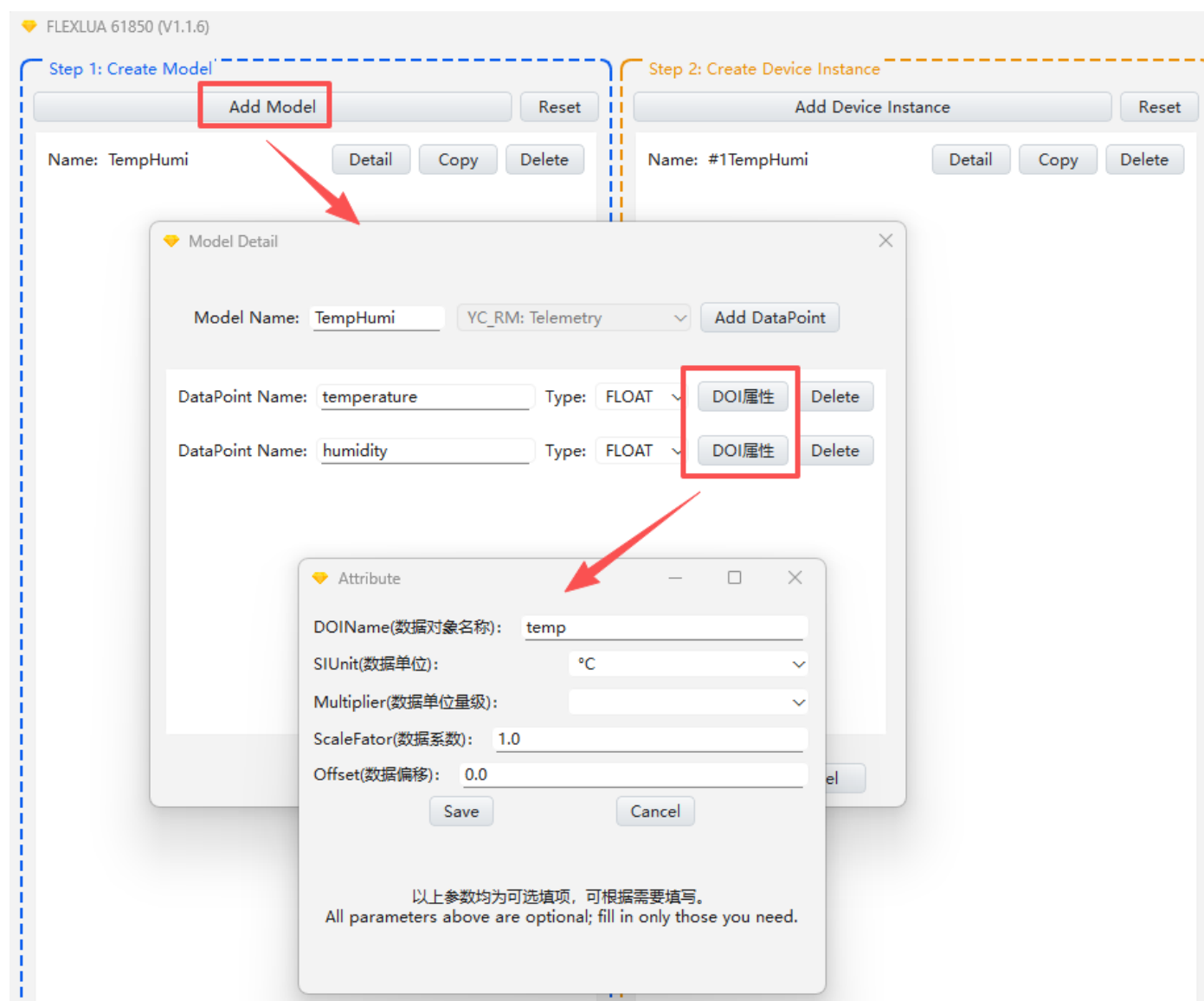


How to Add DOI Name, Unit, and Coefficient for Data Points

(1) We only need to configure the DOI attribute parameter value for each data point when creating the device 61850 model (as shown in the figure below) to set the DOI name, measurement unit, coefficient, and offset information for that data point. If users don't need these configuration information in the project, they can ignore it.



(2) After completing the configuration as described above, we can see in the generated rtu.cid file that the following information has been added to each data point DOI instance:

```

<LN desc="#1TempHumi" lnClass="GGIO" lnType="GGIO_TYPE_1" inst="1">
  <DOI name="temp">
    <SDI name="mag">
      <DAI name="f" desc="temperature"/>
    </SDI>
    <DAI name="dU">
      <Val>temperature</Val>
    </DAI>
    <SDI name="sVC">
      <DAI name="scaleFactor">
        <Val>1.0</Val>
      </DAI>
      <DAI name="offset">
        <Val>0.0</Val>
      </DAI>
    </SDI>
    <SDI name="units">
      <DAI name="SIUnit">
        <Val>°C</Val>
      </DAI>
    </SDI>
  </DOI>
  <DOI name="humi">
    <SDI name="mag">
      <DAI name="f" desc="humidity"/>
    </SDI>
    <DAI name="dU">
      <Val>humidity</Val>
    </DAI>
    <SDI name="sVC">
      <DAI name="scaleFactor">
        <Val>1.0</Val>
      </DAI>
      <DAI name="offset">
        <Val>0.0</Val>
      </DAI>
    </SDI>
    <SDI name="units">
      <DAI name="SIUnit">
        <Val>H</Val>
      </DAI>
    </SDI>
  </DOI>
</LN>

```

(3) Finally, after placing the main.lua file and model.cfg file into the protocol converter and running them, these information can be read through the IEDScout debugging software as shown in the figure below:

IEDScout licensed to

File

Browser

Simulator

Sniffer

Open SCL

Save SCL

Discover IED

Close IED

Online

IED properties

Subscribe GOOSE

Simulate

Read

Read all

Write

Control

Clear indications

Enable

GI

Add DataSet

Setting Groups

Copy GOOSE

Navigation

Monitor

Details

Descriptions

Default layout

Browse layout

Show

IEDs

RtUD

IP address: 192.168.0.111

GOOSE

Reports

LD evRTU

LN LLN0

YC_RM01

Setting Groups

Files

DataSets

Data Model

LD evRTU

LN LLN0

LN GGIO1

RtUD • Data Model • evRTU • GGIO1

LN GGIO1 Generic process I/O

Name	Value
DO Mod	0
DO Beh	0
DO Health	0
DO NamPit	
DO temp	24.4 °C
DA mag	24.4 °C
DA q	good
DA t	1970/1/1 8:00:00.000
DA sVC	[CF]
DA scaleFactor	[CF] 1
DA offset	[CF] 0 °C
DA units	[CF] °C
DA dU	[DC] temperature
DO humi	62.5 H
DA mag	62.5 H
DA q	good
DA t	1970/1/1 8:00:00.000
DA sVC	[CF]
DA scaleFactor	[CF] 1
DA offset	[CF] 0 H
DA units	[CF] H
DA dU	[DC] humidity

Activity Monitor

RtuDevRTU/LLN0.YC_RM01

24.4

62.5

..U/GGIO1.temp.mag.f

..U/GGIO1.humi.mag.f

Polling: 1 s

100%

Errors