KREO HMI TUTORIAL
Datalogs

Tutorial dedicated to the datalogs programming and functionality

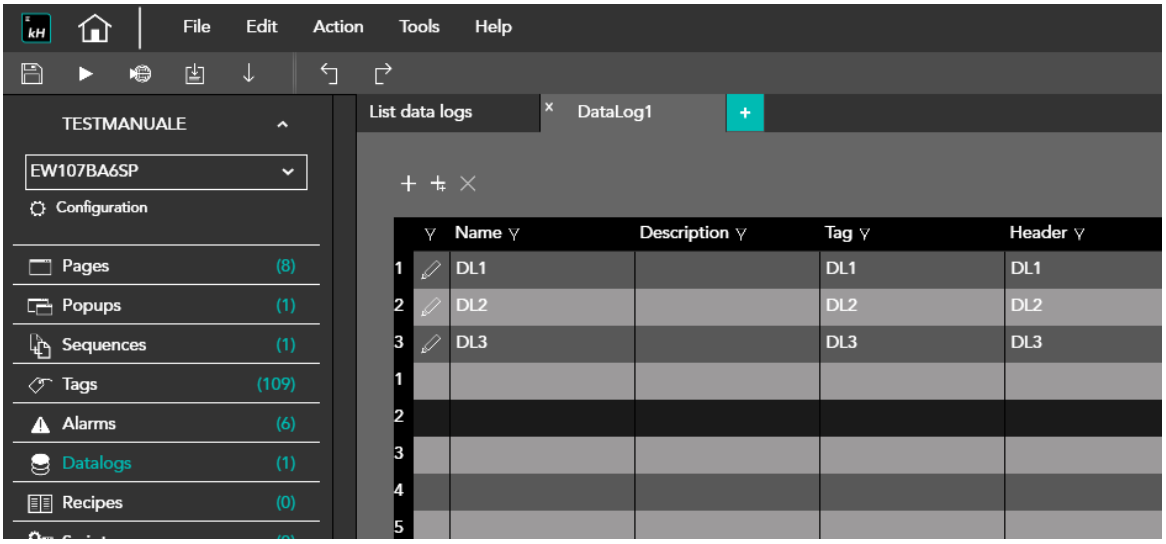
Connect
Ideas.
Shape
solutions.

Introduction

The DataLogs allows you to collect the values of tags over time to then view the trend in numerical tables, trend time based (t), trend value based (xy). The sampling of these values can be obtained in time, on command, in event, on the raising/edge front tag....

How to do:

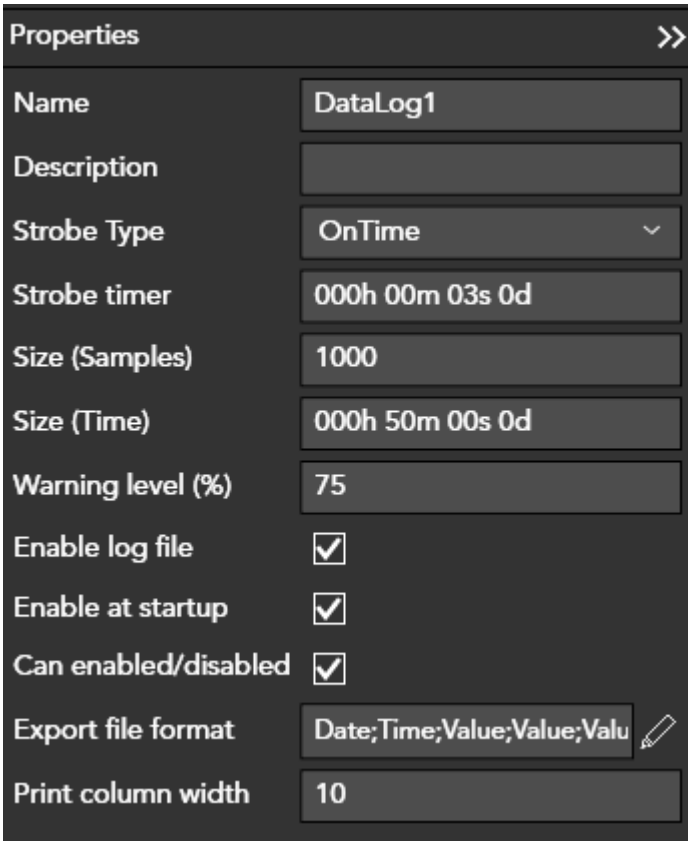
1) We create the memory buffer of the samples for the DATALOG consisting of 3 tags DL1, DL2, DL3.



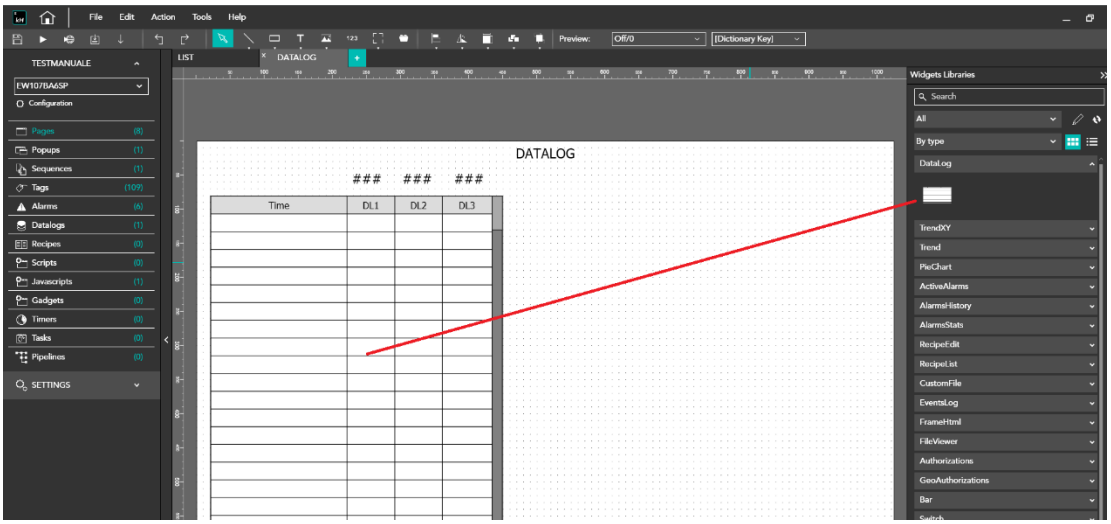
2) Suppose you configure the following LOG buffer properties.
   - Sampling-tags in time (3 sec.)
   - Buffer-log memory size (sample no. =1000)
   - The total amount of time that will be covered with a full log-buffer will be 3000sec. (50min.)
   - BUFFER-FULL WARNING threshold = 75%. A DATALOG event will be raised as soon as this warning threshold will be reached. Other events are configurable such as 100% full DATALOG.

- Log-file enabled. This allows you to keep the log-samples after the device reboot (persistent log-buffer).
- Sampling enabled at start-up.
- Possibility to stop the sampling temporarily by the user and then reactivate it, through tags, buttons, events,...
- Data export table-LOG enabled (CSV/XML file) for all tags and any read quality

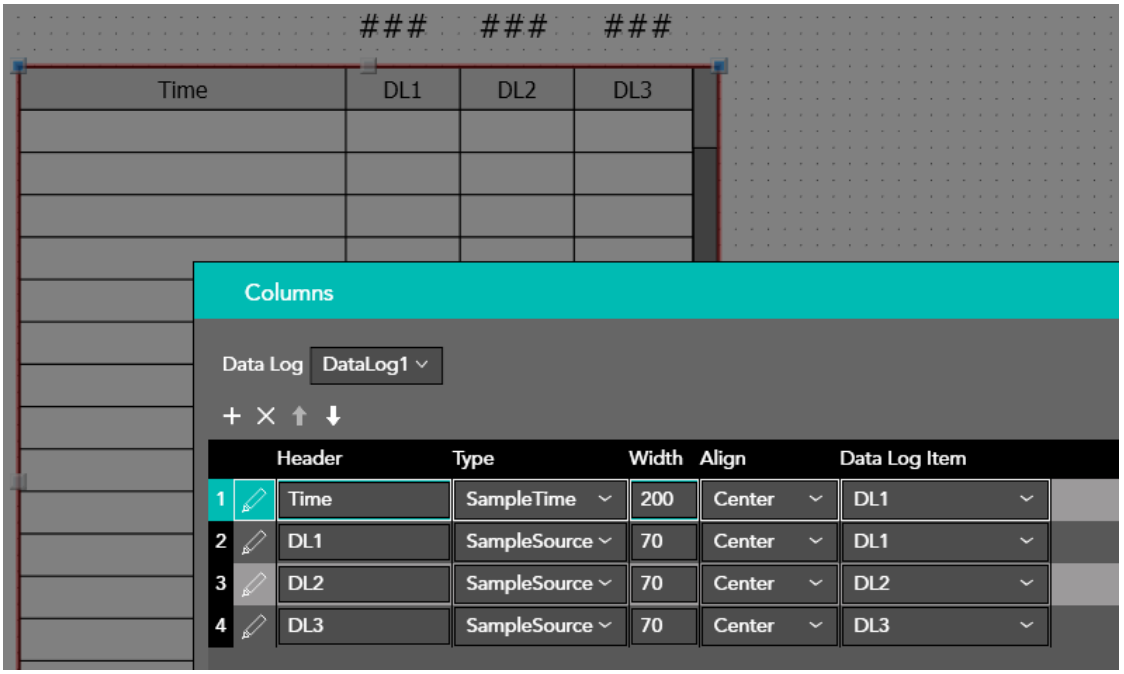
Below is an example:



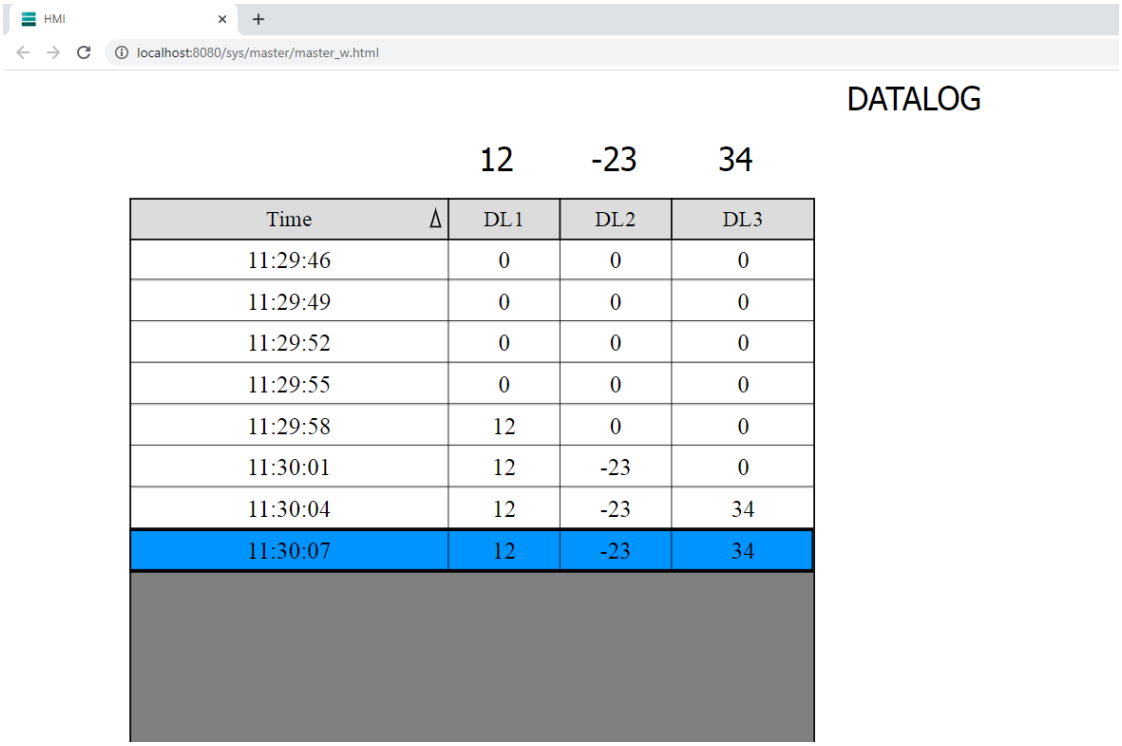
3) You now configure the page with the TABLE-DATALOG widget



Where the COLUMNS graphics property is defined as follows:



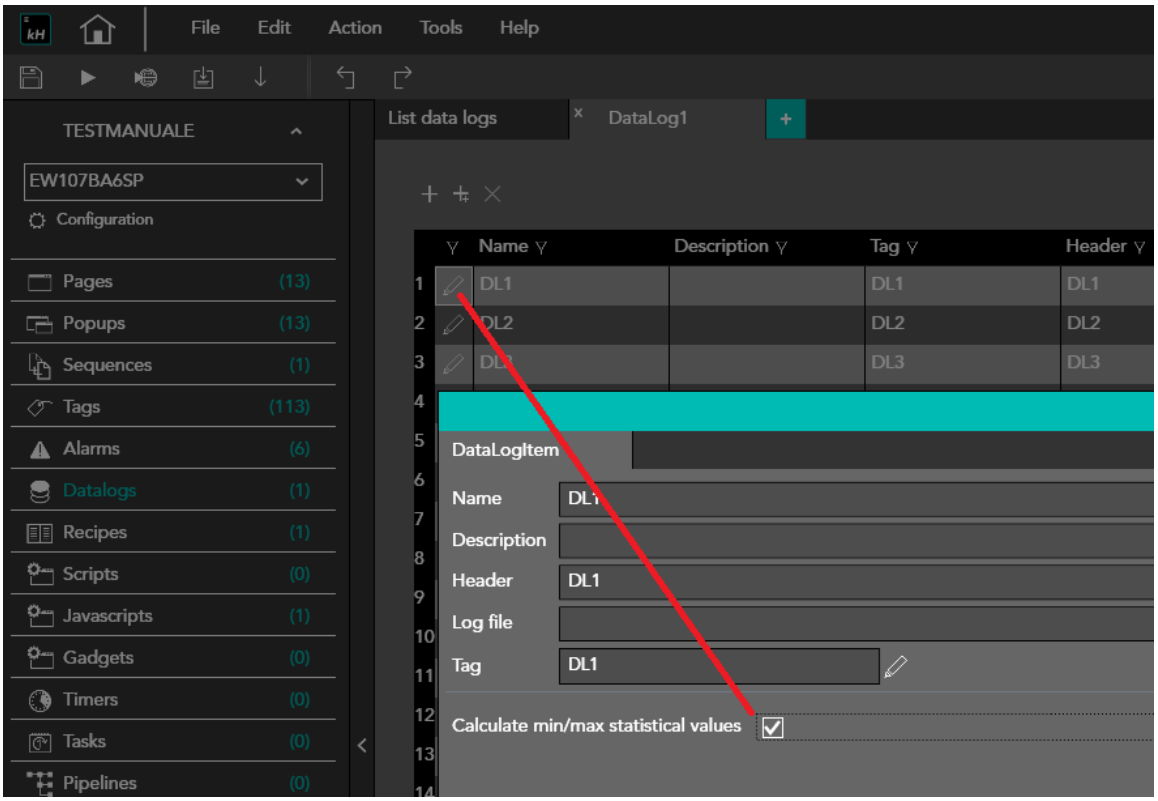
4) At RUNTIME you will see the table populated by the different values of tags every 3 seconds, as programmed.



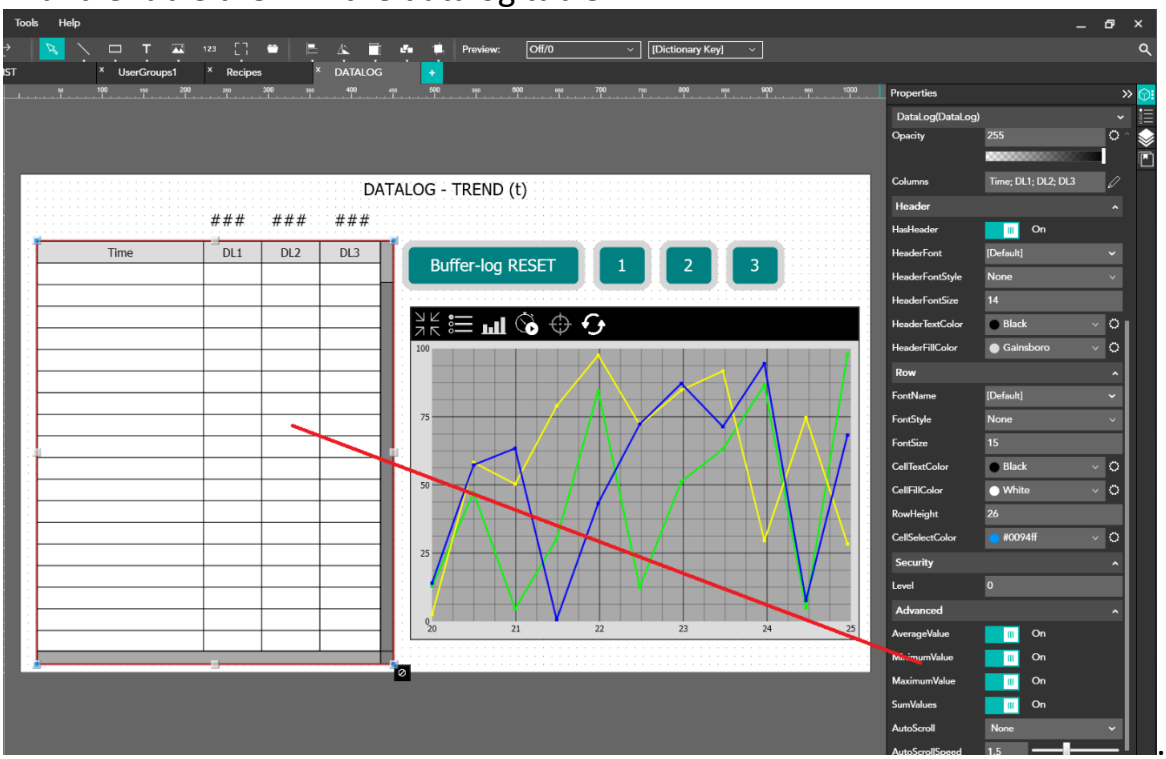
Time	DL1	DL2	DL3
11:29:46	0	0	0
11:29:49	0	0	0
11:29:52	0	0	0
11:29:55	0	0	0
11:29:58	12	0	0
11:30:01	12	-23	0
11:30:04	12	-23	34
11:30:07	12	-23	34

NOTE1: The datalog buffer always works in FIFO mode

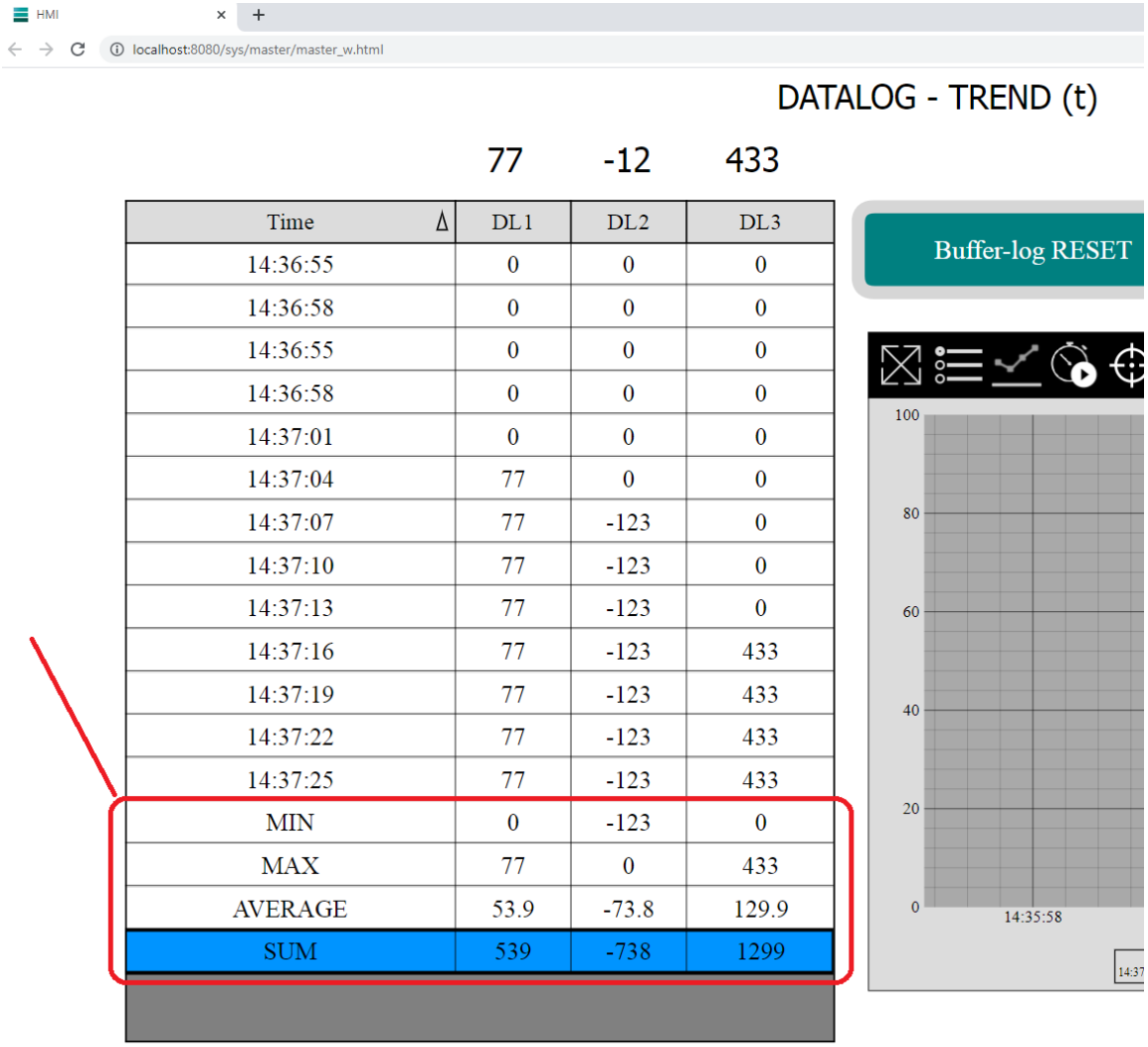
NOTE2: You can also enable values of MIN, MAX, SUM, AVERAGE values to increment the DATALOG information.
The datalog tag statistics flag must be selected.



… and enable them in the datalog table

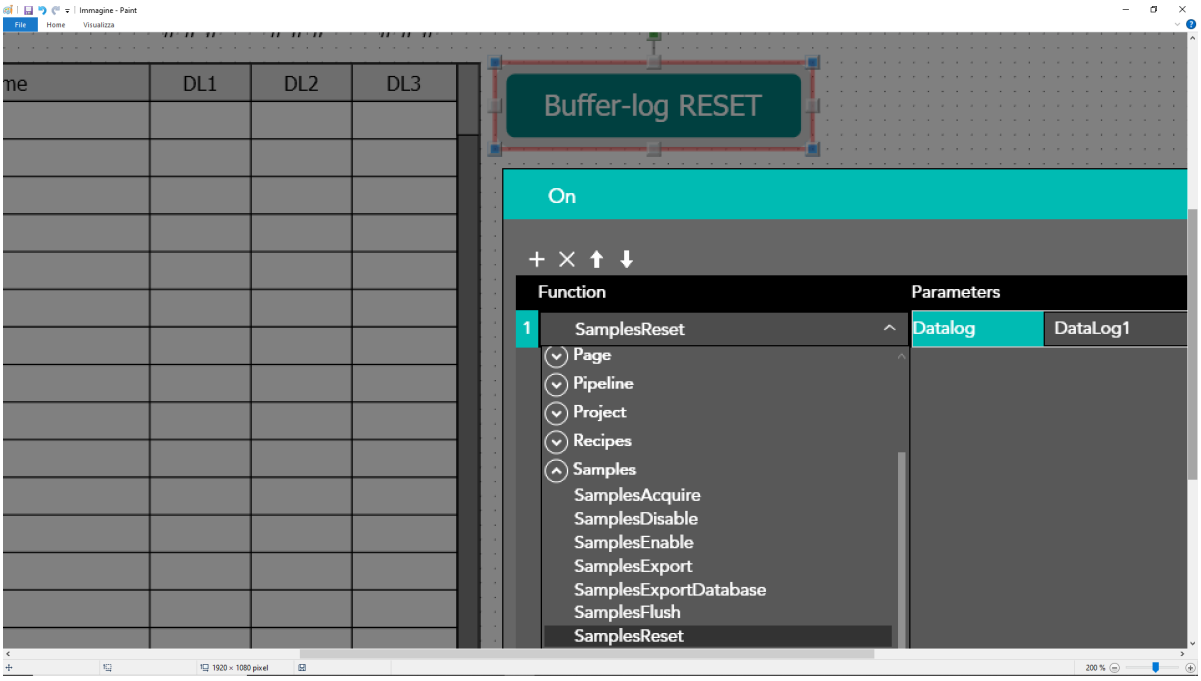


The result is the following one:



5) Below are some predefined FUNCTIONS for sampling DATALOGS and any EVENTS in order to better manage this functionality:

Default FUNCTIONS Table



Log EVENTS table:

Events	
OnSamplesFull	None
OnSamplesWarning	None
OnSamplesEnabled	None
OnSamplesDisabled	None
OnSamplesReset	None
OnSamplesStart	None
OnSamplesComplete	None
OnSamplesSuccess	None
OnSamplesError	None
OnSamplesExportStari	None
OnSamplesExportCorr	None
OnSamplesPrintStart	None
OnSamplesPrintComp	None

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