The screenshot shows the 'File Transfer' dialog box with the 'Target' tab selected. The 'Name' field is set to 'Text_Historian_Flexy'. The 'Folder' field is set to 'C:\XLRprojects\XLRproject_Ewon_TextData\Data\history'. The 'Clear Folder before transfer' checkbox is unchecked. The 'Overwrite' dropdown is set to 'Size Change'. 'OK' and 'Cancel' buttons are at the bottom.

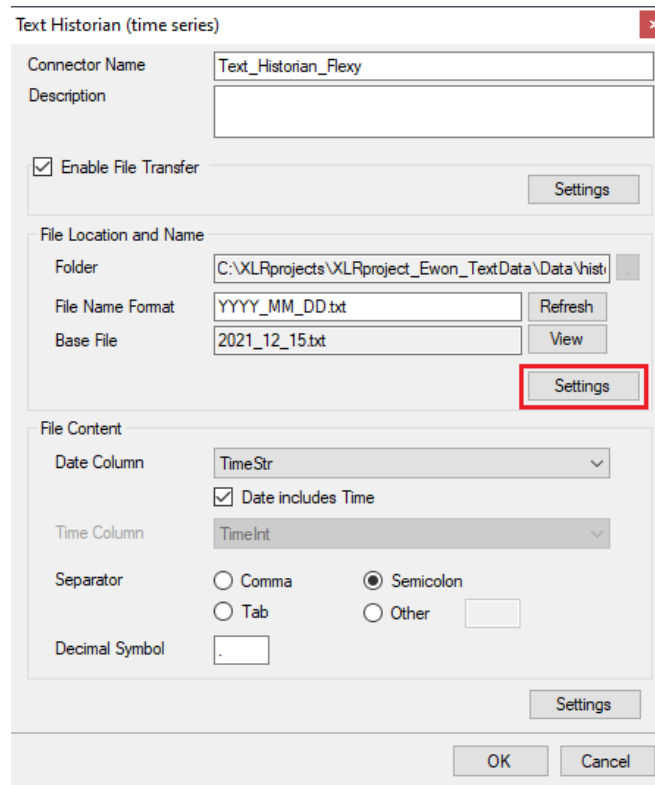
- **Overwrite** defines behavior when a source file already exists in the target path. Set this to *Size Change* to overwrite only when the source file contains different content than the target.

Click **OK** to save this configuration. An initial download runs automatically.



Set the **Transfer Schedule** based on the configuration of the BASIC script.

Click **OK** to return to the connector settings.



Under **File Location and Name**

These values are defaulted based on the latest file transferred from the Flexy. In **File Name Format**, characters like *YYYY*, *MM* and *DD*, etc. indicate date and time expressions in the file names. In the example BASIC script described in this document, the file name should be *YYYY_MM_DD.txt*.

Click **View Latest** to test the connection to the historical files.

When the file is generated, the column names contain quotation marks which is not supported by the driver used by XLReporter. In addition, the timestamp format is not compatible.

The file issues can be solved using a schema.

Open **File Settings** and enter the following information:

```
[xlreporter]
; the row containing the headers (=0 custom)
HeaderRow=1

; the row containing the first set of data
DataRow=2

[consolidated.csv]
Format=Delimited(;)
DecimalSymbol=.
ColNameHeader=True
DateTimeFormat=dd/MM/yyyy hh:nn:ss

; Custom Headings
Col1=TimeInt Long
Col2=TimeStr DateTime
Col3=[first tag name in file] [first tag data type]
...
ColN=[last tag name in file] [last tag data type]
```

Where *Tag1* through *TagN* are the tag names from the flexy. Note the required definition of the timestamp.

Click **OK** to return to **Text Historian (time series)**.

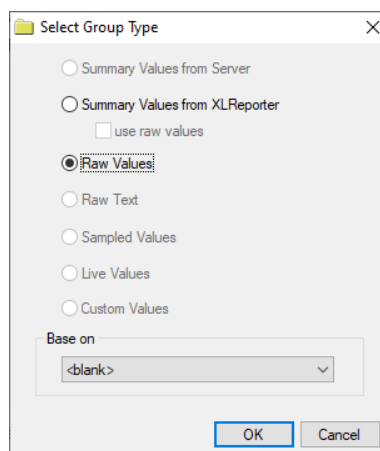
Under **File Content**

These settings define the setup of the date/time as well as the value separator which are determined from the files themselves. For Ewon **Date Column** is the *TimeStr* column, and **Date Includes Time** is enabled. **Separator** is *Semicolon*.

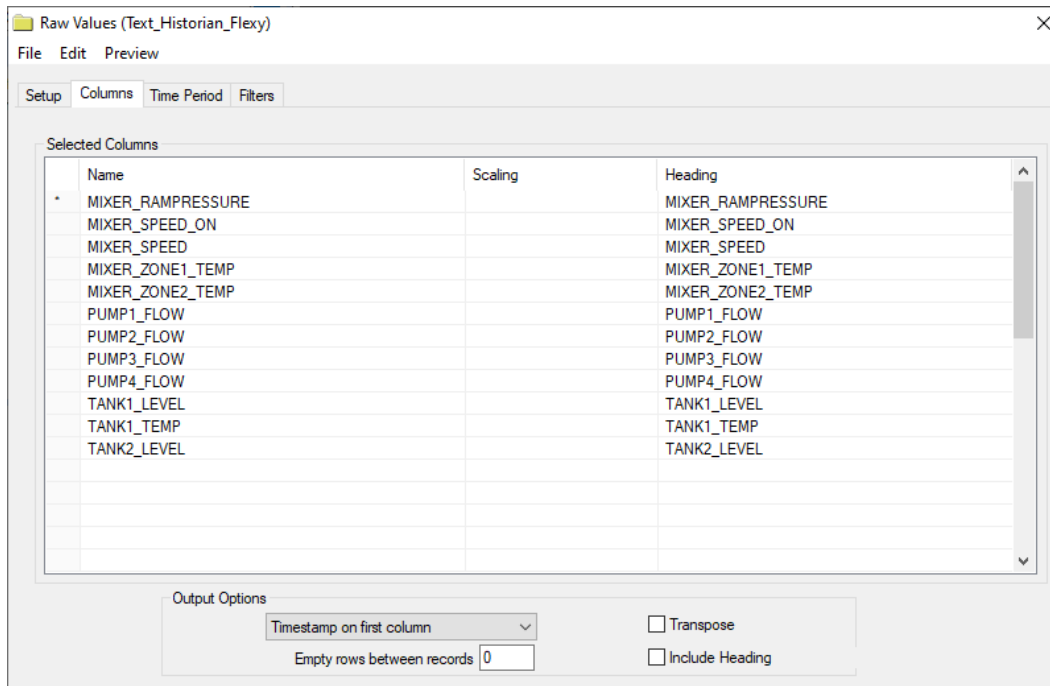
Click **OK** to return to **New Project**. Click **Finish** to deploy the project.

Verify Data Communication

Open the **Project Explorer** and select the **Tools** tab. Open **Connector Groups**. Select the Flexy history connector and then select **Add**.



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



On the **Columns** tab:

- Select the first row under the Name column
- Click the browse pushbutton (...)
- In the Tag Browser expand **Catalog, General** and add **Items** from the lower left.
- Click **OK** to add these to the group.

To retrieve data, select **Preview**. In the **Preview** window, use the data picker to select a date and time with for which you have data in a csv file on the local system. Click **Refresh** to view data. The first 60 records starting at the date and time specified should be displayed.