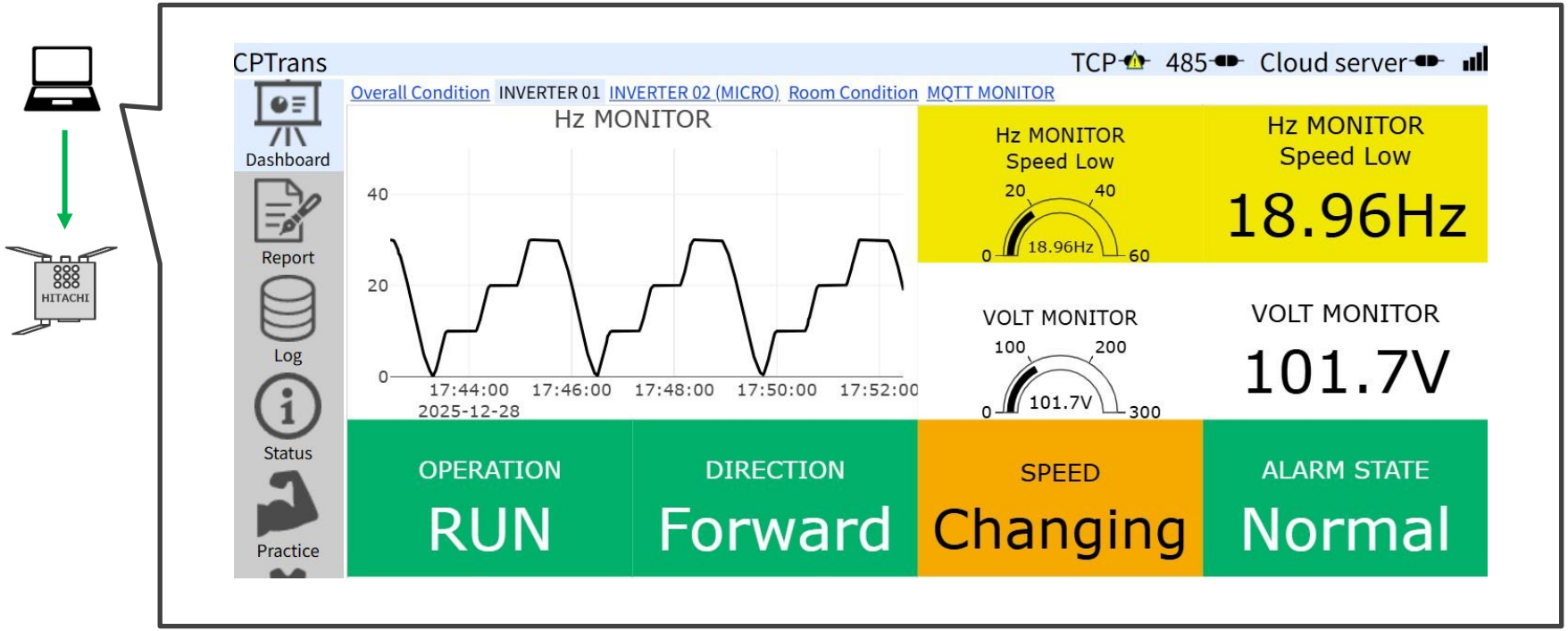
1. System Structure

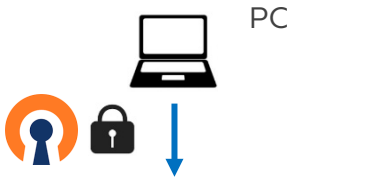
Prepare dashboard structure as per below design.
请按以下设计构建用于远程监控的仪表板画面。



1. System Structure

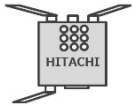
Following shows network structure which explain what network setting made on each device.
以下说明通信构建的概要。将列出各组成部件本次是以何种设置进行连接的。

Open Internet + VPN Protection
通过互联网使用VPN加密的情况



PC

CPTrans
WAN IP: Fixed IP (from MNO)
LAN IP: 172.168.0.1
SM: 255.255.255.128

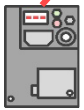


CPTrans

RS485 serial comm

WJ-C1 (Modbus-RTU Slave No.1)

Baud Rate: 9600
Parity: None
Stop Bit: 1bit
Unit ID: 1

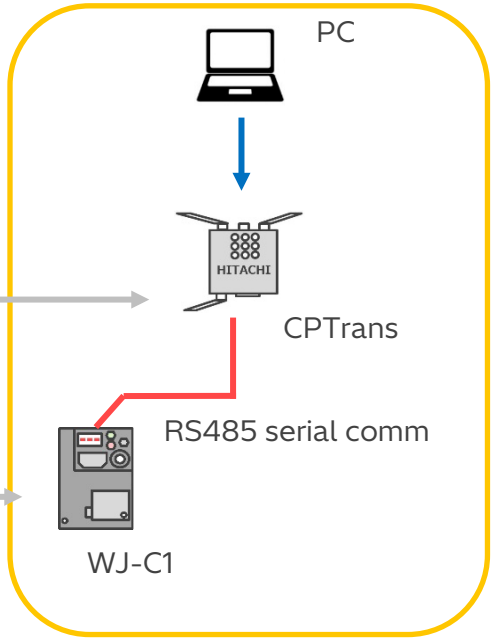


WJ-C1

1. System Structure

Following shows network structure which explain what network setting made on each device.
以下说明通信构建的概要。将列出各组成部件本次是以何种设置进行连接的。

Closed Network Connection
使用封闭网络（专网）的情况



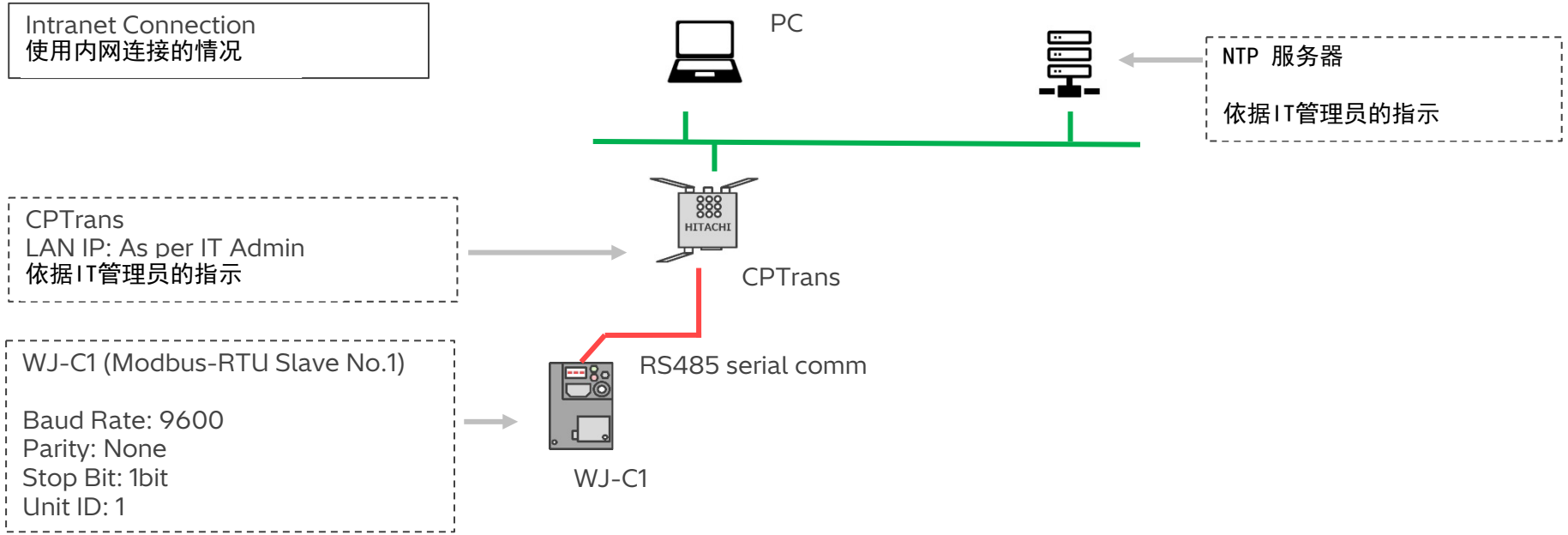
CPTrans
WAN IP: Fixed IP (from MNO)

WJ-C1 (Modbus-RTU Slave No.1)

Baud Rate: 9600
Parity: None
Stop Bit: 1bit
Unit ID: 1

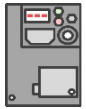
1. System Structure

Following shows network structure which explain what network setting made on each device.
以下说明通信构建的概要。将列出各组成部件本次是以何种设置进行连接的。

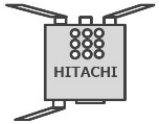


2. Setup

Setup will be done in following steps.
请按以下顺序逐步进行设置。



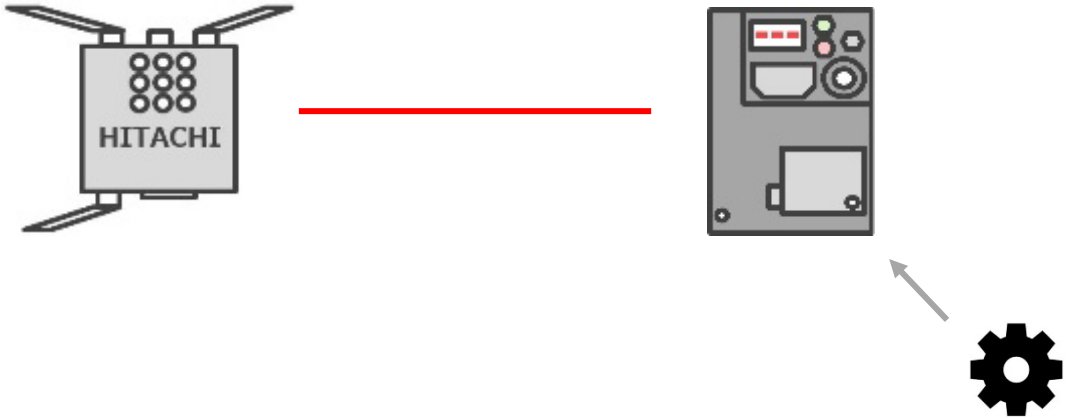
Inverter parameter setting
设置变频器的参数



CPTrans Remote APP setting
设置CPTrans的远程监控应用

2. Setup (WJ-C1)

Set up WJ-C1 for this time's lecture.
本次将针对培训用途对WJ-C1进行设置。



2. Setup (WJ-C1)

Kindly set up WJ-C1 serial communication parameter as per following setup
请将WJ-C1的通信相关参数按如下设置

AA101 (Speed ref) 07 (From Inverter operator)
AA111 (RUN ref) 00 (From Terminal)
*Please set appropriate setting following to your use.

CF-01 (Baud rate) 05 (9600bps)
CF-02 (Unit ID) 001
CF-03 (Parity setting) 00 (No Parity)
CF-04 (Stop bit setting) 01 (Stop bit 1bit)

[Option]
CF-05 (Comm ERR set) 02 (Ignore Comm ERR)
CF-06 (Comm Time out) 0.00 (No Time out)
CF-08 (Protocol setting) 00 (Modbus-RTU)

■Modbus 通信関連パラメータ

コード	項目	内容	データ
[AA101]	主速指令選択	Modbus 通信に設定	08
[AA111]	運転指令選択	Modbus 通信に設定	03
[CC-01] [CC-02] [CC-07]	出力端子機能選択	通信断線[NDc]： 通信異常発生時、本信号が ON します。	049
[CF-01]	通信伝送速度選択 (ボーレート選択)	通信伝送速度を設定します。	03 (2400 bps) 04 (4800 bps) 05 (9600 bps) 06 (19.2 kbps) 07 (38.4 kbps) 08 (57.6 kbps) 09 (76.8 kbps) 10 (115.2 kbps)
[CF-02]	通信局番選択	インバータの局番を割り付けます。	1～247
[CF-03]	通信パリティ選択	パリティ無し	00
		偶数パリティ	01
		奇数パリティ	02
[CF-04]	通信ストップビット選択	1 ビット	01
		2 ビット	02

2. Setup (WJ-C1 - Option)

If download EzSQ program sample to WJ-C1, it will auto operate in 10Hz-50Hz.
安装本次试验提供的EzSQ参数后，将自动在10 – 50Hz之间变化运行。

UE-01 (EzSQ Cycle) 00 (Operate in 1ms/step)
UE-02 (EzSQ Operation) 02 (Always RUN)

<Provided program>
If UE-10 = 1 then start auto operating by automatically changing output speed as 10-50Hz range.
If UE-10 = 0 then stop and return speed setting & RUN/STOP setting as original setting.

＜关于EzSQ程序的内容＞
UE-10参数被设为1时，输出频率将在10 – 50Hz范围内增减并自动开始运转。

UE-10参数被设为0时，在恢复至停止状态后，频率指令源与RUN指令源将恢复为原设置。

UE-01	EzSQ 実行周期	00:1ms 01:2ms	01	×	47E1h	0～1	1	12-2-2
UE-02	EzSQ 機能選択	00: 無効 01: [PRG]端子 02: 常時 03: デバッグ	00	○	47E2h	0～3	1	12-2-2 12-2-6
UE-03	EzSQ プログラム続行選択	00: トリップ時プログラム再起動 01: トリップ時プログラム継続	00	○	47E3h	0～1	1	12-2-4
UE-10	EzSQ ユーザパラメータ U(00)	0～65535	0	○	47EAh	0～65535	1	12-2-2

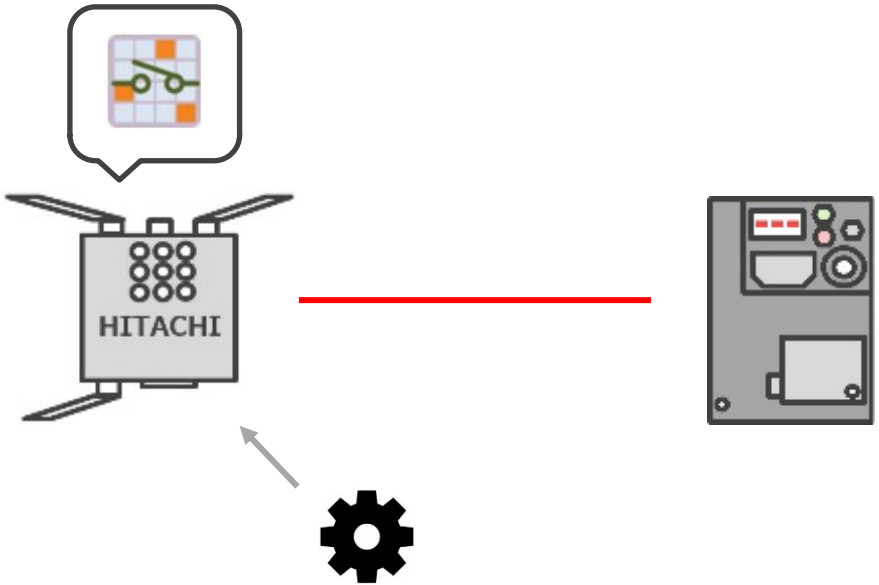
*) Hitachi ProDriveNext software is required to install EzSQ program.
**) For EzSQ program lecture, kindly contact separately to nearest Hitachi sales team.

安装EzSQ需要日立ProDriveNext软件。

关于EzSQ的程序培训，请另行咨询就近的日立营业人员。

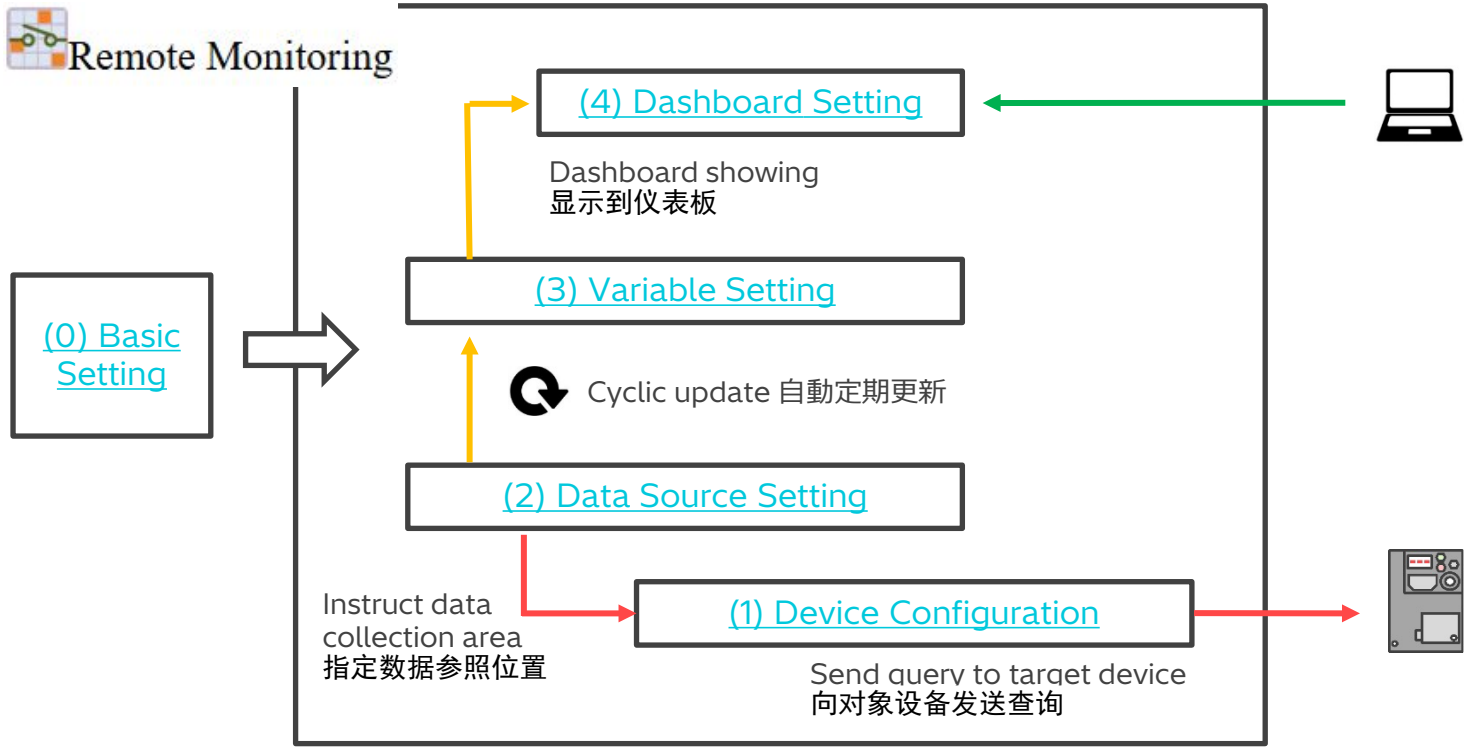
2. Setup (Remote APP)

Set up CPTrans / Remote APP for this time's lecture.
本次将针对培训用途对CPTrans进行设置。



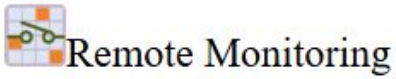
2. Setup (Remote APP)

Following shows system structure which explain what Remote APP is doing.
以下说明远程监控应用的操作概要。

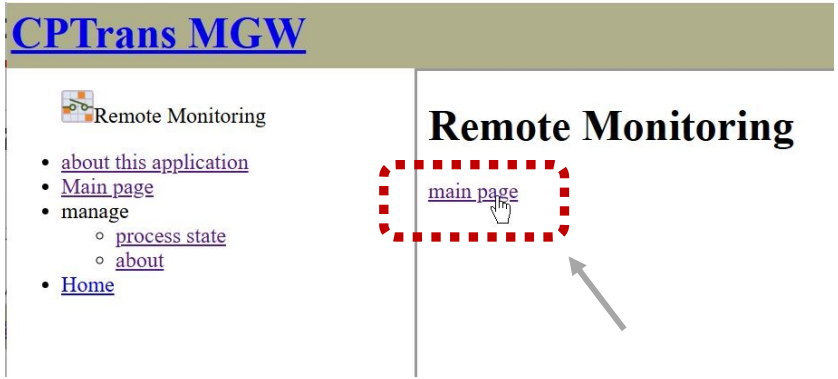


2. Setup (Basic Setting)

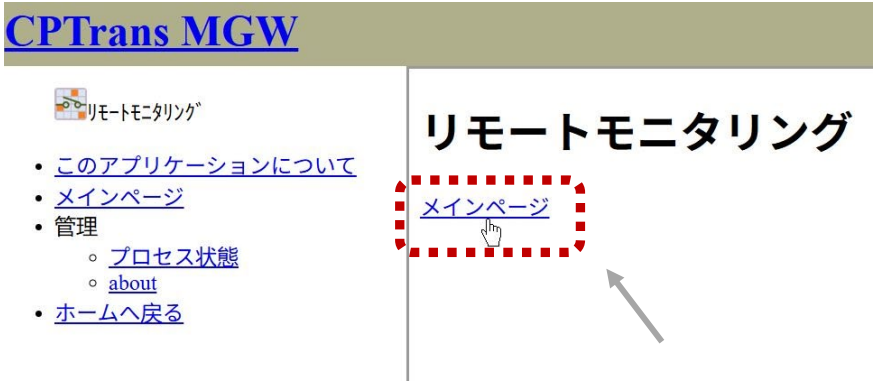
For Remote APP setting, kindly move to “Main page” after APP is opened.
使用接点监控应用时，请在打开应用后选择「主页面」。



English / 英語表示



Japanese / 日本語表示



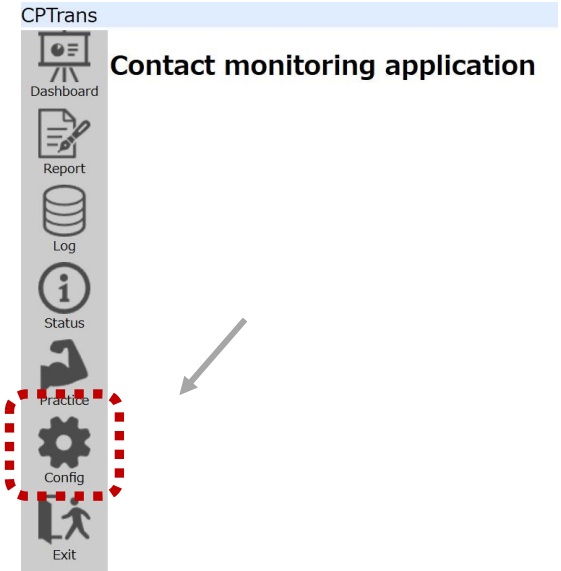
*) For each GUI details, kindly refer to the Appendix.
关于图形界面的详细说明，也请参阅附录（Appendix）。

2. Setup (Basic Setting)

Select “Config” to apply each setting.
请选择「设置」进入各项设置画面。

Remote Monitoring

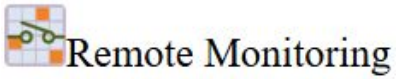
English / 英語表示



Japanese / 日本語表示

2. Setup (Basic Setting)

List of configurations shall appear. Select basic configuration first.
将显示设置项目一览。请首先选择基本设置。



English / 英語表示

CPTrans/Contact monitoring/ Config

- Basic configuration
- Modbus device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- Management server settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Exit

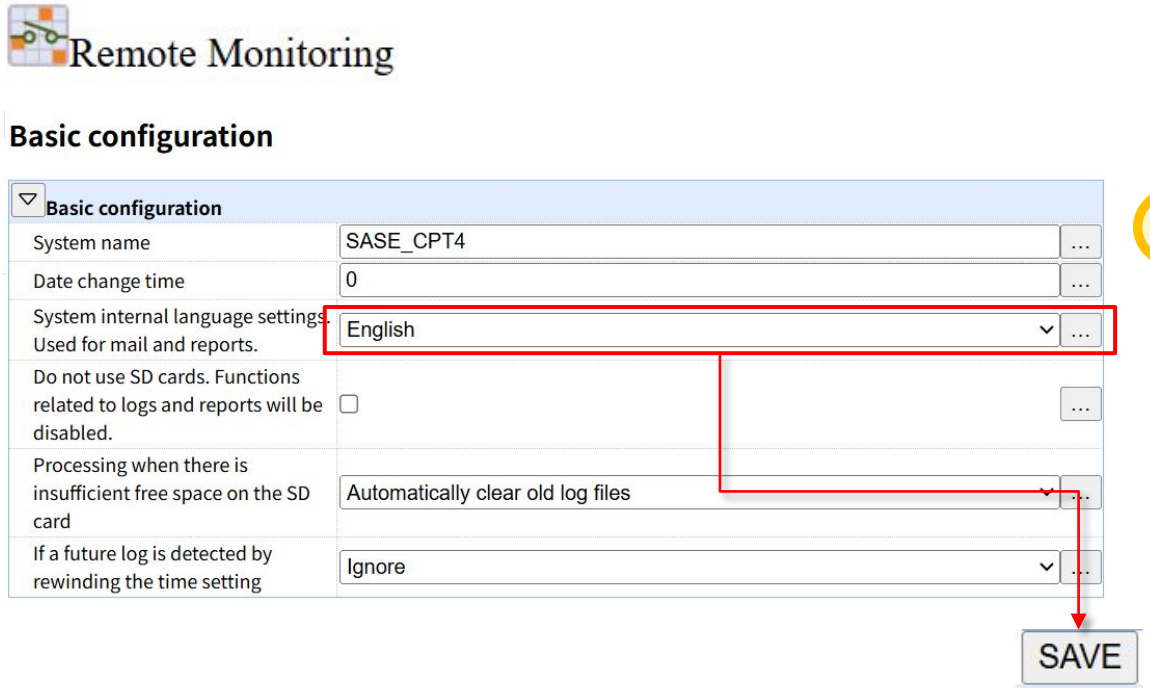
Japanese / 日本語表示

CPTrans/接点監視/ 設定

- 基本設定
- Modbusデバイス設定
- データソース設定
- 変数設定
- アクション設定
- 時間外/休日設定
- 帳票設定
- メールサーバ設定
- メールテンプレート設定
- スケジュール設定
- 演習設定
- ダッシュボード設定
- 管理サーバ設定
- JSONテンプレート設定
- MQTT設定
- REST設定
- IoTサーバ同期設定
- 証明書設定
- ボードに戻る

2. Setup (Basic Setting)

Change language setting following to your preference (Internal language will be switched)
请按需将语言设置切换为任意语言使用（内部语言将随此设置切换）。

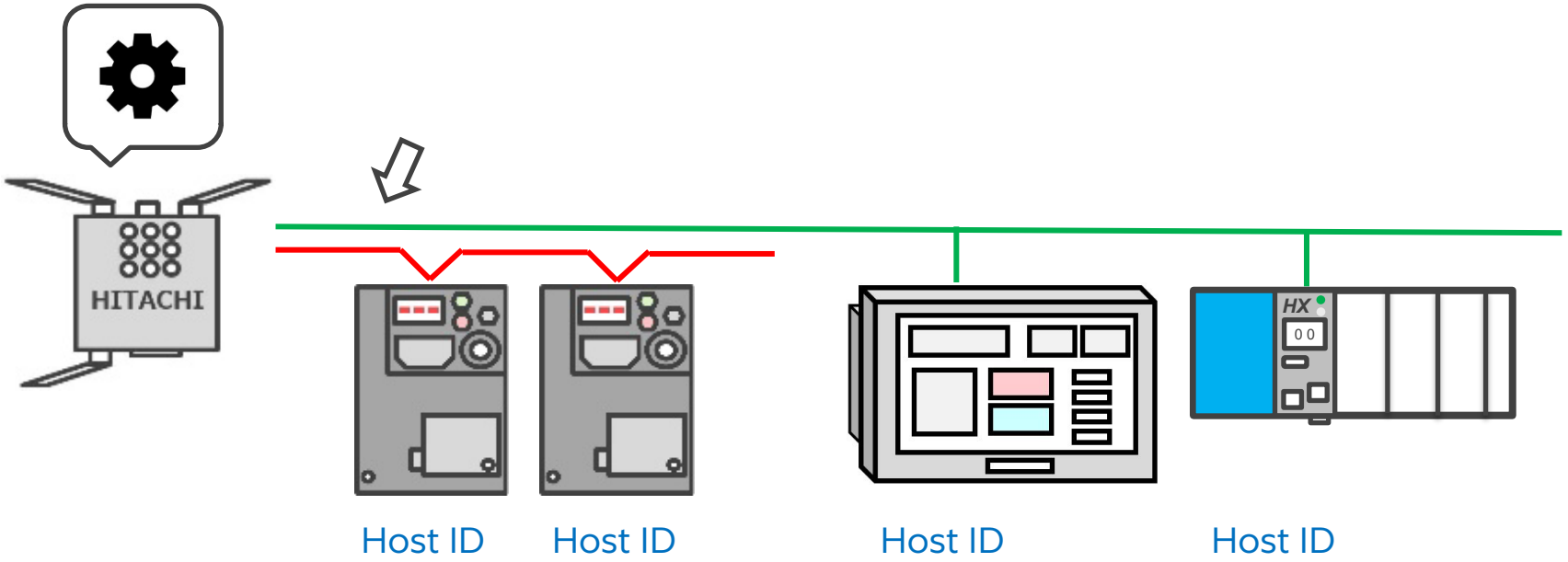


Email, Log and other system notification will all follow to this language setting.

邮件发送、日志获取及其他系统运行时的通知语言将随此设置切换。

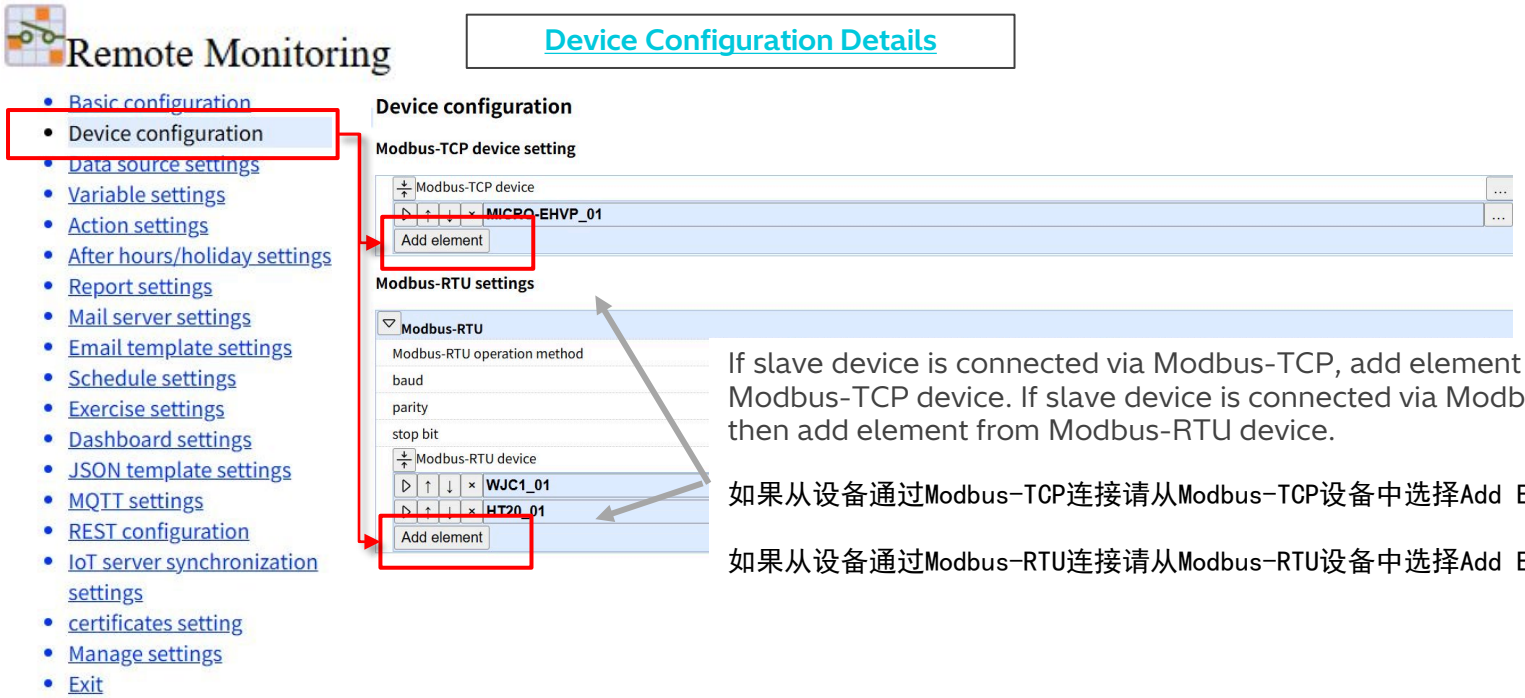
2. Setup (Device Configuration)

Add Device setting in CPTrans Remote APP (What device is connected with CPTrans)
向CPTrans的远程监控应用中添加连接设备。（设置连接了哪个设备的配置）



2. Setup (Device Configuration)

Select “Device Configuration” to adjust connection with slave devices.
请选择「设备配置」设置与从设备之间的通信参数。



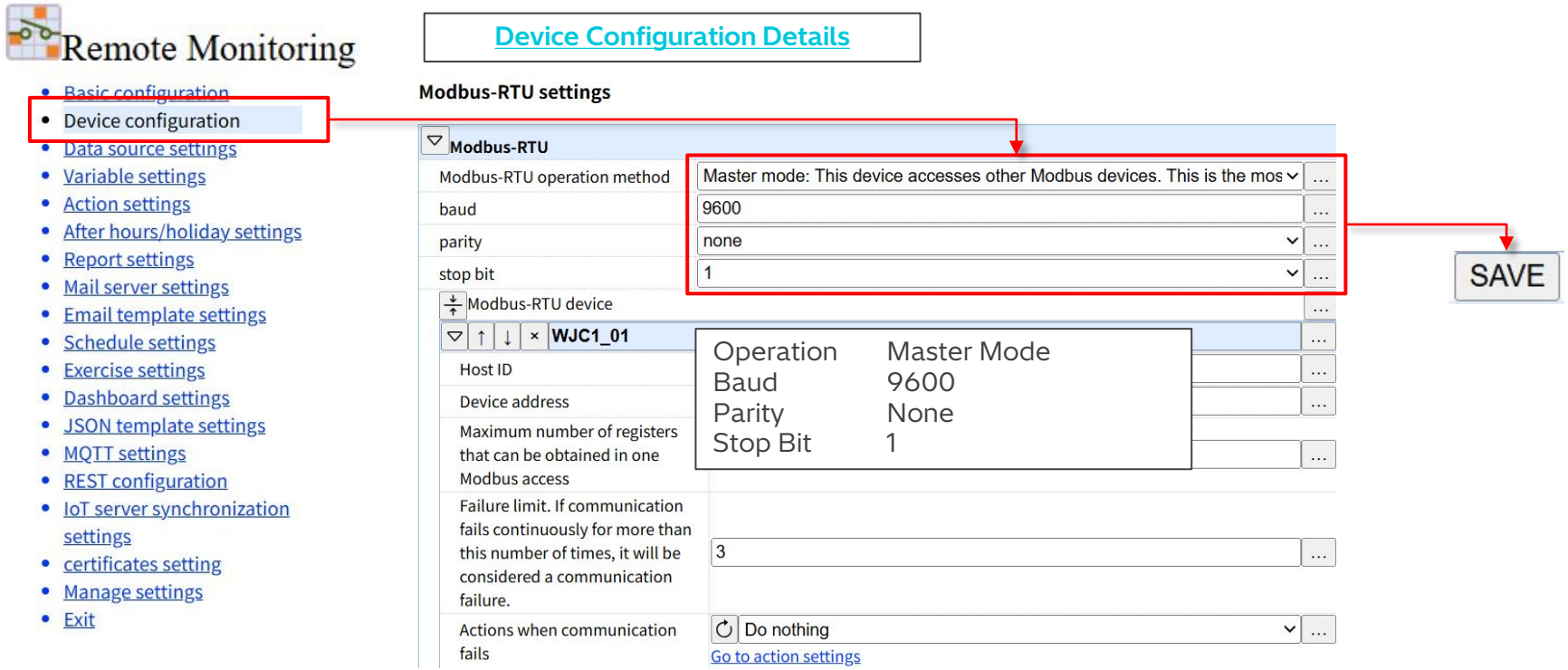
If slave device is connected via Modbus-TCP, add element from Modbus-TCP device. If slave device is connected via Modbus-RTU, then add element from Modbus-RTU device.

如果从设备通过Modbus-TCP连接请从Modbus-TCP设备中选择Add Element。

如果从设备通过Modbus-RTU连接请从Modbus-RTU设备中选择Add Element。

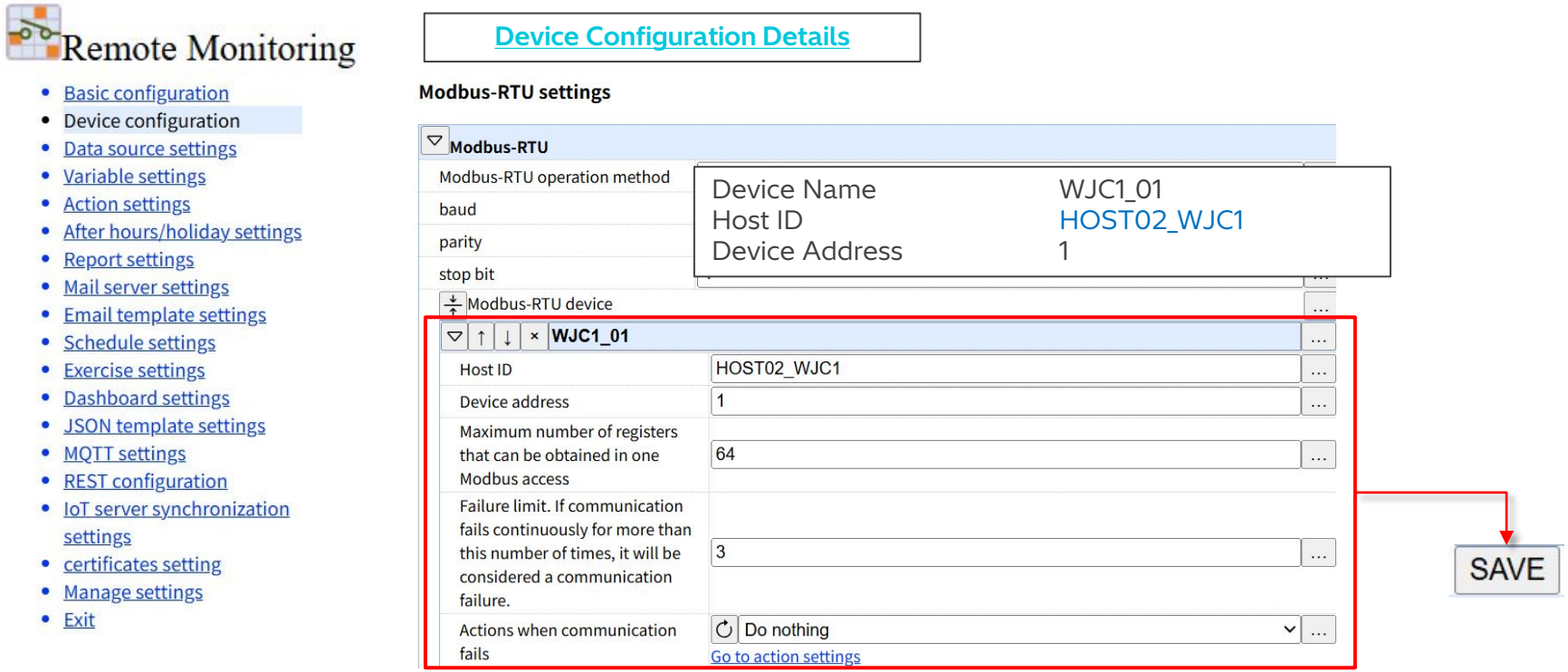
2. Setup (Device Configuration)

Set as per sample for this area
本次请按如下进行设置。



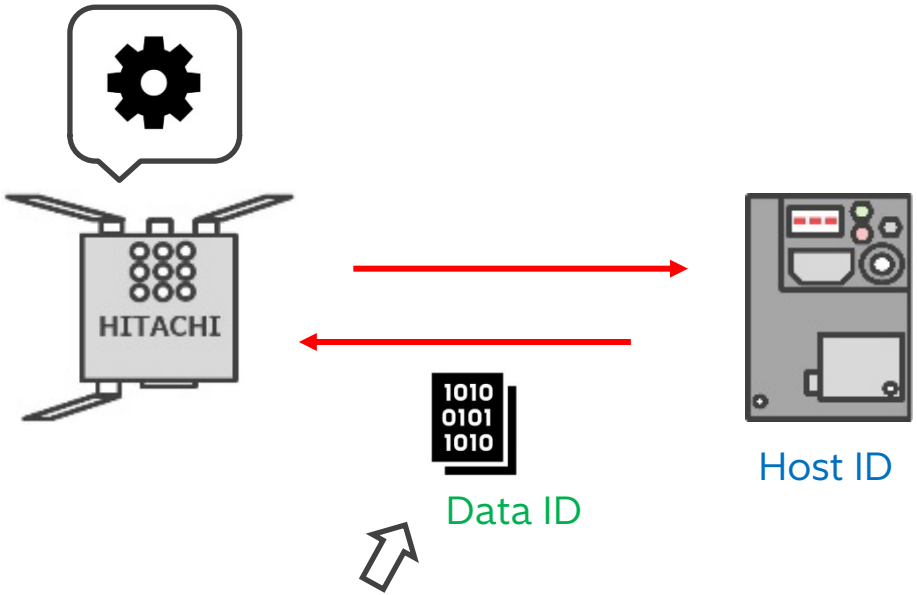
2. Setup (Device Configuration)

Set as per sample for this area
本次请按如下进行设置。



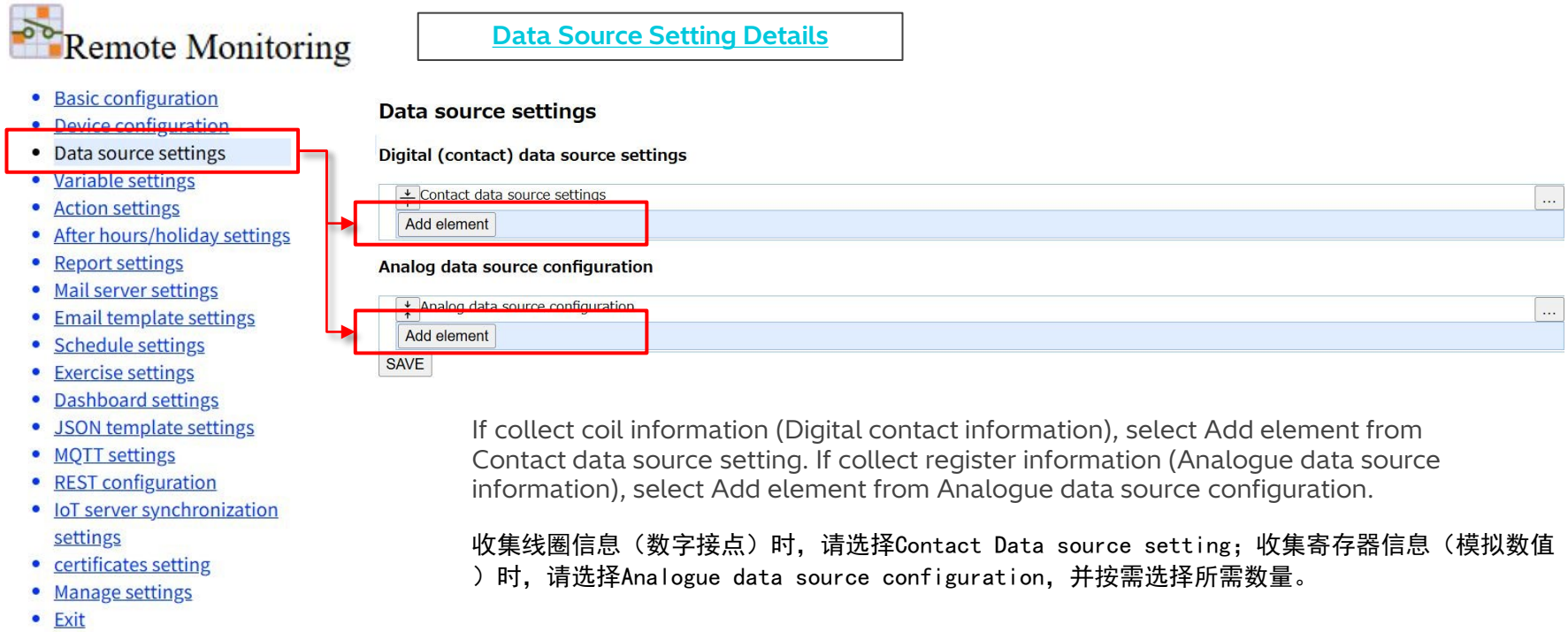
2. Setup (Data Source Setting)

Add Data source setting in CPTrans Remote APP (Which data to capture)
向CPTrans的远程监控应用中添加数据源。（设置要获取哪些数据的配置）



2. Setup (Data Source Setting)

Select “Data Source Setting” to configure which register/coil address to collect from each slave.
请选择「数据源设置」，设置要从各从设备获取哪些寄存器・线圈信息。

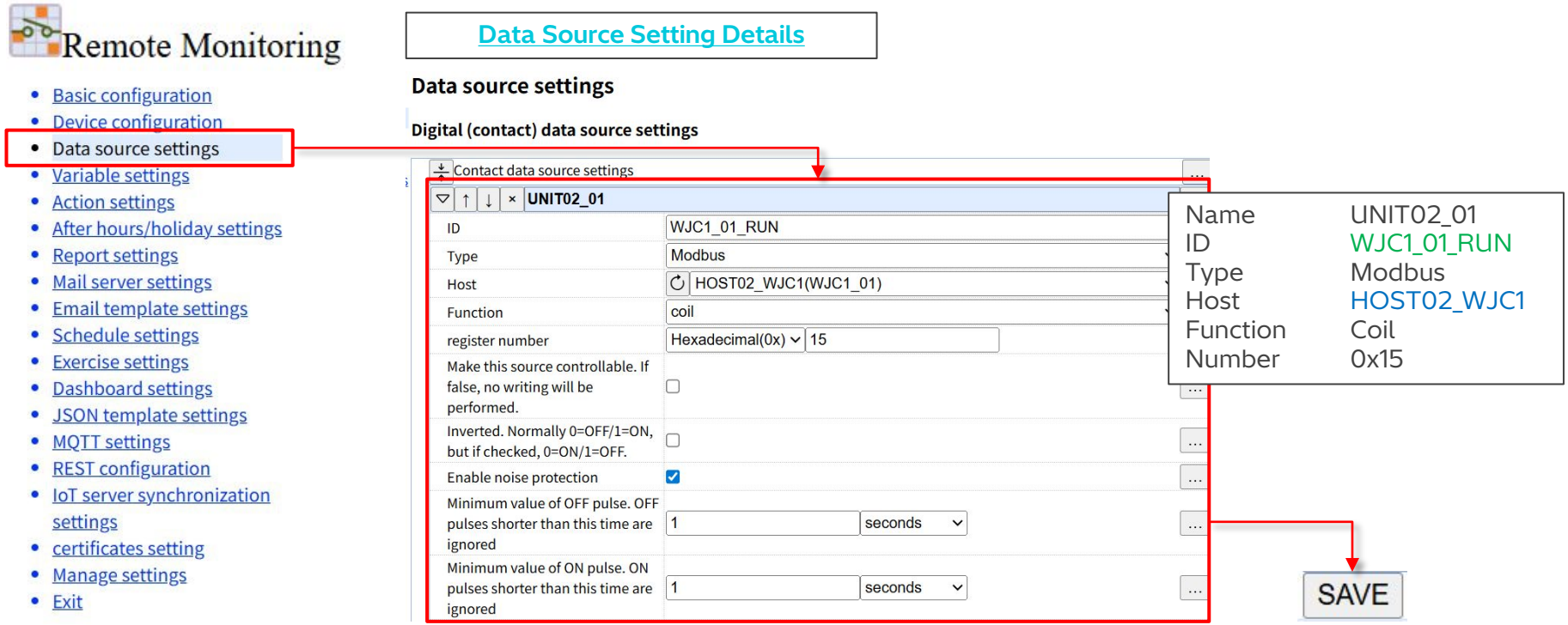


If collect coil information (Digital contact information), select Add element from Contact data source setting. If collect register information (Analogue data source information), select Add element from Analogue data source configuration.

收集线圈信息（数字接点）时，请选择Contact Data source setting；收集寄存器信息（模拟数值）时，请选择Analogue data source configuration，并按需选择所需数量。

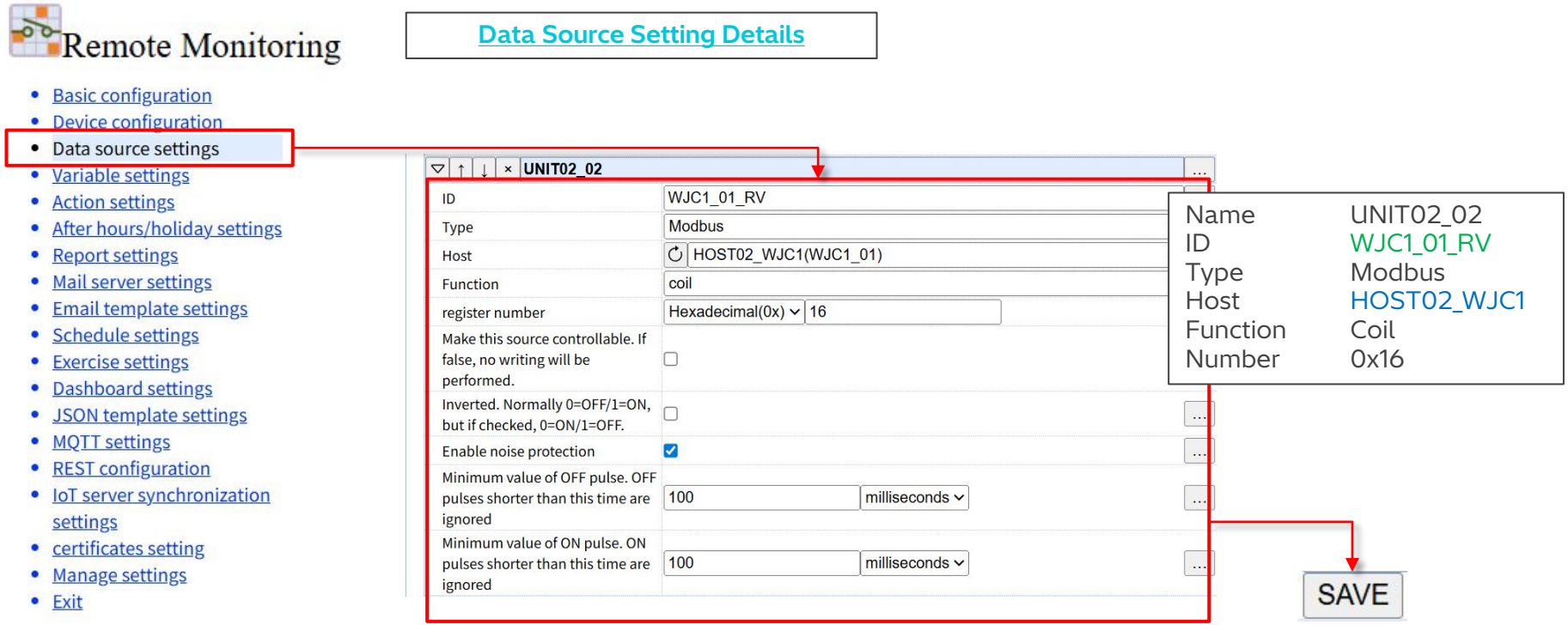
2. Setup (Data Source Setting)

Set as per sample for this area
本次请按如下进行设置。



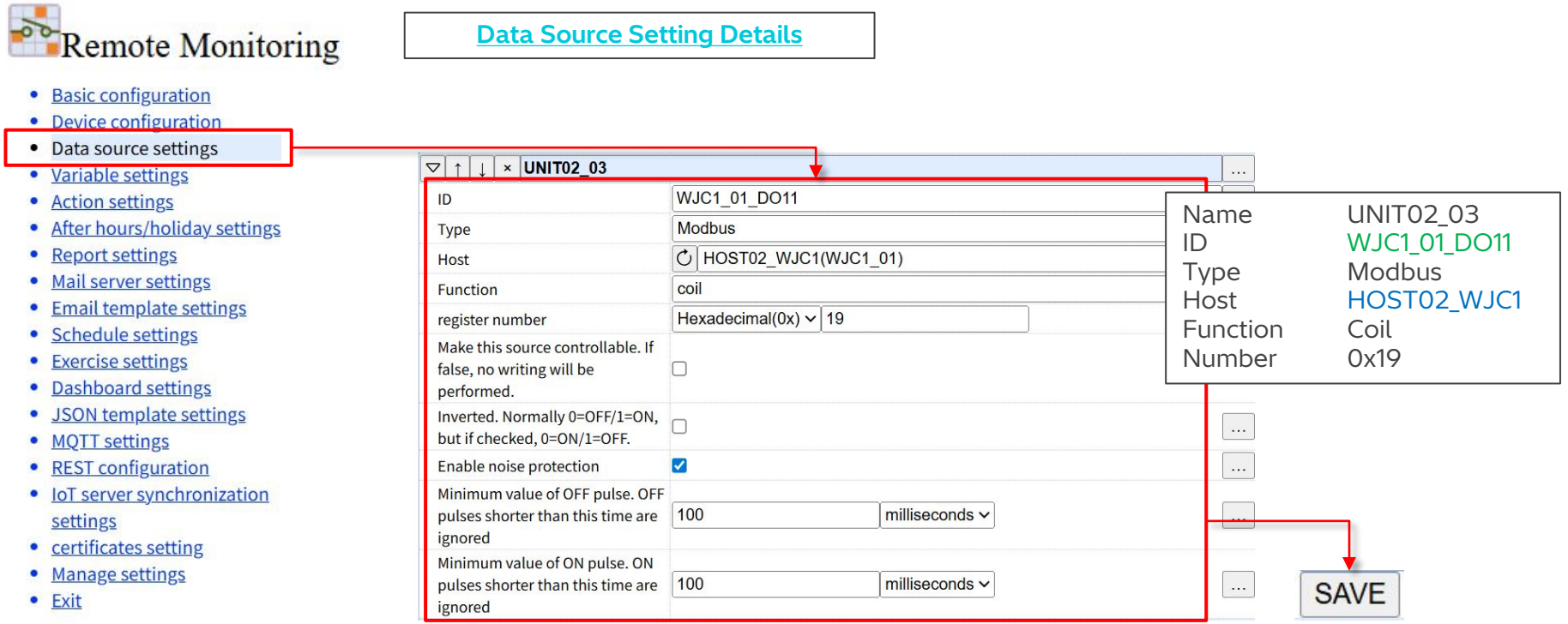
2. Setup (Data Source Setting)

Set as per sample for this area
本次请按如下进行设置。



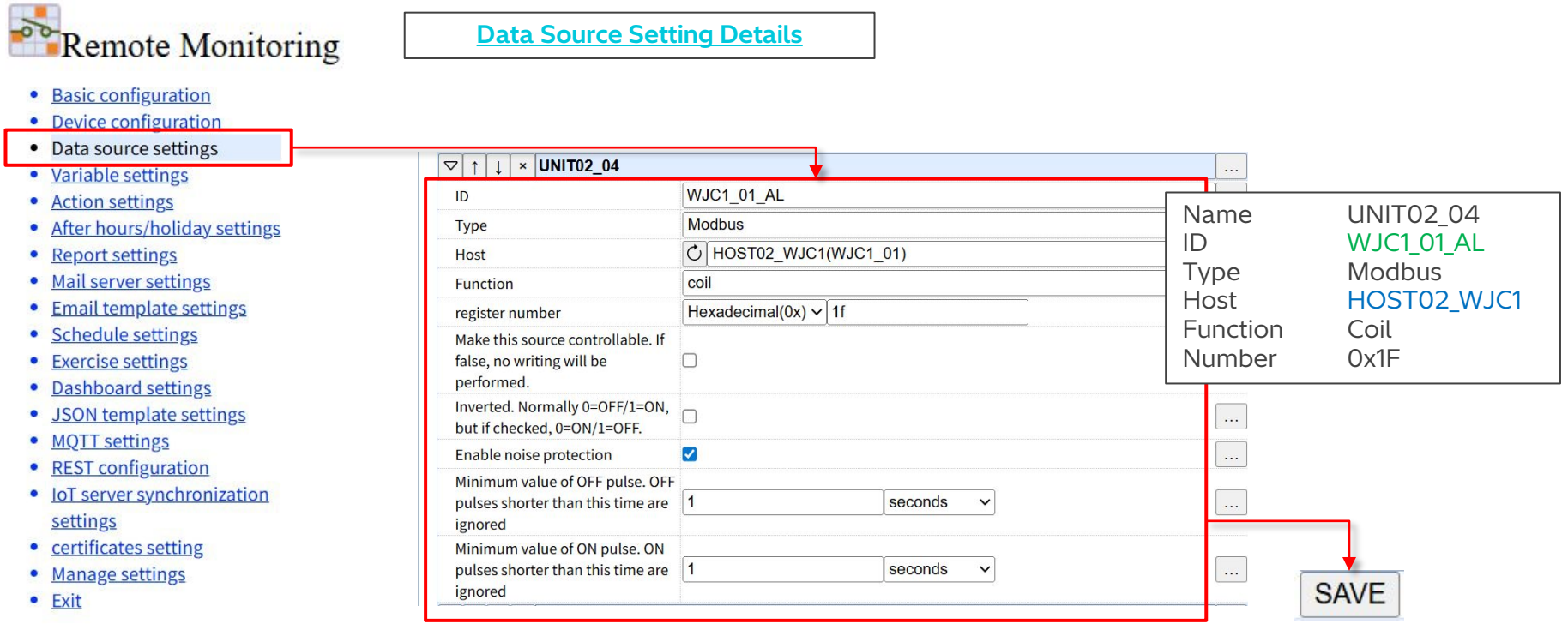
2. Setup (Data Source Setting)

Set as per sample for this area
本次请按如下进行设置。



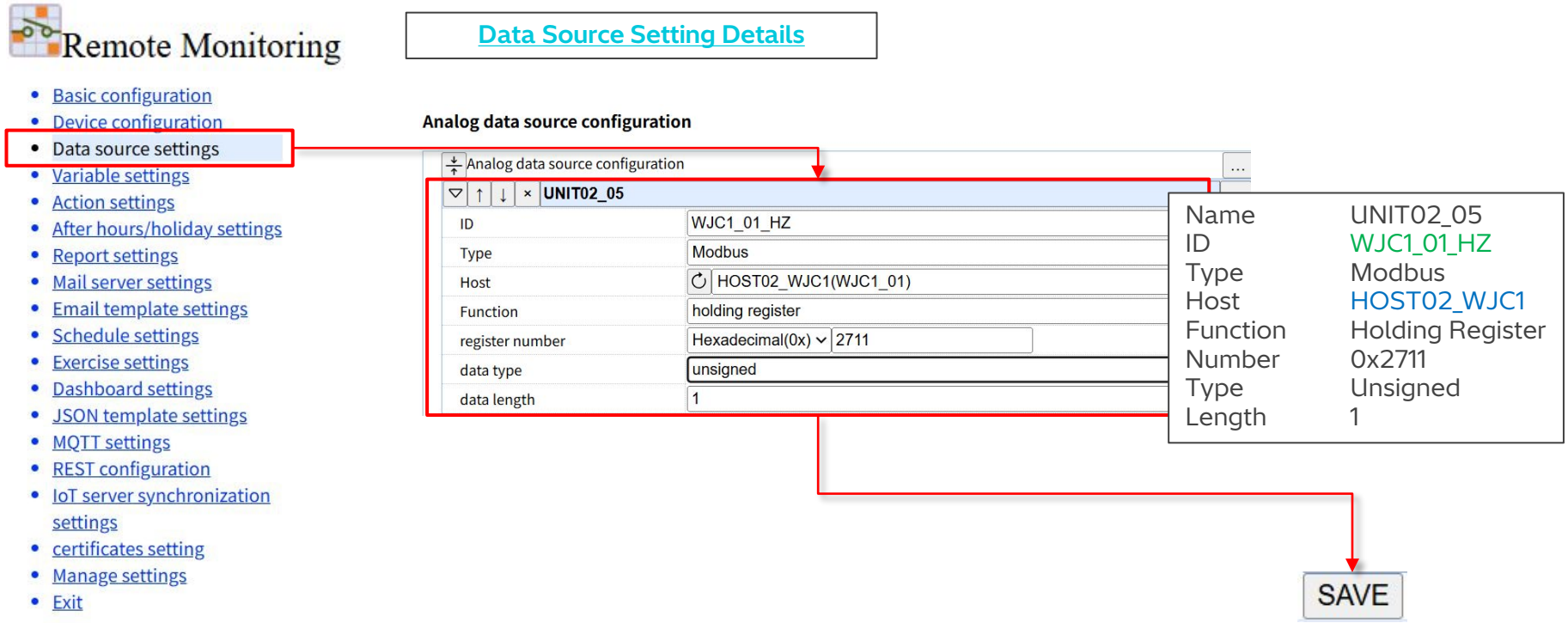
2. Setup (Data Source Setting)

Set as per sample for this area
本次请按如下进行设置。



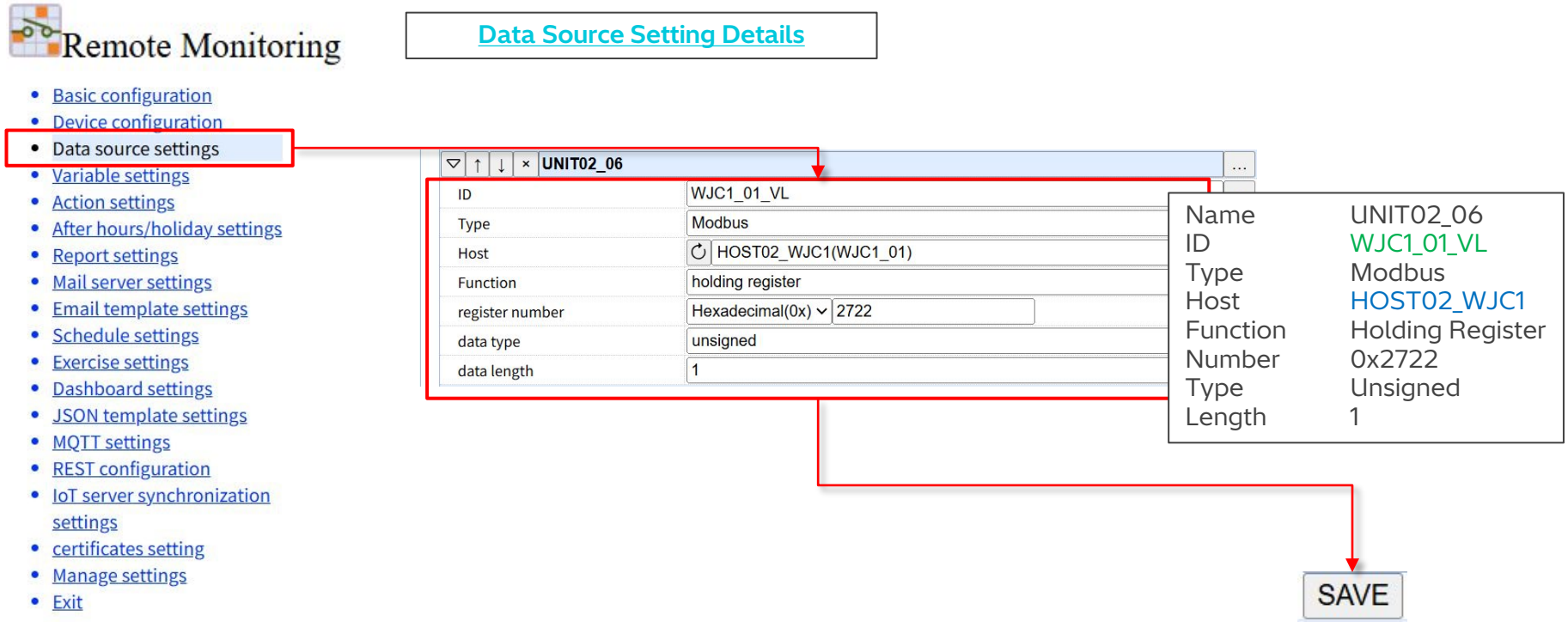
2. Setup (Data Source Setting)

Set as per sample for this area
本次请按如下进行设置。



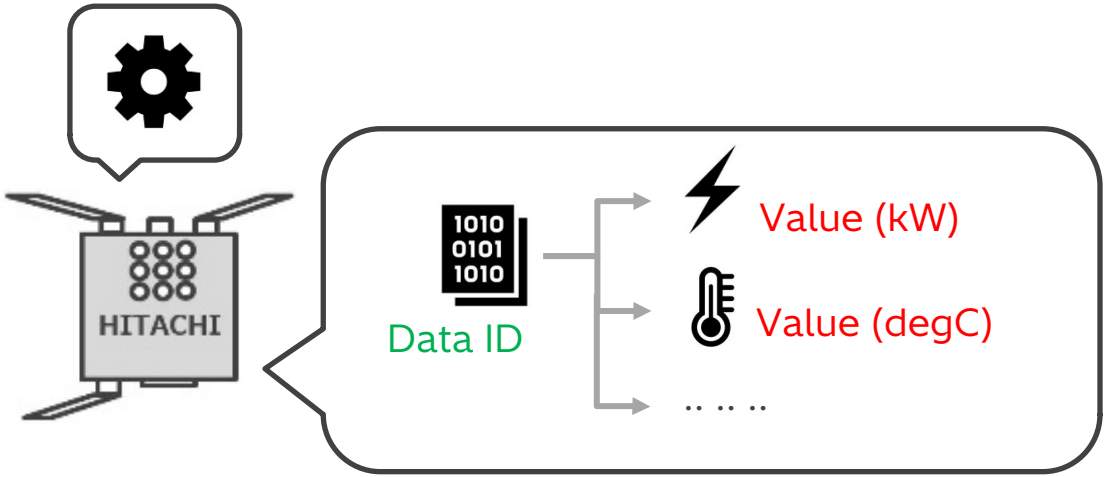
2. Setup (Data Source Setting)

Set as per sample for this area
本次请按如下进行设置。



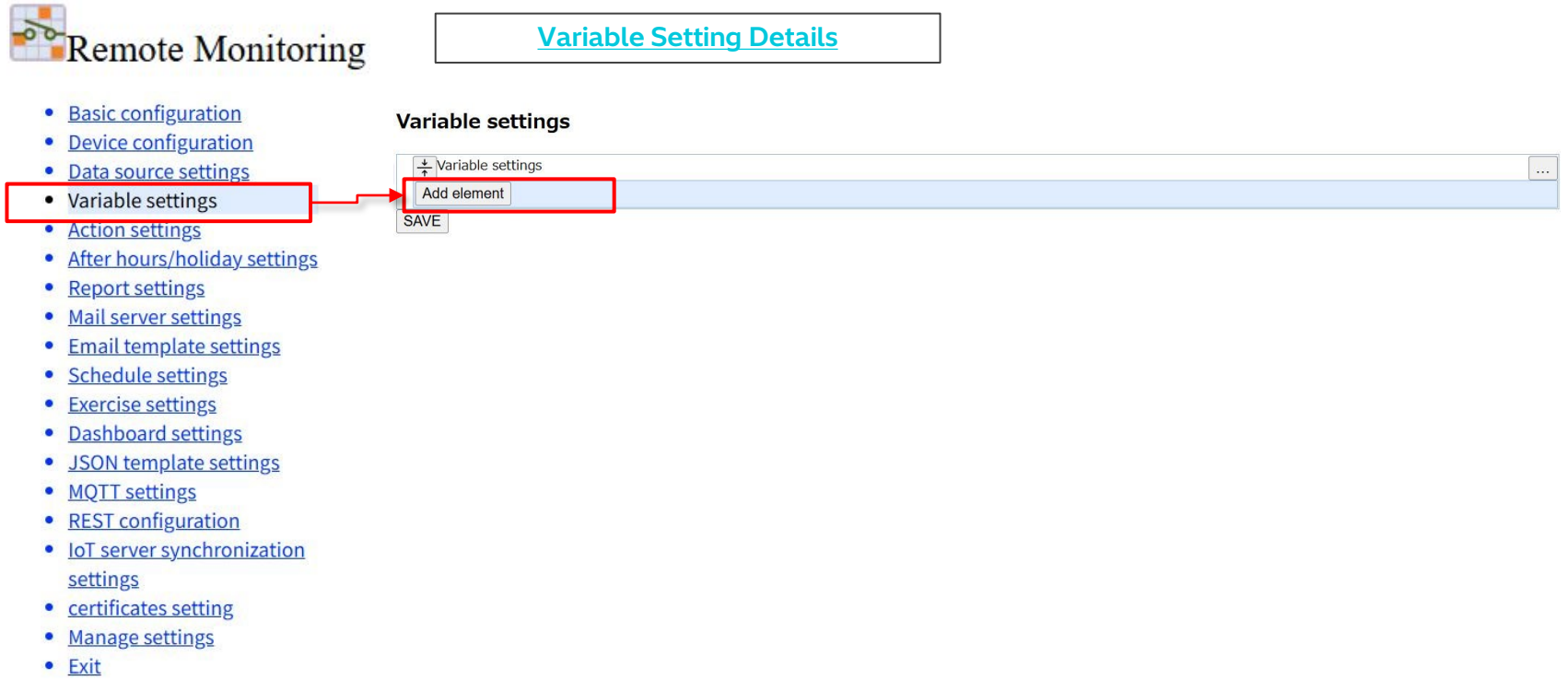
2. Setup (Variable Setting)

Add Variable setting in CPTrans Remote APP. (How data shall be converted)
向CPTrans的远程监控应用中添加变量设置。（设置如何为数据赋予含义的配置）



2. Setup (Variable Setting)

Select “Variable Setting” to assign collected data with internal variable to be used in Contact APP.
请选择「变量设置」，设置如何将所获取的数据对应到接点监控应用内部使用的变量中。



2. Setup (Variable Setting)

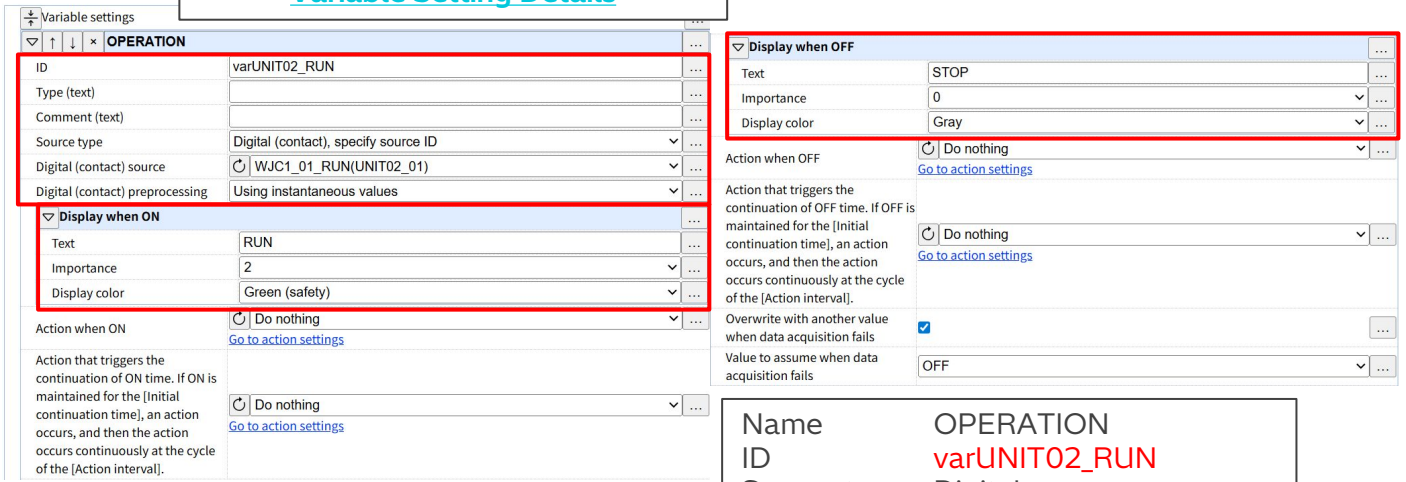
Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

Variable settings

Variable Setting Details



Name	OPERATION
ID	varUNIT02_RUN
Source type	Digital
Source	WJC1_01_RUN
ON →	Text: RUN
	Display: Green
OFF →	Text: STOP
	Display: Gray

2. Setup (Variable Setting)

Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
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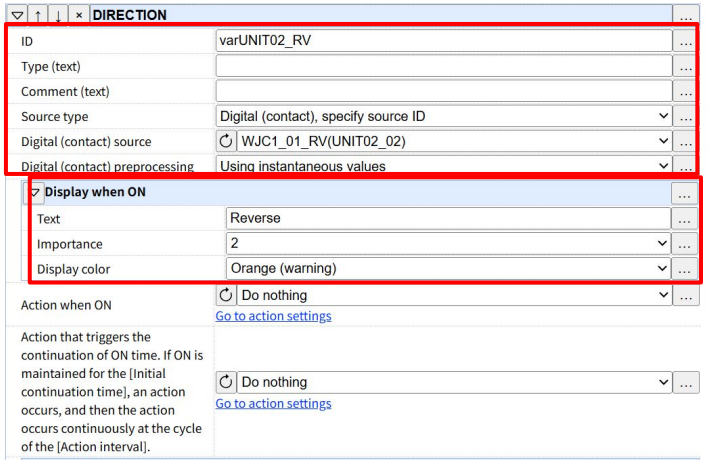
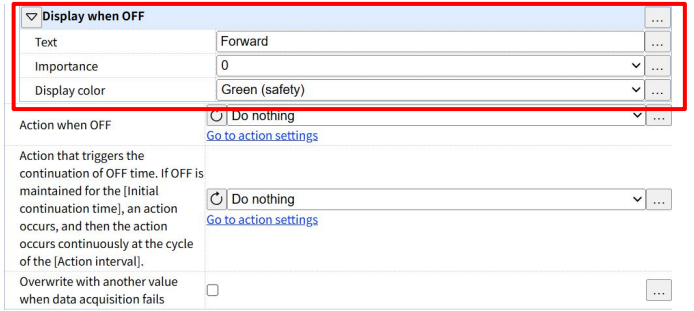
Variable Setting Details





Name	DIRECTION
ID	varUNIT02_RV
Source type	Digital
Source	WJC1_01_RV
ON →	Text: Reverse
	Display: Orange
OFF →	Text: Forward
	Display: Green

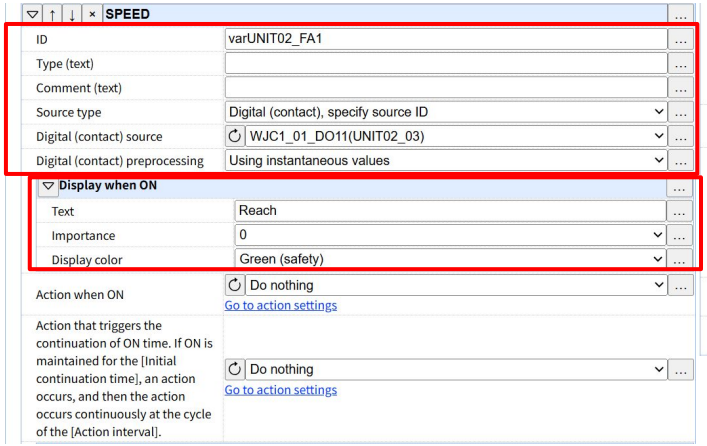
2. Setup (Variable Setting)

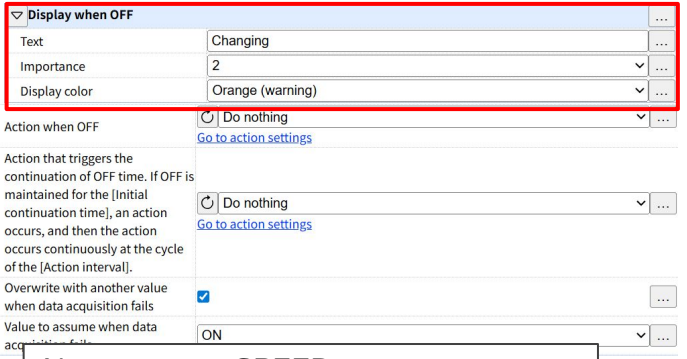
Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

Variable Setting Details





Name	SPEED
ID	varUNIT02_FA1
Source type	Digital
Source	WJC1_01_DO11
ON →	Text: Reach
	Display: Green
OFF →	Text: Changing
	Display: Orange

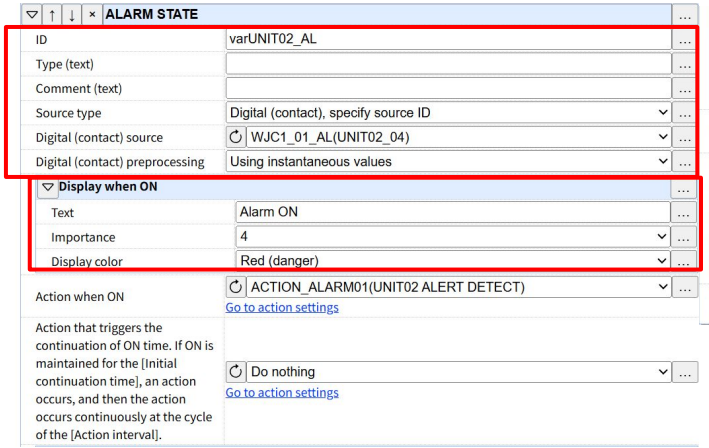
2. Setup (Variable Setting)

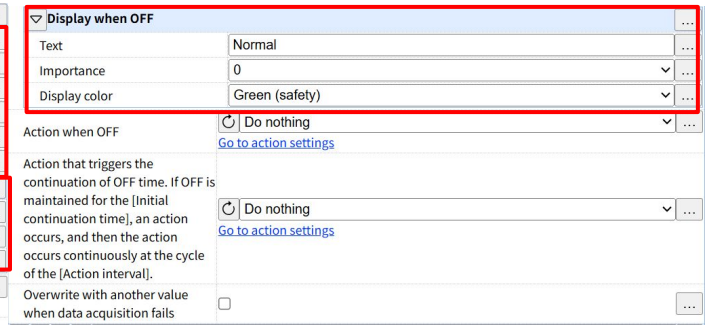
Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

Variable Setting Details





Name	ALARM STATE
ID	varUNIT02_AL
Source type	Digital
Source	WJC1_01_AL
ON →	Text: Alarm ON
	Display: Red
OFF →	Text: Normal
	Display: Green

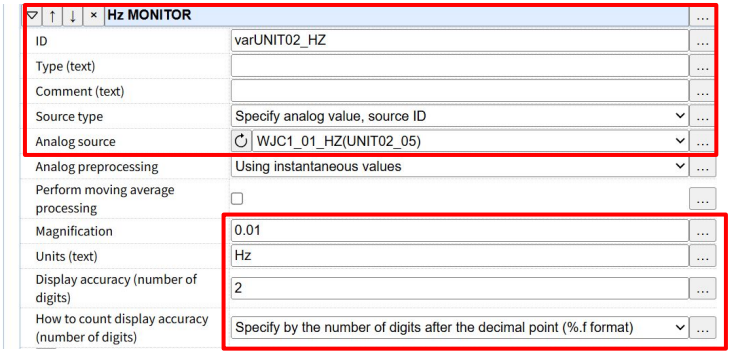
2. Setup (Variable Setting)

Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

Variable Setting Details



Name	Hz MONITOR
ID	varUNIT02_HZ
Source type	Analogue
Source	WJC1_01_HZ
Mag.	0.01
Unit	Hz
Display	2
How to	%.f format

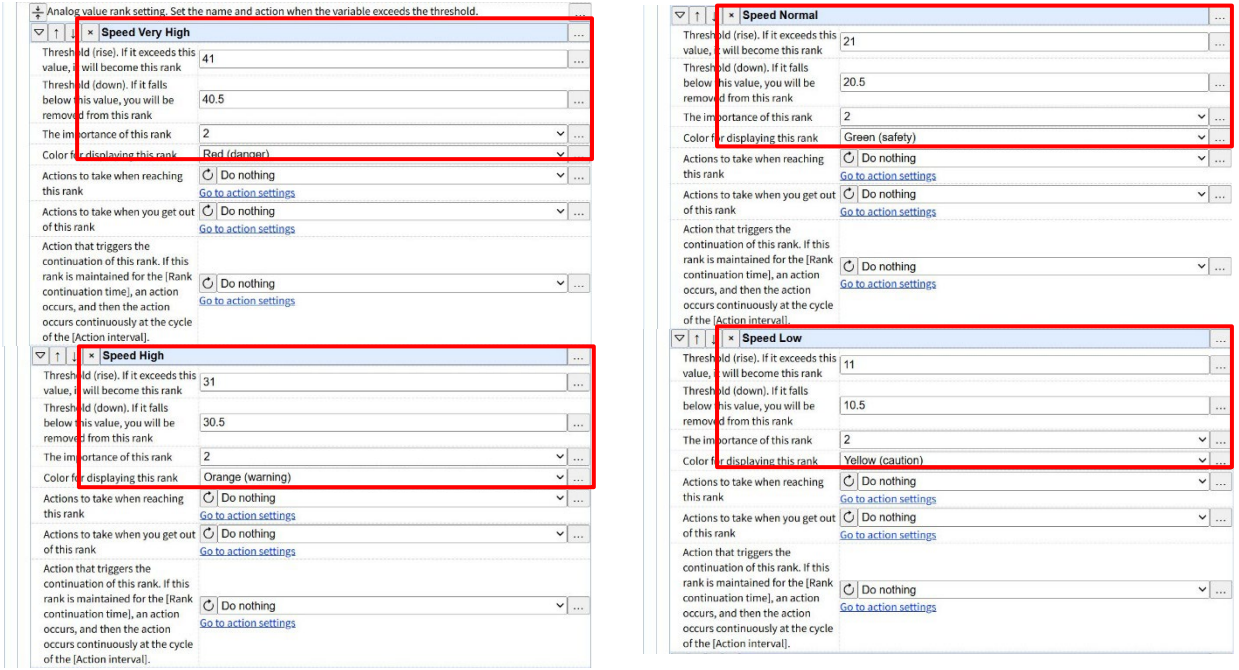
2. Setup (Variable Setting)

Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

Variable Setting Details



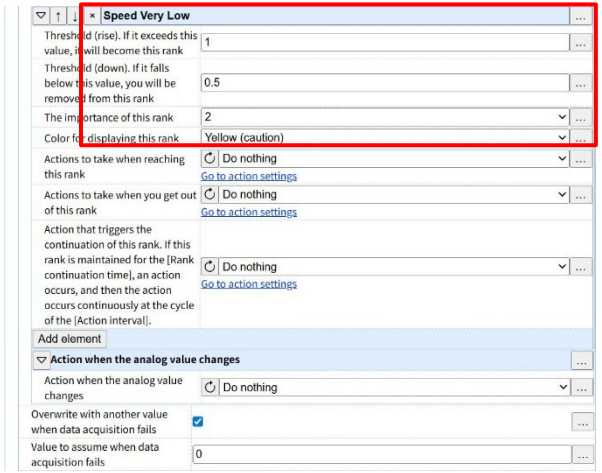
2. Setup (Variable Setting)

Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

Variable Setting Details



Name	Speed Very High (X>41) Red
	Speed High (X>31) Orange
	Speed Normal (X>21) Green
	Speed Low (X>11) Yellow
	Speed Very Low (X>1) Yellow

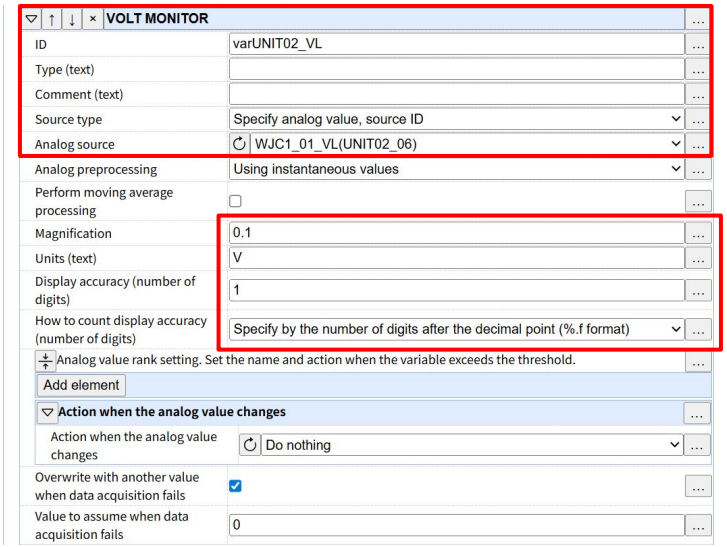
2. Setup (Variable Setting)

Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

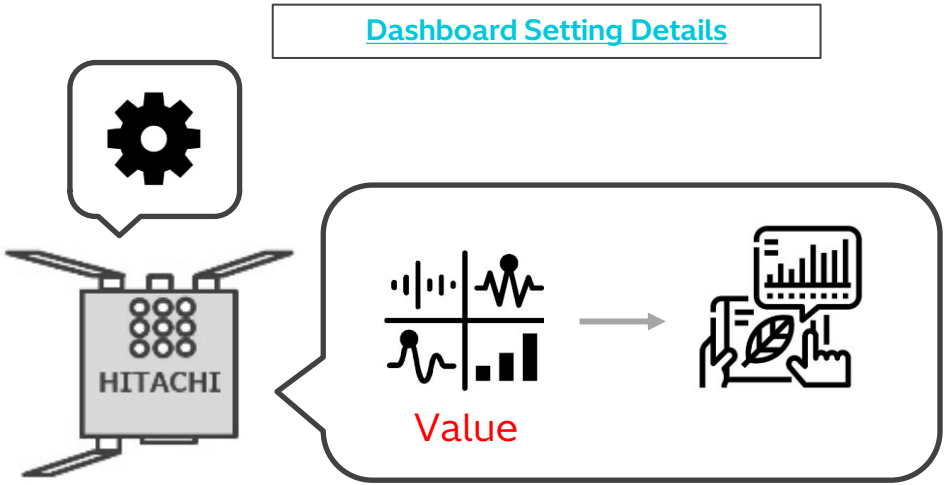
Variable Setting Details



Name	VOLT MONITOR
ID	varUNIT02_VL
Source type	Analogue
Source	WJC1_01_VL
Mag.	0.1
Unit	V
Display	1
How to	%.f format

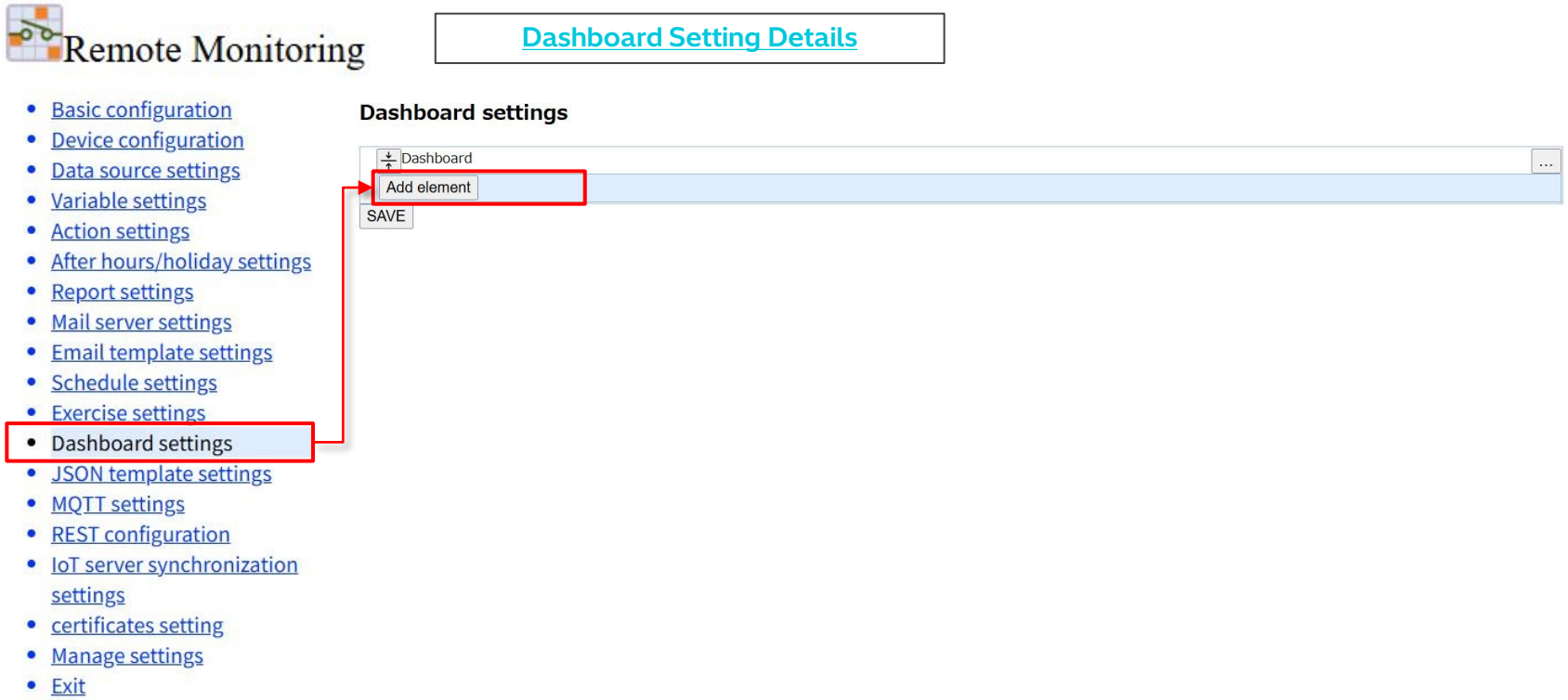
2. Setup (Dashboard Setting)

Add Dashboard setting in CPTrans Remote APP. (How data shall be shown)
向CPTrans的远程监控应用中添加仪表板设置。（设置如何展示数据的配置）



2. Setup (Dashboard Setting)

Select “Dashboard Setting” to design internal variables to be shown in the dashboard.
请选择「仪表板设置」，设置如何在仪表板上显示内部变量。



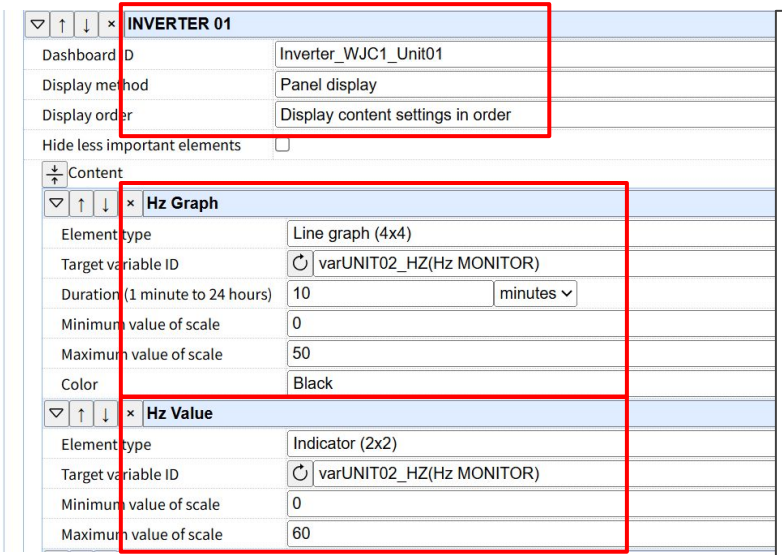
2. Setup (Dashboard Setting)

Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

Dashboard Setting Details



Dashboard	INVERTER 01
ID	Inverter_WJC1_Unit01
<Content1>	
Name	Hz Graph
Type	Line Graph (4*4)
ID	varUNIT02_HZ
Duration	10 minutes
Min scale	0
Max scale	50
<Content2>	
Name	Hz Value
Type	Indicator (2*2)
ID	varUNIT02_HZ
Min scale	0
Max scale	60

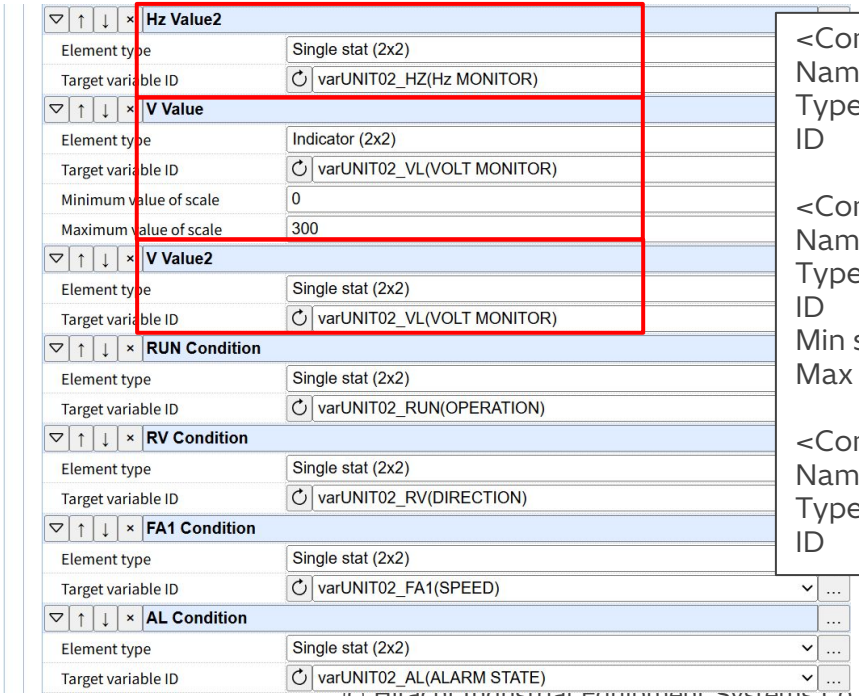
2. Setup (Dashboard Setting)

Set as per sample for this area
本次请按如下进行设置。

Remote Monitoring

- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

Dashboard Setting Details



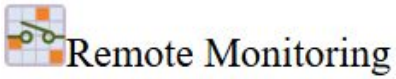
<Content3>
Name Hz Value2
Type Single Stat (2*2)
ID varUNIT02_HZ

<Content4>
Name V Value
Type Indicator (2*2)
ID varUNIT02_VL
Min scale 0
Max scale 300

<Content5>
Name V Value2
Type Single Stat (2*2)
ID varUNIT02_VL

2. Setup (Dashboard Setting)

Set as per sample for this area
本次请按如下进行设置。



- Basic configuration
- Device configuration
- Data source settings
- Variable settings
- Action settings
- After hours/holiday settings
- Report settings
- Mail server settings
- Email template settings
- Schedule settings
- Exercise settings
- Dashboard settings
- JSON template settings
- MQTT settings
- REST configuration
- IoT server synchronization settings
- certificates setting
- Manage settings
- Exit

Dashboard Setting Details

Hz Value2	
Element type	Single stat (2x2)
Target variable ID	varUNIT02_HZ(Hz MONITOR)
V Value	
Element type	Indicator (2x2)
Target variable ID	varUNIT02_VL(VOLT MONITOR)
Minimum value of scale	0
Maximum value of scale	300
V Value2	
Element type	Single stat (2x2)
Target variable ID	varUNIT02_VL(VOLT MONITOR)
RUN Condition	
Element type	Single stat (2x2)
Target variable ID	varUNIT02_RUN(OPERATION)
RV Condition	
Element type	Single stat (2x2)
Target variable ID	varUNIT02_RV(DIRECTION)
FA1 Condition	
Element type	Single stat (2x2)
Target variable ID	varUNIT02_FA1(SPEED)
AL Condition	
Element type	Single stat (2x2)
Target variable ID	varUNIT02_AL(ALARM STATE)

<Content6>
Name RUN Condition
Type Single Stat (2*2)
ID varUNIT02_RUN

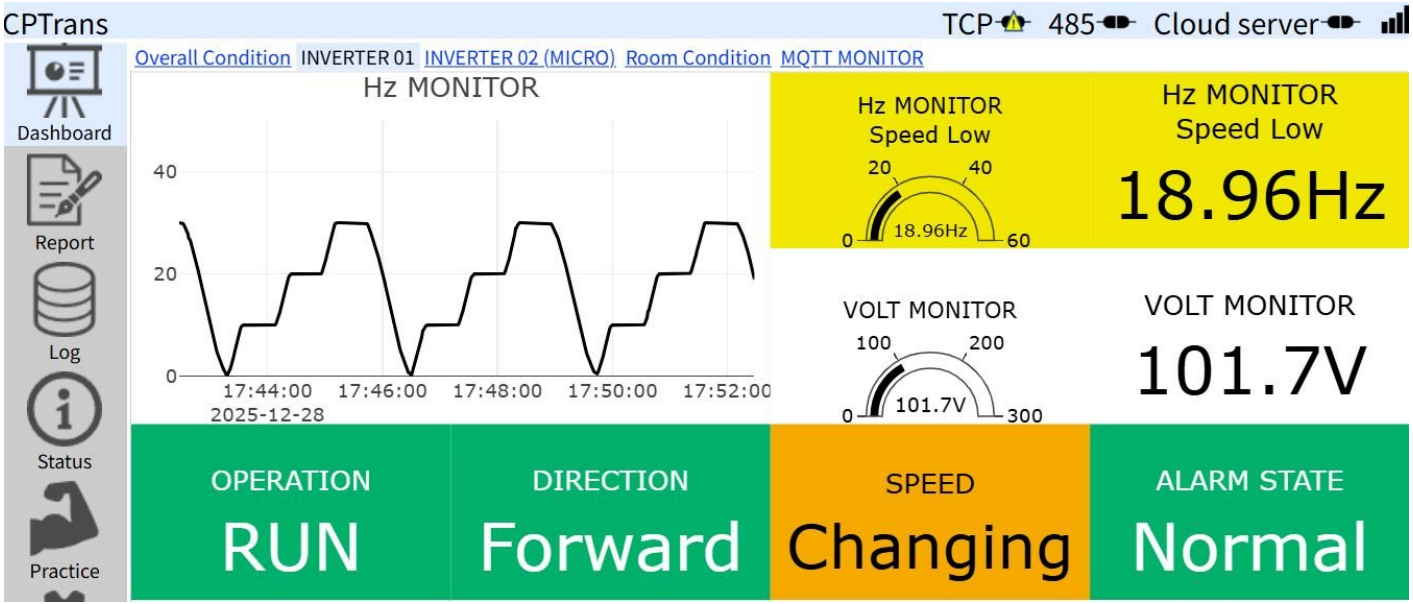
<Content7>
Name RV Condition
Type Single Stat (2*2)
ID varUNIT02_RV

<Content8>
Name FA1 Condition
Type Single Stat (2*2)
ID varUNIT02_FA1

<Content9>
Name AL Condition
Type Single Stat (2*2)
ID varUNIT02_AL

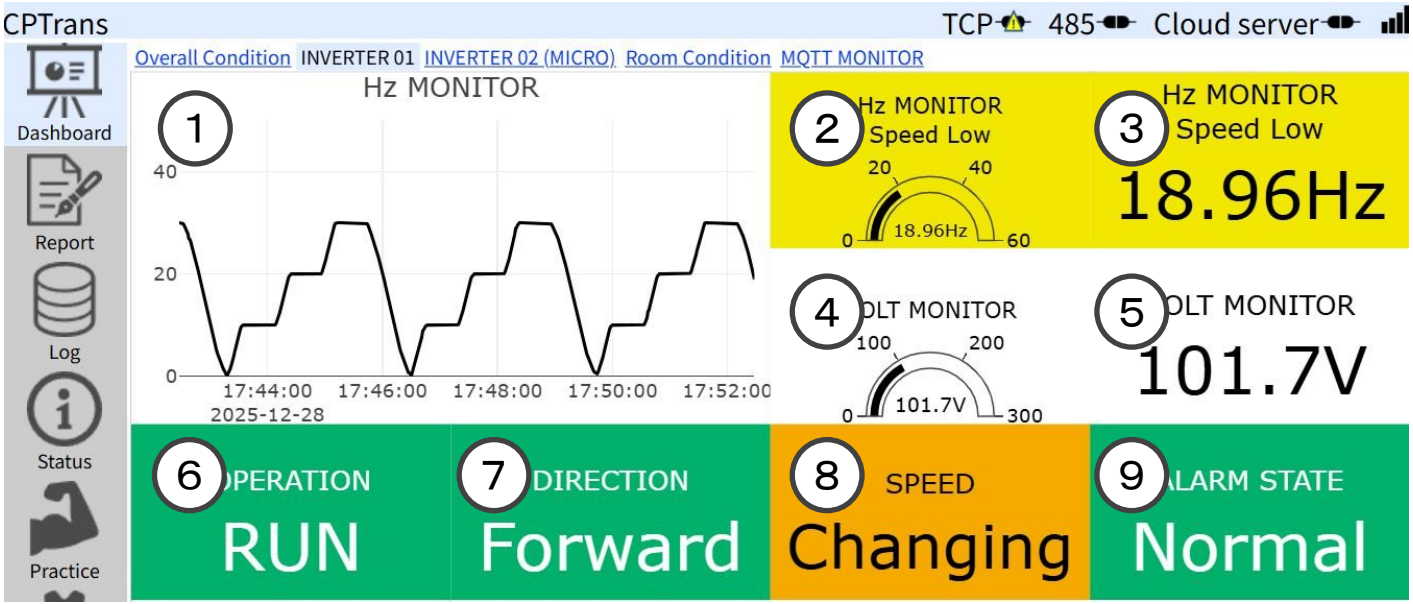
3. Result

Following shall be the result of these settings.
完成这些设置后将得到以下结果。



3. Result

Check content order and located position in the dashboard screen.
请确认随着所创建内容的顺序不同，布局也会相应变化。



3. Result

Check dashboard content name and showing details following to its setting.
请确认仪表板的内容名称与各自的显示内容已相互关联。