User Manual

KNX-DALI-2 Gateway Configuration V2 _V1.5

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Chapter 1 Overview

KNX-DALI-2 Gateway Configuration Tool (Hereinafter referred to as DCA)is a plugin of the ETS software for configuring DALI gateway, embedded in the application of DALI gateway, to conveniently address, commission, configure and upgrade, as well as monitoring for failure information on the DALI bus driver.

The manual mainly introduce about the overall framework, software functions and operations of DCA.

1.1 Function Overview

DCA is able to assign and modify the address of the DALI driver, and map the ECG in the ETS to the DALI driver. It can also configure driver control and parameter, group, sensor, scene etc. to the DALI driver.

Function overview of DALI system configuration software are summarized as follows:

- **Import/Export configuration**
- **Initialize the DALI bus, assign address to DALI driver**
- **Query driver status on the DALI bus, read DALI driver configuration**
- **Address adjustment for driver with DALI addresses programmed, modify the association of the ECG with the driver address**
- **Reading or modifying the driver parameter configuration**
- **Supporting switch, brightness, color temperature, color control operation for DALI driver of the two channels through unicast, multicast and broadcast control**
- **Edit group assignments to DALI devices and specify associated groups**
- **DALI scene configuration, assign scenes and set brightness value, color temperature and color for each DALI driver**
- **Global scene configuration and testing**
- **Supports sensor access and associates with 8 sensors in the KNX channel, and can also modify the sensor address**
- **Upgrading the DALI software functionality of the gateway**
- **Read the lamp or driver failure status on the DALI bus**

1.2 Software download and installation overview

Etsapp file is obtained from the manufacturer or the shop of the myknx account(search "KNX-DALI-2 Gateway Configuration V2"). Then, add APP in the lower right corner of ETS5. If there is an old version before, delete it and restart ETS5 to add a new version of APP. In the project configuration of DALI device, you can see that the editing interface of the database has a DCA menu after the APP is added successfully. Click to see the configuration interface of DCA.

Note: This function only supports to the version with ETS license, that is ETS dongle needs to be installed on the computer, including ETS5Lite, ETS5 Supplementary, ETS5 Professional、ETS6 Lite 、ETS6 Professional or higher version.

1.3 Operation Steps

This chapter mainly introduces the operation flow and precautions of DALI bus commission through DCA. The following steps are required for a newly installed project or a rectified project:

1.Ensure that the ETS running on the computer is the version with the license certificate (the available ETS dongle has been installed), and the DCA .etsapp file is correctly installed into the ETS.

2.Power on the device and wait for initialization to complete. Trigger broadcast switch control by short-pressing the Test/Set button to test if any DALI devices are not connected properly.

Note: When the device is powered on again, it will automatically perform initialization, reading the status of devices on the DALI bus. This process requires some time, which is related to the number of devices connecting to the DALI bus, and generally takes at least 30 seconds.

3.Parameter configuration of the device through the ETS software, and download the configured parameters to the gateway.

Note：①ECG devices in the ETS are by default matched to driver addresses on the DALI bus, and the association can be modified through DCA.

②DCA uses point-to-point communication and shares a bus interface with device debugging. Therefore, when downloading databases or diagnosing devices, the DCA connection must be disconnected first, otherwise it will result in "Download(Appl.) failure" or "Device exists, but failed to

connect". As shown in Fig. 1.3(1) and Fig.1.3(2):

Fig.1.3(1) Download(Appl.) failure

Fig.1.3(2)Device exists,but failed to connect

③ After the database is downloaded, the gateway will perform a restart operation and automatically initialize, reading the status of devices on the DALI bus. This process requires some time, which is related to the number of devices connecting to the DALI bus, and generally takes at least 30 seconds.

4.Enter the DCA editing interface, select commission channel and read the device status.

5.Initialization operation, click "[All] init DALI device" or "[No Addr] init DALI device" to reassign addresses to the drivers on the DALI bus to ensure that each driver has a unique address.

6.Sybc.DaliBus and obtain the DALI device list: Use the DCA tool to read the driver status.

7.Obtain the ECG list: Click "Synchronize ETS data" to obtain the list of ECGs configured in the ETS.

Note: If there is no database source file, you can click "Sync. Gateway" to read the list of ECG and DALI drivers cached by the gateway.

8.Modify the correlation between ECG and DALI driver and download it to the gateway.

There are 2 ways to modify:

① Drag the grid to associate the ECG to the specified driver address.

② By right-clicking on the device grid and select "Modify Address" .

Note: In this step, you need to make sure that the ECG type is the same as the driver type of the corresponding address; if not, DCA will report an error.

9.DALI driver information configuration: By double-clicking the device grid with the left mouse button to enter the driver detail configuration page, you can modify the driver parameter configuration, such as device configuration, scene configuration.

Note: The driver configuration information will only take effect after it is load on the configuration

page, otherwise, it will be invalid.

10.After performing the above steps, click “Sync. Gateway” to read the data in the gateway and check whether the sent data is correct.

If you do not follow the above steps, the DALI device may not perform the operation according to the preset brightness value.

Note: In the address allocation phase, if there is an incomplete allocation address, start the initialization without address allocation operation (by DCA tool). If address allocation still fail more than twice, then you need to start the DALI bus initialization operation (by DCA tool or long press the Test/set button on the KNX-DALI-2 Gateway for more than 5 seconds), this operation may cause the DALI device addressed to occur change, you need to check the correspondence between the ECG and the driver address after configuration to ensure that the device type set by the ECG needs to be the same as the type of the actual driver, otherwise some of the functions will not be controlled.

11.Export configuration, save the configuration of the gateway.

Chapter 2 DCA Interface

2.1 DCA main interface

Open the device database, click the [DCA] option in the database edit menu, DCA main interface (Initial interface) as shown in Fig. 2.1.

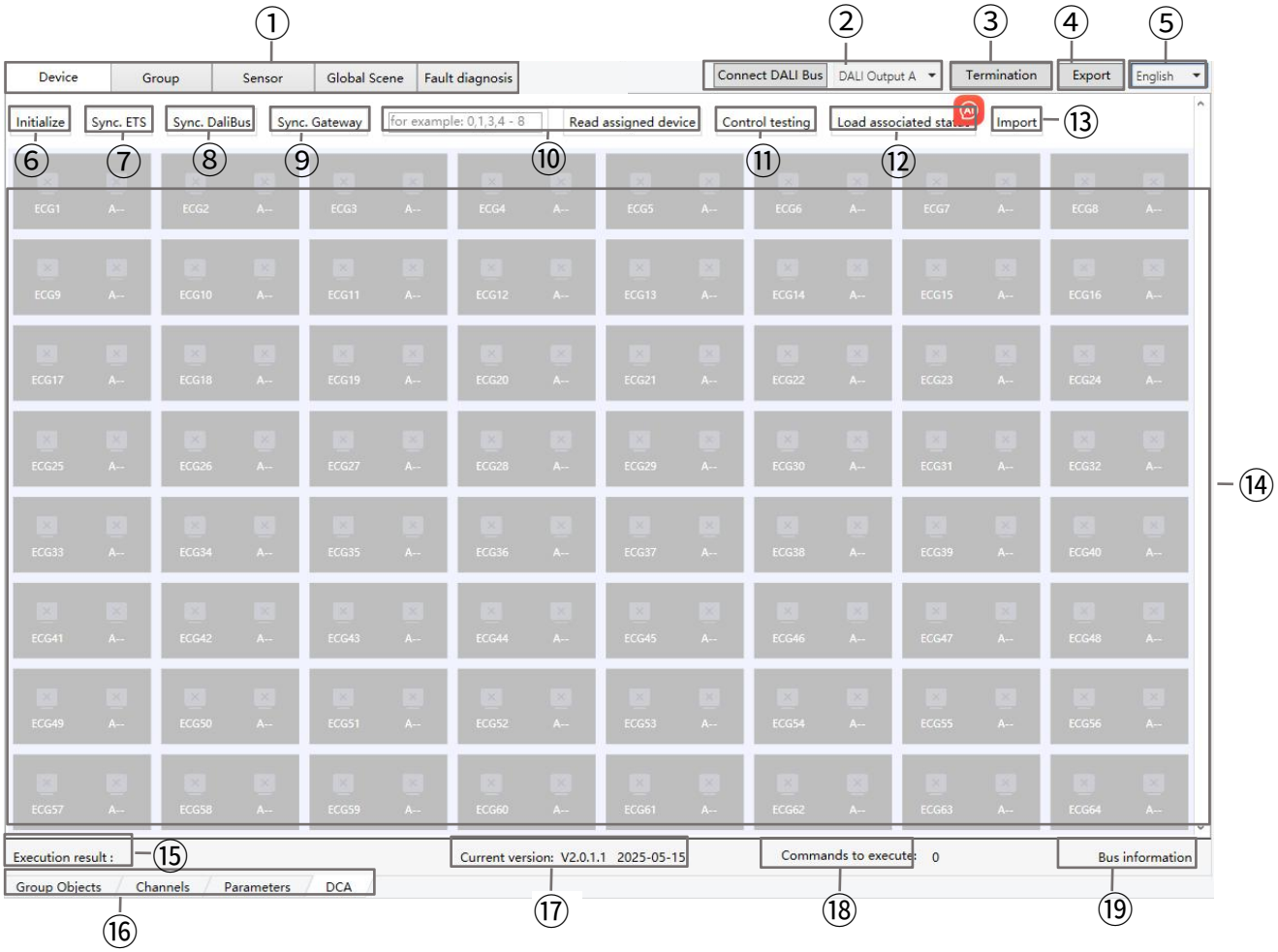


Fig.2.1 DCA main interface

①Click switch configuration Interface to Group/ECG, Group, Sensor, Global scene, Fault diagnosis. For details, see section 2.2-2.6.

②Connect DALI Bus: Click to select the channel and connect the gateway device.

Note: 1.The gateway needs to deploy a physical addresses to successfully connect.

2.When reconnecting the gateway, ETS data will be automatically synchronized, such as: from disconnecting to the connected state, switching A/B channels.

③Termination: Click disconnect operation of the DALI gateway, such as configure DCA or read device information, this process will be interrupted; if terminating operation during the initialization of the bus, the initialization may fail.

Note: If there are too much data on the DALI bus or being too busy, terminating the operation should be taken into consideration. Commands that have been executed or data delivered before the termination operation are not affected, and only unexecuted telegram are stopped.

④Export: After setting the configuration of a DALI gateway, user can export and save it.

Note: The configuration of A/B channel needs to be exported separately. The export file includes: Device Configuration, Scene Configuratin and Sensor Configuration.

⑤Click to switch the interface language to Chinese or English, the default is English..

⑥Initialize: Click to select “[All] init DALI device” or “[No Addr] init DALI device”

[All] init DALI device: Initialize all drivers. Assign DALI addresses to all DALI driver on the current channel. It is suitable for the first time to assign addresses to drivers in DALI system.

Note: This operation will re-assign the address to the driver randomly, which will cause the association relationship between the driver and ECG to be disrupted, so please use it with caution.

[No Addr] init DALI device: Initialize all no address drivers. Only assign DALI address to the drivers that have no address, this operation will not change the DALI address that has already assigned. It is suitable for assigning addresses to new or replacement unaddressed drivers.

Note: If the address allocation is incomplete during address allocation, perform the " [No Addr] init DALI device" operation. If the address allocation fails for more than two times, perform the "[All] init DALI device" operation.

⑦Sync.ETS: Synchronize configuration information from ETS to DCA, such as: device type, device description, group type, group description, etc. It will be synchronized automatically when entering the DCA for the first time. If ETS configuration information is updated after automatic synchronization, you need to manually click “Sync.ETS” to update the configuration information in DCA.

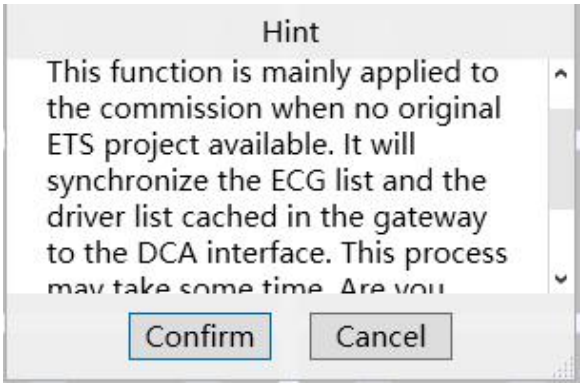
⑧Sync.DaliBus: Click to read the driver list on the DALI bus directly. It is used to obtain the driver list and related information on the DALI bus when connecting to the DALI bus for the first time or when devices on the DALI bus have been adjusted.

Note: 1. If there is a driver address conflict on the DALI bus, the DCA will report an error message, and you can do flash control or delete the conflicting address. It is recommended to click on "[All] init DALI device" to reassign the address to the drivers on the DALI bus.

2. This process requires some time, which is related to the number of devices connecting to the DALI bus. More devices will require more time.

⑨Sync.Gateway: Read the saved data on the gateway, including ECG lists, bus driver lists, and association relationships. It is mainly used to during project maintenance to review existing device configurations or ECG-driver associations. Also for further modification and download update after synchronize data.If the original ETS project file is missing or can't confirm whether the current DCA cache is the same as the gateway restored, this function can be used to synchronize data. In most cases, if the DCA configuration is confirmed accurate, this function is unnecessary.

If the relevant information is missing, the data will be empty. Clicking on it will prompt "This function is mainly applied to the commission when no original ETS project available. It will synchronize the ECG list and the driver list cached in the gateway to the DCA interface. This process may take some time. Are you sure you want to execute this operation?"

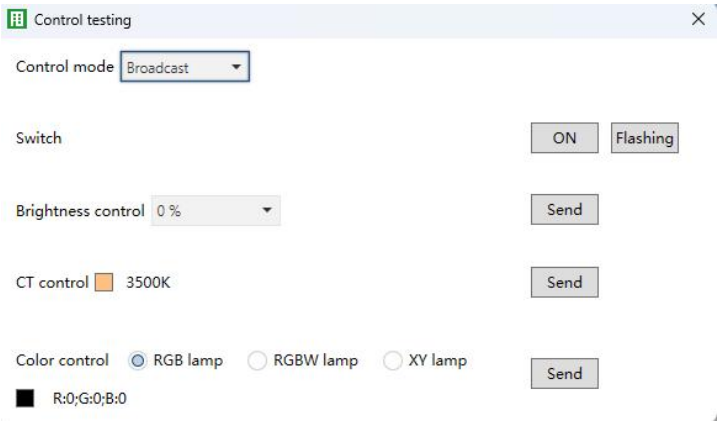


Note: Before performing the operation of "sync. Gateway", please make sure that Download Database and Download DCA Configuration have been performed. If the gateway has not received the configuration downloaded by DCA when this operation is performed, the default configuration will be reported, which may not correspond to the actual situation.

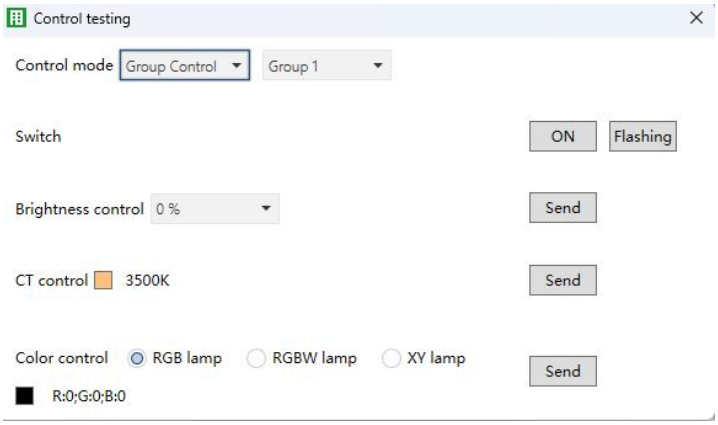
⑩Read assigned device: In the driver list, select one or more DALI diver addresses and click the "Read assigned device" to read the driver information from the gateway cache and display it to the software synchronously.

⑪Control testing: Click to send DALI control commands to the current channel DALI bus, such as: switch control, brightness control, color temperature control, color control, for testing the driver on the bus. You can perform Broadcast, Group control, Device control and other operations.

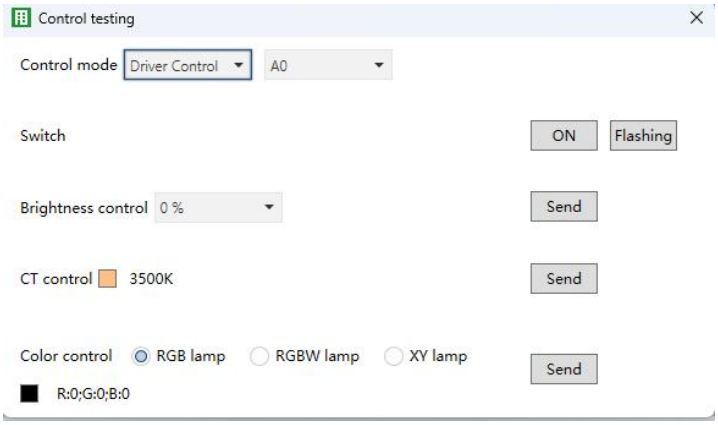
Broadcast: Send the same command to all DALI drivers.



Group Control: Group multiple DALI drivers together and control all the drivers in the same group at the same time through group address (Group 1~Group 16).



Device control: Control the specified DALI driver through the driver address (A0~A63).

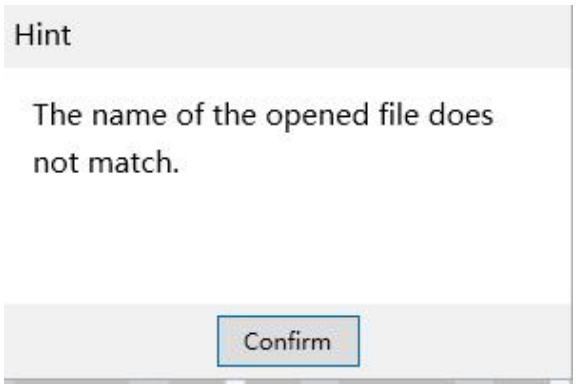


⑫Load associated status: Click to send the ECG, driver address and its associations load to the gateway.

Note: Note: If the DCA has not read or configured the driver parameters, they are not sent by default here. After load configuration, you can re-read the load configuration information by clicking "Sync. Gateway".

⑬ Import: Import the configuration of a DALI gateway. This page displays the imported driver management data, and you can modify and apply the imported configuration on this page.

Note: The file name of the imported file must be DeviceConfiguration and the file suffix is .json, otherwise it can not be imported, prompting "The name of the opened file does not match".



⑭Display all DALI drivers. For details, see section 2.2.1-2.2.2.

⑮Display the execution result of DCA.

⑯Display the database edit menu of DALI device.

⑰Display the current DCA version.

⑱Display the command waiting for the execution on the DALI bus.

⑲Display the bus voltage/current/ Dali Master version.

2.2 Device

After synchronizing the DALI bus, the correlation between the ECG and the driver address is displayed on this page. This is shown in Figure 2.2. The specific operations are as follows:

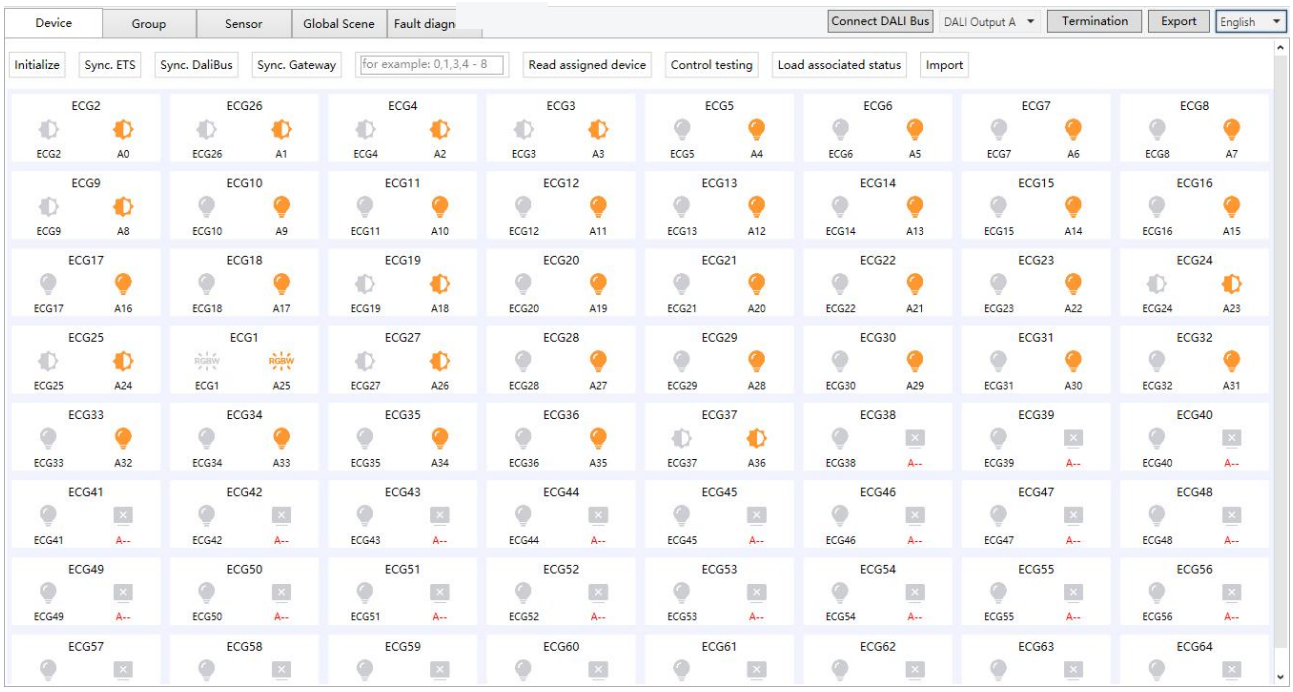


Fig.2.2(1) Group/ECG

（1） The grid displays the correlation between ECG configuration and driver address.

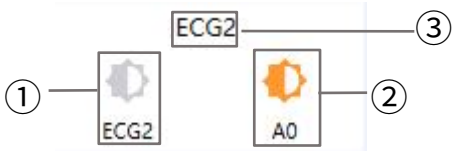


Fig.2.2(2)

①Displays the ECG number (1~64) and the corresponding ECG type icon in the ETS. (the icon is different for different ECG types) .

②Displays the actual driver address (A0~A63) and the corresponding driver type icon. (the icon is different for different driver types).

③Display the ECG name in ETS. (If no custom ECG name exists in ETS, it will not be displayed.)

（2） Press and hold the device grid, drag it to another device grid and release it to replace the relationship. After the replacement, DCA tool automatically determines whether the relationship is failure or not and gives you the corresponding prompts.

Note：Drag the device grid to associate ECG configurations to other driver addresses, the driver number defaults 1~64, only modify the ECG number associated with different addresses.

Note：The device grid status indication is as follows

①Normal state-Turn on the light, as shown in Fig. 2.2(4), if the light is turned off the icon is displayed in gray, as shown in Fig. 2.2(5).

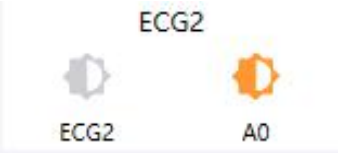


Fig.2.2(4)Turn on the light

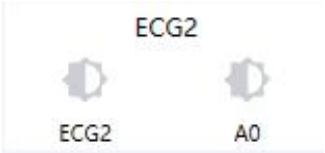
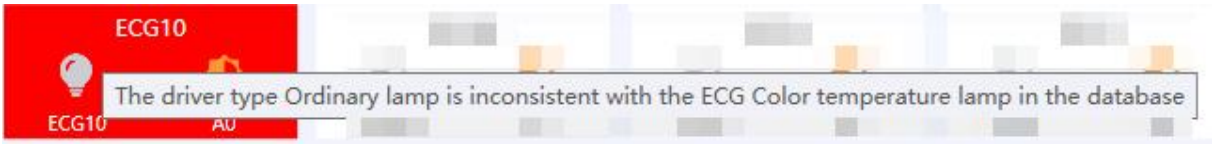


Fig.2.2(5)Turn off the light

②Failure state-Inconsistency in equipment type



Display "The driver type Ordinary lamp is inconsistent with the ECG Color temperature lamp in the database" when hovering over a device grid, please modify the correlation between ECG and driver address.

Note：1.The ECG device type set in ETS needs to be consistent with the type of the actual driver, otherwise some functions will not be controlled.

For example, if the driver address is A8 and the type is color temperature, ECG9 should be configured as color temperature type, otherwise display "The driver type Ordinary lamp is inconsistent with the ECG Color temperature lamp in the database" when hovering over a device grid.

2.The ECG type is RGB, but the actual driver type is RGBW, no error is triggered by default.

③Failure state-Driver is not associated with a ECG

④Failure state-ECG is not associated with a drive.

⑤Failure state-The corresponding driver is not configured.

The ECG is not associated with the address and the driver is not configured for the device at the corresponding address.

⑥Failure state-Drive failure.

（3） By right-clicking on the device grid, it is possible to send commands for switch on/off, brightness, color temperature, color (displayed according to the device type), modify address or delete address. For details, see section 2.2.1.1 to 2.2.1.8.

（4） By double-clicking the device grid with the left mouse button, you can access the detailed page of the driver grid, where you can view the driver address and type, scene configuration, device attributes , and send corresponding control commands.For details, see section 2.2.2.

Note：1.The device details page can only be accessed if the correspond DALI driver card has been read.

2.If the ECG is not associated with a driver, enable to access the detailed page of the device grid and directly control the corresponding driver through the DALI address.

2.2.1 device grid

By right-clicking on the device grid, you can select switch brightness, color temperature, color, modify address, delete address and other device attributes to control. Different driver can control different attributes, if the driver does not support color, the color will not be displayed, other attributes are the same.

The detail operations are as follows:

2.2.1.1 Switch

By right-clicking on the device grid, you can turn on/off the light. The icon will display the corresponding status of the light, as shown in Fig. 2.2.1.2(1), Fig. 2.2.1.2(2).

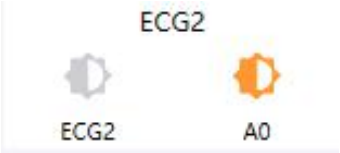


Fig.2.2.1.1(1)Turn on the light

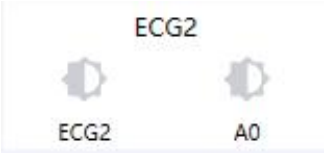


Fig.2.2.1.1(2)Turn off the light

2.2.1.2 Brightness

By right-clicking on the device grid to adjust the brightness,as shown in Fig. 2.2.1.2(1).Hover the mouse over the corresponding device grid to display the current brightness value, as shown in Fig. 2.2.1.2(2).

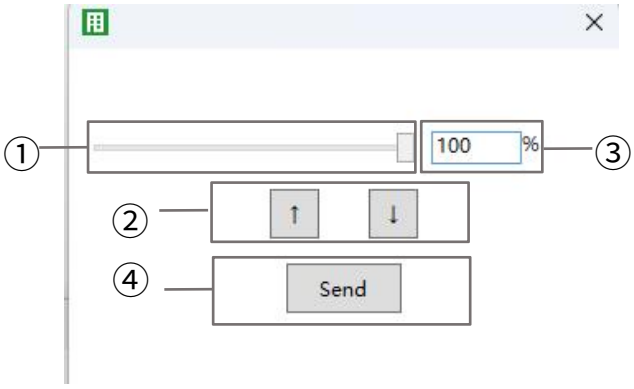


Fig.2.2.1.2(1) Adjust the brightness

Fig.2.2.1.2(2) Brightness

①Adjust the brightness percentage by sliding this slider.

②Click on the icon to increase/decrease the brightness value.

③Used to display the current brightness value, and can also enter the adjusted brightness value.

④Click to send the current brightness value to the DALI bus.

2.2.1.3 Color temperature

By right-clicking on the device grid to adjust the color temperature,as shown in Fig. 2.2.1.3(1).Hover the mouse over the corresponding device grid to display the current color temperature value, as shown in Fig. 2.2.1.3(2).

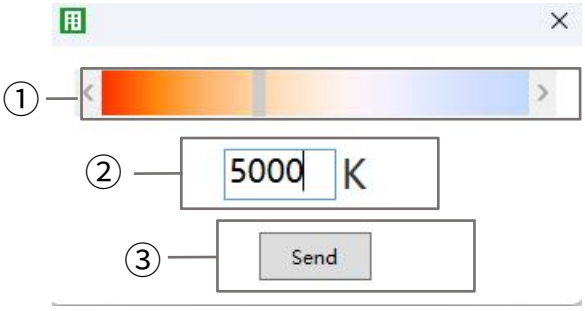


Fig.2.2.1.3(1) Adjust the color temperature

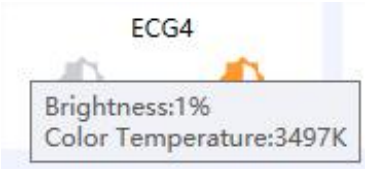


Fig.2.2.1.3(2) color temperature value

①Slide the slider or click on the icon "<","> " to adjust the color temperature.

② Used to display the current color temperature value, and can also enter the adjusted color temperature value.

③Click to send the current brightness value to the DALI bus.

2.2.1.4 RGB

By right-clicking on the device grid to adjust the RGB,as shown in Fig. 2.2.1.4(1).Hover the mouse over the corresponding device grid to display the current RGB value, as shown in Fig. 2.2.1.4(2).

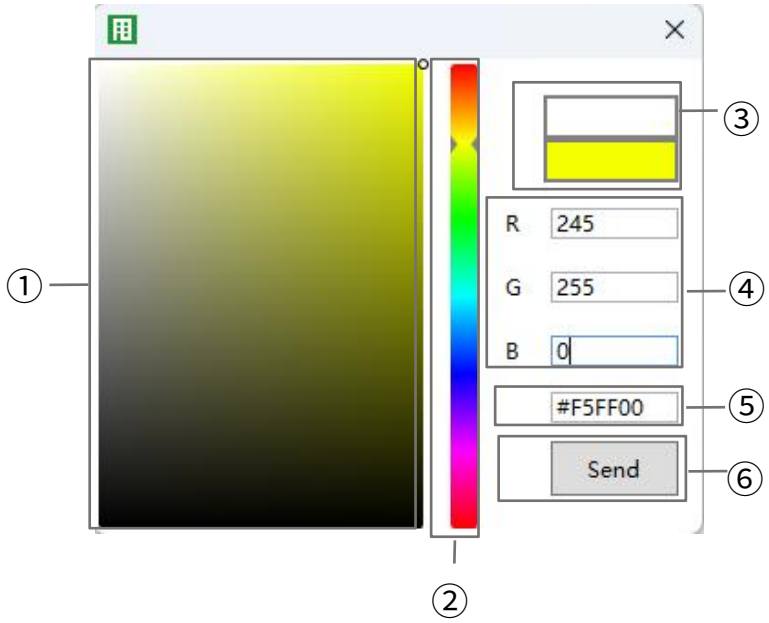


Fig.2.2.1.4(1) Adjust the RGB

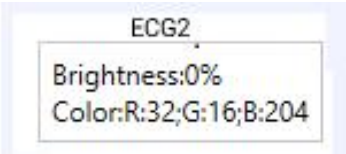


Fig.2.2.1.4(2) RGB value

①Click on the color palette to select a color.

②Slide the slider to adjust the color.

③Displays the current color effect image.

④Enter the RGB value to adjust the color.

Note: In the DALI system, R/G/B value equal to 255 means unchange. When set to 255, the actual value sent to the DALI system is 254.

⑤Used to display the current color value, and can also enter the adjusted color value.

⑥Click to send the current color value to the DALI bus.

2.2.1.5 RGBW

By right-clicking on the device grid to adjust the RGBW,as shown in Fig. 2.2.1.5(1).Hover the mouse over the corresponding device grid to display the current RGBW value, as shown in Fig. 2.2.1.5(2).

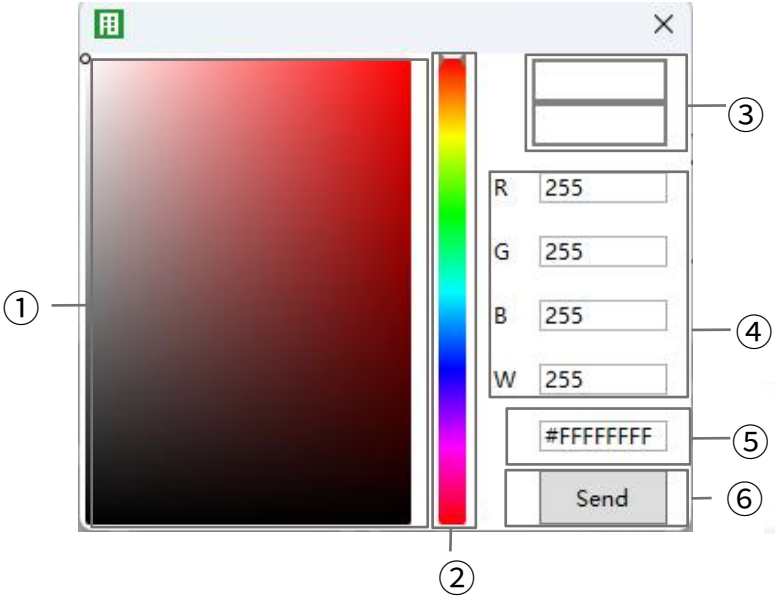


Fig.2.2.1.5(1) Adjust the RGBW

Fig.2.2.1.5(2) RGBW value

①Click on the color palette to select a color.

②Slide the slider to adjust the color.

③Displays the current color effect image.

④Enter the RGBW value to adjust the color.

Note: In the DALI system, R/G/B/W value equal to 255 means unchange. When set to 255, the actual value sent to the DALI system is 254.

⑤Used to display the current color value, and can also enter the adjusted color value.

⑥Click to send the current color value to the DALI bus.

2.2.1.6 XY

By right-clicking on the device grid to adjust the XY,as shown in Fig. 2.2.1.6(1).Hover the mouse over the corresponding device grid to display the current XY value, as shown in Fig. 2.2.1.6(2).

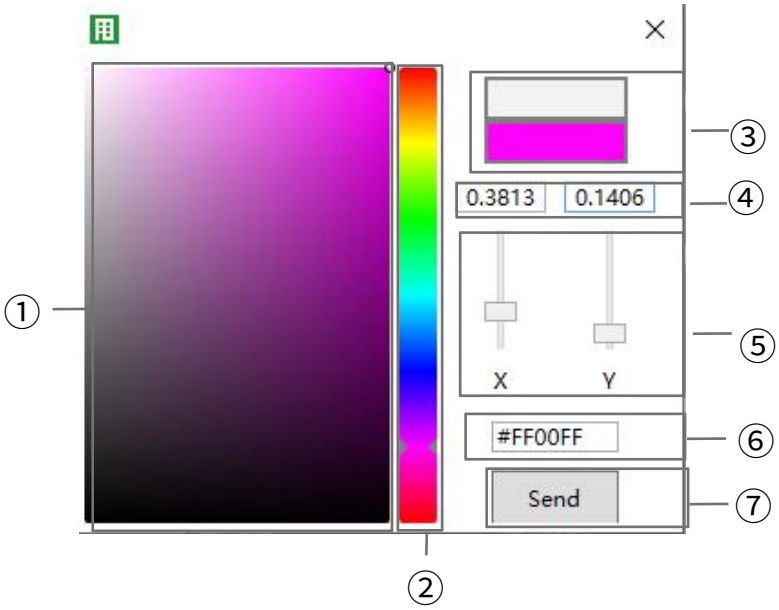


Fig.2.2.1.6(1) Adjust the XY

Fig.2.2.1.6(2) XY value

①Click on the color palette to select a color.

②Slide the slider to adjust the color.

③Displays the current color effect image.

④Used to display the current XY value, and can also enter the adjusted XY value.

⑤Slide the slider to adjust the XY value.

Note:

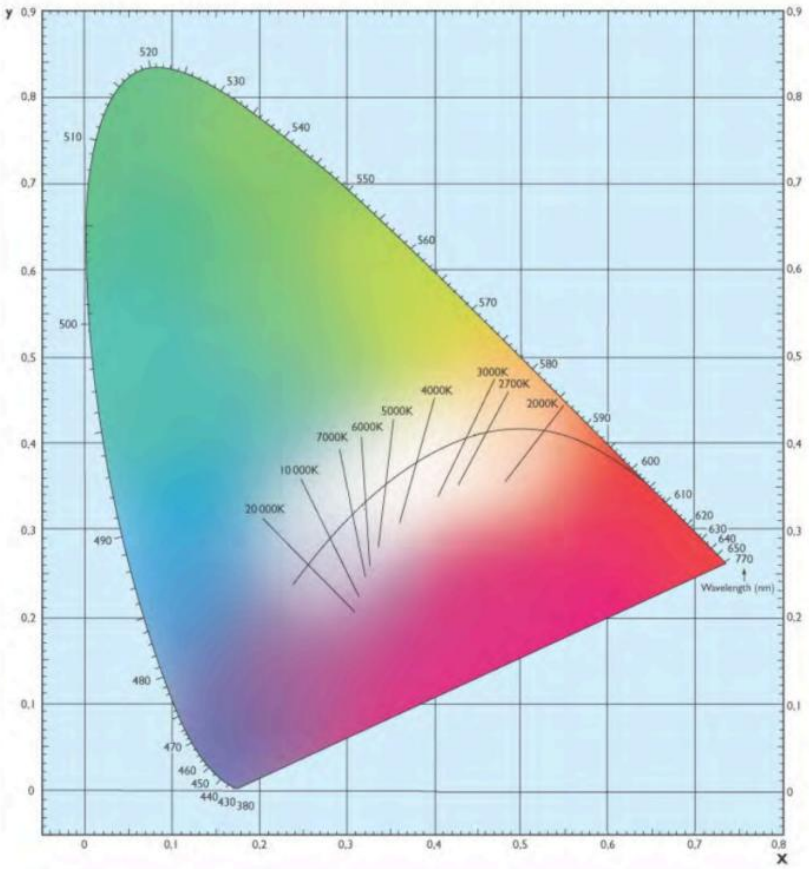
1. In the DALI system, the value of X+Y must be less than 1 to have a corresponding color value, otherwise there is no corresponding color.

2. In DALI system, X/Y value equals to 1 means unchange.

⑥Display the current color value, enter the color value is invalid.

⑦Click to send the current color value to the DALI bus.

Note: XY color value is not in the color range then the control value are invalid, such as 0.01/0.01.



2.2.1.7 Modify address

By right-clicking on the device grid to modify address, as shown in Fig.2.2.1.7.

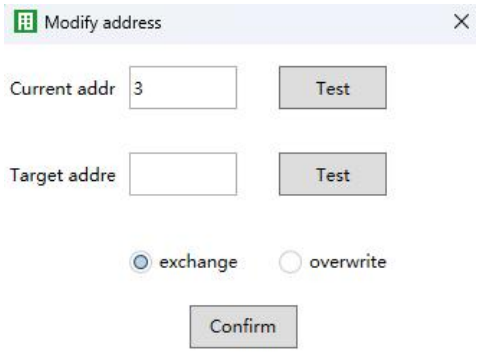


Fig.2.2.1.7 Modify address

Exchange: Associate the ECG configuration of the current address with the target address.

Overwrite: Force the current address to be changed to the target address, and the new address will completely replace the old one.

Note: At this time, the target address will be deleted.

2.2.1.8 Delete address

By right-clicking on the device grid to delete address, as shown in Fig.2.2.1.8.

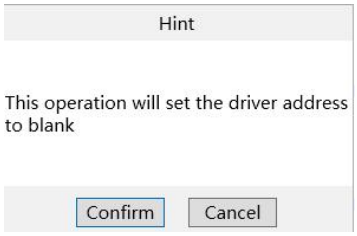


Fig.2.2.1.8 Delete address

2.2.2 Detailed page of the device grid

By double-clicking the device grid with the left mouse button, you can access the detailed page of the device grid, where you can view the driver address and type, scene configuration, modify the driver configuration, and send corresponding control commands, as shown in Fig.2.2.2(1), Fig.2.2.2(2), Fig.2.2.2(3), Fig.2.2.2(4).

Note: Caching is performed only after the data in the detail page is loaded.

Different driver can control different attributes, if the device does not support color, the color will not be displayed, other attributes are the same.

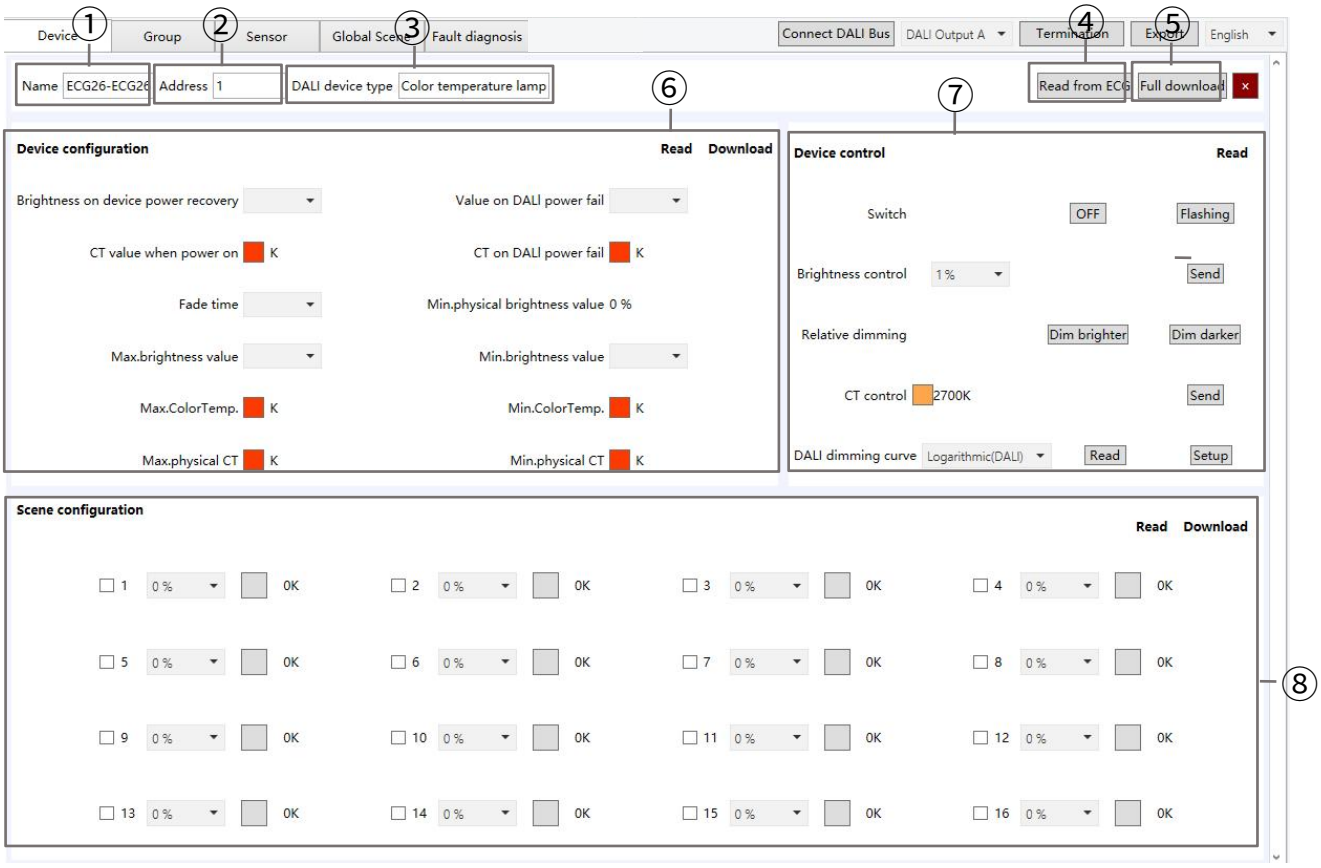


Fig.2.2.2(1) color temperature

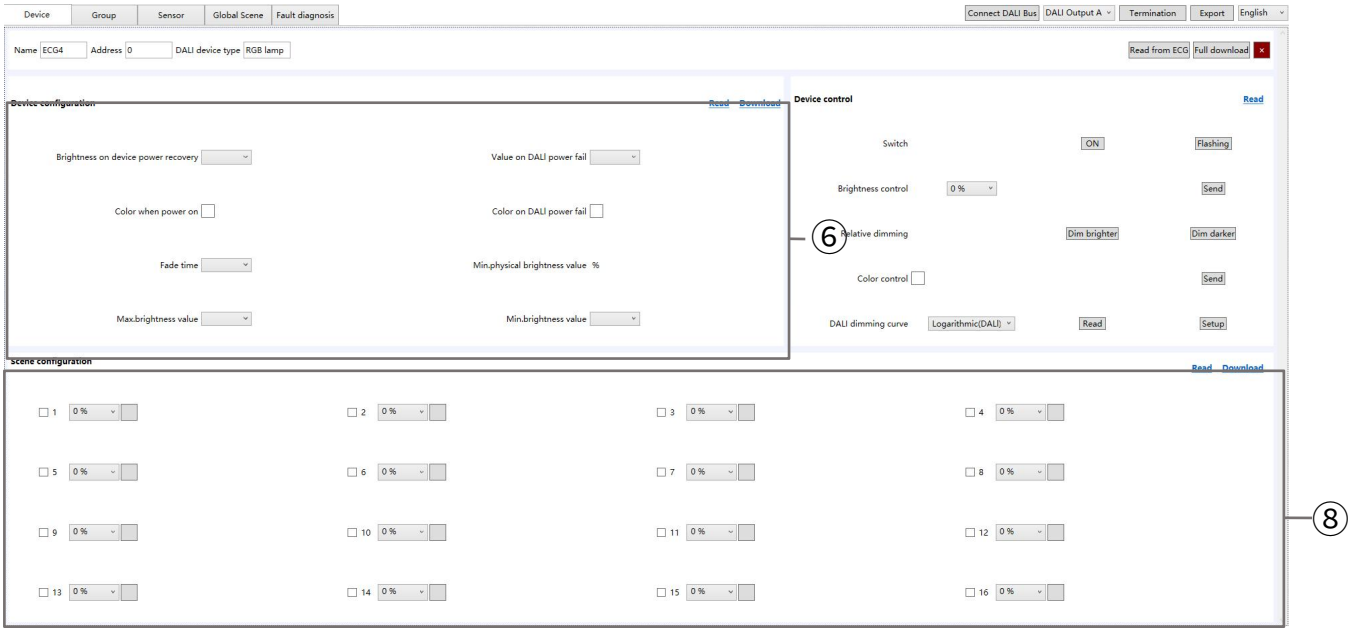


Fig.2.2.2(2) RGB

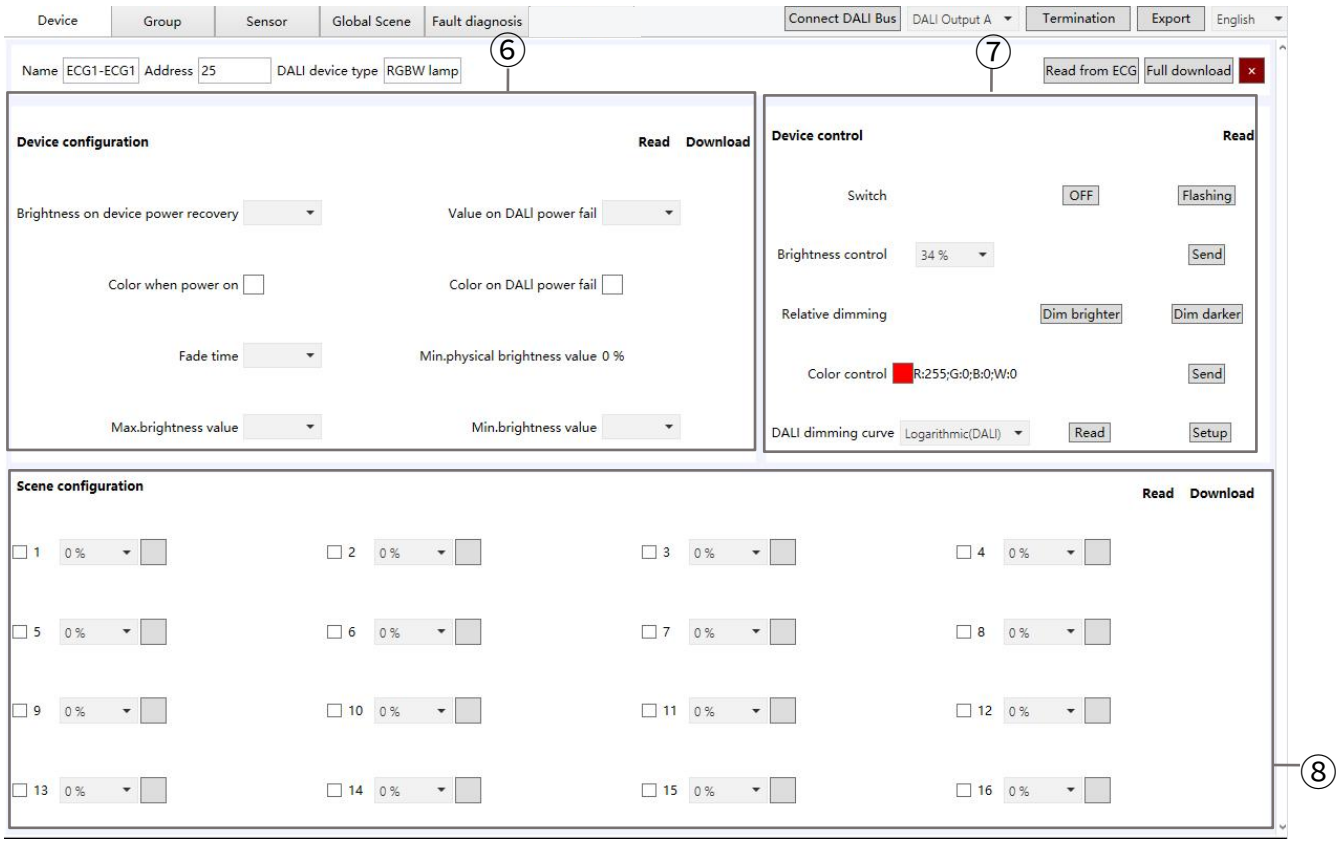


Fig.2.2.2(3) RGBW

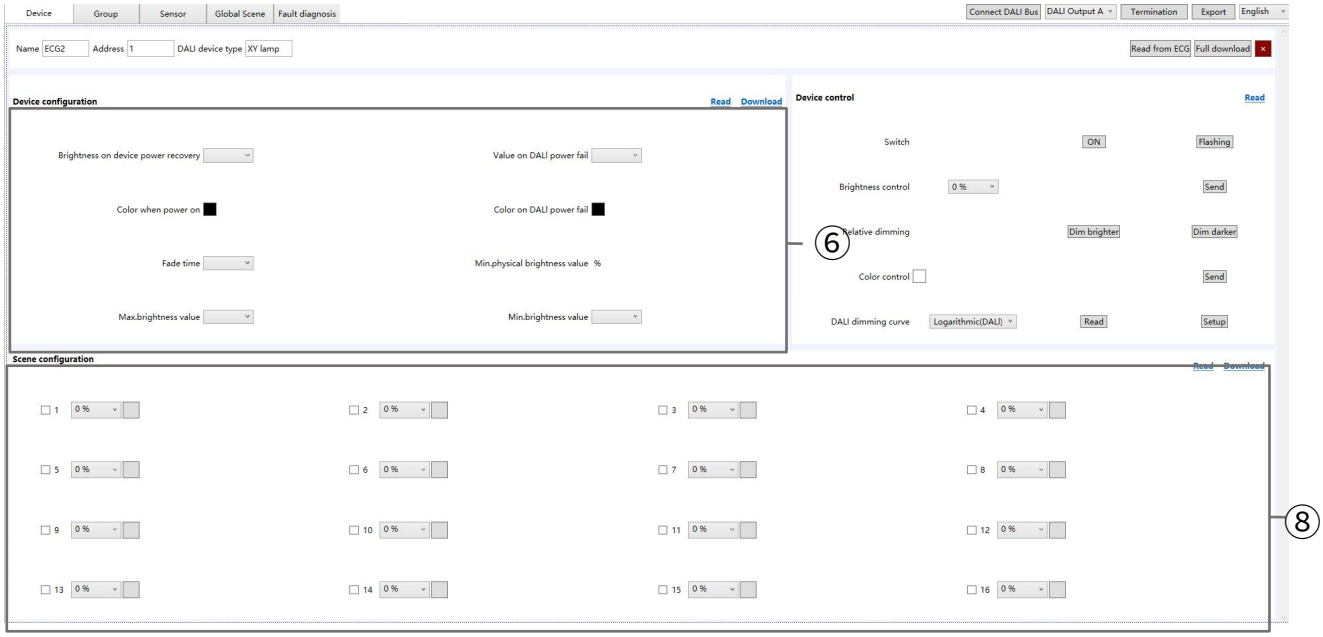


Fig.2.2.2(4) XY

①Name: Displays the name of the selected device via ETS.

②Address: Displays the address of the selected driver.

③DALI device type: Displays the type of the selected driver.

④Read from ECG: Read all the information of the selected driver from the ECG and synchronize it to be displayed in the DCA, such as driver type, driver configuration, and scene configuration.

⑤Load all para.: Send all device configuration and scenes to the DALI driver.

⑥Device configuration（**displayed according to the driver type**）：

Brightness on ECG power recovery：The brightness value that the driver executes when the ECG power recovery.

Value on DALI power fail：The brightness value that the driver executes when the DALI communication of the DALI driver is disconnected.

CT value when power on：The color temperature value executed by the driver when the DALI communication of the DALI driver is disconnected and then reconnected.Option:1000-10000K

CT on DALI power fail：The color temperature value that the driver executes when the DALI communication of the DALI driver is disconnected.Option:1000-10000K

color when power on：The color value executed by the driver when the DALI communication of the DALI driver is disconnected and then reconnected. X/Y Option:0-1、R/G/B/W Option:0-255. Recovery as color on DALI power fail.

color on DALI power fail：The color value that the driver executes when the DALI communication of the DALI driver is disconnected. X/Y Option:0-1、R/G/B/W Option:0-255.

Note: In the DALI system, if the value of X/Y is set to 1 or the value of R/G/B/W to 255, it means that unchange. The driver will execute the previous color value.

Fade time：The fade time for adjust brightness, color temperature and color by the driver.

Min. physical brightness value：Sets the minimum physical brightness value that the driver can execute, which refers to the minimum brightness value to activate the lamp, is only available for reading and cannot be send.

Max. brightness value：Set the maximum brightness value that can be executed by the driver, which refers to the maximum brightness value controllable by the KNX-DALI-2 Gateway for lamps.When the driver receives the out-of-range value, it will execute the corresponding brightness according to its own logic, which is usually the maximum value.

Min. brightness value：Set the minimum brightness value (related to the minimum physical brightness) that can be executed by the driver, which refers to the minimum brightness value controllable by the KNX-DALI-2 Gateway for lamps. When the driver receives the out-of-range value, it will execute the corresponding brightness according to its own logic, which is usually the minimum value.

Max. color Temp.：Set the maximum color temperature that can be executed by the driver, which refers to the maximum color temperature value controllable by the KNX-DALI-2 Gateway for lamps.

Min. color Temp.：Set the minimum color temperature that can be executed by the driver, which refers to the minimum color temperature value controllable by the KNX-DALI-2 Gateway for lamps.

Max. physical CT：Set the maximum physical color temperature that can be executed by the driver, which refers to the maximum color temperature value of the lamps itself, typically the color temperature of cool white LEDs.

Min. physical CT：Set the minimum physical color temperature that can be executed by the driver, which refers to the minimum color temperature value of the lamps itself, typically the color temperature of warm white LEDs.

Read: Click to read the driver's configuration information from the DALI bus and synchronize display it to the DCA.

Down: Click to send all the configurations to the DALI driver.

⑦Device control：The DCA triggers corresponding control commands, which are then directly sent to the driver via the gateway, enabling control over the driver's switch, brightness control, relative dimming, CT control, Color control and DALI dimming curve.

Read: Click to read the driver's control information from the DALI bus and synchronize display it to the DCA.

⑧Scene configuration（**displayed according to the driver type**）：Displays the scene configuration of the driver, a total of 16 DALI scenes can be configured, the brightness, color temperature and color value of each scene can be preset, and the KNX scene number corresponding to the scene is configured by the ETS.

Check to enable this preset scene, when the DALI bus receives the DALI scene number, the driver will execute the preset state corresponding to the scene number, otherwise no operation will be executed.

Read: Click to read the scene configuration from the DALI bus and synchronize display it to the DCA.

Down: Click to send all the scene configured to the DALI driver.

2.3 Group

All drivers on the DALI bus can be read and assigned to groups in bulk. Only groups of DALI drivers that are synchronized in the current “Group/ECG” list are read. Drivers that cannot be read on the DALI bus are not displayed on this page.

Note: After group control is recall via KNX bus, the gateway immediately send the “ON” status of corresponding devices to the KNX bus for “ON” command. However, the “OFF” status will only be sent after dimming behavior complete for “OFF”command.

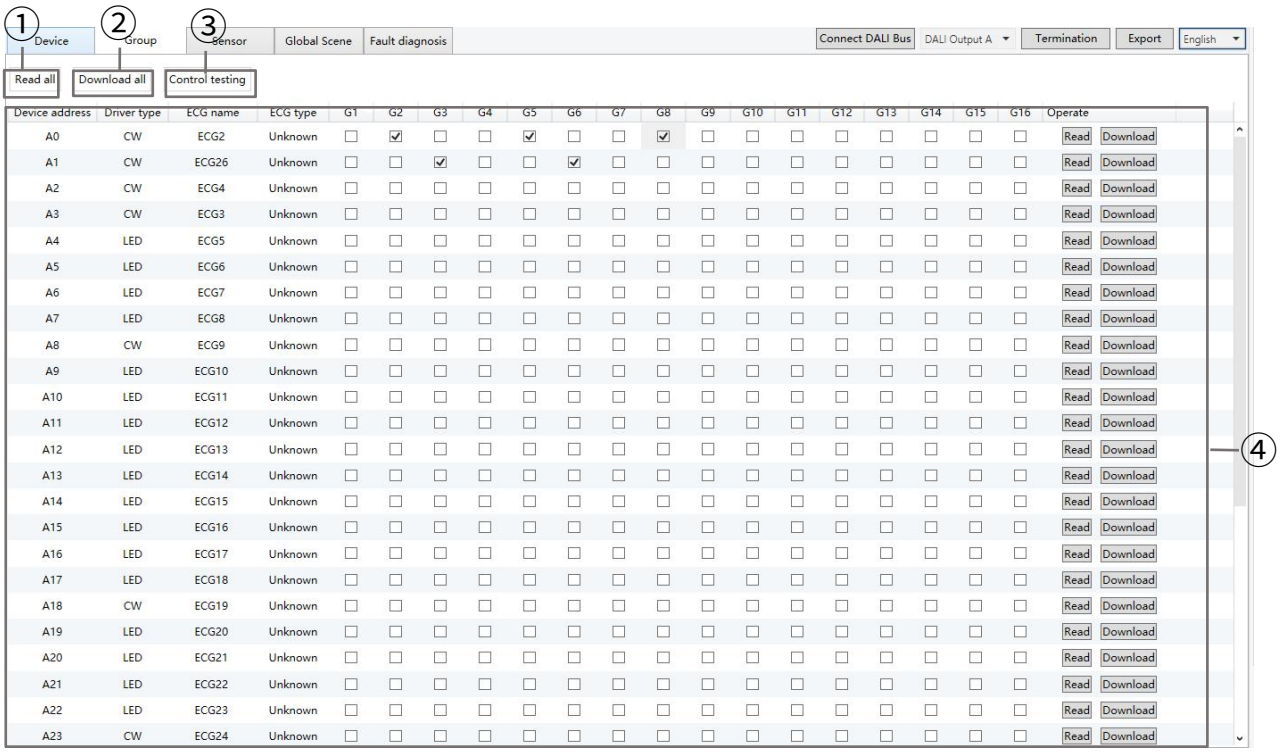


Fig.2.3(1) Group

①Read all: Click to read the grouping information of all drivers on the DALI bus and synchronously display it in the DCA.

②Down all: Click to send all the configured groups to the corresponding DALI driver.

③Control testing: Click test to configure the current group to the gateway and enforce the corresponding group to the corresponding state.

④Displays all current driver addresses, driver types, ECG name, ECG type and corresponding grouping information.

Note: 1.Display group information and distinguish abnormal associations, as shown in Fig. 2.3(2).

①Display group information: A red superscript indicates that this group is configured in ETS. When the mouse hovers over the group, the type and description of the group in ETS will be displayed.

②Distinguish abnormal associations: The red indicator drive type is different from the grouping type in ETS.

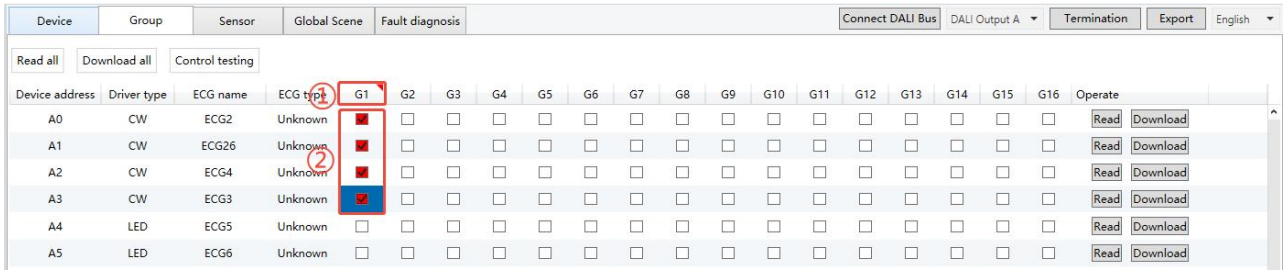


Fig.2.3(2) Abnormal correlation

2.The association between devices and ECGs originates from the cached status in “Device” page. If discrepancies are found, please re-"Sync.DaliBus".

（1） Click to assign a group to the corresponding driver address.

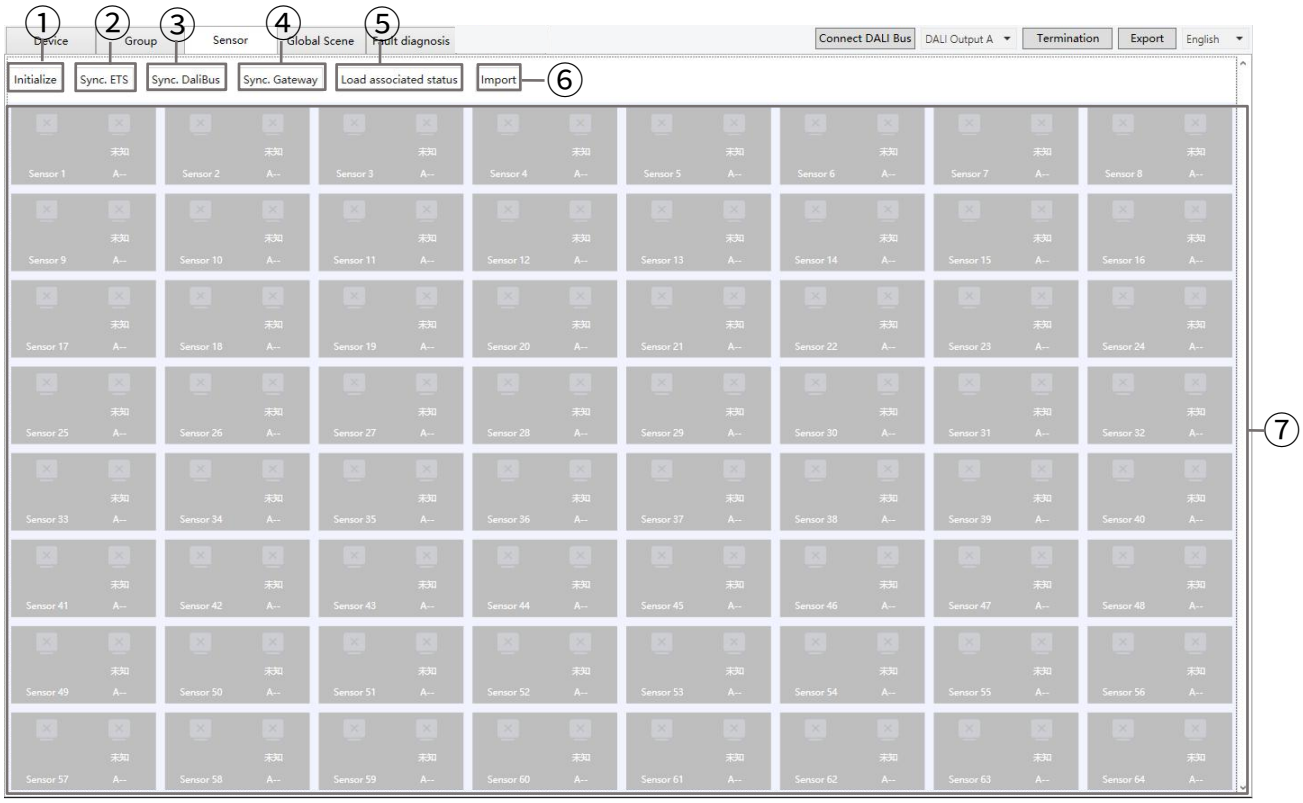
（2） Read: Click to read the group information of the specified driver address from the DALI bus and synchronously display it in the DCA.

（3） Down: Click to down the group information to the corresponding driver.

2.4 Sensor

This gateway supports connection of DALI input devices and can be configured with 8 sensor channels in ETS. It can synchronously read the input devices on the DALI bus and associate them with the sensors in ETS to achieve the function of reporting DALI sensor data to the KNX system.

Currently, it only supports the association of motion sensor, brightness sensor, motion + brightness 2-in-1 sensor, other input devices are not supported, and are uniformly displayed as other device types.



①Initialize: Click to select “[All] init DALI device” or “[No Addr] init DALI device”.

[All] init DALI device: Initialize all sensor. Assign DALI addresses to all sensor on the current channel.

Note: This operation will re-assign the address to the sensor randomly, which will cause the association relationship between the sensor and ECG to be disrupted, so please use it with caution.

[No Addr] init DALI device: Initialize all no address sensor. Only assign DALI address to the sensor that have no address, this operation will not change the DALI address that has already assigned.

Note: If the address allocation is incomplete during address allocation, perform the " [No Addr] init DALI device" operation. If the address allocation fails for more than two times, perform the "[All]

init DALI device" operation.

②Sync. ETS: Synchronize sensor configuration information from ETS to DCA.

③Sync.Dali Bus: Click to read the sensor configuration information on the DALI bus directly.

Note: If there are multiple sensors on the channel, this operation will take a long time.

④Sync.Gateway: Click to read the saved sensor configuration information on the gateway, including ETS and DCA configuration information. If the relevant information is missing, the data will be empty.

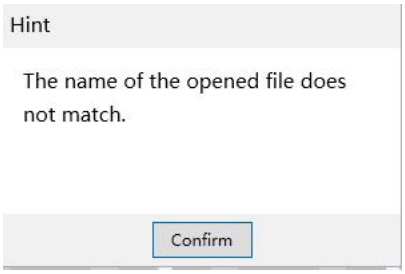
Note: Before performing the operation of "sync. Gateway", please make sure that Download Database have been performed. If the gateway has not received the configuration downloaded by DCA when this operation is performed, the default configuration will be reported, which may not correspond to the actual situation.

⑤Load associated status: Click to load the sensor configuration to the gateway.

Note: If the DCA has not read or configured the driver parameters, they are not sent by default here. After load configuration, you can re-read the load configuration information by clicking "Sync. Gateway".

⑥Import: Import the configuration of a DALI gateway. This page displays the imported driver management data, and you can modify and apply the imported configuration on this page. By double-clicking the device grid with the left mouse button, you can access the detailed configuration page.

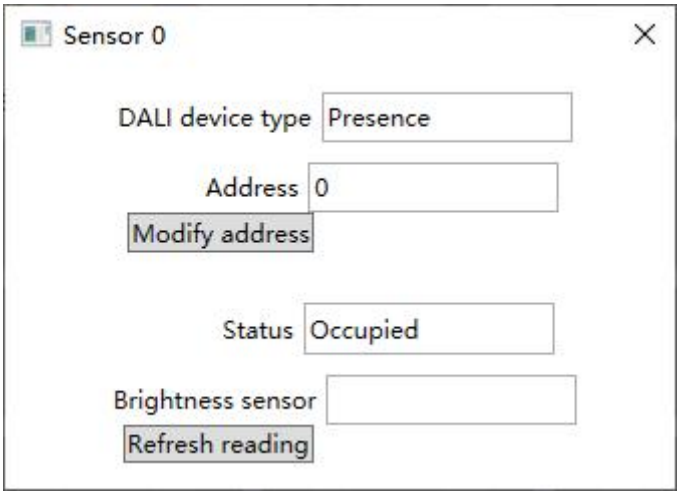
Note: The file name of the imported file must be SensorConfiguration and the file suffix is .json, otherwise it can not be imported, prompting "The name of the opened file does not match".



⑦Display all sensors.

（1） By double-clicking the device grid, you can access the detailed page of the sensor grid,where

you can view the DALI device type/status, modify address and refresh reading brightness.



（2） Modify the correlation between the ECG and the sensor.

There are 2 ways to modify:

①Drag the grid to associate the sensor to the specified driver address.

②Enter the specified driver address in the Sensor Details page and click “Modify address”.

Note: In this step, you need to make sure that the ECG type is the same as the sensor type of the corresponding address; if not, DCA will report an error.

①Normal state--Occupied,as shown in Fig.2.4(1), No one, as shown in Fig.2.4(2), Moving,as shown in Fig.2.4(3)。

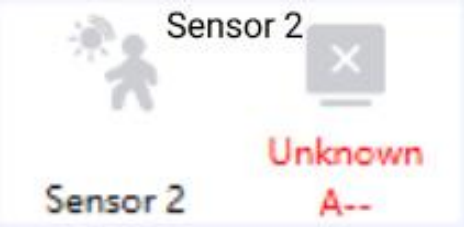
Fig.2.4(1)Occupied

图 2.4(2)No one

图 2.4(3)Moving

②Failure state-Sensor is not associated with a ECG.

③Failure state-ECG is not associated with a sensor.



④Failure state-The corresponding sensor is not configured.

The ECG is not associated with the address and the sensor is not configured for the device at the corresponding address.

2.5 Global Scene

Scene is global scene where the user can recall ECGs or groups as execution targets and set the scenario target state for them. When the gateway receives a KNX scene control telegram sent on the bus, it performs the corresponding operation.

In the global scene, you can add devices or groups to the scene and set the target brightness, color temperature and color for each device/group, which makes the control more free and flexible, as shown in Fig. 2.5(1).

The detail operations are as follows:

Note: After global scene control is recall via KNX bus, the gateway immediately send the "ON" status of corresponding devices to the KNX bus for "ON" command. However, the "OFF" status will only be sent after dimming behavior complete for "OFF"command.

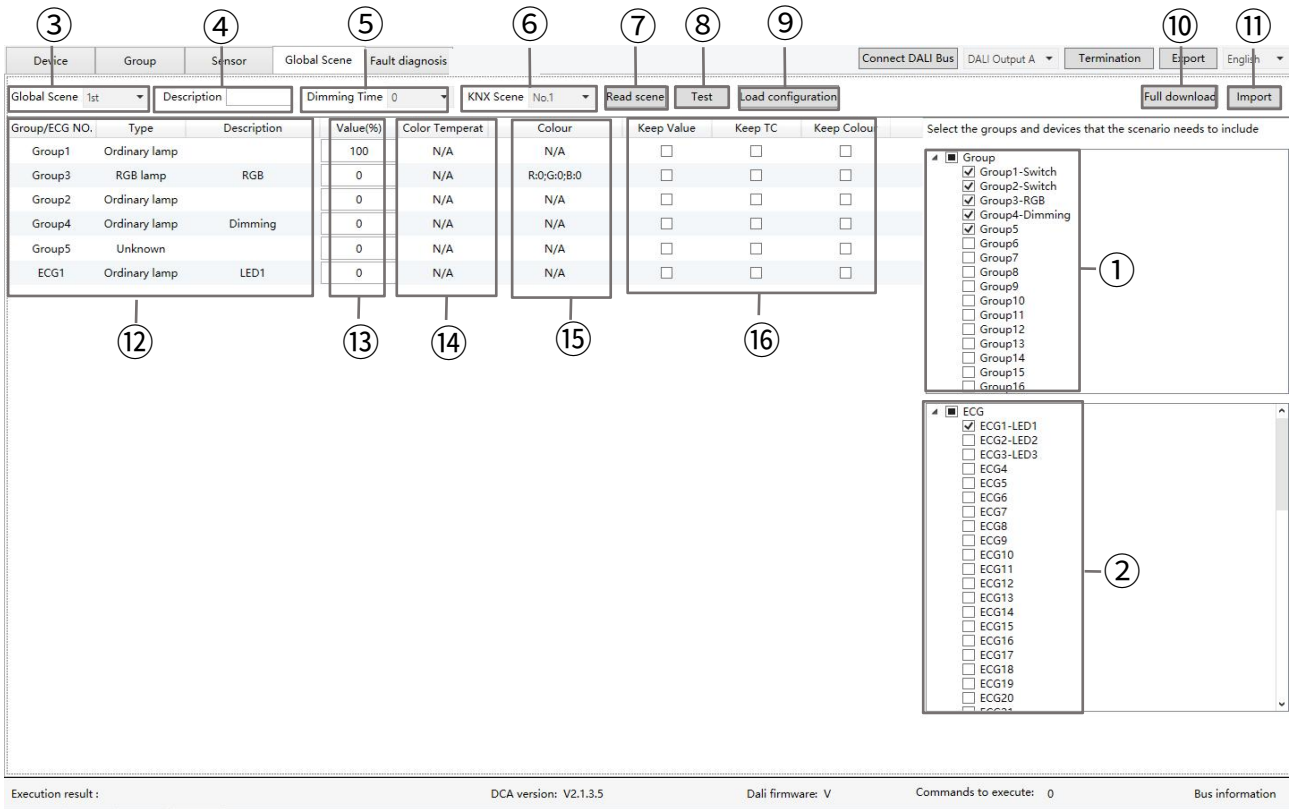


Fig.2.5(1) Scene

①Group：Display all groups, click to select the group to which the scenario belong, click again to deselect.

Note: 16 groups are displayed by default. If no group description is displayed, you can click "Synchronize ETS Data" on the "Group/ECG" page.

②ECG：Displays all lists obtained by DCA, click to select the device to which the scenario belong, click again to deselect.

Note: 64 ECGs are displayed by default. If no ECG description is displayed, you can click "Synchronize ETS Data" on the "Group/ECG" page.

③Global Scene：Select the corresponding number of the current scene, a total of 16 scenes can be selected, up to 16 scenes can be configured. Each scene corresponds to a KNX scene number, and multiple groups or ECGs can be added as execution results in each scene.

④Description：Click to enter a description of this scene, up to 18 bytes in length.

⑤Dimming time：Set the fade time from current value to target value in scene control, options:0~255s.

⑥KNX Scene：Select the KNX scene number that triggers this scene, 64 scene numbers are available. When the gateway receives the corresponding KNX scene number, the corresponding scene is executed.

⑦Read scene: Click to read the scene configuration corresponding to the scene number from the gateway and synchronously display it in the DCA. If it has not been load before, the data will be empty.

⑧Test：Click to test selected scene configuration to the gateway and execute the corresponding device/group to the corresponding state.

Note: When this function is executed, DCA directly sends the target state of each group/ECG to the DALI bus. This process does not go through gateway processing, and the dimming time of drivers cannot be executed. Therefore, this function is only used to confirm whether the final target status matches expectations. To test the actual fade effect, please invoke via KNX objects after issuing global scenes.

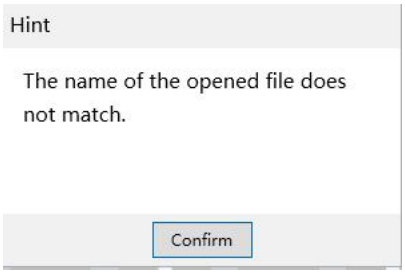
⑨Load configuration：Click to send selected scene configuration to the gateway.

⑩Load all para.: Click to load the global scene configuration to the gateway.

Note: The total amount of data downloaded is large, this operation will take a long time.

⑪Import: Import the configuration of a DALI gateway. This page displays the imported global scene management data, and you can modify and apply the imported configuration on this page.

Note: The file name of the imported file must be SceneConfiguration and the file suffix is .json, otherwise it can not be imported, prompting "The name of the opened file does not match".



⑫Group/ECG NO.：Display the group or ECGs to which the scene belongs, the ECG number and the driver type, description.

Description：Corresponding descriptions are displayed according to the selected groups and devices, which are set by the ETS and cannot be modified. The DALI gateway does not save this data. If you click to "sync. Gateway", the data will be empty.

⑬Value: Enter the brightness value, range: 0%~100%.

Note: If the driver type is RGB or RGBW, the gateway will automatically use the luminance value corresponding to the color value as the target brightness during execution, brightness values is not available to set in DCA scenes.

⑭color Temperature：According to the device type, determine whether the color temperature setting is supported, if it is supported, double-click to set the target color temperature of the device or group, and the color temperature range is configured according to the ETS, as shown in Fig. 2.5(3). Otherwise, display "N/A".

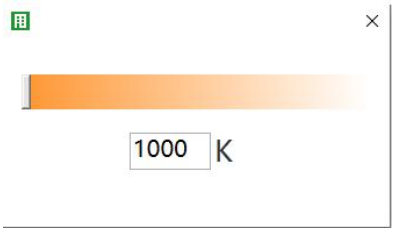
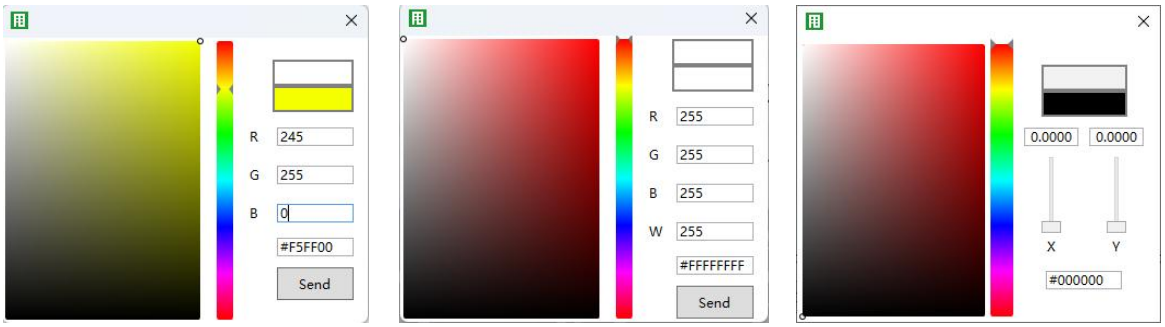


Fig.2.5(3) color temperature

⑮color：According to the device type, determine whether the color setting is supported, if it is supported, double-click to set the target color of the driver or group,as shown in Fig. 2.5(4). Otherwise, display“N/A”.



RGB RGBW XY

Fig.2.5(4) color

⑯Keep Value、Keep TC、Keep color：Checking indicates that the corresponding brightness, color temperature, and color values of this driver/group will not be sent in this scene, keeping the state before scene control.

Note：It is not allowed to check three options at the same time.

2.6 Fault diagnosis

Across the DALI bus, according the type of device failure, it is categorized into lamp faults and ECG faults.The DCA tool can be used to view the total number of devices, number of faults, failure rate, total number of failures, total failure rate, the status of each ECG/lamp and export the data, as shown in Fig. 2.6.

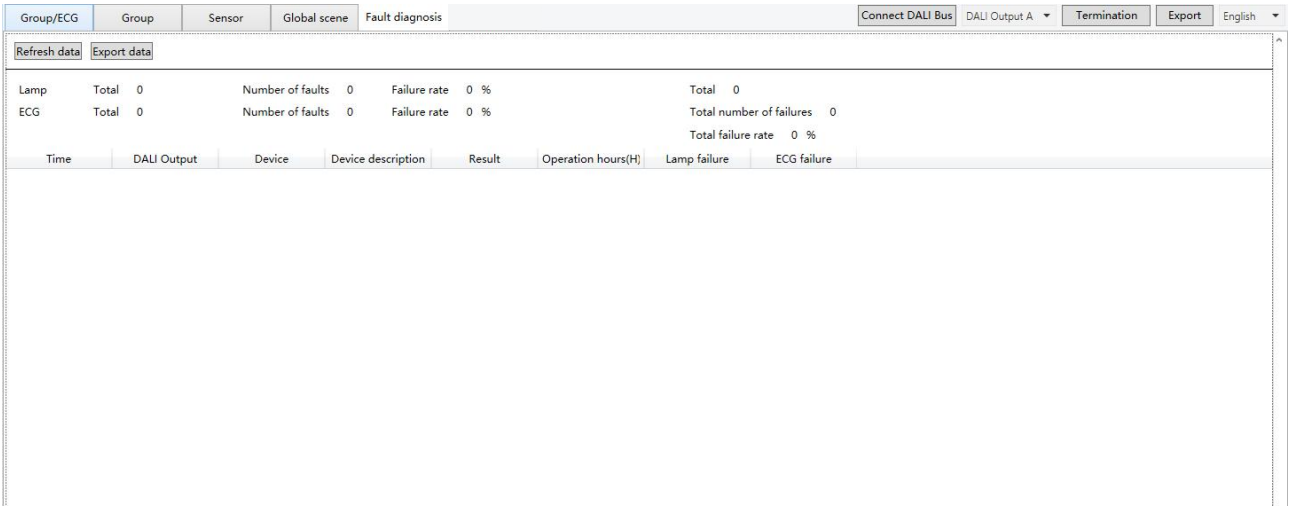


Fig.2.6 Fault diagnosis