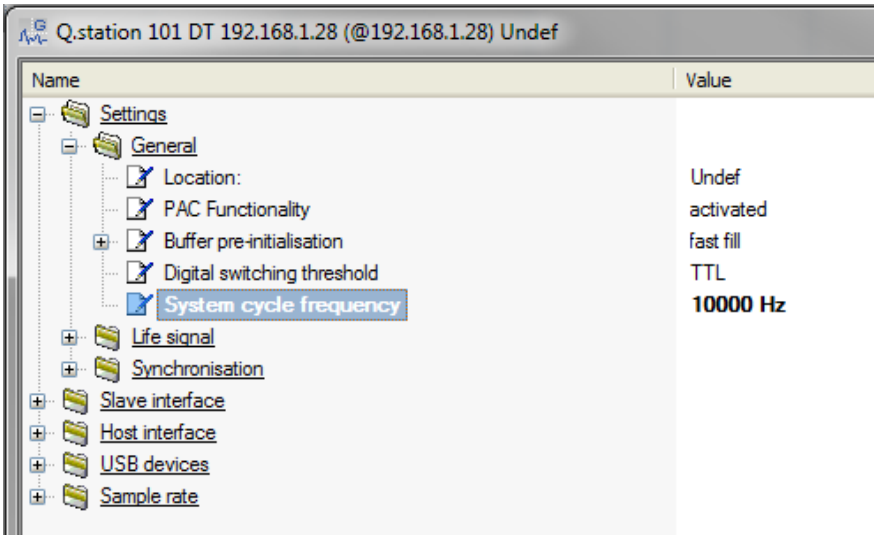
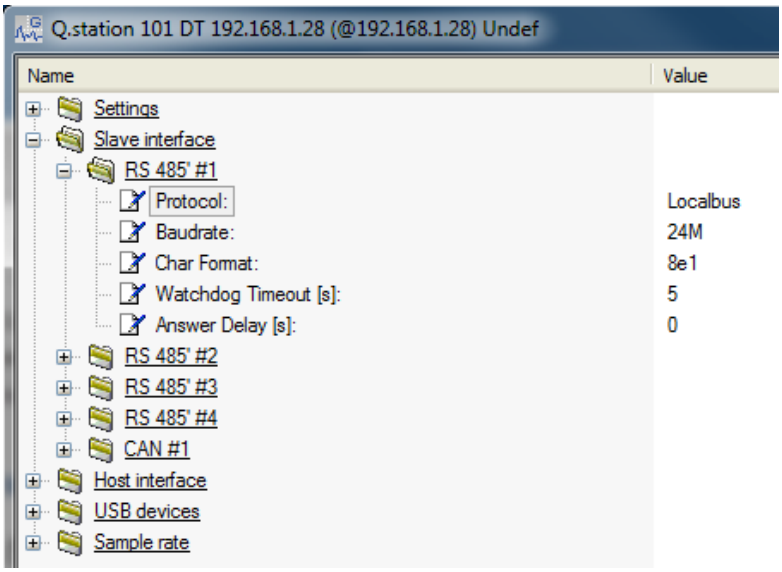
Q.Tip: Q.station Basic Settings

1. **Internal System Clock** – Also known as the system cycle frequency can be set equal or less than the highest sample rate of any internal buffer. The maximum cycle frequency no matter what sample rate is used is 10 kHz. This setting affects the performance of the Q.station; sets the rate for the execution of the virtual variables and test.con applications located in the real time kernel.



2. **UART Baud Rate** – The Q.station has 4 x UARTs, each can be configured to have a unique baud rate depending on the number of modules attached, desired sample rate, and distance between controller and measurement modules. The protocol used is called Localbus, a special communication protocol used between a Gantner controller and measurement module (e.series and Q.series).



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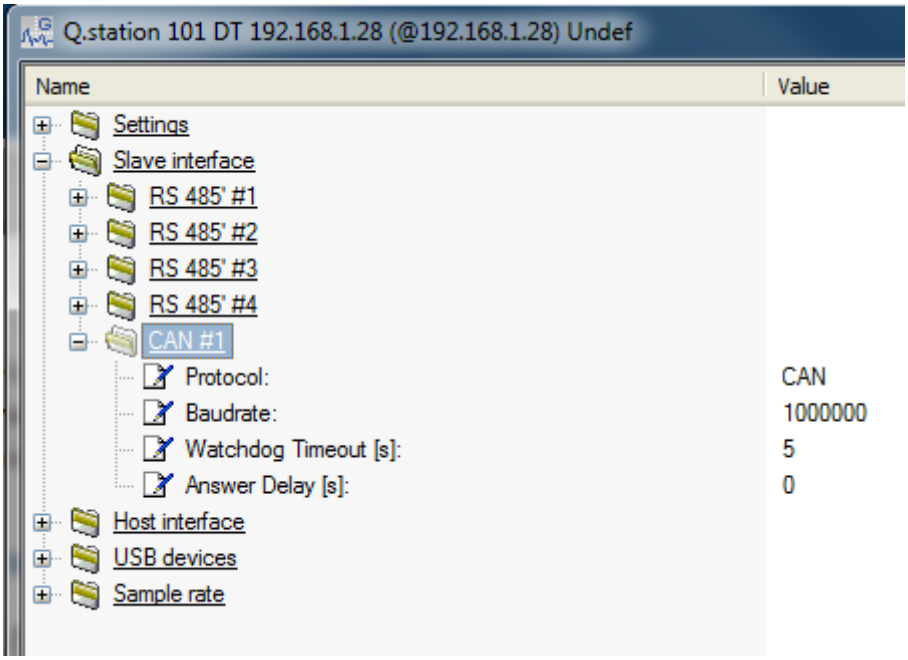
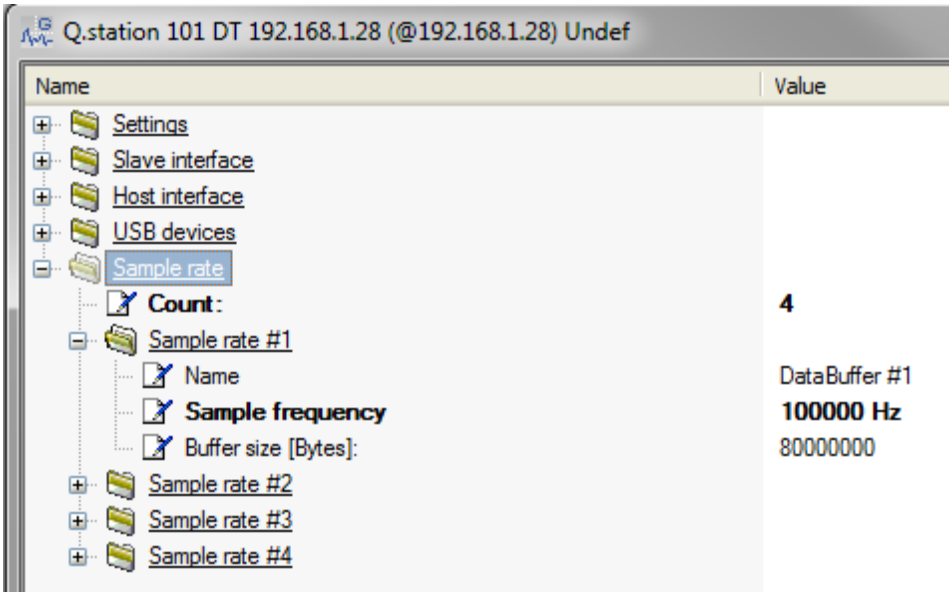
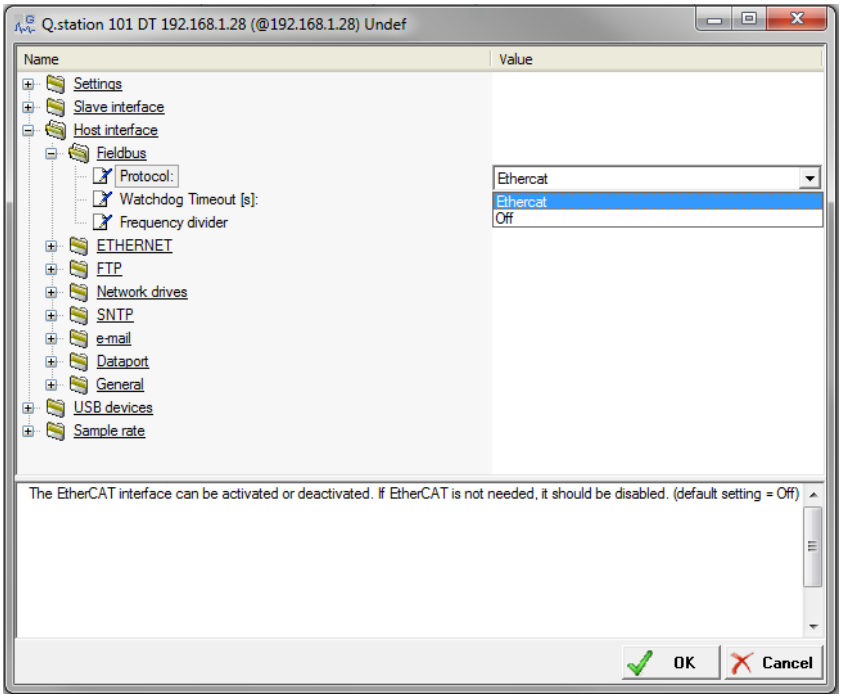
3. **CAN bus Settings** – The Q.station has 1 x CAN bus port. The CAN variables are setup under the virtual variables section, but make sure to apply the correct baud rate for this interface:



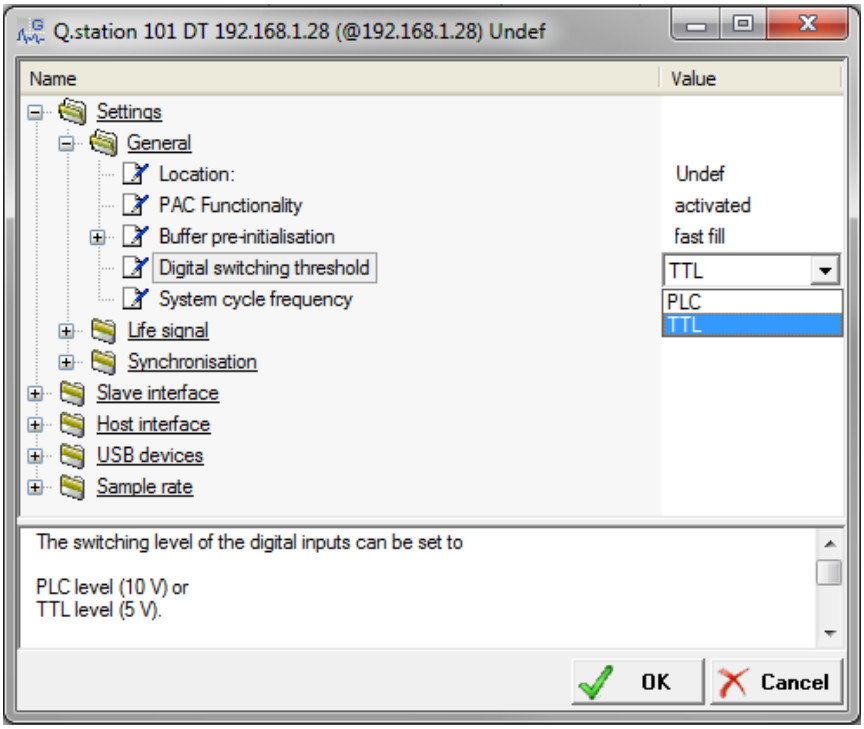
4. **Sample Rate** – The Q.station can have up to 4 unique buffers, each with a unique sample rate. Enter the number of buffers to be used and define the sample rate for each buffer. The buffer size can be adjusted also and should be adjusted depending on the number of channels and sample rate of that particular buffer.



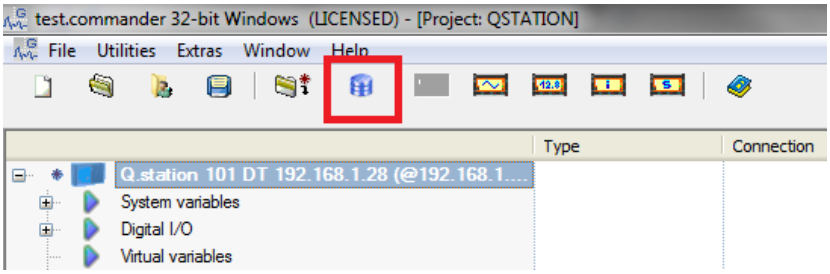
5. **EtherCAT** – The Q.station can be used as an EtherCAT slave. When using the EtherCAT interface on the Q.station, make sure to turn the protocol on.



6. **Digital Input Threshold** – The Q.station has on board digital inputs and the switching threshold for these digital inputs can be set to either TTL or PLC levels.
PLC – 10 V
TTL – 5 V



7. **Data Logger** – The Q.station is not just a controller, but a data logger as well. Data can be stored using various settings, which can be explained better in a separate document dedicated to Q.station data logging. However, to access the settings inside the Q.station, highlight the controller and click on the data logger button in the toolbar.



The logger configuration window will appear: