dataTaker dEX2.0

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1. Installing dEX2.0

Follow this link to download the software:

https://datatakerforum.com/Documents/Applications/dEX-2%20Setup%202.1.18.exe

Open the exe file and follow the steps to install the software.

2. Loggers firmware

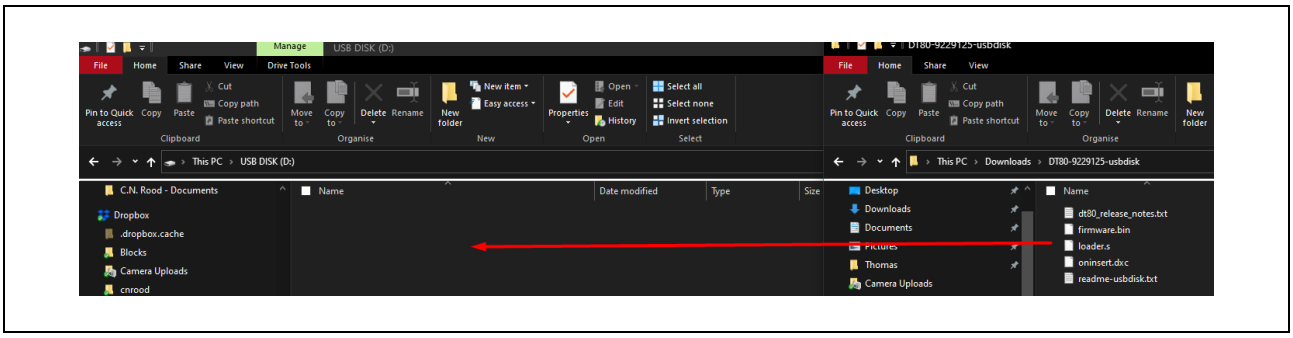
To be able to use your logger with the new dEX2.0 software, your logger needs to be at least at firmware version 9.20.

You can download the latest firmware version on:

https://www.thermofisher.com/be/en/home/industrial/manufacturing-processing/data-acquisition/software-firmware-drivers.html

Bu sure you choose the USB Flash drive version.

2.1. Install the new firmware

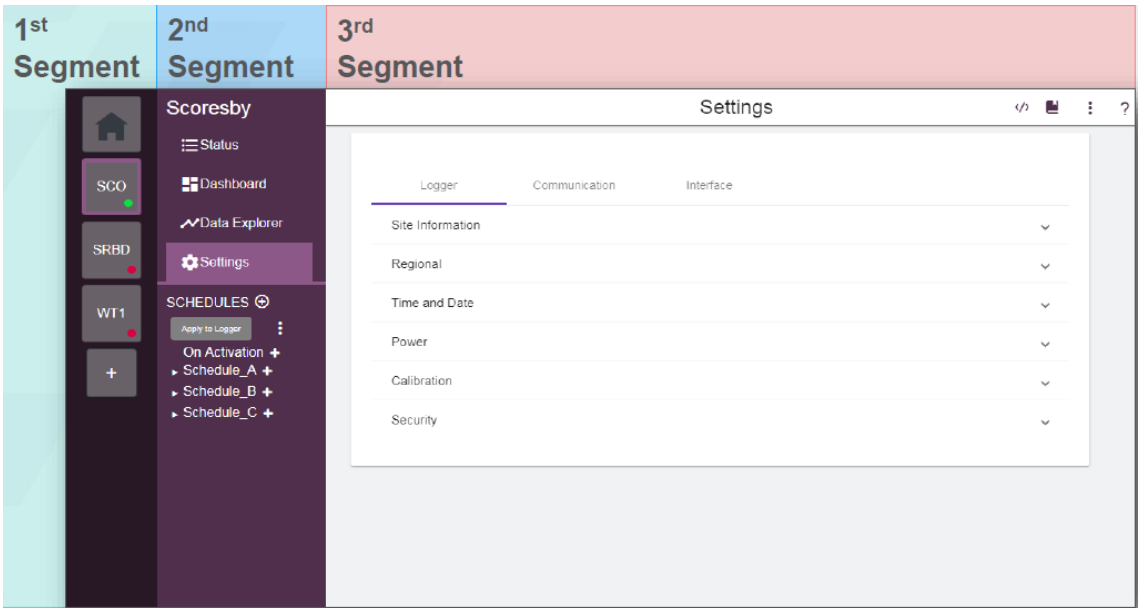


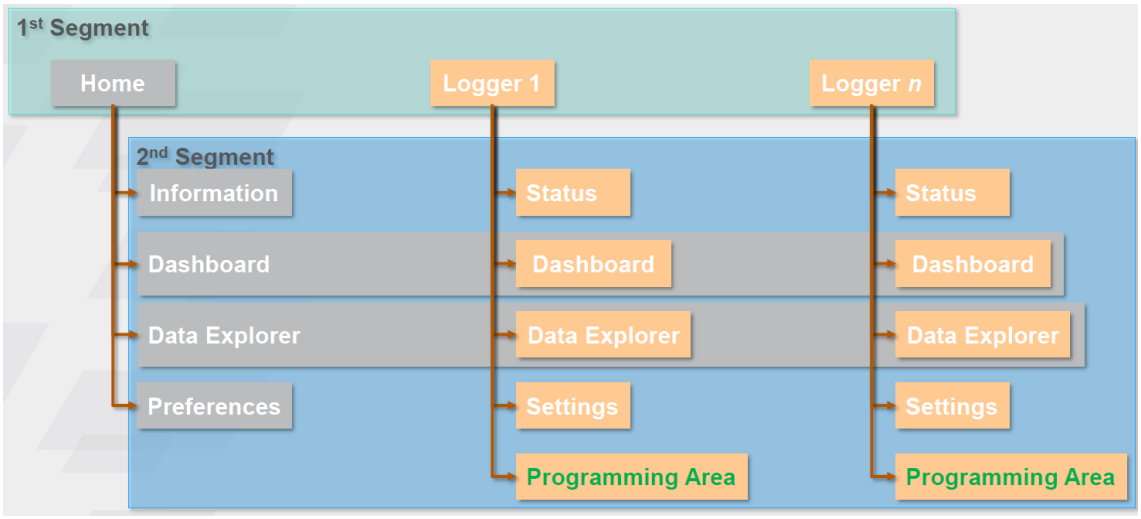
- Once the download is done, unzip the file and copy all the files to the root directory of an empty USB key
- Plug in the USB key into your logger and wait until you see ‘Run ONINSERT.DXC?’
- Confirm with the yellow button or wait until the device starts the update by him selves
- After a while, the device will reboot

3. dEX2.0 overview

3.1. General overview

The software is build up like this:



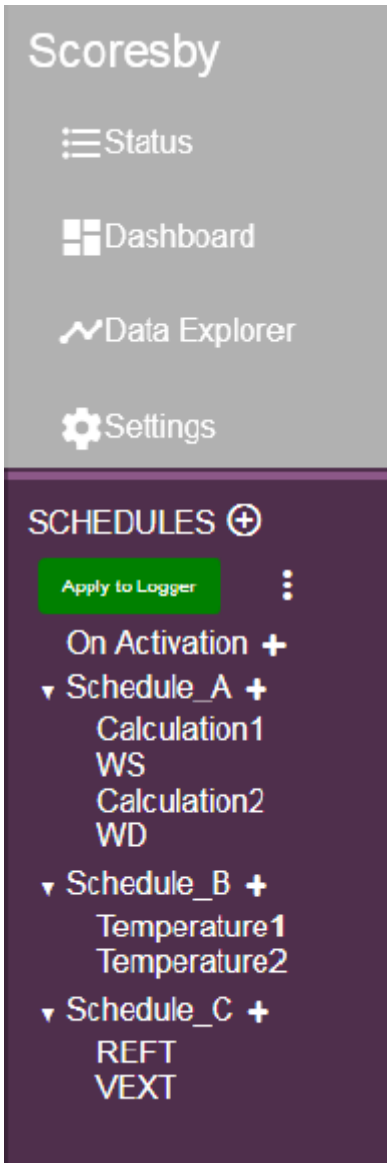


1st Segment: Selecting home page or individual logger

2nd Segment: Further options after selecting 1stcolumn

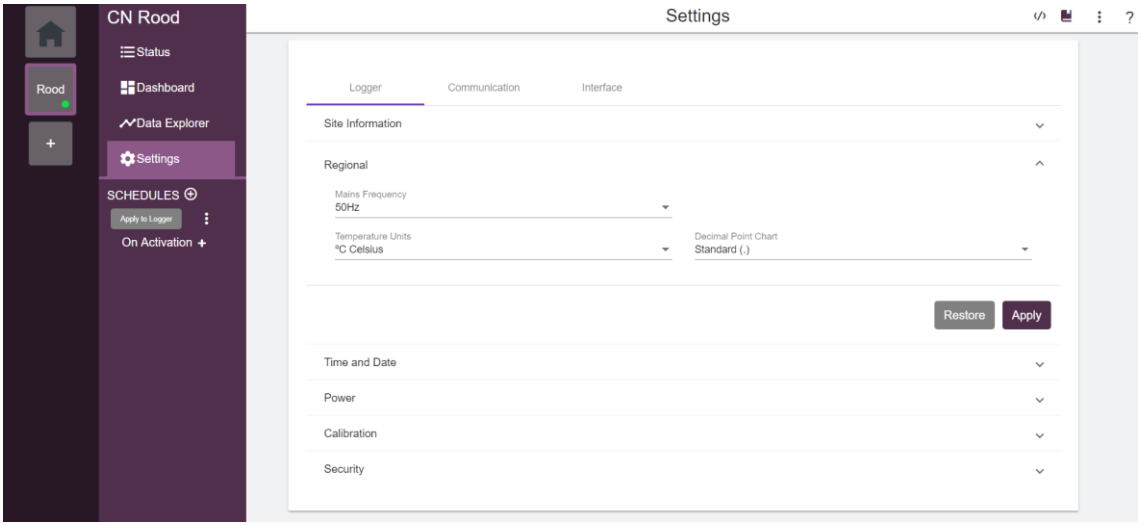
3rd Segment: Action area

3.2. Programming area



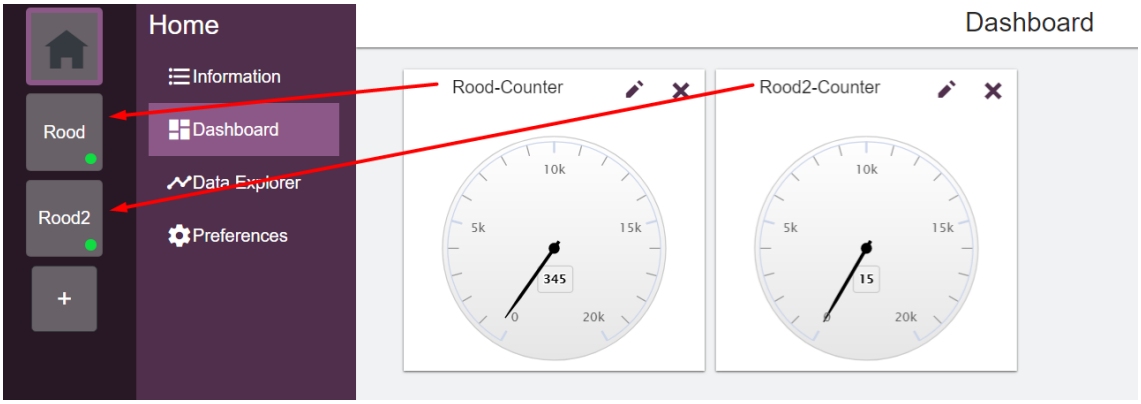
- Located on 2nd segment on every individual logger
- Only available when the logger is connected (status: green) or during creation of program template
- Simplify button on adding schedules/ channels and sending the program to the logger
- Using similar tree structure as previous dEX and retain channel functions such as move up/ down and duplicate
- Move up/ down is limited within a schedule
- Located at the same page as Dashboard and Data Explorer
- No need to switch back and forth between programing and data viewer

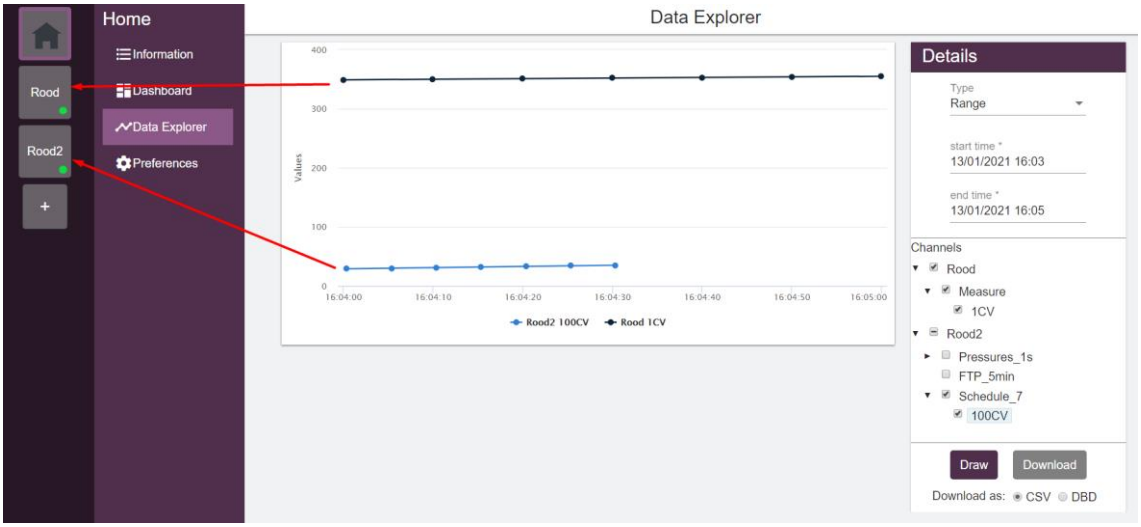
3.3. Setting wizard

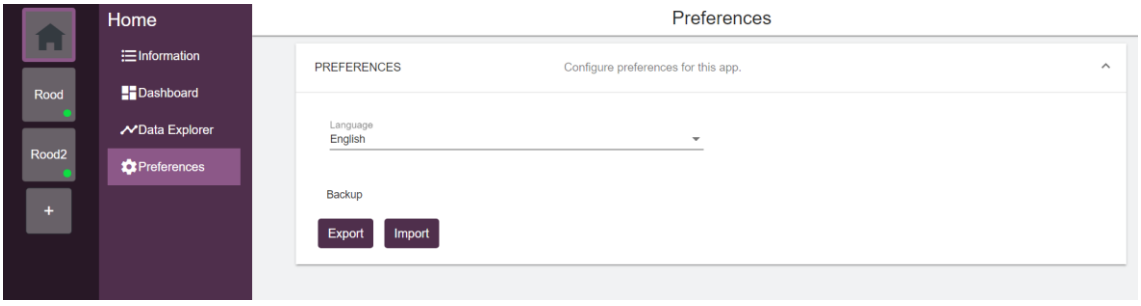


- Accessible from individual logger, when connection status is green
- Separation of profile configuration to the main program
    - Changing profile does not need changing program
- Categorized and highlighted the default setting

3.4. Home page

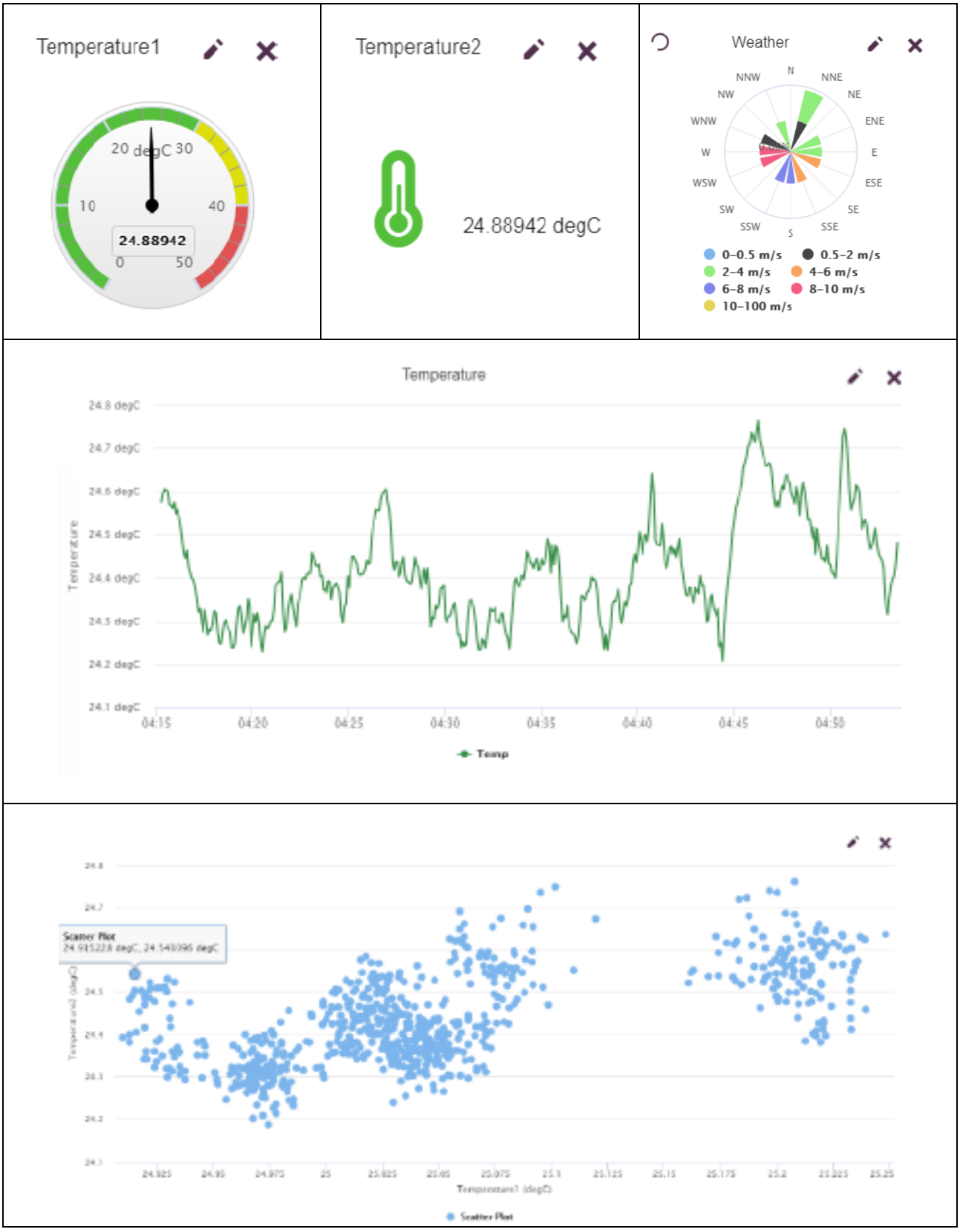






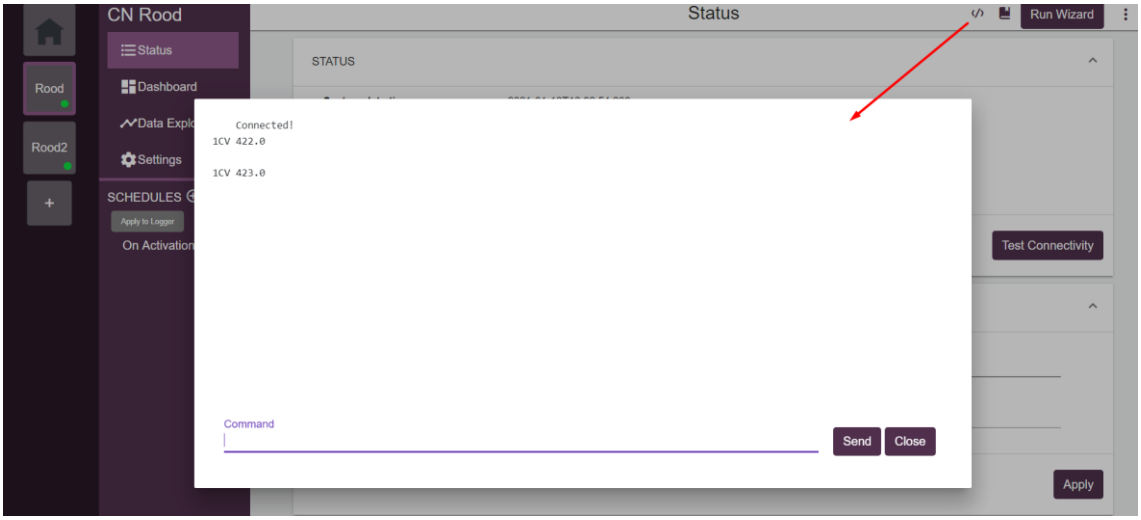
- Home Page can display or unload data from all registered loggers
  - Dashboard and Data Explorer Home version has different function compare to individual logger version
- Users may select specific data from different logger:
  - To be plotted next to or against each other
- User may change the language setting of dEX application

3.5. Dashboard

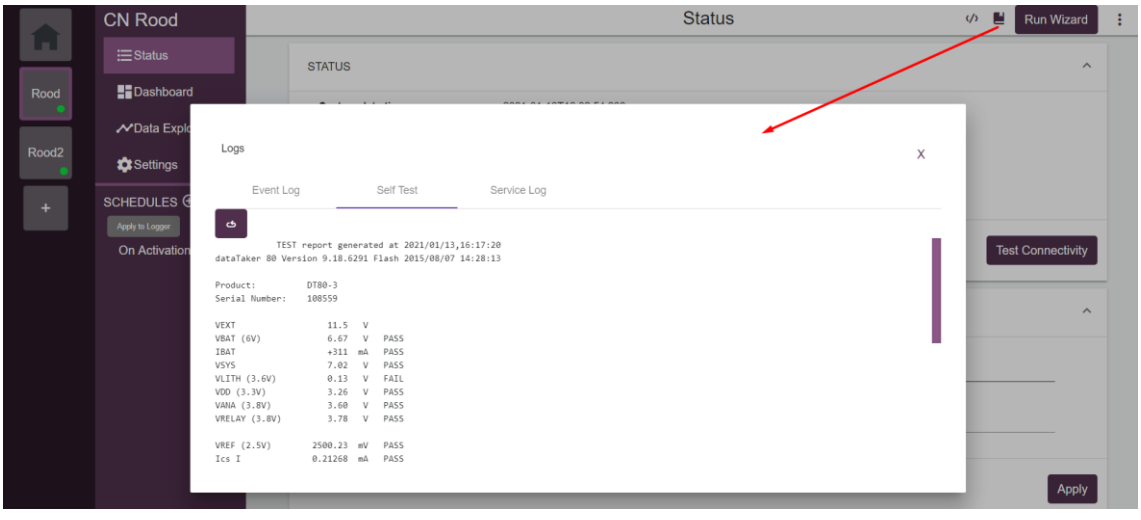


- Dashboard for displaying real time data as Widgets (previously called Mimics)
- Selections:
  - Gauge
  - Digital Indicator with various icons
  - Chart (line, area, column) – value vs time
  - Scatter Plots – value1 vs value2
  - Wind rose

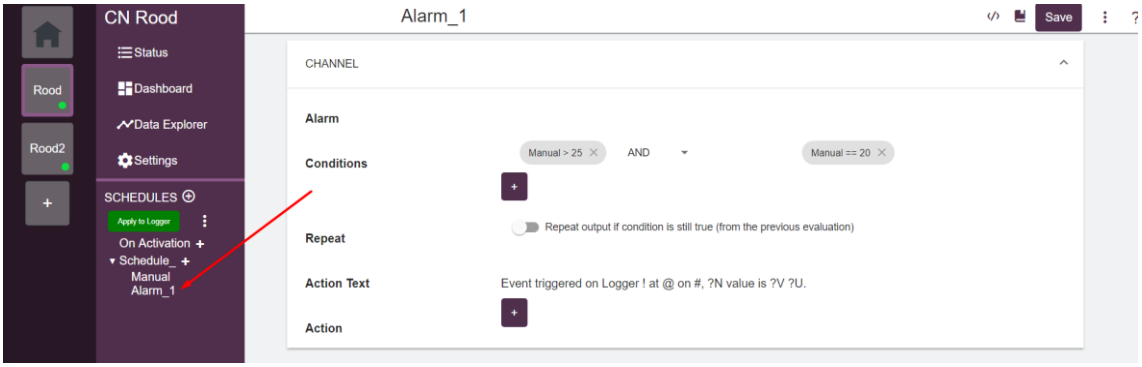
3.6. Command interface



3.7. Diagnostic log

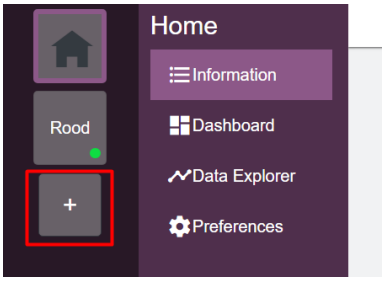


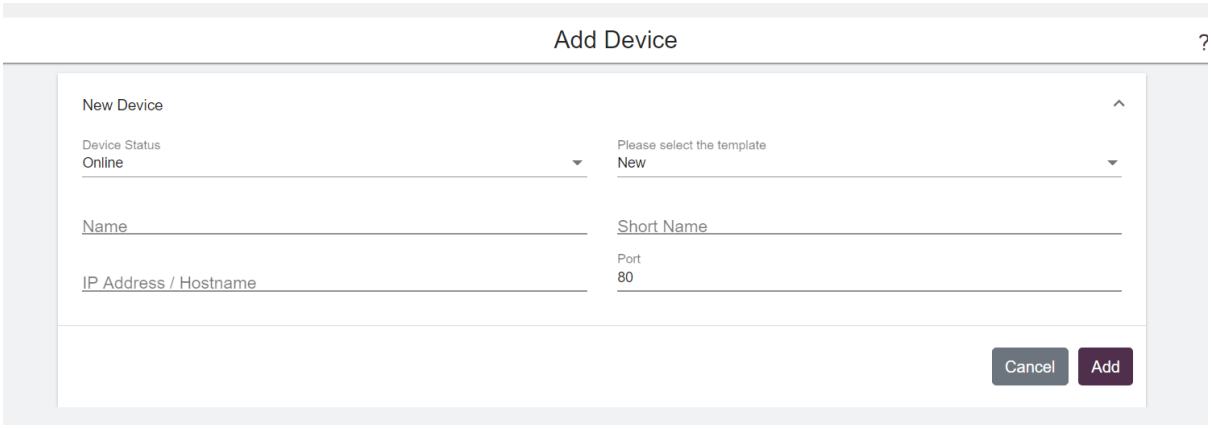
3.8. Alarms

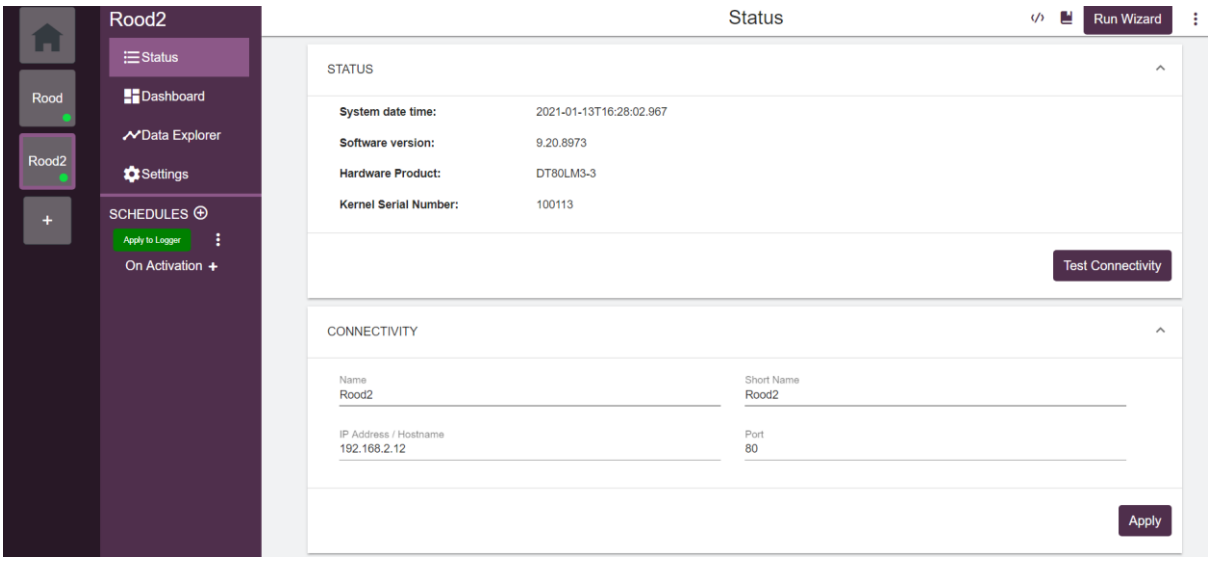


- No longer part of a channel but becoming a channel
- The same approach to text programming rather than following the old dEX method
- Allow multiple conditions to be tested with Boolean link (AND, OR, XOR)
- Multiple outputs are possible:
  - Text
  - Digital state, Relay, CV
  - Email
  - Command Trigger

4. Adding a logger



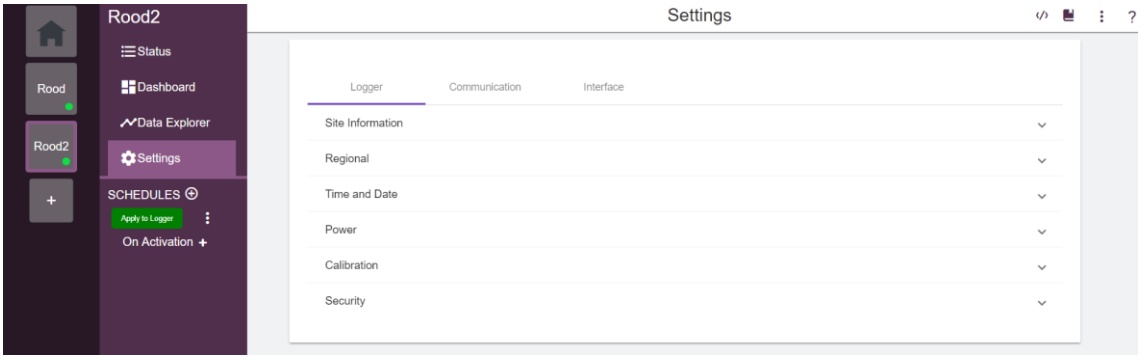




- Click on the + sign in the 1st segment
- Fill in all requested fields and click Add
- If you want to create an offline configuration, change Device Status from Online to Offline Configuration

- Your logger is added in 1st segment
- In the 3rd segment you can see the status

5. Setup your logger

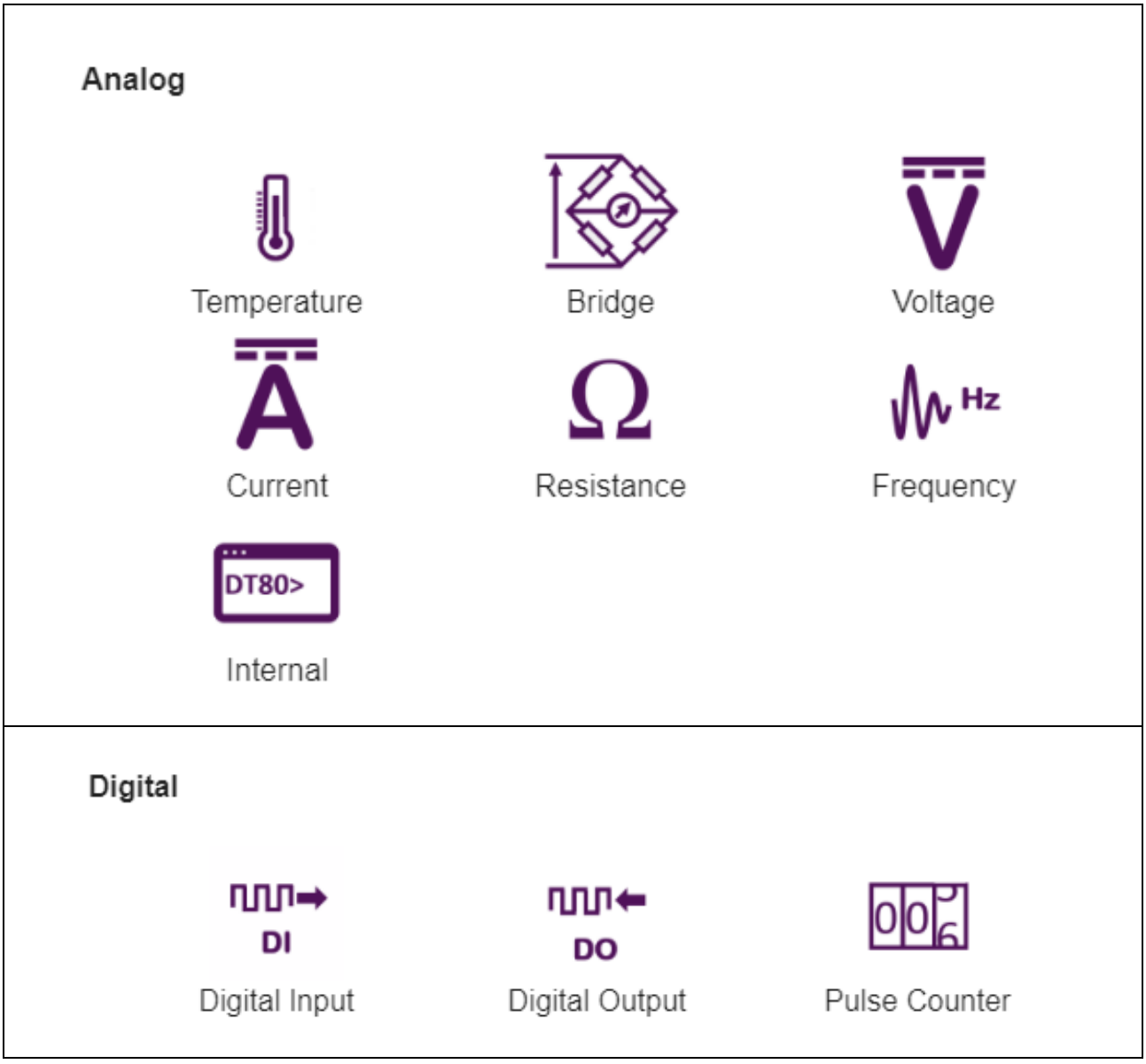


- To set or change the settings, click Settings in the 2nd segment

6. Program your logger

6.1. Measurements

You can choose these kind of measurements



Action

Email Data

FTP Data

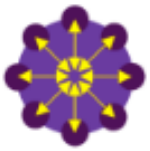
Calculation

Alarm

Serial

Serial

SDI-12


Modbus

Other

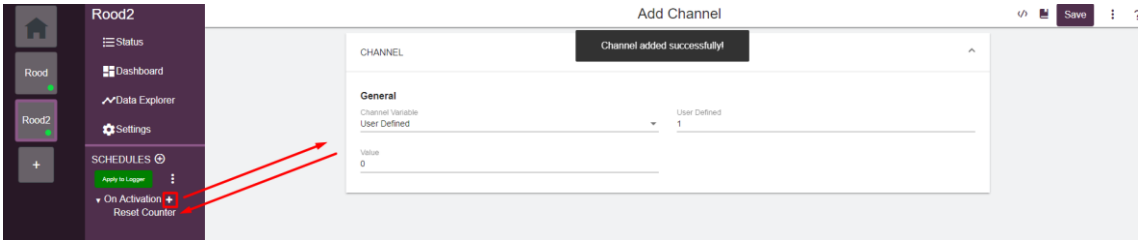
Reference

Delay

Manual

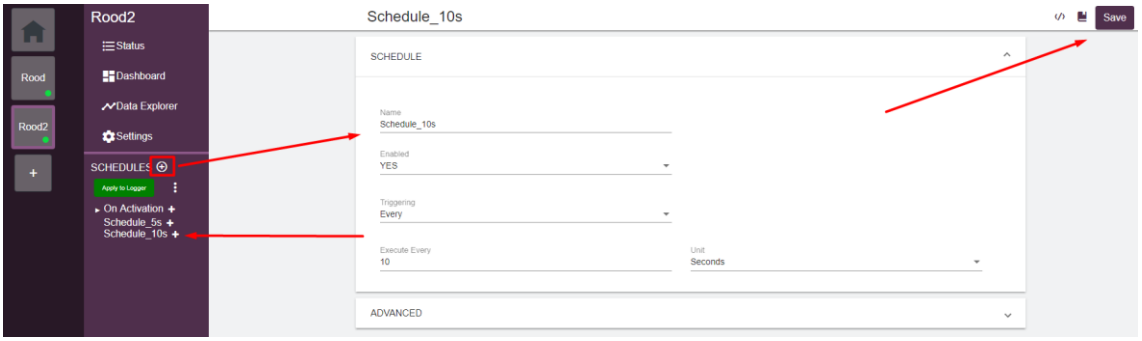
Reset Counter

6.2. On logger activation



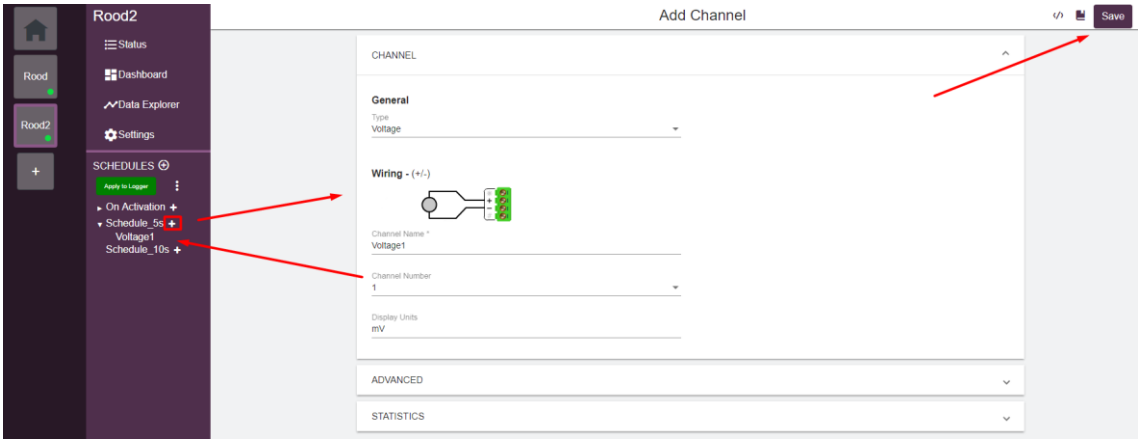
- If you want your logger to do some action on startup, click the + sign after On Activation and set the action you want to do (for example reset a counter or switch the external power supply to power a sensor)
- Once done, click Save
- Your action will be visible next to On Activation

6.3. Add a schedule



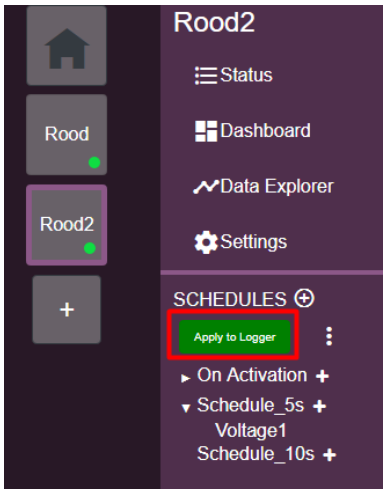
- To create a new schedule, click on the + sign next to SCHEDULES
- Fill in the requested settings and click on Create
- Your schedule becomes visible below On Activation
- You can add multiple schedules
- Click on ADVANCED to set advanced options

6.4. Add channel to a schedule



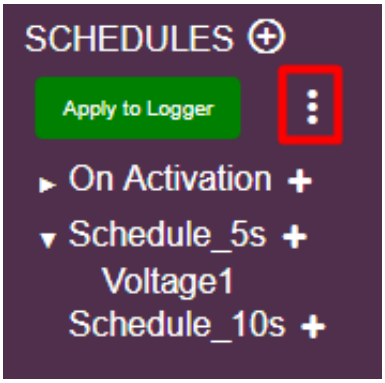
- To create a channel (measurement), click on the + sign next to a schedule
- Select to type of channel you want to use (see 5.1. Measurements)
- Fill in the requested settings and click Create
- Your channel becomes visible below your schedule

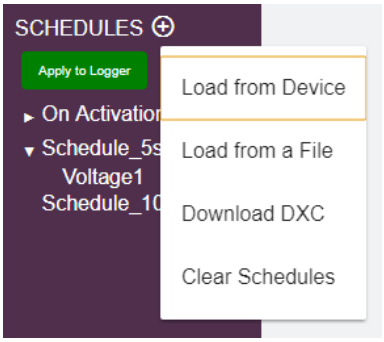
6.5. Send program to the logger



- Click Apply to Logger to send your created program to the logger

6.6. Other options

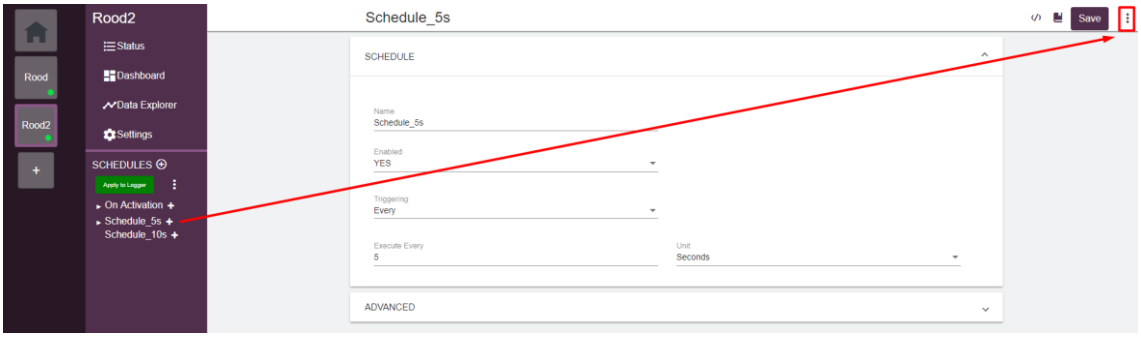




You can also:

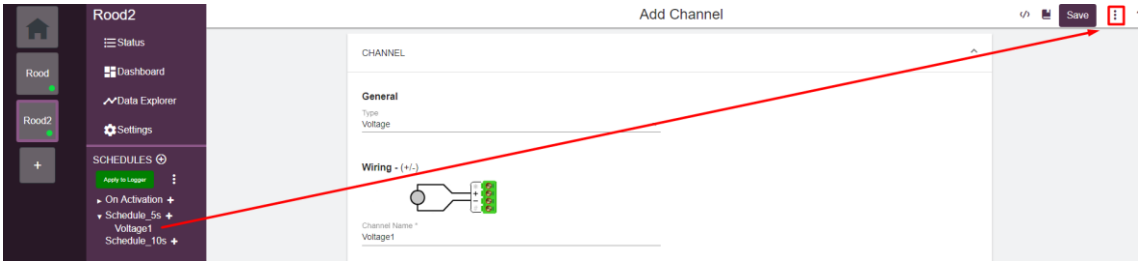
- Load a program from your device
- Load an existing program from a file
- Download your created program to a file on your pc
- Clear all your schedules

6.7. Delete schedule



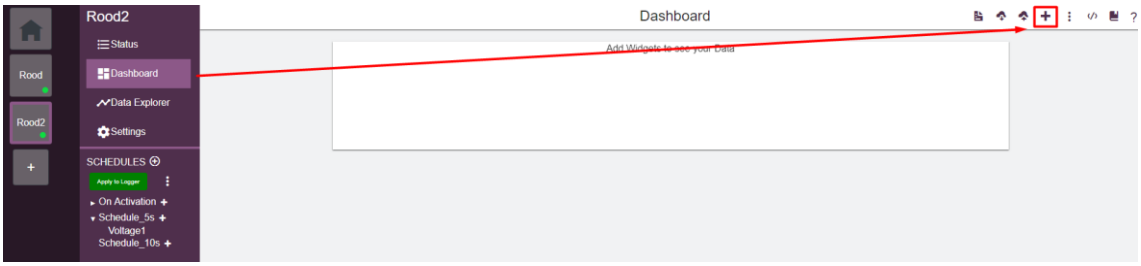
- Select the schedule you want to delete and click on the three dots in the upper right corner
- Then click on Delete

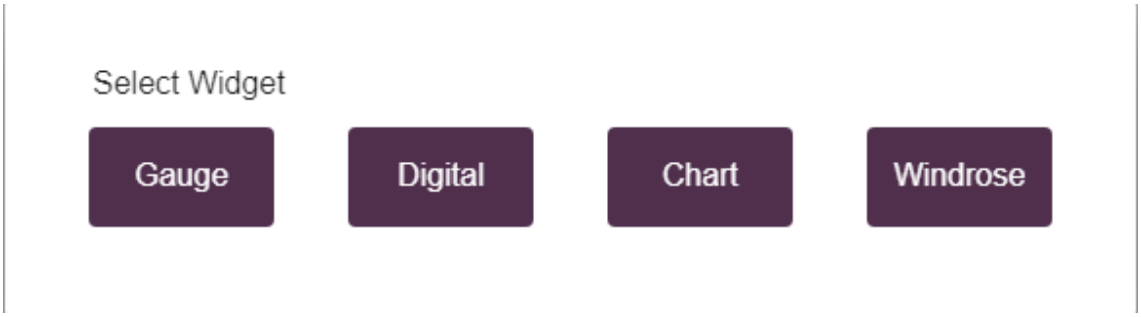
6.8. Delete, reorganize or duplicate a channel

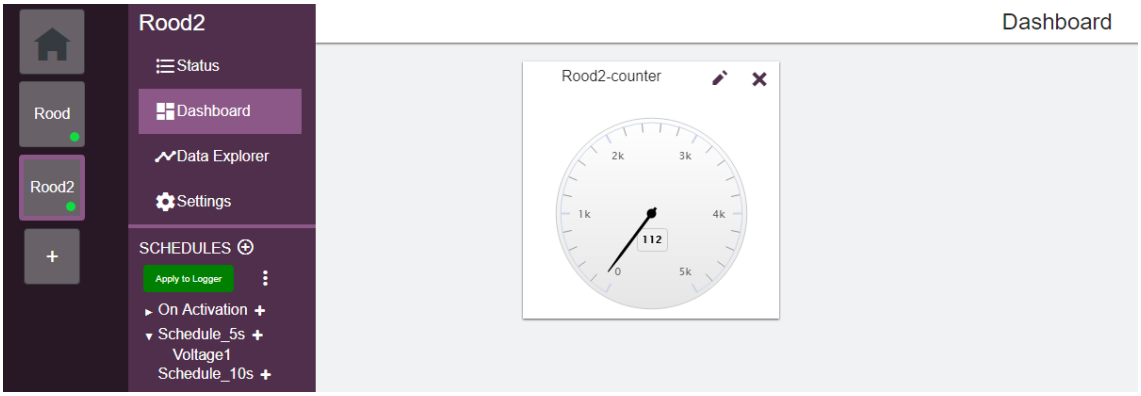


- Select the channel and click the three dots in the upper right corner
- Now you can select Delete, Move Up, Move Down or Duplicate

7. Dashboard



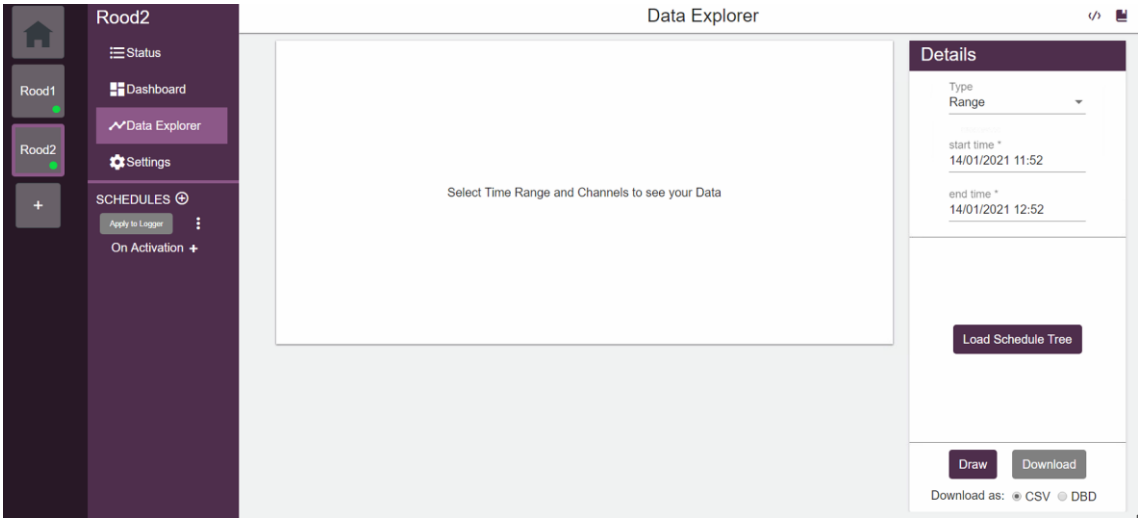




- On the dashboard, you can create multiple widgets to visualize your measurements *
- Click on Dashboard in the 2nd segment followed by the + sign in the upper right corner to add a widget
- Now you can select the type of widget you want to add
- Fill in the requested info and click Create
- Your widget become visible on the dashboard

* Depending on your selection in the 1st segment (home or a specific logger), you are able to select channels from all loggers (home) or only the selected logger.

8. Download or visualize data



- Click on Data Explorer in the 2nd segment to download or visualize measured data
- You can download/see the data within a time range (start time – end time) or all the data.
- Adjust Type to Range or All Values
- Click on the button Load Schedule Tree to see all the possible channels you want to download or see and check your selection *
- Click on Draw or Download to see or download the data of the selected channels

* Depending on your selection in the 1st segment (home or a specific logger), you are able to select channels from all loggers (home) or only the selected logger.

9. Older dEX version to dEX2.0

Since Adobe has stopped with supporting Adobe Flash, it's better to switch to dEX2.0.

Where dEX is a web based software, dEX2.0 is a computer based software. You need to install it on each pc instead of connecting the logger via your web browser.

In this section, you'll find more information on how to convert existing programs to the new dEX2.0 format (DXC files).

9.1. Store your current program

You can store your current program in ways. You can use DeTransfer, FTP, Internet Explorer or dEX1.0 to copy the code.

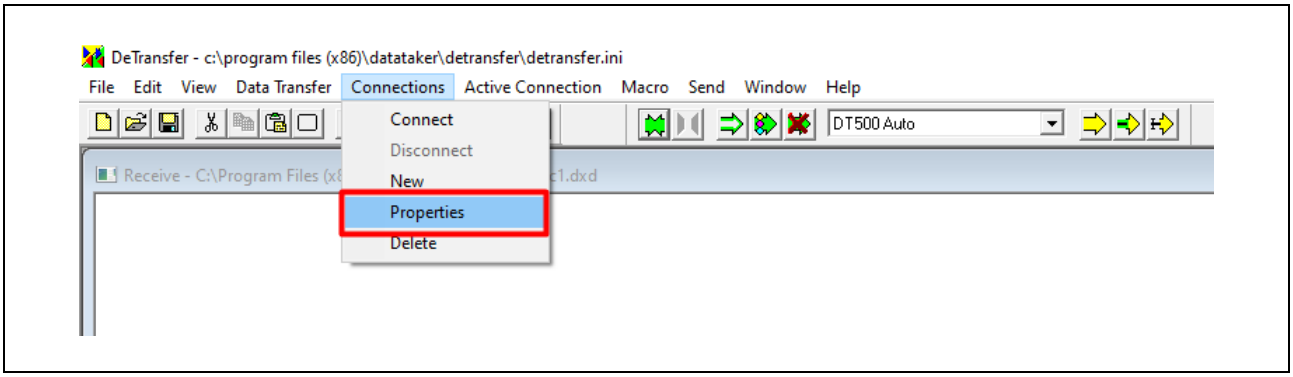
9.1.1. DeTransfer

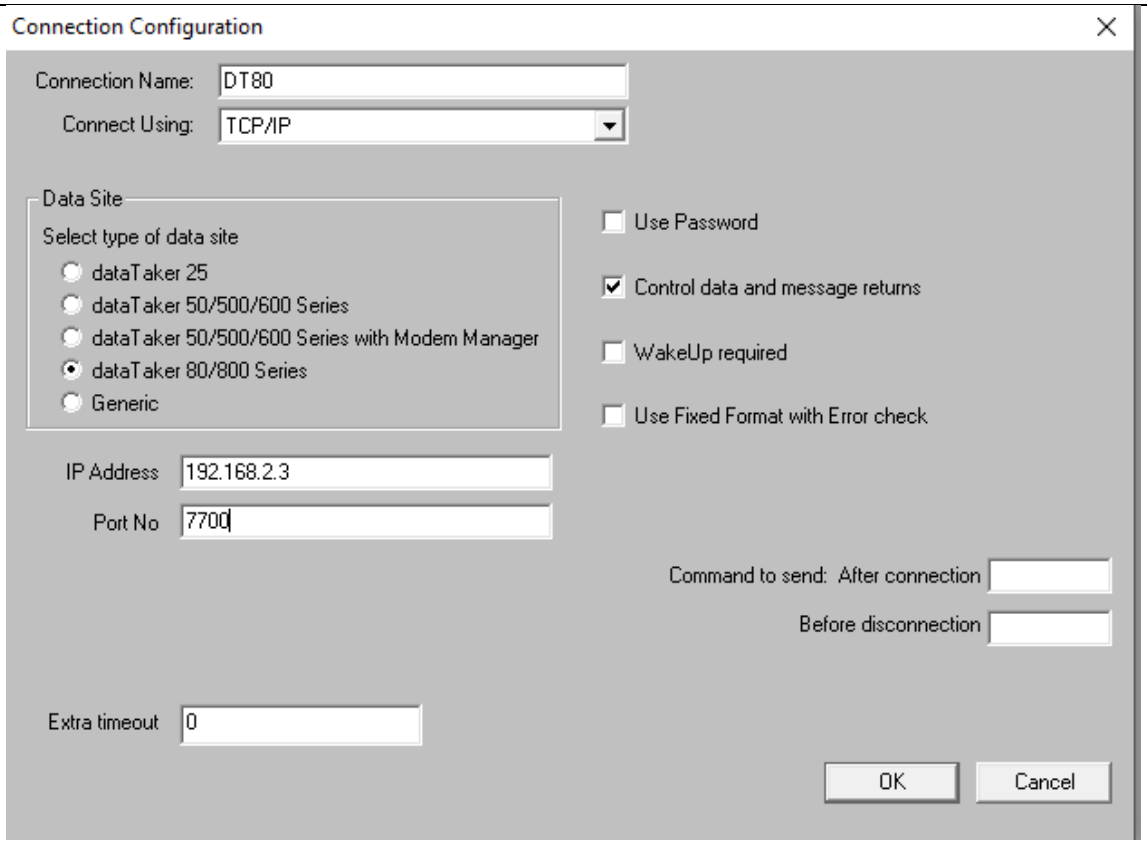
9.1.1.1. Install

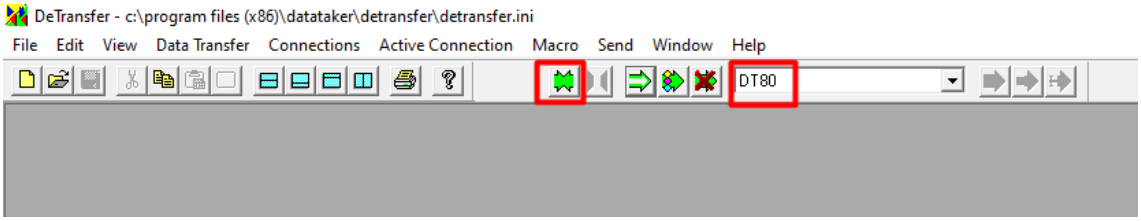
You can download DeTransfer from:
http://www.cnrood.com/public/docs/DataTaker/1._DeTransfer.zip

Unzip 1. DeTransfer.zip and follow the installation steps.

9.1.1.2. Connect a logger

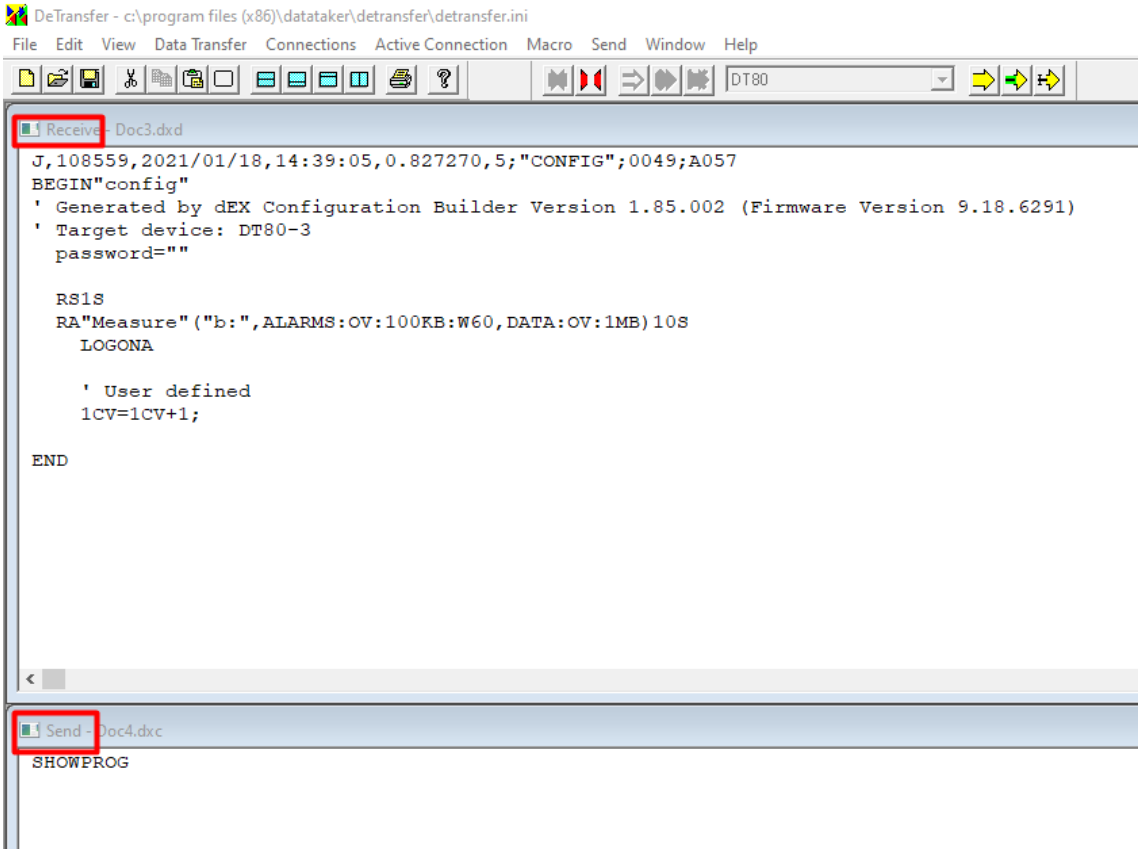






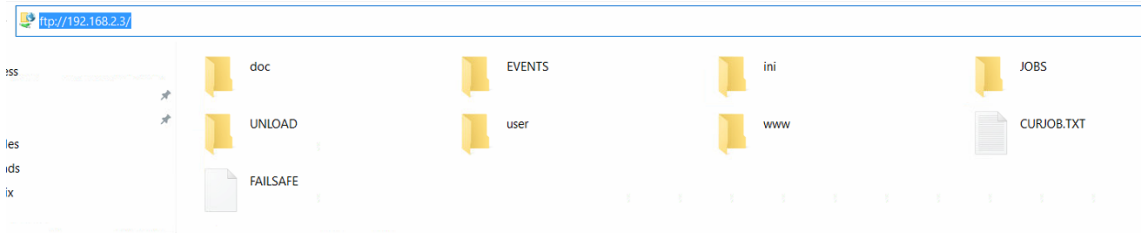
- Go to Connections – Properties
- Fill in all requested information. Use 7700 as port number
- Be sure that you have selected your newly created connection (DT80 in this example) and click on the connect button

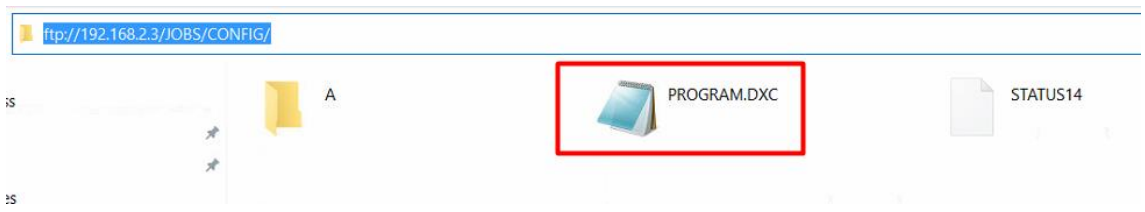
9.1.1.3. Copy program code



- In the Send window, enter SHOWPROG and press the enter key
- In the Receive window, you'll now see the code
- Copy/Paste your code (from BEGIN up to and including END) into a TXT file in Notepad
- Save this file with the extension DXC

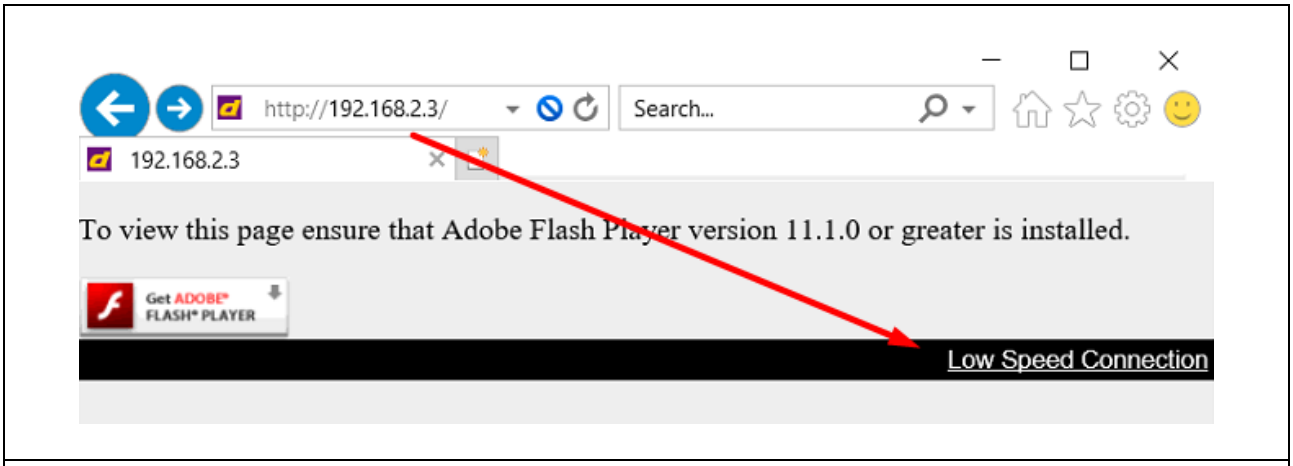
9.1.2. FTP

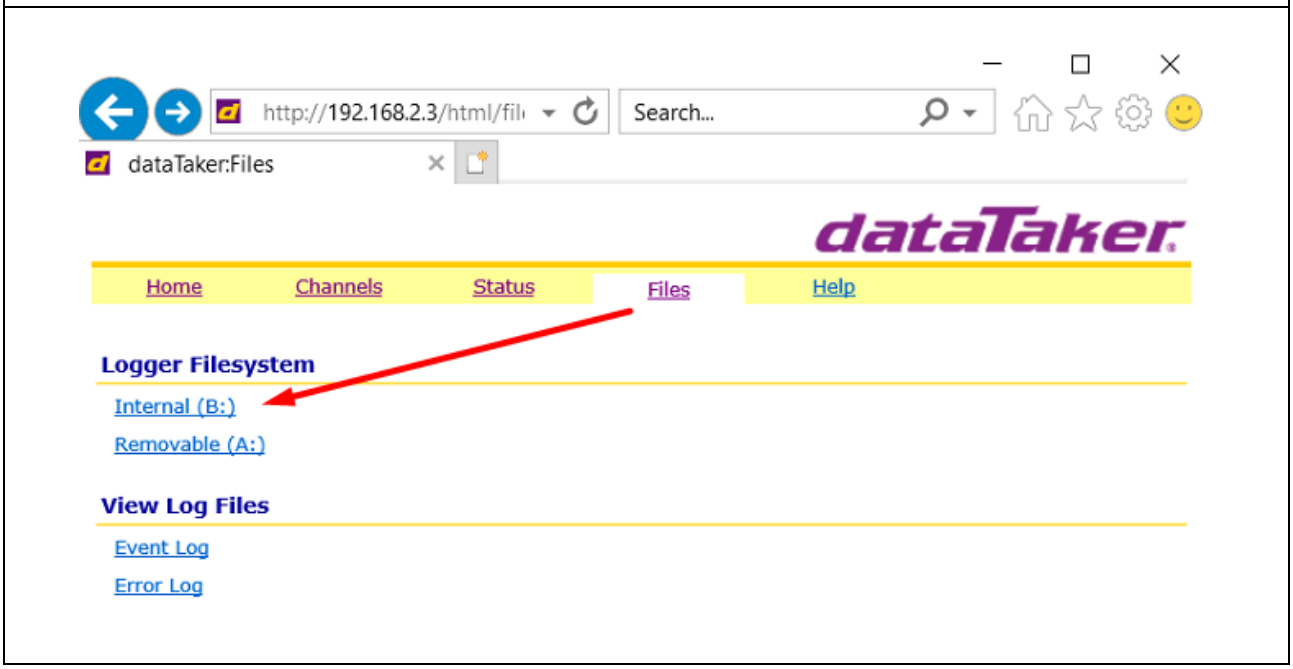




- Standard, your logger is also set as an FTP server. If you didn't switch off this function in the past, you can use this method further. Else, please go to section 8.1.3. dEX1.0
- Open your File Explorer on your pc and go to ftp://[the IP address of your logger]
- Go to JOBS and CONFIG
- Here you'll find a file called PROGRAM.DXC
- Copy this file to a location on your pc
- You can also use an FTP client software like Filezilla.

9.1.3. Internet Explorer





- Open Internet Explorer (not Edge or Chrome) and enter the IP address of your logger
- Click on Low Speed Connection
- First click on Files, followed by Internal (B:)
- Next, click on JOBS and CONFIG. Now, by clicking on PROGRAM.DXC, you'll download your current program to your PC

9.1.4. dEX1.0

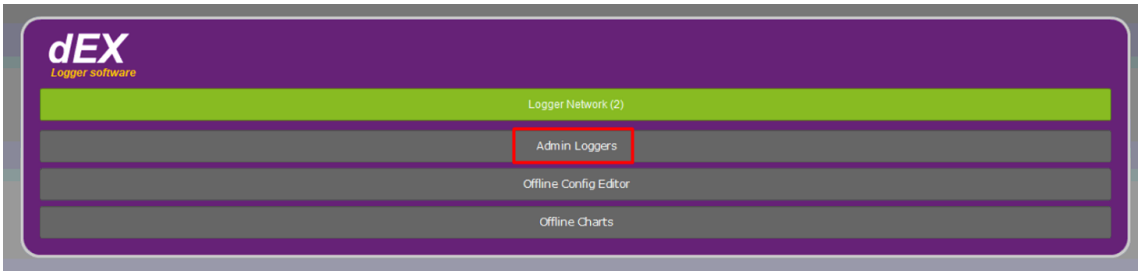
If none of above is possible, you can also install the old dEX1.0 software on your PC.

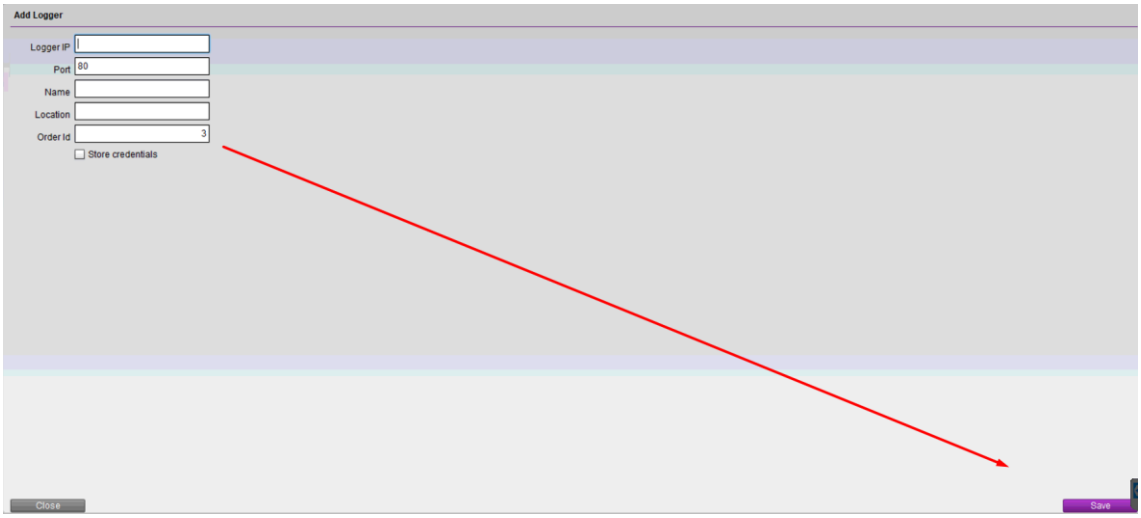
9.1.4.1. Install

Before installing dEX1.0, you need to install Adobe Air (1. AdobeAIRInstaller.exe). Once this is done, install dEX1.0 (2. dex_416_code1_desktop.air).

You can download both here:
http://www.cnrood.com/public/docs/DataTaker/2.1_AdobeAIRInstaller.exe
http://www.cnrood.com/public/docs/DataTaker/2.2_dex_416_code1_desktop.air

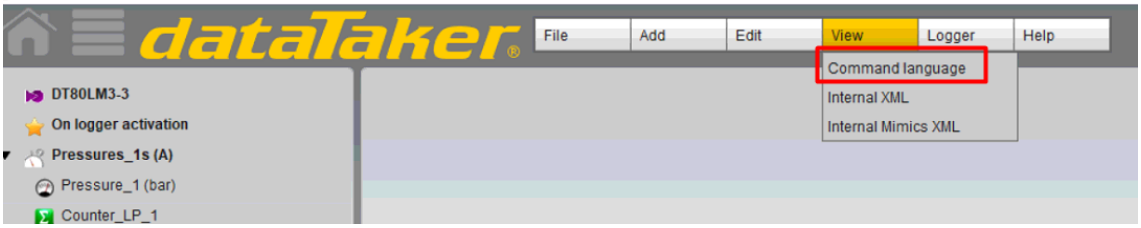
9.1.4.2. Connect a logger

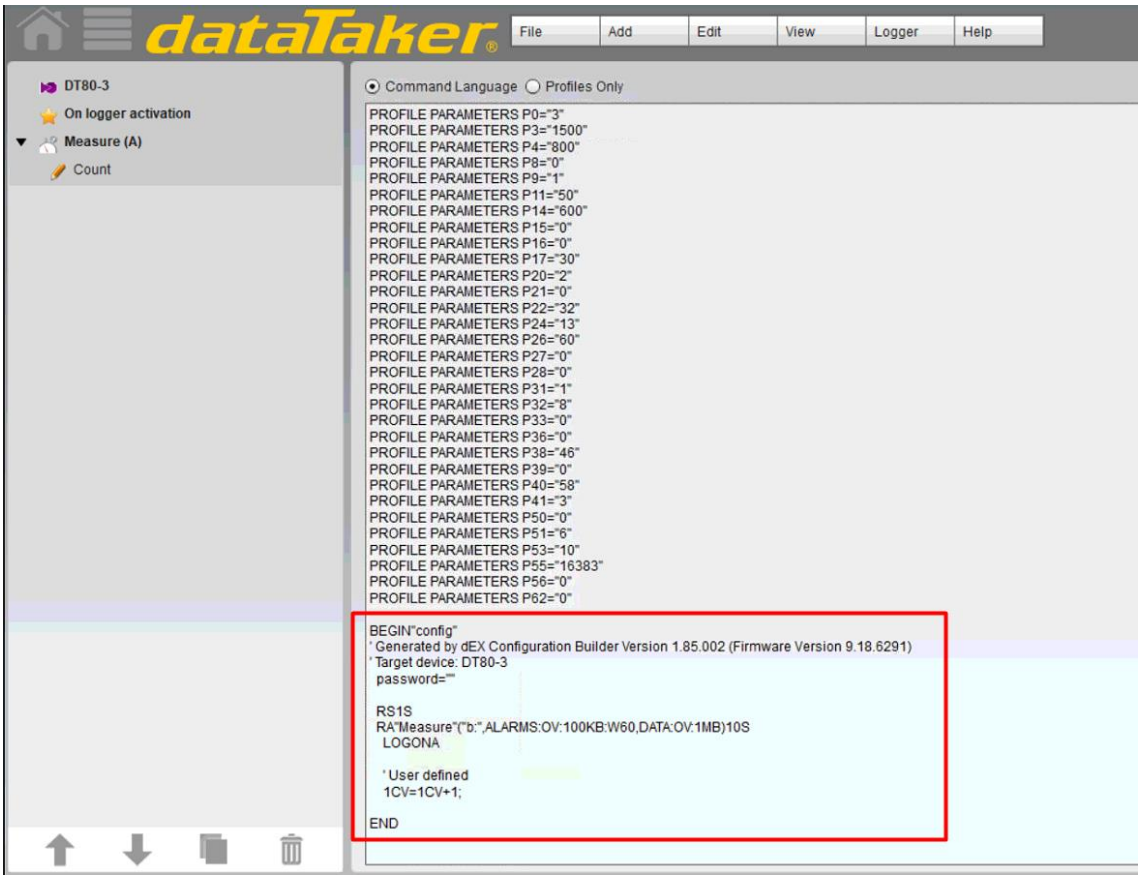


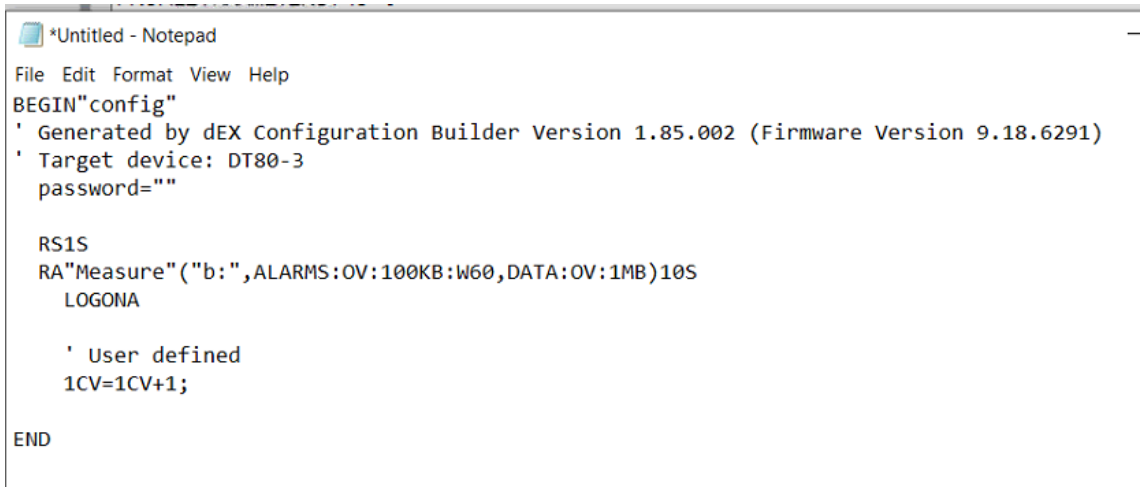


- Go to Admin Loggers and click on + Logger in the upper right corner
- Fill in the loggers IP address, port (std. on 80) and a name. Click on Save.
- Go back to the home screen by clicking the home button in the top left corner.
- Click first on Logger Network, next on the logger you added
- You will see a screen that you are familiar with. Click on Configure the logger

9.1.4.3. Copy program code







- Click on View and Command language to see the loggers program
- Scroll down until you see BEGIN “config”
- Copy/Paste your code (from BEGIN up to and including END) into a TXT file in Notepad
- Save this file with the extension DXC

9.2. Edit program to a dEX2.0 compatible program

To make your program dEX2.0 compatible, you only need to change two items, manual channels and alarms.

For all the other parts, you don't need to change anything.

9.2.1. Manual channels

From your original code, you need to change:

' User defined code	→	'Manual "Name1"{ code 'Manual}

In our example:

```
BEGIN"config"
' Generated by dEX Configuration Builder Version 1.85.002 (Firmware Version 9.18.6291)
' Target device: DT80-3
password=""
 RS1S
 RA"Measure"("b:",ALARMS:OV:100KB:W60,DATA:OV:1MB)10S
  LOGONA

 ' User defined

  1CV=1CV+1;

END
```

Will become:

```
BEGIN"config"
' Generated by dEX Configuration Builder Version 1.85.002 (Firmware Version 9.18.6291)
' Target device: DT80-3
password=""
 RS1S
 RA"Measure"("b:",ALARMS:OV:100KB:W60,DATA:OV:1MB)10S
  LOGONA

 'Manual "counter"{

  1CV=1CV+1;

'Manual}

END
```

! Be sure that there are **NO** spaces before the leading and ending 'Manual.

9.2.2. Alarms

The reason why we need to modify alarms is because they're no longer part of a channel but they're become a channel.

Original:

ALARM1(1V("Voltage_2~mV",=1002CV,LM,NA)<25)"Event triggered on Logger ! at @ on #, ?N value is ?V ?U."{}

dEX 2.0:

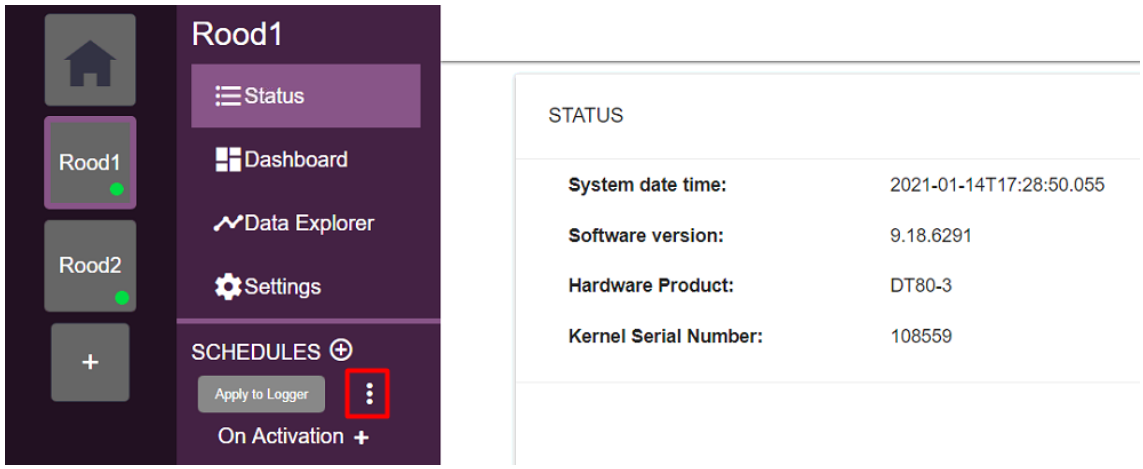
1V("Voltage_2~mV",=1002CV,LM,NA)

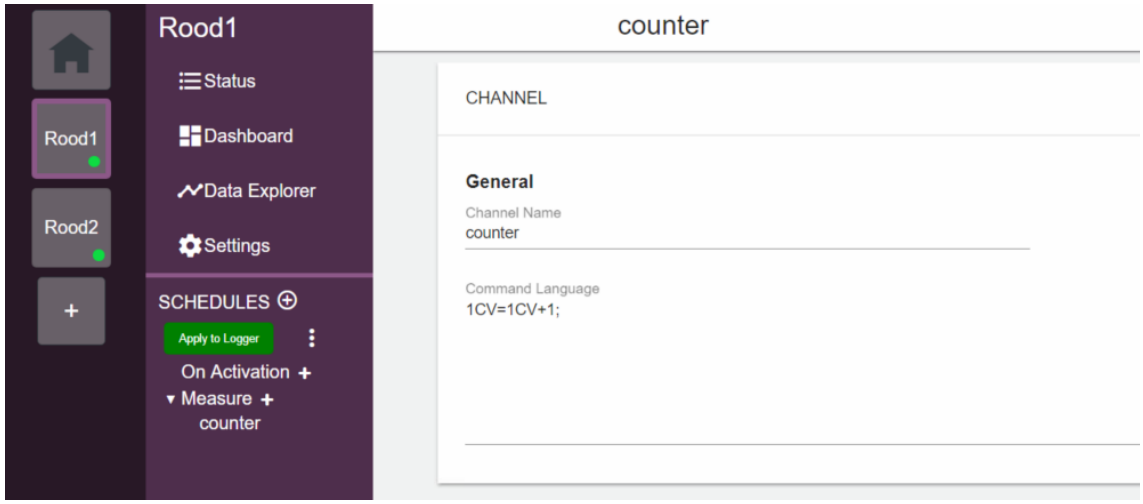
ALARM1(1002CV<25)"Event triggered on Logger ! at @ on #, ?N value is ?V ?U."{}

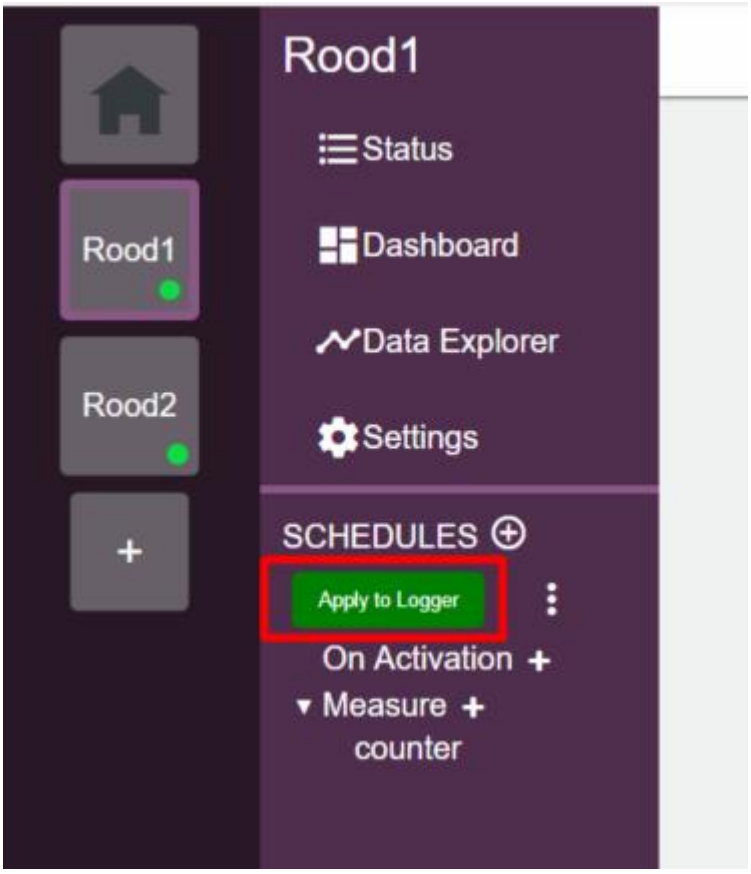
9.3. Load your new code in dEX2.0

After editing your code to a dEX2.0 compatible code, save the file as a .DXC file.

Go to dEX2.0 to load your code onto the logger.







- Click on the 3 dots next to Apply to Logger and select Load from a File
- Now, you'll see your program, loaded into the new dEX software
- Click on Apply to Logger to store your program into the logger

10. Read data from a dEX programmed logger

If you've programmed your logger with dEX or dEX1, you are always able to save the measured data with dEX2.0 like described in section 7. Download or visualize data.

Of course, first you need to connect your logger to dEX2.0 like described in section 3. Adding a logger.