

18 Connecting to ZKBio Zlink Web

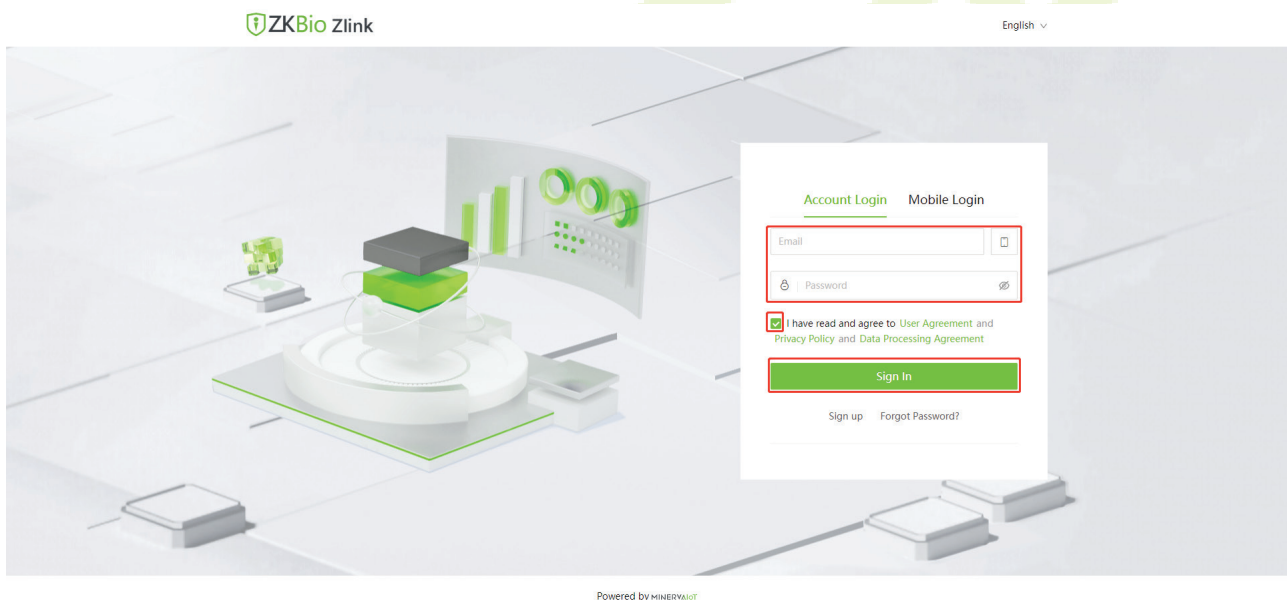
The web pages may vary depending on the version, and the document is for reference only.

Change the device communication protocol to BEST protocol, then the device can be managed by ZKBio Zlink, please refer to [6.5 Device Type Settings](#).

Users can use the created account to access ZKBio Zlink Web to connect devices, add new personnel, register the verification method of registered personnel, synchronize personnel to devices and query records.

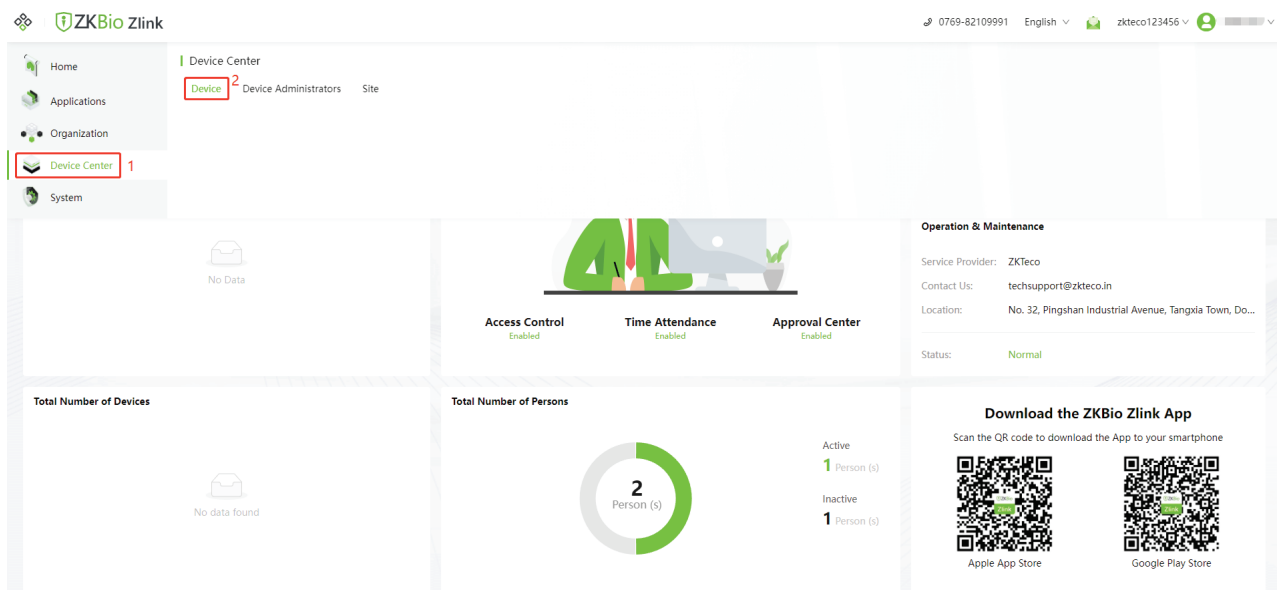
18.1 Login to the Web

1. Please open the recommended browser and enter the IP address to access the ZKBio Zlink Web: <http://zlink.minervaiot.com>.
2. Enter your Email ID and password on the login screen, check “I have read and agree to User Agreement and Privacy Policy and Data Processing Agreement” and click [**Sign In**] to login.

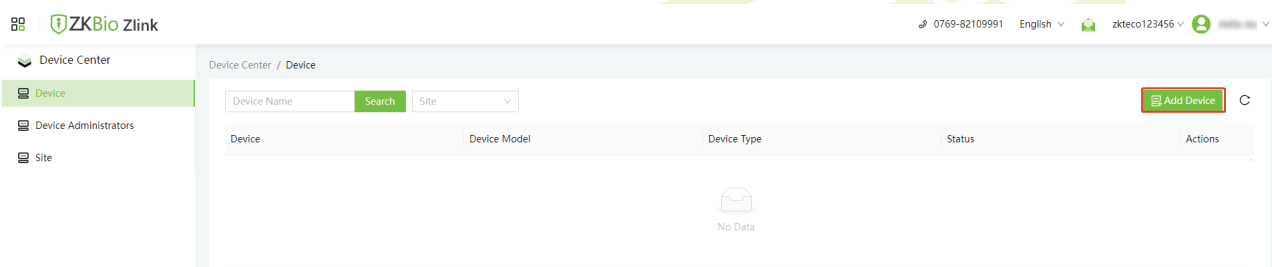


18.2 Add Device on the Web

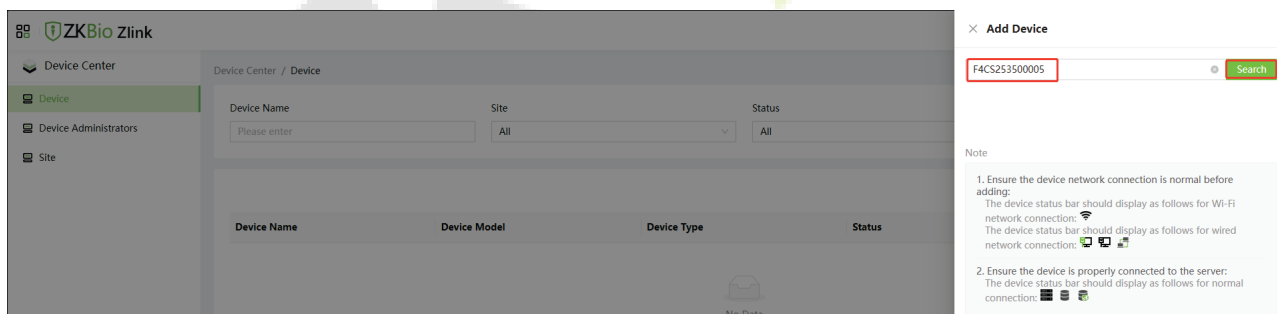
1. Click the  icon on the top left corner, and click [**Device Center**] > [**Device**] to enter the device setting interface.



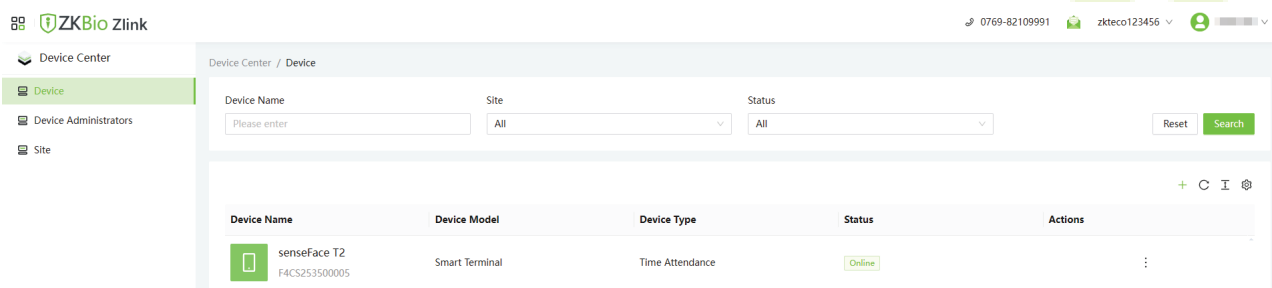
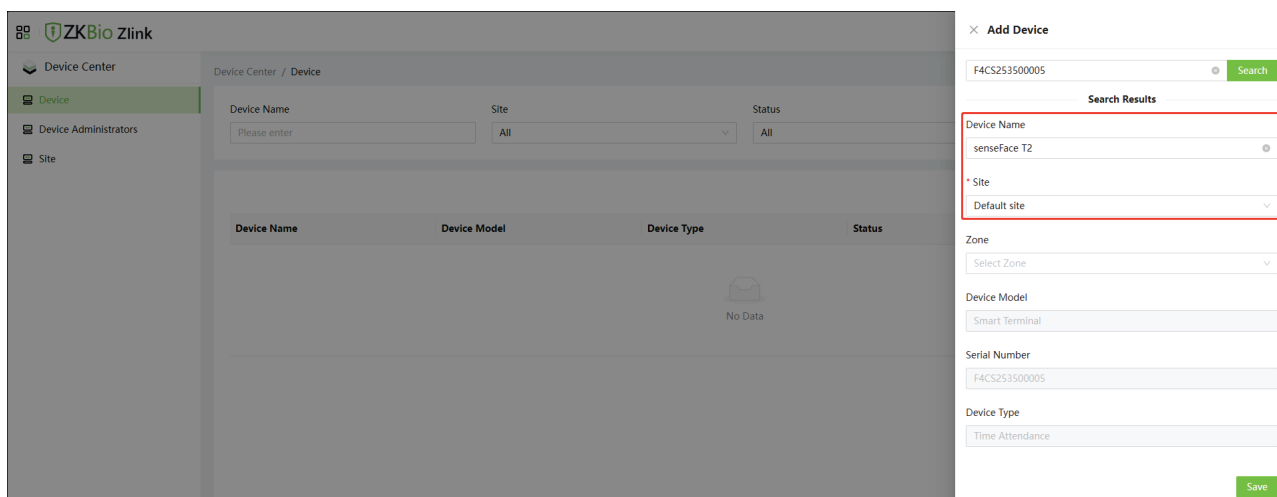
2. Then click **[Add Device]** to enter the Add Device interface.



3. Enter the Serial Number and click **[Search]**.



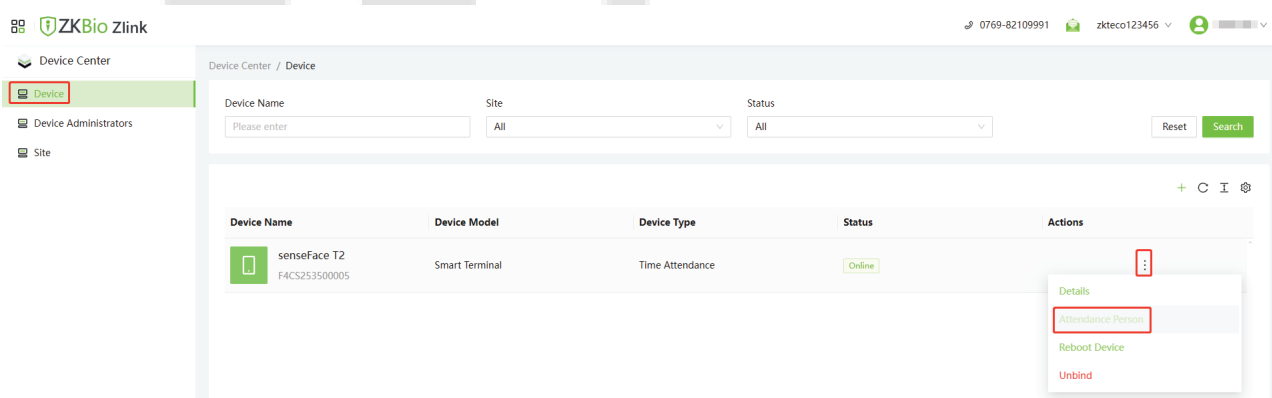
4. Then enter the device name and specify the device to a site. Select Site from the drop-down menu. Click **[Save]** to complete the addition.



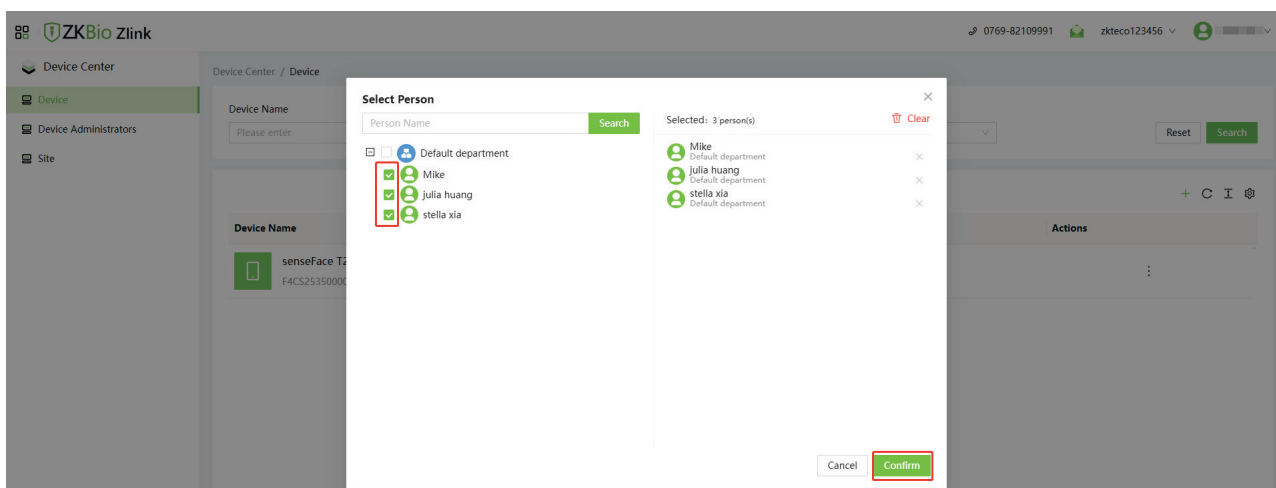
Note: Wait a moment for the device status to change from “Offline” to “Online”.

18.3 Manage and Add Person to Device

- Click the  icon on the top left corner, and click [Device Center] > [Device] to enter the device setting interface. Select the device in the list, click the  icon > [Attendance Person] to enter the Select Person interface.

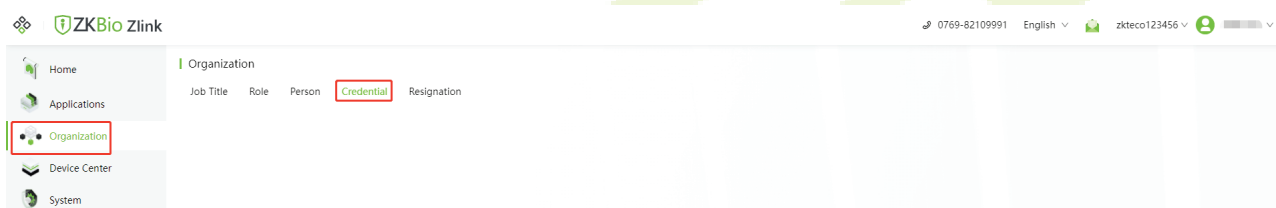


- Tick the person in the pop-up window and click [OK] to add the person to the device.

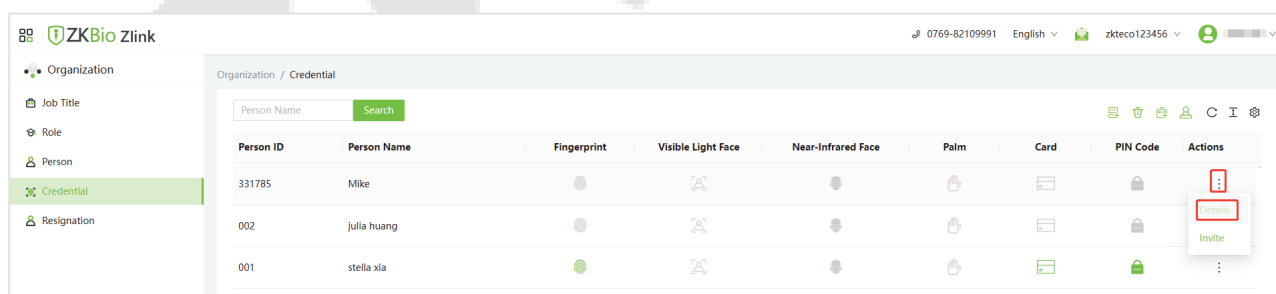


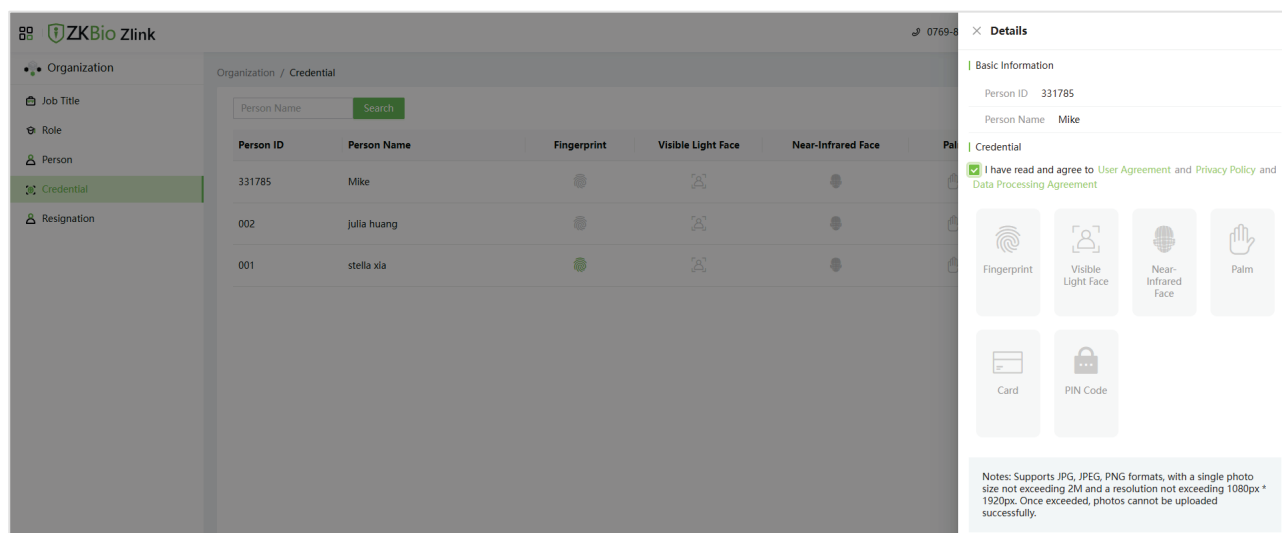
18.4 Register Verification Mode on the Web

1. Click the  icon on the top left corner, and click **[Organization]** > **[Credential]** to enter the credentials setting interface.



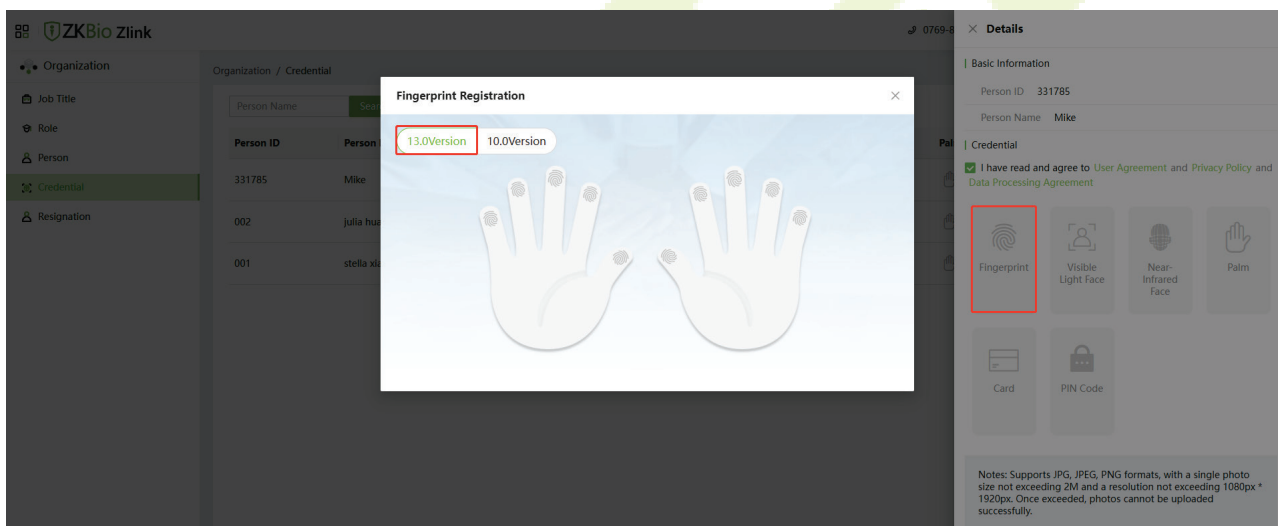
2. Select the person and click the  icon > **Details**, check "I have read and agree to User Agreement and Privacy Policy and Data Processing Agreement" and click **Fingerprint/Visible Light Face/Card★/PIN Code** to remotely register the personnel biometric verification mode.



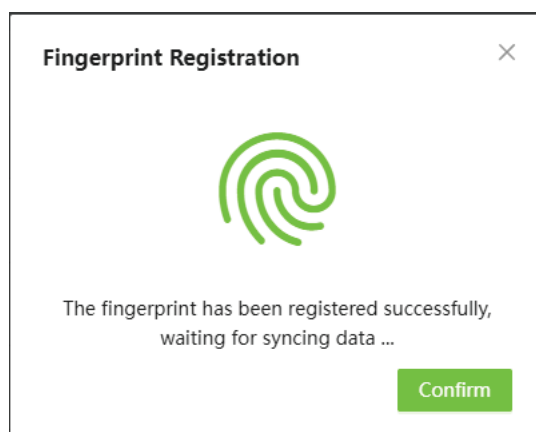
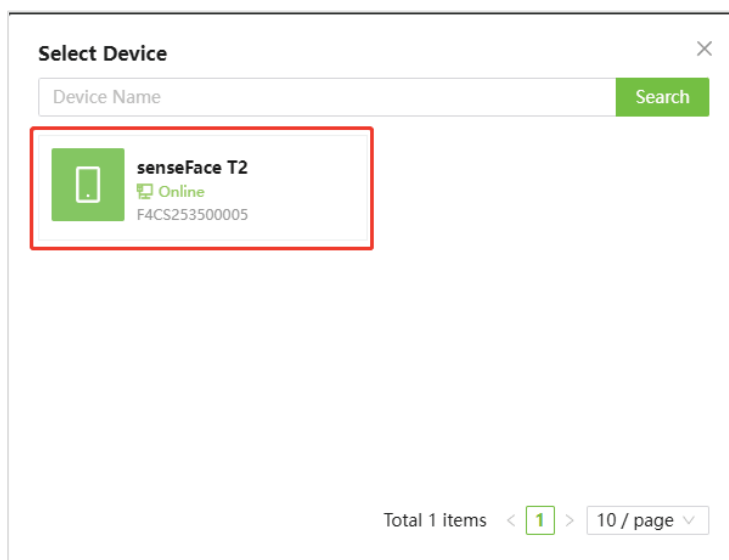


● Register Fingerprint

1. Click **Fingerprint** in the Details page. Click **13.0Version** or **10.0Version** (it depends on the fingerprint algorithm that set in **System > Fingerprint**). Choose the hand and finger to be enrolled in the pop-up prompt window.



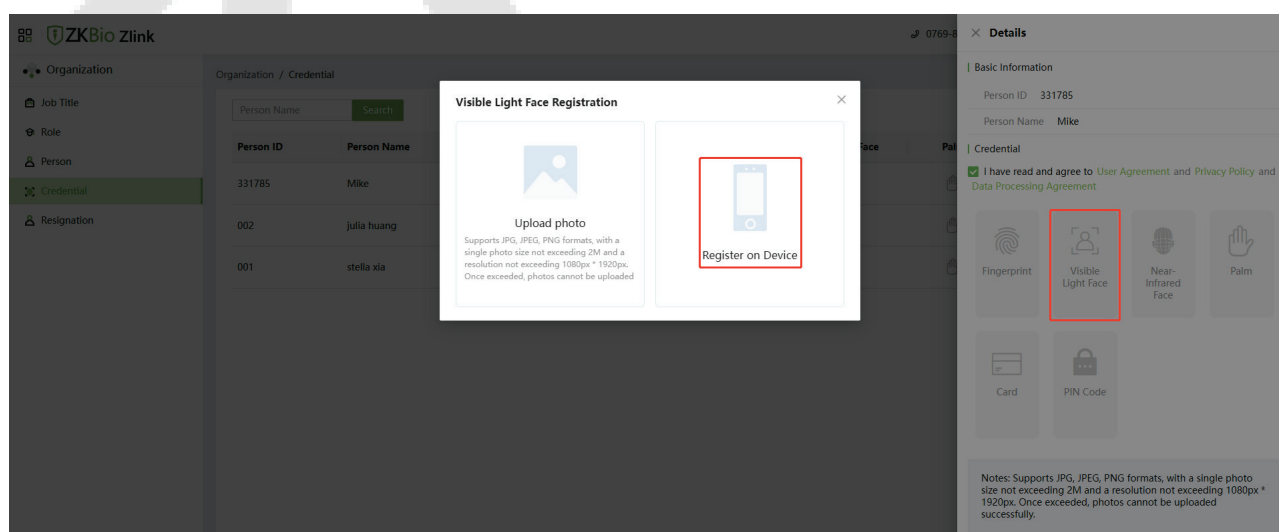
2. Select the registration device, the device will display the fingerprint registration screen. According to the prompts, place your finger on the fingerprint sensor and press 3 times. When the interface prompts "Enrolled Successfully", it means the fingerprint registration is successful.



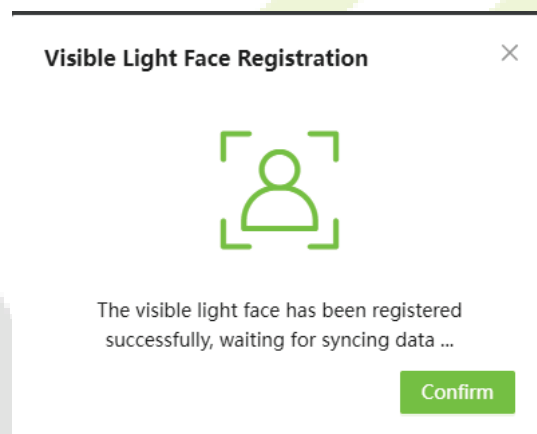
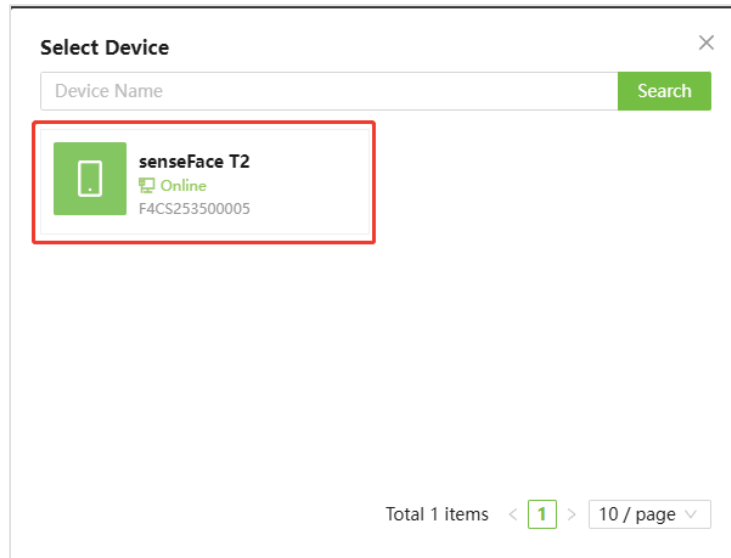
3. And you can repeat the above operation to register other fingers.

- **Register Face**

1. Click **Face** in the Details page. You can select Register on Device or Upload photo. If you want to register on device, then click **Register on Device**.

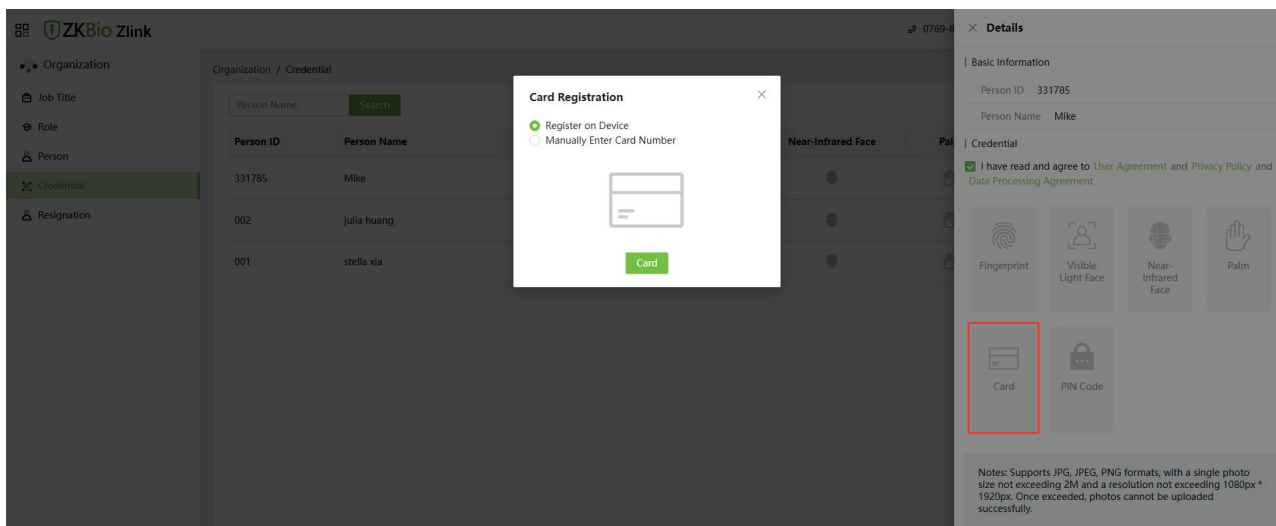


2. Select the registration device, at the same time, the device displays the Enroll Face interface. Face towards the camera and stay still during face template registration, when the display shows **"Enrolled successfully"**, it means the face is successfully registered.

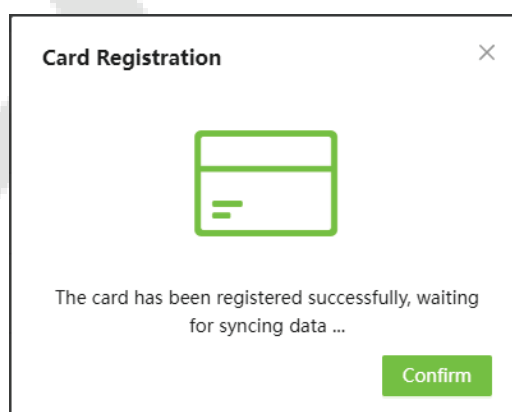
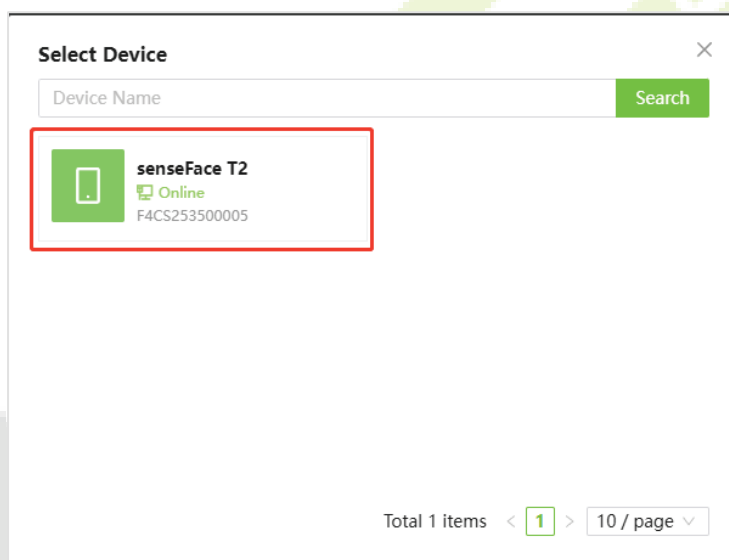


- **Register Card★**

1. Click **Card** in the Details page. You can select Register on Device or Manually Enter Card Number. If you want to register on device, then click **Register on Device**.

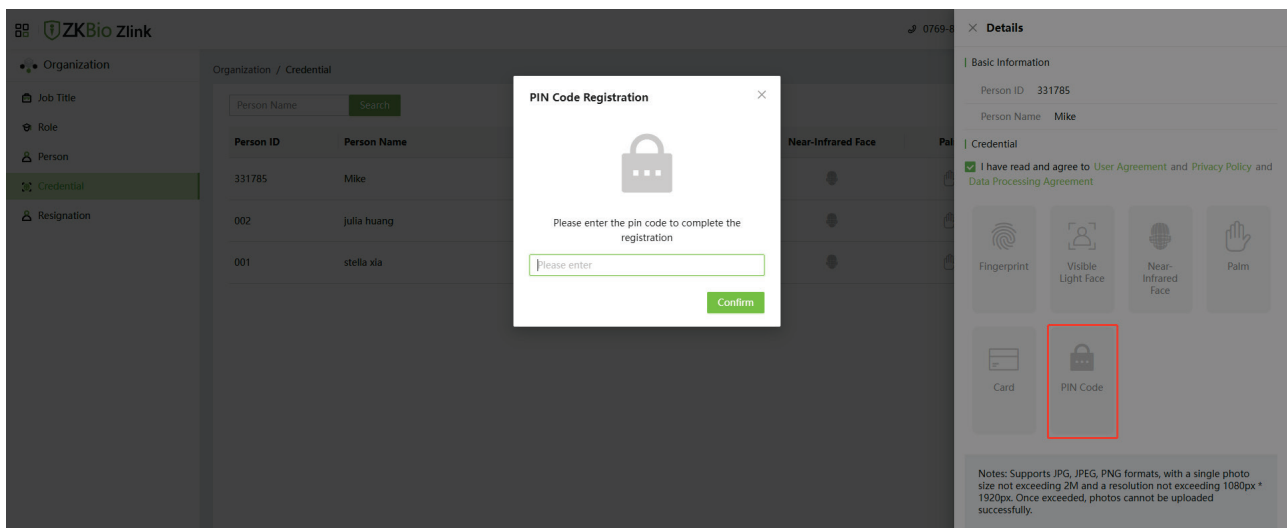


2. Select the registration device, the device will display the **Enroll Card Number** interface. Place the card in the swipe area, when the display shows green ✓, it means the card is successfully registered.



● Register Password

Click **PIN Code** in the Details page. Set the password in the pop-up prompt window, and then click **[Confirm]**.



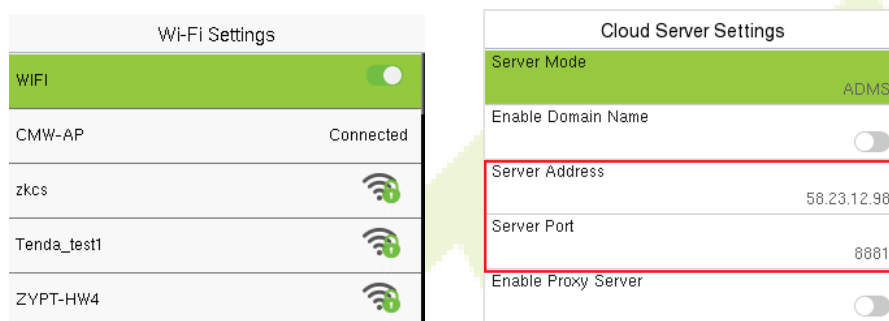
For more details, please refer to the ZKBio Zlink User Manual.

19 Connect to ZKBio CVAccess Software

Change the device type as PUSH Protocol, then the device can be connected to ZKBio CVAccess, please refer to [6.5 Device Type Settings](#).

19.1 Set the Communication Address

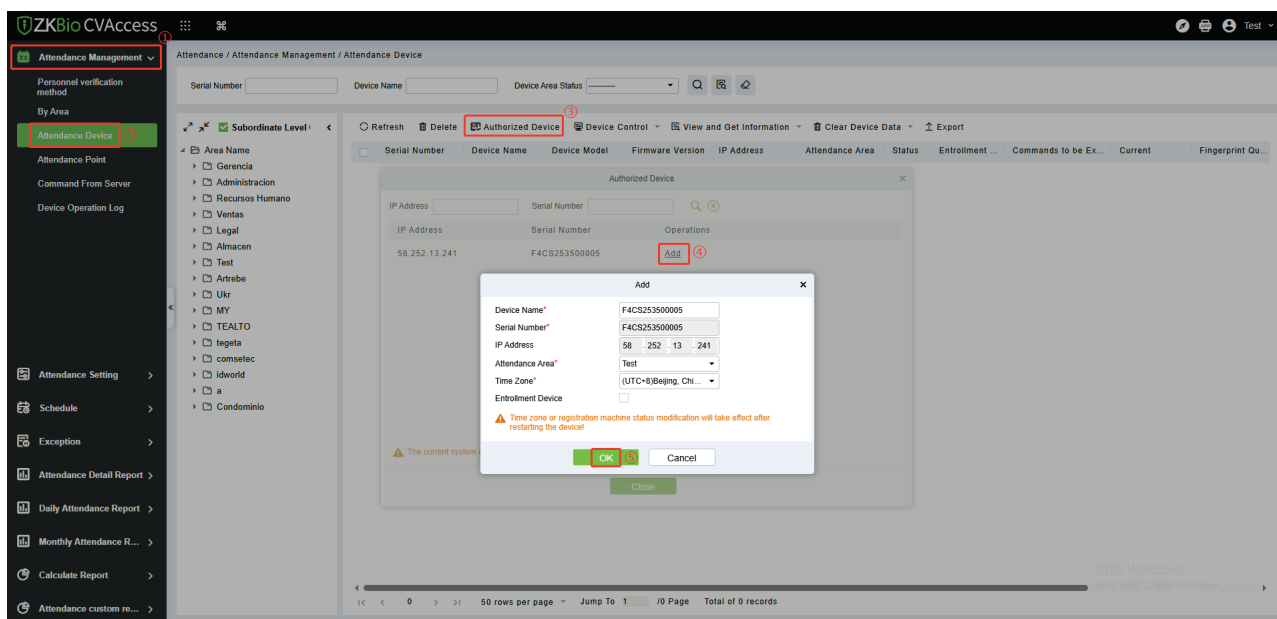
1. Press **M/OK** and enter **COMM. > Wi-Fi Settings** to configure the network of the device.
(**Note:** The network should be able to communicate with the ZKBio CVAccess server)
2. Press **M/OK** and enter **COMM. > Cloud Server Setting** to set the server address and server port.
Server address: Set the IP address as of ZKBio CVAccess server.
Server port: Set the server port as of ZKBio CVAccess.



19.2 Add Device on the Software

The process is as follows:

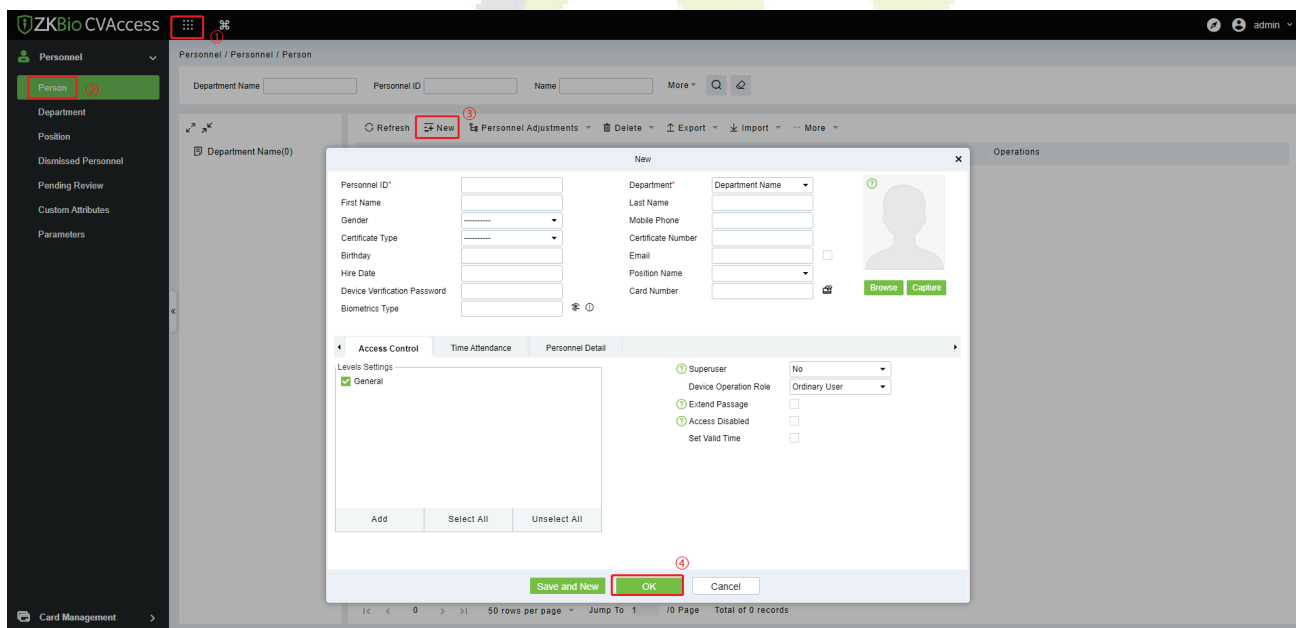
1. Click **Attendance > Attendance Management > Attendance Device > Authorized Device**, the list of authorized devices will be displayed.
2. Select the device to be added and click **[Add]** in operation column, a new window will pop-up. Modify the Device Name and select Attendance Area from dropdown and click **[OK]** to add the device.



3. After the addition is successful, the device will be displayed in the device list.

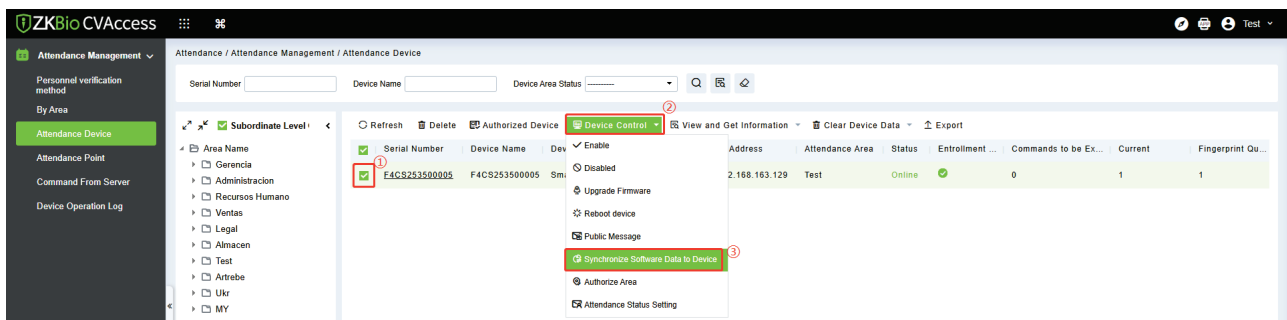
19.3 Add Personnel on the Software

1. Click **Personnel > Person > New**:



2. Fill in all the required fields of the user and click **OK** to save the user.

3. Click **Attendance > Attendance Management > Attendance Device**, select the device and click **Device Control > Synchronize Software Data to Device** to synchronize all the data to the device including the new users.



Note: For other specific operations, please refer the *ZKBio CVAccess User Manual*.

Appendix 1

Self-Service Attendance Terminal FAQs

1. Does self-service attendance terminal support scheduling based on every other day?

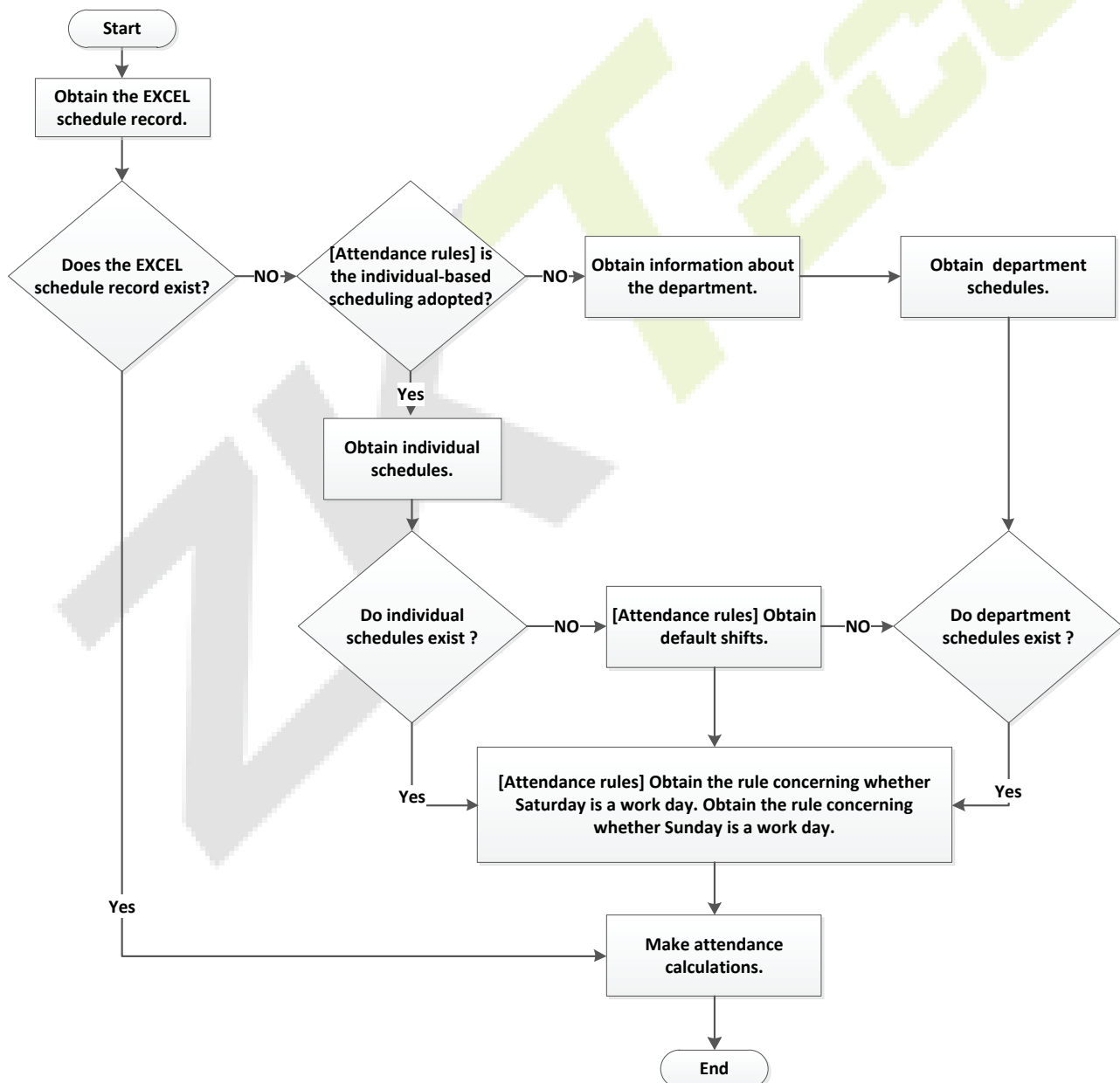
A: No.

2. Can the setting records downloaded from the device be edited on WPS software?

A: Yes. Setting records are supported in Microsoft Office 2003, Microsoft Office 2007, and WPS Office 2012 Personal.

3. What is the attendance calculation flow adopted by the self-service attendance terminal?

A: SSR attendance calculation flow.



4. How to calculate special overtime hours?

The following cases are deemed special overtime:

- When an EXCEL schedule record exists and attendance reports are used for attendance calculation, there are check-in and check-out records though there is no schedule (or rest is arranged) for the current date.
- When no EXCEL schedule record is available, there are check-in and check-out records though Saturday and Sunday are non-working days.

Overtime hours refer to the duration counted from the first check-in time to the last check-out time on the current day.

5. How to arrange schedules using the attendance setting report?

Step 1: Insert a USB flash drive into the USB port or SD card into the SD port of the device and download the Attendance Setting Report.xls to the USB flash drive or SD card.

Step 2: Open the Attendance Setting Report.xls on a computer.

Step 3: Set shifts in the Attendance Setting Report.xls as required.

Attendance Setting Report						
Shift						
Number	First time zone		Second time zone		Overtime	
	On-duty	Off-duty	On-duty	Off-duty	Check-In	Check-Out
1	9:00	18:00				
2	9:00	12:00	13:30	18:00		
3	9:00	12:00	13:00	18:00		
4	9:00	12:00	14:00	18:00		

Data enclosed by a red rectangle is new shifts (shift 3 and shift 4). To add a shift, enter a time directly, in the range of 00:00 to 24:00.

Step 4: Arrange schedules for employees.

Date

Schedule Setting Report

Special shifts:25-Ask for leave, 26-Out, Null-Holiday

Schedule date

2012-1-1

ID	Name	Department	Card number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
				SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE
1	Joe	company					1	1	1			2	2	2	2	2			25	1	1	1	1			3	3	3	3	3			3	3
3	David	company					2	2	2			1	1	1	1	1			2	3	3	25	3			4	4	4	26	4			4	4
3	Mark	company					3	3	3			2	2	2	2	2			2	2	2	2	2			4	4	4	4	4			3	3
4	Jack	company					25	2	4			3	3		1	1			1	2	2	2	2			4	4	4	4			1	1	

Holiday

Shifts

Leave

On business

Holiday

Shifts

Leave

On business

Note: Dates must be set correctly. For example, if the scheduling date is 2012-1-1, the schedule setting report contains the schedules of 31 days after 2012-1-1, that is, the schedule from 2012-1-1 to 2012-1-31. If the scheduling date is 2012-1-6, the schedule setting report contains schedules of 31 days after 2012-1-6, that is, the schedule from 2012-1-6 to 2012-2-5.

Step 5: Insert a USB flash drive into the USB port or SD card into the SD port of the device and upload the *Attendance Setting Report.xls* to the device. Then, the schedules in the *Attendance Setting Report* can be used.

6. What is the correct time format used in the setting reports?

A. The correct time format is shown in the following table.

Shift No.	First Time Range		Second Time Range		Overtime Range	
	On-duty	Off-duty	On-duty	Off-duty	Check-in	Check-out
1	09:00	18:00				
2	09:00	12:00	13:30	18:00		
3	9:5	18:00				

B. Incorrect time formats are as follows:

- A time value is beyond the time range, such as 24:00.
- A time value contains Chinese characters, for example, 9:00, which differs from 9:00.
- A time value is preceded by a space. As shown in the following table, there is a space in front of 09:00 in shift 1.

Shift No.	First Time Range		Second Time Range		Overtime Range	
	On-duty	Off-duty	On-duty	Off-duty	Check-in	Check-out
1	09:00	18:00				
2	09:00	12:00	13:30	18:00		
3	9:5	18:00				

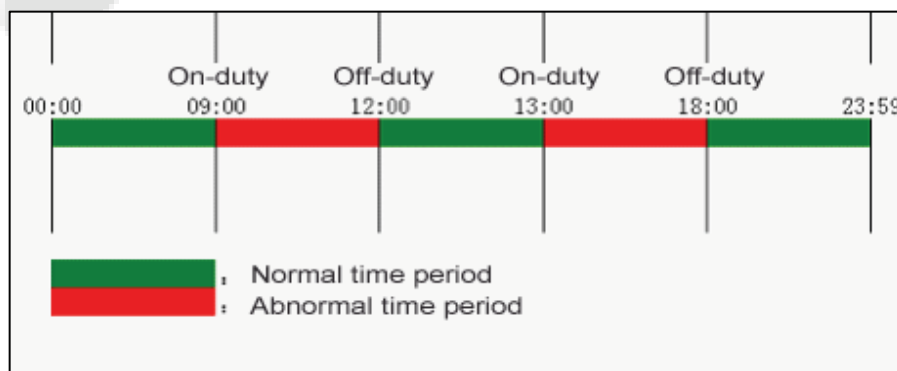
- A time value contains special characters, for example, _9:00 and 09:-1.

The device performs a validity check and error tolerance for other formats.

7. How does the self-service attendance terminal collect the correct attendance time based on the preset shift time?

A: The device collects attendance time based on the following principles:

- Adopt the earliest time for normal attendance and the nearest time for abnormal attendance.
- Adopt the normal attendance time if the normal attendance time and abnormal attendance time coexist.
- Adopt a median in the attendance time range.



B: The following uses four examples to describe the preceding principles.

Example 1: Normal attendance

Attendance Time Range	09:00 — 12:00	13:00 — 18:00	
Attendance time of #1 employee	8:30, 8:35, 11:55, 12:01, 12:50, 18:02, 19:00		
Statistical result based on attendance rules	8:30	12:01	12:50 18:02

Description: The attendance time 8:30 and 8:35 are earlier than the on-duty time 9:00 and they are within the normal attendance time range. Therefore, 8:30 is adopted for the on-duty time 9:00 based on the principle of adopting the earliest time for normal attendance. 18:02 and 19:00 are later than the off-duty time 18:00, and therefore, 18:02 is adopted based on the same principle.

Example 2: Late arrival

Attendance Time Range	09:00 — 12:00	13:00 — 18:00	
Attendance time of #1 employee	9:01, 9:04, 12:01, 12:50, 18:00		
Statistical result based on attendance rules	9:01	12:01	12:50 18:00

Description: Employer 1 checks in for work at 9:01 and 9:04 and he/she is late based on the preset on-duty time. Based on the principle of adopting the nearest time for abnormal attendance, the correct check-in time is 9:01 rather than 9:04 because of 9:01 is nearer 9:00.

Example 3: Early leave

Attendance Time Range	09:00 — 12:00	13:00 — 18:00	
Attendance time of #1 employee	8:50, 11:40, 11:55, 12:50, 18:01		
Statistical result based on attendance rules	8:50	11:55	12:50 18:01

Description: The attendance time 12:50 is adopted based on the principle of adopting a median in the attendance time range. For the attendance time range from 9:00 to 12:00, the normal check-out time range for the off-duty time 12:00 is from 12:00 to 12:30 (that is, $12:00 + (13:00 - 12:00)/2$). Therefore, the calculated time of attendance is shown in the preceding table.

Example 4: Absence**Case 1:**

Attendance Time Range	09:00 — 12:00	13:00 — 18:00	
Attendance time of #1 employee	8:50, 12:50, 18:01		
Statistical result based on attendance rules	8:50		18:01

Description: The attendance time 12:50 is adopted based on the principle of adopting a median in the attendance time range. For the attendance time range from 9:00 to 12:00, the normal check-out time range for the off-duty time 12:00 is from 12:00 to 12:30 (that is, $12:00 + (13:00 - 12:00)/2$). Therefore, the check-out time is blank. The normal check-in time range for the on-duty time from 13:00 is from 12:30 to 13:00. The calculated time of attendance is shown in the preceding table.

Case 2:

Attendance Time Range	09:00 — 12:00	13:00 — 18:00	
Attendance time of #1 employee	8:50, 11:55, 12:20, 18:01		
Statistical result based on attendance rules	8:50	12:20	18:01

Description: The time 12:20 is adopted based on the principle of adopting a median in the attendance time range. The normal check-out time range for the off-duty time 12:00 is from 12:00 to 12:30 (that is, $12:00 + (13:00 - 12:00)/2$). Therefore, the check-out time of the employee is 12:20. The normal check-in time range for the on-duty time from 13:00 is from 12:30 to 13:00. Therefore, the check-in time of the employee is blank. The calculated time of attendance is shown in the preceding table.

Appendix 2

Requirements of Live Collection and Registration of Visible Light Face Templates

- 1) It is recommended to perform registration in an indoor environment with appropriate lighting to avoid underexposure or overexposure.
- 2) Do not place the device towards outdoor light sources like door or window or other harsh light sources.
- 3) Dark-color apparels, different from the background color is recommended for registration.
- 4) Please expose your face template and forehead properly and do not cover your face template and eyebrows with your hair.
- 5) It is recommended to show a plain facial expression. (A smile is acceptable, but do not close your eyes, or tilt your head to any direction).
- 6) Two templates are required for a person with eyeglasses, one template with eyeglasses and the other without the eyeglasses.
- 7) Do not wear accessories like a scarf or mask that may cover your mouth or chin.
- 8) Please face template right towards the capturing device, and locate your face template in the template capturing area as shown in the example below.
- 9) Do not include more than one face template in the capturing area.
- 10) A distance of 50cm to 80cm is recommended for capturing the template. (The distance is adjustable, subject to body height).



Requirements for Visible Light Digital Face Template Data

The digital photo should be straight-edged, colored, half-portrayed with only one person, and the person should be uncharted and in casuals. Persons who wear eyeglasses should remain to put on eyeglasses for getting photo captured.

➤ **Eye distance**

200 pixels or above are recommended with no less than 115 pixels of distance.

➤ **Facial expression**

Neutral face template or smile with eyes naturally open are recommended.

➤ **Gesture and angle**

Horizontal rotating angle should not exceed $\pm 10^\circ$, elevation should not exceed $\pm 10^\circ$, and depression angle should not exceed $\pm 10^\circ$.

➤ **Accessories**

Masks or colored eyeglasses are not allowed. The frame of the eyeglasses should not cover eyes and should not reflect light. For persons with thick eyeglasses frame, it is recommended to capture two templates, one with eyeglasses and the other one without the eyeglasses.

➤ **Face template**

Complete face template with clear contour, real scale, evenly distributed light, and no shadow.

➤ **Template format**

Should be in BMP, JPG or JPEG.

➤ **Data requirement**

Should comply with the following requirements:

- 1) White background with dark-colored apparel.
- 2) 24bit true color mode.
- 3) JPG format compressed template with not more than 20kb size.
- 4) Resolution should be between 358 x 441 to 1080 x 1920.
- 5) The vertical scale of head and body should be in a ratio of 2:1.
- 6) The photo should include the captured person's shoulders at the same horizontal level.
- 7) The captured person's eyes should be open and with clearly seen iris.
- 8) A neutral facial expression or a slight smile is preferred, but showing teeth is not recommended.
- 9) The captured person should be clearly visible, natural in color, no harsh shadow or light spot or reflection in face template or background. The contrast and lightness level should be appropriate.

Appendix 3

Privacy Policy

Notice:

To help you better use the products and services of ZKTeco (hereinafter referred as "we", "our", or "us") a smart service provider, we consistently collect your personal information. Since we understand the importance of your personal information, we took your privacy sincerely and we have formulated this privacy policy to protect your personal information. We have listed the privacy policies below to precisely understand the data and privacy protection measures related to our smart products and services.

Before using our products and services, please read carefully and understand all the rules and provisions of this Privacy Policy. If you do not agree to the relevant agreement or any of its terms, you must stop using our products and services.

I. Collected Information

To ensure the normal product operation and help the service improvement, we will collect the information voluntarily provided by you or provided as authorized by you during registration and use or generated as a result of your use of services.

1. **User Registration Information:** At your first registration, the feature template (**Fingerprint template/Face template template/Palm template**) will be saved on the device according to the device type you have selected to verify the unique similarity between you and the User ID you have registered. You can optionally enter your Name and Code. The above information is necessary for you to use our products. If you do not provide such information, you cannot use some features of the product regularly.
2. **Product information:** According to the product model and your granted permission when you install and use our services, the related information of the product on which our services are used will be collected when the product is connected to the software, including the Product Model, Firmware Version Number, Product Serial Number, and Product Capacity Information. **When you connect your product to the software, please carefully read the privacy policy for the specific software.**

II. Product Security and Management

1. When you use our products for the first time, you shall set the Administrator privilege before performing specific operations. Otherwise, you will be frequently reminded to set the Administrator privilege when you enter the main menu interface. **If you still do not set the Administrator privilege after receiving the system prompt, you should be aware of the possible security risk (for example, the data may be manually modified).**
2. All the functions of displaying the biometric information are disabled in our products by

default. You can choose Menu > System Settings to set whether to display the biometric information. If you enable these functions, we assume that you are aware of the personal privacy security risks specified in the privacy policy.

3. Only your user ID is displayed by default. You can set whether to display other user verification information (such as Name, Department, Photo, etc.) under the Administrator privilege. **If you choose to display such information, we assume that you are aware of the potential security risks (for example, your photo will be displayed on the device interface).**
4. The camera function is disabled in our products by default. If you want to enable this function to take pictures of yourself for attendance recording or take pictures of strangers for access control, the product will enable the prompt tone of the camera. **Once you enable this function, we assume that you are aware of the potential security risks.**
5. All the data collected by our products is encrypted using the AES 256 algorithm. All the data uploaded by the Administrator to our products are automatically encrypted using the AES 256 algorithm and stored securely. If the Administrator downloads data from our products, we assume that you need to process the data and you have known the potential security risk. In such a case, you shall take the responsibility for storing the data. You shall know that some data cannot be downloaded for sake of data security.
6. All the personal information in our products can be queried, modified, or deleted. If you no longer use our products, please clear your personal data.

III. How we handle personal information of minors

Our products, website and services are mainly designed for adults. Without consent of parents or guardians, minors shall not create their own account. If you are a minor, it is recommended that you ask your parents or guardian to read this Policy carefully, and only use our services or information provided by us with consent of your parents or guardian.

We will only use or disclose personal information of minors collected with their parents' or guardians' consent if and to the extent that such use or disclosure is permitted by law or we have obtained their parents' or guardians' explicit consent, and such use or disclosure is for the purpose of protecting minors.

Upon noticing that we have collected personal information of minors without the prior consent from verifiable parents, we will delete such information as soon as possible.

IV. Others

You can visit https://www.zkteco.com/cn/index/Index/privacy_protection.html to learn more about how we collect, use, and securely store your personal information. To keep pace with the rapid development of technology, adjustment of business operations, and to cope with customer needs, we will constantly deliberate and optimize our privacy protection measures and policies. Welcome to visit our official website at any time to learn our latest privacy policy.

Eco-friendly Operation



The product's "eco-friendly operational period" refers to the time during which this product will not discharge any toxic or hazardous substances when used in accordance with the prerequisites in this manual.

The eco-friendly operational period specified for this product does not include batteries or other components that are easily worn down and must be periodically replaced. The battery's eco-friendly operational period is 5 years.

Hazardous or Toxic substances and their quantities

Component Name	Hazardous/Toxic Substance/Element					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr6+)	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Chip Resistor	×	○	○	○	○	○
Chip Capacitor	×	○	○	○	○	○
Chip Inductor	×	○	○	○	○	○
Diode	×	○	○	○	○	○
ESD component	×	○	○	○	○	○
Buzzer	×	○	○	○	○	○
Adapter	×	○	○	○	○	○
Screws	○	○	○	×	○	○

This table is prepared in accordance with the provisions of SJ/T 11364.

□ indicates that the total amount of toxic content in all the homogeneous materials is below the limit as specified in GB/T 26572.

× indicates that the total amount of toxic content in all the homogeneous materials exceeds the limit as specified in GB/T 26572.

Note: 80% of this product's components are manufactured using non-toxic and eco-friendly materials. The components which contain toxins or harmful elements are included due to the current economic or technical limitations which prevent their replacement with non-toxic materials or elements.

Attachment 1

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

"This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter."

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