

DAT9000 Project example: Logging the mA analog input of DAT9011-USB every 5 minutes.

STEP 1 – Checking configuration

Connect the device as following:



In Dev9K, follow this procedure:

- Tools \rightarrow Search

Search for DAT9011-USB, then right-click on it and select "Set as Controller"

Check for Communication OK

- Tools \rightarrow Config

Set Address = 10 and Type = DAT9011-USB, then click on "Update" In the "Analog Input" tab, check for input type (mA)

STEP 2 – Creating Application Project

Main project

Click on New Project and insert the following function blocks:

Function Block 1) The main program doesn't need to perform functions, then it is only required a loopback flow ("Goto" function to the same block)

Label = "Start" Block = "Start" (same as Label)



Variables setting

Set the variables to use in the Log record.

Variable for Date time ID = 0Label = "Date" Type = Date CSV Header = "Date" Variable for Hour time ID = 1 Label = "Time" Type = Time CSV Header = "Time" Variable for Input value ID = 0Label = "Input" Type = Int Input Reg = 26 Format = "Decimal", 5 digits, 3 decimals CSV Header = "Input [mA]"

ID	Reg	Туре	Format	Label	CSV Header		
0		Date			Date	^	+ - ^ v 7
1		Time			Time		
2	26	Int	%+5.3f	Input	Input [mA]		
3	100	ulnt	%+5.0f	_	—		ID 2 Label Input
4	100	ulnt	%+5.0f	_	_		
5	100	ulnt	%+5.0f	_	-		Туре
6	100	ulnt	%+5.0f	_	—		Int
7	100	uInt	%+5.0f	_	-		
8	100	uInt	%+5.0f	_	-		Input Reg
9	100	ulnt	%+5.0f	-	-		26
10	100	ulnt	%+5.0f	_	-		Output Format
11	100	ulnt	%+5.0f	-	-		
12	100	ulnt	%+5.0f	_	-		Format
13	100	uint	%+5.0f	_	_		Decimal Vigits 5
14	100	uint	%+5.0f	_	—		Decimals 3
15	100	uint	%+5.0f	_	_		Decimais 5
16	100	ulnt	%+5.0f	_	-		Signed 🔽
17	100	ulnt	%+5.0f	_	—		
18	100	ulnt	%+5.0f	_	-		CSV Header Name
19	100	ulnt	%+5.0f	_	-		1
20	100	uint	%+5.0f	-	-	~	Jinput (mAj

Logger setting

Task Logger Image: DD MM YY hh mm ss Dal 01 January 2000 00 00 00 Al 31 December 2099 23 59 59 File Directory VDir0\ New File each Formato Record Date Time Image: Month C Year Yano Yano Yano Yano Yano Trigger Trigger Trigger Yano Yano Yano Yano Trigger Reg 26 Bit Set Formats Set Formats Set Formats	Exa Date 10/0 10/0 10/0 10/0 10/0 10/0 10/0 10/

Example of CSV file:

Date	Time	Input [mA]
10/07/13	09.17.05 m.	4,000
10/07/13	09.17.10 m.	5,000
10/07/13	09.17.15 m.	6,000
10/07/13	09.17.20 m.	7,000
10/07/13	09.17.25 m.	8,000
10/07/13	09.17.30 m.	9,000
10/07/13	09.18.35 m.	10,000
10/07/13	09.18.40 m.	11,000
10/07/13	09.18.45 m.	12,000
10/07/13	09.20.50 m.	13,000
10/07/13	09.20.55 m.	14,000

Insert a Logger task and set the following parameters:

- Lifetime

From 01 january 2000 to 31 december 2099

- File

Directory = " \Dir0\ " (directory where to store the CSV file) New file each = Hour (create a new file at hour)

- Trigger

Time = checked – 5 minute (save a record each 5 minutes)

- Record Format

Insert the first three variables:

- Date
- Time
- Input[%R26]

 \rightarrow Save the project, reconnect the controller and set DAT9011-USB in Debug mode (click on Debug button, the STS led start blinking). Click on Download button and in the Download form click on Ok.

STEP 3 – Running application

 \rightarrow Set in Release mode.

Now, the STS led will stop blinking and DAT9011-USB will log the analog input value every 5 minutes in the microSD card memory storage.