Case Introduction (Collecting 10 Temperature & Humidity Sensors)

1. Function Implementation

Collect data from 10 RS485 interface temperature and humidity sensors, and report to the 61850 master station.

2. Device RS485 Communication Parameters

- Temperature & Humidity Sensor No.1: modbus address=1, 4800 baud, no parity, 1 stop bit
- Temperature & Humidity Sensor No.2: modbus address=2, 4800 baud, no parity, 1 stop bit
- Temperature & Humidity Sensor No.3: modbus address=3, 4800 baud, no parity, 1 stop bit
- Temperature & Humidity Sensor No.4: modbus address=4, 4800 baud, no parity, 1 stop bit
- Temperature & Humidity Sensor No.5: modbus address=5, 4800 baud, no parity, 1 stop bit
- Temperature & Humidity Sensor No.6: modbus address=6, 4800 baud, no parity, 1 stop bit
- Temperature & Humidity Sensor No.7: modbus address=7, 4800 baud, no parity, 1 stop bit
- Temperature & Humidity Sensor No.8: modbus address=8, 4800 baud, no parity, 1 stop bit
- Temperature & Humidity Sensor No.9: modbus address=9, 4800 baud, no parity, 1 stop bit
- Temperature & Humidity Sensor No.10: modbus address=10, 4800 baud, no parity, 1 stop bit

3. Temperature & Humidity Sensor Modbus Data Point Table

The following data points use Modbus 03 Read Holding Registers function code

Data Point Address	Name	Modbus Data Type	Additional Notes	61850 Data Type
0000H	Humidity	S_AB (16-bit signed integer)	Integer divided by 10, unit: 0.1%	YC_RM Telemetry-Float
0001H	Temperature	S_AB (16-bit signed integer)	Integer divided by 10, unit: 0.1 degree	YC_RM Telemetry-Float

4. How to Use This Case

- Copy the init folder in this case to completely overwrite the init folder in the FLEXLUA_61850 software directory, then click Generate in Step 4 of the software to generate the required 3 files (main.lua, model.cfg, rtu.cid).

- The main.lua and model.cfg files need to be placed into the protocol converter through the USB-C port. The rtu.cid file can be provided to 61850 master station developers for device import.

5. Software Configuration Completed Page