

String Tags Historization

SOLUTION SHEET

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1 Preface

1.1 About This Document

This document describes how to enable and configure the historization of the string tags in the Ewon Flexy.

For additional related documentation and file downloads, please visit www.ewon.biz/support.

1.2 Document history

Version	Date	Description
1.0	2020-07-15	Official release

1.3 Related Documents

Document	Author	Document ID
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1.4 Trademark Information

Ewon® is a registered trademark of HMS Industrial Networks SA. All other trademarks mentioned in this document are the property of their respective holders.

2 Introduction

As of firmware 14, the Ewon Flexy is able to log / historize the values of string tags.

String tags can be set and configured only for the following IO servers: DF1 / AB Logix (Allen-Bradley®), S73&400 (Siemens®), OPC UA, MEM.

To enable the historization of string tags, you will need to first change the memory organization of your Ewon Flexy and then create a string tag with the historization enabled.

3 String Tag Historization

If you wish to create a string tag and log the values for this tag, you must first change the memory organization of the Ewon Flexy and allocate a part of the Ewon Flexy memory to the string tags historization task..

To change the memory historization of your Ewon Flexy, proceed as follows:

1. Browse to your Ewon Flexy web interface in your favorite web browser.
2. Navigate to: **Setup** ► **System** ► **Storage** ► **Memory Settings**.
3. Check the **String Tag Historization enabled** box.



Changing the memory organization results in a complete format of the Ewon Flexy except for the COM configuration which remains. If you already have your Ewon Flexy configured (such as tags and IO servers, or BASIC scripting), refer to [Different Memory Organization with an Already Configured Ewon Flexy, p. 9](#)

4. Set the percentage the Ewon Flexy should take from its global memory to allocate to string tags historization.
5. Update the configuration.

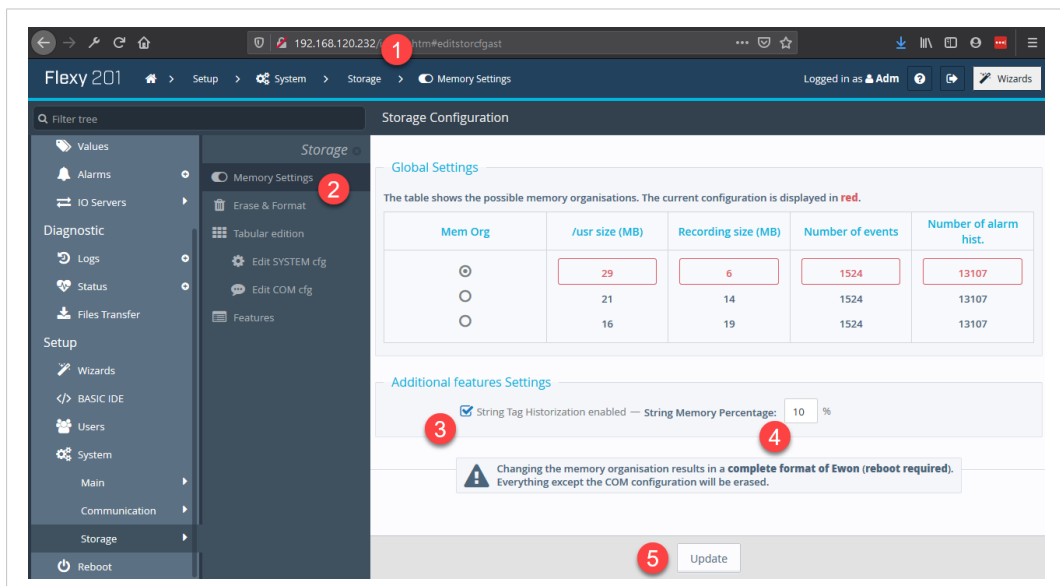


Fig. 1 Enable string tag historization

→ The Ewon Flexy will ask you to confirm the format of the current configuration.

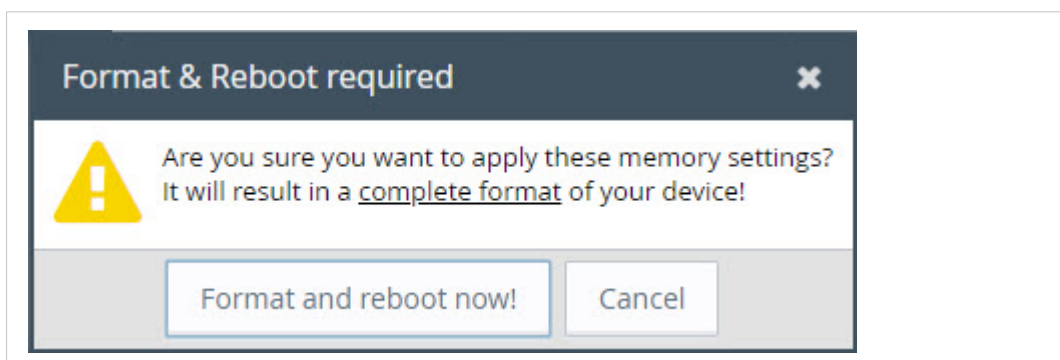


Fig. 2 Confirmation of Ewon Flexy format

Once you gave the confirmation to the Ewon Flexy, it will reboot automatically.

As the Ewon Flexy has rebooted, you can now create a string tag and set it to be logged.

3.1 Limitation

String Length

For technical reasons, the size of any string tag value is fixed to 1024 bytes.

If you try to set a string with a length greater than 1024 bytes, the value will be truncated at 1021 bytes and followed by “...” (3 dots) to indicate that the string has been truncated (and the total length is 1024).

LOGIO / LOGGROUPIO

The BASIC commands LOGIO and LOGFROUPIO are not compatible with string tags.

If you wish to force the record of a string tag in the logs, you must create a **MEM** tag and duplicate the value of the desired string tag to this newly created **MEM** tag. You will then be able to use the LOGIO or LOGFROUPIO command on the **MEM** tag.

4 String Tag Creation

Once you set the proper memory organization (refer to [String Tag Historization, p. 5](#)), you can create your string tags in your Ewon Flexy as follows:

1. Navigate to: **Tags ► Values**.
2. Change the status to **SETUP**.
3. Add a new tag.
4. Set a **Tag Name**.
5. Set the parameters for the IO server:
 - **Server Name**: MEM, OPC UA, DF1, ABLOGIX, S73&400.
 - **Type**: String.
6. Activate the **Historical Logging Enabled**.
7. Add the tag.

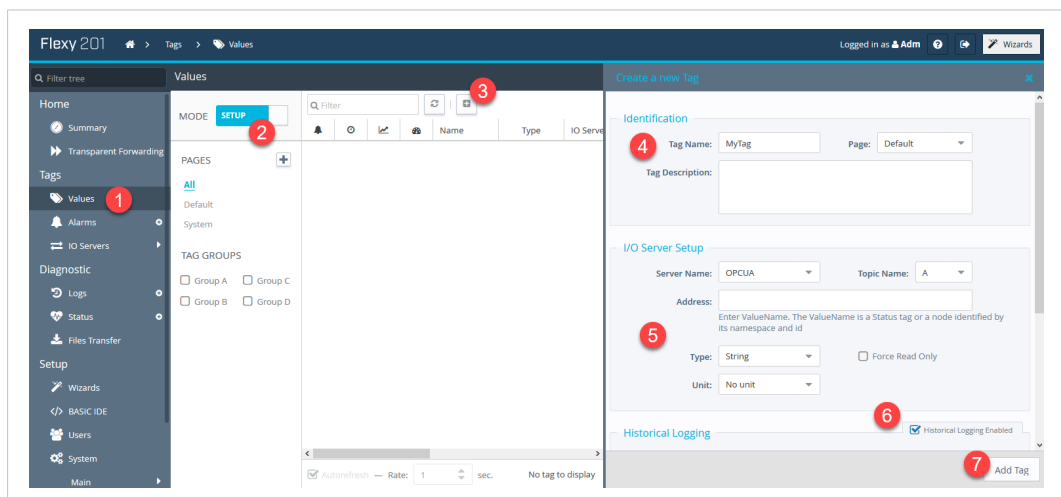


Fig. 3 Creation of a string tag



If you can't enable the historical logging, it is because your memory organization is not properly set. Refer to [String Tag Historization, p. 5](#) to configure accordingly the memory organization of your Ewon Flexy.

5 Export Block Descriptors (EBD)

The *Export Block Descriptors* — a.k.a. EBD — can also handle string tags.

An *EBD* is a string composed of several parameters that defines which data have you would like to export from an Ewon Flexy.

Export Block Descriptor are used for many functions such as email attachment, FTP transfer, HTTP transfer and custom web pages.

The argument in an *EBD* impacted by the string tags is the following one:

- `$dt` for data type:
 - `$dtHS` = Historical Strings
 - `$dtIS` = Instantaneous Strings

There are also files linked to the string historization which can be retrieved by an *Export Block Descriptor*:

- `<inst_val_str.bin>` which retrieves the instantaneous values of the string tags in binary format.
- `<histstr.bin>` which retrieves the historical values of the string tags as a binary file.
- `<histstr.txt>` which retrieves the historical values of the string tags as a text file.

More details on *Export Block Descriptors* in the [RG-0009-00: Export Block Descriptors](#)

A Different Memory Organization with an Already Configured Ewon Flexy

It is possible to enable the string tags historization without having to reconfigure your Ewon Flexy from scratch.



Changing the memory organization results in a complete format of the Ewon Flexy except for the COM configuration which remains. If you already have your Ewon Flexy configured (such as tags and IO servers, or BASIC scripting).



Even if communication settings are saved during the process, it is recommended to have a local access to the Ewon router during this process.

To do so, proceed as follows:

1. Create a backup of your Ewon Flexy with its current configuration.

If you need assistance with the creation of an Ewon Flexy backup, refer to [KB-0135-00: Create an Ewon backup](#).

2. Follow the steps listed in [String Tag Historization, p. 5](#).

This will format completely (except for communication settings) your Ewon Flexy.

3. Open the Ewon Flexy backup file you created in step #1 with an archiver app.
4. Open the **<comcfg.txt>** file.

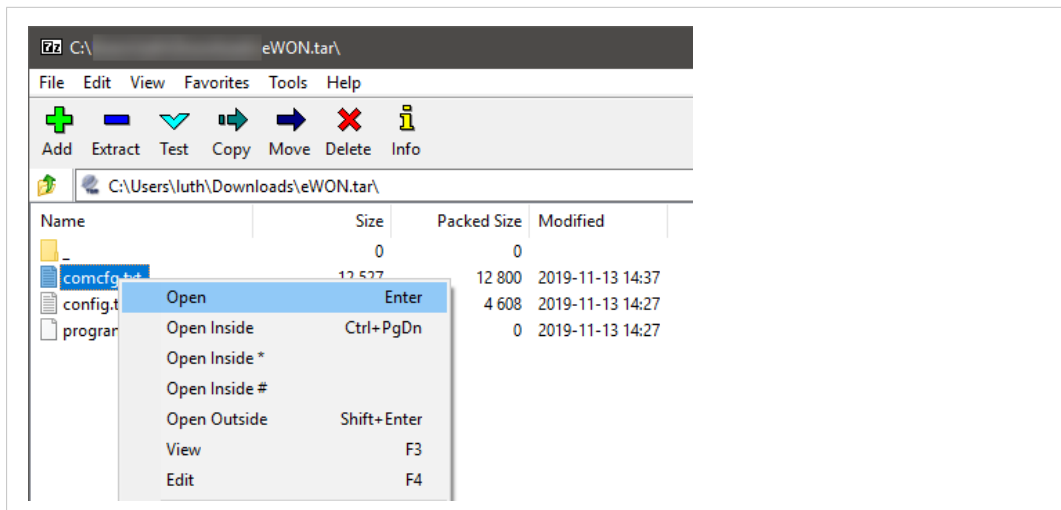


Fig. 4 Open <comcfg.txt> file

5. Delete the 2 following lines:
 - MemStrHistEnabled:0
 - MemStrHistPercentage:10

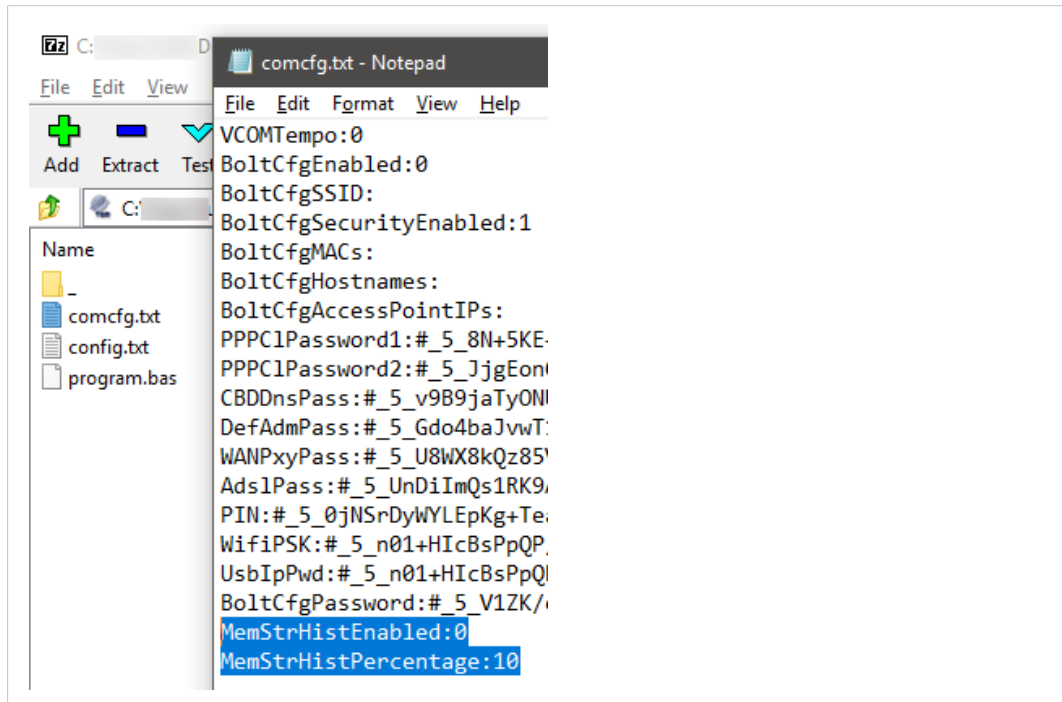


Fig. 5 Delete the string-related memory organization lines



If you restore the Ewon Flexy without erasing those 2 parameters, next time your Ewon Flexy reboots, it will be wiped out and you will lose your configuration.

6. Save the modified **<comcfg.txt>** in the archive.
Make sure your backup now contains the newly modified **<comcfg.txt>**.
7. Restore the modified backup in to your Ewon Flexy.
If you need assistance with the process of an Ewon Flexy backup restore, refer to [KB-0186-00: Restore an Ewon Backup](#)

Your string tags can now be historized.

Once you have performed all the previous steps and you have created your tags, create a new backup which will now contain the new memory organization and so the proper configuration for string tags.

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