

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:

Properties	>>
Name	DataLog1
Description	
Strobe Type	OnTime ~
Strobe timer	000h 00m 03s 0d
Size (Samples)	1000
Size (Time)	000h 50m 00s 0d
Warning level (%)	75
Enable log file	
Enable at startup	
Can enabled/disabled	
Export file format	Date;Time;Value;Value;Valu
Print column width	10



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

Where the COLUMNS graphics property is defined as follows:

		###	, #### i	###					
Tim	e	DL1	DL2	DL3					
					-				
L									
	Columns								
	Data Log Da + X ↑ ↓	taLog1 ∨							
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	4 🖉 DL3		SampleSourc	æ∽ 70	Center	~	DL3	~	



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

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DATALOG

		12	-23	34
Time	Δ	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.



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... and enable them in the datalog table





The result is the following one:

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					DA	TALOG - TREND (t)
			77	-12	433	
	Time	Δ	DL1	DL2	DL3	
	14:36:55		0	0	0	Buffer-log RESE
	14:36:58		0	0	0	
	14:36:55		0	0	0	
	14:36:58		0	0	0	
	14:37:01		0	0	0	100
	14:37:04		77	0	0	
	14:37:07		77	-123	0	80
	14:37:10		77	-123	0	
	14:37:13		77	-123	0	60
()	14:37:16		77	-123	433	
	14:37:19		77	-123	433	10
	14:37:22		77	-123	433	- +0
	14:37:25		77	-123	433	
	MIN		0	-123	0	20
	MAX		77	0	433	
	AVERAGE		53.9	-73.8	129.9	0 14:35:58
	SUM		539	-738	1299	г

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



Default FUNCTIONS Table

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me	DL1 DL1 DL1 DL1 DL1 DL1 DL1 DL1	DL2	DL3	Buffer-log RESET On + × ↑ ↓ Function 1 SamplesReset ◇ Page ◇ Pipeline ◇ Project ◇ Recipes ◇ SamplesAcquire SamplesEnable SamplesEnable SamplesExport SamplesExport SamplesFlush SamplesReset	Parameters Datalog Datalog1
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Log EVENTS table:

Litenta	
OnSamplesFull	None
OnSamplesWarning	None
OnSamplesEnabled	None
OnSamplesDisabled	None
OnSamplesReset	None
OnSamplesStart	None
OnSamplesComplete	None
OnSamplesSuccess	None
OnSamplesError	None
OnSamplesExportStar ¹	None
OnSamplesExportCorr	None
OnSamplesPrintStart	None
OnSamplesPrintComp	None



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