



Face Recognition Terminals Hikvision MinMoe Version

Setup Guide



Contents

1. Overview	3
2. Specifications and Requirements	3
3. Supported terminals	4
4. Adding a Terminal	4
4.1. On a Local Network	4
4.2. From a Remote Network	6
4.2.1. Exporting a Terminal File	6
4.2.2. Importing a Terminal File	8
4.3. Configuring a Terminal	9
4.4. Mapping a Terminal to a Reader	11
4.5. Firmware Update	12
5. Enrolling a User's Fingerprint	13
6. Enrolling a Face from a Terminal	15

1. Overview

This document gives the procedure to connect and configure a Hikvision MinMoe Face Recognition Terminal to the AxTraxPro™ access control management system.

This lets AxTraxPro customers use biometric credentials and the full set of functions of a Hikvision terminal such as:

- Face and fingerprint enrollment and management
- Device activation
- People management
- Event and alarm receiving
- Mask and hard hat enforcement
- Body temperature detection configuration
- Firmware upgrade

2. Specifications and Requirements



A license is required to use a Hikvision terminal with AxTraxPro.



This Setup Guide is applicable to AxTraxPro version 28.0.2.x and higher.

Before you can connect a Hikvision MinMoe Face Recognition Terminal to AxTraxPro you must install the Hikvision search active device protocol (SADP) software tool on the AxTraxPro server. You can download the Hikvision SADP from the Hikvision website.

Use the SADP tool to search for online devices on the network. After the device is found, you can:

- See device information
- Activate the device
- Edit the network parameters of the device
- Configure other general device parameters

3. Supported terminals

The following table is a list of the Hikvision MinMoe series terminals that are supported by AxTraxPro.

Product Category	Product Model
Value Series	DS-K1A340WX
	DS-K1T343MWX
	DS-K1T341AM
	DS-K1T341CMF
	DS-K1T341AMF
Pro Series	DS-K1T671M
	DS-K1TA70MI-T
Ultra Series	DS-K1T671TM-3XF
Face Recognition Modules for Turnstile	DS-K5671-ZU



For a list of approved FW versions, see the *AxTraxPro Release Notes*.

4. Adding a Terminal

You can add a Hikvision terminal to a network using the **Biometrics** element on the AxTraxPro desktop client Tree View.

A Hikvision terminal can be used to read and transmit credentials or enroll new credentials (face and fingerprint).


The terminals support both TCP/IP and Wiegand protocols.

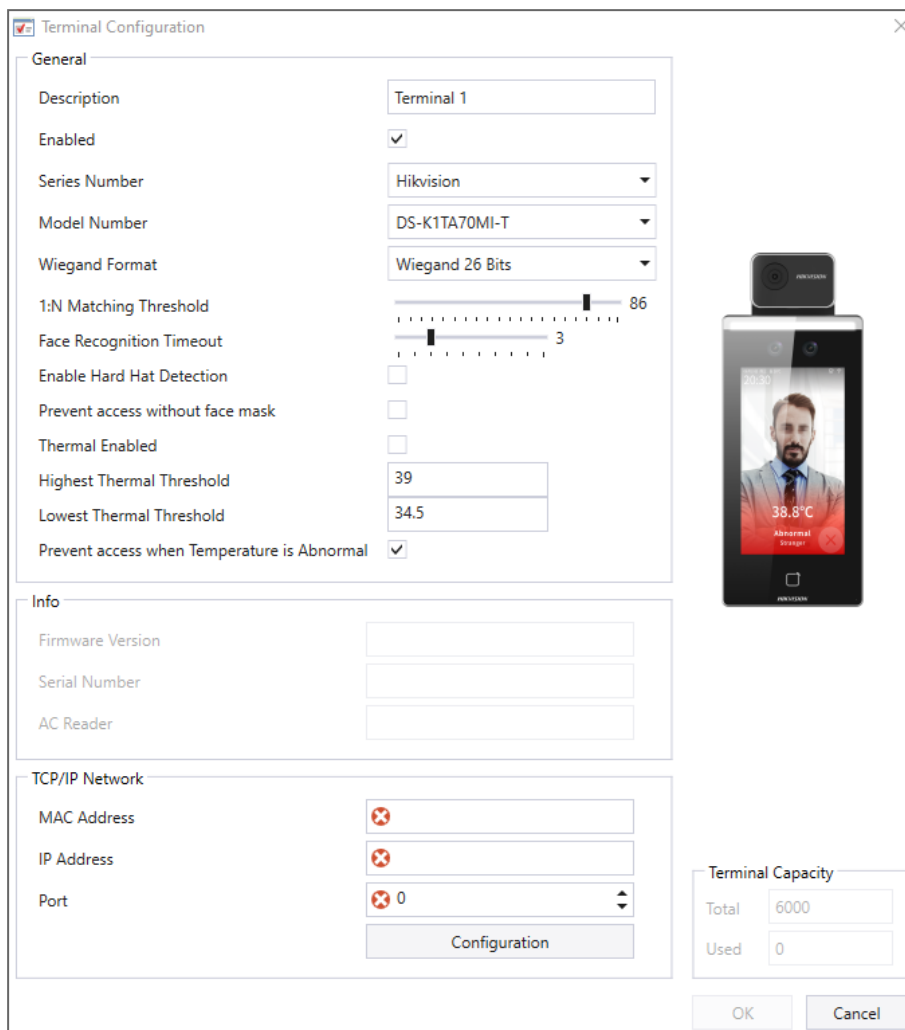
You can add a Hikvision terminal on a local network and from a remote network.

4.1. On a Local Network

To add a Hikvision terminal on a local network:

1. In the Tree View expand the **Biometrics** element.
2. Select **Terminals**.

3. On the toolbar click the  icon.



4. In **Description** enter a name for the new terminal.
5. Select **Enabled** to enable the terminal.
6. In **Series Number** select **Hikvision**.
7. In **Model Number** select the Hikvision terminal model.
8. In **Wiegand Format** select **Wiegand 26 Bits** or **Wiegand 34 Bits** (default is Wiegand 26 Bits).
9. In **1:N Matching Threshold** enter a **1:N Matching Threshold** detection sensitivity. (Range is 0 to 100, default is 86).
10. In **Face Recognition Timeout** enter a **Face Recognition Timeout** in seconds for the time the terminal tries to identify a face (Range is 1 to 10, default is 3).
11. Select **Enable Hard Hat Detection** to enable hard hat detection.

12. Select **Prevent access without face mask** to prevent access if the user is not wearing a face mask.



The following thermal parameters are available only for Hikvision models DS-K1TA70MI-T and DS-K1T671TM-3XF.

13. Select **Thermal Enabled** to enable thermal detection.
14. In **Highest Thermal Threshold** enter the **Highest Thermal Threshold** detection value in degrees Centigrade for body temperature (default is 39).
15. In **Lowest Thermal Threshold** enter the **Lowest Thermal Threshold** detection value in degrees Centigrade for body temperature (default is 34.5).
16. Select **Prevent access when Temperature is Abnormal** to prevent access when the body temperature detected in degrees Centigrade is more than the **Highest Thermal Threshold** or less than the **Lowest Thermal Threshold**.



The **TCP/IP Network** properties cannot be entered manually in this procedure.

17. Click **Configuration** to locate the Hikvision terminal on the local network and to configure the TCP/IP connection, see [Configuring a Terminal](#).



The TCP/IP connection can also be configured when importing a terminal file, see [Importing a Terminal File](#)

18. Click **OK**.

The window closes and the new terminal appears in the Display Area.


4.2. From a Remote Network

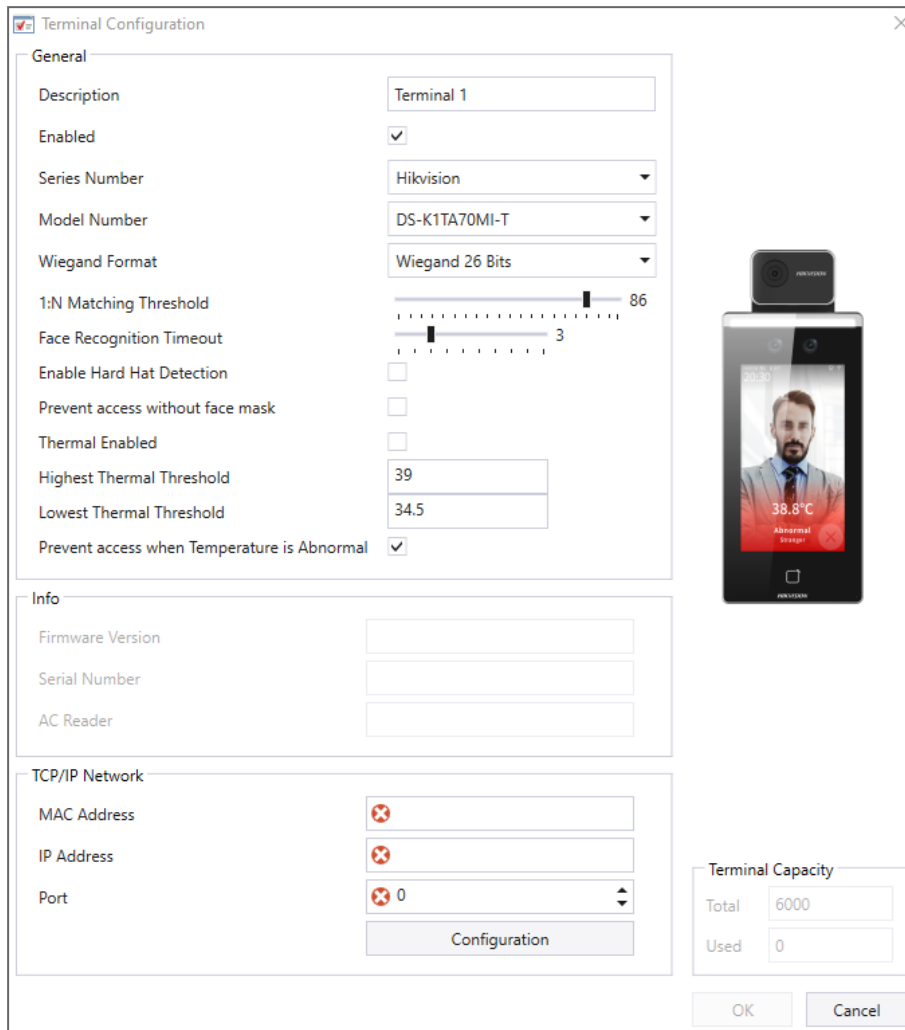
To add a Hikvision terminal from a remote network, you must first export a file from the remote network that contains all the terminal's configuration settings. After you export this file, you can add the Hikvision terminal by importing this file.

4.2.1. Exporting a Terminal File

To export a terminal file:

1. In the Tree View expand the **Biometrics** element.
2. Select **Terminals**.

3. On the toolbar click the  icon.



Terminal Configuration

General

Description: Terminal 1

Enabled:

Series Number: Hikvision

Model Number: DS-K1TA70MI-T

Wiegand Format: Wiegand 26 Bits

1:N Matching Threshold: 86

Face Recognition Timeout: 3

Enable Hard Hat Detection:

Prevent access without face mask:

Thermal Enabled:

Highest Thermal Threshold: 39

Lowest Thermal Threshold: 34.5

Prevent access when Temperature is Abnormal:

Info

Firmware Version:

Serial Number:

AC Reader:

TCP/IP Network

MAC Address:

IP Address:

Port: 0

Configuration

Terminal Capacity

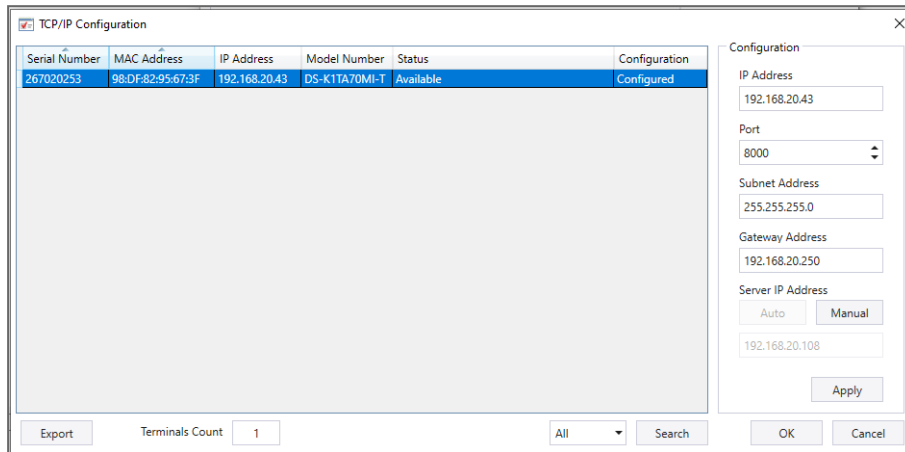
Total: 6000

Used: 0

OK Cancel

4. Click **Configuration**.

The **TCP/IP Configuration** window opens and automatically searches for any terminals connected to the network.



5. In **Configuration**:

- a. Enter the **IP Address**.
- b. In **Server IP Address** click **Manual**.
- c. Enter the **AxTraxPro Server IP Address**.
- d. Click **Apply**.

6. Click **Export**.

7. In the **Save as** window type a file name and save the file (xxx.axbio) on your PC where it can be easily accessed.




The export function adds "axbio" to the end of file name of the exported file. The import function only executes a file that contains this string at the end of the file name.

4.2.2. Importing a Terminal File

To import a terminal file:

1. In the Tree View expand the **Biometrics** element.
Select **Terminals**.

2. On the toolbar click the  icon.

3. Browse to the previously exported xxx.axbio file and double-click it.

The window closes and the terminal appears in the Display Area.

4.3. Configuring a Terminal

The Hikvision terminal communicates with the AxTraxPro server with two protocols:

1. TCP/IP (either LAN or WAN)
2. Wiegand


Each terminal has a unique MAC address and appears separately in the system.

The AxTraxPro server supports multiple terminals per access control network.

To search for a Hikvision terminal:

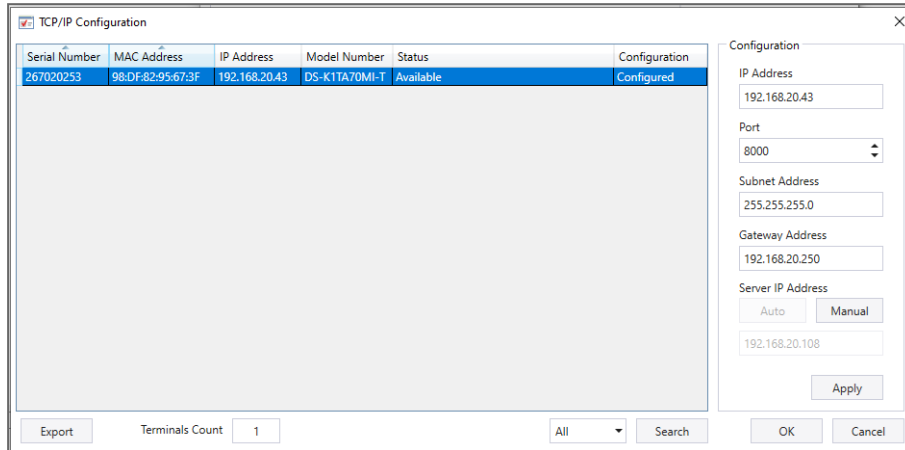


To find a Hikvision terminal, the Hikvision search active device protocol (SADP) software must be installed on the AxTraxPro desktop client.

1. In the Tree View expand the **Biometrics** element.
2. Select **Terminals**.
3. On the toolbar click the  icon.

4. Click **Configuration**.

The **TCP/IP Configuration** window opens and automatically searches for any terminals connected to the network.



The main window lists all terminals connected to the local network and indicates if they have been previously assigned to a terminal.

To configure a TCP/IP connection for a Hikvision terminal:



Make sure all the Hikvision terminal parameters are set to the factory defaults before the configuration procedure is done. For more information refer to the Hikvision support page.

1. Select the appropriate terminal.

The terminal's parameters are displayed in the **Configuration** area on the right.

2. Enter the **IP Address**.
3. Enter the **Port**.
4. Enter the **Subnet Address**.
5. Enter the **Gateway Address**.
6. Click **Apply**.



Wait for the list to refresh and see that the terminal's status is now **Configured**.

- Click **OK**.



The **Terminal Configuration** window opens.

- Click **OK**.


4.4. Mapping a Terminal to a Reader

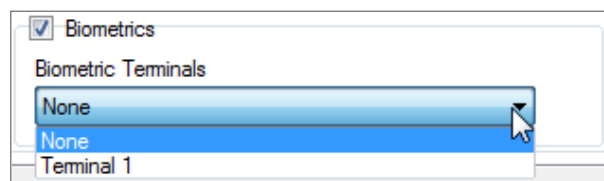
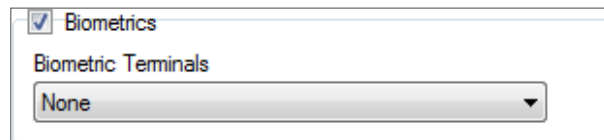
After you have added a Hikvision terminal to the system, you must map it to a specific reader in order for the system to recognize the terminal.

To map a Hikvision terminal:

- In the Tree View expand the **AC Networks** element.
- Expand a network.
- Expand a panel.
- Select **Readers**.

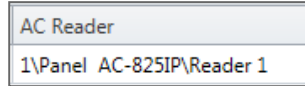
The available readers are listed in the Display Area.

- Select a reader in the Display Area.
- On the toolbar, click the  icon.
- Select the **Biometric** check box and select the relevant terminal from the drop down.



8. Click **OK** to accept the changes.

When you select the **Terminal** element, you see to which reader the terminal is mapped in the Display Area.



4.5. Firmware Update

To update the firmware for a Hikvision terminal, it is necessary to download the new firmware from the Hikvision web site.




For a list of approved FW versions, see the AxTraxPro Release Notes.

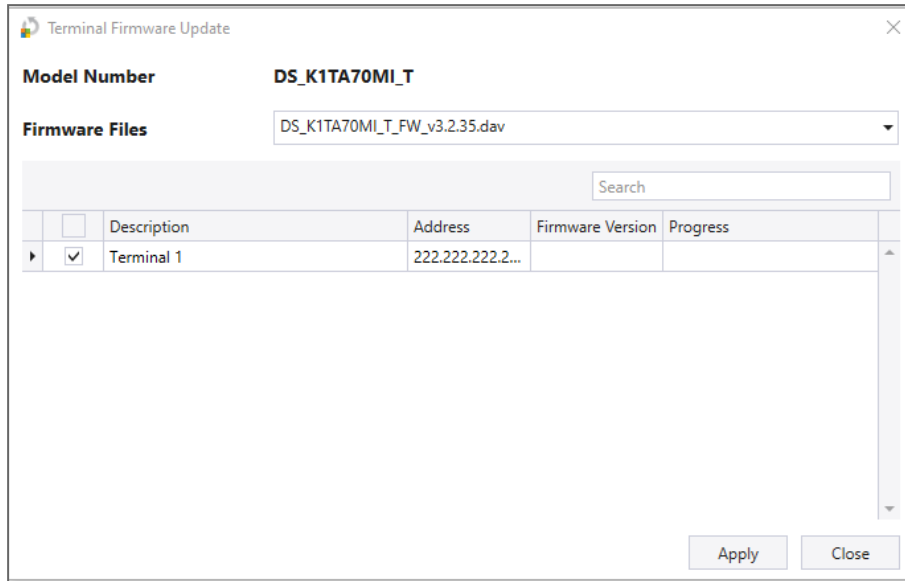
To download the firmware:

1. Go to <https://www.hikvision.com/en/support/download/firmware/>.
2. Select your device in the list.
3. Download the firmware.
4. Copy the firmware file to the following directory **C:\Program Files (x86)\Rosslare\AxTraxPro Server\Firmware\Bio**.

To update the firmware:

1. In the tree view expand the **Biometrics** element.
2. Select **Terminals**.
3. Select the Hikvision terminal.
4. On the toolbar click  icon.


5. In **Firmware Files** select the downloaded firmware file.



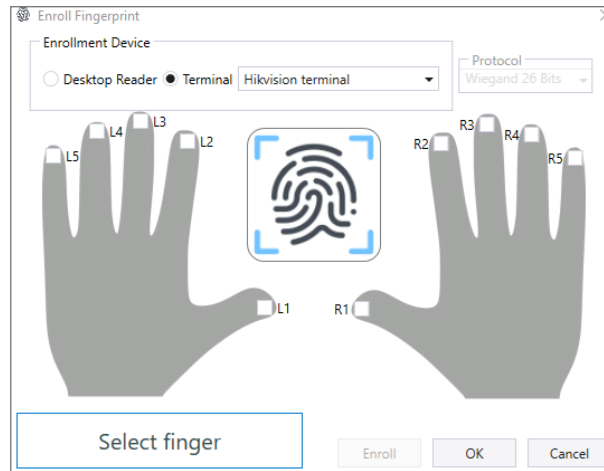
6. Select the Hikvision terminal in the list
7. Click **Apply**.
8. After the firmware update process is complete, click **Close**.

5. Enrolling a User's Fingerprint

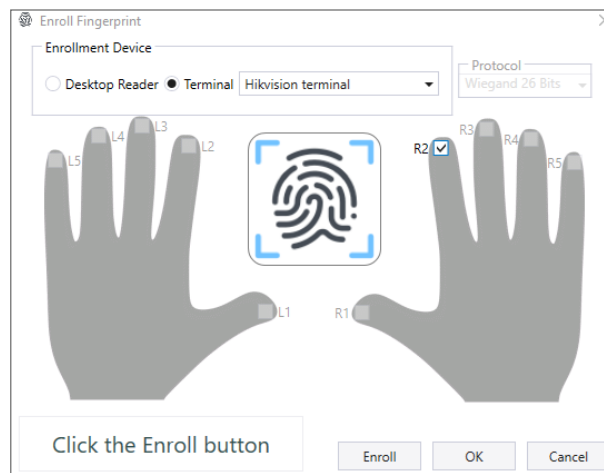
To enroll a user's fingerprint using a Hikvision terminal:

1. Make sure the Hikvision terminal is connected.
2. In the Tree View expand the **Users** element.
3. Expand the **Departments/Users** element.
4. Select the relevant department.
5. Select a user.
6. Click the  icon.
7. Click the **Credentials** tab in the **Users Properties** window.
8. Click **Enroll from Fingerprint Terminal**.

9. In **Enrollment Device** select Hikvision terminal.



10. Select the checkbox for the finger that will be enrolled.




11. Click **Enroll**.

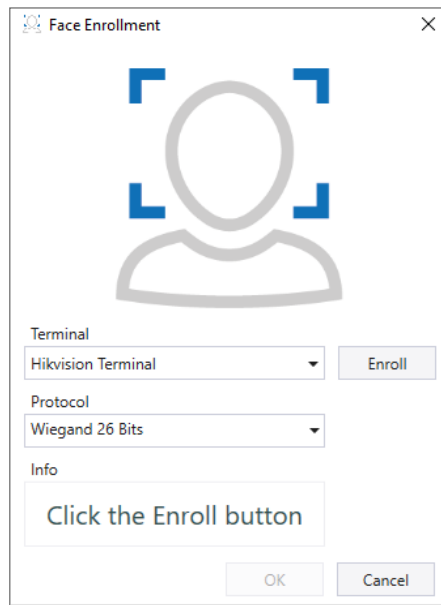
12. Follow the instructions given in the Hikvision terminal to complete the enrollment.

13. Click **OK** in the **Users Properties** window to accept the fingerprint.

6. Enrolling a Face from a Terminal

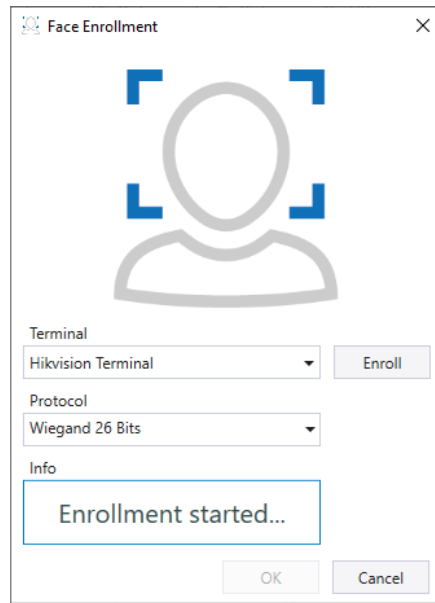
To enroll a face using a Hikvision terminal:

1. Make sure the Hikvision terminal is connected.
2. In the Tree View expand the **Users** element.
3. Expand the **Departments/Users** element.
4. Select the relevant department.
5. Select a user.
6. Click the  icon.
7. Click the **Credentials** tab in the **Users Properties** window.
8. Click the **Enroll from Face Terminal**.



9. In **Terminal** select **Hikvision terminal**.
10. In **Protocol** select **Wiegand 26 Bits** or **Wiegand 34 Bits** (default is Wiegand 26 Bits).

11. Click **Enroll**.



An **Info** box shows the enrollment process.

12. Stand in front of the terminal and wait until your face is identified, then follow the onscreen instructions.



After the face is enrolled, the **Face Enrollment** window shows the user image and a success message is shown in the **Info** box.

13. Click **OK**.
The window closes and the face ID credential appears in the **Credentials** area.
14. Click **OK** in the **Users Properties** window to accept the face credential.

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