



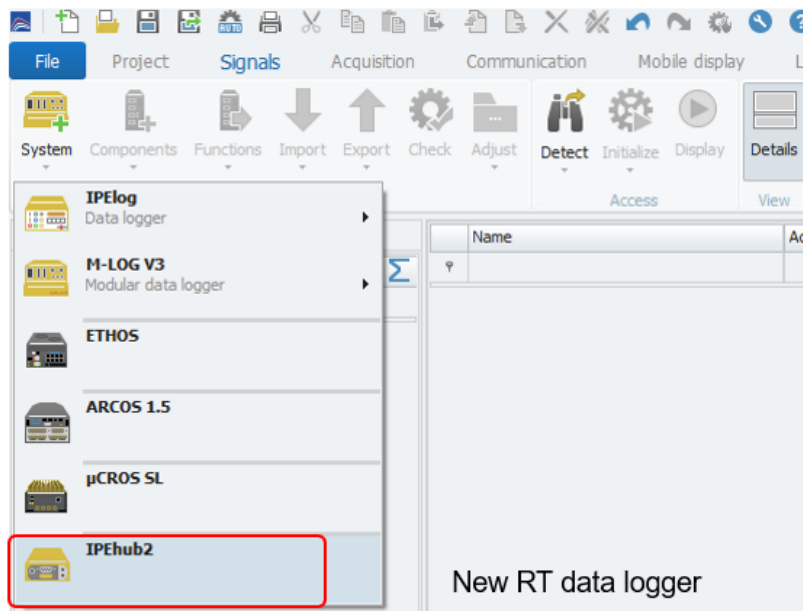
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1 General changes

1.1 IPEhub2 data logger

The IPEhub2 data logger was now integrated into the RT software.



The following software functions are supported in the license:

- ▶ RT Logger software with 2 interfaces. The logger has 2 standard CAN inputs
- ▶ Multiple storage groups
- ▶ Data Communication & Display (WiFi and MQTT)
- ▶ Optional: Aviation Plugin

The following features are excluded because they are not available on the hardware or the compute power is missing:

- ▶ GPS
- ▶ WakeOnBus, Quickstart, NML
- ▶ All Ethernet Plugins Modbus TCP, Siemens S7, DLT, EtherCAT
- ▶ Protocols

1.2 Fluid data base REFPROP V.10

The new version of the NIST Refprop (reference Fluid Thermodynamic and Transport Properties Database) is supported. [REFPROP | NIST](#)

Together with this implementation 2 new fluids are implemented in the IPEmotion software.

- ▶ R454b (is a replacement with lower global warming potential for R410a)
- ▶ R513a (is a replacement with lower global warming potential for R134a)

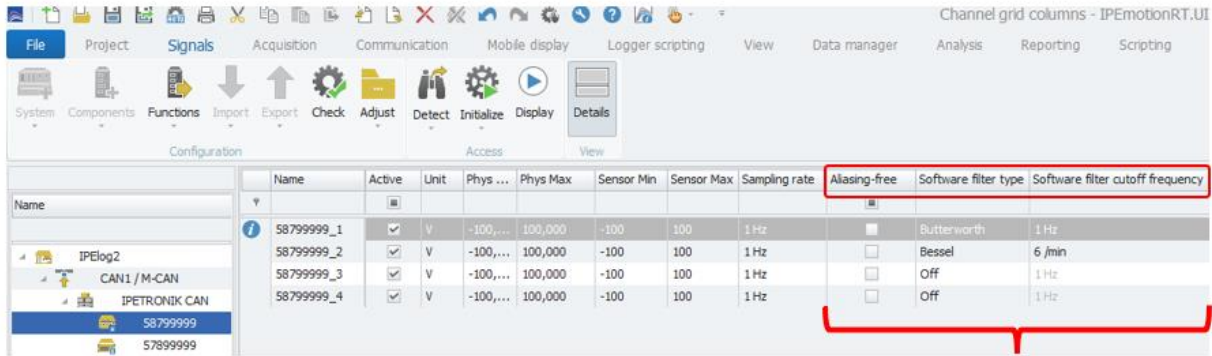
In order to use the climate functions the climate module has to be purchased.

- ▶ Display Here you define if you like to see several circuits at the same time.

2 New functions in SIGNALS – IPEmotion RT

2.1 Extended fields for column chooser

For the IPETRONIK CAN modules three new field for the column chooser are provided.

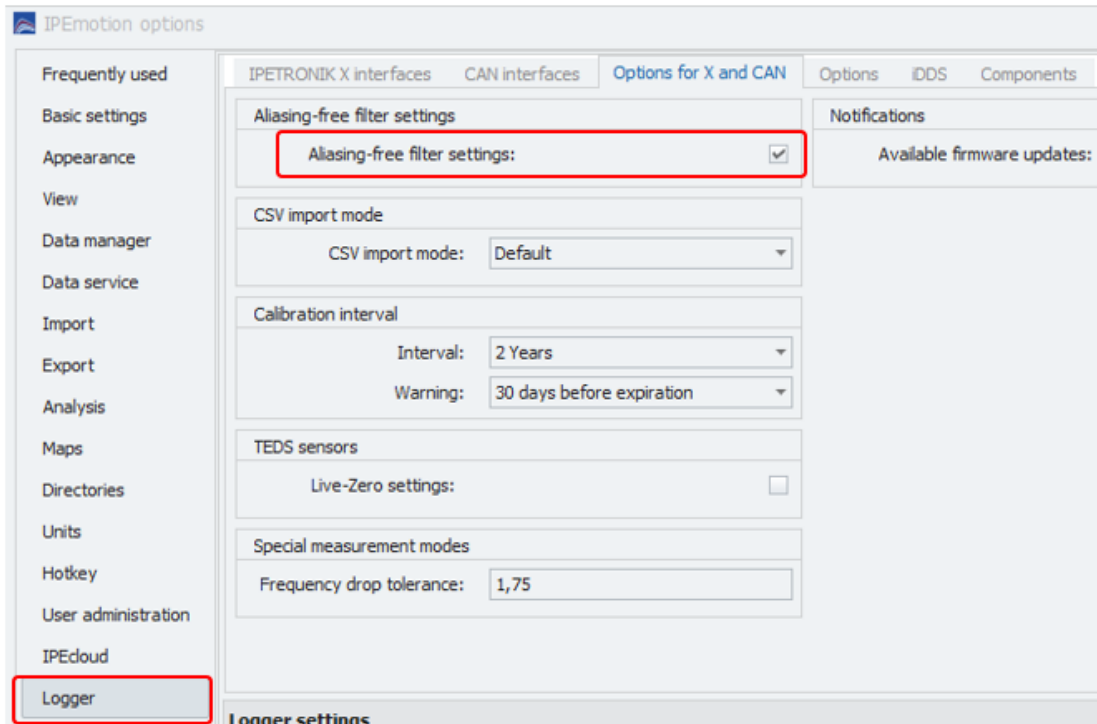


Column chooser fields for IPETRONIK-CAN modules

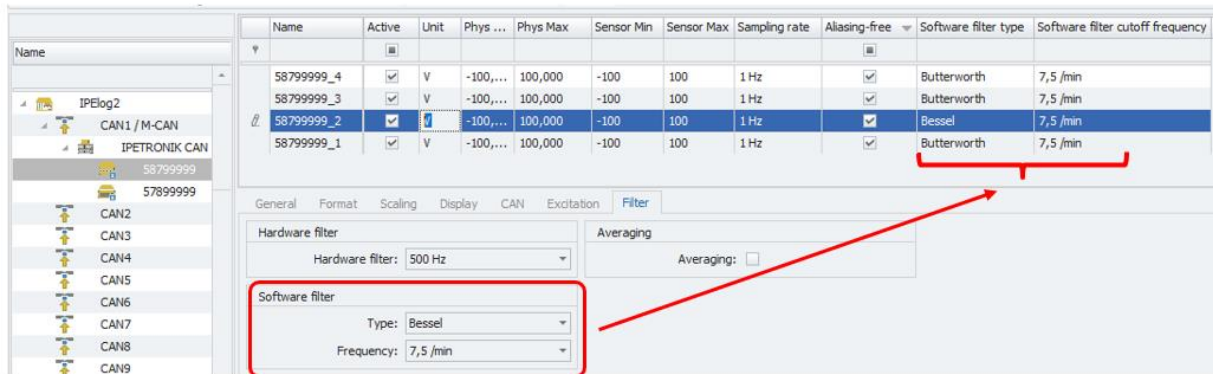
The new fields are:

- ▶ Aliasing-free

This is an information column. The setting is defined in the PlugIn options or Logger options for X and CAN. It is a global definition and not all modules support aliasing free measurements. Mainly modules with DSP function support this feature with a checked check box.



- ▶ Software filter type Modules with DSP function support the setting of different filter types like Bessel, Butterworth, Ecliptic
- ▶ Software filter cut-off freq. The cut off frequency can be defined too and is displayed in the corresponding column as indicated in the screenshot below.



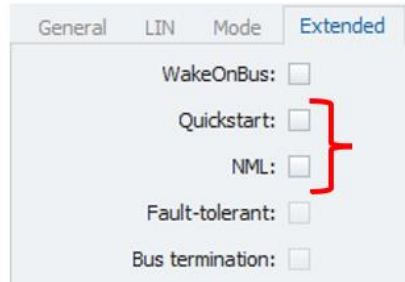
The data fields are corresponding to channel properties on module level. The following list provides an overview of all additional column chooser filed. Not all modules support all functions.

- ▶ Aliasing free
- ▶ App enabled
- ▶ Bit number
- ▶ Bus type
- ▶ ByteOrder
- ▶ CAN identifier [hex]
- ▶ Comment
- ▶ Conductor break detection
- ▶ Cyclic
- ▶ Data type
- ▶ Decimal places
- ▶ Default value
- ▶ Description
- ▶ Display Max
- ▶ Display Min
- ▶ Display name
- ▶ Factor
- ▶ Hardware filter
- ▶ Index
- ▶ Info 1
- ▶ Info 2
- ▶ Input
- ▶ LSB
- ▶ No value

- ▶ Offset
- ▶ Output
- ▶ Phys High
- ▶ Phys Low
- ▶ Port
- ▶ Reference
- ▶ Reference 1
- ▶ Reference 2
- ▶ Reference 3
- ▶ Sensor calibration
- ▶ Sensor excitation
- ▶ Sensor High
- ▶ Sensor Low
- ▶ Sensor Mode
- ▶ Sensor name
- ▶ Sensor serial
- ▶ Sensor unit
- ▶ Set start value
- ▶ Source
- ▶ Source type
- ▶ Start bit
- ▶ Start value
- ▶ Software filter cutoff freq.
- ▶ Software filter type
- ▶ Status
- ▶ Subconfig
- ▶ Symbol
- ▶ Transformation

2.2 LIN with Quickstart and NML

In the EXTENDED tab sheet of the LIN interface the wake functionality is extended.

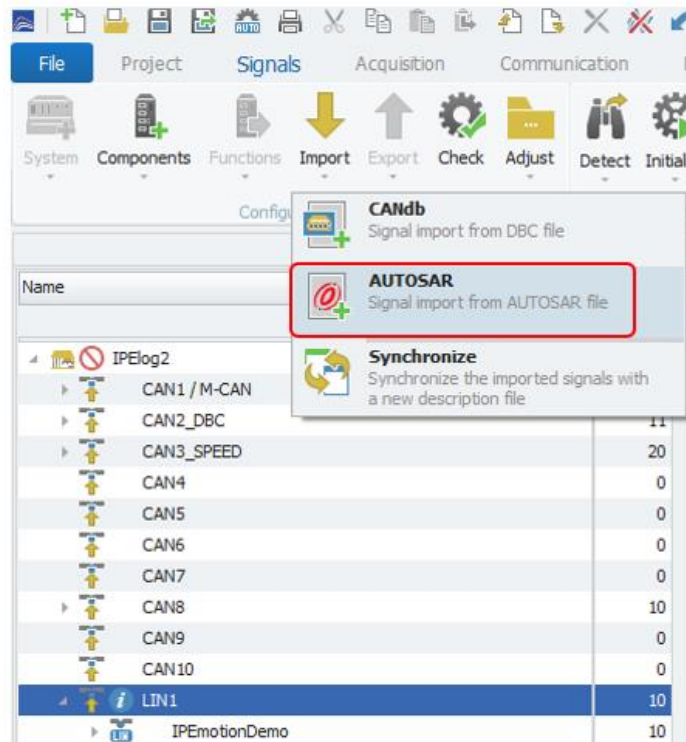


- ▶ Quickstart This setting can be combined with the wake setting to save the first messages in the data file
- ▶ NML (No Message Lost) With No Message Lost the wake and quickstart functionality are by design included and the logger will wake up on LIN messages and store the very first frame in the data files.

2.3 Autosar import

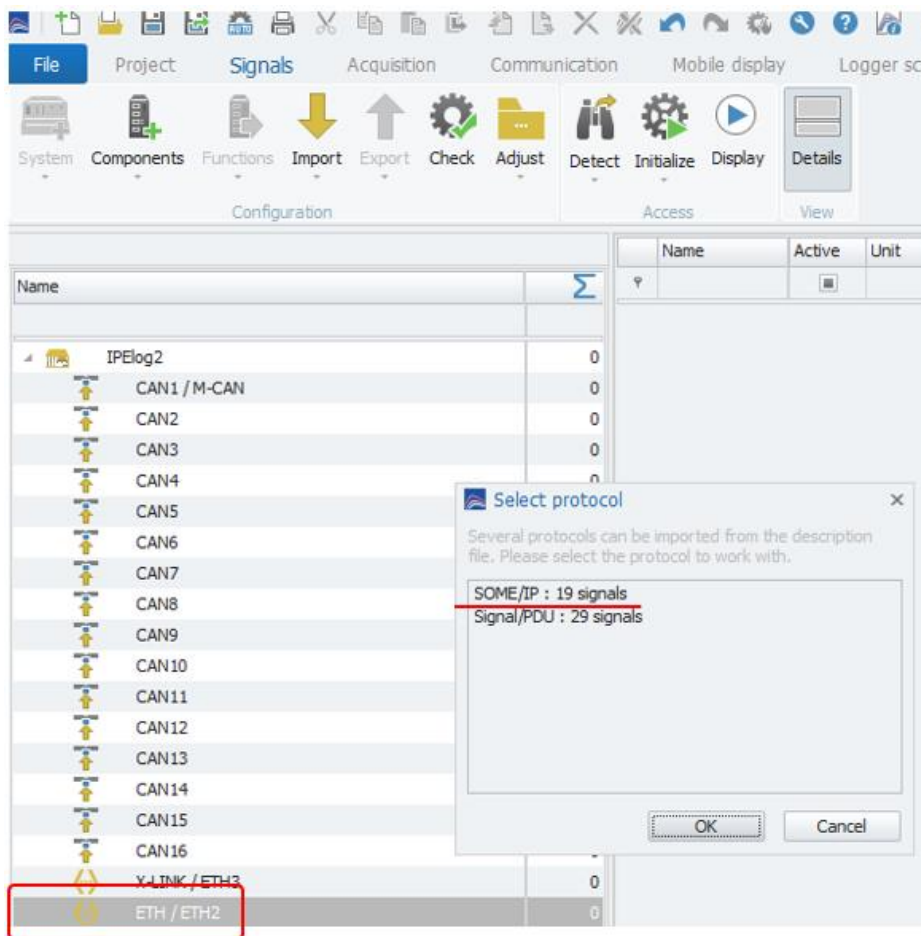
2.3.1 LIN connector

On the LIN interfaces also Autosar (.arxml) files can be imported too.



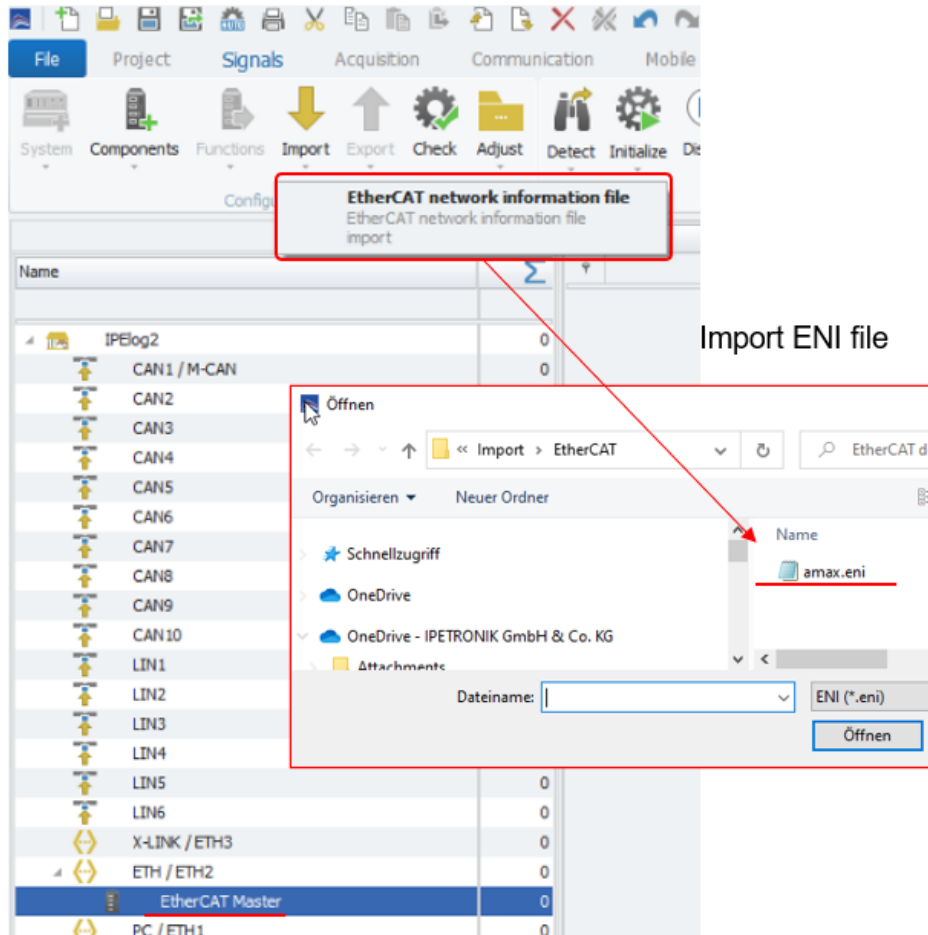
2.3.1 Ethernet connector

The Autosar import supports also the SOME/IP und the Ethernet connector.



2.4 Import for EtherCAT devices

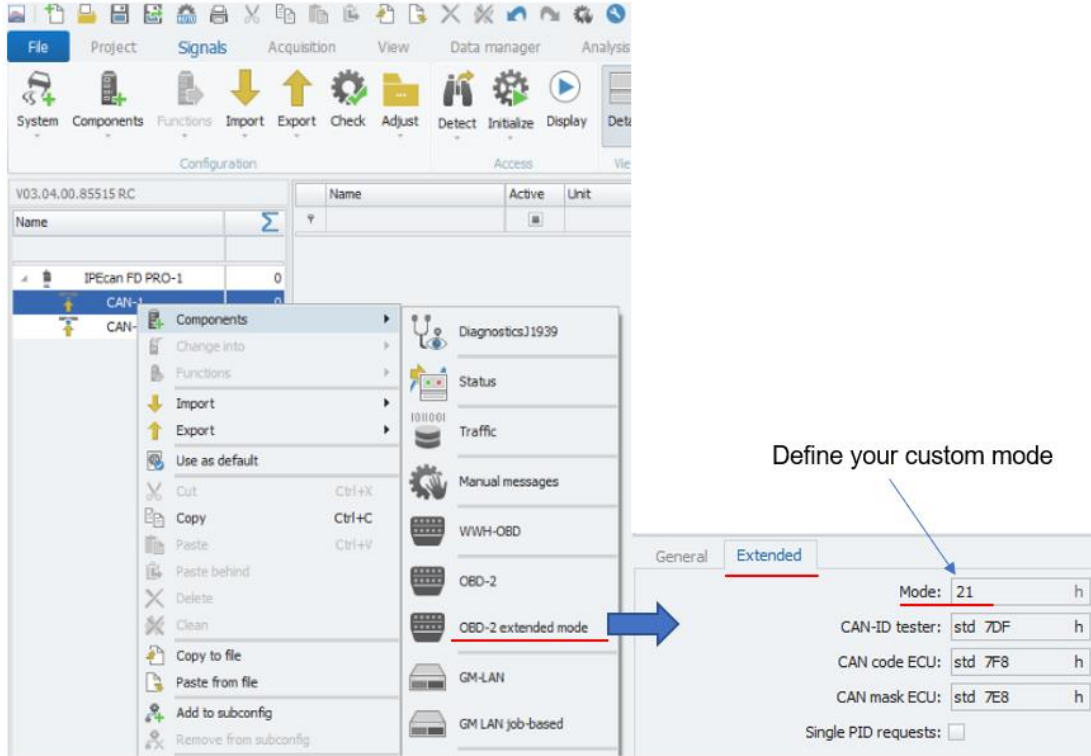
On the EtherCAT Master interface you can create complete system via an import of an .ENI file. An ENI file can be created from a EtherCAT devices configuration software and contains information about the EtherCAT Network Information.



After the import all Slave devices with the corresponding addresses are created automatically.

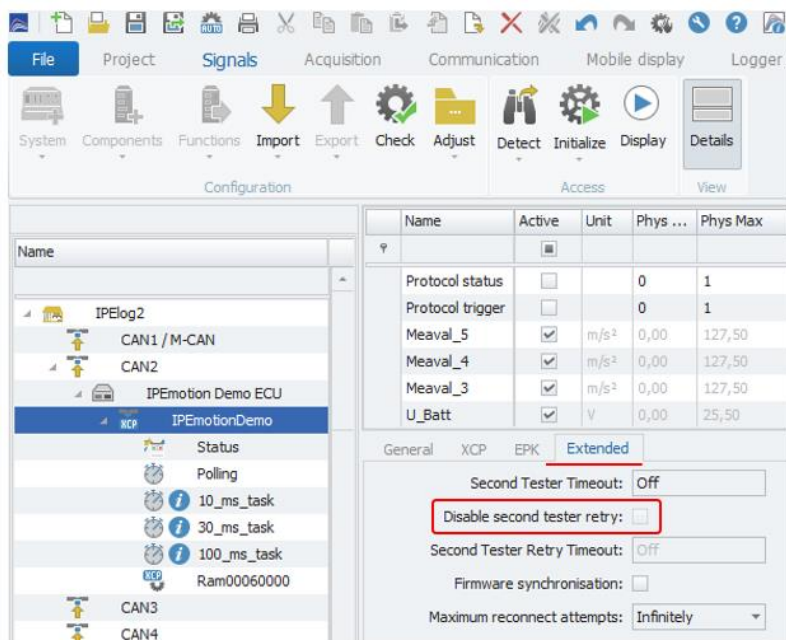
2.5 OBD 2 extended mode

The functionality of OBD mode 21 was extended and renamed to OBD extended mode. Now you can define individual modes beyond the original static implementation of mode 21 to get additional diagnostic information of the modes 22, 23 etc..



2.6 XCP Second Tester Settings

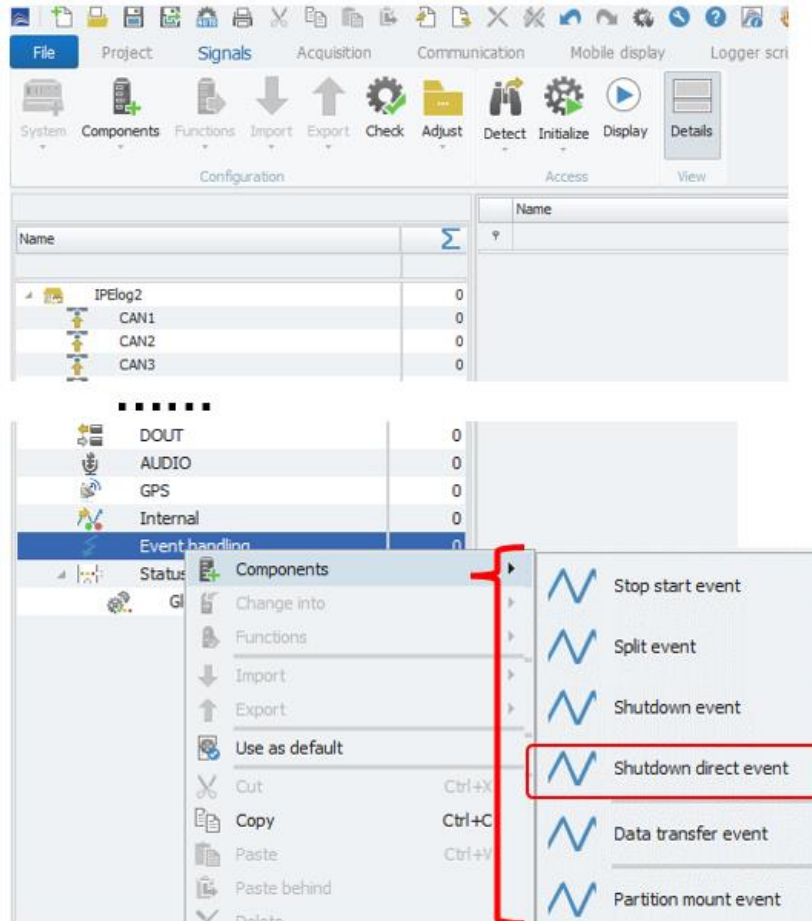
With this new check box you can disable the retry behavior until the logger has gone through shut down process



ECU extended second tester settings for CCP and XCP

2.7 Event with direct shutdown

This new event is speeding up the shutdown process. When this function is triggered, the logger will immediately close the last measurement and data files, and perform a time updated. After that the logger goes into shut down mode. There will be no data transfer and no e-mail notification to speed up the shutdown process.

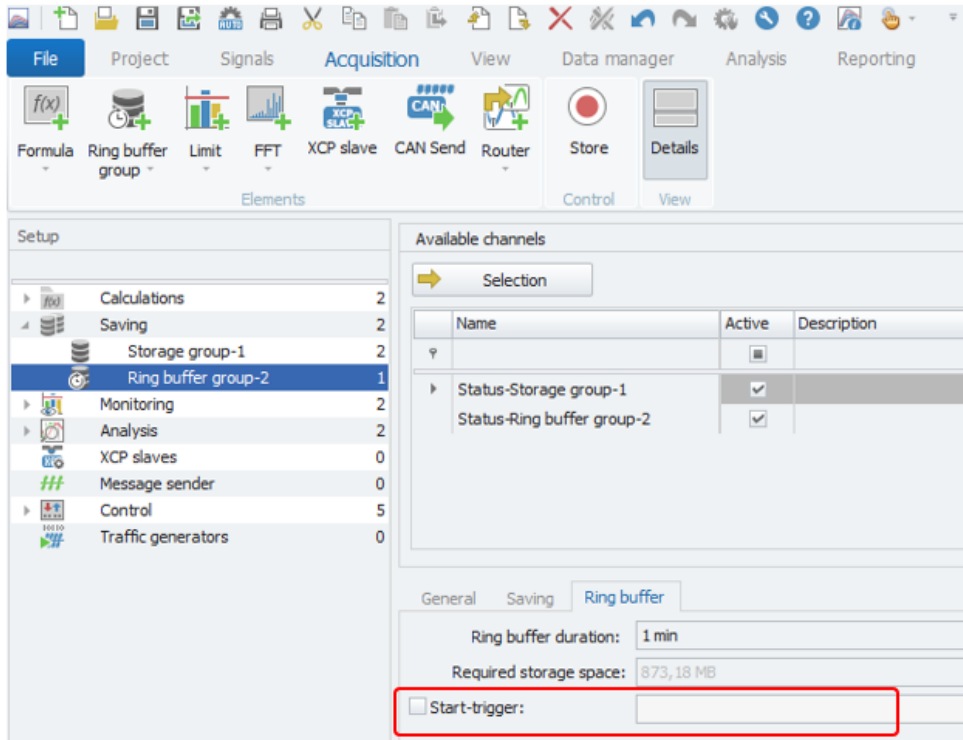


Event channels > Direct shutdown

3 New functions in ACQUISITION – IPEmotion

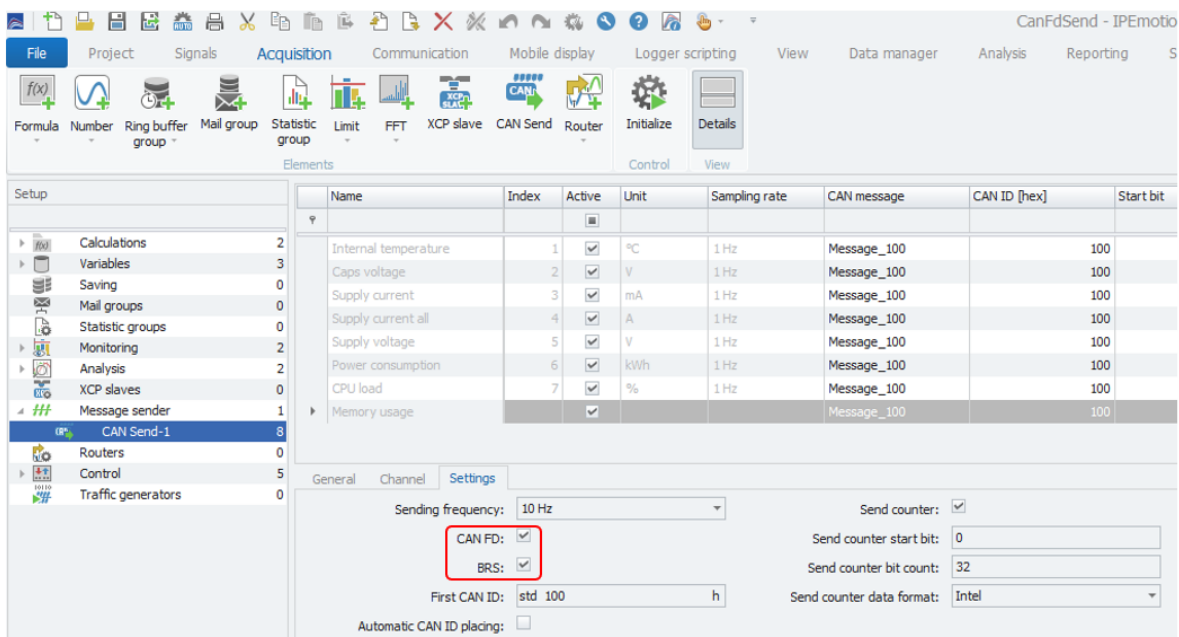
3.1 Ring buffer Trigger function

The rung buffer storage group can now be operated with a trigger function too.



3.2 Message sending for CAN FD

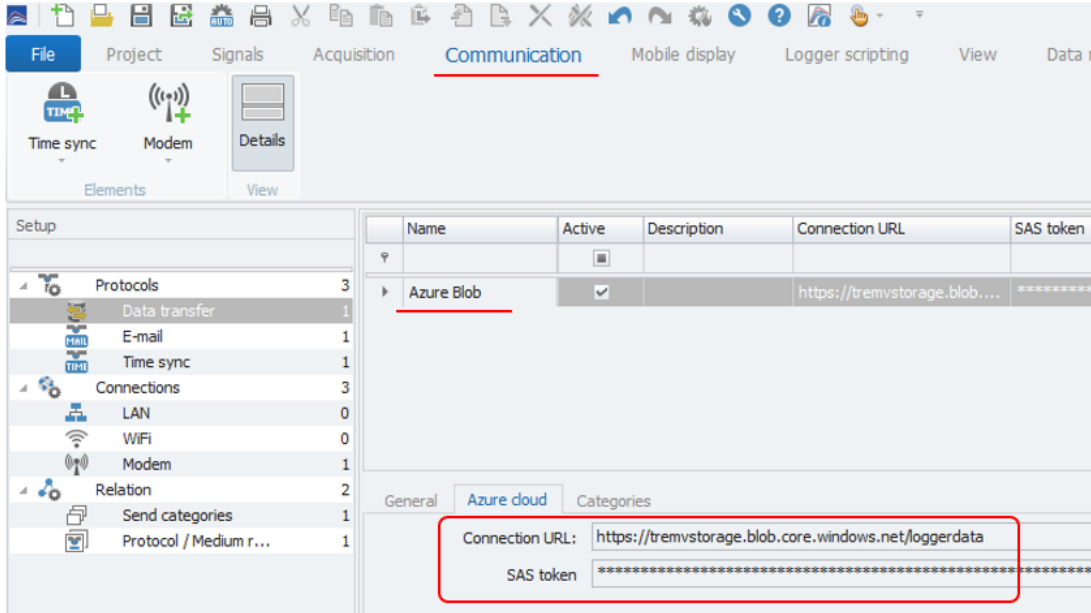
The message sender is now supporting CAN FD messages. When BRS check box is enabled 2 Mega Baud are supported.



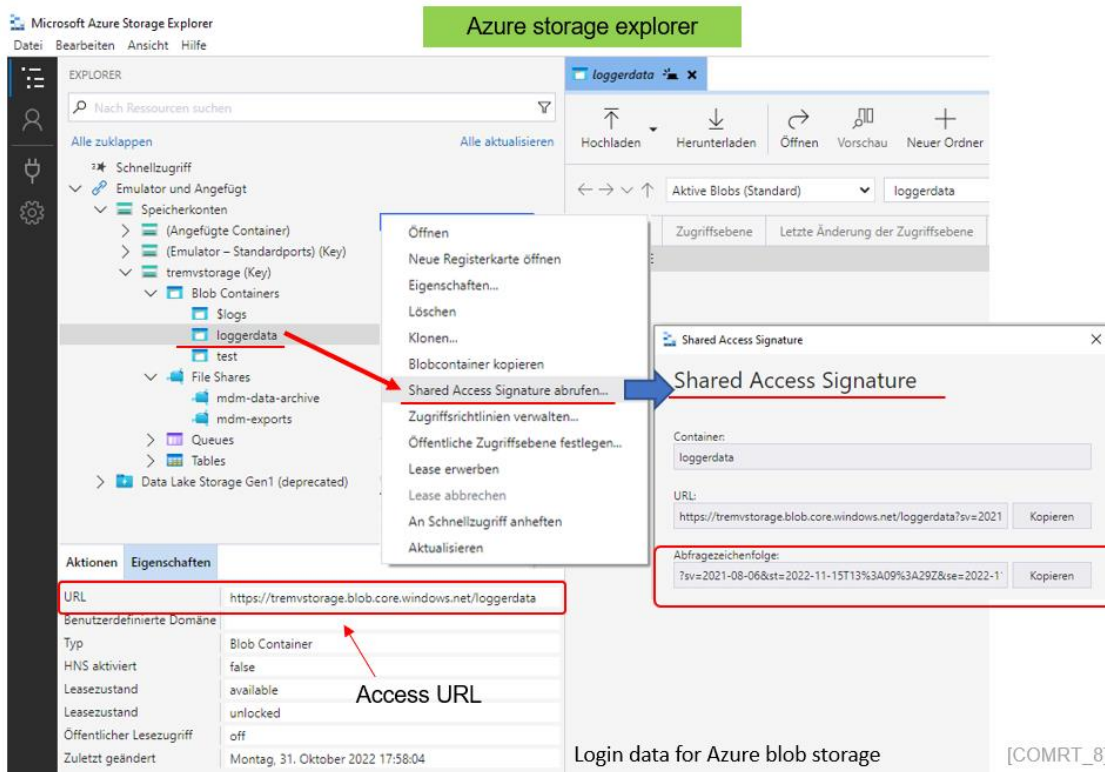
4 New functions in COMMUNICATION workspace

4.1 Azure blob storage for data transfer

Besides the classical FTP data transfer the RT logger can now store data into the Azure blob storage platform. The implementation allows a direct data transfer from the logger into data lake structures. The screenshot below shows the login configuration.



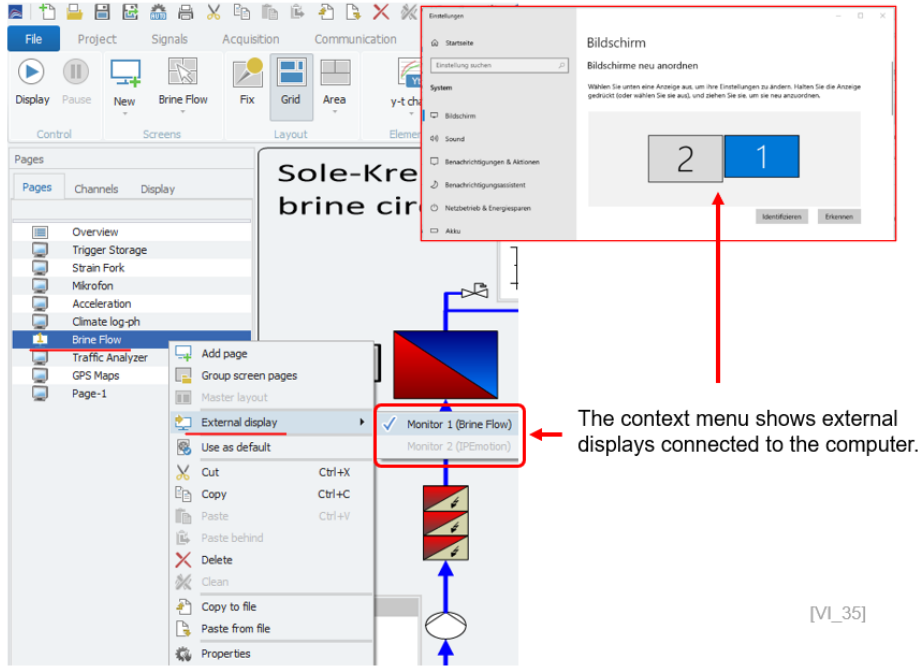
The connection access URL and the SAS token is retrieved from the Azure storage explorer as indicated below.



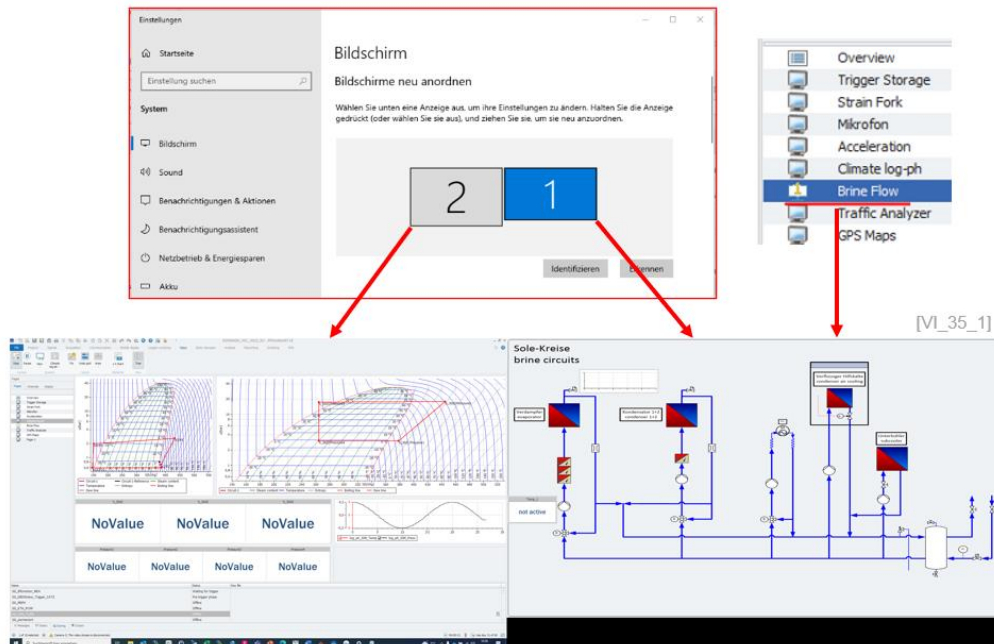
5 New functions in VIEW workspace

5.1 External monitor for VIEW pages

When multiple computer screens are connected to a computer you can use the external display functionality to share a dedicated VIEW page on a dedicated external monitor. The IPEmotion software shows the detected monitors from the Windows system settings.



The selected monitor which will show the VIEW page is indicated with a blue tick in front of the monitor name. In the example below the VIEW page “Brin Flow” is linked to Monitor 1. The VIEW page will be presented in full screen mode only and will be always in the front. With this setting the user can share important e.g. test bench control alert monitoring and operation functions on a dedicated screen and ensure that they are always visible to the operator.



All pages are presented on Monitor 2

Example: Brine flow is fixed linked to Monitor 1

6 New functions in DATA MANAGER workspace

6.1 Profiles for traffic to signal conversion

On the traffic to signal conversion interfaces you can now add the different description files to profiles. With a profile is created all settings of the conversion dialog are saved by your individual profile name and can be retrieved to save time on reoccurring conversion process.

