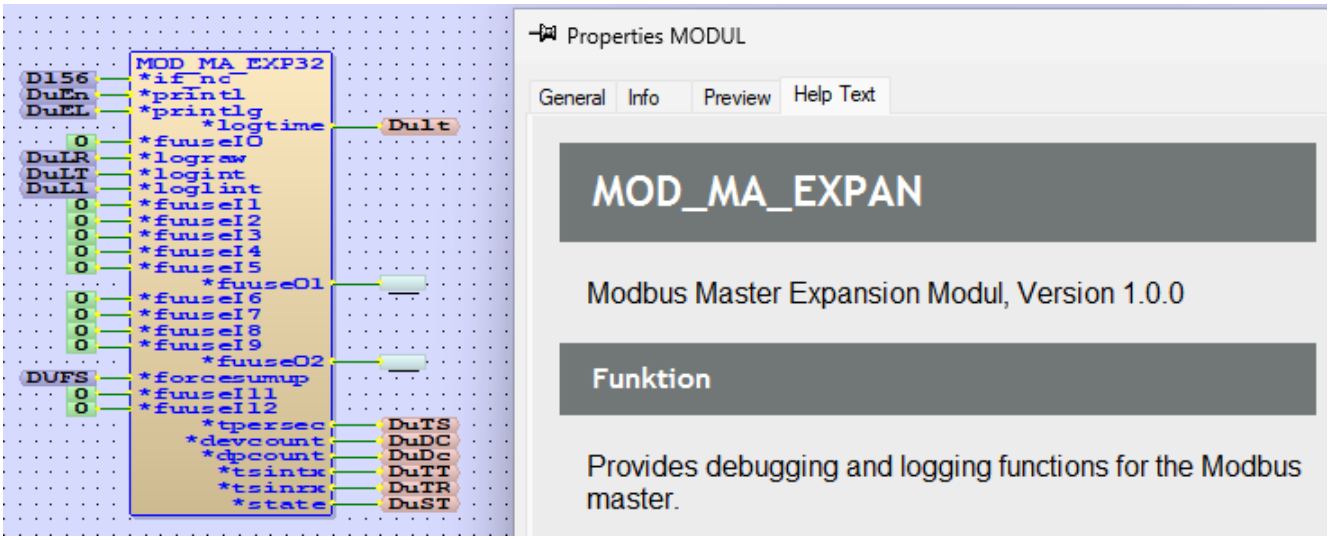
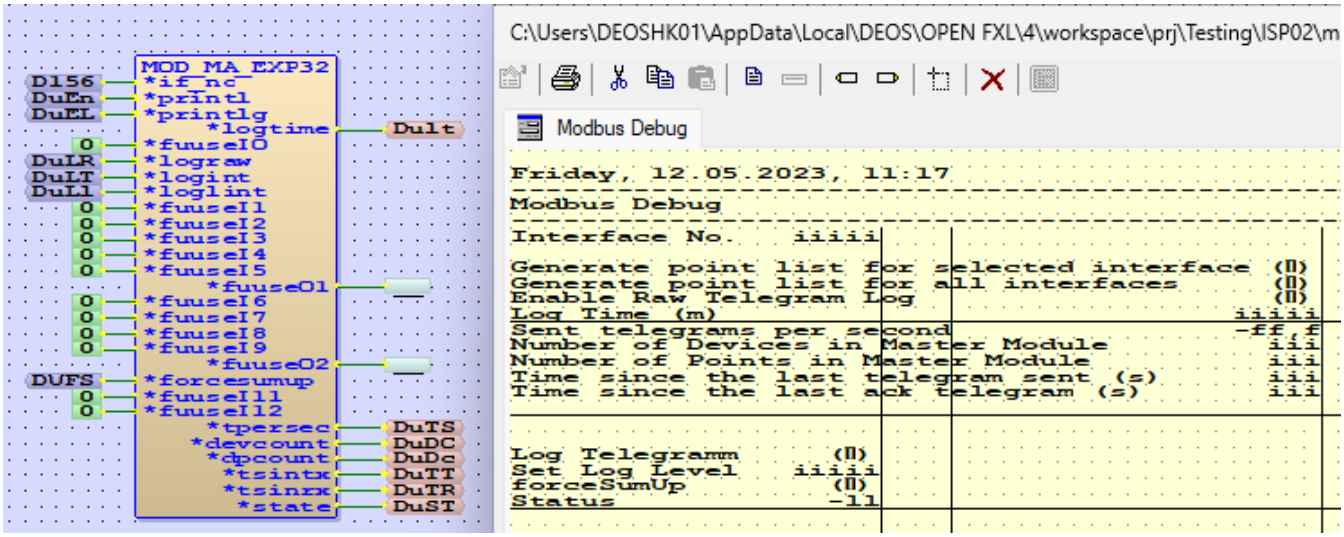
TT230602 – OFXL - Modbus Module Debug Module

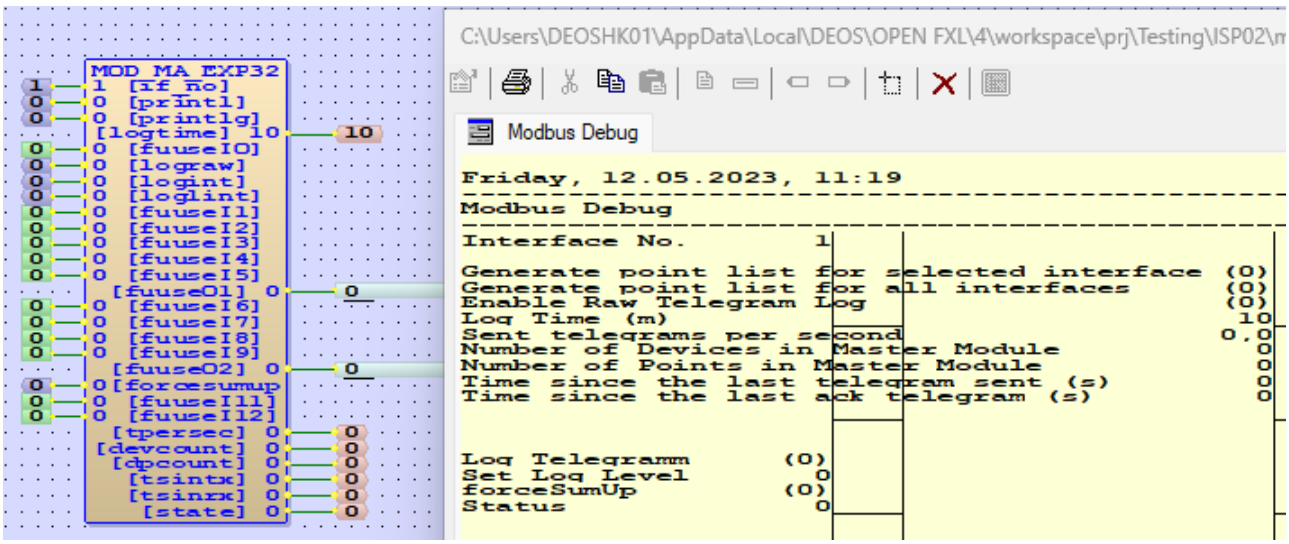
1. With the “MOD_MA_EXPAN” module, we provide some debugging and logging functions for the Modbus master module.



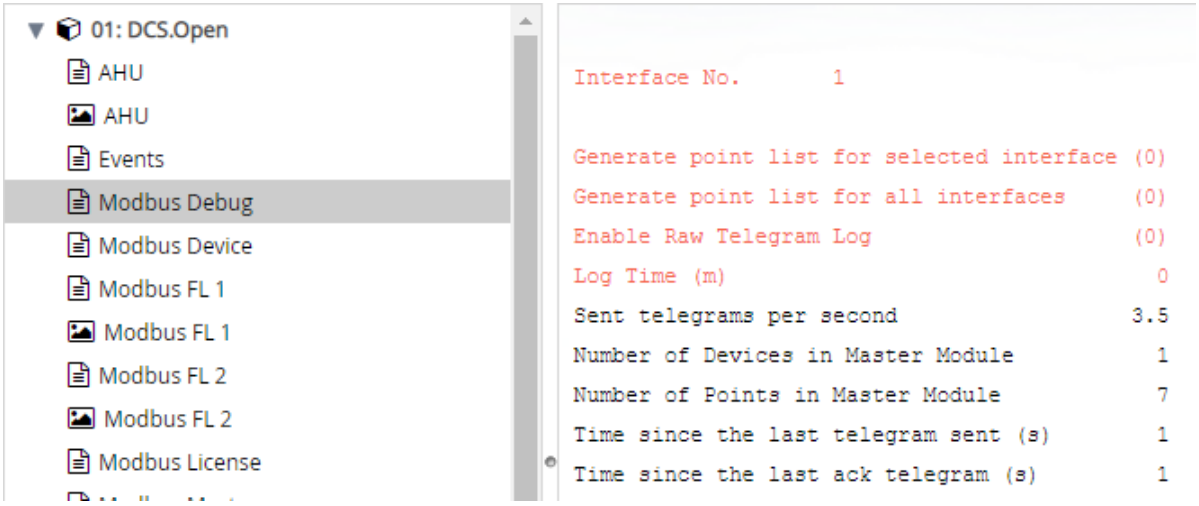
2. Add the module in FUP and setup the HTML page like below.



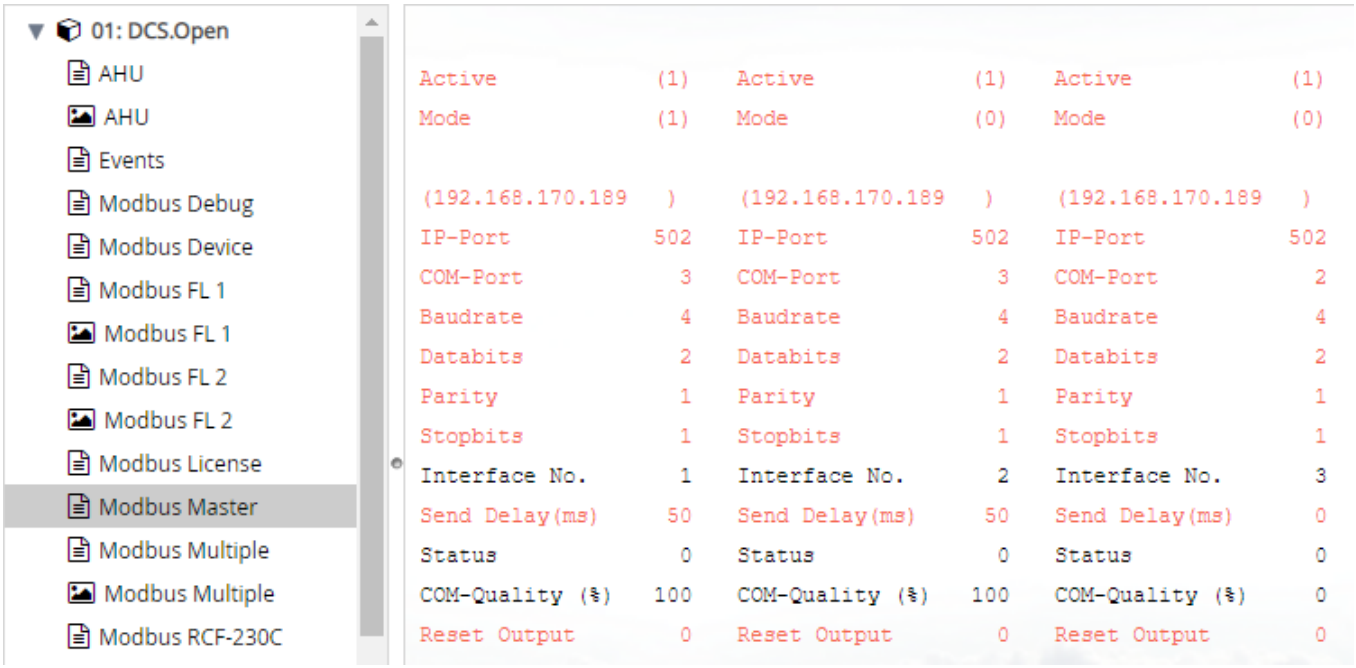
3. Example default value like below. The “if_no” is set as an Input with default 1 and you can link it to any master module online.



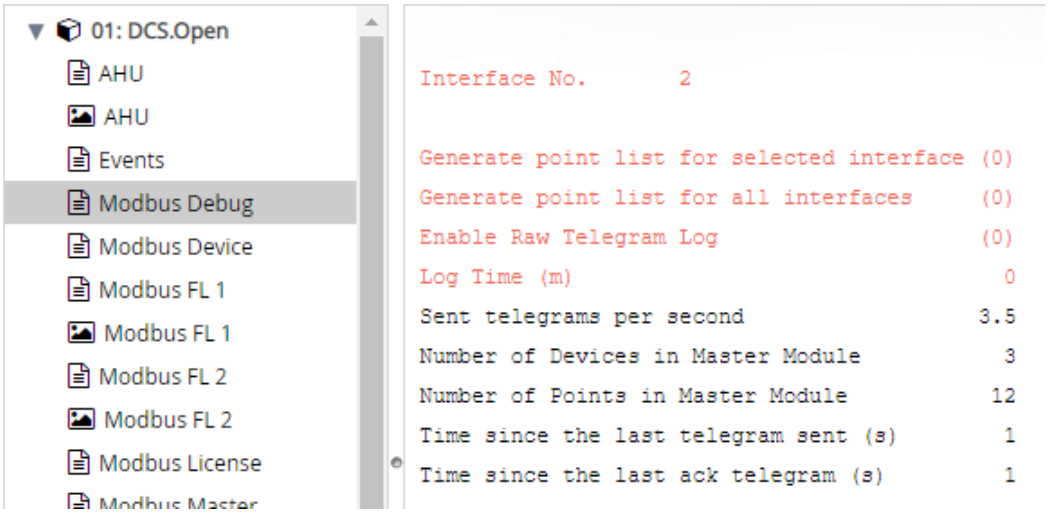
4. Load it to your controller and you can see some basic communication information regarding Modbus master module 1.



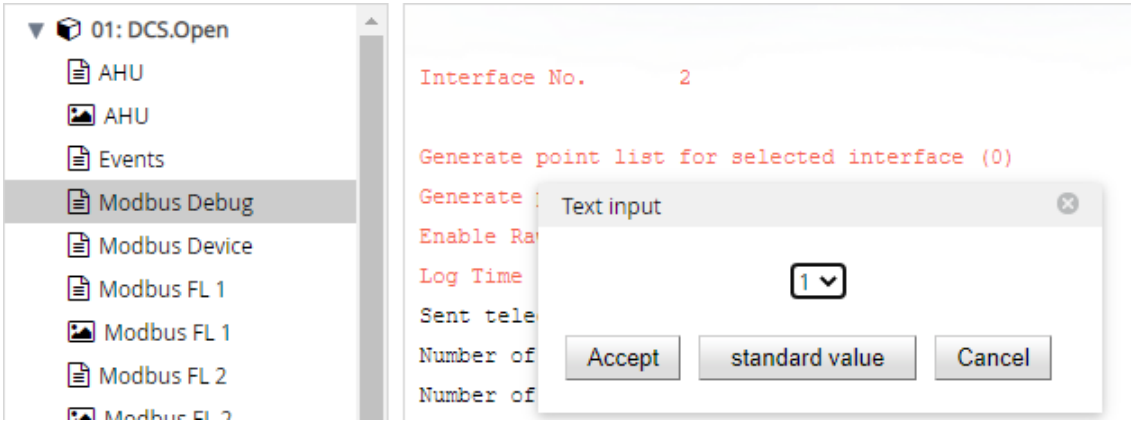
5. You can find the Interface No. for each master module from the “Modbus Master” HTML page.



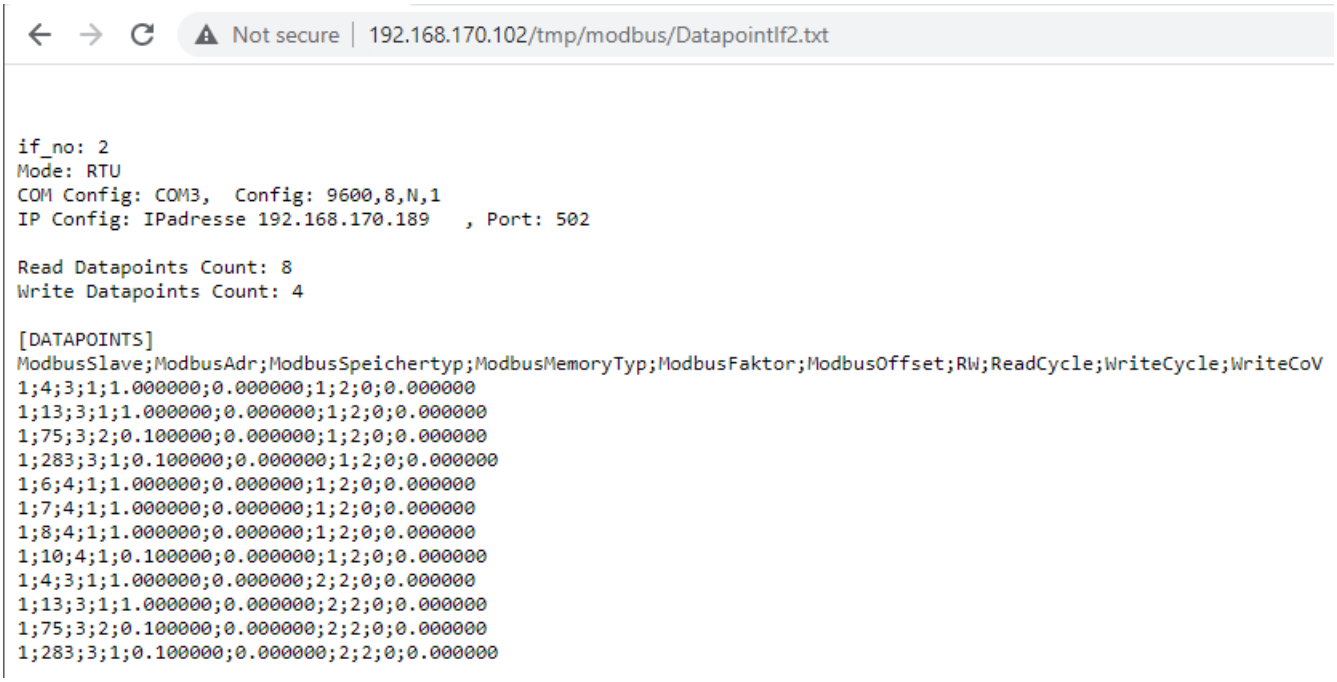
6. Now change the “Interface No.” of the Modbus Debug page to 2. Please note that the “Sent telegrams per second” may take some time to update.



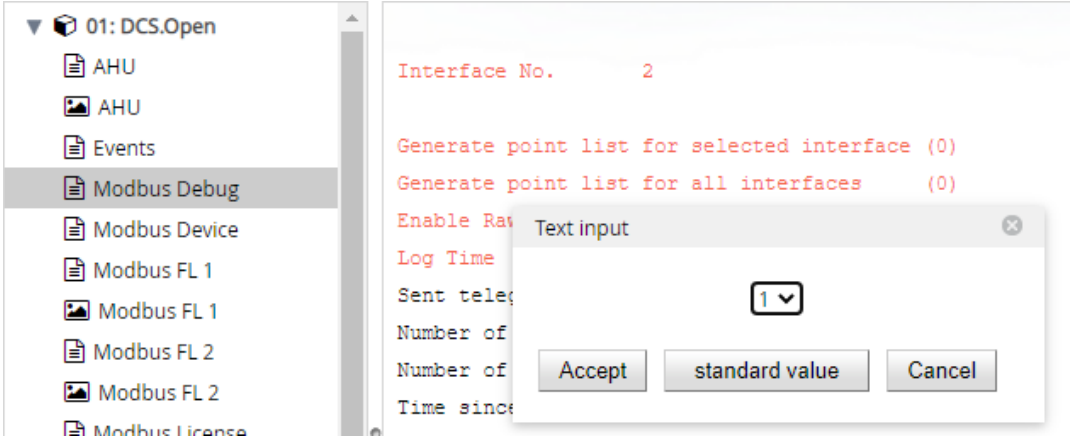
7. Now set the “Generate point list for selected interface” to 1. This will provide you with a summary of the points in the Master Module.



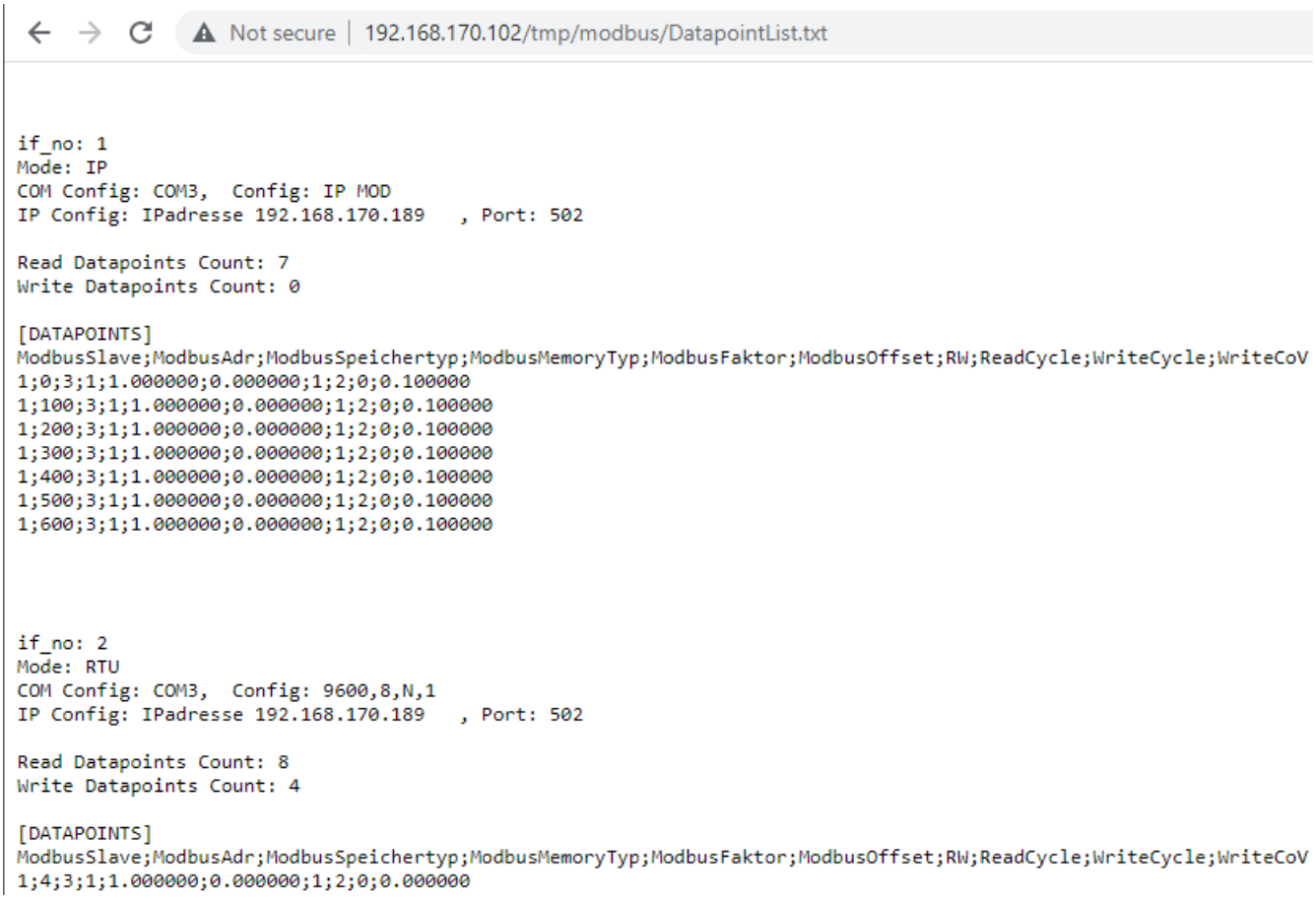
8. The information can be view by this “ipaddress/tmp/modbus/DatapointIf[if_no].txt”. In this example, we use http://192.168.170.102/tmp/modbus/DatapointIf2.txt.



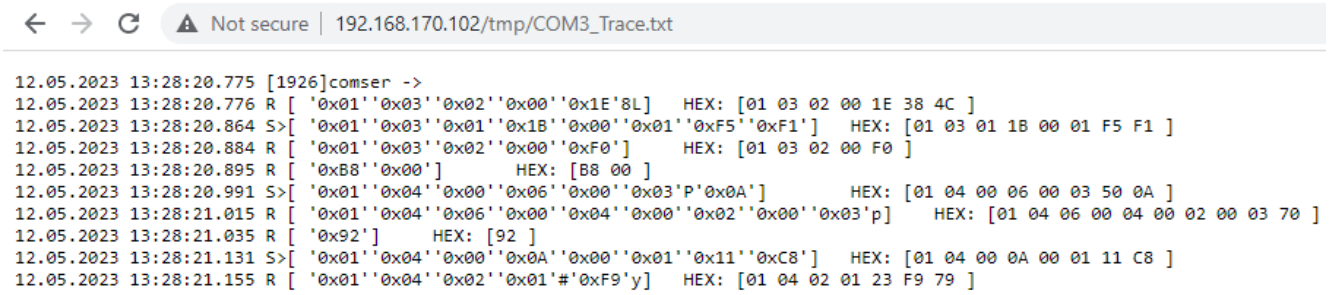
9. Please note that it only generates once when you set the value to 1. If later, you add/change points and/or Modbus device, you need generate it again.
10. In this example, we’ve 4 points with “Read” and 4 points with “Read/Write”, so the “Read Datapoint Count” is 8 and “Write Datapoint Count” is 4.
11. Set “Generate point list for all interfaces” to 1 to create a summary for all Modbus master modules.



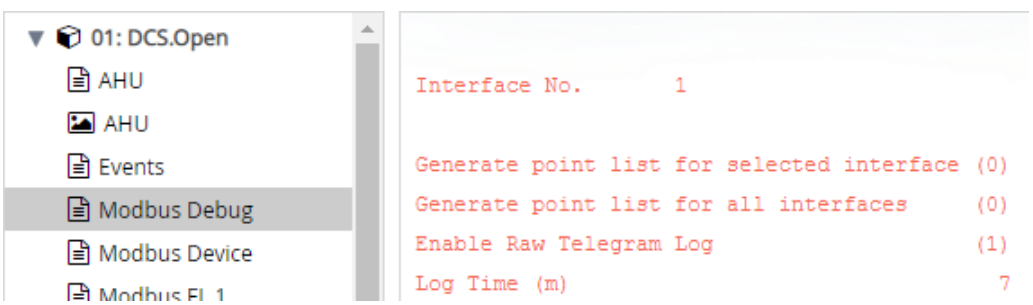
12. The information can be view by this “ipaddress/tmp/modbus/DatapointList.txt”. In this example, we use http://192.168.170.102/tmp/modbus/DatapointList.txt.



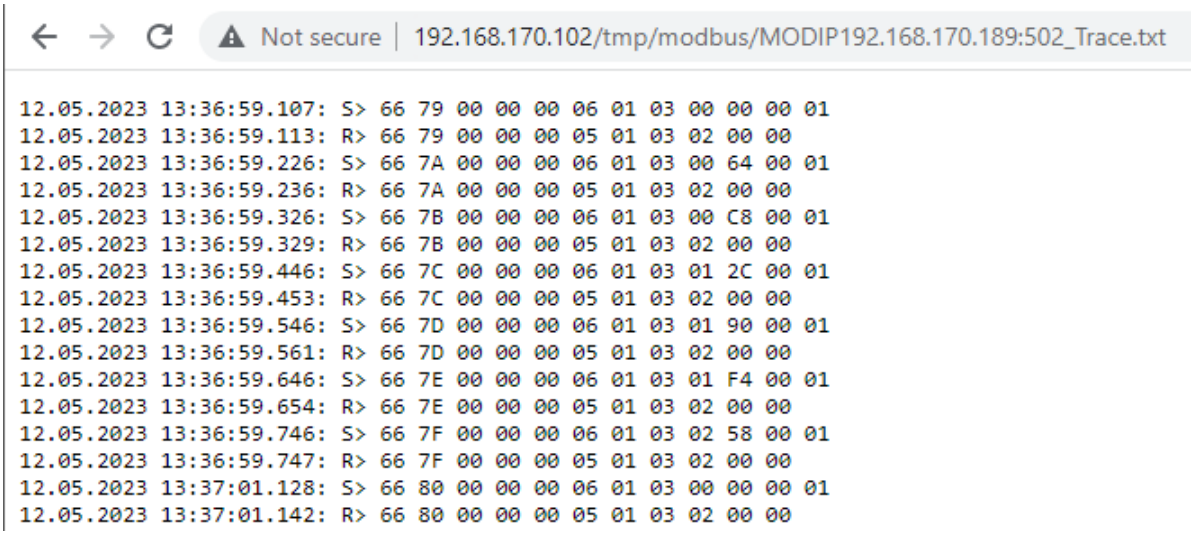
13. The Modbus RTU trace file link is “ipaddress/tmp/COM[number of COMport]_Trace.txt”. In this example, we use http://192.168.170.102/tmp/COM3_Trace.txt



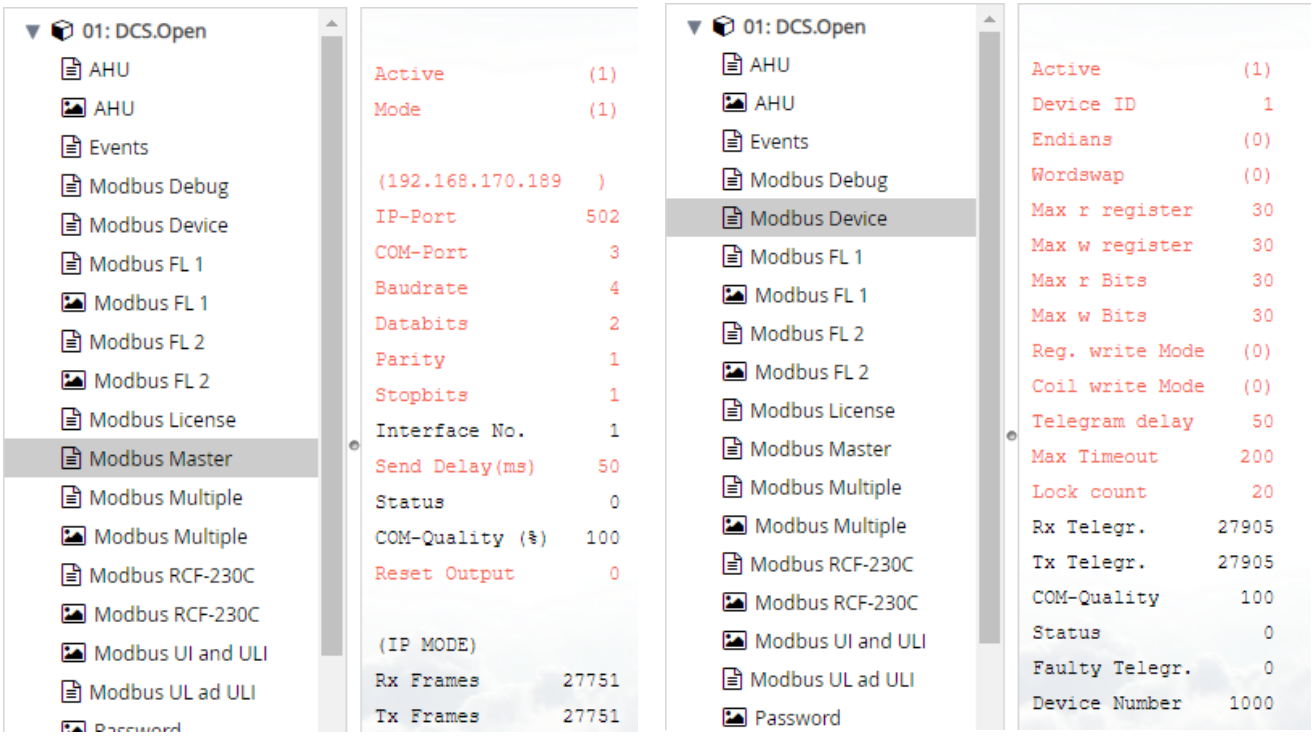
14. The Modbus IP trace file link is “ipaddress/tmp/modbus/MODIP[IP address of remote terminal]:[port of remote terminal]_Trace.txt”. In this example, we use http://192.168.170.102/tmp/modbus/MODIP192.168.170.189:502_Trace.txt.
15. You need to enable the Modbus IP trace and set the log time like below (“Enable Raw Telegram Log” and “Log Time (m)”. Also, make sure the “Interface No.” is set correctly for the corresponding Modbus Master module.



16. The Modbus IP trace will then start for the “Log Time (m)” period. The “Log Time (m)” will start to count down to 0 and the trace will be stopped.



17. You can also find more information regarding the Modbus communication from the Master and Device modules, e.g. COM-Quality, Status, Rx/Tx Telegram, Faulty Telegram, etc.



18. You can set the “Reset Output” to 1 to reset all the above Modbus communication information in 17 to zero.