RFID Operation manual

V1.1

0. Modify record

Version	Revise content	Editor/Date
V1.0	1st version finished	Michael Young/09.13.2017
V1.1	Perfect the expression of some content	Paul Li/5.24.2018

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1. System Login

1.1. Login

RFID system login by Google Chrome as suggested, please input server's address, e.g.: http://192.168.1.116:8080/ , the login GUI is as image 1.1.1, input username and password, click: Login. Default ID is root, password is admin.

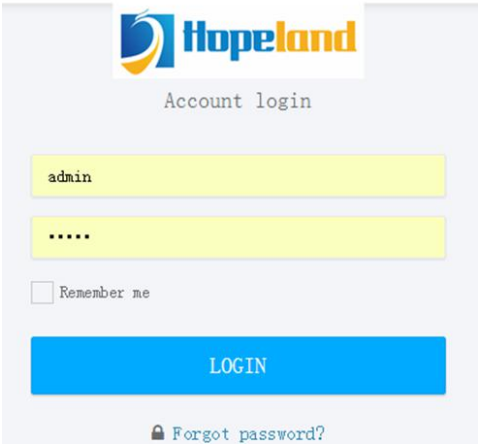

Image 1.1.1

1.2. System navigation

Login success show as image 1.2.1, system left side is Menu navigation, including Device manager, Task manager, logger manager, system manager etc. Right side is the current function page, and the default is the welcome page.

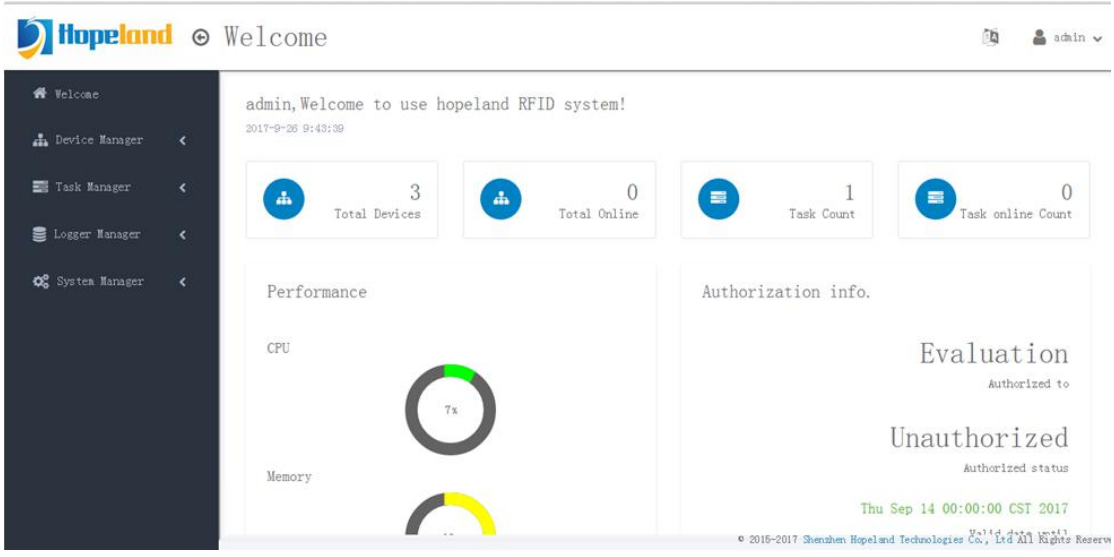

Image 1.2.1

2. Device manager

Device manager menu including device manage, for adding or revising the devices into middleware for group management.

2.1. Device manage

Click the left side's device manage → Device manager as image 2.1.1.

Device manage site above including the Toolbar, with Add, Edit, Remove, Configure, Transmit, and refresh button.

Device manage GUI bottom is device list, including Reader ID, Alias, Enabled, State, Link, Model, MAC and Remark. The MAC address is obtain from devices after it's connected successfully, the other configuration is configured when adding devices. Enable is a button, could fast connect/disconnect the device.

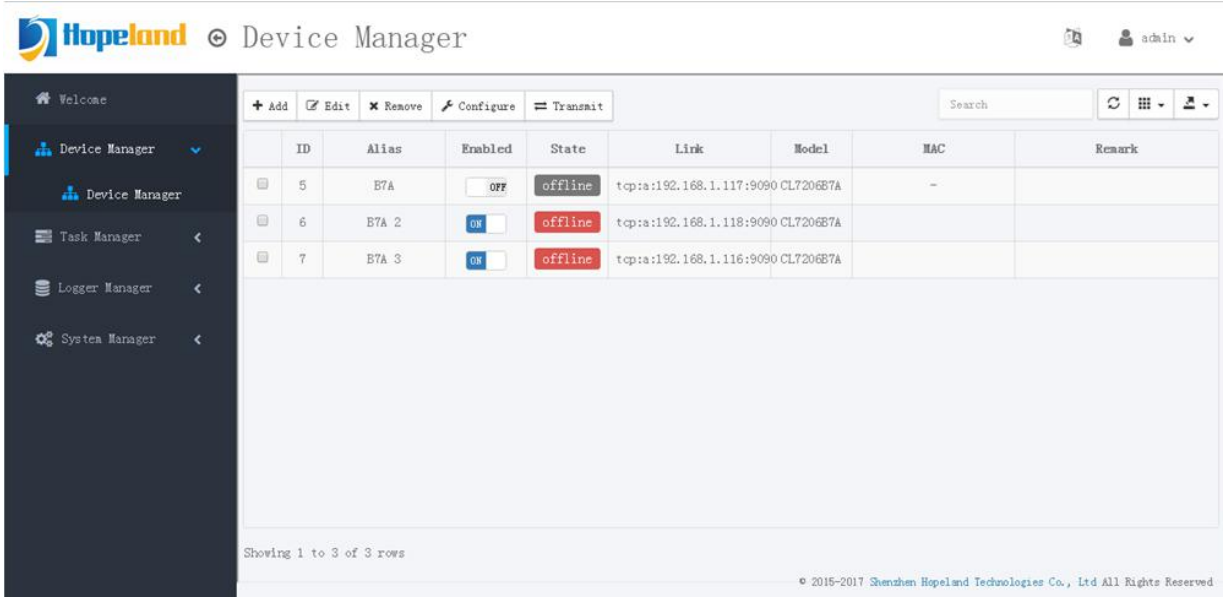

Image 2.1.1

2.1.1. Adding devices

Click tool bar's Add button, could add devices as image 2.1.1.1 shows. Device alias is for fast recognize the different devices, only TCP client connection begins with "TCP:A:" is supported, and device model could choose from the current system 's supported devices, remark is for some notes for each device.

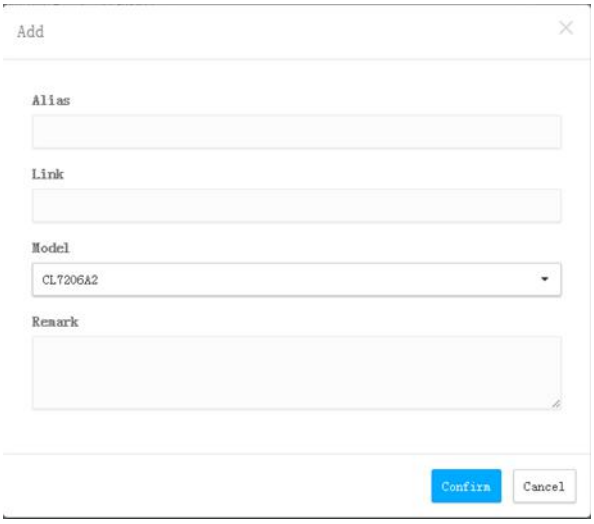

Image 2.1.1.1

After filling out the device information, you can click the "Confirm" button to add the device, and the result will be prompted by the prompt window.Clicking the cancel button will give up this addition.

Note: Adding devices default as Disconnect status.

2.1.2. Modify information

Choose device and click the toolbar's Edit to modify devices information, page as image 2.1.2.1. Modify page is same as adding devices page.

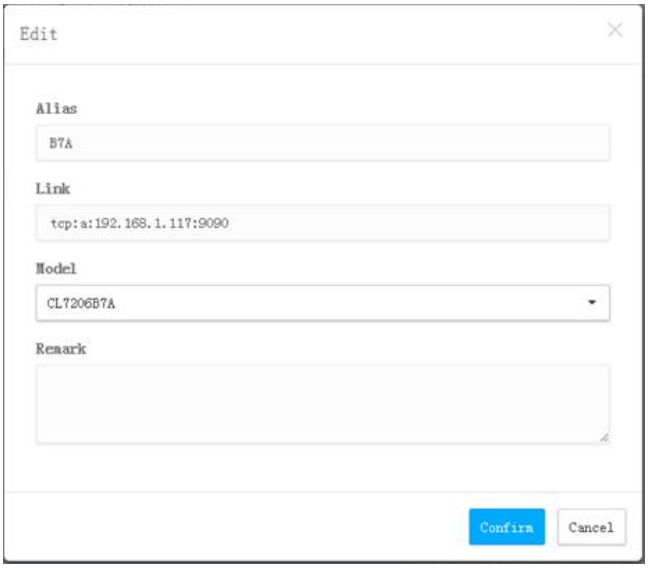

Image 2.1.2.1

2.1.3. Remove devices

Select the device, click the Remove button on the toolbar to remove device. It will pop out the warning as image 2.1.3.1, click Confirm button to remove device, click Cancel to give up the remove.

Image 2.1.3.1

2.1.4. Configure devices

Select the device and click the Configure button, including configuration Antennas(image 2.1.4.1), Configure Frequency(image 2.1.4.2),Configure Baseband(image 2.1.4.3) . After configuration finished click Confirm to configure or Cancel to give up.

image 2.1.4.1

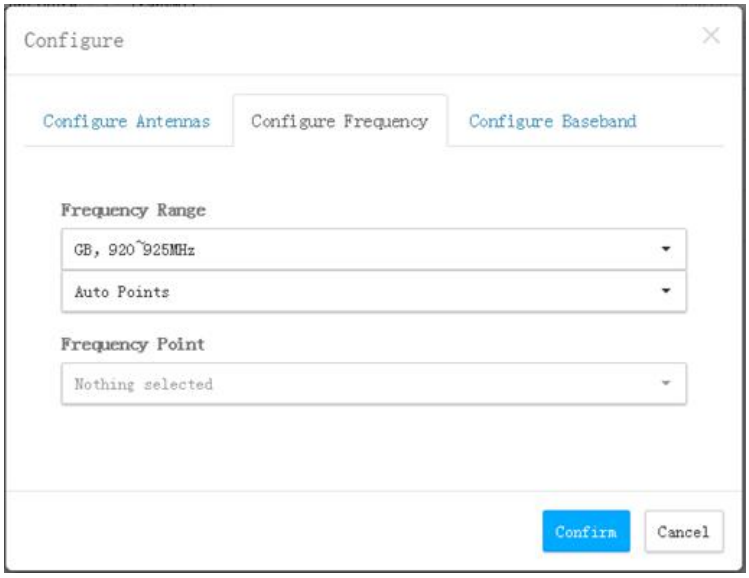

image 2.1.4.2

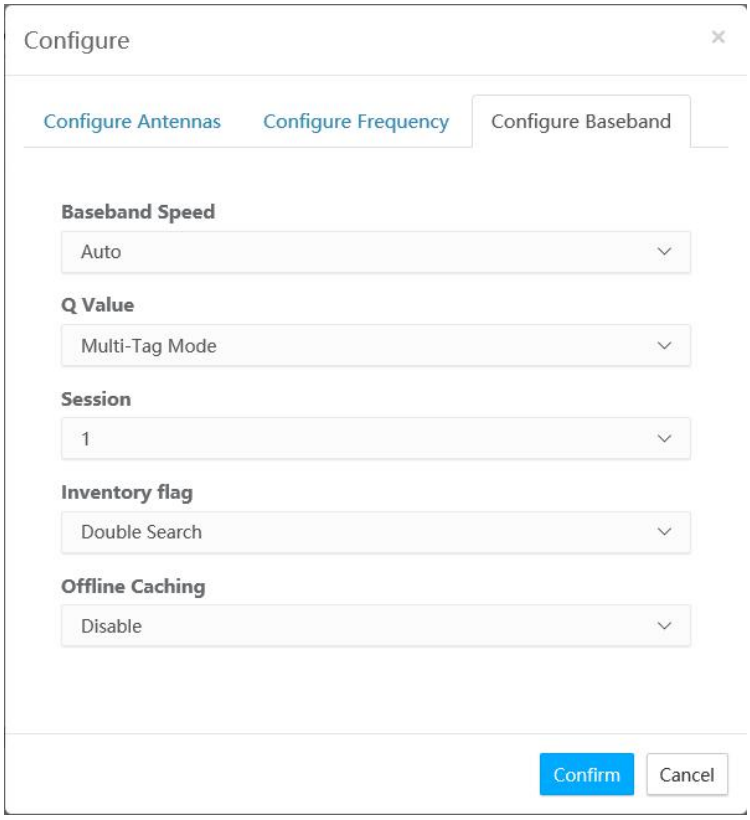

image 2.1.4.3

Middleware support offline caching function, when the communication interrupt between middleware and readers occurs, but the readers are still reading tags, after the communication resume, the tag data which reading by readers at offline status can be retrieved by middleware. This function need to enable the reader's breakpoint option.

2. 1. 5. Data transmission

After selecting the specified device, click the "Transmit" button on the toolbar to make a data transmission, as shown in Image 2.1.5.1). Data Transmission is used to directly transfer hexadecimal instructions to the device for configuring, detecting, and performing other extended functions.

Image 2.1.5.1

3. Task management

The task manager menu contains the task manager page. The procedure logical set of Middleware called business, business is composed of the implementation procedures, including procedure conditions, action and action parameters.

3.1. Task management

Click Task Manager on the left side of navigation-> Task Manager, enter the task management page, the page shown in Image 3.1.1.

Operating toolbar on the top of the page, including the Add, Edit, Remove, Configure, and Refresh buttons.

The list of task information on the bottom of task manager, including the display task ID, alias, status, and remark. Enable of the status is a button, which allows you to quickly enable / disable tasks.

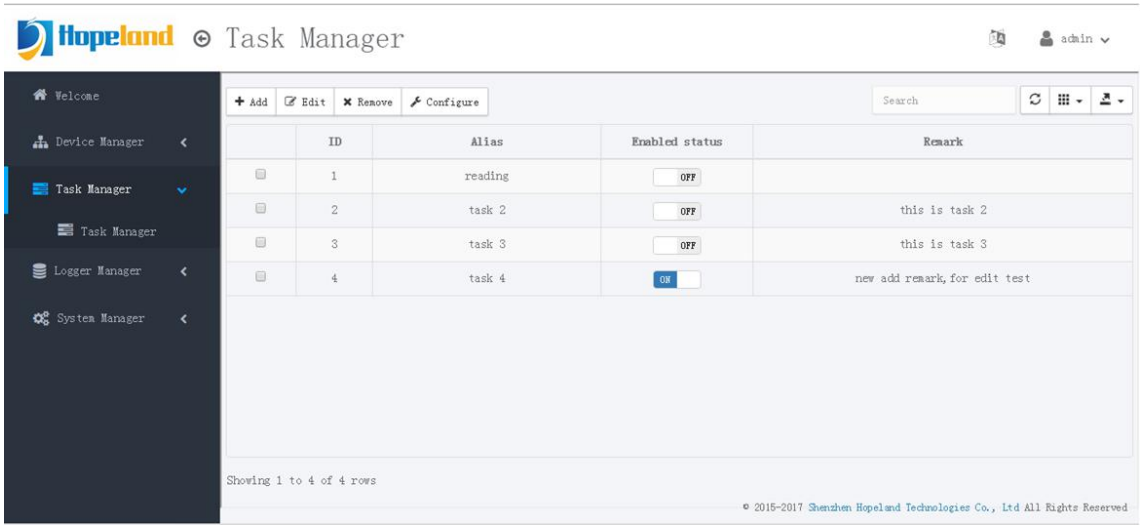

Image 3.1.1

3.1.1. Add a task

Click the "Add" button on the toolbar, you can perform the task of adding task, shown in Image 3.1.1.1. Where the task alias is used to quickly identify the description of the different tasks; note information is the note for the task.

Image 3.1.1.1

After completing the task information, you can click the "Confirm" button to add the task, results will be prompted by a window . Click the "Cancel" button to give up this addition.

Note: The newly added task defaults to the "disabled" state.

3.1.2. Modify the task

Select the specified task, click "Edit" button on the toolbar, you can perform the modify operation of task information, shown in Image 3.1.2.1. The Edit Information page is the same as the Add Task page.

Image 3.1.2.1

3.1.3. Remove the task

After selecting the specified task, click the "Remove" button on the toolbar to perform removing task. There is warning before removing as shown in Image 3.1.3.1, click the "Confirm" button to remove the task. The result will be prompted by a window. Click the "Cancel" button to give up this removal.

Image 3.1.3.1

3.1.4. Configure tasks

When the specified task is selected, click the "Configure" button on the toolbar to configure the task. Task configuration is a new page, task management is managed through a flowchart. The new task page is blank, the configured task page is flowchart.

In the task interface, click the right button of mouse to pop up the context menu, including Add Procedure, Save, Back and Refresh, as shown in Image 3.1.4.1. "Add Procedure" is used to add a procedure block; "Save" is used to save the current configuration; "Back" is used to discard the configuration and return to the task management page; "Refresh" is used to reload the task configuration. For details, see the Configuration Tasks chapter.

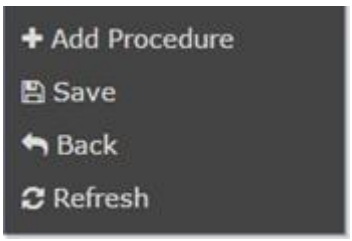

Image 3.1.4.1

After selecting a procedure in task interface, click the right button of mouse to enter the procedure operation menu, including Procedure Attribute, Procedure Condition and Remove Procedure, Procedure Force Run, as shown in Image 3.1.4.2. Procedure Attribute is used to edit the properties of the procedure block. Procedure Condition is used to set the procedure execution condition. Remove Procedure is used to delete the procedure. Procedure Force Run is used to enforce the procedure.

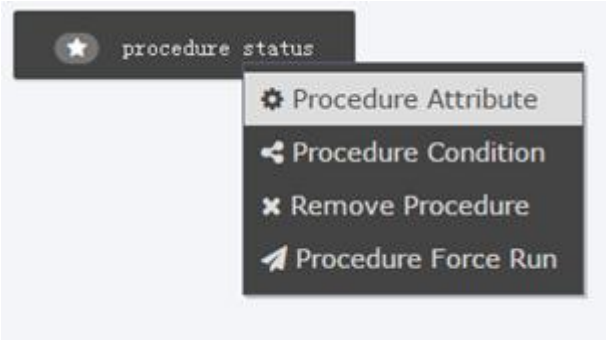

Image 3.1.4.2

3. 2. Task configuration

The logical set of middleware implementation called business, business has a procedure composition of the implementation procedure, including the implementation of the conditions, the action and action parameters.

3.2.1. Add procedure

In the task configuration page, right-click -> Add procedure, you can enter the Add Procedure page. Image 3.2.1.1. The procedure name must be unique.Procedure reader can be used to configure certain devices in the business for this process, and if none is selected, all devices are available. The associated device of the task can be implemented by "Edit task associated device" (Image 3.2.1.2). The action can be selected for the currently supported operation. The action parameters can be configured via "Edit action argument" (see subsequent sections for details).

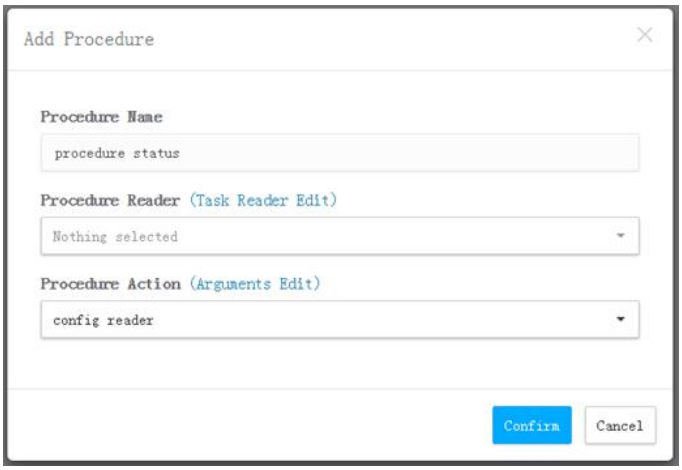

Image 3.2.1.1

image 3.2.1.2

3.2.2. Modify procedure

Select a procedure, right-click -> Procedure attribute, or directly double-click the procedure to enter the Edit Procedure page, as shown in Image 3.2.2.1. The Edit Procedure page is same as the Add Procedure page.

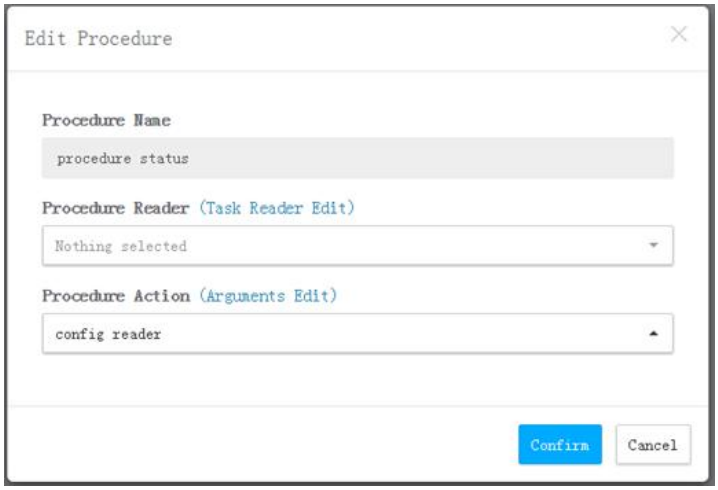

Image 3.2.2.1

3.2.3. Procedure condition

Select a procedure, right-click -> Procedure condition, you can enter the Procedure condition page, such as Image3.2.3.1. You can select one or more conditions and configure their AND/OR relationship and timeout to control the execution of the procedures. The timeout does not fill or fill 0 to indicate that the procedure will wait for the condition to be met, -1 indicates not time out.

Users can also add new conditions and modify existing conditions by adding or editing.The conditional configuration page is shown in the following sections.

Image3.2.3.1

3.2.4. Delete procedure

After selecting a procedure, right-click ->Remove procedure, you can delete the current procedure. Delete will appear warning as shown in Image 3.2.4.1, click "Confirm" button will delete the procedure, the result will with window prompt. Click the "Cancel" button to discard the deletion.

Image3.2.4.1

3.2.5. Connection procedure

Between procedures, you need to connect each procedure to determine the task execution process. The user can click on the pentagonal heart of the procedure (see Image 3.2.5.1) and drag the procedure line (see Image 3.2.5.2). When the mouse is moved to the connection line and the line turns red, click the connection line to delete the connection (see Image 3.2.5.3).

Image3.2.5.1

Image3.2.5.2

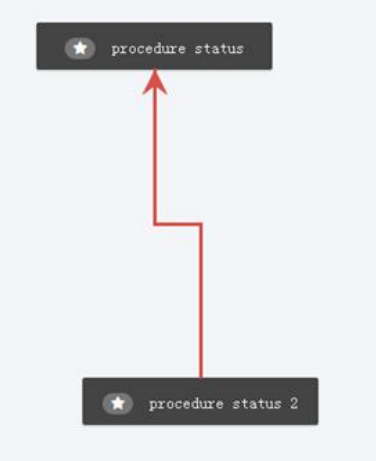

Image3.2.5.3

3.2.6. Enforcement procedure

In addition to the sequential execution of the procedure flow diagram, the procedure can be executed directly in the process through the Procedure force run, select the procedure, right click -> Procedure force run to force the procedure.

3. 3. Action parameters

The action parameters are used to configure the parameters that perform the flow action.

3.3.1 Configure reader

Edit action argument Config reader page as shown in Image 3.3.1.1. The parameter contains only one configuration information, user can select the appropriate configuration information, or add a new configuration by clicking Add button, or edit the currently selected configuration by clicking Edit button. Configure interface is same as the device manager's configure interface.

Image3.3.1.1

3.3.2 Read Tag

Edit action argument Read tag page as shown in Image3.3.2.1, the action parameters including filter, read area, report duration, report queue. The user can select an existing filter to filter the tag, or add new filter by clicking Add button, or edit the currently selected filter information by clicking Edit button. The filter configuration page is shown in Image 3.3.2.2. The user can select one or more reading areas. If the user does not select, the middleware will read the EPC area by default. The report duration and report queue is used to report the tag data reading by the readers to the specified message queue at a certain time interval.The report duration is not filled or 0, the tag data will be reported immediately.If the report queue is empty, the tag data will not be uploaded. Multiple report queues are separated by ", ".

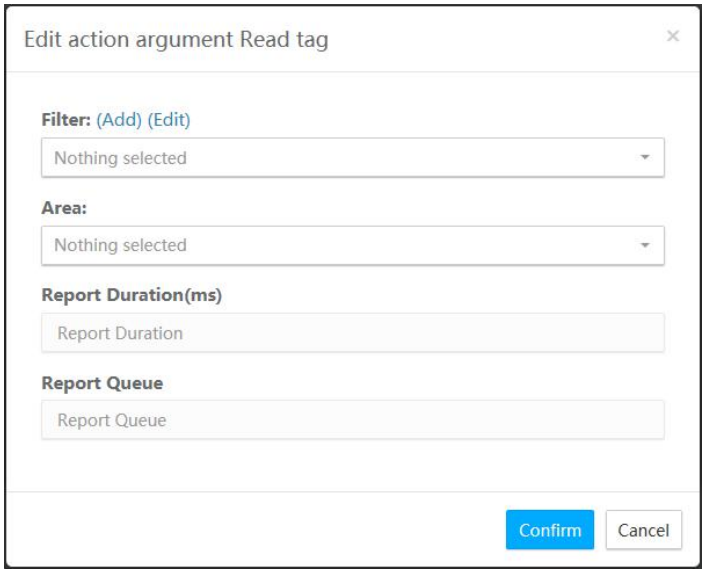

Image3.3.2.1

The filter configuration page includes the filter name, the duplicate filter time, and the RSSI filter. Filter rules, Repeat time and RSSI filter are not filled or fill 0 means not enabled. The filter regular fills in the regular expression of the tag data, and the matching area is optional.

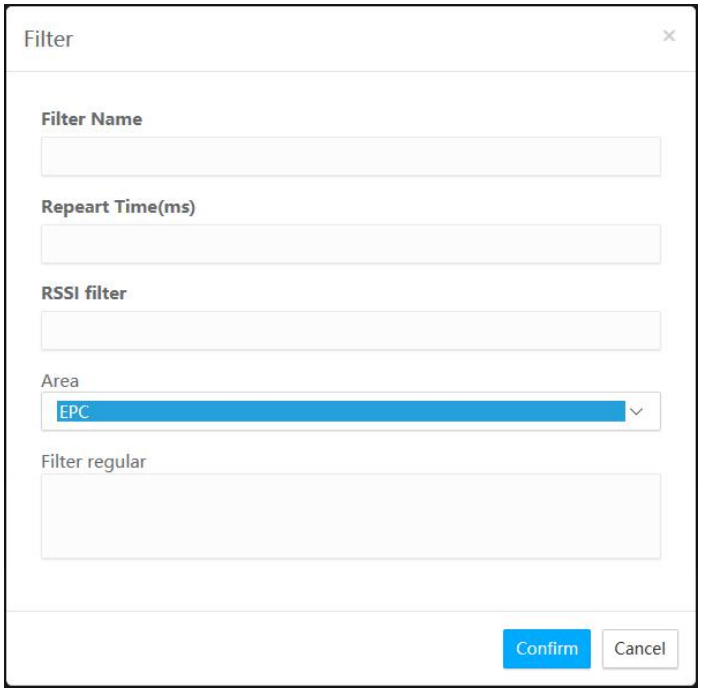

Image 3.3.2.2

3.3.3 Output

Edit action argument page is shown in image 3.3.3.1

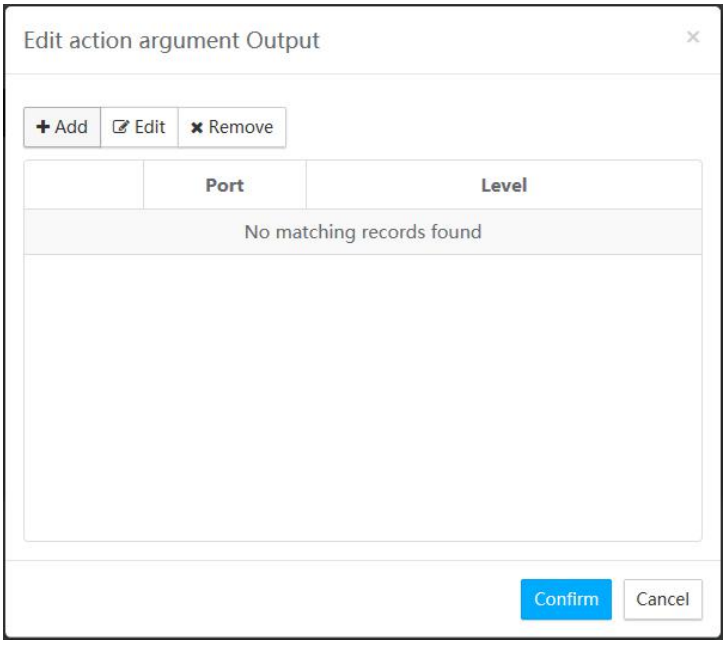

image 3.3.3.1

The output parameters include the output port and level. The user could add an output port's control by the button "Add" (see image 3.3.3.2)

image 3.3.3.2

Also could modify the selected port's output level by the button "Edit". Image 3.3.3.1

3.3.4 Input

Edit action argument Input page is shown as Image 3.3.4.1. The output parameters include the input port and level. The user could add a input port control by clicking Add button (see Image 3.3.4.2). You could also modify the output level of the selected port by clicking Edit button. You can remove the control of the selected port by clicking Remove button.

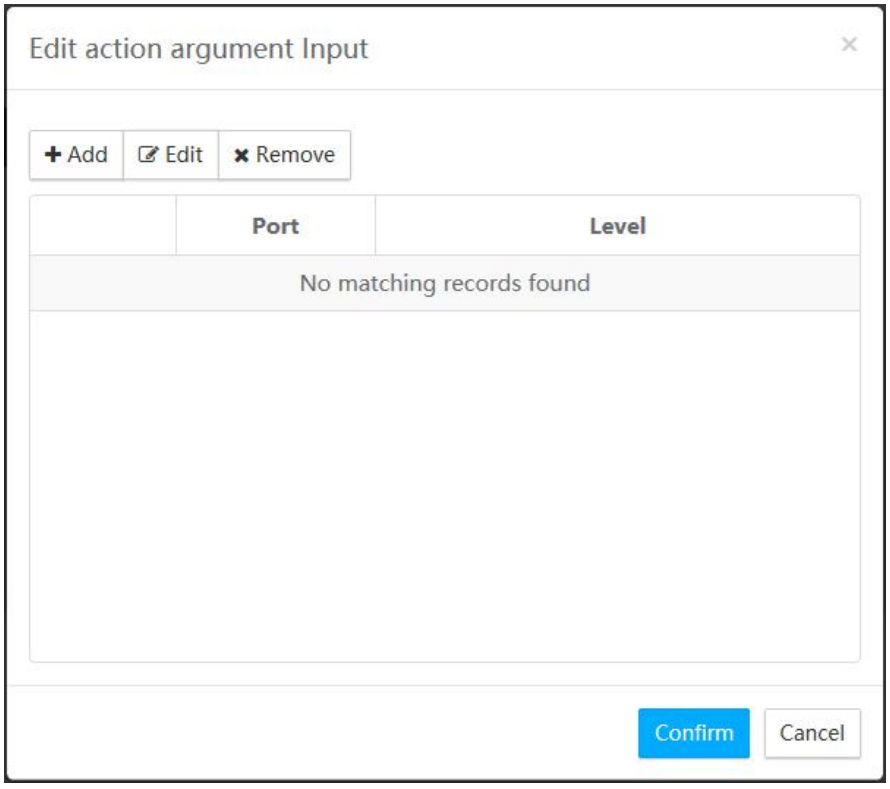

Image 3.3.4.1

Image 3.3.4.2

3.3.5 Status Report

Edit action argument Status report page is shown in Image 3.3.5.1. The status report parameters include report duration and report queue, which are used to report the operation status information to the specified message queue at a certain time interval. Report Duration not filled or filled 0 means immediately report. If the report

queue is empty, the status data will not be uploaded. Multiple report queues are separated by ",".

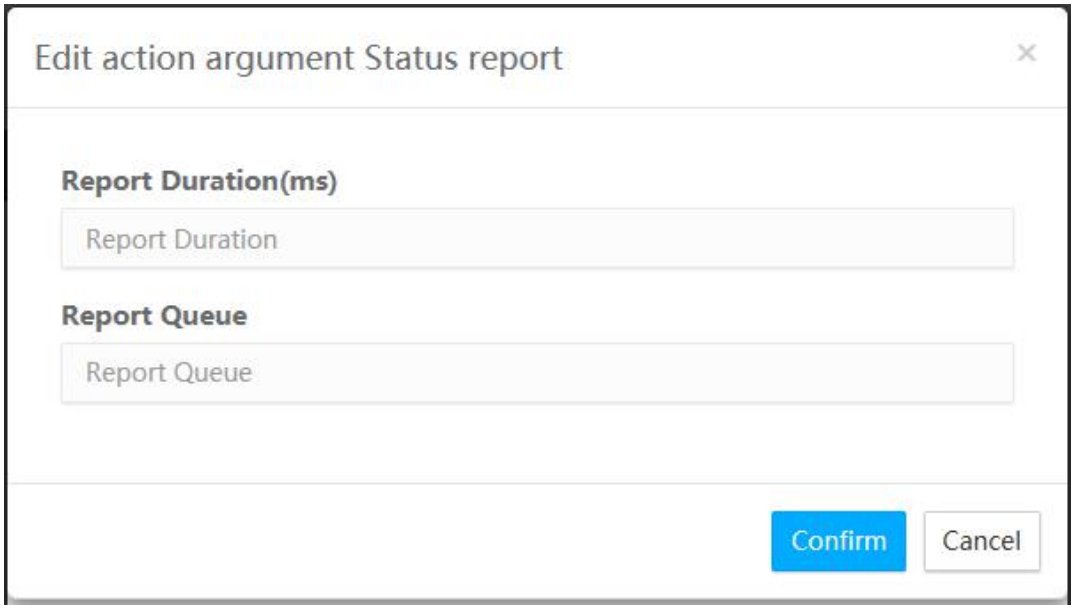

Image 3.3.5.1

3.3.6 Sleep

Edit action argument Sleep page is shown in Image 3.3.6.1. The parameter contains only one sleep duration.

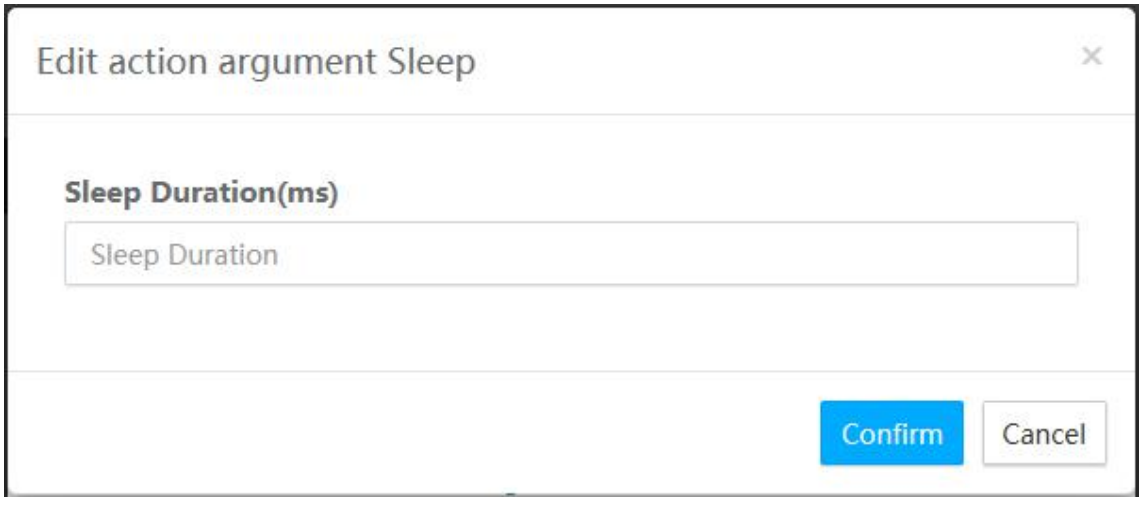

Image 3.3.6.1

3.3.7 Jump

Edit action argument page 3.3.7.1, the parameter contains only a destination flow.

Image 3.3.7.1

3.3.8 Loop

Edit action argument loop begin page is shown in Image 3.3.8.1. The parameter contains only loop times.

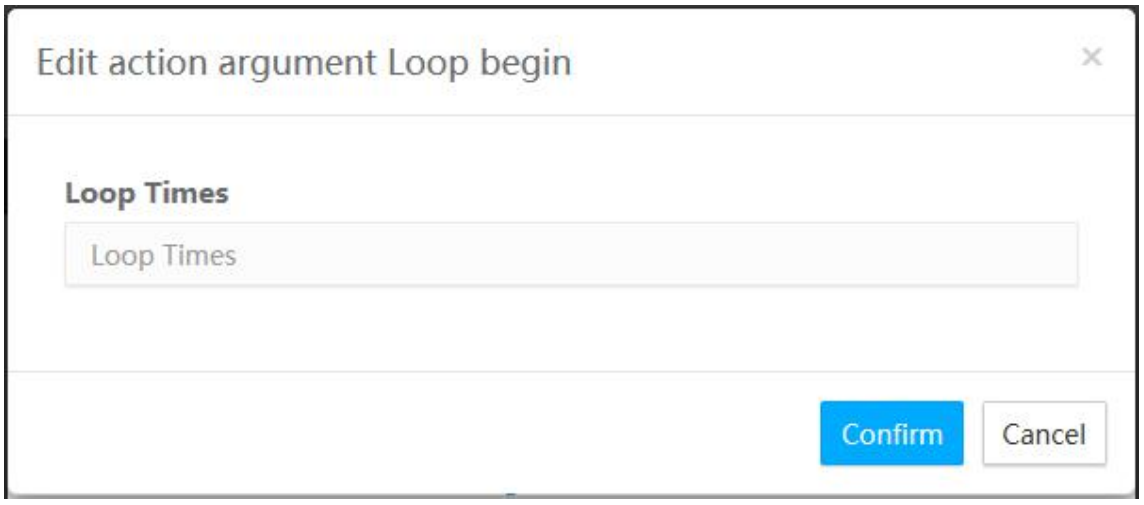

Image 3.3.8.1

Loop end do not need argument.

3.4 Process conditions

3.4.1 GPI Condition

The GPI condition page is shown in Image 3.4.1.1. The conditional parameters include the associated reader, port, level and anti shake time. The user can select one or not select the associated reader. After selecting the associated reader, the GPI condition is met only when the associated reader is met, if not, the GPI condition is met when any reader in the procedure flow diagram is met.

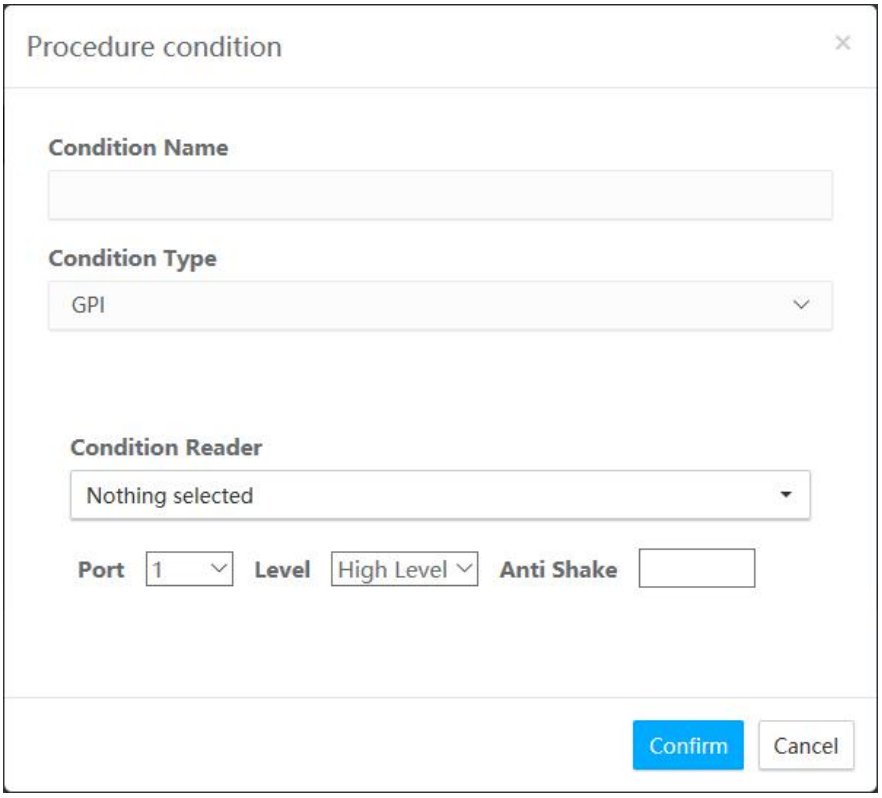

Image 3.4.1.1

3.4.2 Timer Condition

The timer condition page is shown in Image 3.4.2.1. The timer condition parameter only including the timing interval.

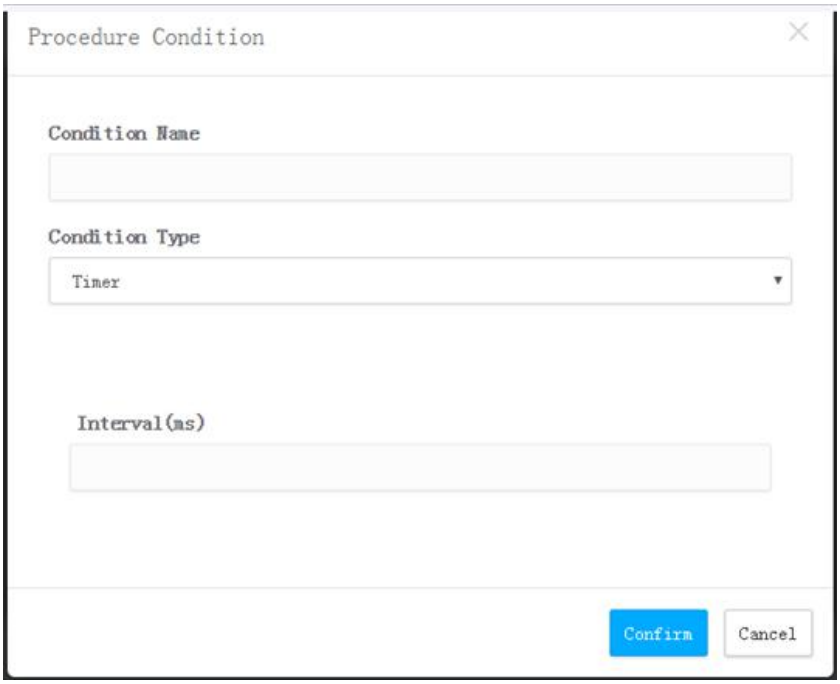

Image 3.4.2.1

3.4.3 Tag Condition

The tag condition page is shown in Image 3.4.3.1. Conditional parameters include associated reader and filter. The user can select one or not select the associated reader. After selecting the associated reader, the tag condition is met only when the associated reader is met, if not, the tag condition is met when any reader in the procedure flow diagram is met.

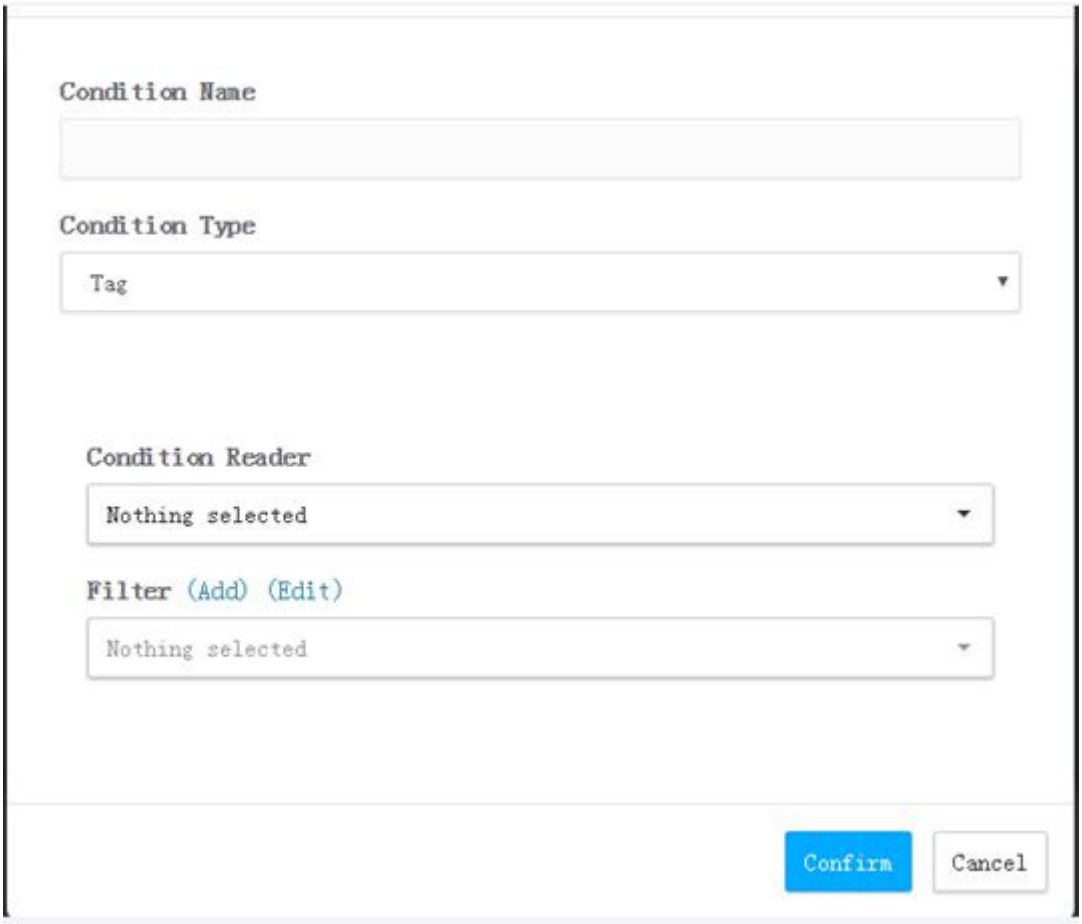

Image 3.4.3.1

4 Logger Manager

The Logger Manager menu contains Error Log, Work Log,Operation Log and Tags Log. The Error log is used to view the error that occurred on the current system; The Operation Log is used to view the client request operation record; The Work Log is used to view important actions that occur while the system is running.

4.1 Error Log

Click on the Logger Manager > Error Log button on the left navigation bar , then you can enter the Error Log page, as Image 4.1.1 .

The Operation tool bar is on the Error Log page, it includes “Clear ”, “fuzzy search” “data export” and other functions.

The “log information list” is underside the “Error Log” page, Including Time stamp,location,Exception.

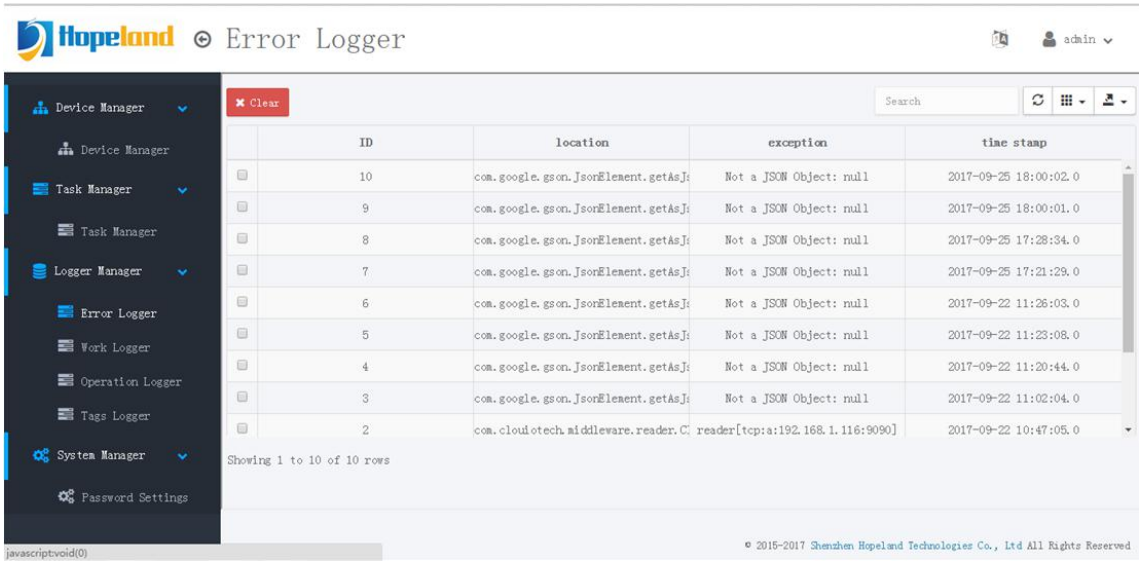

Image 4.1.1

4.2 Operation Log

Click on the Logger Manager > Operation Log button on the left navigation bar , then you can enter the Operation Log page , as Image 4.2.1 .

Operation tool bar is on the Operation Log page, it includes “Clear”, “fuzzy search”,”data export” and other functions.

The “log information list” is underside the “Operation log”, including the operator, location, message, time stamp and so on.

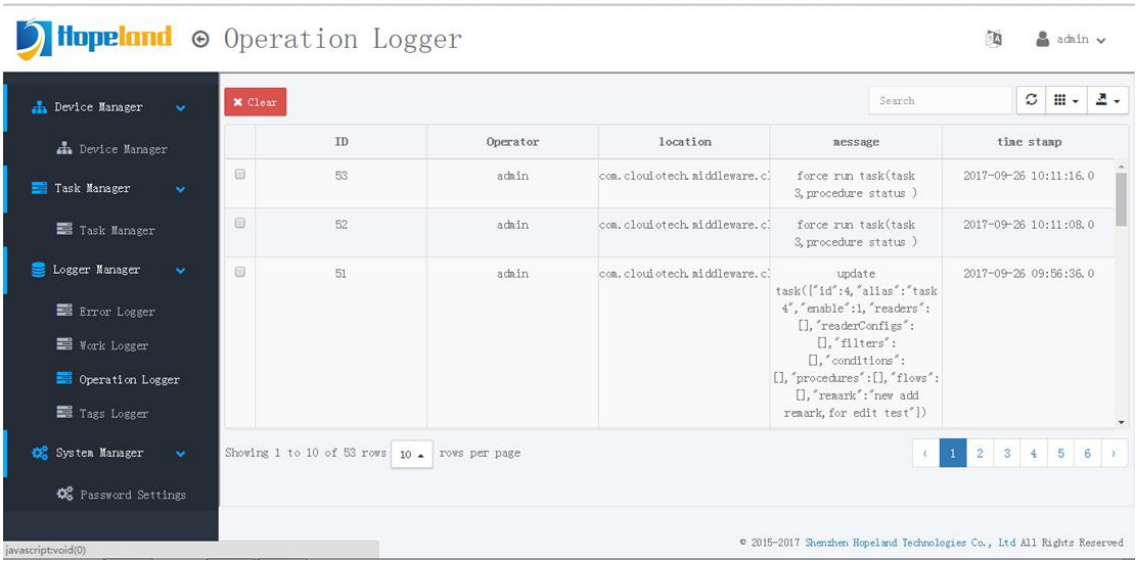

Image 4.2.1

4.3 Work log

Click on the Logger Manager > Work Log button on the left navigation bar , then you can enter the Work Log page , as Image 4.3.1 .

Operation tool bar is on the Work Log page, it includes “Clear”, “fuzzy search”,”data export” and other functions.

The “log information list” is underside the “Work log”, including the location, message, time stamp and so on.

Image 4.3.1

4.4 Tags Log

Click on the Logger Manager > Tags Log button on the left navigation bar , then you can enter the Tags Log page , as Image 4.4.1 .

Operation tool bar is on the Tags Log page, it includes “Clear”, “fuzzy search”,”data export” and other functions.

The “log information list ”is underside the “Tags Log”, including reader information, EPC, TID, link, RSSI, reading times.

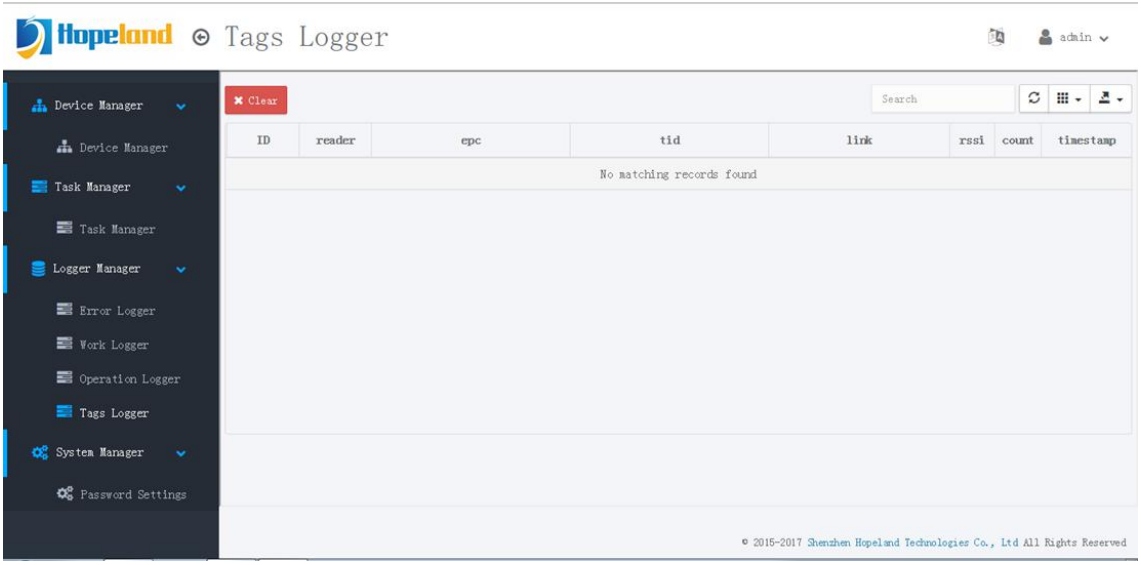

Image 4.4.1

5 System Manager

The System Manager menu contains functions such as password modification, system authorization, client authorization and so on.

5.1 Password settings

Click on the Logger Manager > Password Setting button on the left navigation bar, then you can enter the Password Setting page , as Image 5.1.1 .

Image 5.1.1

5.2 System authorization

Click on the System Manager > System Authorization button on the left navigation bar, then you can enter the System authorization page , as Image 5.2.1 . Follow the screen tip to configure , then press the “Apply” button to take effect .

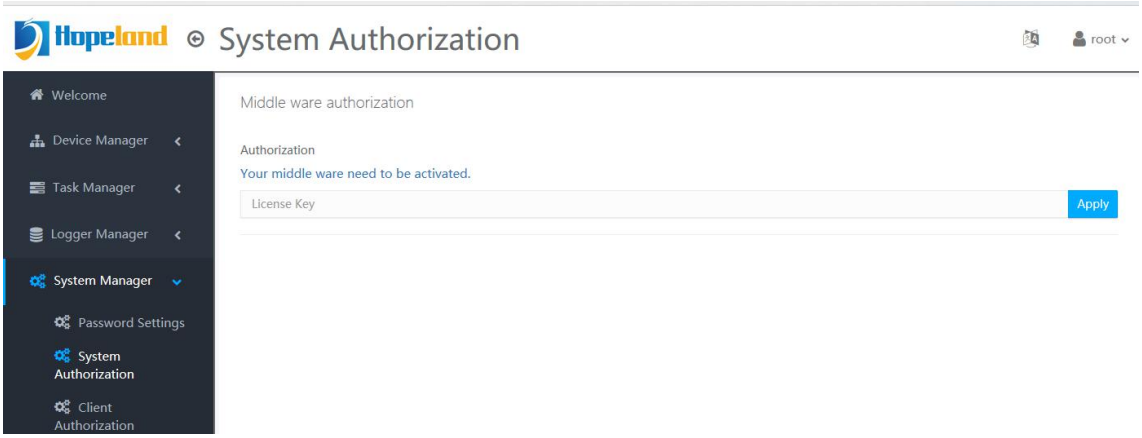

Image 5.2.1

5.3 Client authorization

Click on the System Manager > Client authorization button on the left navigation bar, then you can enter the Client authorization page , as Image 5.3.1 . Follow the screen tip to add , modify, remove and do some other operations.

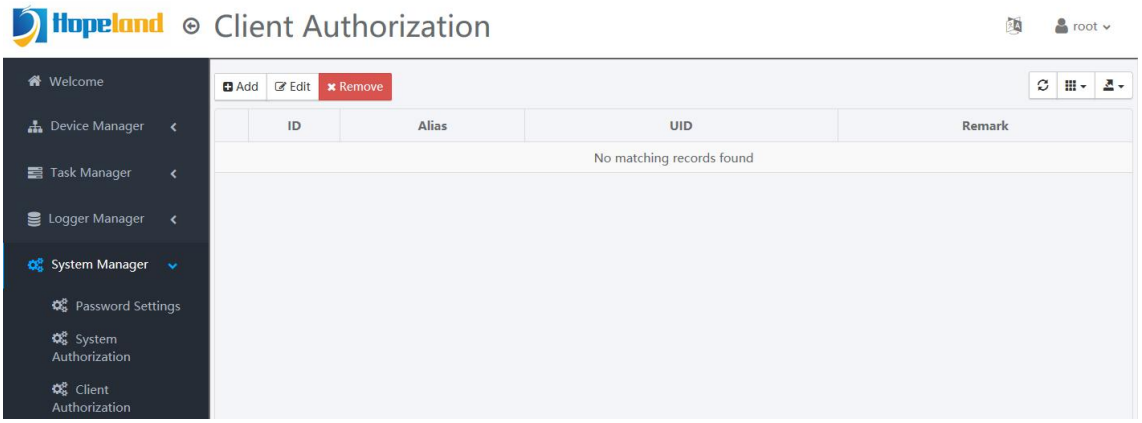

Image 5.3.1