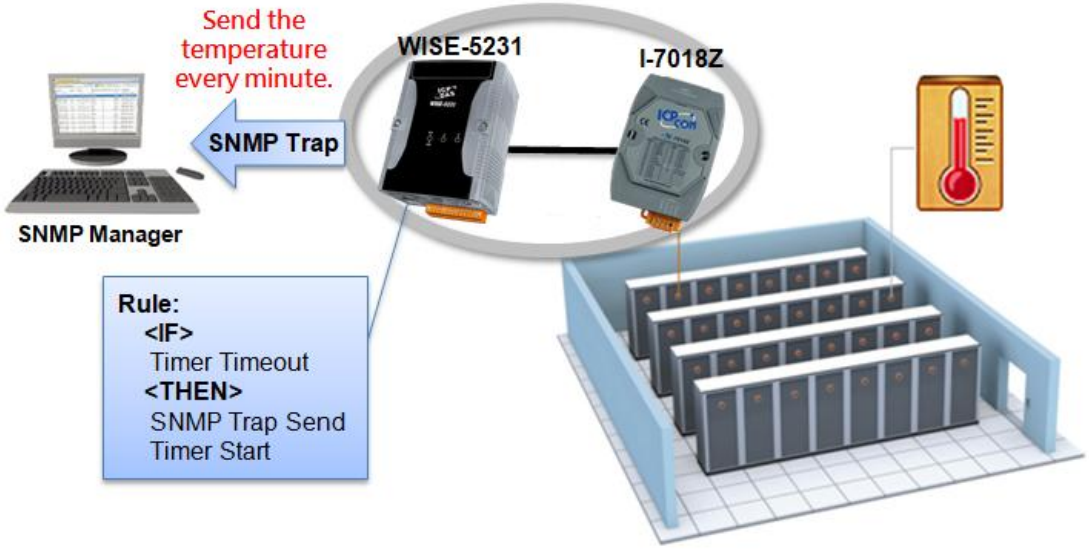
WISE-52xx SNMP

Application Example

- **Scenario：**

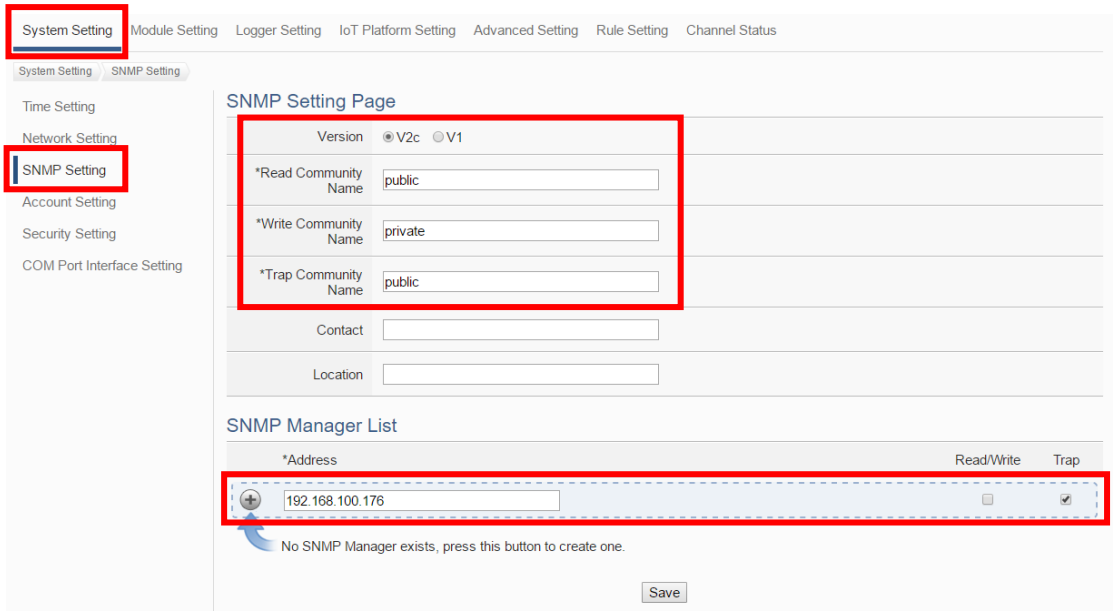
Assume an unmanned facility room equips a WISE-5231 controller for temperature monitoring. The temperature sensor is connected to the AI Channel 0 on an I-7018Z module that is connected to the WISE-5231 controller. In this monitoring system, it is required to send out a SNMP Trap to the back-end SNMP manager every minute to report the current temperature of the room for status monitoring and emergency response immediately.



- **Steps：**

1. In this case, we will demo how to perform the SNMP settings. About the I/O module setting, it will be skipped in this section.
   In this example, the I-7018Z module is connected to the WISE-5231's COM3, and the "Module No" is 2. In addition, please also complete a Timer setting with "Timer 1" for nickname, and "60 seconds" for Period.

2. Open the WISE WEB page and get into the “System Setting” page. On the System Setting page, click on “SNMP Setting” to get into the setting page and complete the setting as below.



   - SNMP Setting Page
     In the “Version” field, select “V2c”. Input the “public” string in the “Read Community Name” field. Input the “private” string in the “Write Community Name” field. Input the “public” string in the “Trap Community Name” field.

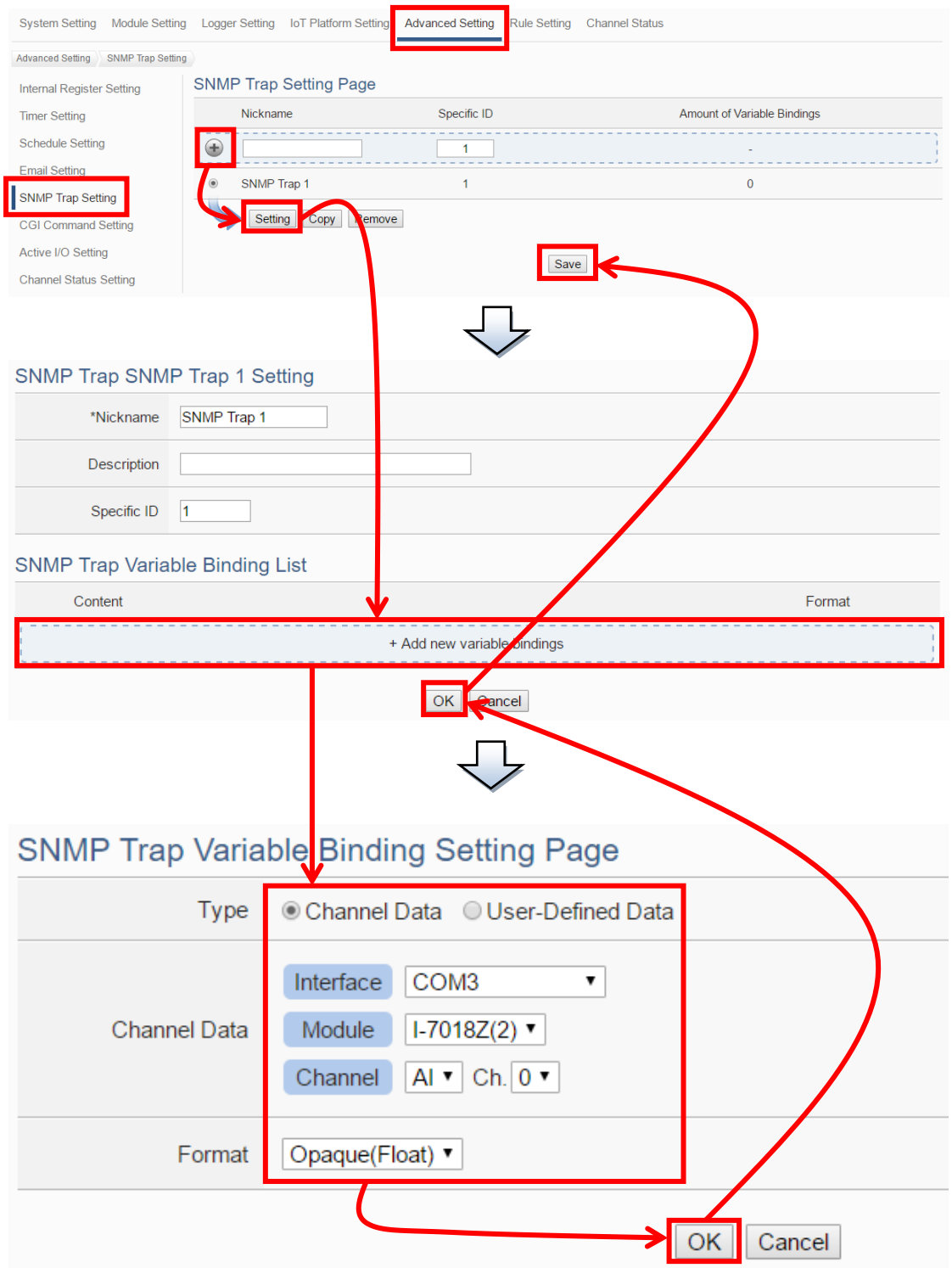
   - SNMP Manager List
     Set up the IP address or the domain name of the SNMP manager in “Address” field (the IP address 192.168.100.176 is used in this example) and click the “Trap” checkbox to enable the Trap function. After complete the setting, click ⊕ button to add the SNMP manager and click “Save” button to save changes.

※Please note:

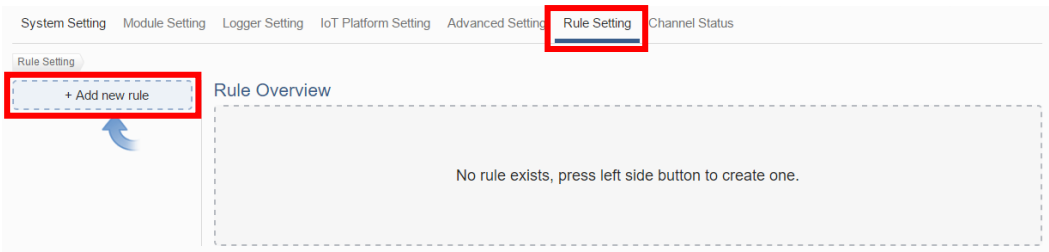
(1) If no “Read/Write” field on the list is enabled to accept the Read/Write commands, indicating that it will allow accepting the Read/Write commands from any SNMP Manager.

(2) If “Trap” field on the list is enabled, it means the WISE-52xx can actively send the SNMP Trap to the SNMP Manager based on the result of IF condition statement.

3. Go to the “Advanced Setting” page and click on “SNMP Trap Setting” to enter the SNMP Trap setting page. Input the “Nickname” and the “Specific ID” of the SNMP Trap, and then click button to create a new SNMP Trap setting. Click the “Setting” button to edit the SNMP Trap settings. In the SNMP Trap setting page, click “+ Add new variable bindings” and the Variable Binding Setting Page will appear. Select “Channel Data” in the “Type” field, and then select “COM3” in the “Interface” field, select “I-7018Z(2)” in the “Module” field and select “AI channel 0” in the “Channel” field. Click the “OK” button to return to the SNMP Trap Setting page, click the “OK” button again, and finally click the “Save” button to save the settings.

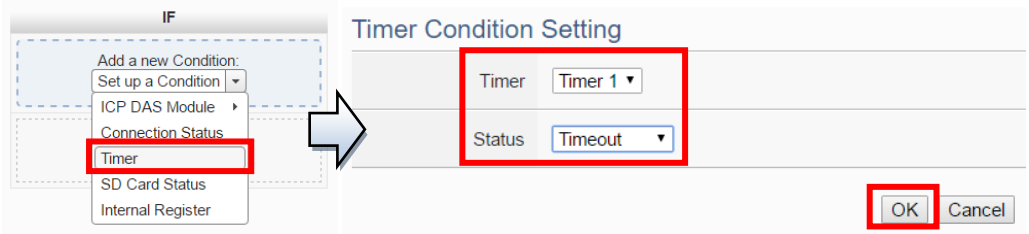

System Setting
Module Setting
Logger Setting
IoT Platform Setting
Advanced Setting
Rule Setting
Channel Status
Advanced Setting
SNMP Trap Setting
Internal Register Setting
Timer Setting
Schedule Setting
Email Setting
SNMP Trap Setting
CGI Command Setting
Active I/O Setting
Channel Status Setting
SNMP Trap Setting Page
Nickname
Specific ID
Amount of Variable Bindings
1
-
SNMP Trap 1
1
0
Setting
Copy
Remove
Save
SNMP Trap SNMP Trap 1 Setting
*Nickname
SNMP Trap 1
Description
Specific ID
1
SNMP Trap Variable Binding List
Content
Format
+ Add new variable bindings
OK
Cancel
SNMP Trap Variable Binding Setting Page
Type
Channel Data
User-Defined Data
Channel Data
Interface
COM3
Module
I-7018Z(2)
Channel
AI
Ch.
0
Format
Opaque(Float)
OK
Cancel

4. Go to the “Rule Setting” page and click “+ Add new rule” to create the logic rule.



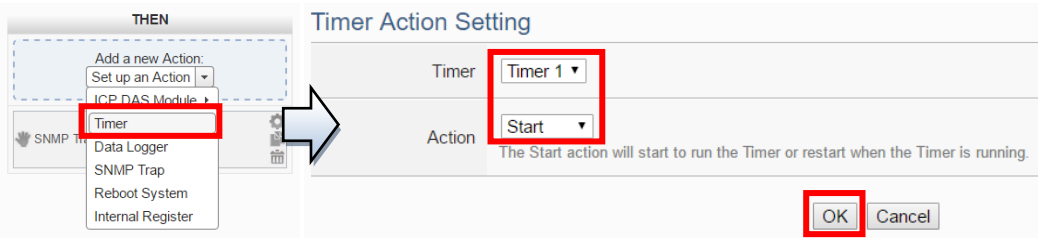
5. In this example, the temperature sensor is connected to the AI Channel 0 on an I-7018Z module, WISE-5231 will uses the SNMP Trap to send the real-time temperature value to SNMP manager every minute. The setting steps of the rule is as below:

- IF Condition Setting: Select “Timer” from the dropdown list to enter the “Timer Condition Setting” page. Select “Timer 1” in the “Timer” field and “Timeout” in the “Status” field, and then click the “OK” button to confirm the settings and return to the Rule 1 setting page. (In this example, the time period of Timer 1 is 60 seconds.)

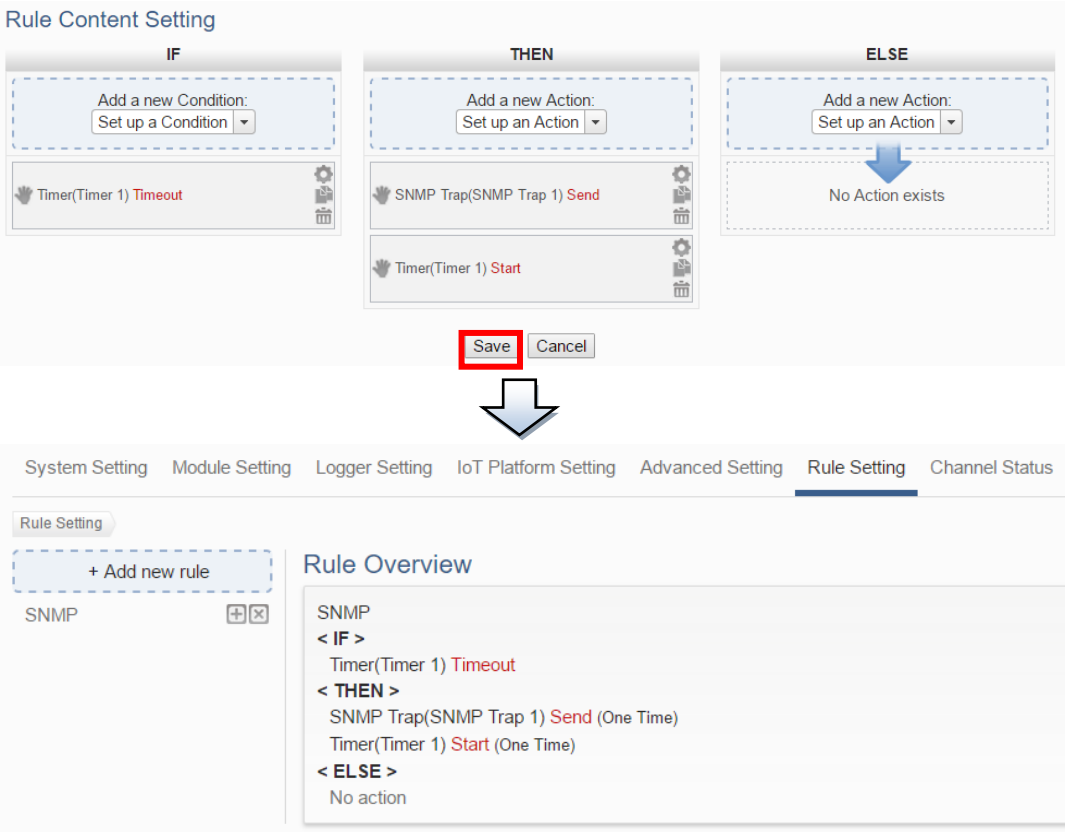


- THEN Action setting:
  (1) Select “SNMP Trap” from the dropdown list to enter the “SNMP Trap Action Setting” page. Select the “Trap” name from the dropdown list and confirm the “SNMP Trap Information”. After finish the setting, click “OK” button to confirm the settings and return to the Rule 1 setting page.

(2) Select “Timer” from the dropdown list to enter the “Timer Action Setting” page. Select “Timer 1” in the “Timer” field and select “Start” (It will restart the Timer) in the “Action” field. Click “OK” button to confirm the settings and return to the Rule 1 setting page.



6. After complete the rule setting, click the “Save” button to save the setting and confirm it in the “Rule Overview” page.



7. Click the  “Save” button on the right upper of WISE-5231 Web page to save all parameter settings and Rule settings to WISE-5231. After the save operation, now the WISE-5231 will start to run the rules that have been downloaded.