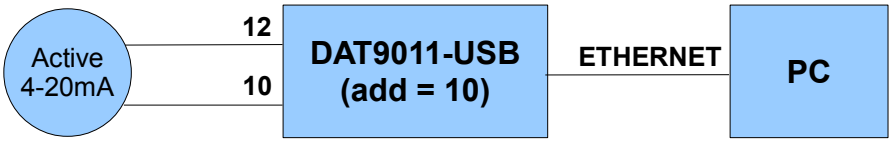
APPLICATION NOTE 0313

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

STEP 1 – Checking configuration

Connect the device as following:



NOTE: Addresses may be different

In Dev9K, follow this procedure:
- Tools → Search
  Search for DAT9011-USB, then right-click on it and select “Set as Controller”
  Check for Communication OK
- Tools → Config
  Set Address = 10 and Type = DAT9011-USB, then click on “Update”
  In the “Analog Input” tab, check for input type (mA)

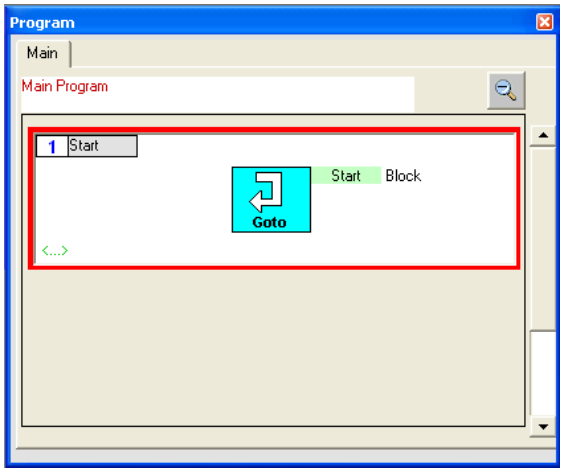
STEP 2 – Creating Application Project

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)



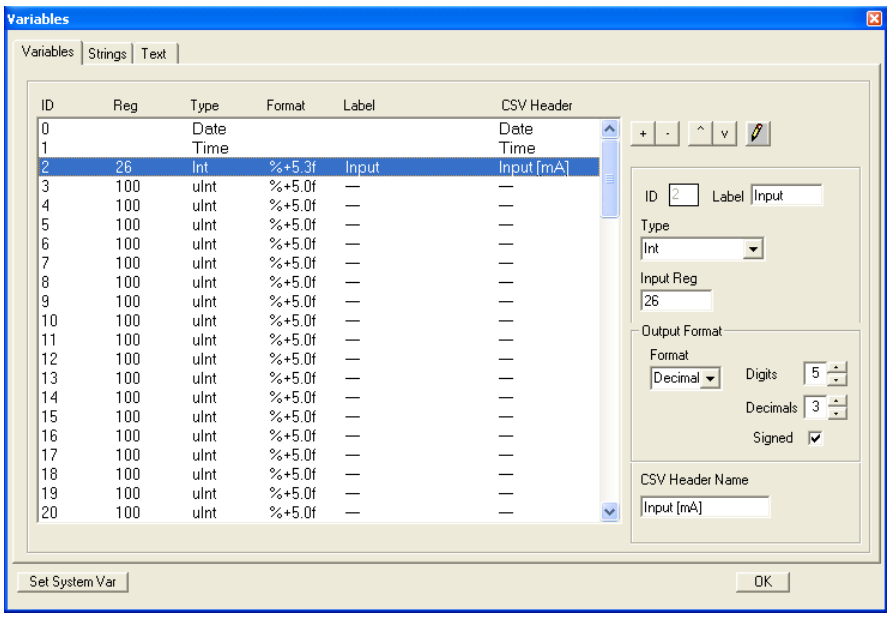
Variables setting

Set the variables to use in the Log record.

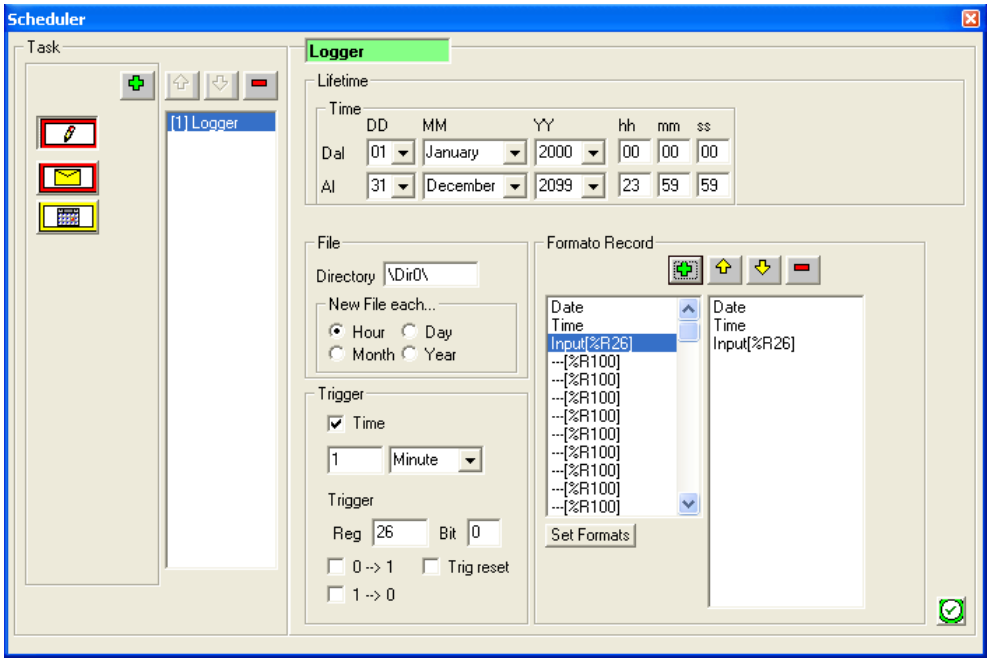
Variable for Date time
ID = 0
Label = “Date”
Type = Date
CSV Header = “Date”

Variable for Hour time
ID = 1
Label = “Time”
Type = Time
CSV Header = “Time”

Variable for Input value
ID = 0
Label = “Input”
Type = Int
Input Reg = 26
Format = “Decimal”, 5 digits, 3 decimals
CSV Header = “Input [mA]”



Logger setting



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]

→ 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

→ 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.