MODBUS
Trigger & Action Service
(MODBUS TAS)

Web Admin User Guide

FlexWATCH® Powered by Seyeon tech

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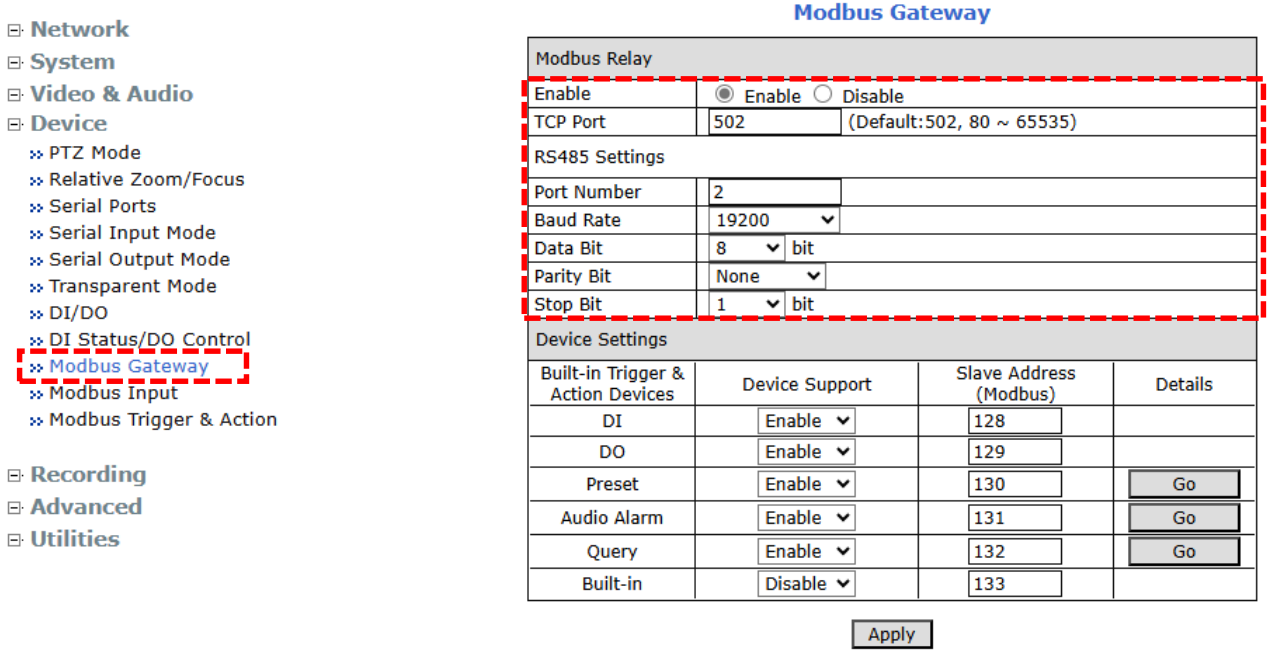
Modbus Gateway - Service Activate



If Modbus Relay is enabled, Modbus Gateway service is activated.

Connection is possible by setting TCP Port and RS-485 connection information.

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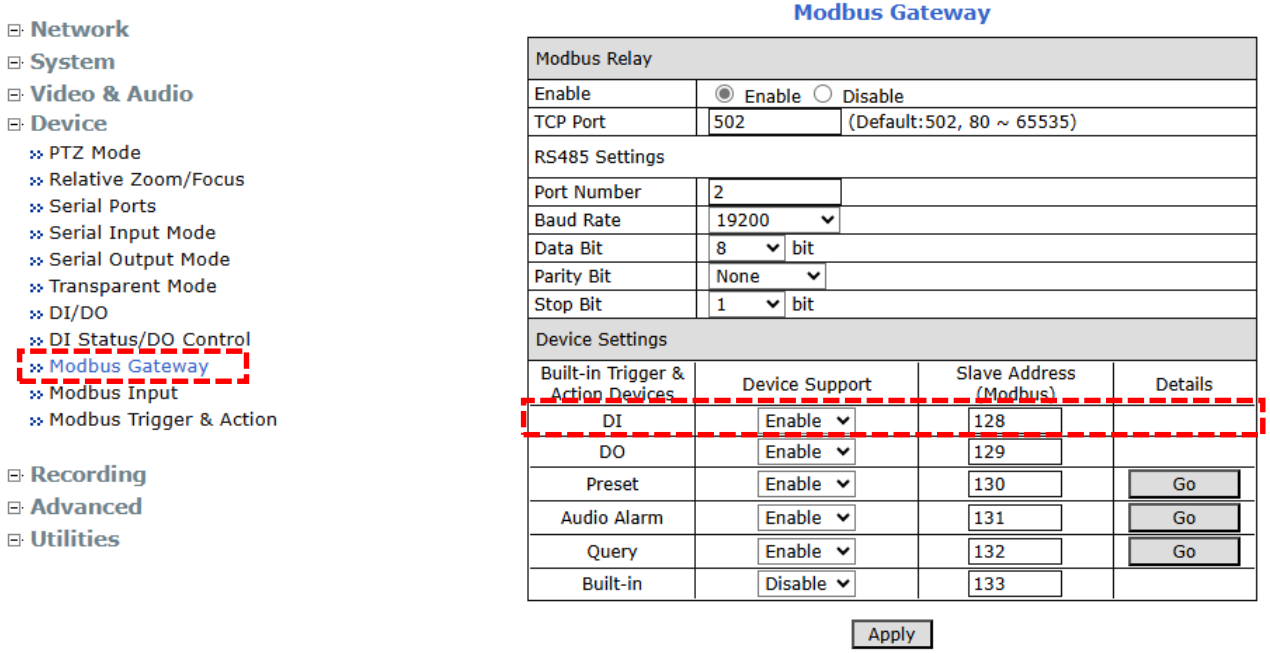
Modbus Gateway - DI



Device Support : Enable
Slave Address : 128 (Default)

The DI function of Modbus Gateway is activated,
and DI status can be checked through Modbus Gateway.

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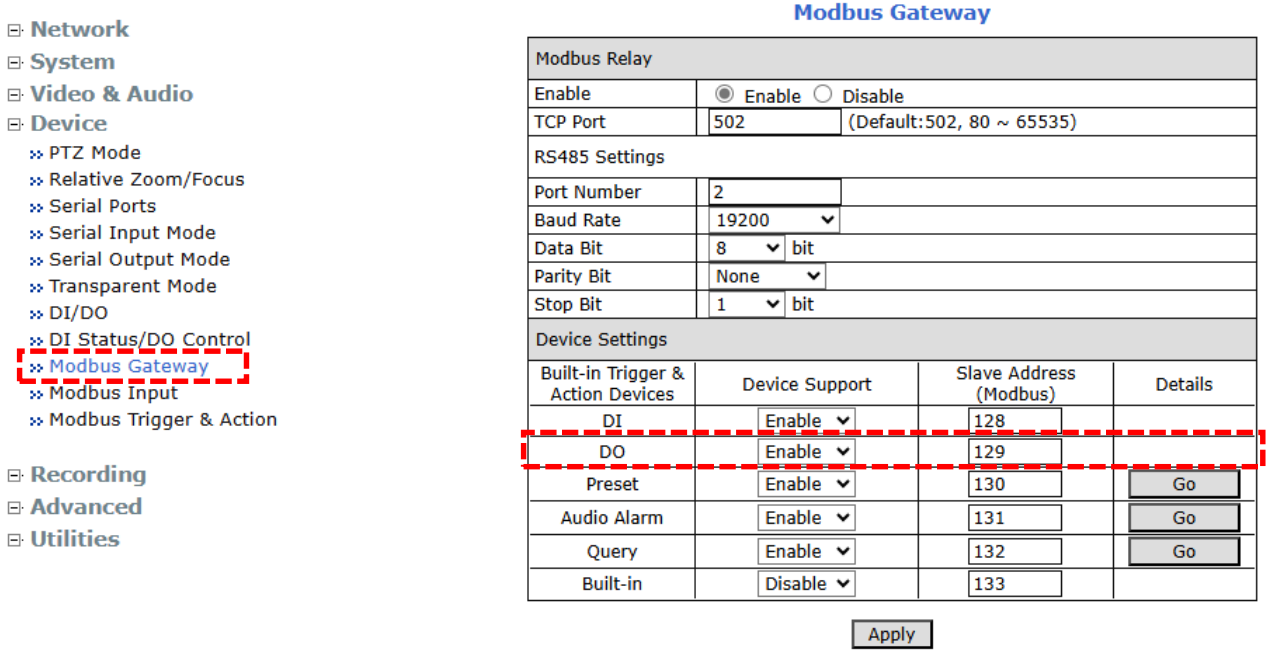
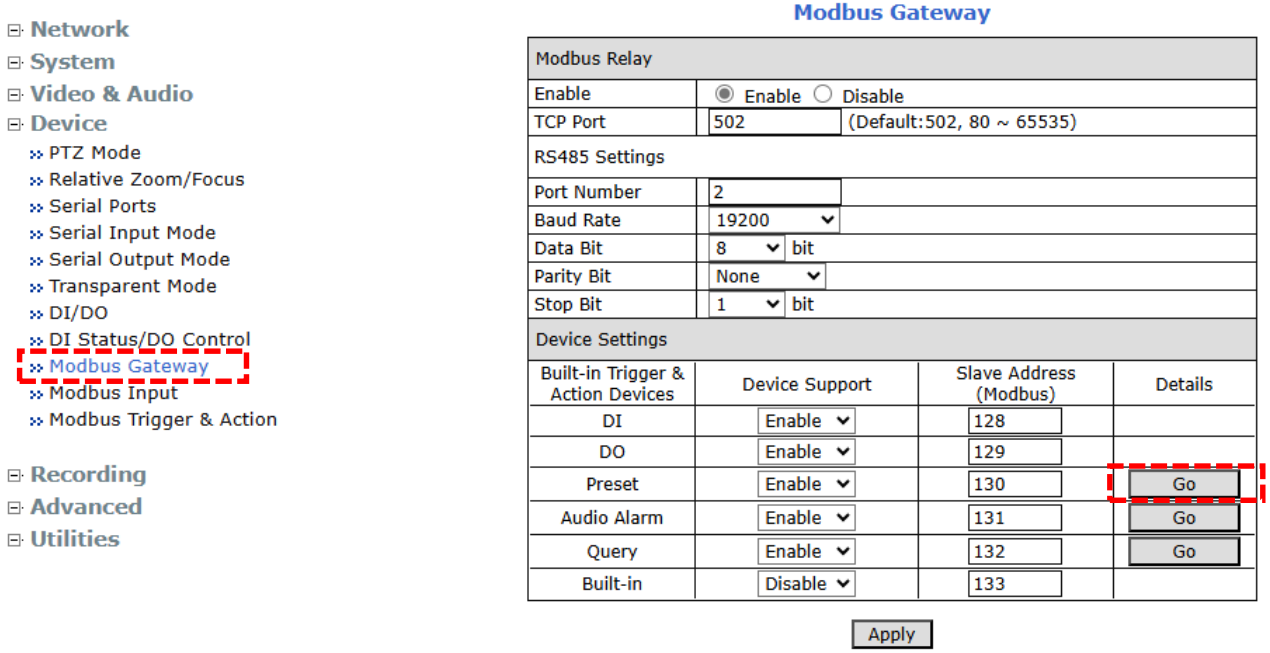
Modbus Gateway - DO



Device Support : Enable
Slave Address : 129 (Default)

The DO function of Modbus Gateway is activated,
and DO ON/OFF control is possible through Modbus Gateway.

Modbus Gateway - Preset ①



Device Support : Enable
Slave Address : 130 (Default)

The Preset function of Modbus Gateway is activated,
and Preset control is possible through Modbus Gateway.

Click the GO button to move to the detailed settings page.

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Modbus Gateway - Preset ②

Modbus Preset

No.	Enable	Protocol	IP	Port	ID	Password
1	Enable	HTTP	127.0.0.1	80	root	••••
2	Disable	HTTP	127.0.0.1	80	root	••••
3	Disable	HTTP	127.0.0.1	80	root	••••
4	Disable	HTTP	127.0.0.1	80	root	••••
5	Disable	HTTP	127.0.0.1	80	root	••••
6	Disable	HTTP	127.0.0.1	80	root	••••
7	Disable	HTTP	127.0.0.1	80	root	••••
8	Disable	HTTP	127.0.0.1	80	root	••••

Back Apply

Enable : Enable
Other settings: Target Camera information

Click the Back button will return to the Modbus Gateway menu.

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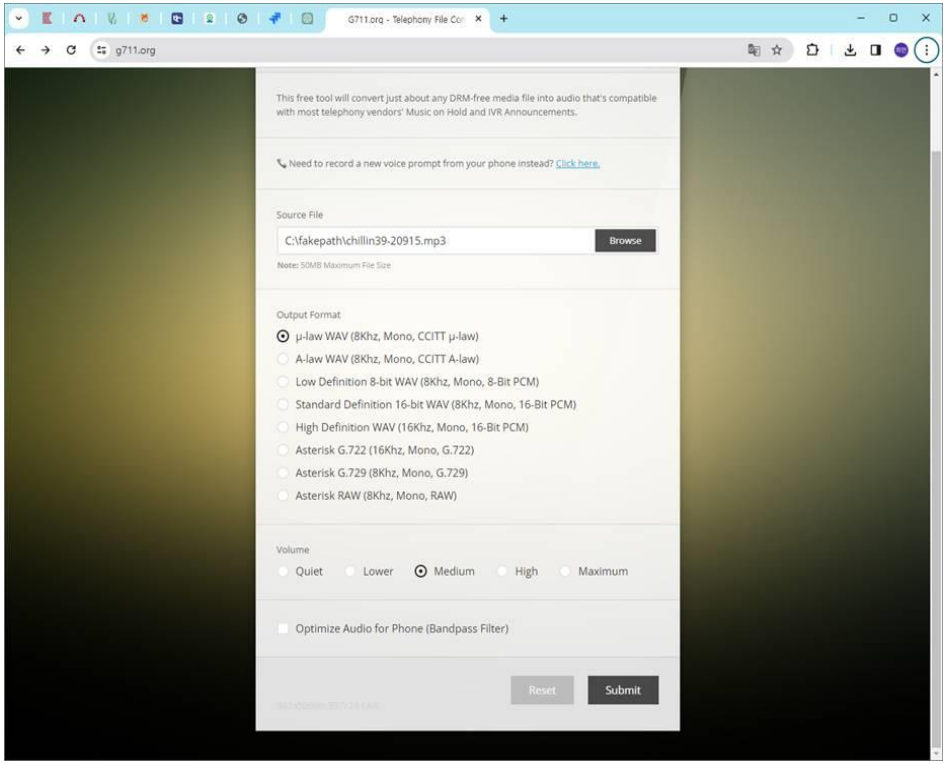
Modbus Gateway - Audio Alarm ①



This requires preparing a sound source file in G.711 μ-law format.

Go to https://g711.org and convert the sound source to be used to μ-law WAV (8Khz, Mono, CCITT μ-law) format and then download it.

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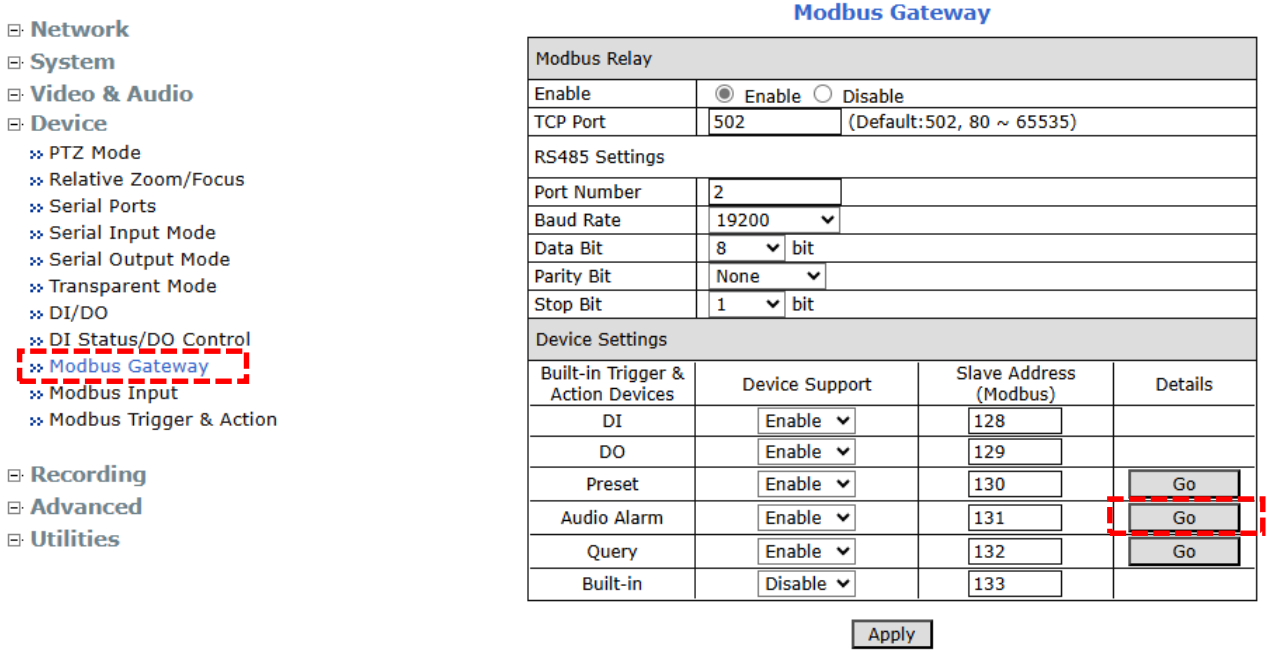
Modbus Gateway - Audio Alarm ②



Device Support : Enable
Slave Address : 131 (Default)

The Audio Alarm function of Modbus Gateway is activated, and Audio Alarm control is possible through Modbus Gateway.

Click the GO button to go to the detailed settings page.

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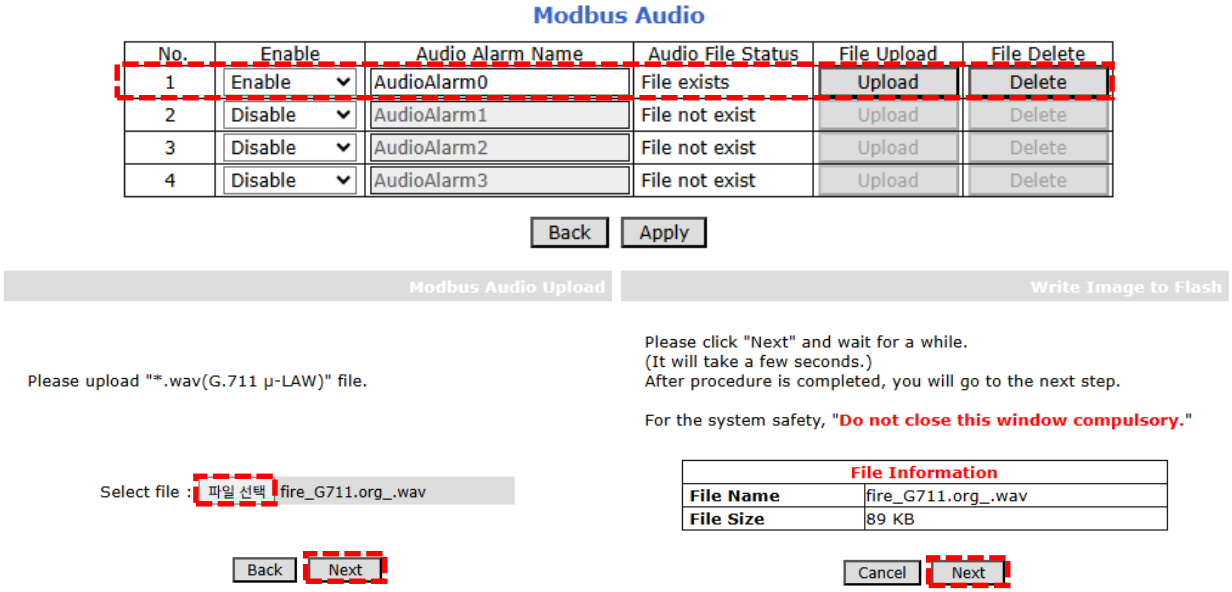
Modbus Gateway - Audio Alarm ③



Enable : Enable

Audio Alarm Name : (Alarm Name)

After click the Upload button, select the audio file and upload it.

Click the Back button will return to the Modbus Gateway menu.

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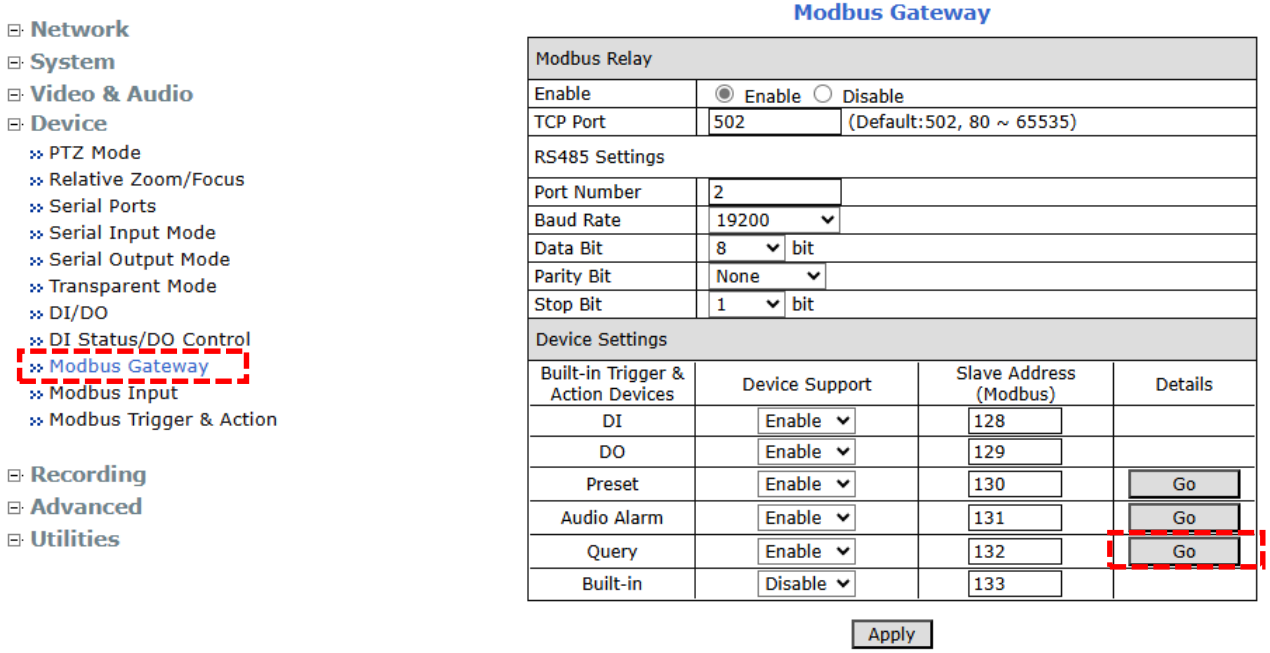
Modbus Gateway - Query ①



Device Support : Enable
Slave Address : 132 (Default)

The Query function of Modbus Gateway is activated,
and query control becomes possible through Modbus Gateway.

Click the GO button to go to the detailed settings page.

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Modbus Gateway - Query ②

Modbus Query

No.	Enable	Protocol	IP	Port	ID	Password	Query
1	Enable	HTTP	127.0.0.1	80	root	••••	/cgi-bin/admin/fwcamctlset.cgi?Td
2	Enable	HTTP	127.0.0.1	80	root	••••	/cgi-bin/admin/fwcamctlset.cgi?Td
3	Disable	HTTP	127.0.0.1	80	root	••••	
4	Disable	HTTP	127.0.0.1	80	root	••••	
5	Disable	HTTP	127.0.0.1	80	root	••••	
6	Disable	HTTP	127.0.0.1	80	root	••••	
7	Disable	HTTP	127.0.0.1	80	root	••••	
8	Disable	HTTP	127.0.0.1	80	root	••••	

Back Apply

Enable : Enable
Other settings: Information about the Target sending the Query
Query : Query URL of the API/CGI, etc. that you want to operate on

Click the Back button will return to the Modbus Gateway menu.

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Modbus Gateway - Function Information

		Slave Address	Function Code	Start Address	Length(Value)
DI	Read	0x80(128)	(01) Read Coil Status (02) Read Input Status (03) Read Holding Register (04) Read Input Register	0x00	0x01 (DI Status)
DO	Write/Run	0x81(129)	(05) Write Single Coil (06) Write Single Register	0x00	0x00, 0xFF(255) (DO Off/On)
Preset	Write/Run	0x82(130)	(05) Write Single Coil (06) Write Single Register	0x00~0x07 (Preset Number)	0x00~0xFF(255) (Camera Preset Number)
Audio Alarm	Write/Run	0x83(131)	(05) Write Single Coil (06) Write Single Register	0x00~0x03 (Alarm Number)	0x00
Query	Write/Run	0x84(132)	(05) Write Single Coil (06) Write Single Register	0x00~0x07 (Query Number)	0x00

Modbus Function Information for FlexWATCH Camera Operations Supported by Modbus Gateway

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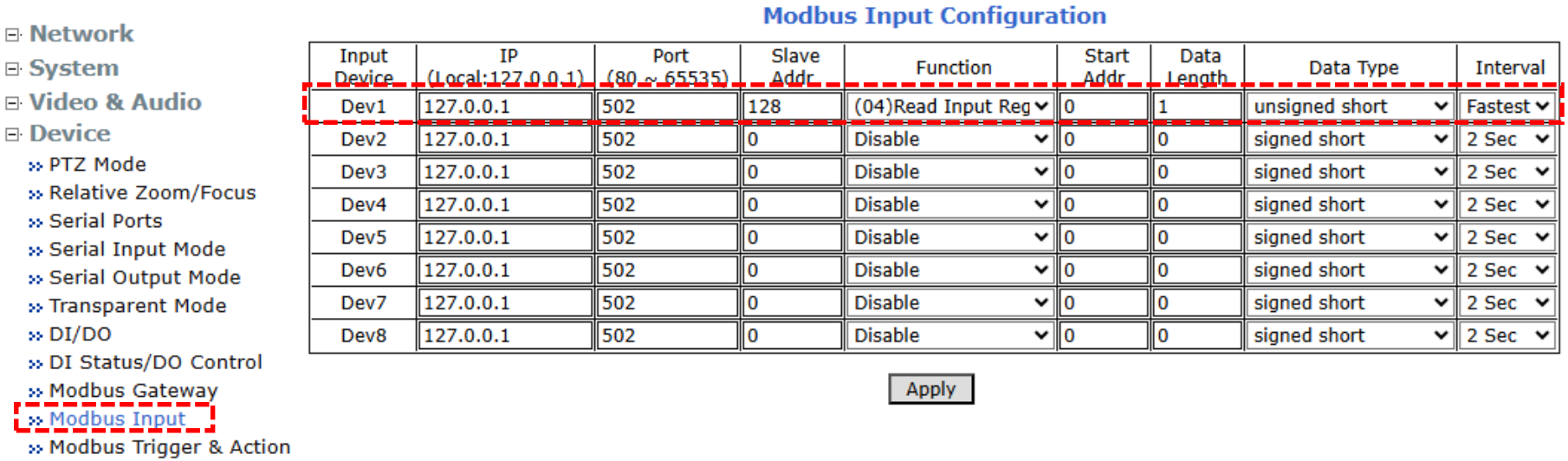
Modbus Input - Example ① : DI / DO ①



DI(128)/DO(129) Set by referring to Modbus Function information.
Read the status information of DI and DO (or Alarm Output).

No problem in reading the status information even if do not set the OSD.

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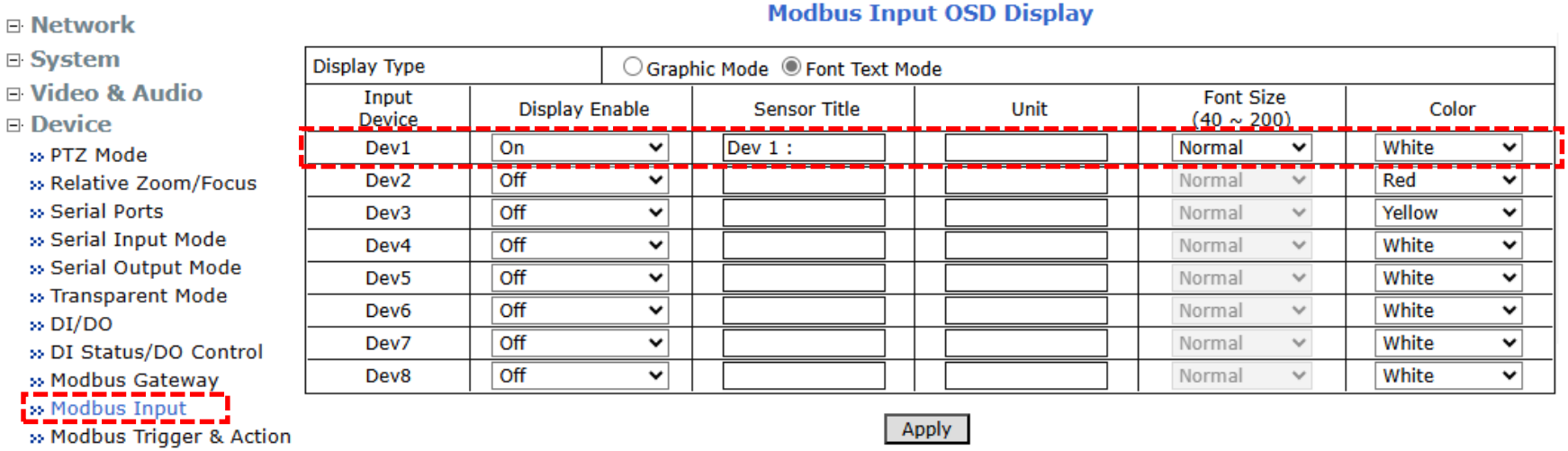
Modbus Input - Example ① : DI / DO ②



Set Display Type to Font Text Mode and turn Display Enable On
Sensor Title/Unit is displayed before/after the read status value.

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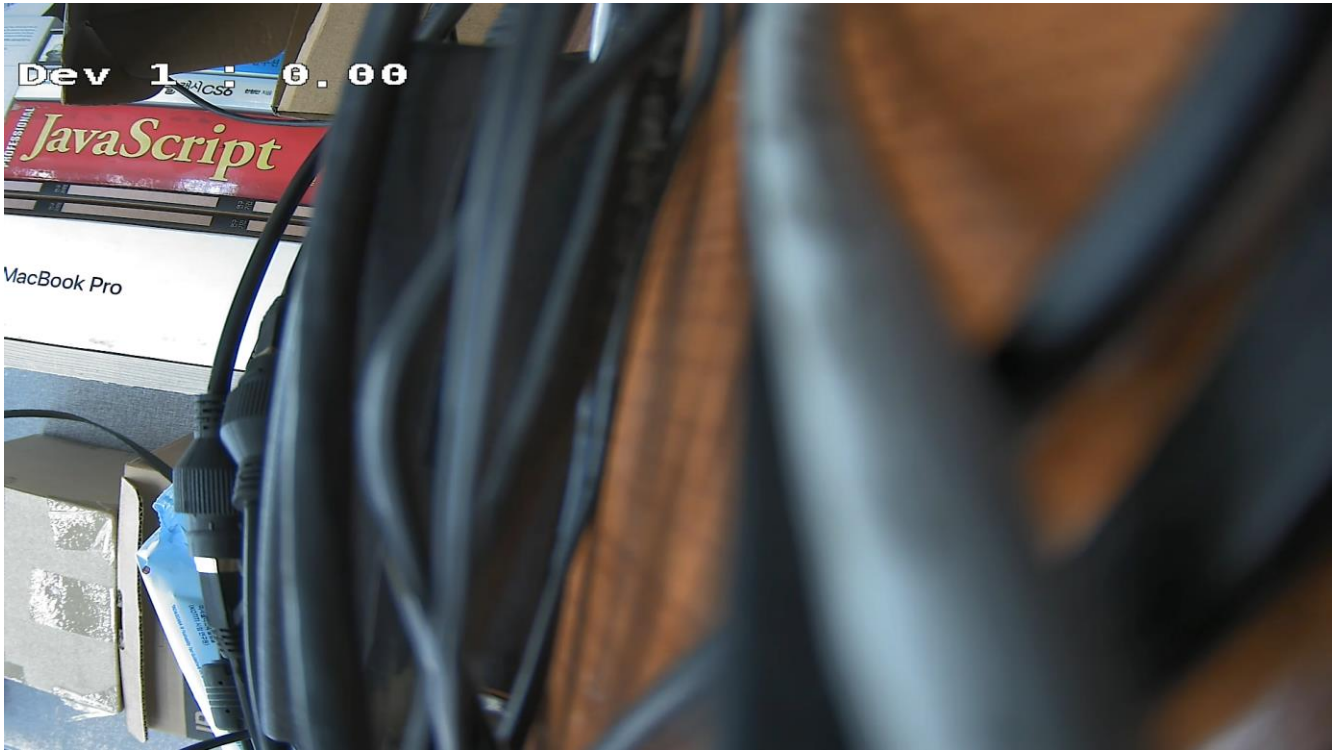
Modbus Input - Example ① : DI / DO ③



When OSD settings are made,
the DI/DO status information of the Modbus Gateway is displayed on the video.

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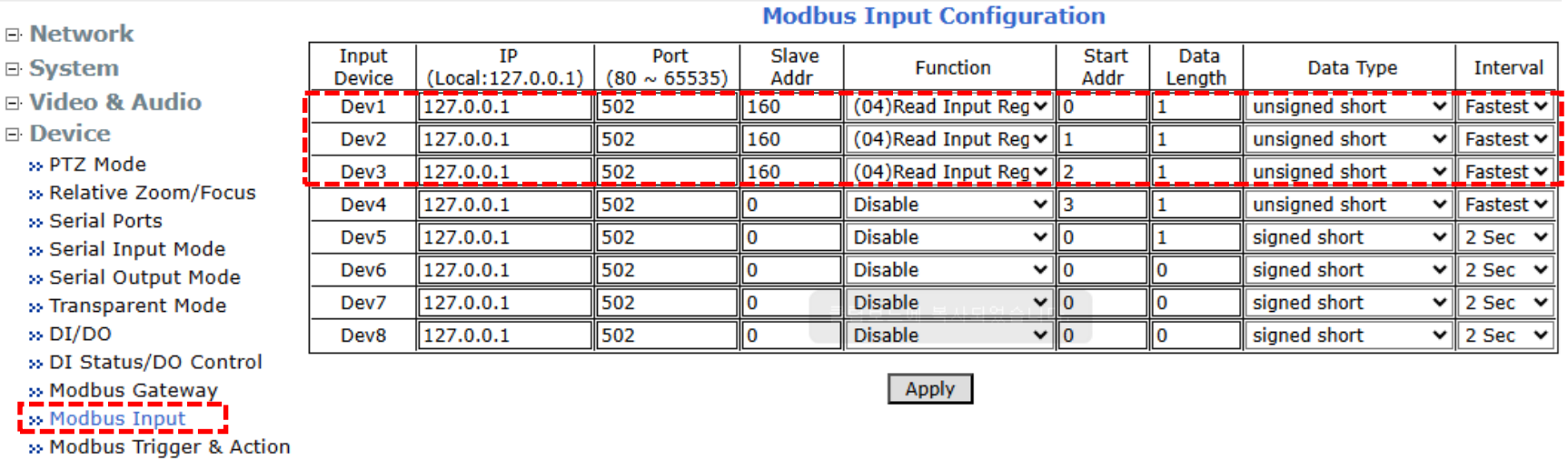
Modbus Input - Example ② : Fire Detection Sensor ①



Set up by referring to the fire detection sensor (160) Modbus Function information

(Information on fire detection sensor is provided on the following pages)

Read the status information of the sensor (CO2, flame size, temperature).

No problem in reading the status information even if do not set the OSD.

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Modbus Input - Example ② : Fire Detection Sensor ②

Port Number	Baudrate	Data Bit	Parity	Stop Bit
2	19200 (Early HW Board : 9600)	8	None	1bit

	Slave Address	Function Code	Start Address	Length
CO2	0xA0(160)	(04) Read Input Register	0x00	0x01
Flame Size	0xA0(160)	(04) Read Input Register	0x01	0x01
Temperature	0xA0(160)	(04) Read Input Register	0x02	0x01

RS-485 information and Modbus Function information of the fire detection sensor

The early model's Baudrate is 9600, and currently uses 19200

Up to 4 units can be connected in parallel, and the Slave Address can be adjusted with a dip switch

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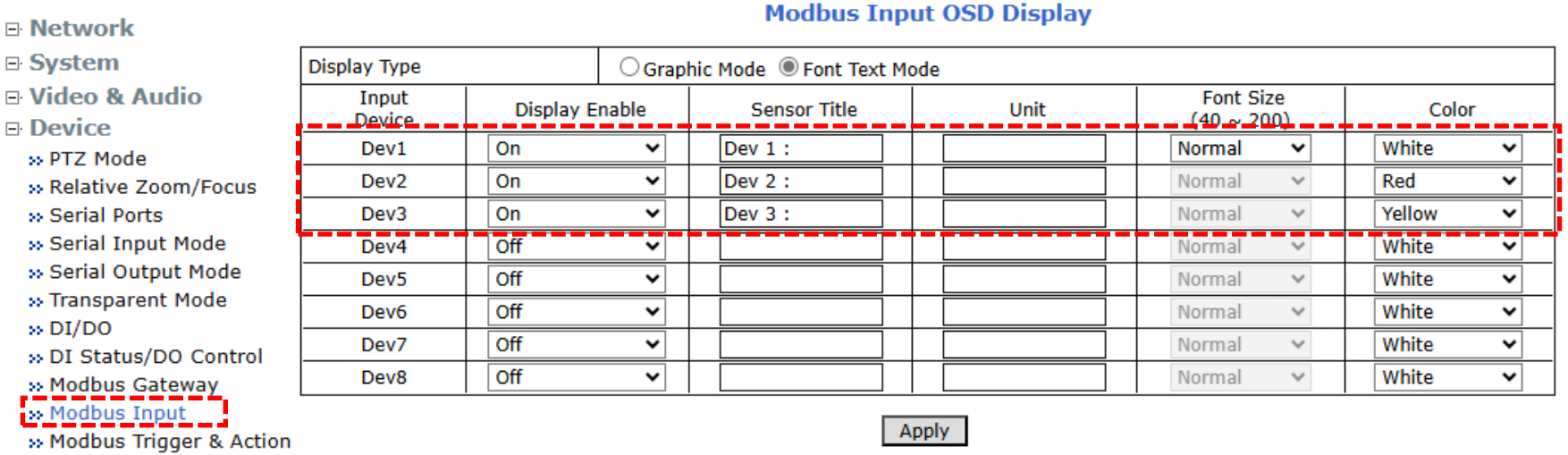
Modbus Input - Example ② : Fire Detection Sensor ③



Set Display Type to Font Text Mode and turn Display Enable On
Sensor Title/Unit is displayed before/after the read status value.

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Modbus Input - Example ② : Fire Detection Sensor ④

When OSD settings are made,
the CO2, flame size, and temperature status information of
the fire detection sensor are displayed on the video.

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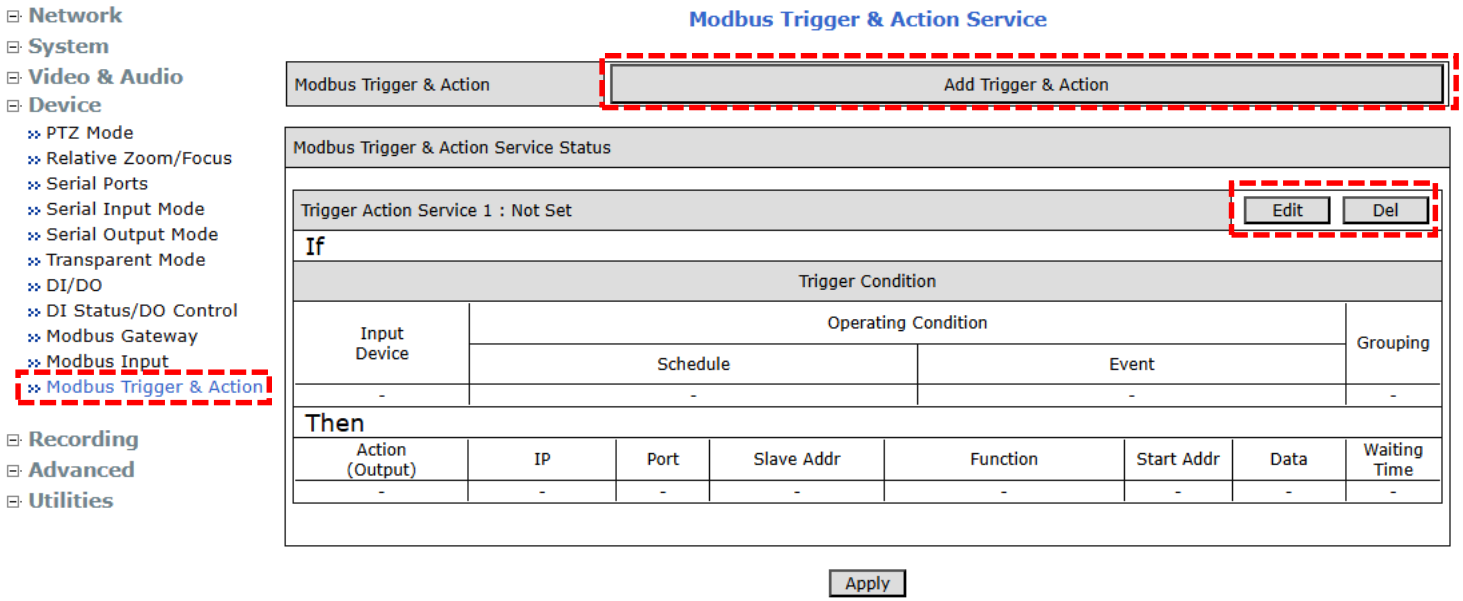
Modbus TAS - Service Activate ①



Add a schedule with the Add Trigger & Action button

Enter the service settings by click the Edit button

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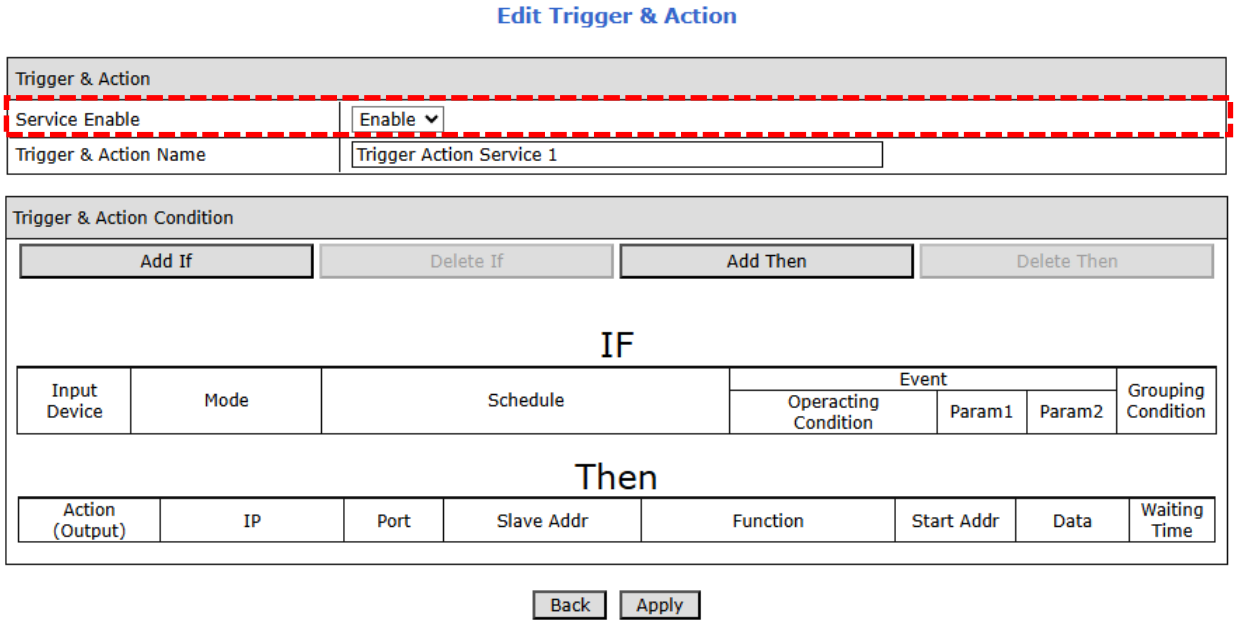
Modbus TAS - Service Activate ②



Start the service by enabling the Service Enable item.
If do not want to use the service, change it to Disable.

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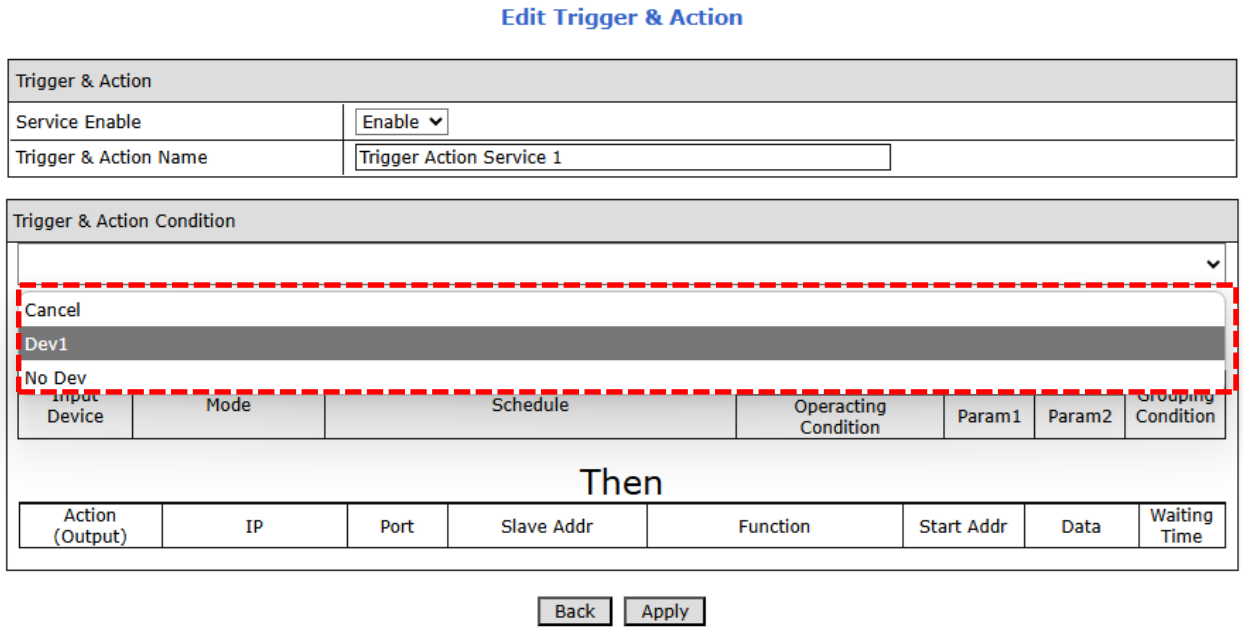
Modbus TAS - IF (Trigger) Setting ①



Select the device, entered from the Modbus Input menu.
Even if select No Dev, still set the camera's DI as a Trigger.

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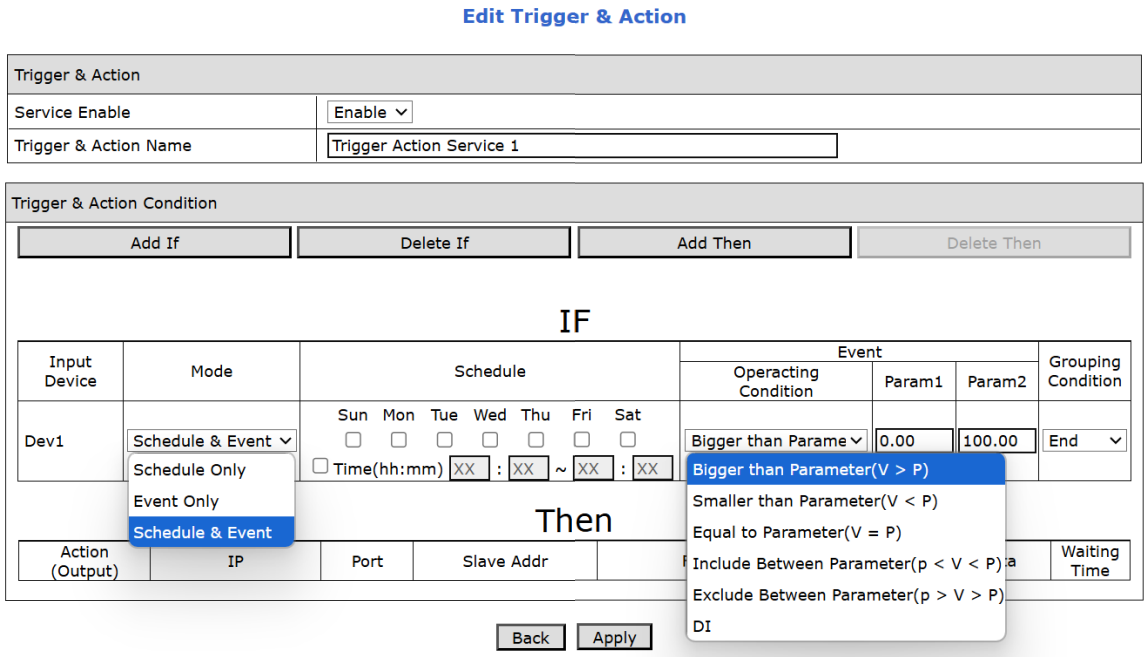
Modbus TAS - IF (Trigger) Setting ②



Trigger by setting specific event conditions or setting a fixed time.
Also It can set up a combination of events and schedules.

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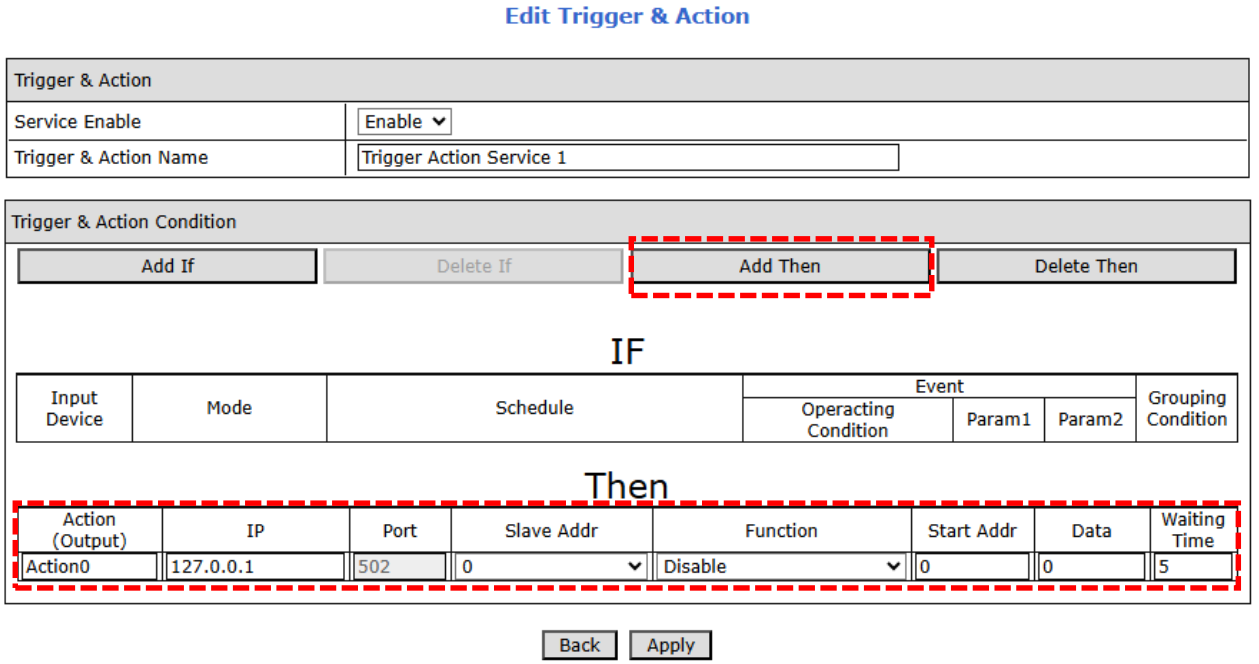
Modbus TAS - Then (Action) Setting ①



Add Then (Action) action by clicking Add Then button.

In Then (Action), set the action (Write/Run) of Modbus Device.

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Modbus TAS - Then (Action) Setting ②

	Slave Address	Function Code	Start Address	Length(Value)
DO	0x81(129)	(05) Write Single Coil (06) Write Single Register	0x00	0x00, 0xFF(255) (DO Off/On)
Preset	0x82(130)	(05) Write Single Coil (06) Write Single Register	0x00~0x07 (Preset Number)	0x00~0xFF(255) (Camera Preset Number)
Audio Alarm	0x83(131)	(05) Write Single Coil (06) Write Single Register	0x00~0x03 (Alarm Number)	0x00
Query	0x84(132)	(05) Write Single Coil (06) Write Single Register	0x00~0x07 (Query Number)	0x00

To use Modbus Gateway as an Action, must enable the Device Support setting of Modbus Gateway.

In the case of Audio Alarm, must upload the sound source to the Target Camera.

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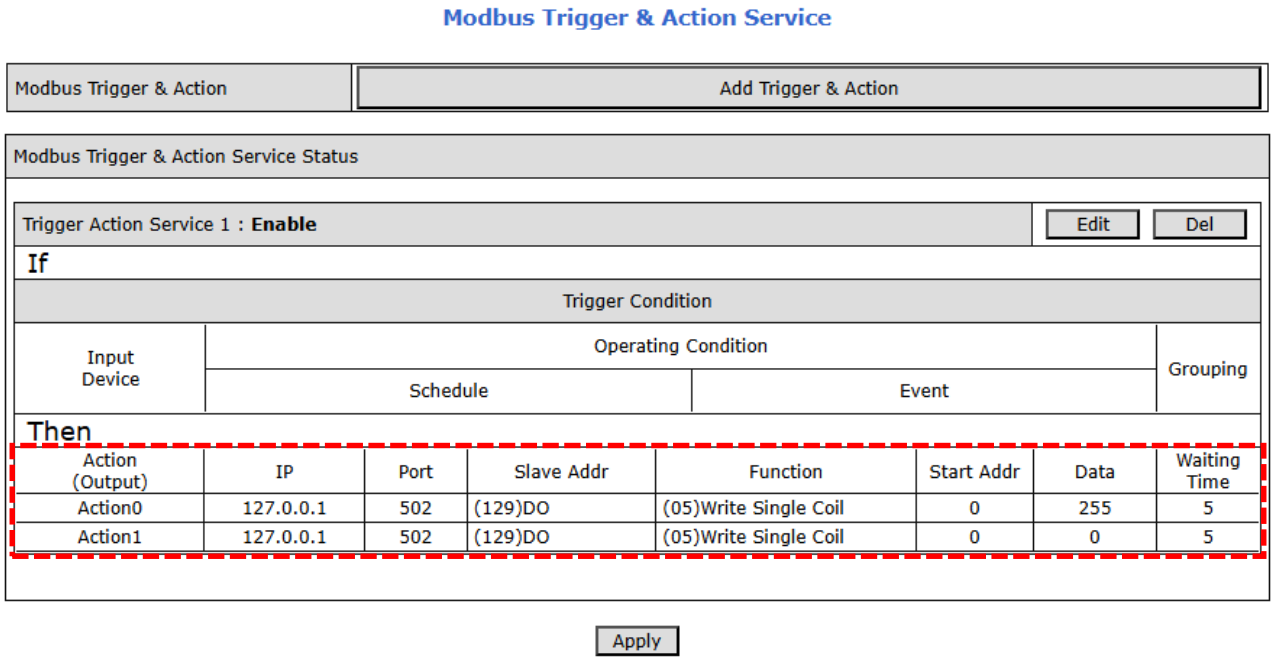
Modbus TAS - Then (Action) Setting ③



In the case of DO, if ON Action is executed, the Target Device will remain ON.

Add OFF Action to turn it off after a certain period of time, or add Trigger & Action to perform OFF Action when the opposite condition is met.

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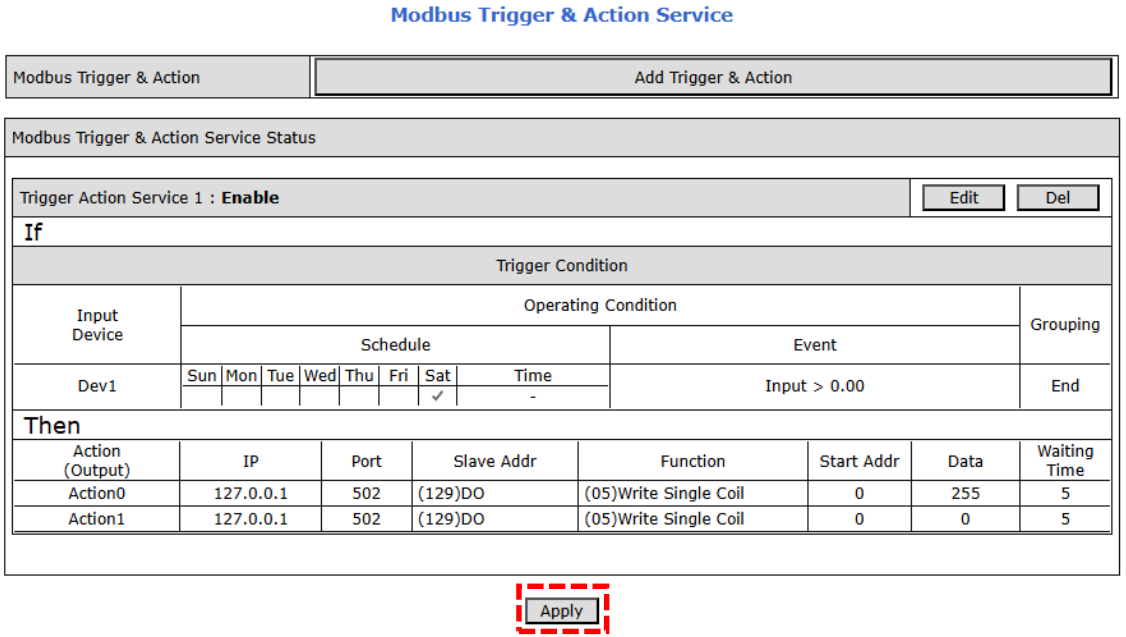
Modbus TAS - Then (Action) Setting ④



Once the settings are complete,
click the Apply button to apply the service.

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Thank You

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