

# ZKBioSecurity 3.1.5.0\_R

## Changelog

Version Change Info:

Previous Version: ZKBioSecurity 3.1.0.0\_R

Current Version: ZKBioSecurity 3.1.5.0\_R

**NOTE:**

In order to provide better products and services to our partners and users, we have decided to stop activating the old version of 3.0.5.0 from December 1, 2018. Please advise customers to use the latest version of the software in their new project.

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## 1. Key Updates

- ❖ Newly developed ZKBioSecurity Mobile APP 2.0 version, including more modules, like access control/visitor management/parking/T&A(Self-login).
- ❖ Newly added more API interfaces in different modules, including Elevator, Visitor, Parking, T&A.
- ❖ Supports visible light facial recognition device FaceDepot-7A in Access Control module.
- ❖ Upgraded Green Label Standalone device firmware supports more functions such as advanced access control, remote registration, etc.
- ❖ Supports configure standalone device as the reader of the controller.
- ❖ Supports customize the icons for turnstiles in real-time monitoring page.
- ❖ Supports LCD screen to show personnel entry and exit information when integrated with turnstiles in the lobby.
- ❖ Supports personnel number occupancy control in Who is inside.
- ❖ Supports Desfire card control feature for Access Control module.
- ❖ Newly added more advance features for visitor management module.
- ❖ Supports Desko PENTA scanner, can be used with Acuant OCR to support recognition of identity documents such as ID cards, passports, driver licenses, visas, etc. from over 190 countries and all 50 US states.
- ❖ Supports FD1043V/FD1032V/FD1032H/FD1021H (android smart device with different size screen and visible light facial recognition) in T&A module.
- ❖ Supports approval flow management feature for T&A module.
- ❖ Supports the new rule that a parking space can be bundled with multiple license plates.
- ❖ Supports ZKTeco new series of IP camera, DVR and NVR, please refer to the Hardware Suggestion List for more details.
- ❖ Support to configure the LED display types based on different countries for Parking module.
- ❖ Supports LED template setup for LED integration.
- ❖ Improved the layout of the license page, supports checking the remaining points and expiration dates of the license.
- ❖ Supports Oracle database 12c.

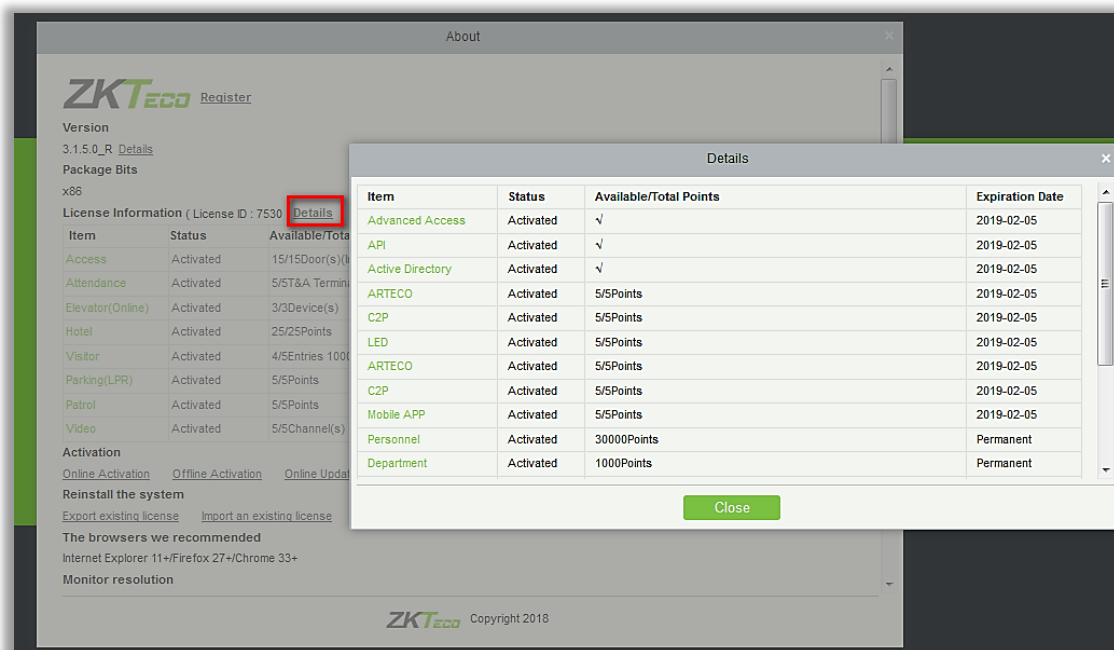
- ❖ Improved security levels for software and firmware.
- ❖ Reduce the size of the installation package to around 450 MB.

## 2. Function Updates Details

### 2.1 Platform

1. Optimized the installation package compression method, reduce the size of the installation package to around 450MB.
2. Added modules or features license expiration reminder on the login page, if there are any modules or features that the license expires within 7 days will display a reminder message informing the user to update the license, also you can click “view license details” to check which module or feature will expire soon. Improved the layout of the license page, supports checking the remaining points and expiration dates of the license.





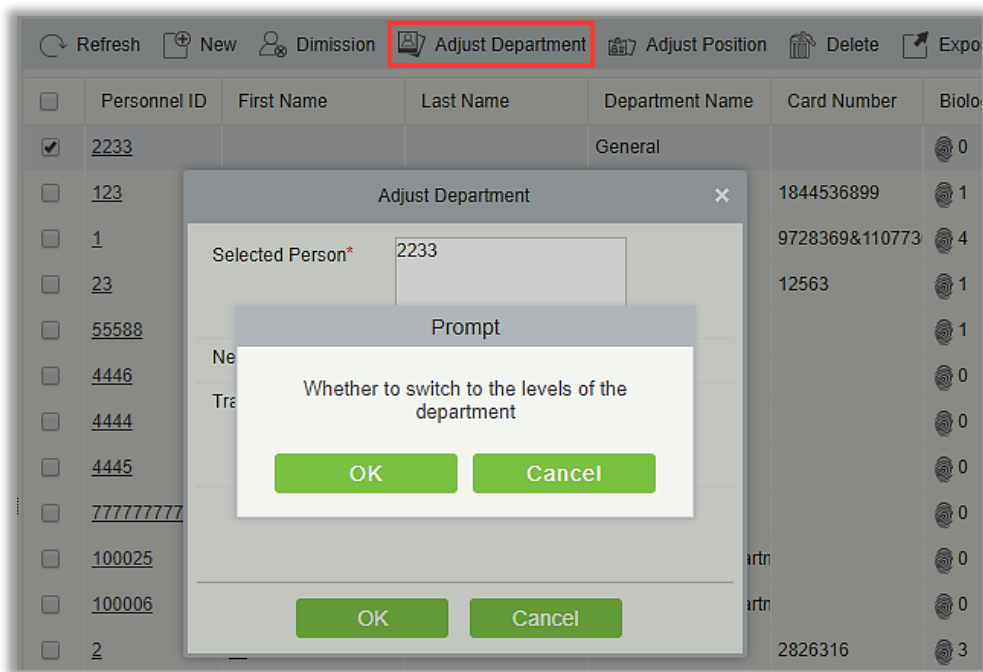
- Added software version and database version to the backup database file name (including manual and auto back up database file).

	db_20180810180000_3.1.5.0_R_3.1.5.0.psql	2018/8/10 18:00	PSQL
	db_20180813115936_3.1.5.0_R_3.1.5.0.psql	2018/8/13 11:59	PSQL

- Fix the issue that software cannot run normally when some system files lost caused by server abnormal power off or some special situation.
- Enhance the stability of redis service.
- Supports Oracle database 12c.

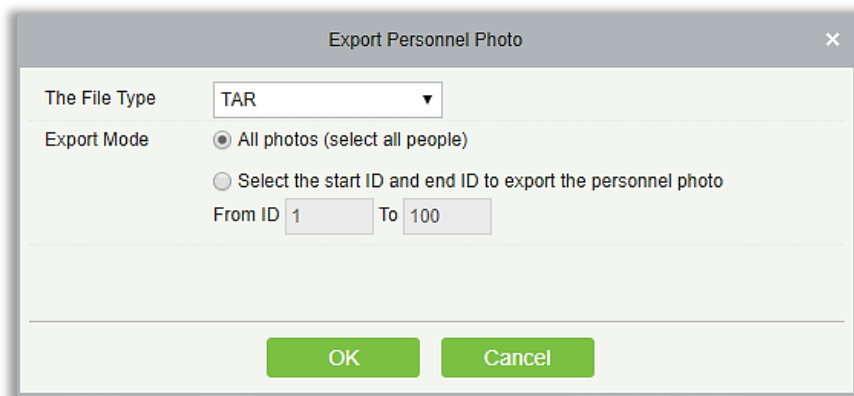
## 2.2 Personnel

- Fix the issue that cannot switch the access levels or elevator levels of the department when you adjust the personnel to different department.

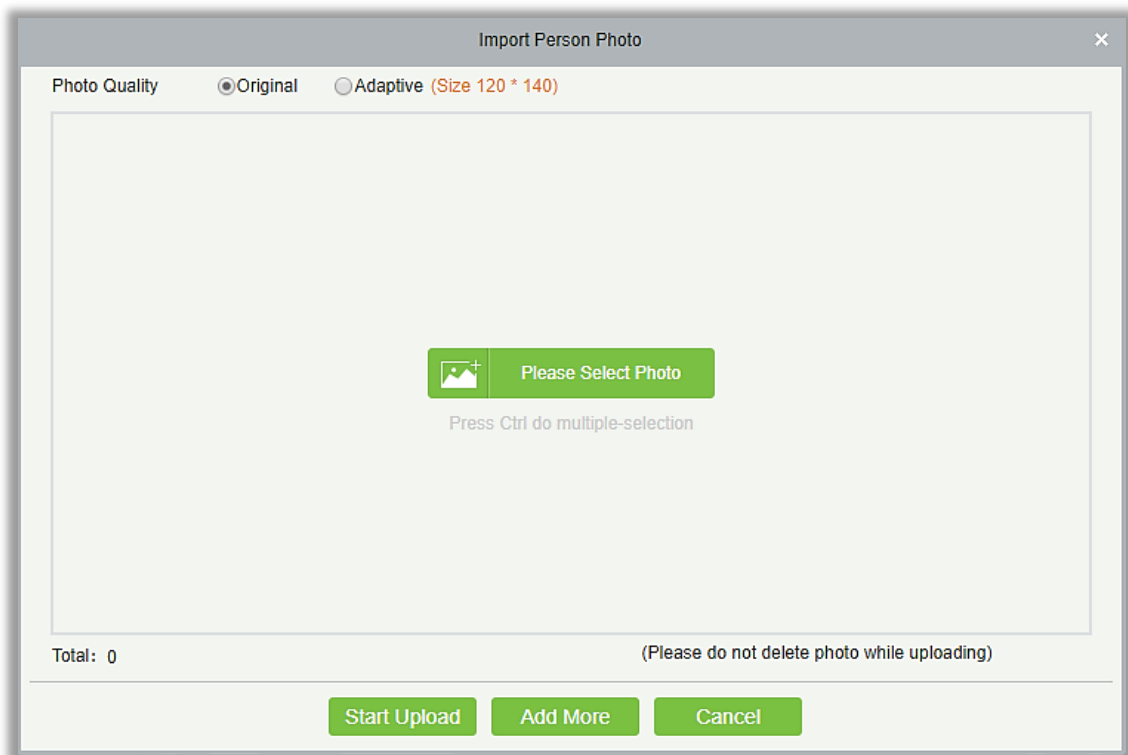


2. Supports batch import and export personnel photos.

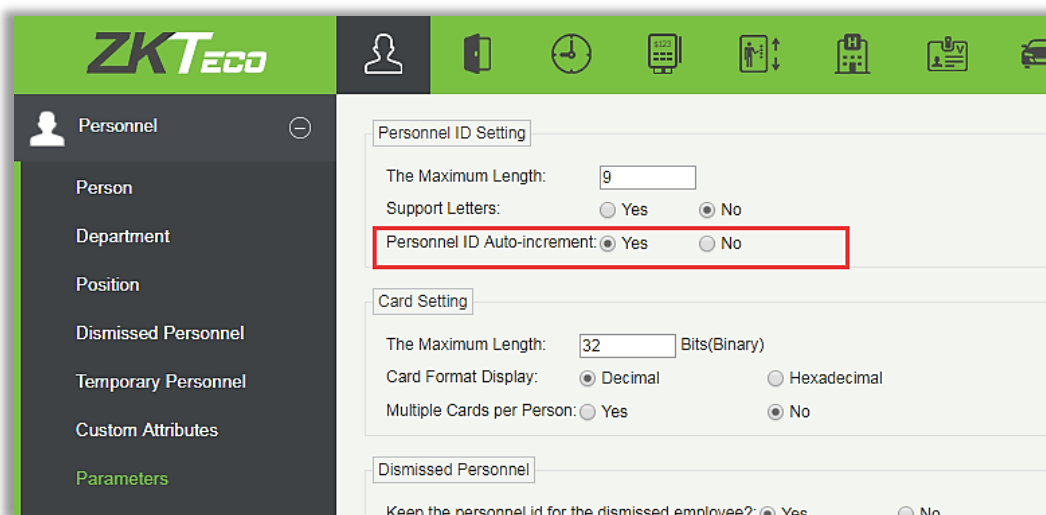
- (1) Export Personnel Photo, supports exporting all the personnel photos or you can select the start ID and end ID to export the personnel photos. The exported photos will be named with personnel ID and saved as tar/zip/7z format.



- (2) Import Personnel Photo, you can select the personnel photos which you want to import and please note that the imported photos must be named by personnel ID and the supported photo formats are JPG, JPEG, GIF, PNG, etc.



3. Newly added automatic increment of personnel ID feature, when user adds the personnel, the personnel ID is automatically created and auto-fill by the software based on the last personnel ID which you added before, it is more convenient for the users to input the personnel information. Also, you can enable or disable this feature in parameter settings. At present, "the personnel ID supports the letter" and "personnel ID automatic increment function" cannot be used at the same time.





4. Newly added position management feature in personnel module, after you configure the position, you can select the position on the add/edit personnel page, and the position is used for the flow management in time and attendance module, for example, if an employee applies for a business trip, the manager can approve or reject this apply by Person Self-Login.

(1) Position configuration.

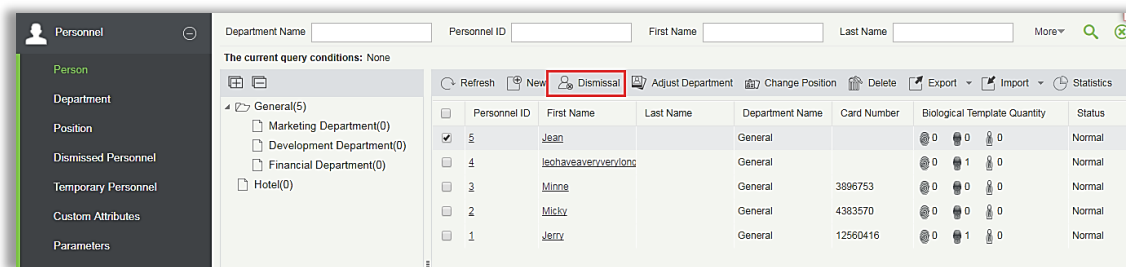
Position Number	Position Name	Parent Position Number	Parent Position	Operations
1	General Manager			<a href="#">Edit</a> <a href="#">Delete</a>
2	Development Manager	1	General Manager	<a href="#">Edit</a> <a href="#">Delete</a>
3	Developer	2	Development Manager	<a href="#">Edit</a> <a href="#">Delete</a>
4	Product Manager	1	General Manager	<a href="#">Edit</a> <a href="#">Delete</a>
6	Technical Support Manager	1	General Manager	<a href="#">Edit</a> <a href="#">Delete</a>
7	Technical Support	6	Technical Support Manager	<a href="#">Edit</a> <a href="#">Delete</a>

(2) Select the position for personnel.

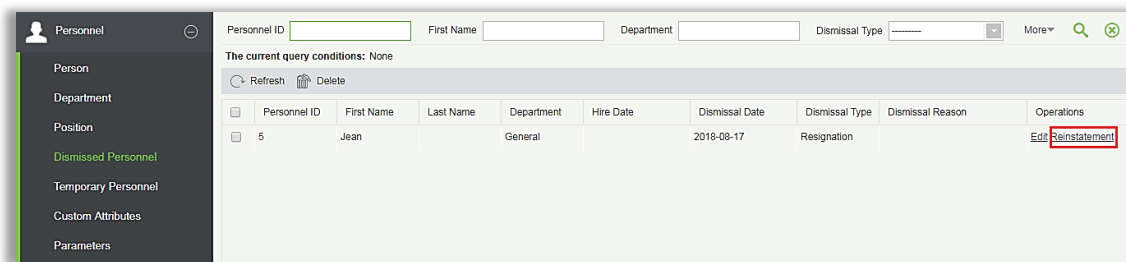
(3) Configure the node setting with position in T&A module.

5. Newly added employee dismissal feature. After the employee quit his job you can mark as dismissal and this employee will move to the dismissal personnel list, it is convenient for the users to check the history, also you can select the dismissal personnel and do the reinstatement operation. In addition, for the dismissal employees, we can choose whether to keep the personnel ID.

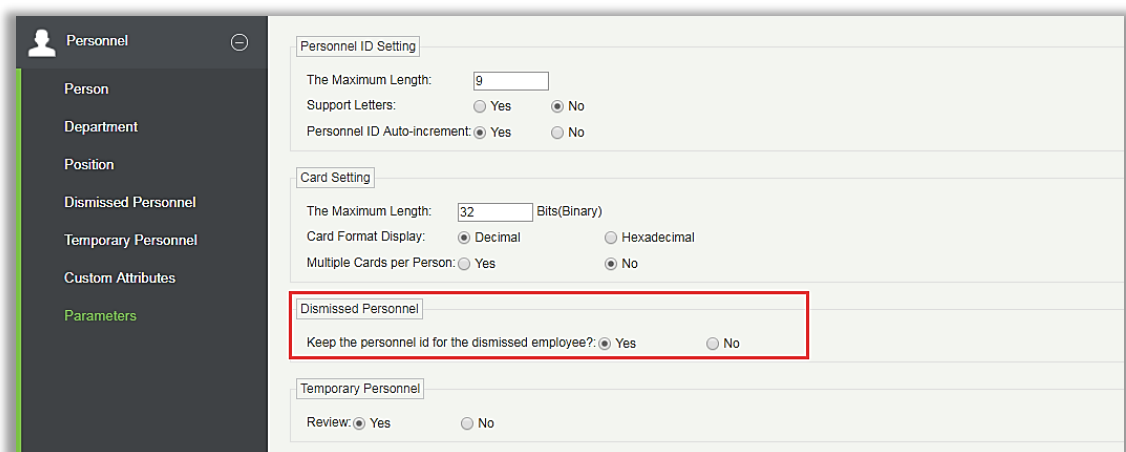
(1) Select the personnel and mark as dismissal.



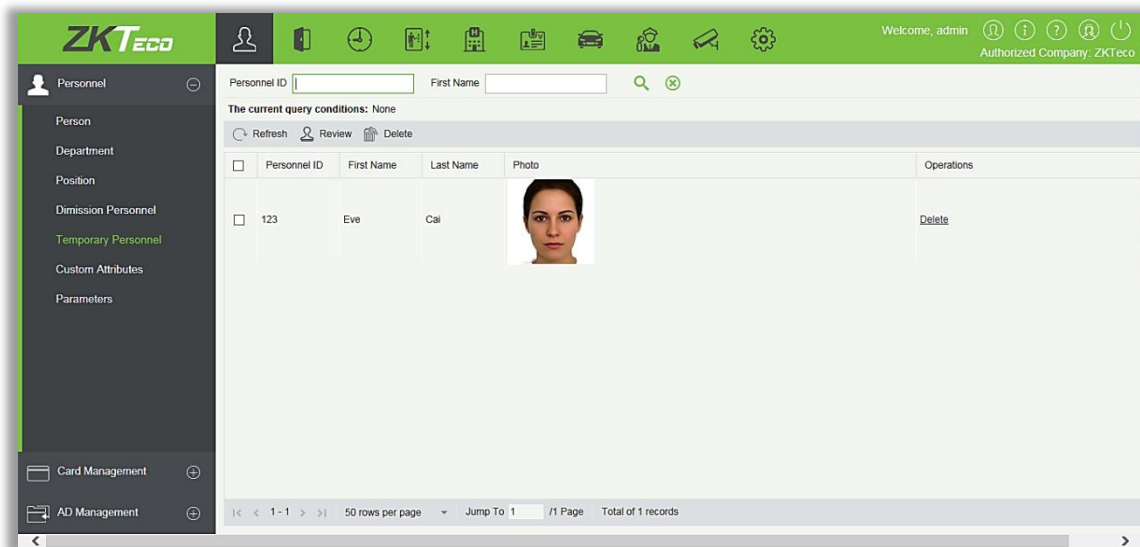
(2) Support reinstatement function.



(3) Enable or disable keep the personnel ID for the dismissal staff.



6. Newly added temporary personnel review and delete function, which work with FD1043V/FD1032V/FD1032H/FD1021H (android smart device with big screen and visible light facial recognition) in T&A module. Support to configure the QR code address in the device, employees can scan the QR code through the mobile phone to complete the registration and the administrator can review the person in this page.



7. Wiegand format supports one format multiple site codes. Supports byte-reversed and bit-reversed for reading the correct card number.
- (1) Support the same Wiegand format to set different site codes in order to read the corresponding card number. For example, Wiegand 26 can be set as different site code to support automatic matching, which requires consistent the Wiegand format setting:

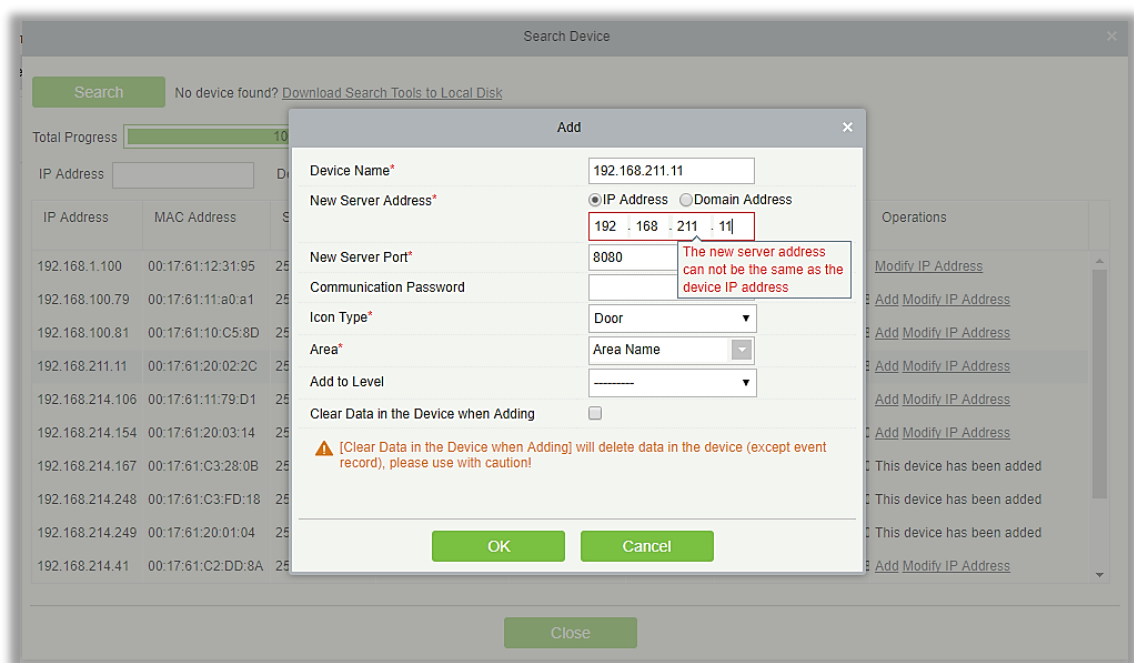
Name	Mode	Site Code	Auto	Operations
<input type="checkbox"/> Wiegand Format66	Mode One	0	Yes	Edit
<input type="checkbox"/> Wiegand Format50	Mode One	0	Yes	Edit
<input type="checkbox"/> Wiegand Format37a	Mode One	0	No	Edit
<input type="checkbox"/> Wiegand Format37	Mode One	0	Yes	Edit
<input type="checkbox"/> Wiegand Format36	Mode One	0	Yes	Edit
<input type="checkbox"/> Wiegand Format34a	Mode One	0	No	Edit
<input type="checkbox"/> Wiegand Format34	Mode One	0	Yes	Edit
<input type="checkbox"/> Wiegand Format26a-1	Mode One	2	No	Edit Delete
<input type="checkbox"/> Wiegand Format26a	Mode One	1	No	Edit
<input type="checkbox"/> Wiegand Format26	Mode One	0	Yes	Edit

## 2.3 Access Control

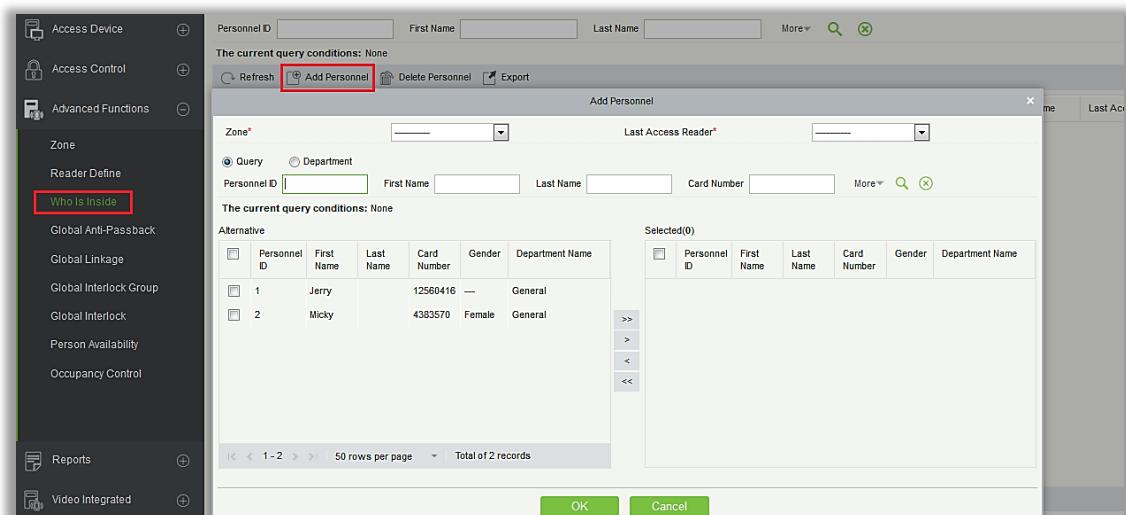
1. Support visible light facial recognition device FaceDepot-7A. The current firmware supports simple access control functions and does not support advanced access control functions.



2. Newly added server address and port auto-fill feature and server address automatic check feature.
  - (1) When you add new device will auto-fill the current server address and port by default.
  - (2) If the user input a new server address that is the same as the device IP address, a reminder will pop up informing the user that the server address cannot be the same as the device IP address.

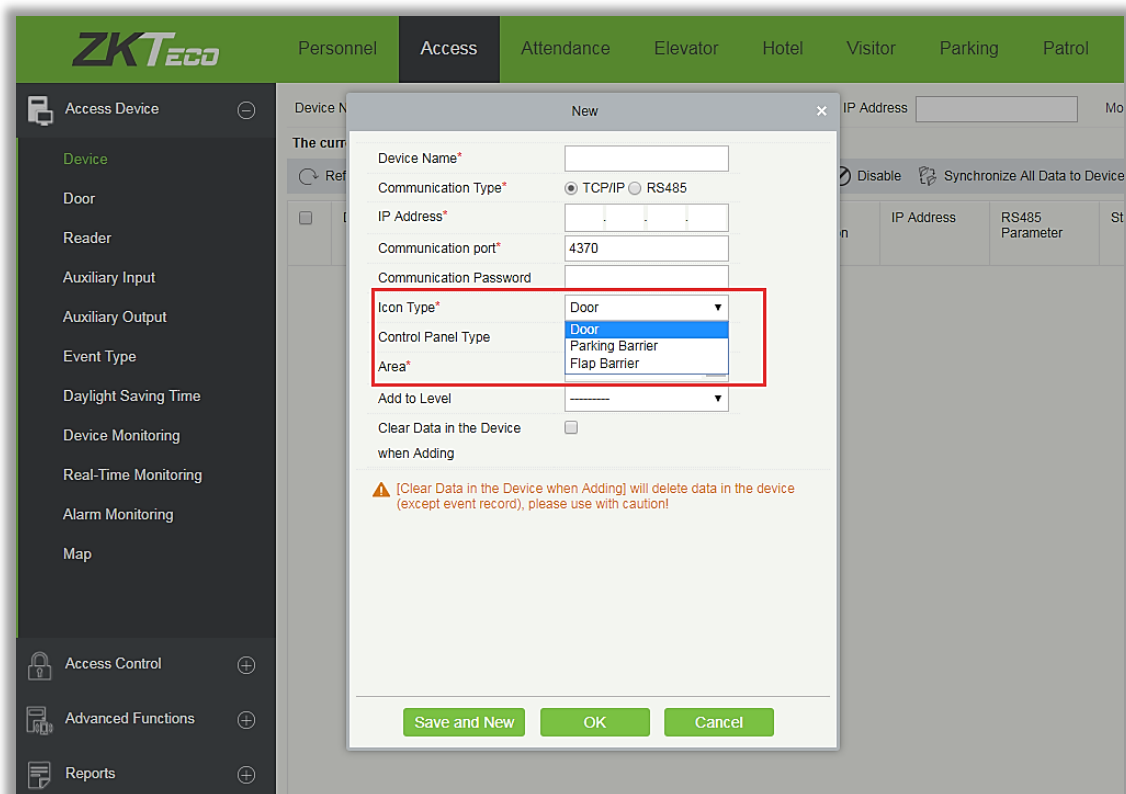


3. Supports added personnel to different area in Who Is Inside feature.



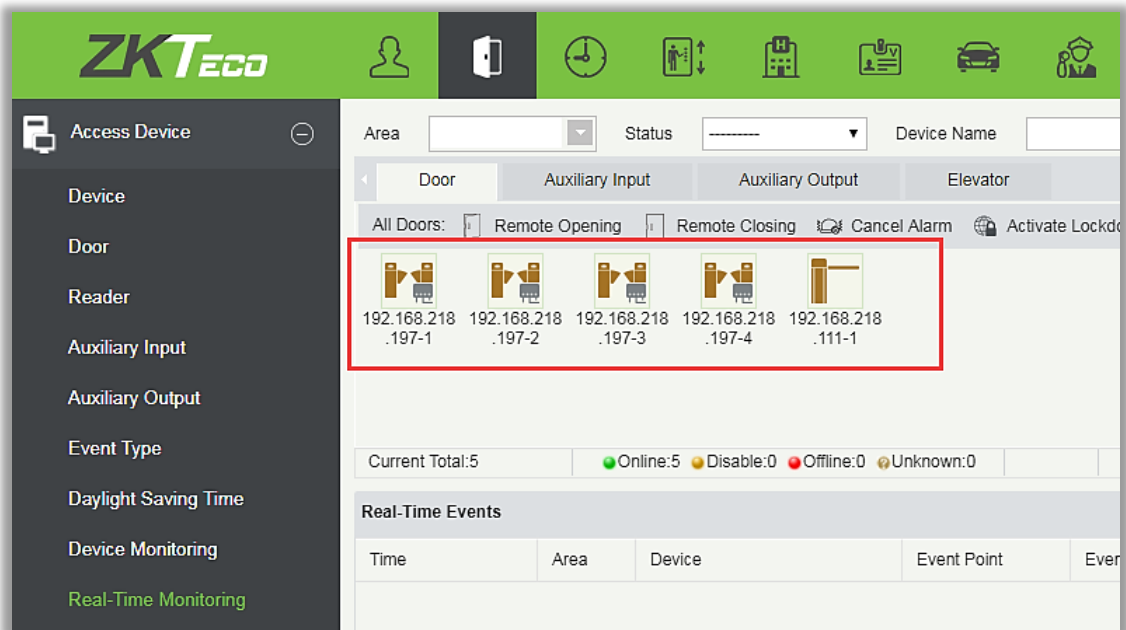
4. Supports customize the icons for turnstiles in real-time monitoring page.

(1) You can select the icon type when you add/edit device. There are three types you can select: door, parking barrier, flap barrier.



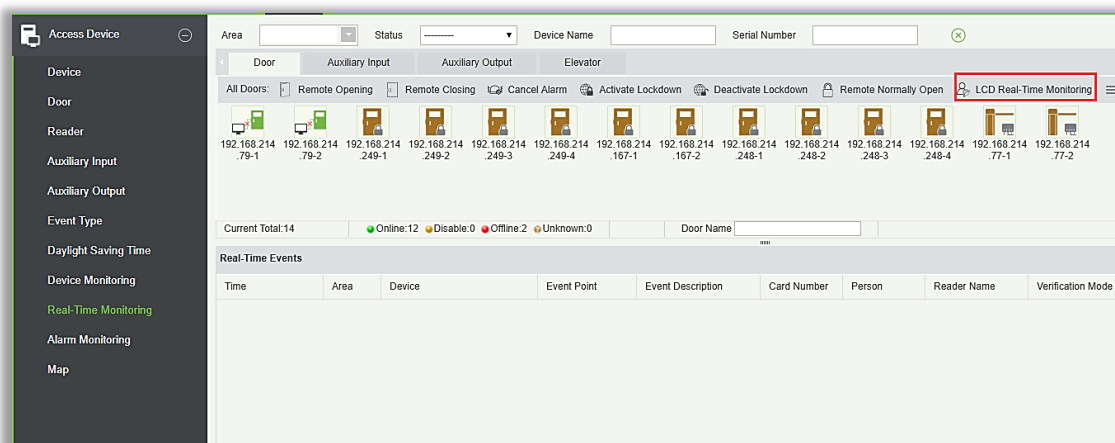
(2) The real-time monitoring page displays different device icons according to the icon type you

selected when you added the device.

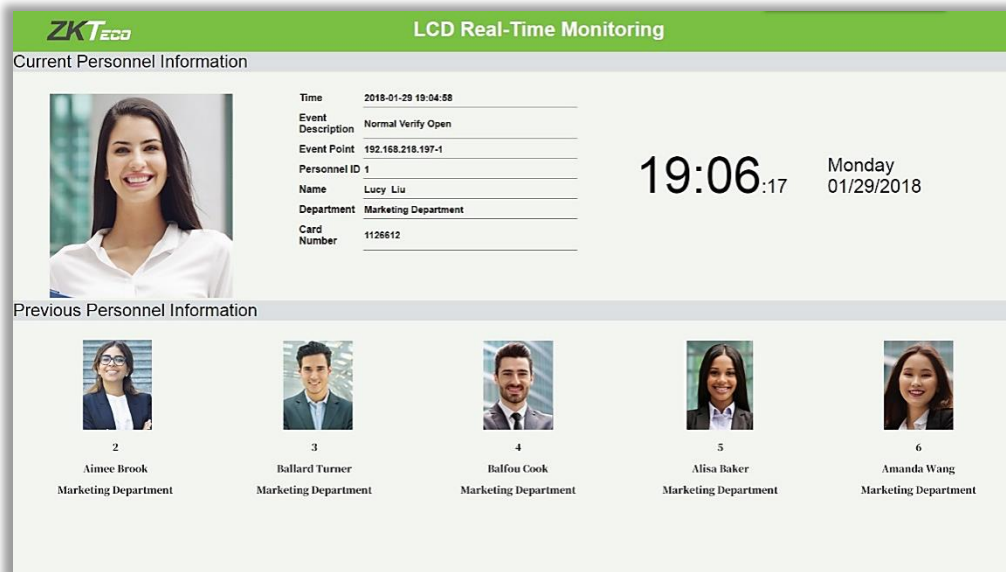


5. Newly added LCD Real-Time Monitoring feature.

(1) Added LCD Real-Time Monitoring option. This new feature is controlled only when the software is licensed.

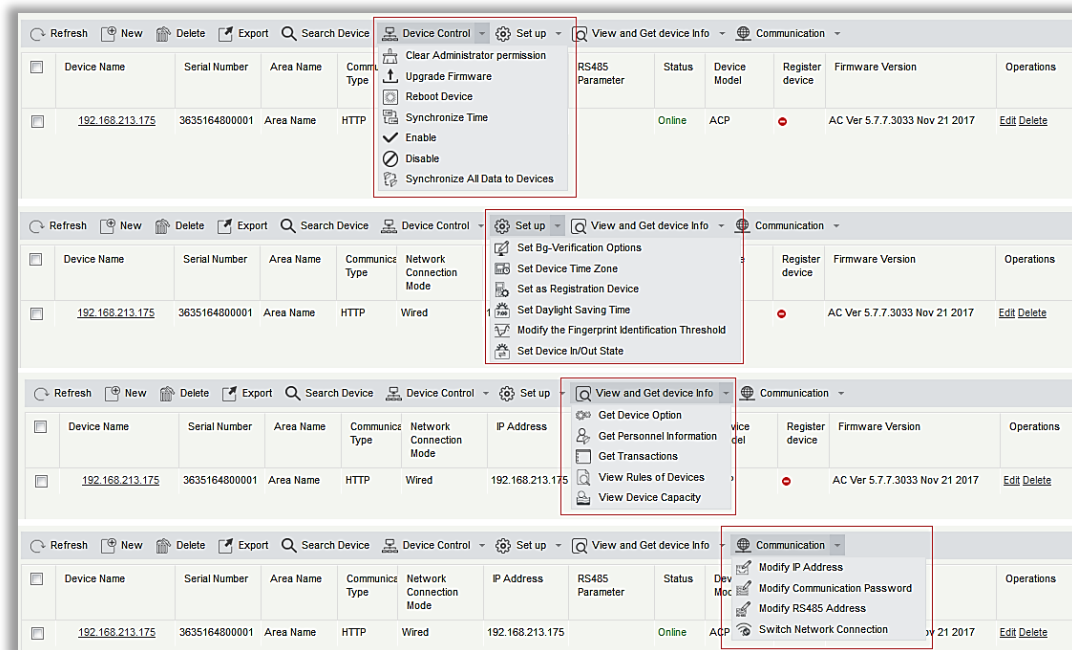


(2) Click the LCD Real-Time Monitoring option will open a separate monitoring page. Supports viewing the current and previous personnel entry or exit information on the LCD screen.



6. Optimize the classification and layout of the access control device operation interface.

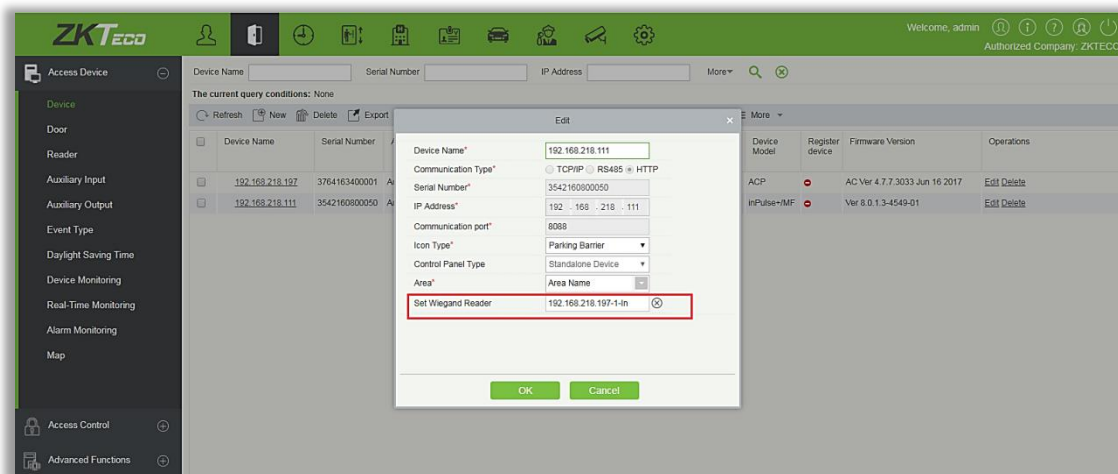




- Newly added Event ID in all the access control reports. It is convenient for users to check the issues directly through the event ID, while supporting the query by Event ID.

Event ID	Time	Device Name	Event Point	Event Description	Media File	Personnel ID	First Name	Last Name	Card Number
283	2018-01-30 08:43:17	192.168.218.197		Connected to the server					
74	2018-01-30 08:29:59	192.168.218.111	192.168.218.111-1	Device Started					
75	2018-01-30 08:29:59	192.168.218.111	192.168.218.111-1	Tamper alarm					
282	2018-01-29 21:06:56	192.168.218.197		Can not connect to server					
-1	2018-01-29 19:48:12	192.168.218.111		Disconnected					
281	2018-01-29 19:04:58	192.168.218.197	192.168.218.197-1	Normal Verify Open		1	Lucy	Liu	1126612
280	2018-01-29 19:04:56	192.168.218.197	192.168.218.197-1	Normal Verify Open		1	Lucy	Liu	1126612
279	2018-01-29 19:04:54	192.168.218.197	192.168.218.197-1	Normal Verify Open		1	Lucy	Liu	1126612
278	2018-01-29 19:03:58	192.168.218.197	192.168.218.197-1	Unregistered Personnel		1	Lucy	Liu	1126612
277	2018-01-29 19:03:54	192.168.218.197	192.168.218.197-1	Unregistered Personnel		1	Lucy	Liu	1126612
276	2018-01-29 19:03:52	192.168.218.197	192.168.218.197-1	Unregistered Personnel		1	Lucy	Liu	1126612
275	2018-01-29 19:02:41	192.168.218.197	192.168.218.197-1	Normal Verify Open		1	Lucy	Liu	1126612
274	2018-01-29 19:02:38	192.168.218.197	192.168.218.197-1	Normal Verify Open		1	Lucy	Liu	1126612
273	2018-01-29 19:02:35	192.168.218.197	192.168.218.197-1	Normal Verify Open		1	Lucy	Liu	1126612

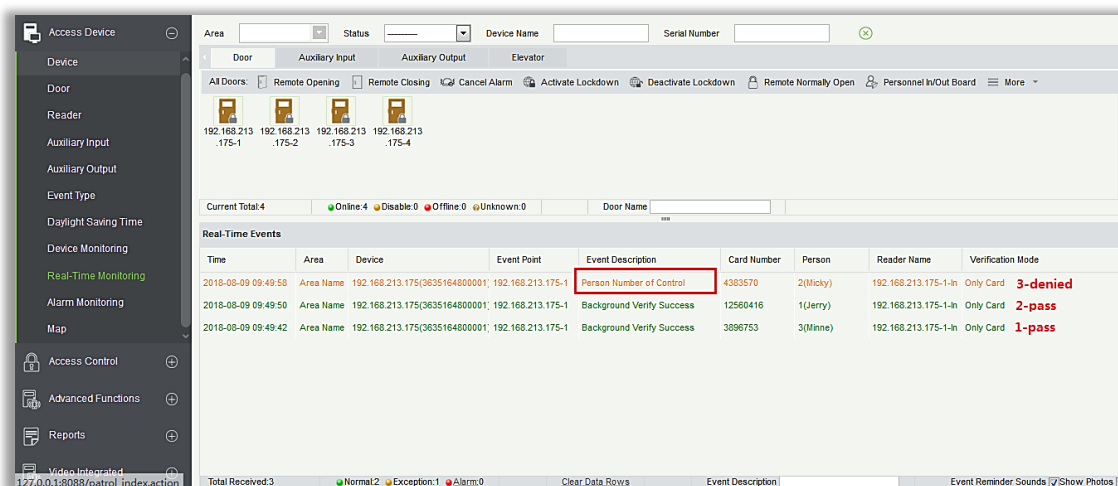
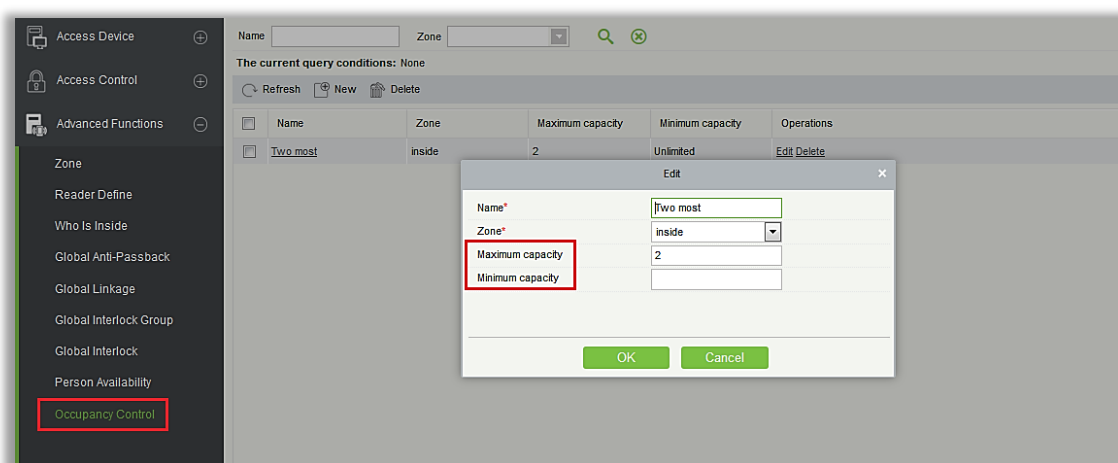
- Supports configured the standalone device as the reader of the controller. Users can set standalone device as Wiegand Reader by edit the device, then all the data will be automatically sent to the standalone reader, users do not need to manually synchronize data to the device like before.



9. Supports more advanced features.

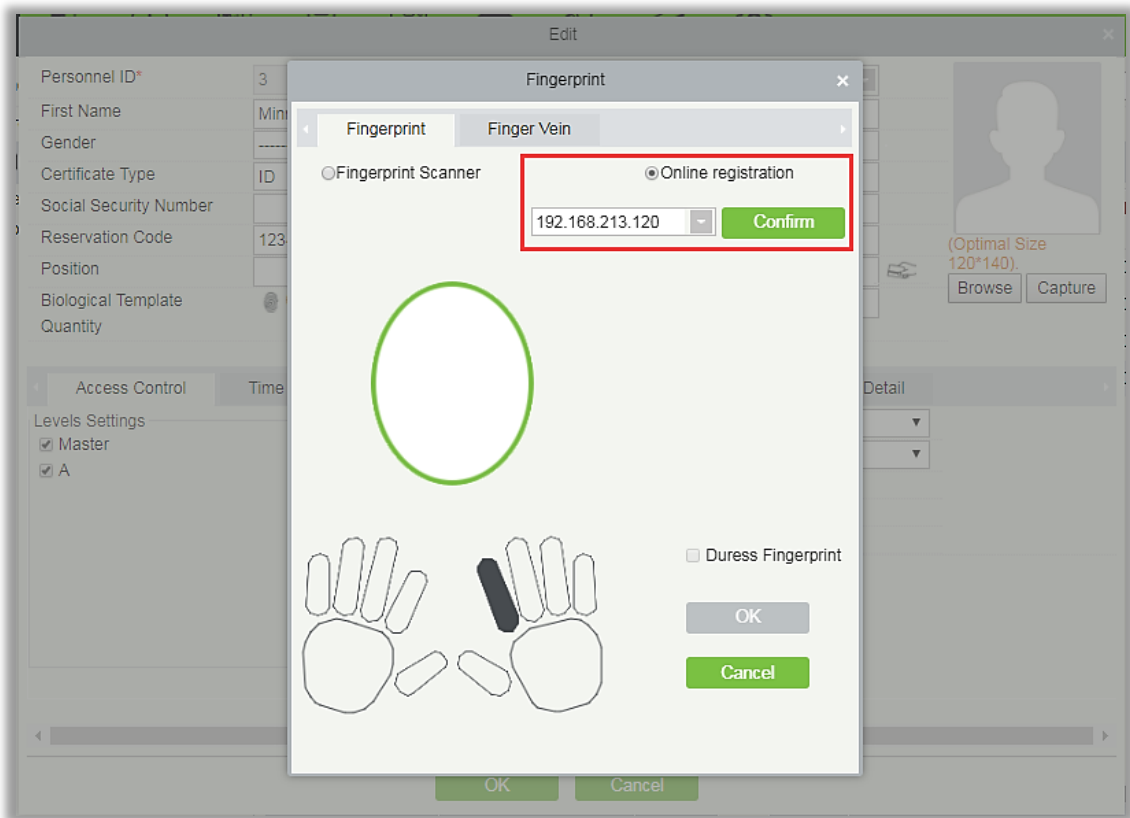
(1) Support personnel number occupancy control in 'Who is inside' function.

Support control the maximum person number or minimum person number or both inside the zone.

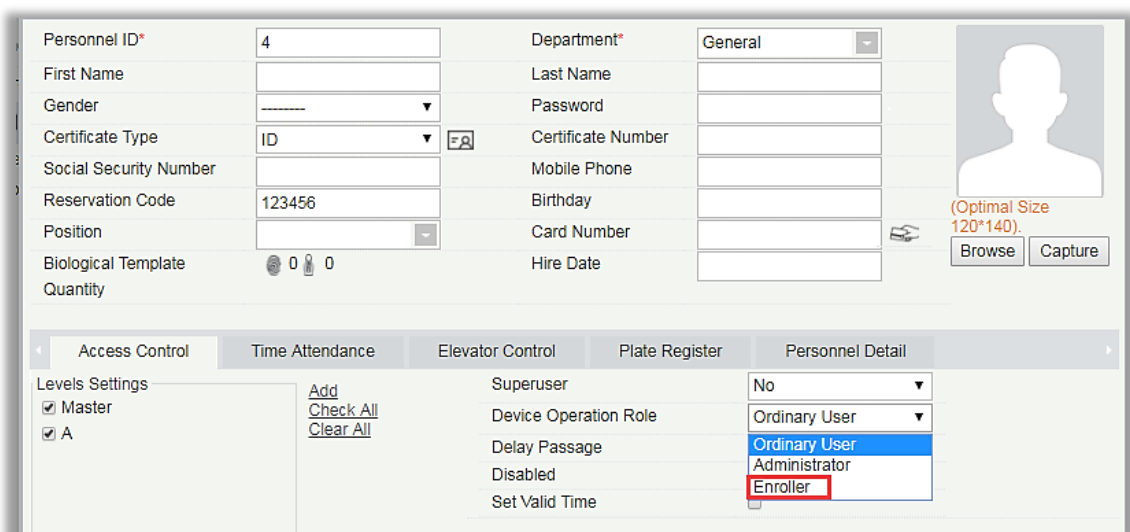


10. Supports more functions for green label access control Standalone device.

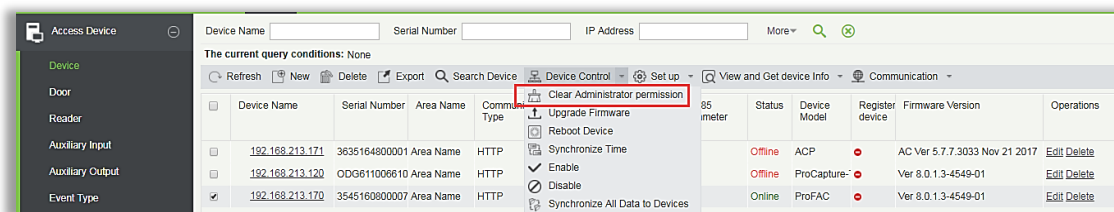
1) Supports remotely enroll the personnel fingerprint and finger vein.



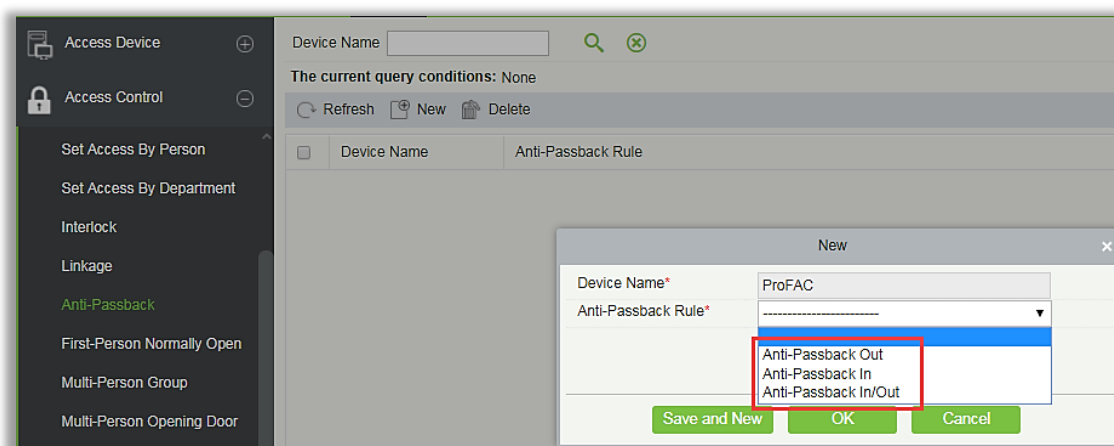
2) Add enroller role for personnel.



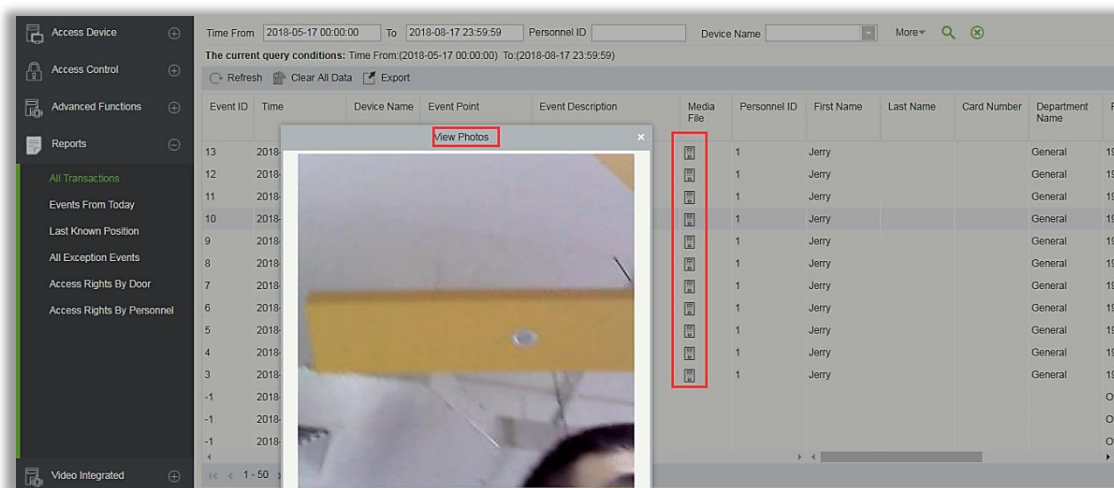
3) Add Clear Administrator option for Green label access control device.



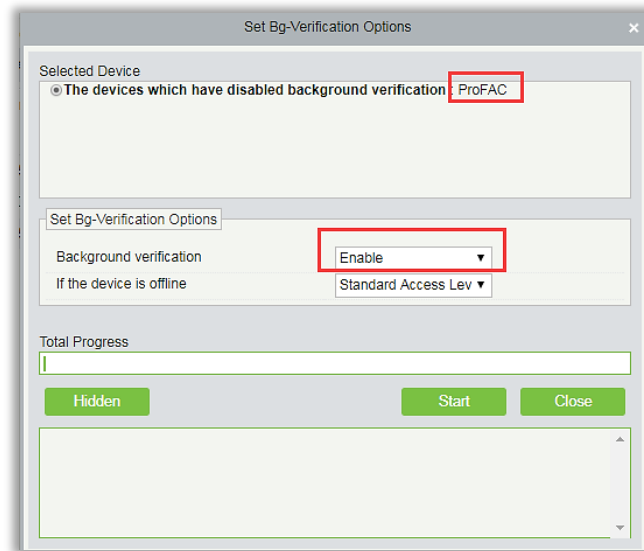
- 4) Optimized Registration device function.
- 5) Support Anti-Passback between Green label access control device and Weigand reader.



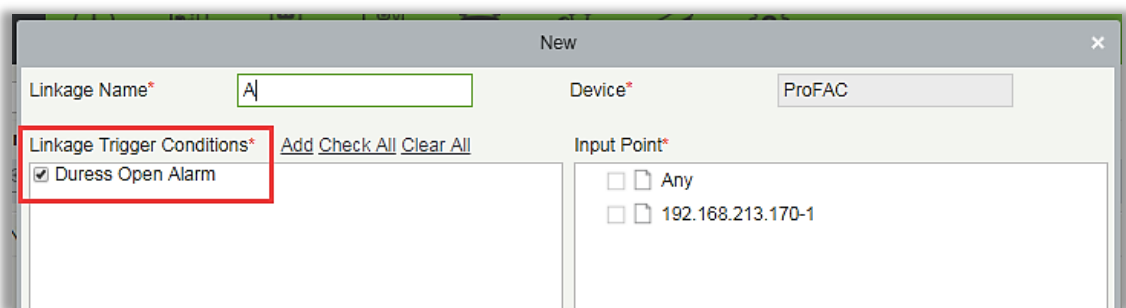
- 6) Support uploading captured photos from device to software.



- 7) Support Https communication protocol.
- 8) Support different time zone and daylight-saving time function.
- 9) Support Background verification.



- 10) Support ADMS option use domain mode.
- 11) Support multiple people open doors (with multiple people open doors interval) and first person normally open.
- 12) Support long name function.
- 13) Support Duress triggering condition setting.



- 14) Support Wiegand card format with site code function, one people use multiple cards.
- 15) Set verification mode for different people at different time zone.
- 16) Access Time zone ID can support 2~9999.

Note:

About the GL standalone device old firmware upgrade to this new firmware:

- 1) If the firmware version is Ver 8.0.3.6 or above, we can upgrade directly through USB upgrade. Please contact our technical support to get the upgrade file.
- 2) If the firmware version is lower than Ver 8.0.3.6, we can not upgrade directly and need to re-

write the core board image. Please contact our sales staff.

11. Supports Desfire card control feature. For this function, you need to purchase the following device and apply for a special card control license of ZKBioSecurity.

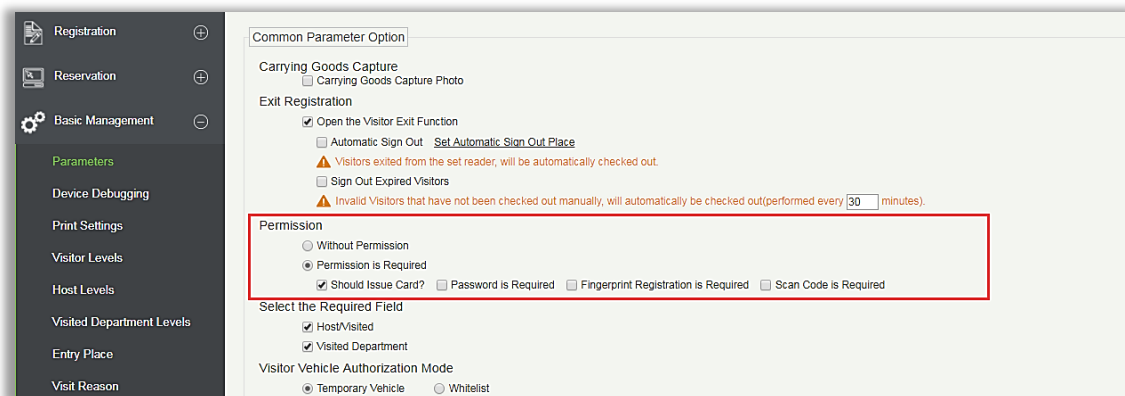
Device Type	Device Name	Firmware Version
Controller	InBio Pro Series (160/260/460)	AC Ver 5.7.7.3033 Apr 2 2018
Standalone Device	inPulse/inPulse+/ProBio/ProCapture- T/ProRF-T/ProFAC/ProCapture- X/ProCapture-WP	Ver 8.0.4.2
Card Encoder	CR Pro-D	/
Card Reader	ProID20 BD HS (Without Keypad) ProID30 BD HS (With Keypad)	/
Desfire Card	D81(8K)	/
<b>Note:</b> Desfire card control is an optional function, if you want to support this function, please inform in advance when purchasing the device.		

## 2.4 Visitor Management

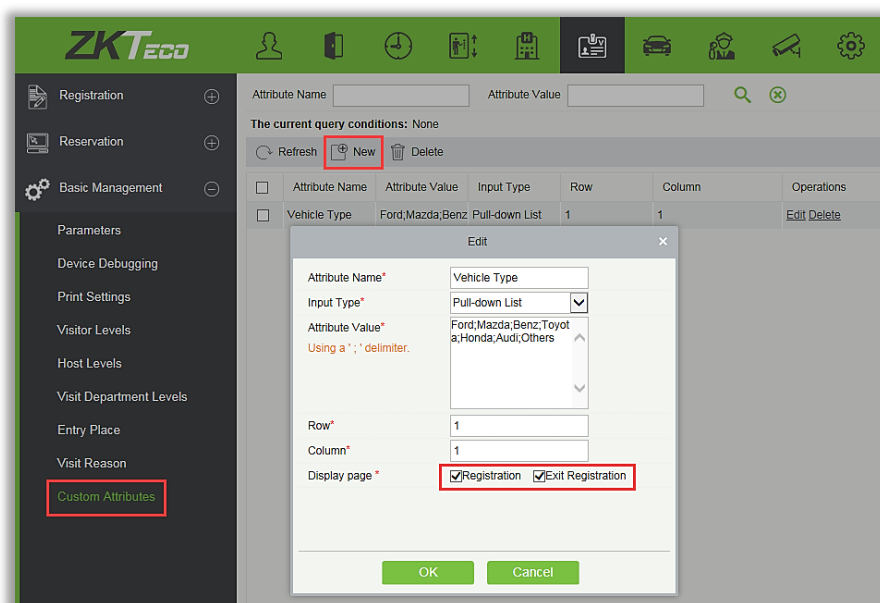
1. Supports Desko PENTA scanner, can be used with Acuant OCR to support recognition of identity documents such as ID cards, passports, driver licenses, visas, etc. from over 190 countries and all 50 US states, and auto-fill the personnel information to ZKBioSecurity Visitor, Personnel and Hotel modules.



- Updated the visitor permission setting. Supports multiple verification methods, but please note that “should issue card” or “scan code is required” cannot be selected at the same time.



- Newly added custom attributes feature. Users can add new custom attributes in entry registration and exit registration page.



The screenshot shows the 'Entry Registration' window with the following fields:

- Host/Visited: Enter the Query Condition
- Visit Department: [Dropdown]
- Visit Reason: Visit
- Certificate Type: ID
- Certificate No.: [Text]
- Entrance: server
- First Name: [Text]
- Last Name: [Text]
- Gender: [Dropdown]
- Company: [Text]
- Mobile Phone: [Text]
- License Plate: [Text]
- Nationality: [Dropdown]
- Visitor Quantity: 1
- Carrying Goods: [Text]
- Permission: [Section Header]
- Visitor Level: [Dropdown]
- Start Time: 2018-01-24 17:42:38
- End Time: 2018-01-24 23:59:59
- Card Number: [Text]
- Witnesses photographed: [Section Header]
- Personnel Detail: [Section Header]
- Vehicle Type: [Dropdown menu showing Ford, Mazda, Benz, Toyota, Honda, Audi, Others]
- Buttons: Save and New, OK, Cancel

- Updated visitor auto exit feature, if we enable this feature, visitors can be checked out within 5 minutes.

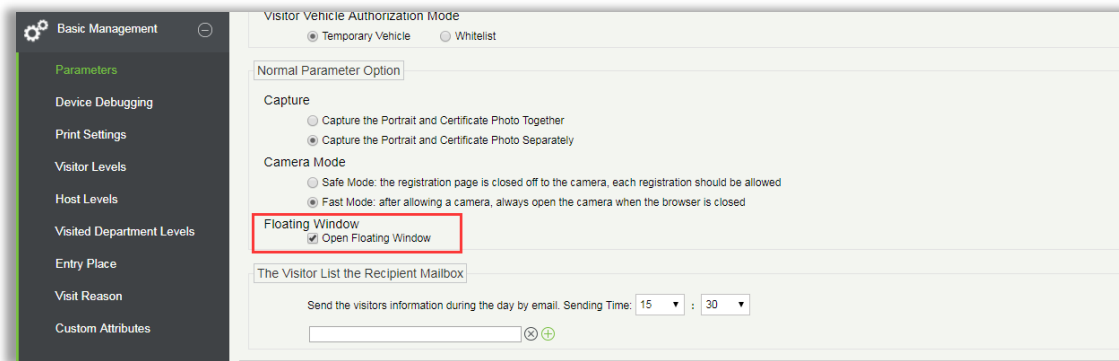
The screenshot shows the 'Common Parameter Option' window with the following sections:

- Article Capture
  - ☐ Take pictures on your belongings
- Exit Registration
  - ☒ Open the Visitor Exit Function
  - ☒ Automatic Sign Out [Set Automatic Sign Out Place](#)
  - Visitors exited from the set reader, will be automatically checked out.
  - ☐ Sign Out Expired Visitors

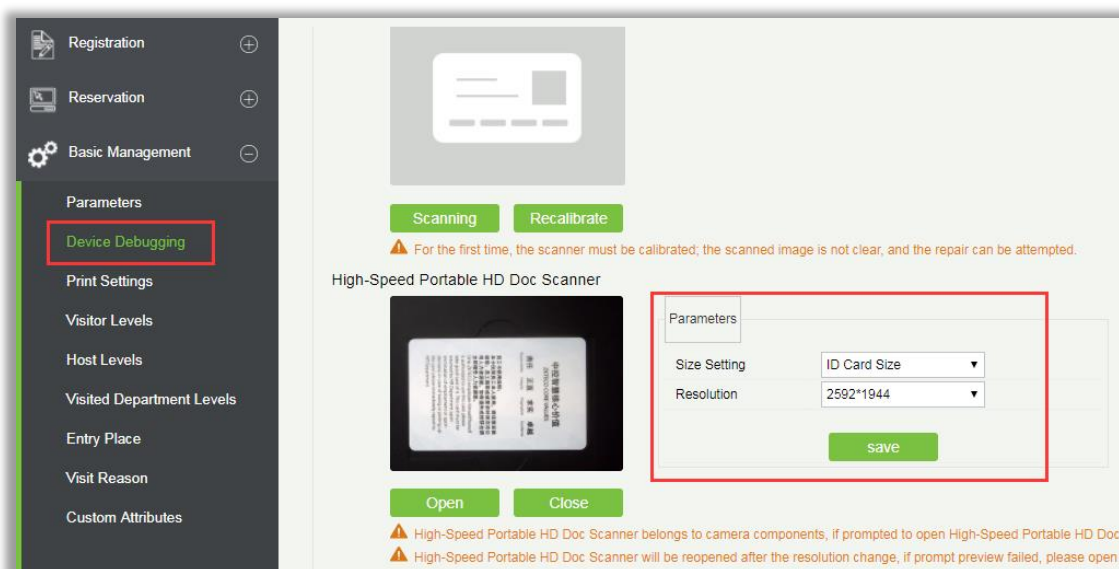
- On the visitor registration page, the visitor level support sorting according to the level names, sorting rules: numbers>uppercase letters>lowercase letters.The registrar can choose the access levels for visitors more quickly.



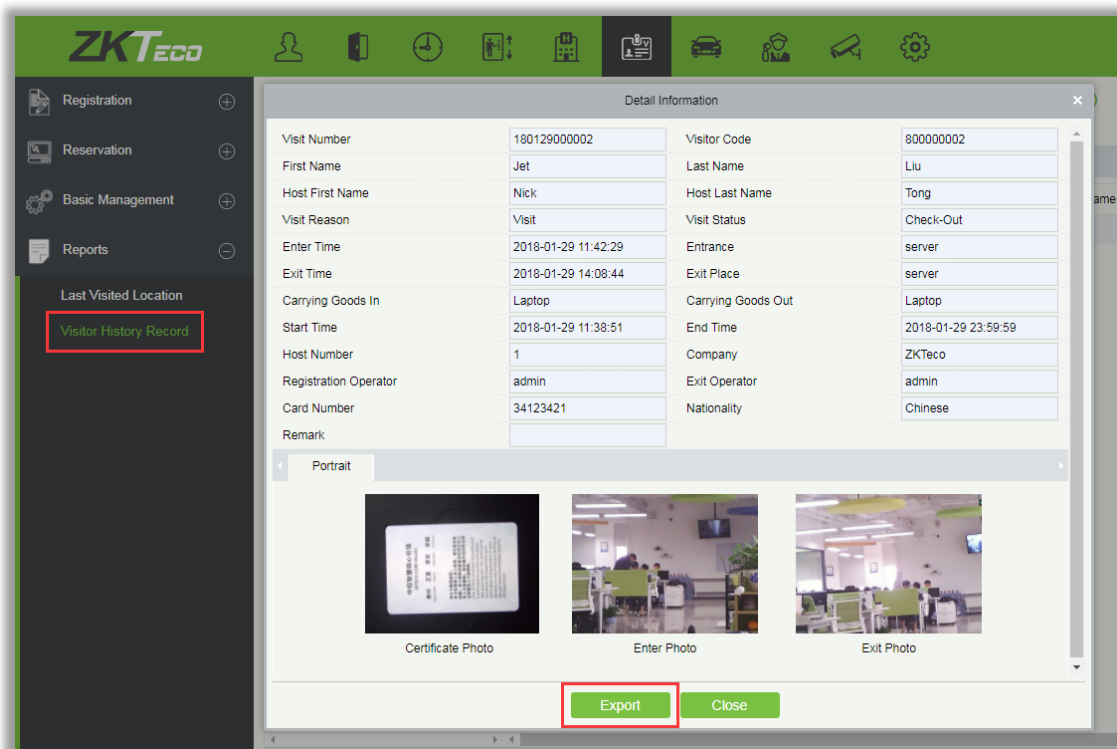
- Newly added entry registration and exit registration floating window, you can drag this floating window to anywhere even when you are checking other modules. If you don't need this feature, you can click the "Close" button, you can also disable or enable this feature in the parameters setting. It is a shortcut button, very convenient for the registrar to register or sign out the visitors.



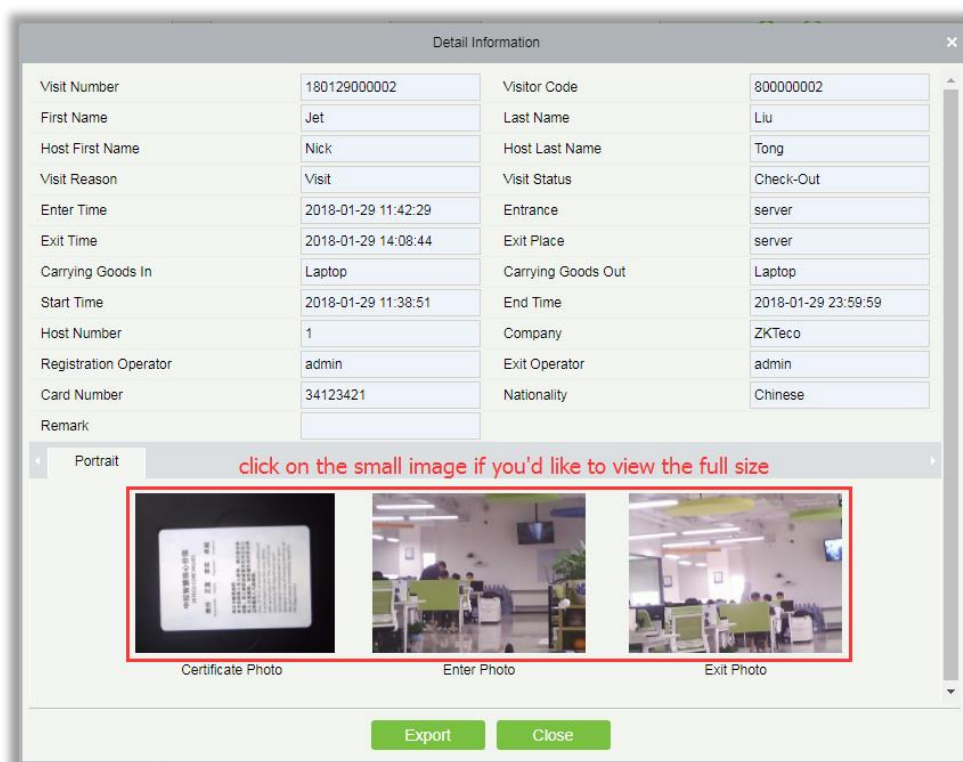
7. Newly added High-speed portable HD doc scanner debug feature in device debugging page. Supports configuring size and resolution for the scanner. Also, you can click on the small image if you'd like to view the full size and adjust the scanner camera to capture clear pictures.



8. Supports exporting visitor individual detail information in PDF format.

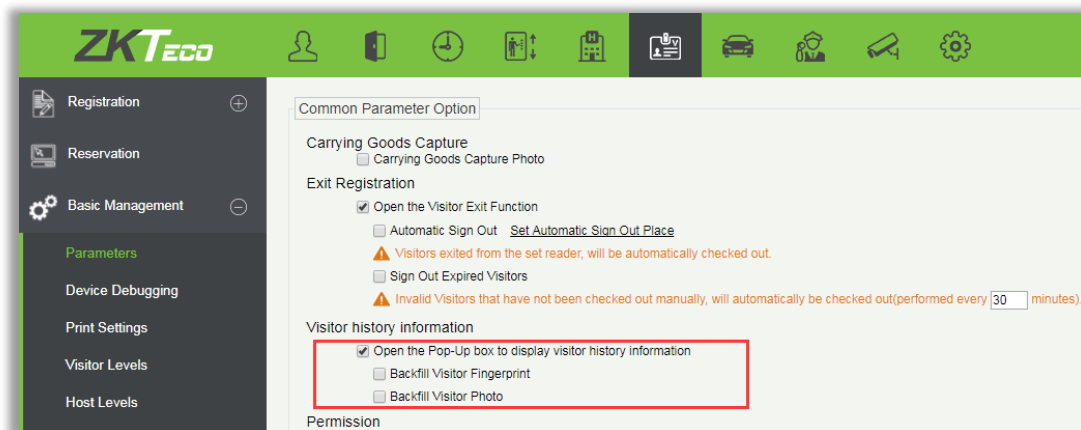


9. For the visitors capture photos, you can click on the small image to view the full-size photos.

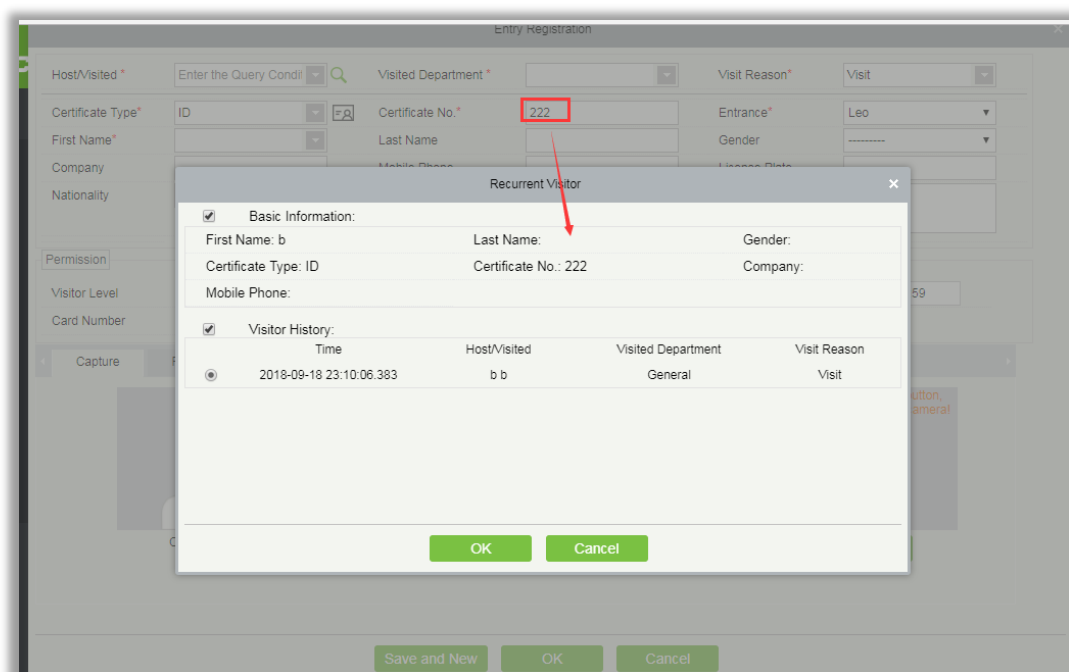


# 10. Newly added visitor history information backfill option.

- (1) The user can enable or disable the “pop-up window to display the visitor history information” function. You can also select whether to backfill visitors’ fingerprint or photo.



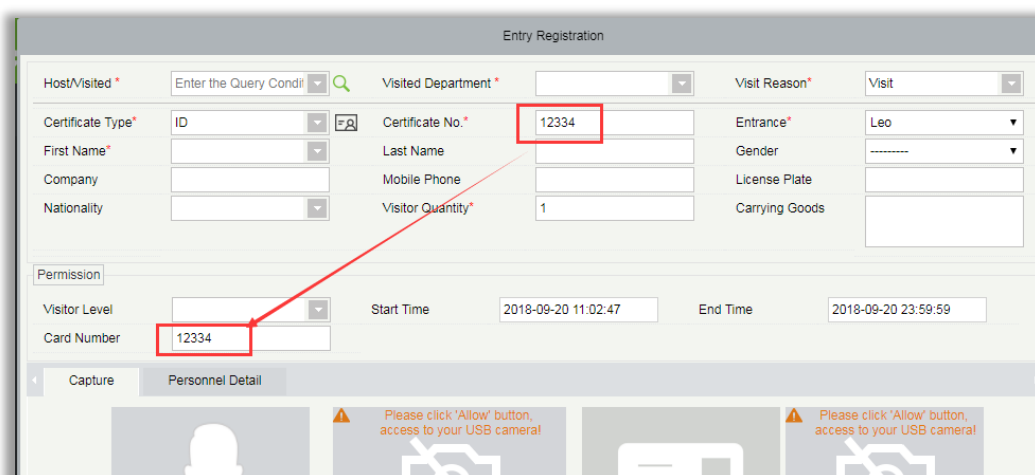
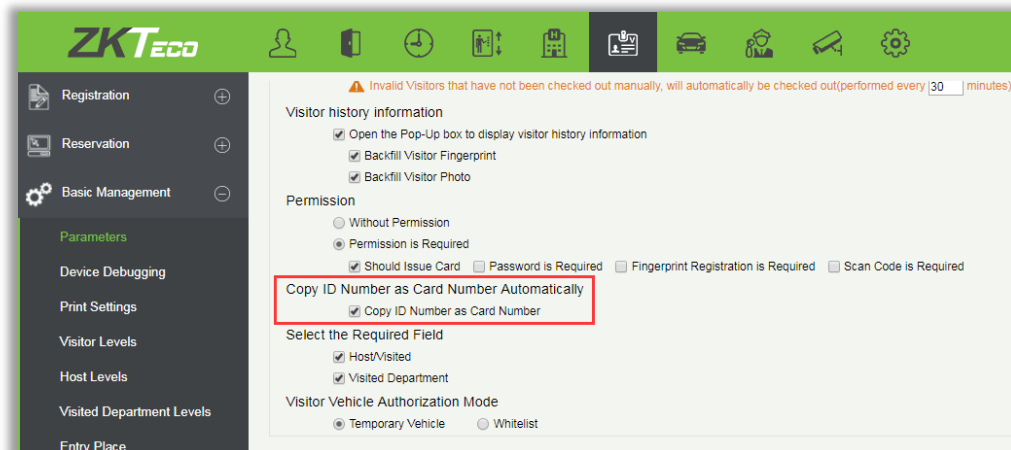
- (2) If we enable the pop-up box to display visitor history information, after entering the visitor's certificate number in the “Entry Registration” page, the software will check whether it is a historical visitor, and if it is, the visitor history information will pop up and you can select the basic information and visitor history for auto-fill.



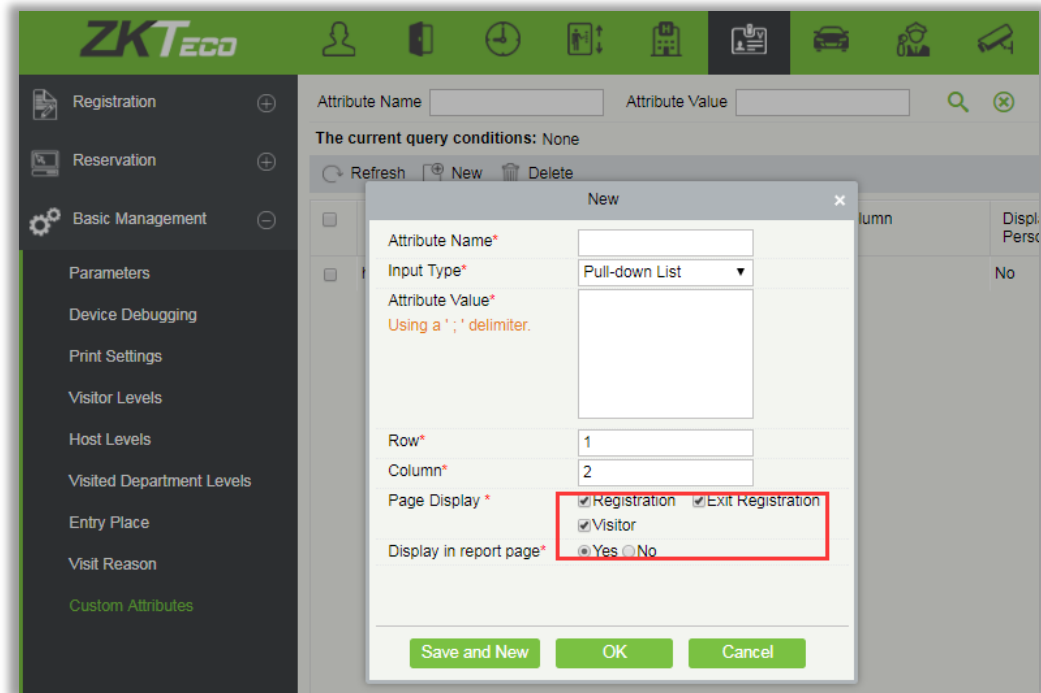
- (3) If you select ‘Basic Information’, then only backfill the visitor’s basic information (not including the Host/Visited, Visited Department, Visitor Level), if you select ‘Visitor History’ will backfill all historical information (Including the Host/Visited, Visit Department, Visitor Level).

11. Support copy the certificate number as the card number automatically.

- (1) You can enable or disable “Copy ID Number as Card Number” as the picture show below. After enable the ID card number will copy automatically as card number use for entry or exit.



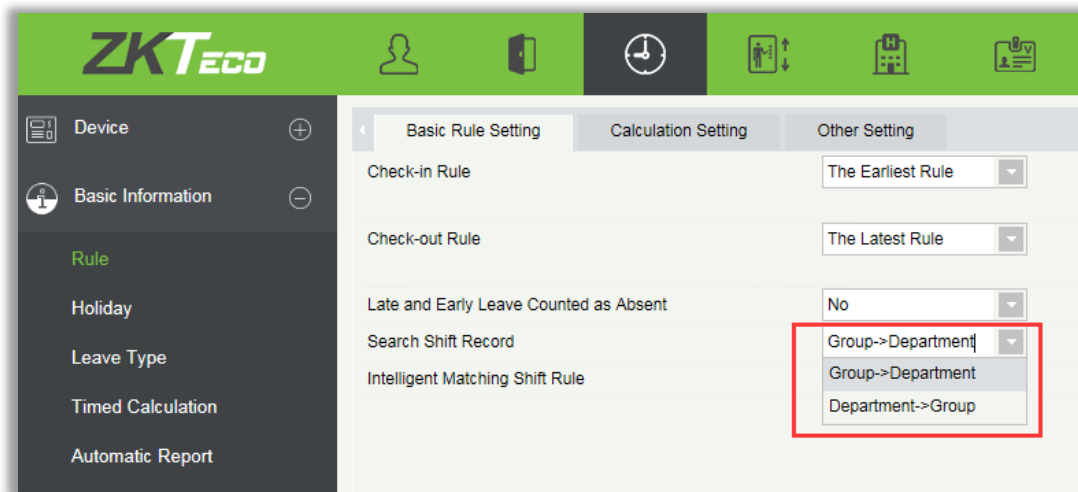
12. Support for adding visitor custom attributes and you can also define the custom attributes that show in the Entry Registration, Exit Registration, Visitor list or in the report page.



## 2.5 Time & Attendance

### 1. Updated T&A Rule Settings.

- (1) Search Shift Record, there are two options you can select: 'Department->Group' and 'Group->Department'.



- (2) New added Days Conversion Rule and Absent Days Conversion Rule. For the Absent Days Conversion Rule there are two options you can select: Days conversion rule or Calculated as the work days.

**Basic Rule Setting**

Hour Conversion Rule  
Formula:  $\text{Hours} = \text{Minutes} / 60$

Days Conversion Rule  
Formula:  $\text{Days} = \text{Minutes} / \text{Number of minutes to work per day}$

Absent days conversion rule

Exact digits of the decimal point: 1

2. New added Approval Flow Management feature. Administrators can flexibly configure approval processes for employee attendance exceptions, and employees can submit exception approval requests through "Person Self-Login", and approving exception requests submitted by subordinates.
- (1) Administrator can set the node of approval flow. For the note type there are two options you can select: Designated Person and Assign Position.

**Flow Management**

Node Setting

Flow Setting

My Application

My Approval

**New**

Node Type: Designated Person

NodeNumber: It is recommended to start

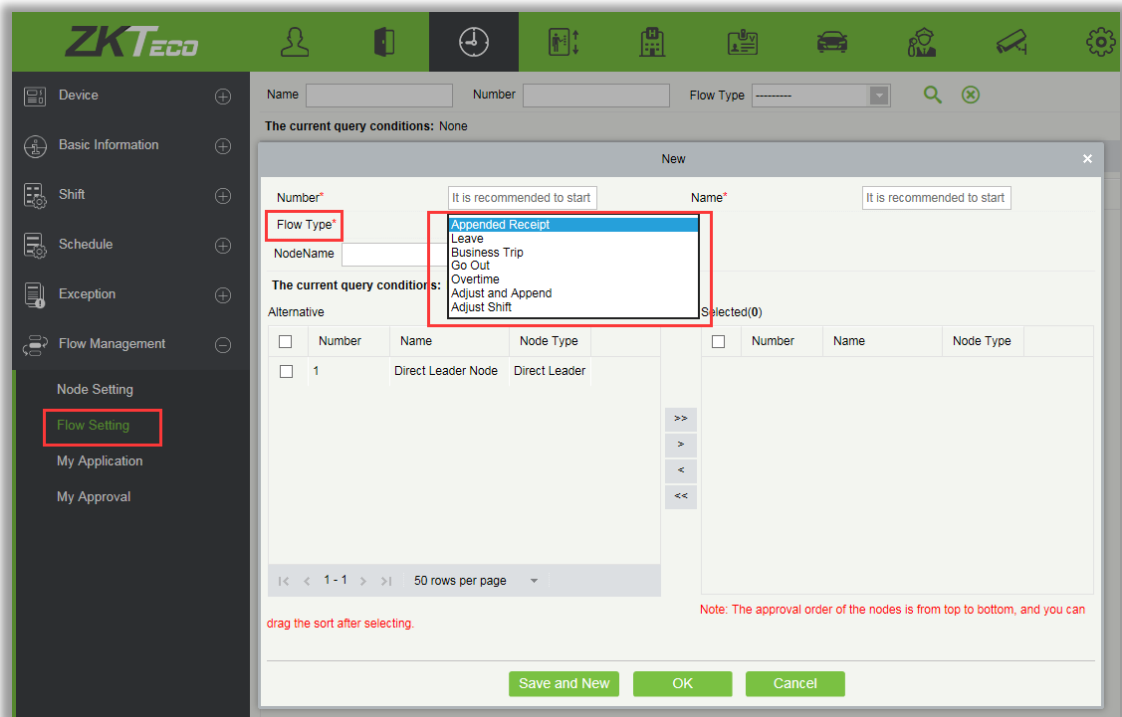
NodeName: It is recommended to start

Personnel: Input Search Criteria

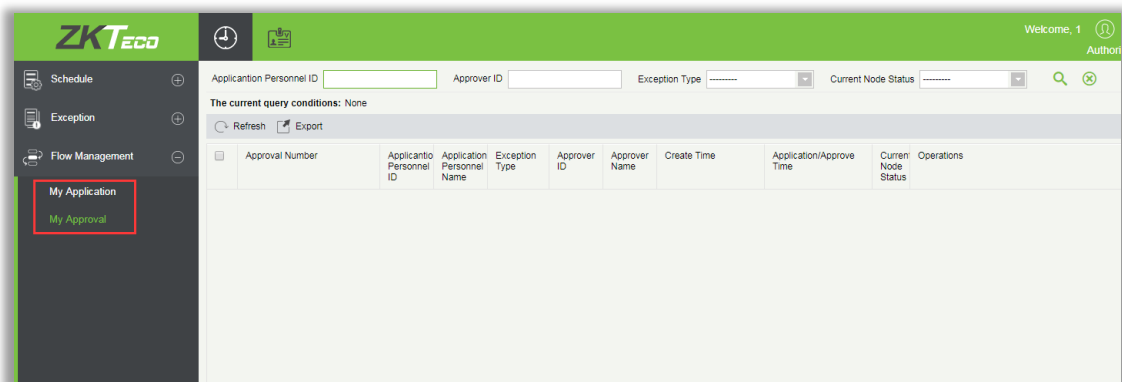
Department Name

Save and New OK Cancel

- (2) Users can set the approval flow. For the flow type there are seven options you can select: Appended Receipt, Leave, Business Trip, Go Out, Overtime, Adjust and Append, Adjust Shift.



- (3) Employee can view their individual application through “Person Self-Login”.
- (4) Users/Managers can view and approve subordinate applications through “Person Self-Login”.



- 3. Support to add FD1043V/FD1032V/FD1032H/FD1021H (android smart device with big screen and visible light facial recognition) device for T&A.
- (1) Support use as a standard T&A device with visible light facial recognition to do the attendance calculation.
- (2) Support to configure the QR code address in the device, employees can scan the QR code through the mobile phone to complete the registration.

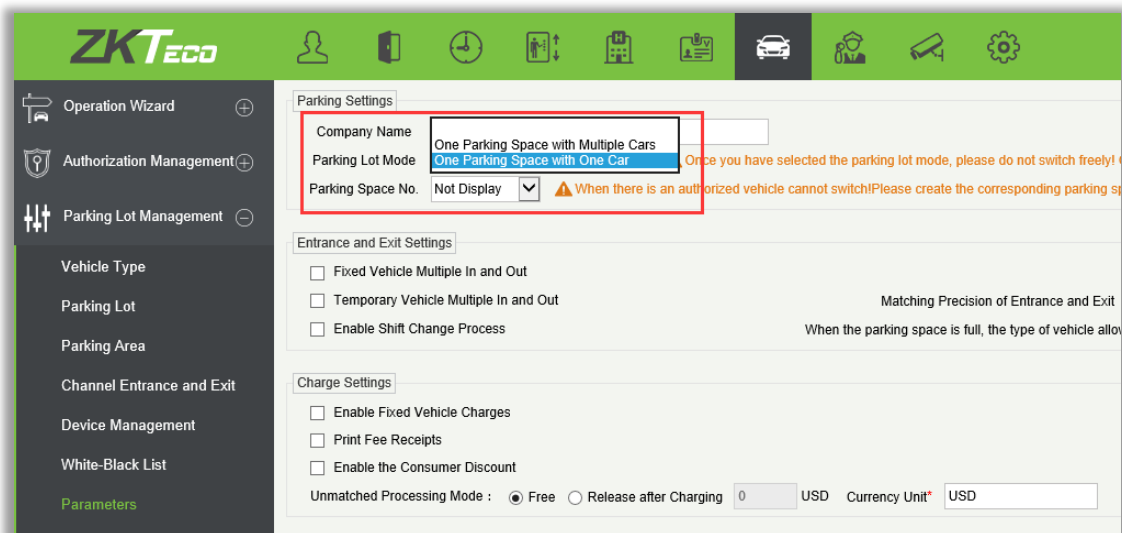


- (3) Support the management of advertising pictures and advertising videos in the software and send it to the device for playback.



## 2.6 Parking

1. Added new rule: support one person with multiple license plate. Parking lot mode: one parking space with multiple license plates or one parking space with one license plate. Once the parking lot mode is selected, users can not switch freely.
  - (1) One parking space with one license plate: binding a parking space to a car when authorized.
  - (2) One parking space with multiple license plates: binding a parking space to all the cars of the personnel when authorized.



2. Updated some parameters:

### (1) Show the Remaining Parking Spaces at the Entrance:

The LED screen shows the number of available parking spaces. This feature is enabled by default.

### (2) LED Display Type:

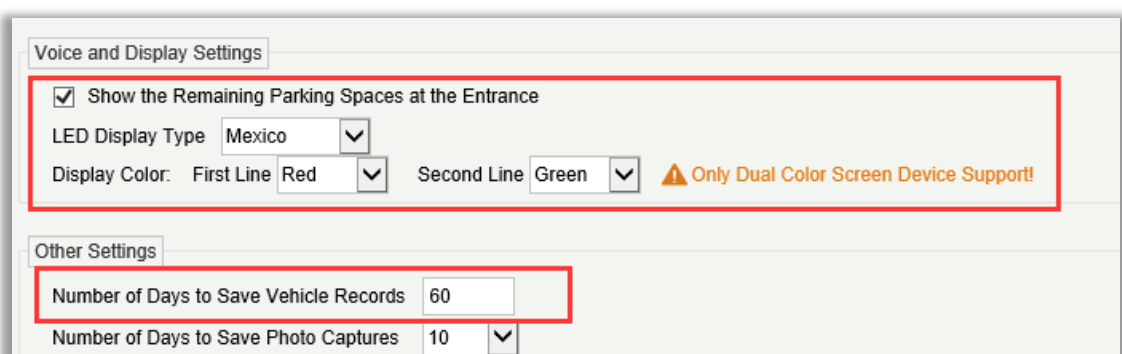
Support to configure the LED display types based on different countries, the default value is Common (English), also you can select the display type as South Africa, Mexico, Argentina, Chile, Colombia, Thailand, Turkey, Saudi Arabia, Mongolia, Egypt, Peru, Indonesia and Malaysia.

### (3) Display Color:

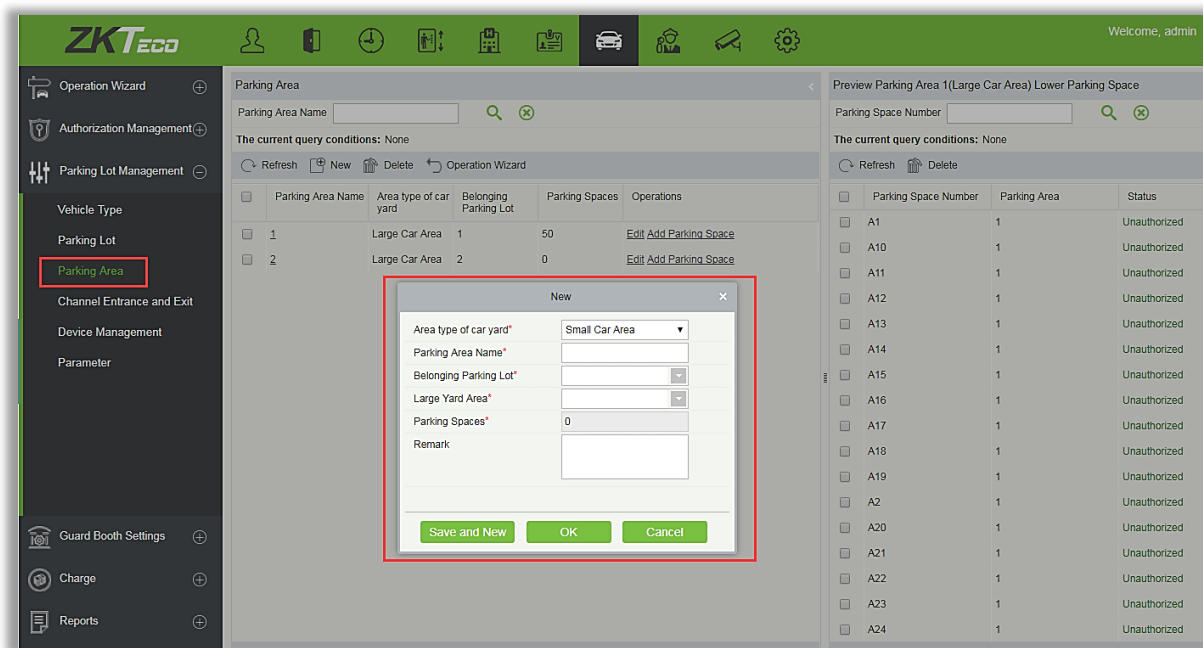
Configure the display color for the first line and second line of the Dual color screen device.

### (4) Number of Days to Save Vehicle Records:

Configure the number of days of keeping entered vehicles report.



3. Define the parking area: Large parking area and small parking area. Small parking area belongs to large parking area and the display screen of large area will show the parking space number of small areas. Also, newly added parking spaces feature.



4. When vehicle authorization, must choose the parking space number.

The 'New' dialog box is shown with the following fields and values:

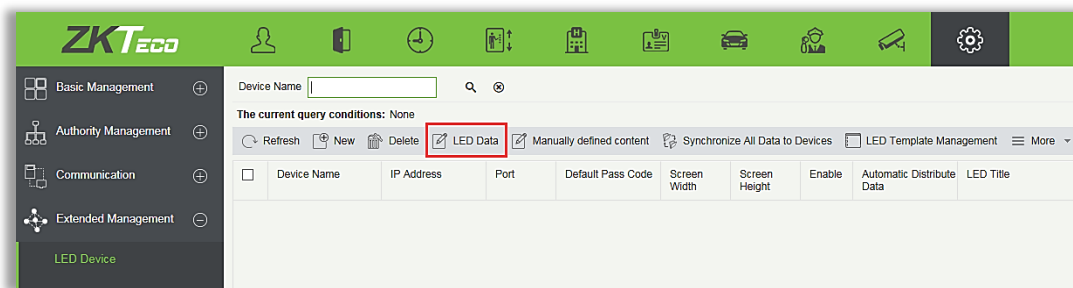
Person*	Lucy Liu ( 1 )
License Plate Number*	12345678
Parking Space Number*	A1
Entrance and Exit Area*	1
Vehicle Type*	Fixed Vehicle A
Start Time*	2018-01-30 14:04:48
End Time*	2018-02-28 14:04:59
Fee*	150

At the bottom are 'OK' and 'Cancel' buttons.

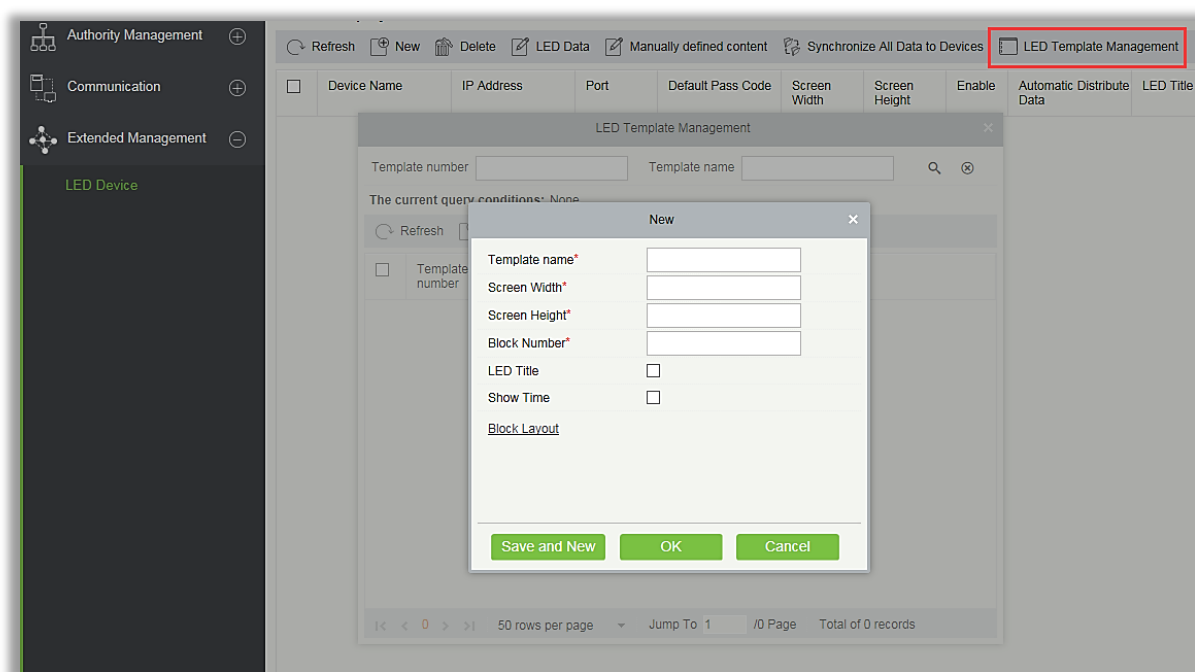
**Note:** For new projects of parking system, please use the new version 3.1.5.0 and do not use the previous version 3.1.0.0.

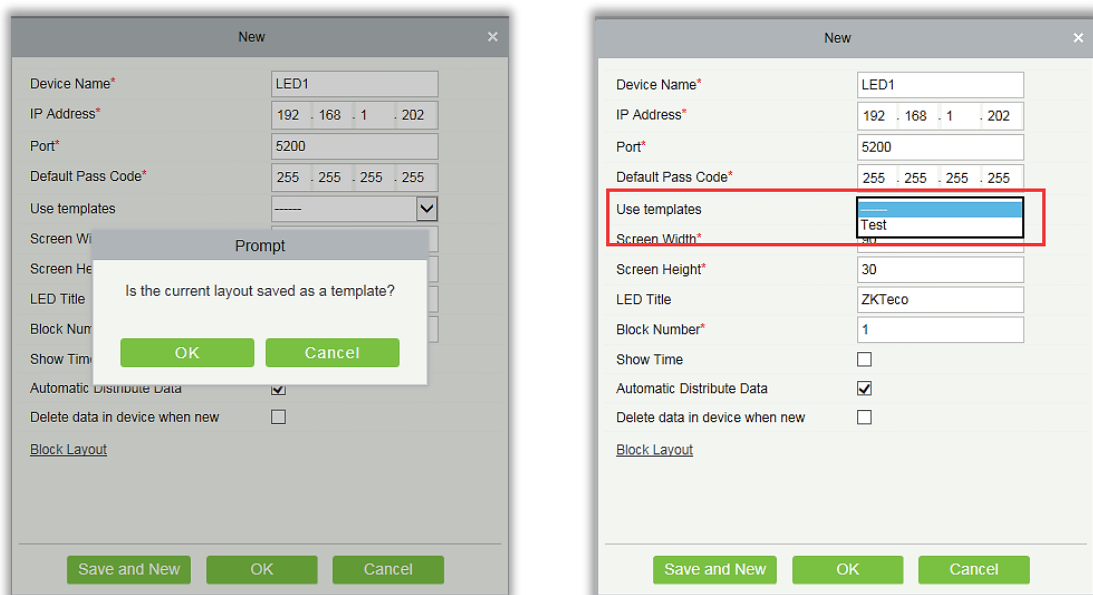
## 2.7 System

1. Update LED screen integration feature, adjust LED Data menu, support led template settings.
  - (1) Move the LED Data menu from access control module to system module.

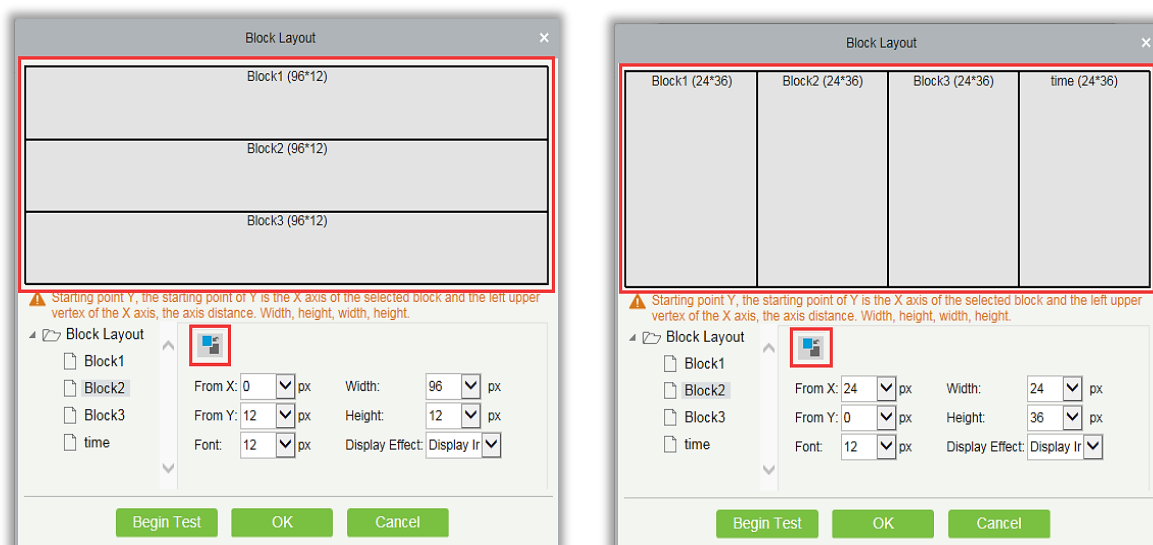


- (2) Newly added LED Template Management feature, there are two ways to set up a template, one is click “LED Template Management” and create a new template, and the other is to set it directly as a template when adding a device. After you finished the LED template configuration, you can select the template when you adding the device.





- (3) If you did not select a template when you add a device, then you set up the layout, the LED screen will automatically average divided by the number of blocks, and you can click the button “” for horizontal and vertical equalization.



## 2.8 ZKBioSecurity Mobile APP

Newly developed ZKBioSecurity Mobile APP 2.0 version, supports Access Control, Visitor Management, Parking, Time Attendance(Self-Login) module. Please refer to the user manual for more details. You can download the Android and IOS version from Google Play and App Store.

**Note:**

After launching the mobile app version 2.0, the previous version 1.0 will be removed from Google Play and App Store. App 2.0 is compatible with ZKBioSecurity3.1.5.0, so for previous versions of ZKBioSecurity, please upgrade to 3.1.5.0 if you want to use App 2.0.

