Suprema Plugin for Genetec

USER GUIDE

Version 1.01

English
EN 102.00.SPG

suprema
SECURITY & BIOMETRICS

CONTENTS

Installation 4

Recommended System Architecture 4

Server Recommendation & System Requirements 4

Prerequisites 5

Fingerprint enrollment device 6

Plugin Installation 6

Added Suprema Plugin in Genetec Config Tool 10

System Management 15

System Configuration 15

Device Registration 18

Editing Device Settings and Information 19

Device Settings 20

Assign Device to Cloud Link 30

Card Format Setting 31

Door Configuration 36

View the Device Sync Information 38

Cardholder Management 41

Card Enrollment 41

Face Enrollment 42

Bulk Enrollment 47

How to Search for a Cardholder with a Face Template 47

Private Authentication Mode 49

AoC Enrollment (Access On Card) 51

Appendices 54

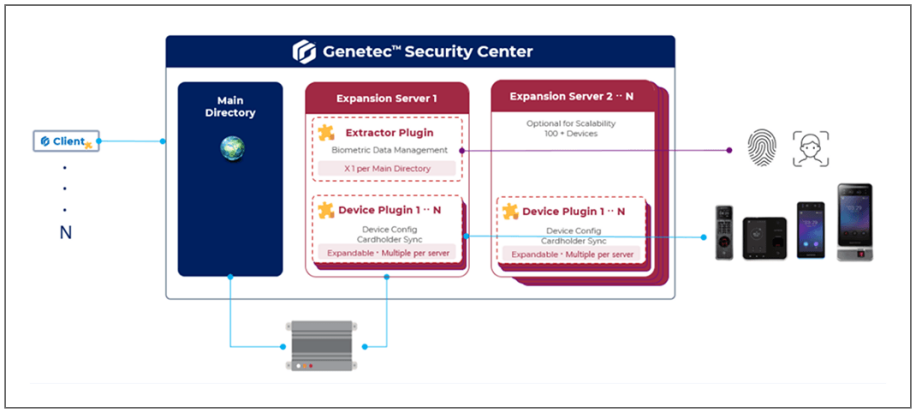
Disclaimers 54

Copyright Notice 54

Open Source License 55

Installation

Recommended System Architecture



Info

- Recommend using dedicated server for Plugin per 100 biometric devices.
- Only one Extractor Plugin per Main Directory.

Server Recommendation & System Requirements

Standalone Devices

Category	Item	0-20 devices	Up to 100 devices	100+ devices
Recommendation		Existing server may be used (subject to resource review)	Dedicated plugin server recommended	Additional plugin server required
System Requirement	OS	Microsoft Windows 10 or later (64-bit)		
	CPU	-	8 Core or higher	Consult required
	RAM	-	32 GB or higher	Consult required
	Communication	Supports TCP/IP between servers, clients, and devices. Supports DHCP or Static IP address. Supports network configuration. Supports Network Time Protocol (NTP). Supports HTTPS (SSL) between client (web browser) and platform.		

CS40

Category	Item	Maximum	Remarks
Device Capacity	CS40 per server	Up to 60	Based on a server specification of 8 CPU cores and 32 GB RAM
	CS40 per Cloud link	Up to 30	-
	Slave devices per CS40	Up to 8	When using DM20 or DI24: **Up to 4**
System Requirement	OS	Microsoft Windows 10 or later (64-bit)	
	CPU	8 Core or higher	
	RAM	32 GB or higher	
	Communication	Supports TCP/IP between servers, clients, and devices. Supports DHCP or Static IP address. Supports network configuration. Supports Network Time Protocol (NTP). Supports HTTPS (SSL) between client (web browser) and platform.	

Caution

For stable operation, Suprema recommends using dedicated server for the Suprema Plugins.

Please refer to the server specifications below.

Prerequisites

Server Specification

Suprema recommends using a dedicated server for the Suprema Plugin to ensure stable operation.

- Recommended specification: CPU 8 Core / RAM 32 GB or higher

Deployment Scale	Recommendation
0-20 devices	Installation on an existing server may be possible, but server specification and resource review are required.
Up to 100 devices	Dedicated Plugin server recommended.

Deployment Scale	Recommendation
More than 100 devices	Additional plugin server recommended.

Synergis cloud link

1. Enabling RIO Protocol.

   > *https://[IP Address of Cloud link]/Features/DuiRIO/Enabled/Set?value=true*

2. Recommended and Max. Device connection.

No. of Users	Recommended Devices per one Cloud link	Max. Possible devices
20,000 +	Up to 40	Not recommended
Below 10,000	Up to 50	Up to 64

> **Caution**
>
> - Dedicated Cloud Links for Suprema devices are required.
> - Connecting devices other than Suprema products to the Cloud Link is not recommended.

Database

- Plugin Database (Device & Extractor) is automatically created in same SQL server of Directory.
  - Admin can modify the database installation location.
  - Supports backup/restore.
- SQL account needs below authority.
  - Server roles: db_creator, processadmin, public
  - Database roles: db_backupoperator, db_datareader, db_datawriter, public

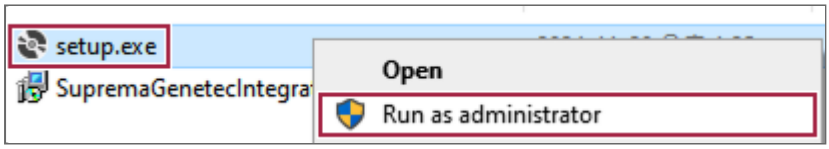
Fingerprint enrollment device

To use a USB-type fingerprint enrollment device, a separate driver installation is required.

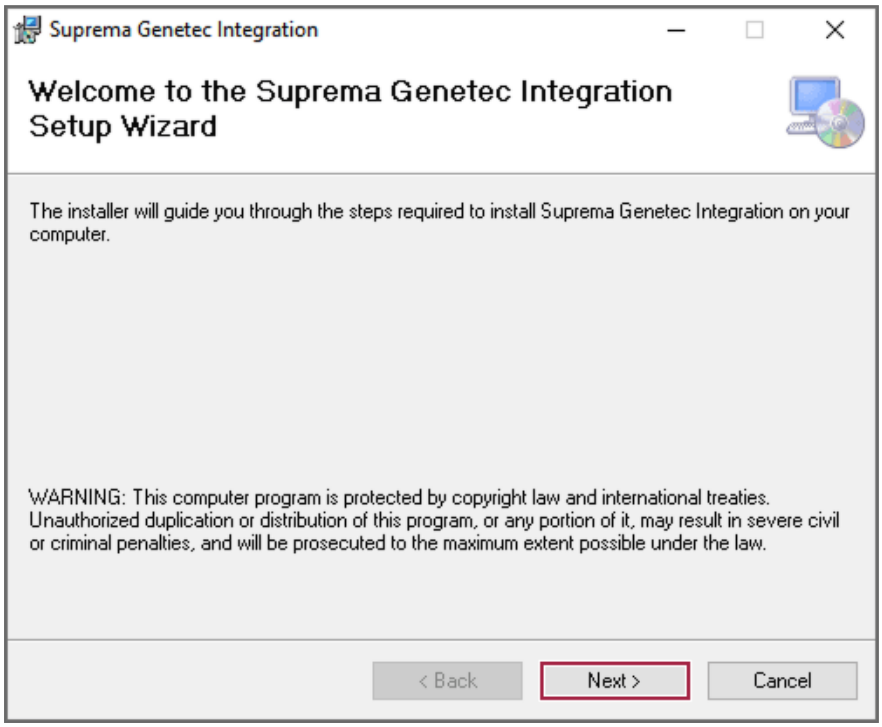
Please contact the Suprema Partner Business Team for assistance.

Plugin Installation

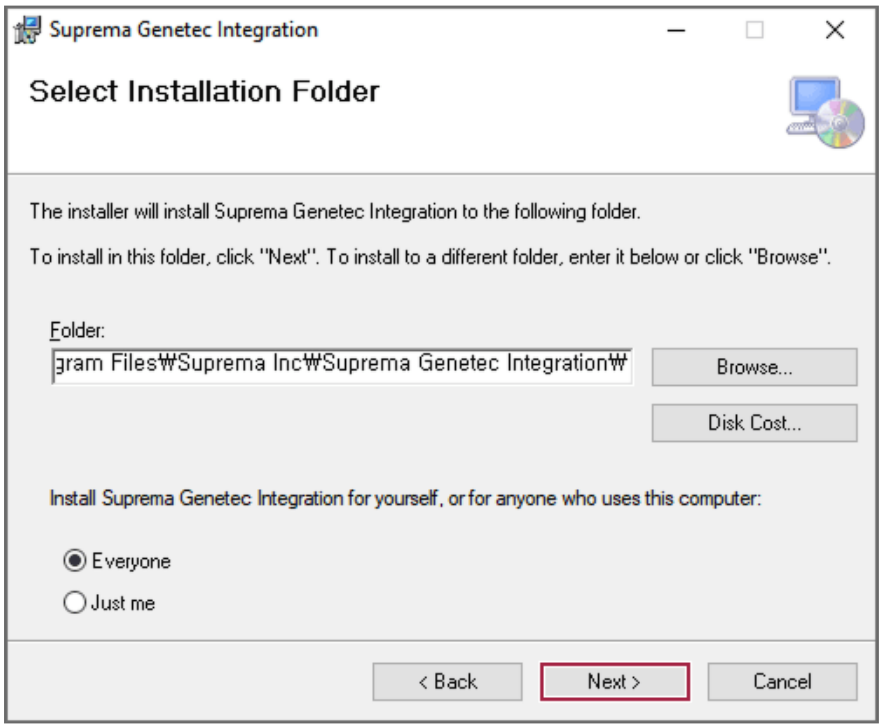
1. Run the installation file (setup.exe) as an administrator.



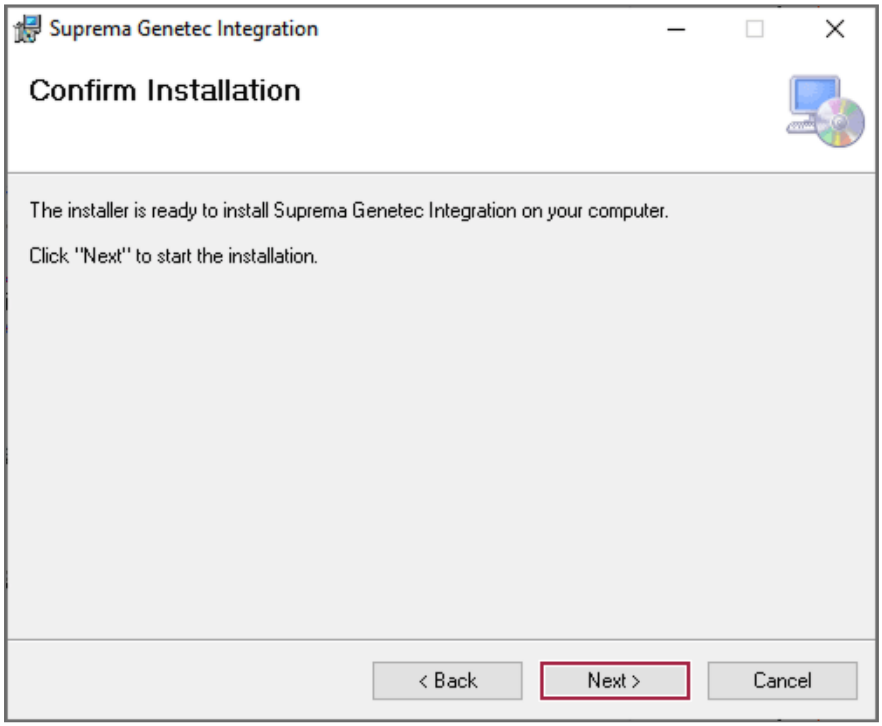
2. Click **Next**.



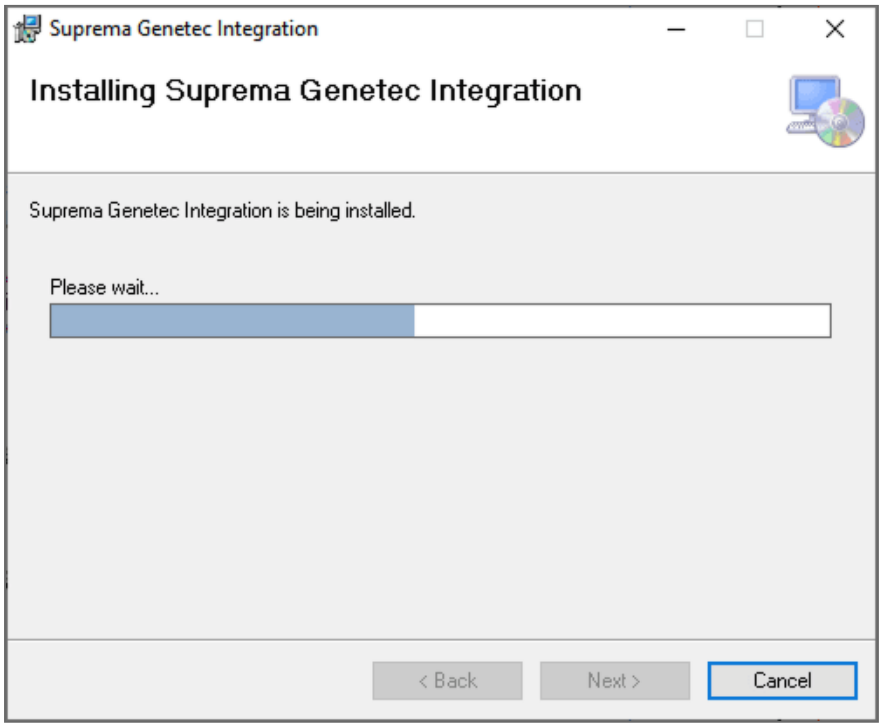
3. Set the path where Suprema Plugin will be installed, then click **Next**.



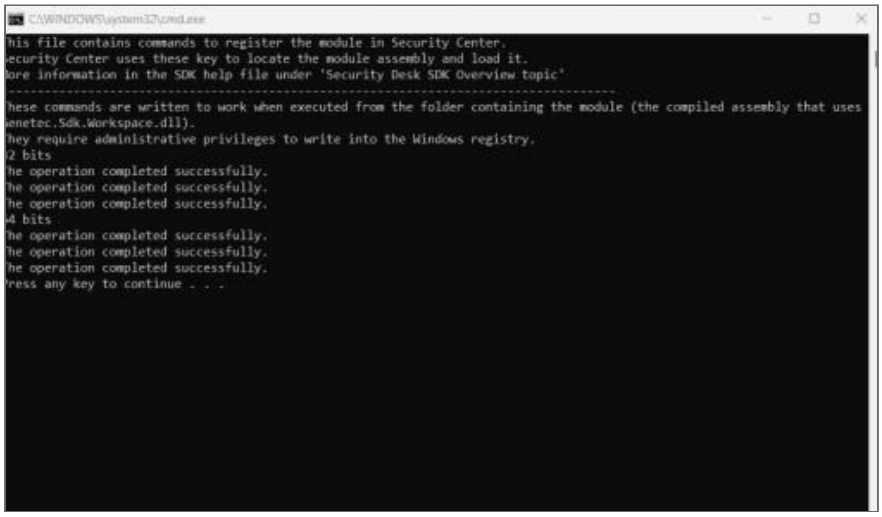
4. If the installation is ready, click **Next**.



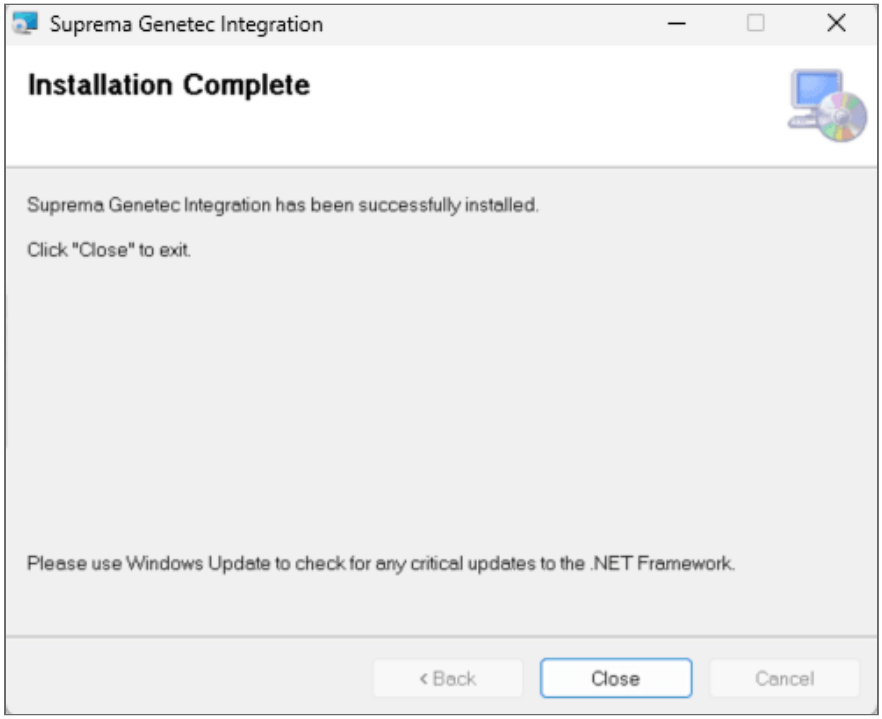
5. The installation will begin. Please wait until it completes successfully.



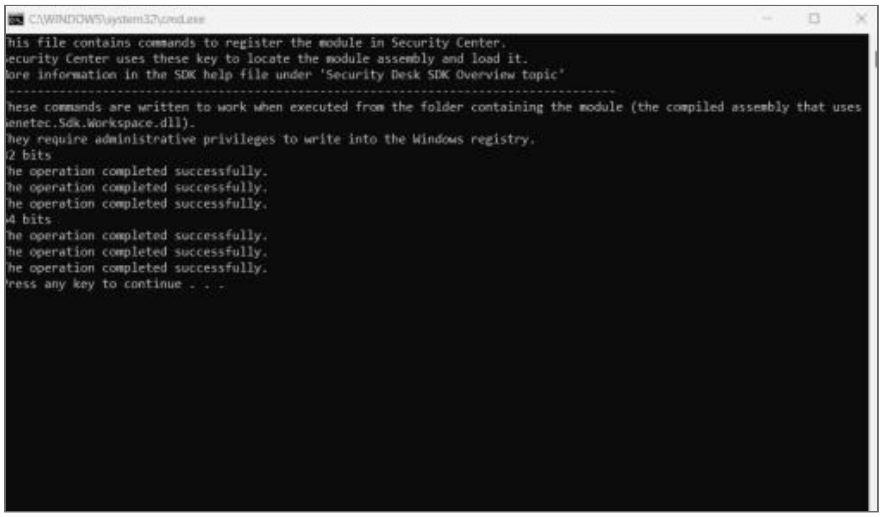
6. Once the installation is complete, a command prompt window will appear. Press any key to close the window.



7. Click **Close** button.



8. Press Any Key to complete.

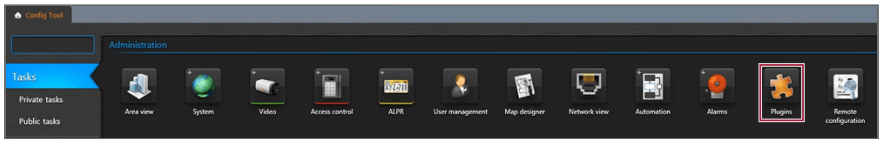


Added Suprema Plugin in Genetec Config Tool

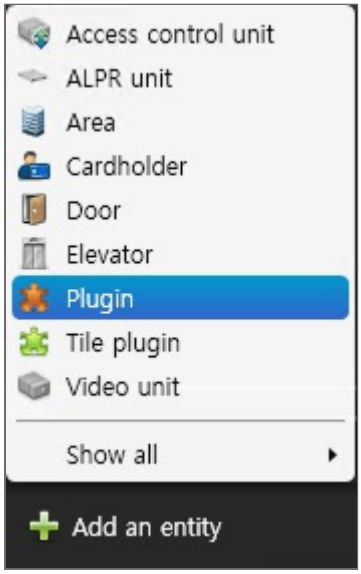
1. Run the Genetec **Config Tool**.



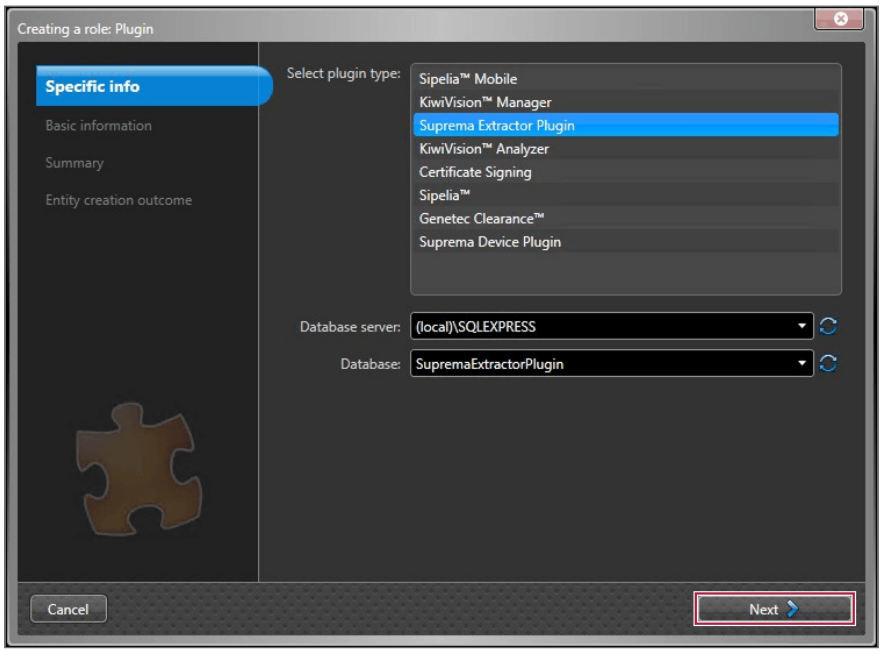
2. Click the **Plugins** under **Tasks**.



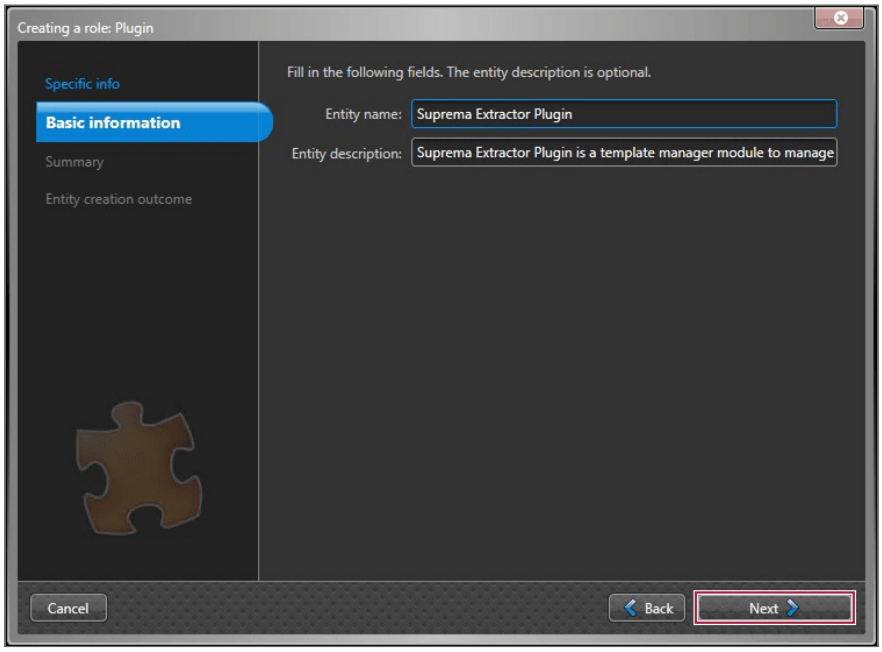
3. Click **Add an entity** under the **Plugins** screen, then select **Plugin** from the list.



4. In **Select plugin type**, select **Suprema Extractor Plugin** and click **Next**.



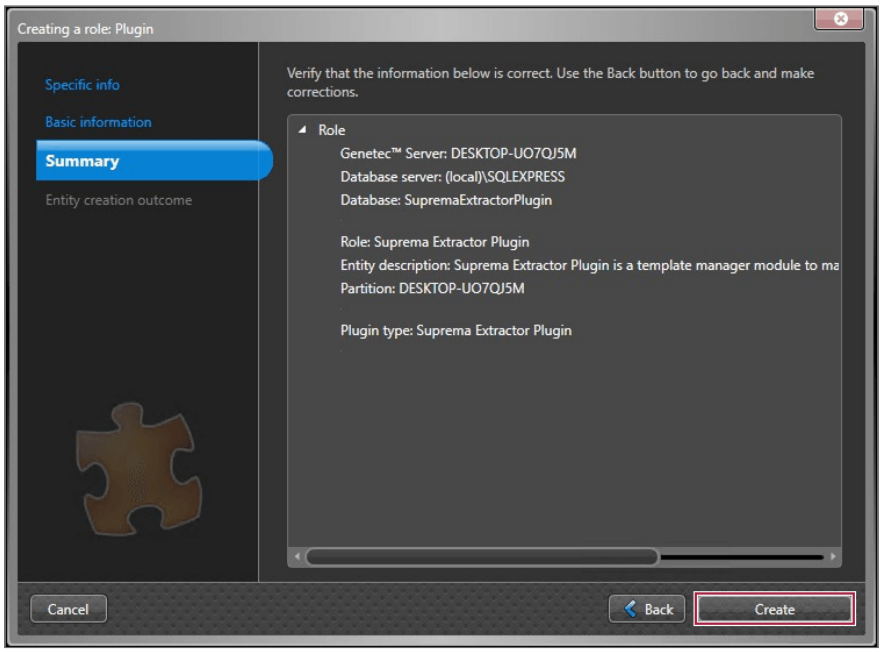
5. Enter the **Entity name** and **Entity description**, then click **Next**.



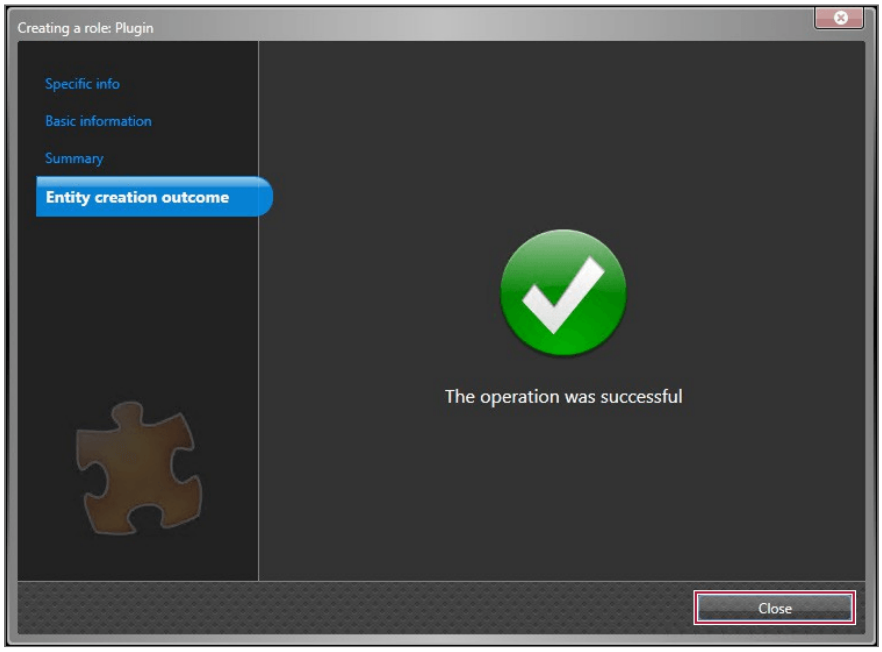
Info

The **Entity description** is optional.

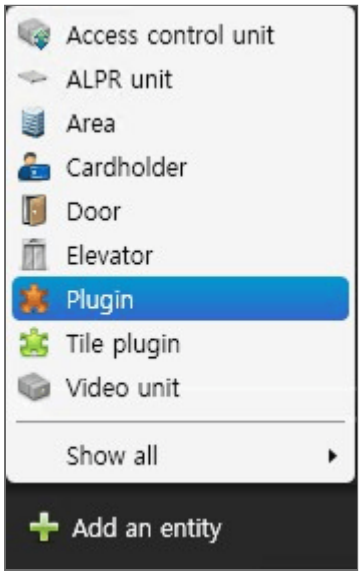
6. Verify the information and click **Create**.



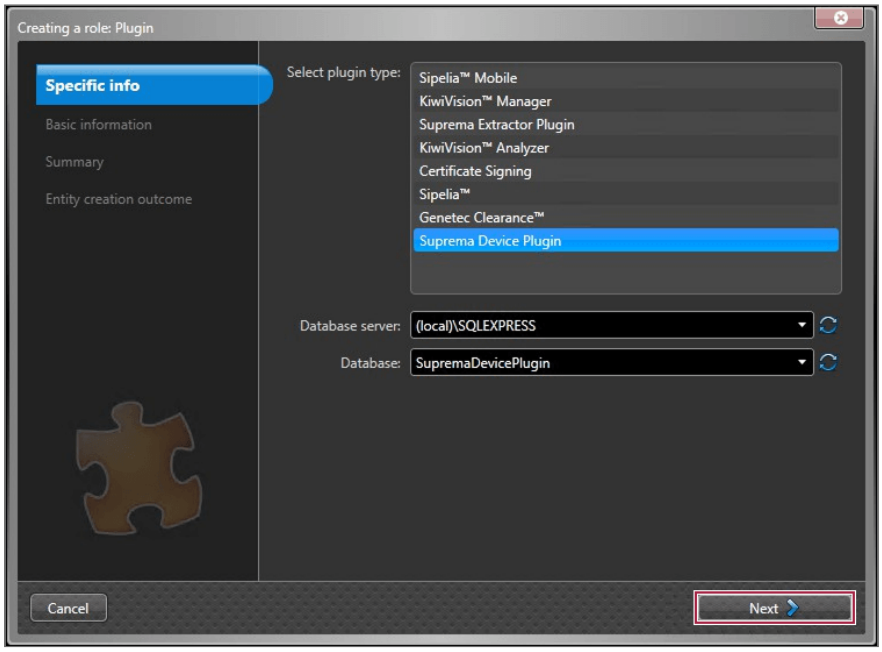
7. The **Suprema Extractor Plugin** will be created. Click **Close**.



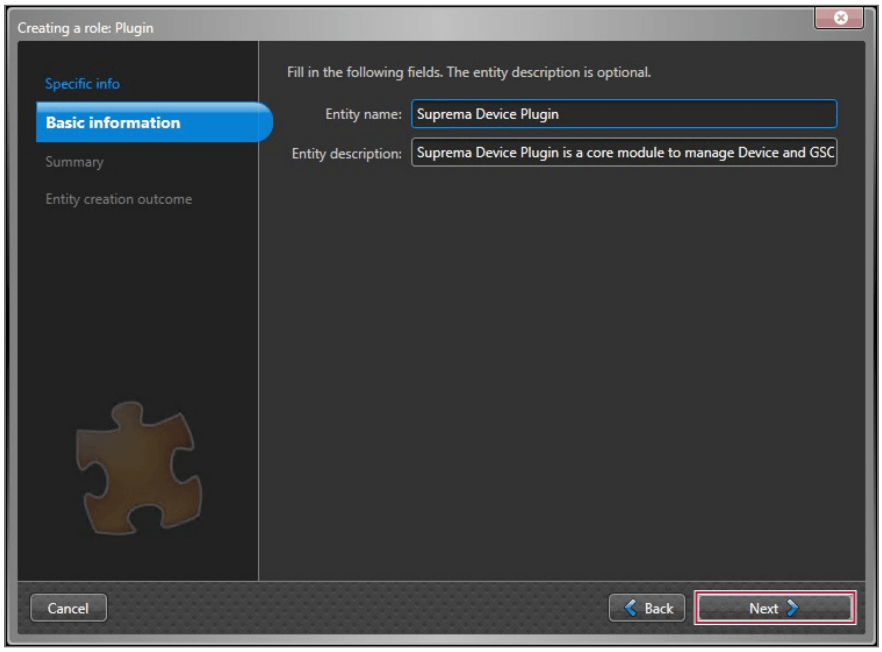
8. Click **Add an entity** under **Plugins** screen, then select **Plugin** from the list.



9. In **Select plugin type**, select **Suprema Device Plugin** and click **Next**.

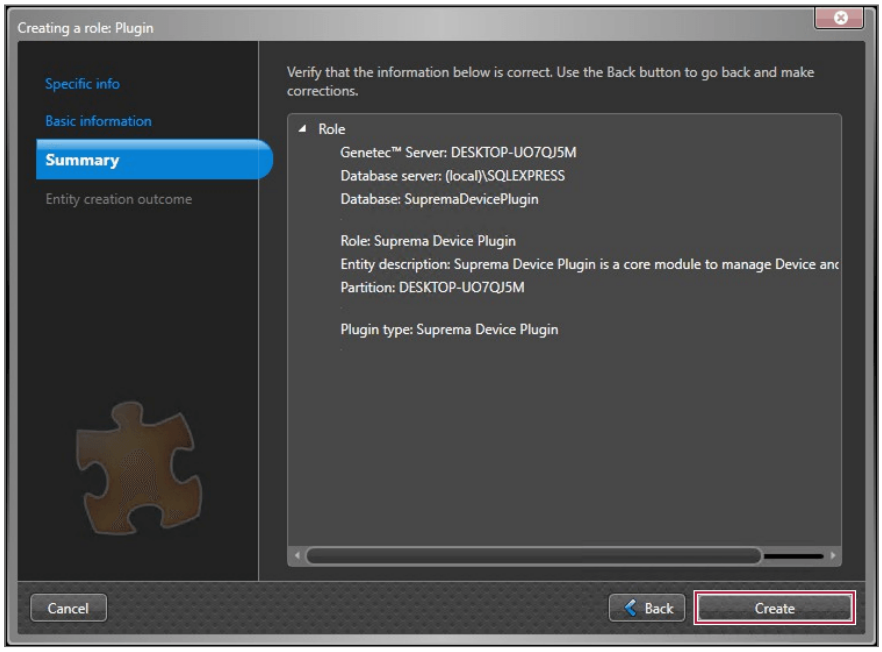


10. Enter the **Entity name** and **Entity description**, then click **Next**.

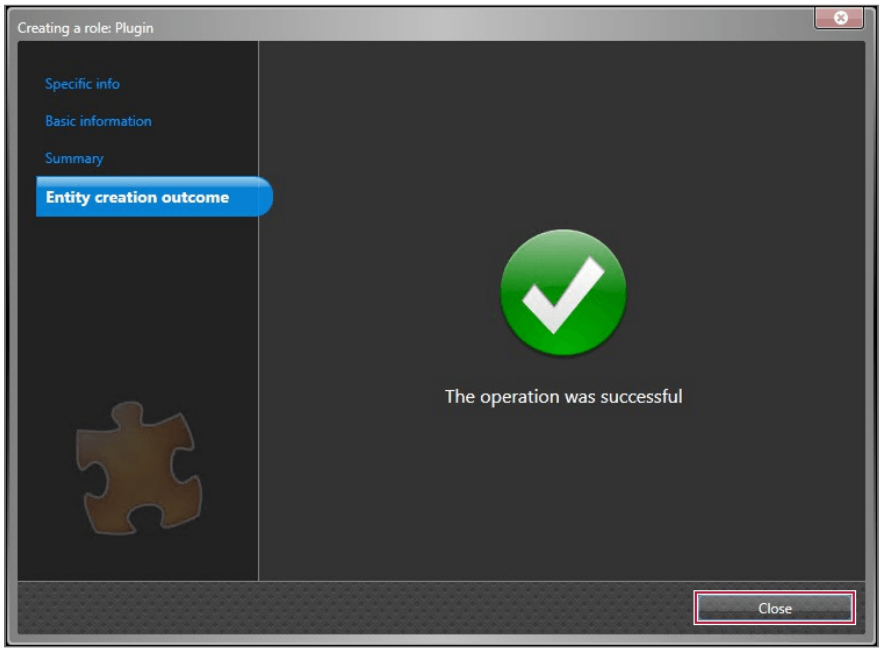


> **Info**
> The **Entity description** is optional.

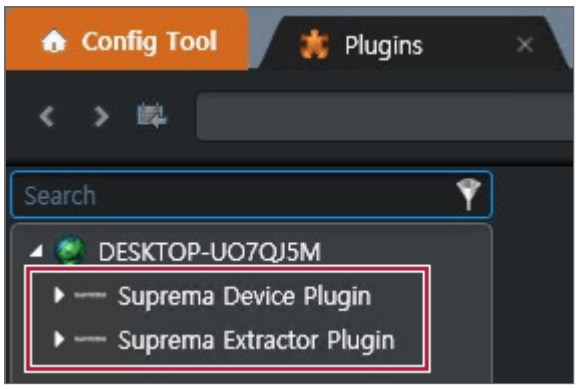
11. Verify the information and click **Create**.



12. The **Suprema Device Plugin** will be created. Click **Close**.



13. The addition of the **Suprema Plugin** is complete.



System Management

System Configuration

Prerequisites

License

1. Software license
    1. Genetec
        - Security Center: 1ea.
        - SDK Connection: GSC-1SDK-SUPREMA-READ (One license supports 2 connection.)
            1. Config Tool login: 2ea
            2. Security desk login: 1ea
            3. Suprema extractor plugin: 1ea per **Genetec Security Center Server**
            4. Suprema device plugin: 1ea per **Suprema device plugin**

            > **Info**
            > One device plugin supports up to 4 cloud links (256 Suprema devices), and you can add as many Suprema Device Plugin as you need.
            > – Needs total 3 GSC-1SDK-SUPREMA-READ per Server.
    2. Suprema
        - Plugin license: INT_GEN_GSC
2. Device license
    1. Genetec
        - GSC-Sy-X-1R(E): 1ea per Suprema device assigned to door as reader.
    2. Suprema
        - Only devices that it's ID is registered in Server license can be registered in Plugin.
        - Sku: Device model - GEN.

Database

1. Permission for SQL database

    To ensure proper operation of the Plugin (Device Plugin and Extractor DB), please grant the SQL account the following

permissions:

1. Server roles:
    - db_creator
    - processadmin
    - public
2. Database roles:
    - db_backupoperator
    - db_datareader
    - db_datawriter

2. Database size requirements

The required database storage capacity varies depending on the number of users enrolled with biometric data. When face templates are enrolled, the Suprema Extractor Plugin generates and stores the corresponding templates in its Database.

> - Each face template requires approximately 104 KB of database space.
> - Ensure that sufficient storage capacity is allocated based on the expected number of biometric users.

Results | Messages

	name	rows	reserved	data	index_size	unused
1	TBL_CARDHOLDER_FACEDATA	1	400 KB	104 KB	24 KB	272 KB

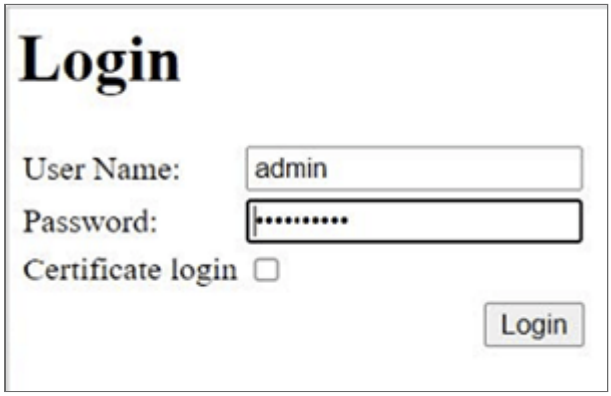
RIO protocol

To ensure proper operation of the Plugin, please enable RIO protocol for Synergis Cloud Link or Softwire.

Process

1. Enter the following URL into your browser.

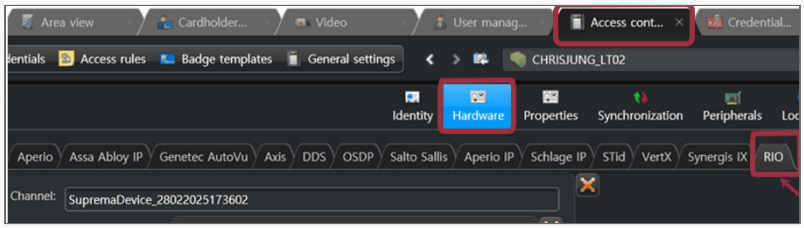
> *https://[Unit IP]/Features/DuiRIO/Enabled/Set?value=true*



2. Login to Synergis Cloud Link or Softwire.
3. Click a URL `http://[IPaddress]/Features/DuiRIO/Enabled/Set?value=true`.



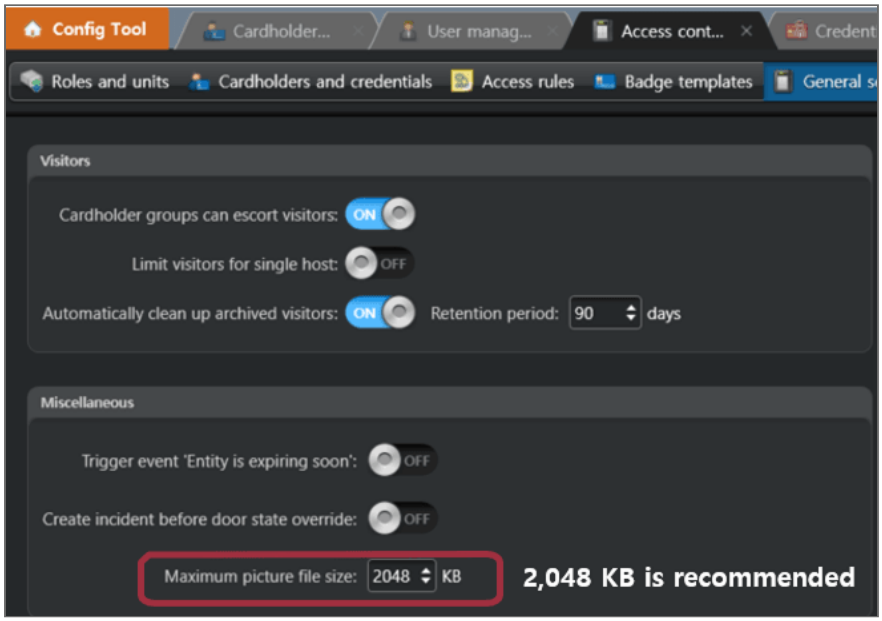
When the RIO protocol is enabled, the **RIO** tab becomes available on the **Hardware** page under **Config Tool → Access control → Cloud Link**.



Profile image quality setting

If you'd like to **extract face templates from cardholder profile images** in GSC, please adjust picture size to ensure picture quality.

- Path: **Config Tool → Access control → General settings**



Device setting

1. Removing all users and logs from devices.
2. Factory reset devices.
3. Set User ID type as Alphanumeric.

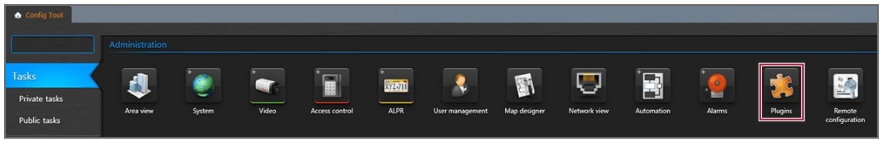
> **Info**
> **Default IP and PW for device admin.**
>
> - ID: su
> - PW: 1234
>
> You can change PW from **Config Tool** → **Suprema Plugin Configuration** → **Superadmin Credential** page.

4. Network setting.
   - Supports DHCP.
   - Network settings required according to site policy.
5. User ID type setting.

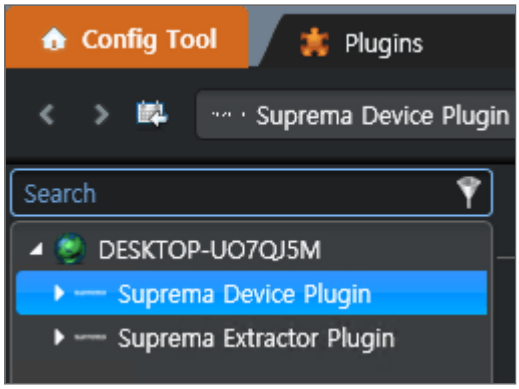
   The user ID type must be set to alphanumeric before connecting the device to the Suprema plugin.

Device Registration

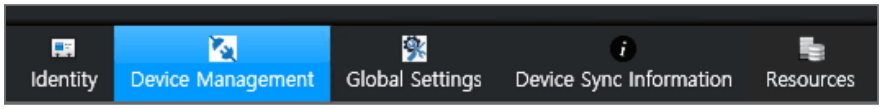
1. In the **Config Tool**, click the **Plugins** under **Tasks**.



2. Click the **Suprema Device Plugin**.

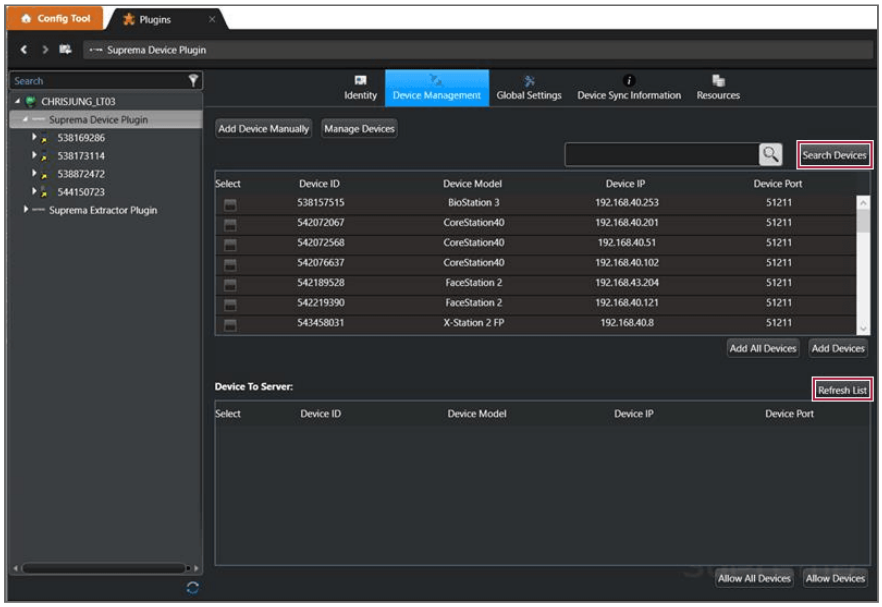


3. Go to **Device Management** tab.

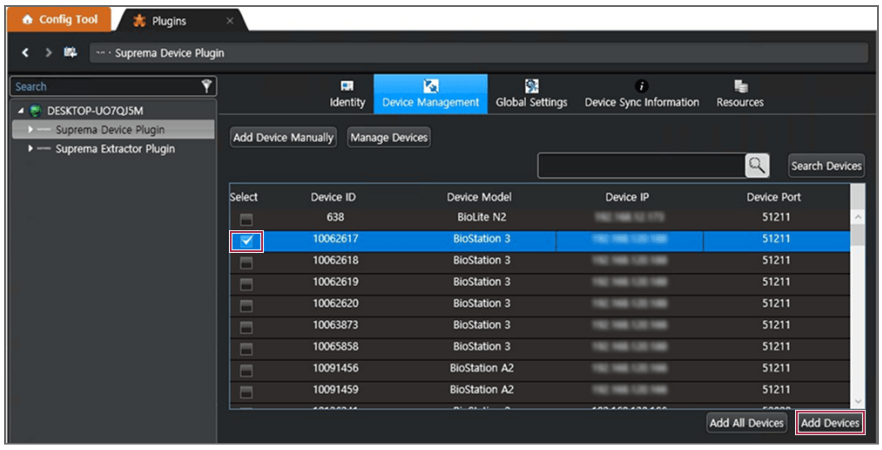


4. Click the **Search Device** button. All available devices will appear.

   If Device Communication Mode is set to Device To Server, please click the **Refresh List** button in the pane below.



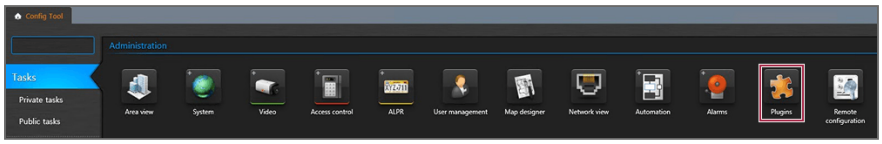
5. Select the device to add by checking the **Select** box, and click the **Add Devices** button. To register all devices, click the **Add All Devices** button.



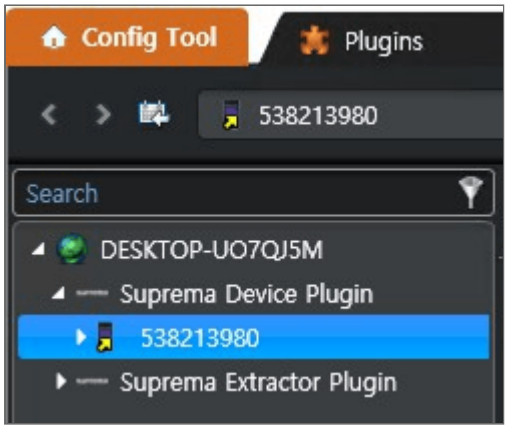
Editing Device Settings and Information

Settings and information of registered devices can be edited.

1. In the **Config Tool**, click the **Plugins** under **Tasks**.



2. Open the left arrow of the **Suprema Device Plugin** and select a registered device. The **Device Settings** area will appear.

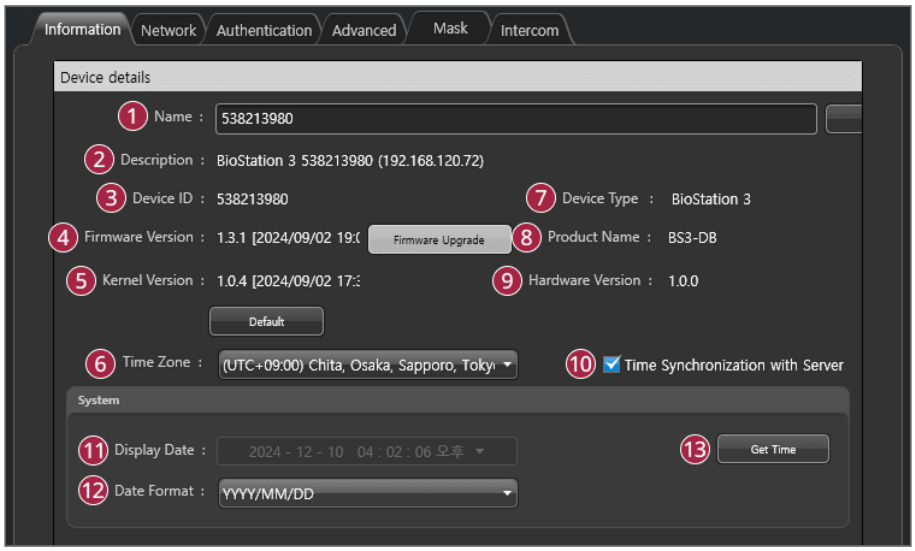


3. Set the desired options, then click the **Apply** button at the bottom to apply the edited settings.

Device Settings

Information

You can enter or edit the name and the group of a device. If a new firmware version is available, you can upgrade to it.

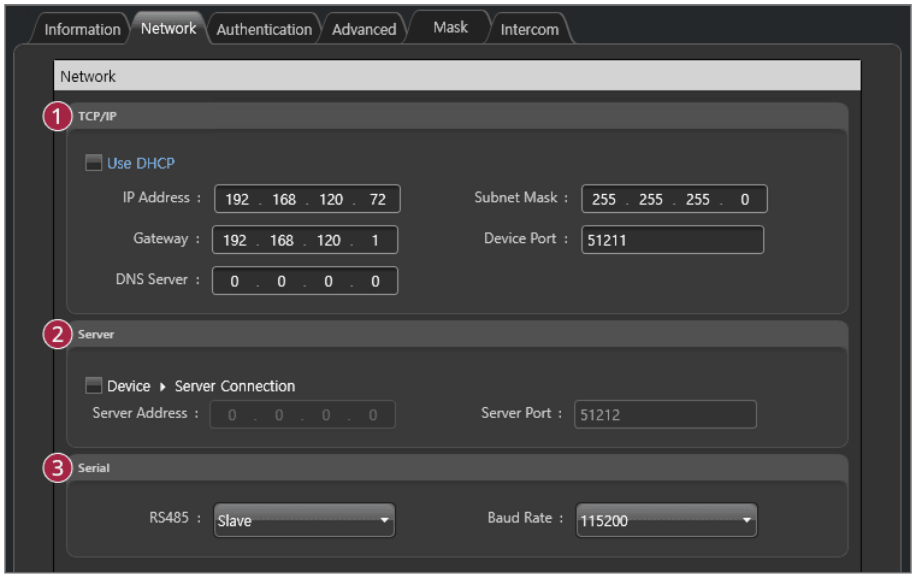


No.	Item	Description
1	**Name**	Enter a device name.
2	**Description**	View the product name, ID, and IP.
3	**Device ID**	View the device ID.
4	**Firmware Version**	Click **Upgrade** to install a new firmware version.

No.	Item	Description
5	**Kernel Version**	View the kernel version.
6	**Time Zone**	Set the time zone of the device.
7	**Device Type**	View the device type.
8	**Product Name**	View the model name.
9	**Hardware Version**	View the hardware version.
10	**Time Synchronization with Server**	Select the option to synchronize the time information of the device with the server.
11	**Display Date**	View the displayed time.
12	**Date Format**	Select a date format.
13	**Get Time**	Click the button to fetch the time set in the device.

Network

You can configure the network connection settings of the device.

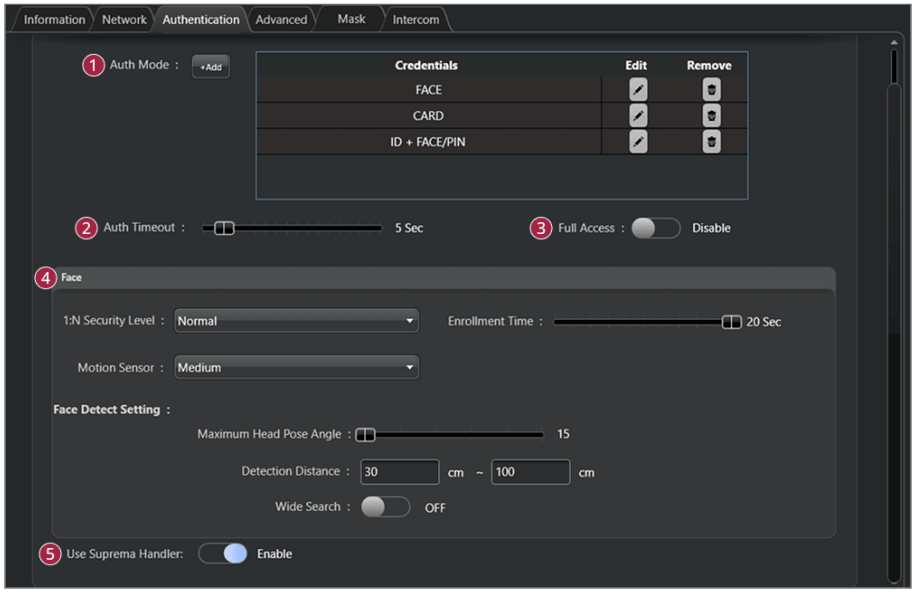


No.	Item	Description
1	TCP/IP	You can configure the TCP/IP connection settings of the device. • **Use DHCP**: Select this option to allow the device to use a dynamic IP address. If this option is selected, network settings cannot be entered. • **IP Address**, **Subnet Mask**, **Gateway**: Enter network settings of the device. • **Device Port**: Enter a port to be used by the device. • **DNS Server**: Enter a DNS server address.
2	Server	You can enter connection settings to use in the server mode. • **Device → Server Connection**: Select this option to configure the settings for connecting to the devices. If this option is selected, server network settings can be entered. • **Server Address**: Enter the IP address or domain name of the server. • **Server Port**: Enter the port number of the server.
3	Serial	You can configure the connection mode, and baud rate of devices connected over RS-485. • **RS-485**: Set a RS-485 mode. • **Baud Rate**: Set a baud rate of the RS-485 connection.

Authentication

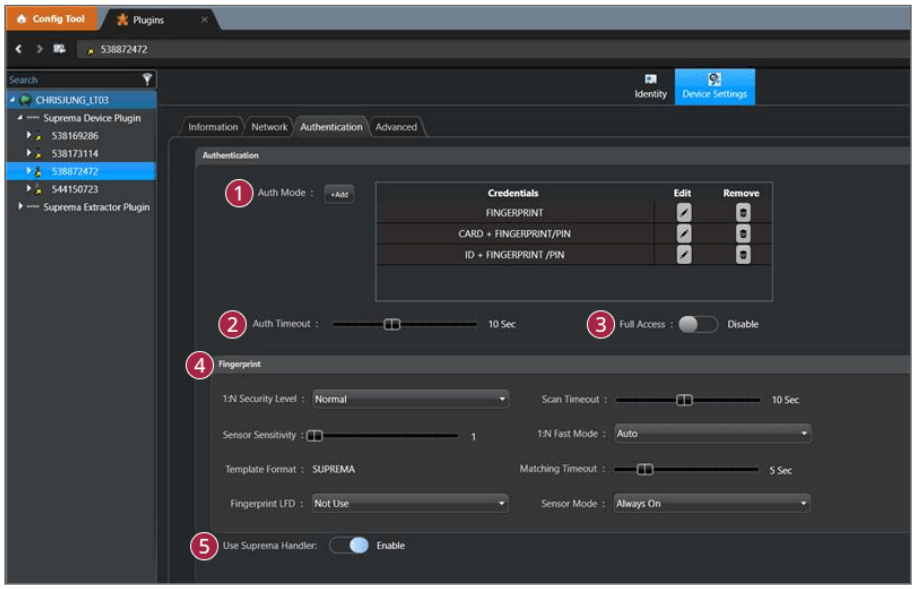
You can configure the user authentication settings of the device.

Face Authentication Device



No.	Item	Description
1	**Auth Mode**	You can configure the authentication modes of the device. Use any combinations of fingerprint, ID, card, PIN and face as authentication modes. Click **+Add** and create an authentication mode by dragging and dropping available options.
2	**Auth Timeout**	When using a combination of multiple credentials in **Auth Mode**, the system waits for this length of time to authenticate the second credential. Set a timeout period for authenticating the second credential after authenticating the first credential. If the second credential is not authenticated within this time, the authentication fails.
3	**Full Access**	You can grant full access to users registered within the device without setting any access groups.
4	**Face**	You can configure the detail settings concerning face authentication. • **1:N Security Level**: You can set a security level to use for face authentication. The higher the security level is set, the false rejection rate (FRR) gets higher, but the false acceptance rate (FAR) gets lower. • **Enrollment Time**: If a face is not registered during the set time when registering a user's face, the face registration will be canceled. • **Motion Sensor**: Set the sensitivity for detecting motion near the device. • **Face Detect Setting**: Set the environment for recognizing the user's face during face authentication. – **Maximum Head Pose Angle**: Set maximum angle of head rotation. – **Detection Distance**: Set the minimum and maximum detection distance. – **Wide Search**: Set to **ON**, search for a face in the entire camera image.
5	**Use Suprema Handler**	This option enables or disables RIO communication between the Suprema device and the Cloud Link. • **Enable**: Events generated from the Suprema device are sent to the Cloud Link through the Plugin. • **Disable**: Events generated from the Suprema device are not sent to the Plugin. Disable this option when the **Suprema device is used as a reader connected to a Mercury controller**.

Fingerprint Authentication Device

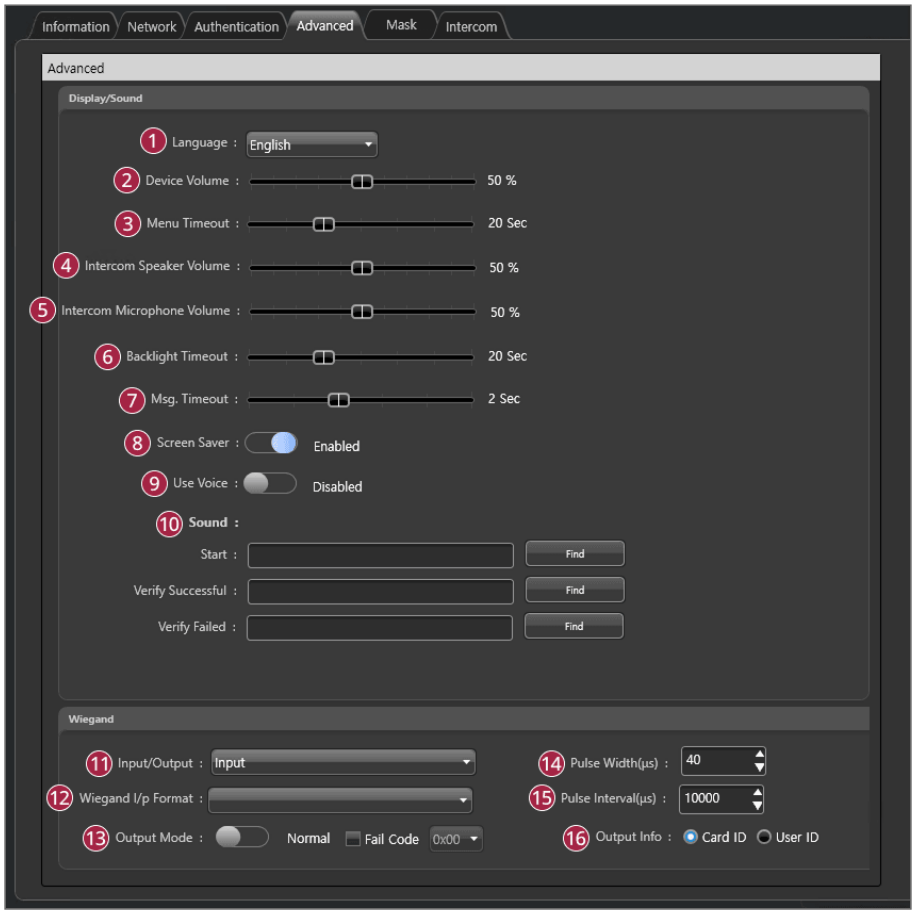


No.	Item	Description
1	**Auth Mode**	You can configure the authentication modes of the device. Use any combinations of fingerprint, ID, card, PIN and face as authentication modes. Click **+Add** and create an authentication mode by dragging and dropping available options.
2	**Auth Timeout**	When using a combination of multiple credentials in **Auth Mode**, the system waits for this length of time to authenticate the second credential. Set a timeout period for authenticating the second credential after authenticating the first credential. If the second credential is not authenticated within this time, the authentication fails.
3	**Full Access**	You can grant full access to users registered within the device without setting any access groups.

No.	Item	Description
4	**Fingerprint**	You can configure the detail settings concerning fingerprint authentication. • **1:N Security Level**: You can set a security level to use for fingerprint authentication. The higher the security level is set, the false rejection rate (FRR) gets higher, but the false acceptance rate (FAR) gets lower. • **Scan Timeout**: If a finger is not registered during the set time when registering a user's finger, the finger registration will be canceled. • **Sensor Sensitivity**: Set the sensitivity of the fingerprint recognition sensor. Set the sensitivity higher to obtain precise fingerprint information. • **1:N Fast Mode**: You can set the speed of fingerprint authentication. Selecting **Auto** sets the authentication speed according to the total number of fingerprint templates enrolled on the device. • **Template Format**: You can check the configured fingerprint template format. • **Matching Timeout**: Set the timeout for fingerprint matching. If authentication is not completed within the specified time, it will fail. • **Fingerprint LFD**: Set the level for fake fingerprint detection. Higher levels for fake fingerprint detection may also increase rejection rates for actual people's fingerprints. • **Sensor Mode**: Set the operating mode of the fingerprint sensor. – **Auto On**: The fingerprint sensor turns on by recognizing the user's finger. – **Always On**: The fingerprint sensor remains always on.
5	**Use Suprema Handler**	This option enables or disables RIO communication between the Suprema device and the Cloud Link. • **Enable**: Events generated from the Suprema device are sent to the Cloud Link through the Plugin. • **Disable**: Events generated from the Suprema device are not sent to the Plugin. Disable this option when the **Suprema device is used as a reader connected to a Mercury controller**.

Advanced

You can set the display/sound and wiegand.



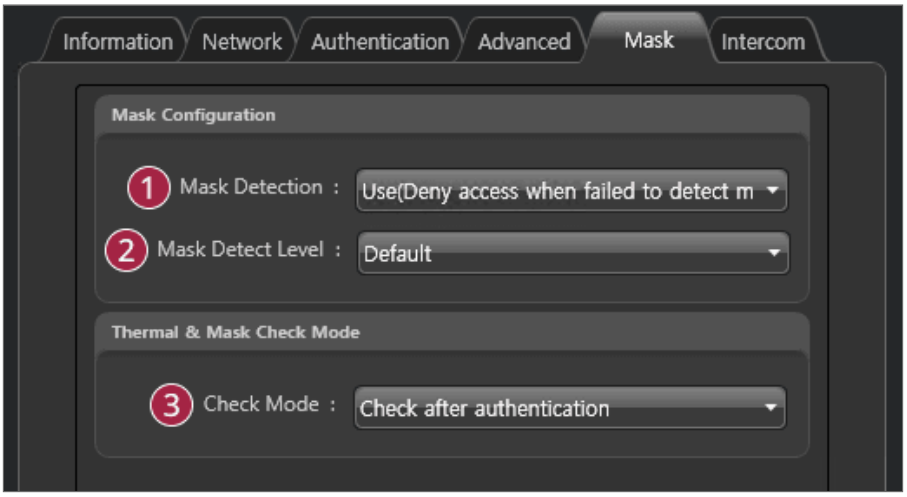
No.	Item	Description
1	Language	Sets the display language of the device.
2	Device Volume	Controls the device's default volume.
3	Menu Timeout	Sets the timeout for the menu screen.
4	Intercom Speaker Volume	Sets the speaker volume when using the Intercom function.
5	Intercom Microphone Volume	Sets the microphone volume when using the Intercom function.
6	Backlight Timeout	Sets the timeout for the backlight.
7	Msg. Timeout	Sets the timeout period for various messages to disappear automatically.

No.	Item	Description
8	Screen Saver	Sets this option to use the screen saver feature. It reduces unnecessary energy consumption by lowering the brightness of the LCD screen when the device is not in use.
9	Use Voice	Enables voice guidance.
10	Sound	Configures the sound effect for boot, authentication success, and authentication failure events. Click **Find** and select a `*.wav` file (less than 500 KB).
11	Input/ Output	You can select input/output mode.
12	Wiegand I/p Format	You can set a format for Wiegand.
13	Output Mode	You can set the Wiegand signal output mode. If it is set to **Normal**, a card will be scanned in the set Wiegand format. If it is set to **ByPass**, CSN will be sent regardless of Wiegand authentication. **ByPass** should be set when using the device without an entrance door control function. If it is set to **Normal** mode, it is possible to set **Fail Code**, and select a value to be transmitted when Wiegand card authentication fails.
14	Pulse Width(µs)	You can set the pulse width of the Wiegand signal.
15	Pulse Interval(µs)	You can set the pulse interval of the Wiegand signal.
16	Output Info	You can select the information output to the device when the user authenticates.

Mask

You can set the detailed settings of mask detection.

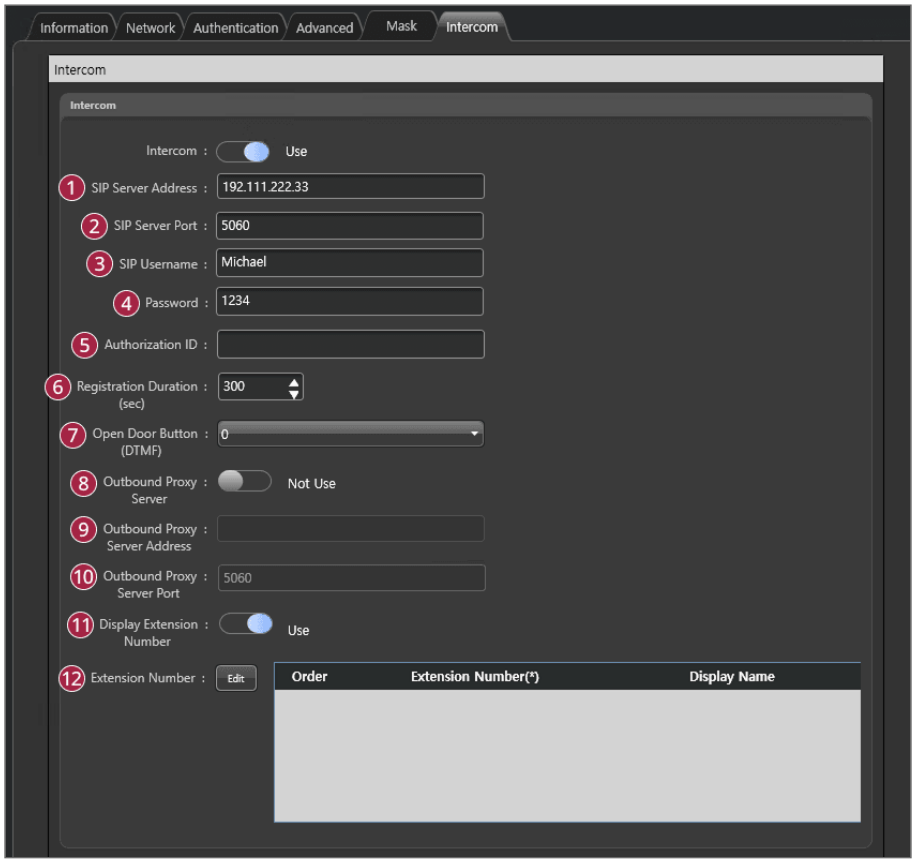
Face authentication devices can detect masks and restrict access to users without masks.



No.	Item	Description
1	Mask Detection	You can set whether to use mask detection or not. If you select **Use (Deny access when failed to detect mask)**, it refuses authentication of users who are not wearing a mask and saves event logs. If you select **Use (Allow access after leaving log when failed to detect mask)** users who are not wearing a mask can authenticate but event logs still be saved.
2	Mask Detect Level	You can set sensitivity for mask detection.
3	Check Mode	• **Check after authentication**: Authenticate and then detect whether the user is wearing a mask. • **Check before authentication**: Detect whether the user is wearing a mask and then authenticate. This mode does not attempt to authenticate a user's identity if they do not wear masks. • **Check without authentication**: Detect whether a user is wearing a mask without authentication. When this mode is activated, any user wearing a mask can access it regardless of authentication.

Intercom

You can set the detailed settings of SIP Intercom.

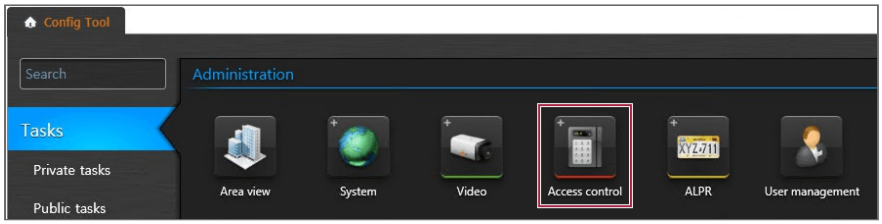


No.	Item	Description
1	**SIP Server Address**	Enter SIP server address.
2	**SIP Server Port**	Enter SIP server port.
3	**SIP Username**	Enter username of your SIP account.
4	**Password**	Enter password of your SIP account.
5	**Authorization ID**	Enter authorization ID of your SIP account.
6	**Registration Duration(sec)**	Enter Registration Duration in seconds. The device (SIP endpoint) tries to register to the SIP server every set Registration Duration. - Registration Duration can be set between 60 to 600 secs.
7	**Open Door Button(DTMF)**	Set a button to open the door on the phone.
8	**Outbound Proxy Server**	If your SIP service has a separate (outbound) proxy server, set this to **Use**.
9	**Outbound Proxy Server Address**	Enter the outbound proxy server address.

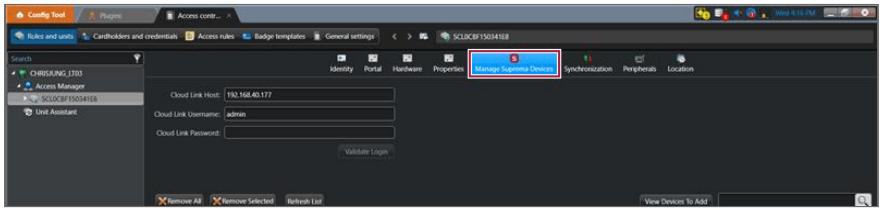
No.	Item	Description
⑩	**Outbound Proxy Server Port**	Enter the outbound proxy server port.
⑪	**Display Extension Number**	If you mind the device displaying extension numbers on the screen, set this to **Not Use**.
⑫	**Extension Number**	Register extension numbers up to 128. Click **Edit** to add or delete. - **Add**: Add an extension number. - **Delete**: Delete an extension number.

Assign Device to Cloud Link

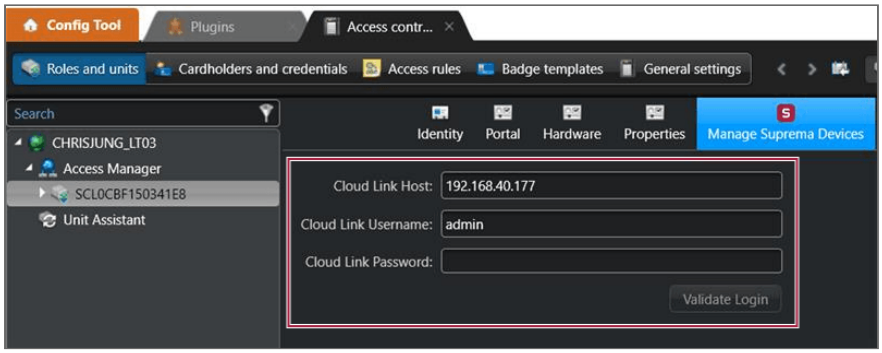
1. In the **Config Tool**, click the **Access control** under **Tasks**.



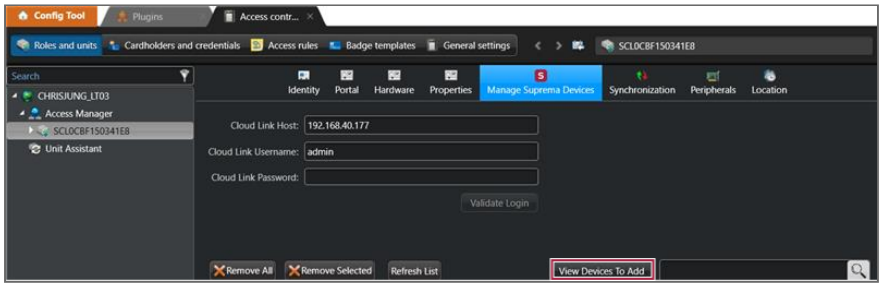
2. Go to **Manage Suprema Devices** tab at the top of the screen.



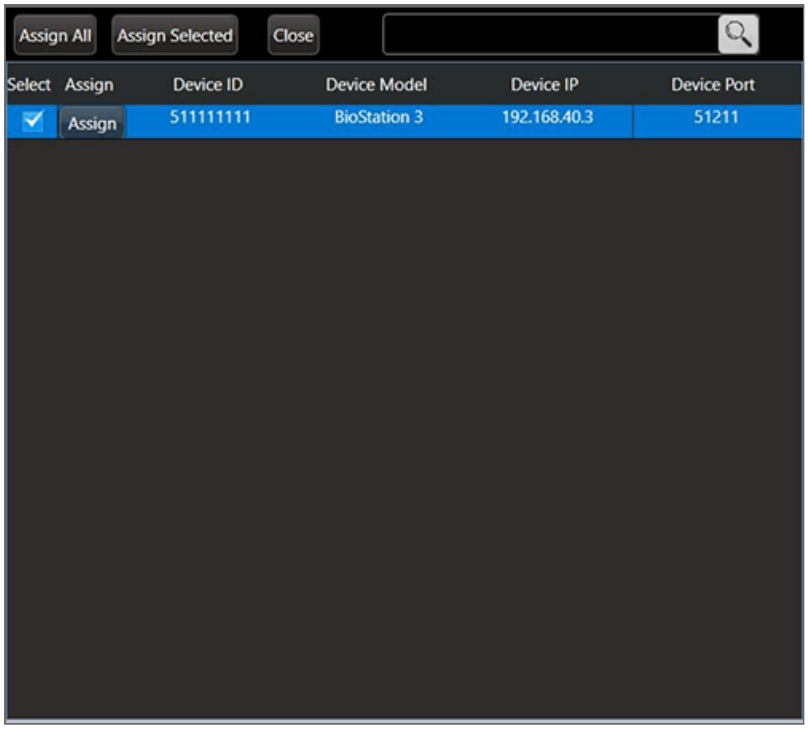
3. Enter the **Cloud Link Host** (IP address), **Cloud Link Username** (ID), and **Cloud Link Password**, and then click the **Validate Login** button.



4. Click the **View Devices To Add** button.

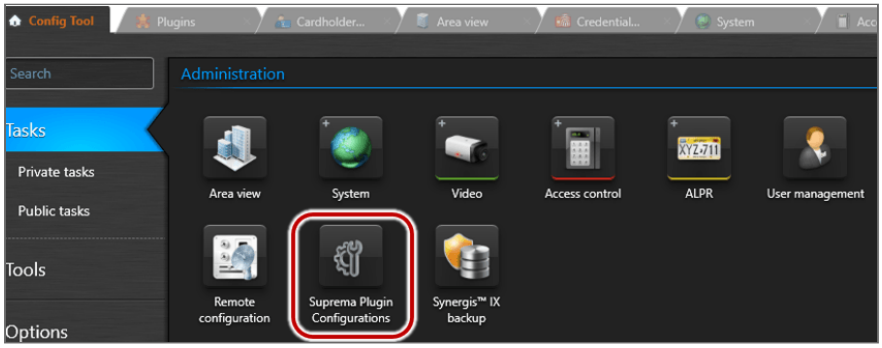


5. Select the device to assign by checking the **Select** box, and click the **Assign** or **Assign Selected** button. To assign all devices, click the **Assign All** button.

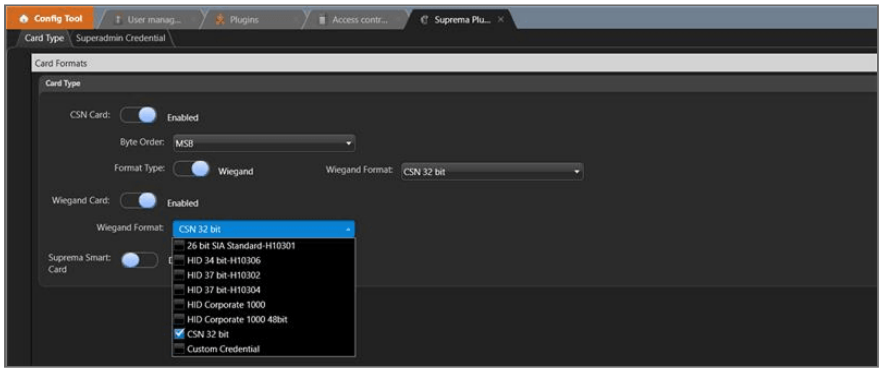


Card Format Setting

1. In the **Config Tool**, click the **Suprema Plugin Configuration** under **Tasks**.



2. Select card type and format.



- **Byte Order**: Supports **MSB** or **LSB**.
- CSN Card_**Format type**: After enabling the CSN Card_**Format type** and selecting a Wiegand format, the **Plugin converts the card data received from the device into the selected Wiegand format and delivers it to the Cloud Link**.
- Wiegand Card Setting: Devices can read wiegand cards based on the **selected Wiegand Card Format**.
- **Custom Credential**: When using a **Custom Credential** Format, compatibility with Suprema devices must be verified in advance.

3. Click **Save button** to set selected card type and format into all devices.

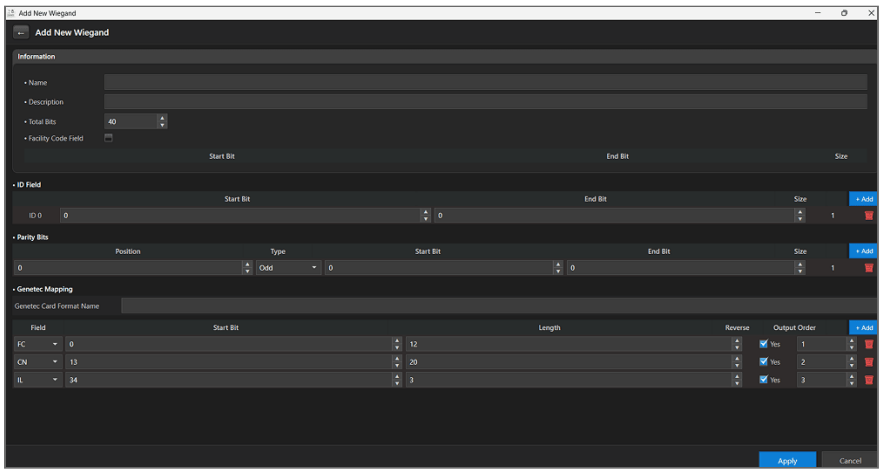
Wiegand Card Setting

Add a Wiegand card format for Suprema devices.

1. Go to **Config Tool** → **Tasks** → **Suprema Plugin Configurations** → Wiegand Format tab.



2. Click **+ Add** button.



- **Information**: Enter **Name**, **Description**, and **Total Bits**. To use a facility code, check **Facility Code Field** and set its **Start Bit** and **End Bit**.
- **ID Field**: Set the **Start Bit** and **End Bit** of the ID. Click **+ Add** to add more ID fields.
- **Parity Bits**: Click **+ Add** and set **Position**, **Type** (**Odd** / **Even**), **Start Bit**, and **End Bit**.
- **Genetec Mapping**: Enter the **Genetec Card Format Name**, then click **+ Add** to add each field (e.g., FC, CN, IL) and set its **Start Bit**, **Length**, **Reverse**, and **Output Order**.
  - **Output Order**: Check **Yes** to use LSB, or uncheck it (**No**) to use MSB.

3. Click **Apply**.

> **Info**
>
> - **Genetec Card Format Name** must be exactly the same as the name of the custom card format configured in **Config Tool** → **Access control** → **General settings**.
> - Set each **Genetec Mapping** field (**Start Bit**, **Length**, **Reverse**, **Output Order**) the same as the corresponding field of that custom card format. The field names (FC, CN, IL, etc.) do not need to match.
> - **Total Bits** must be entered before adding **Parity Bits**.
> - Up to 15 Wiegand formats can be used. Predefined formats cannot be modified or deleted.

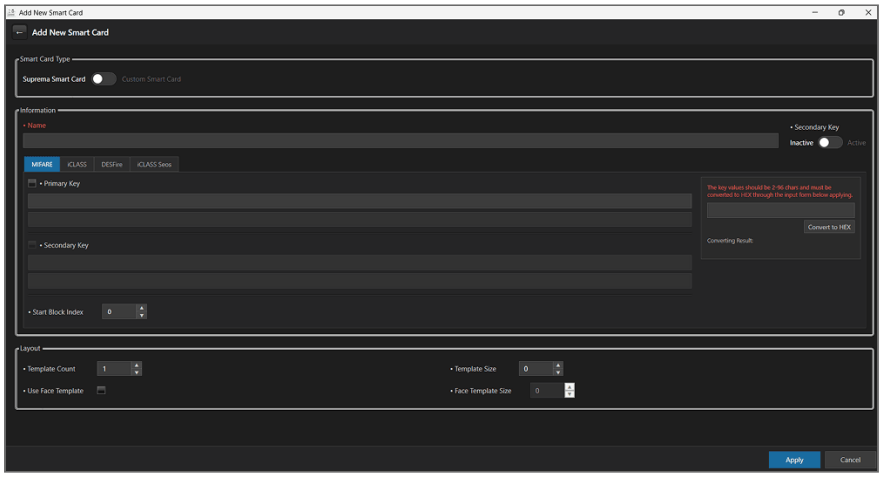
Suprema Smart Card Setting

Set the layout of Suprema smart cards (**MIFARE**, **iCLASS**, **DESFire**, **iCLASS Seos**).

1. Go to **Config Tool** → **Tasks** → **Suprema Plugin Configurations** → Smart Card tab.



2. Click **+ Add** button.
3. When the **Add New Smart Card** window appears, set **Smart Card Type** to **Suprema Smart Card**.



4. Enter **Name**. To use a secondary site key, set **Secondary Key** to **Active**.

5. Select the card tab and configure the options.

▼ **MIFARE**

- **Primary Key**: The key that encrypts communication between the smart card and the card reader.
- **Secondary Key**: Used for authentication when the card's primary site key does not match.
- **Start Block Index**: The starting block where user information and templates are saved.

▼ **iCLASS**

- **Primary Key**: The key that encrypts communication between the smart card and the card reader.
- **Secondary Key**: Used for authentication when the card's primary site key does not match.
- **Start Block Index**: The starting block where user information and templates are saved.

▼ **DESFire**

- **DESFire Advanced**: You can use DESFire cards issued by third parties. Only DESFire can be configured.
- **Primary Key**: The key that encrypts communication between the smart card and the card reader.
- **Secondary Key**: Used for authentication when the card's primary site key does not match.
- **App ID**: Configure to read a specific area on the card. Acts as a directory containing **File ID**.
- **File ID**: Set the file ID.
- **Encryption Type**: Set the encryption type to **DES/3DES** or **AES**.

▼ **iClass Seos**

- **Primary Key**: The key that encrypts communication between the smart card and the card reader.
- **Secondary Key**: Used for authentication when the card's primary site key does not match.
- **ADF Address Value**: The ADF address where digital credentials are stored.

6. In the **Layout**, set the number and size of fingerprint and face templates that can be written to an Access On Card.

- **Template Count**: Set the number of fingerprint templates to include in the layout.
- **Template Size**: Set the number of bytes used by each fingerprint template.

- **Use Face Template**: Choose whether to use the face template.
- **Face Template Size**: Set the number of bytes used by the face template.

7. Click **Apply**.

> **Info**
>
> - Key values must be 2–96 characters and converted to HEX before applying. Enter the key in the input field on the right, click **Convert to HEX**, and use the **Converting Result** as the key.
> - **Use Face Template** is available on BioStation 3 Max, BioEntry W3, BioStation 3, and FaceStation F2.
> - To use **DESFire Advanced**, please accurately enter the information for **App Master Key**, **App Master Key Index**, **File Read Access Key**, **File Read Access Key Index**, **File Write Access Key**, **File Write Access Key Index**, **App ID**, **File ID**, **Encryption Type**.

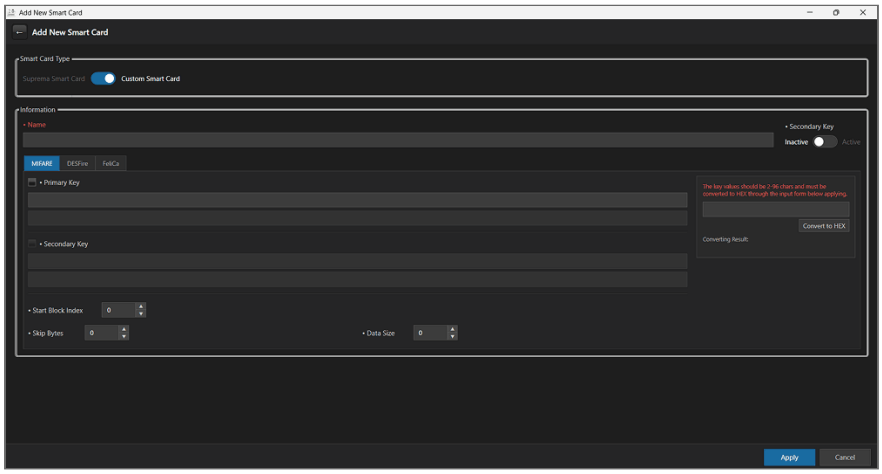
Custom Smart Card Setting

Set the layout of smart cards issued by third parties. Custom smart cards support **MIFARE**, **DESFire**, and **FeliCa**.

1. Go to **Config Tool** → **Tasks** → **Suprema Plugin Configurations** → Smart Card tab.



2. Click **+ Add** button.
3. When the **Add New Smart Card** window appears, set **Smart Card Type** to **Custom Smart Card**.



4. Enter **Name**. To use a secondary site key, set **Secondary Key** to **Active**.
5. Select the card tab and configure the options.

▼ **MIFARE**

- **Primary Key**: The key that encrypts communication between the smart card and the card reader.
- **Secondary Key**: Used for authentication when the card's primary site key does not match.
- **Start Block Index**: The starting block where user information and templates are saved.
- **Skip Bytes**: Set the starting point for reading the card number.
- **Data Size**: Configure the data size of the card to be read.

▼ **DESFire**

- **DESFire Advanced**: You can use DESFire cards issued by third parties. Only DESFire can be configured.
- **Primary Key**: The key that encrypts communication between the smart card and the card reader.
- **Secondary Key**: Used for authentication when the card's primary site key does not match.
- **App ID**: Configure to read a specific area on the card. Acts as a directory containing **File ID**.
- **File ID**: Set the file ID.
- **Encryption Type**: Set the encryption type to **DES/3DES** or **AES**.
- **Skip Bytes**: Set the starting point for reading the card number.
- **Data Size**: Configure the data size of the card to be read.

▼ **Felica**

- **System Code**: Enter the system code to read FeliCa cards in hexadecimal, with a maximum of 4 characters.
- **Service Code**: Enter the service code to read FeliCa cards in hexadecimal, with a maximum of 4 characters.
- **ID Field**: Set the blocks to read from the card. Click **+ Add** to set up to 8 blocks (**Block Number** 0–150).

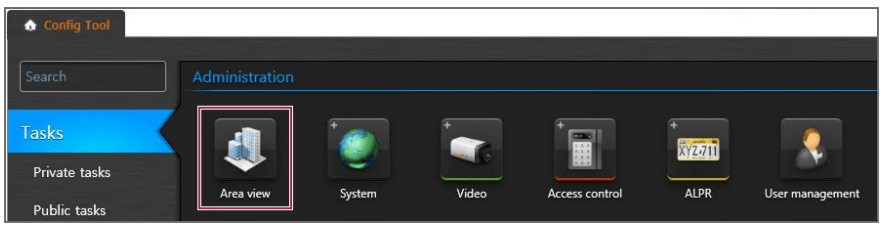
6. Click **Apply**.

Info

- Key values must be 2–96 characters and converted to HEX before applying (**Convert to HEX**).
- FeliCa is supported only on BioStation 3 firmware version 1.3.0 or later.
- To use **DESFire Advanced**, please accurately enter the information for **App Master Key**, **App Master Key Index**, **File Read Access Key**, **File Read Access Key Index**, **File Write Access Key**, **File Write Access Key Index**, **App ID**, **File ID**, **Encryption Type**.

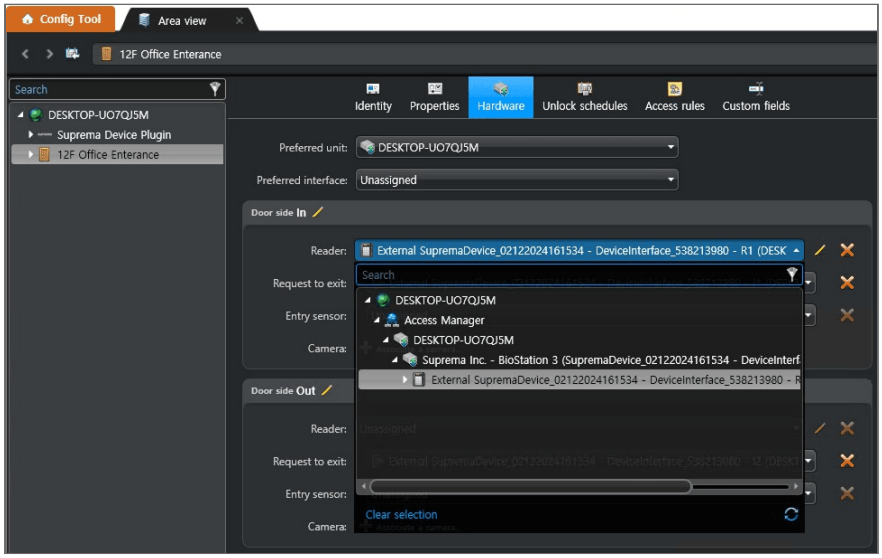
Door Configuration

1. In the **Config Tool**, click the **Area view** under **Tasks**.



2. Select the door and go to the **Hardware** tab.

3. Assign Suprema devices to **Reader**, **Request to exit**, and **Entry sensor**.



Input Configuration Limitation

In Suprema architecture, **input types (e.g., REX, Door Contact)** can only be configured **after the device is mapped to a Door**.

Root Cause:

- **Suprema SDK requires inputs to be assigned at the Door level**, not at the device level.
- Therefore, there is **no way to pre-configure input types before assigning the device to a Door** in Genetec.

Caution

Any input type changes made via:

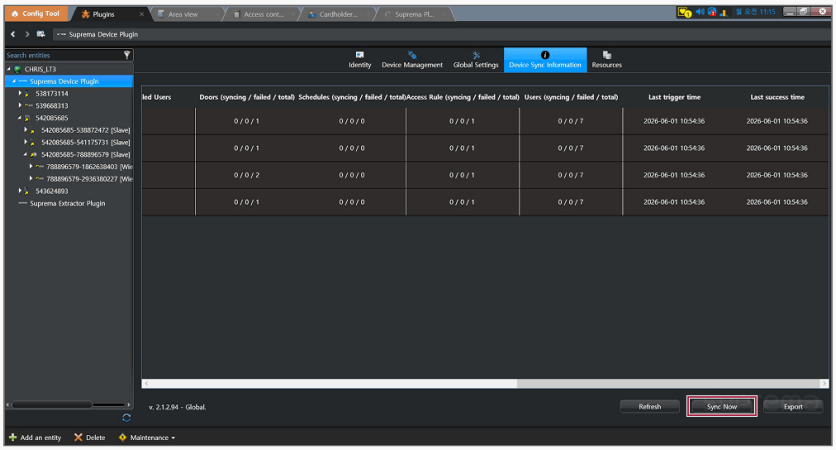
Config Tool → Access control → Cloud Link → Peripherals Tab will **not apply to the Suprema device** directly.

Plugin's Auto Assignment Logic

Input Number	Input Type Assigned by Plugin
Odd Numbers	NO (Normally Open)
Even Numbers	NC (Normally Closed)

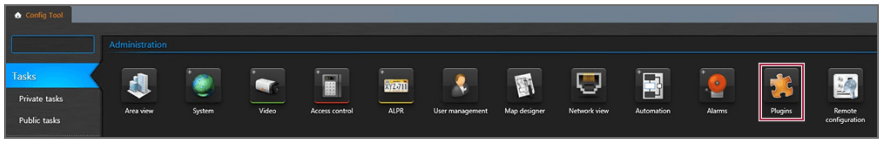
This automatic assignment helps ensure compatibility when mapping inputs post-Door configuration.

After configuring or updating a door, click **Sync Now** in **Suprema Device Plugin → Device Sync Information** to apply the changes to the device.

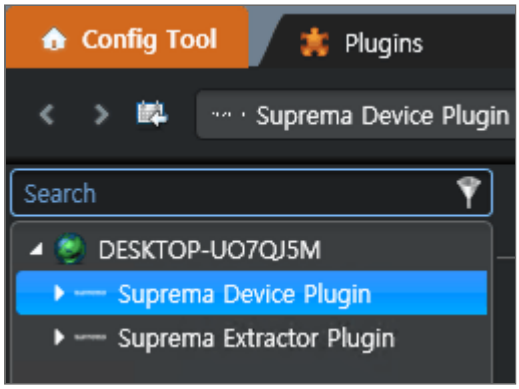


View the Device Sync Information

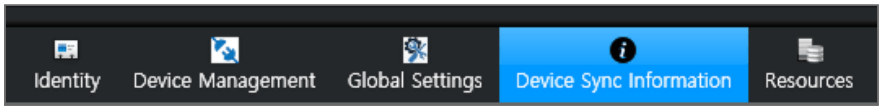
1. In the **Config Tool**, click the **Plugins** under **Tasks**.



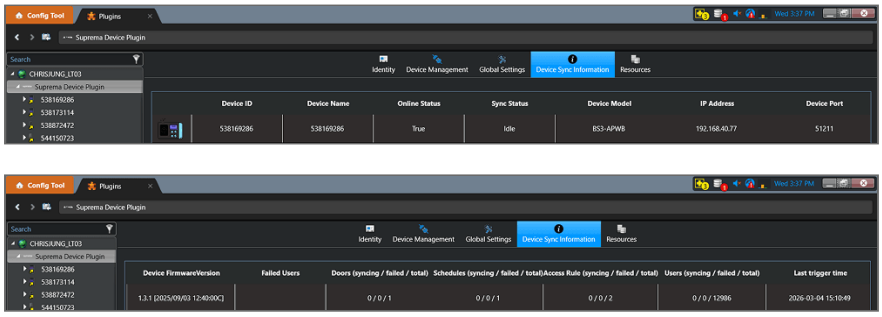
2. Click the **Suprema Device Plugin**.



3. Go to **Device Sync Information** tab.



4. Synchronization information of connected Suprema devices can be checked.



No.	Item	Description
1	**Device ID**	Displays the Suprema device ID.
2	**Device Name**	Displays the Suprema device name.
3	**Online Status**	Displays the network status of the device. - **True / False**
4	**Sync Status**	Displays the synchronization status of the device. - **Idle** /Cache loading/ Biometric downloading/ **Syncing**
5	**Device Model**	Displays the Suprema device model.
6	**IP Address**	Displays the Suprema device IP Address.
7	**Device Port**	Displays the Suprema device port.
8	**Device Firmware Version**	Displays the Suprema device firmware version.
9	**Failed Users**	Allows checking users who failed to synchronize.
10	**Doors (syncing / failed / total)**	Displays the synchronization status of the door.

No.	Item	Description
11	**Schedules (syncing / failed / total)**	Displays the synchronization status of the schedule.
12	**Access Levels (syncing / failed / total)**	Displays the synchronization status of the access level.
13	**Access Groups (syncing / failed / total)**	Displays the synchronization status of the access group.
14	**Users (syncing / failed / total)**	Displays the synchronization status of the cardholder.
15	**Last Trigger Time**	The time when synchronization with the device was last triggered.
16	**Last Success Time**	The time when synchronization with the device was last completed successfully.

Info

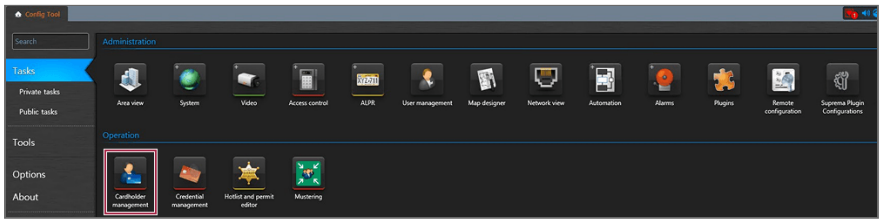
The values displayed for each synchronization status are as follows:

- **syncing**: Number of items currently being synchronized with the device.
- **failed**: Number of items that failed to synchronize with the device.
- **total**: Number of items that have been successfully synchronized.

Cardholder Management

Card Enrollment

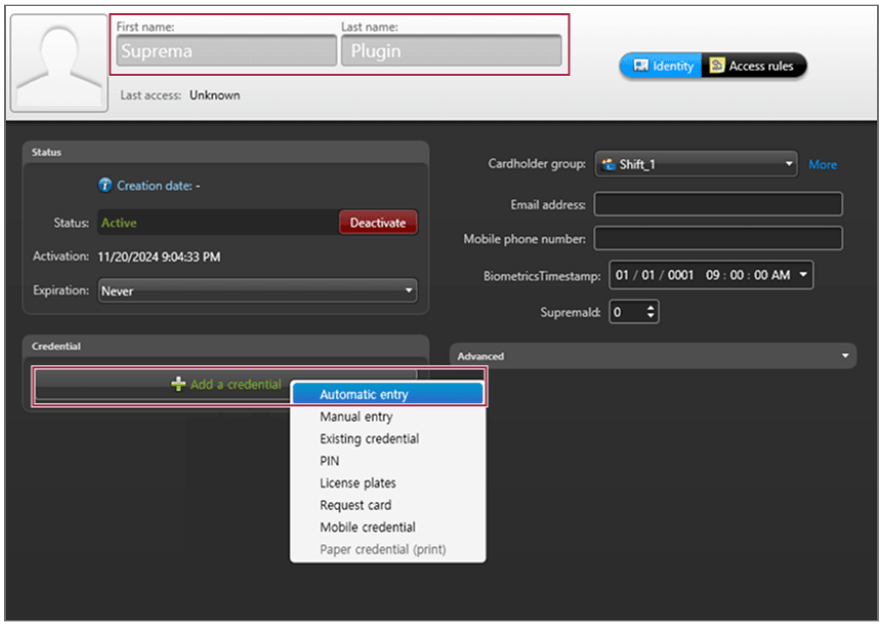
1. In the **Config Tool**, click the **Cardholder management** under **Tasks**.



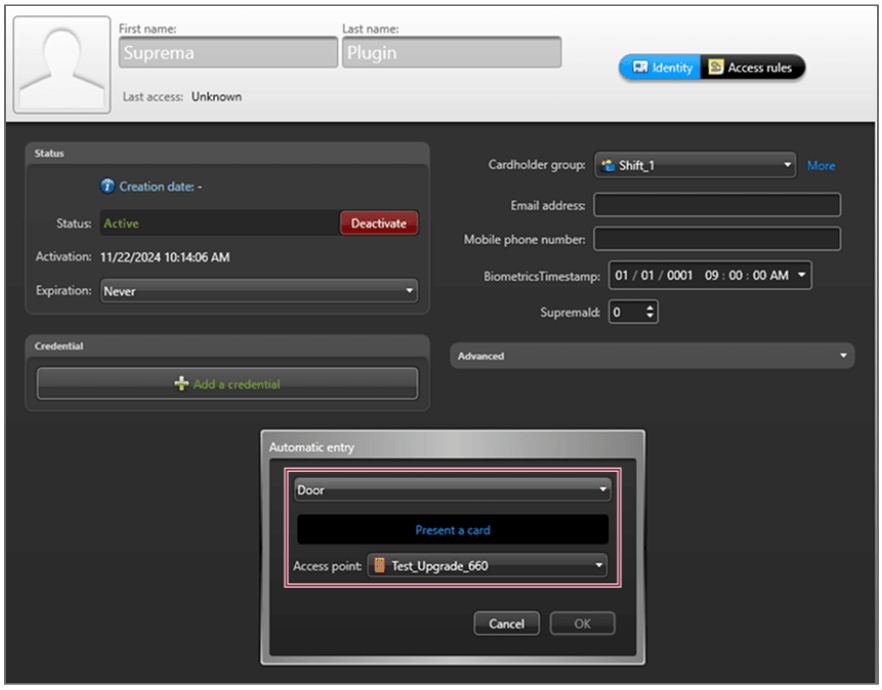
2. Click the **New** button from the bottom.



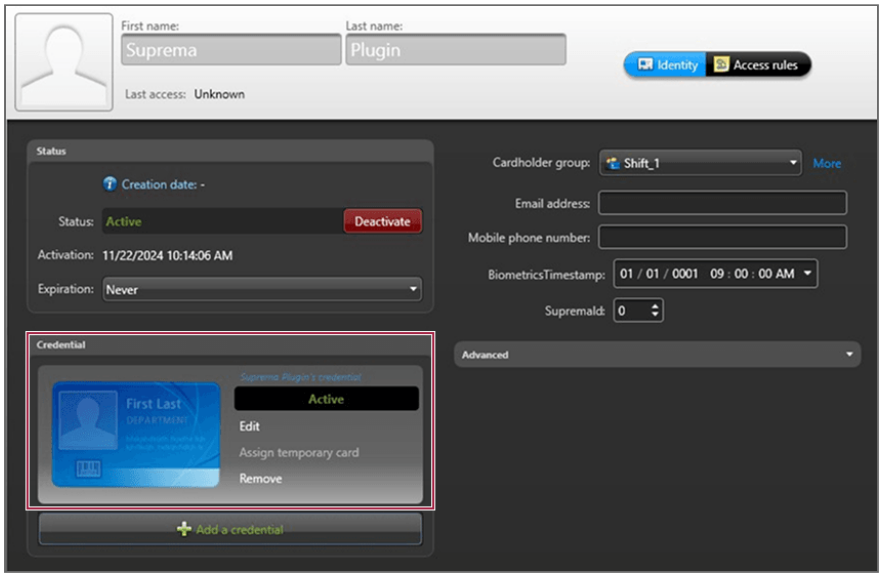
3. Enter the **First name** and **Last name**, then click the **Add a credential** button. In the popup that appears, click **Automatic entry**.



4. Select the **Door** assigned to the Suprema device as a reader, then tag a card to the device.



5. The card is automatically enrolled to the credential.



Face Enrollment

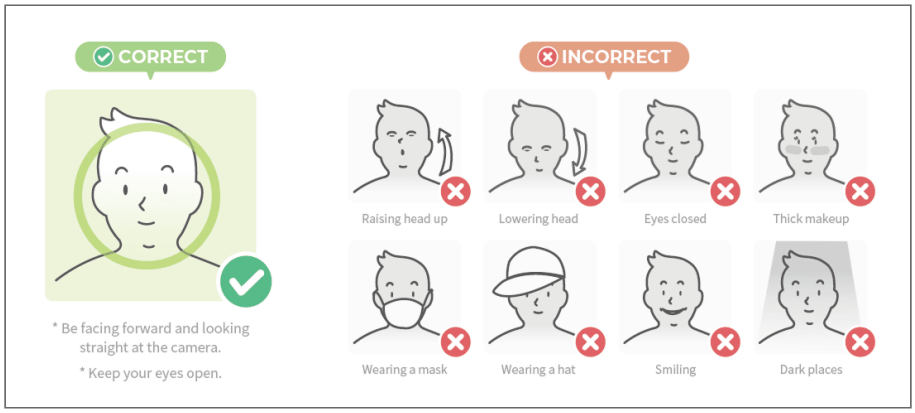
Precautions when Enrolling Face

When enrolling your face for authentication, refer to the picture below to enroll your face correctly.

If you do not follow the on-screen instructions, face enrollment may take a long time or authentication may fail.

- When enrolling a face, maintain a distance of 60-100 cm between the device and the face.
- Make sure that your expression does not change.
- Do not wear a mask, hat, sunglasses, or eye patches.

- Do not raise head up or lower head.
- Do not wear thick makeup.
- Do not close your eyes.
- Make sure that both of your shoulders correctly appear on the screen.
- Do not use a corrected picture.
- Stand still and enroll your face by staring at the screen.
- Be careful not to display two faces on the screen. Make sure to enroll one face at a time.
- Do not enroll your face in dark places.

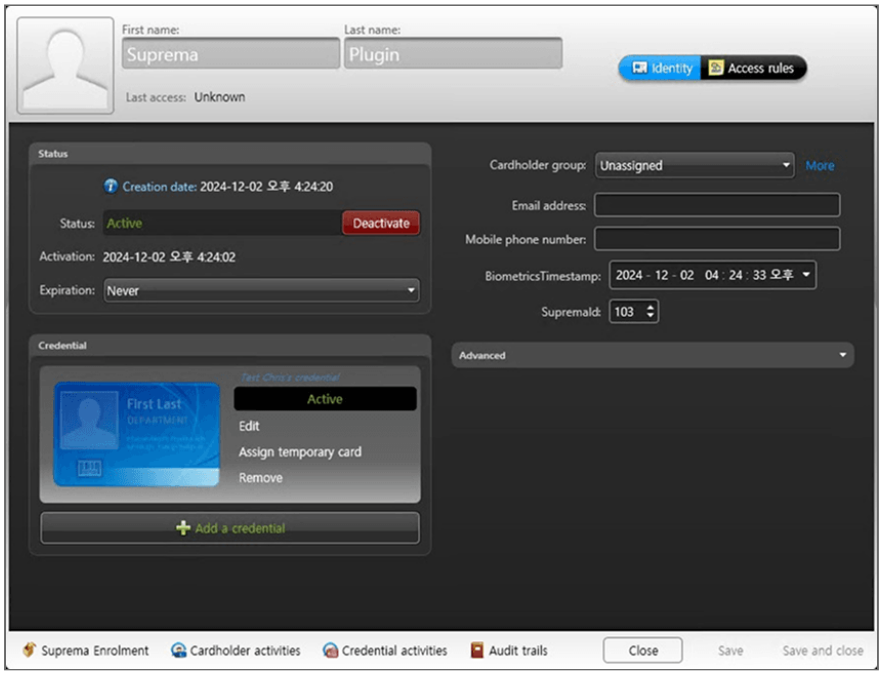


Info

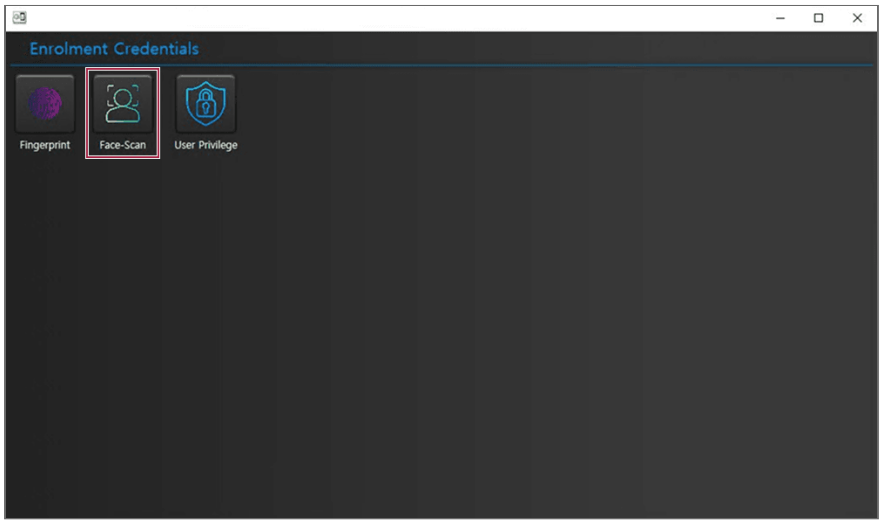
- **Resolution**: Larger than 250 x 250 pixels
- **Image size**: Up to 10 MB
- **Supported format**: JPG, JPEG or PNG only

Enroll from Device

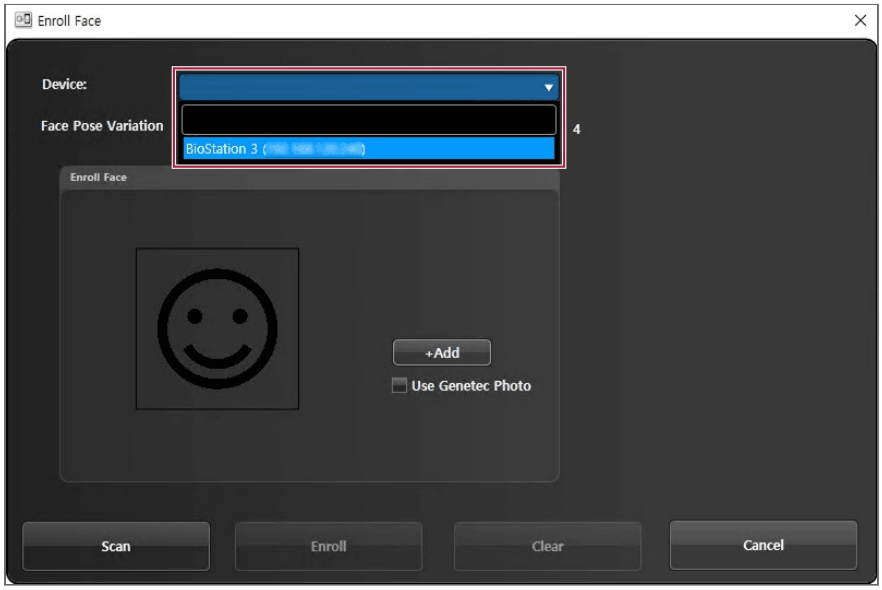
1. In the cardholder details window, click **Suprema Enrollment**.



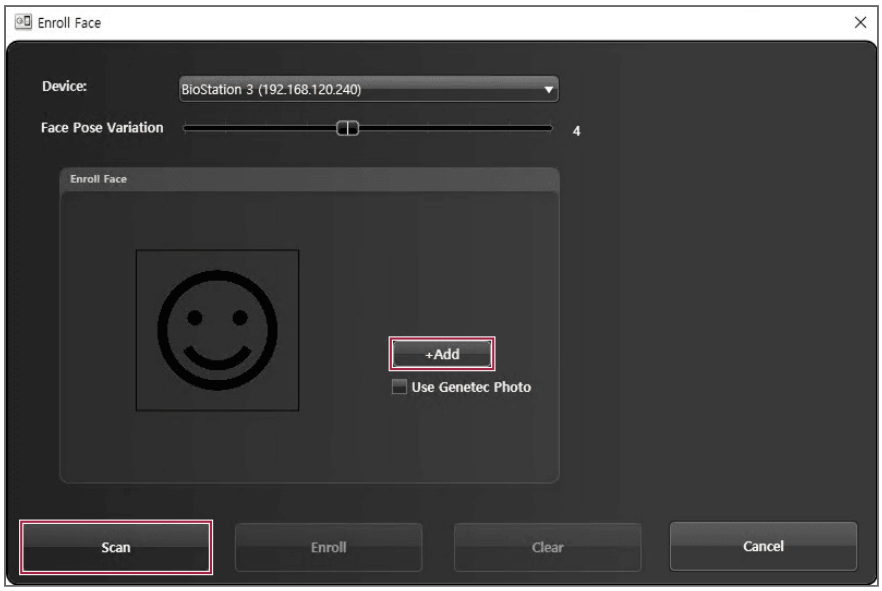
2. Click the **Face-Scan**.



3. Select the Suprema face authentication device to enroll the face credential.



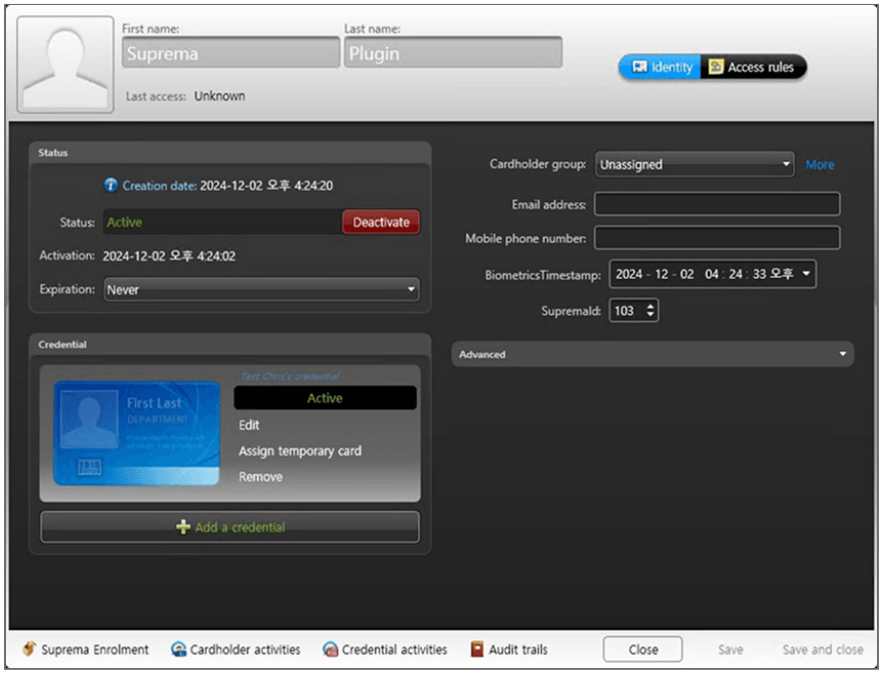
4. Click the **+Add** button to create a face template, then click the **Scan** button and scan the face on the device.



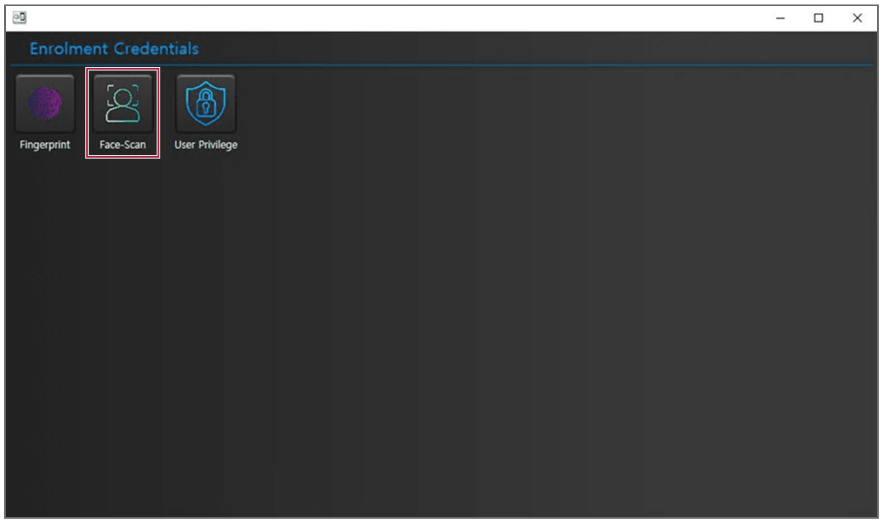
5. Check the face has been properly scanned, and then click the **Enroll** button to enroll the face.

Enroll Face Template with Genetec Profile Photo

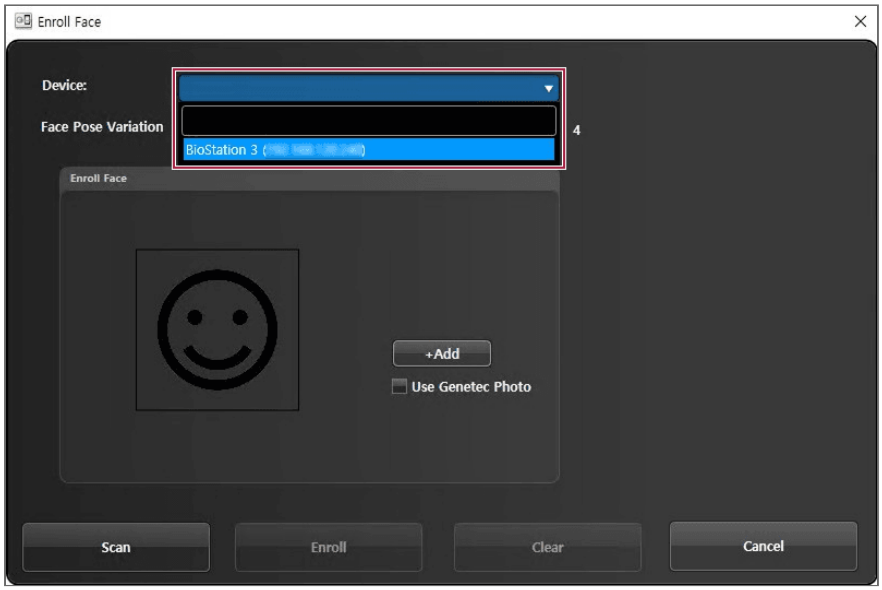
1. In the cardholder details window, click **Suprema Enrollment**.



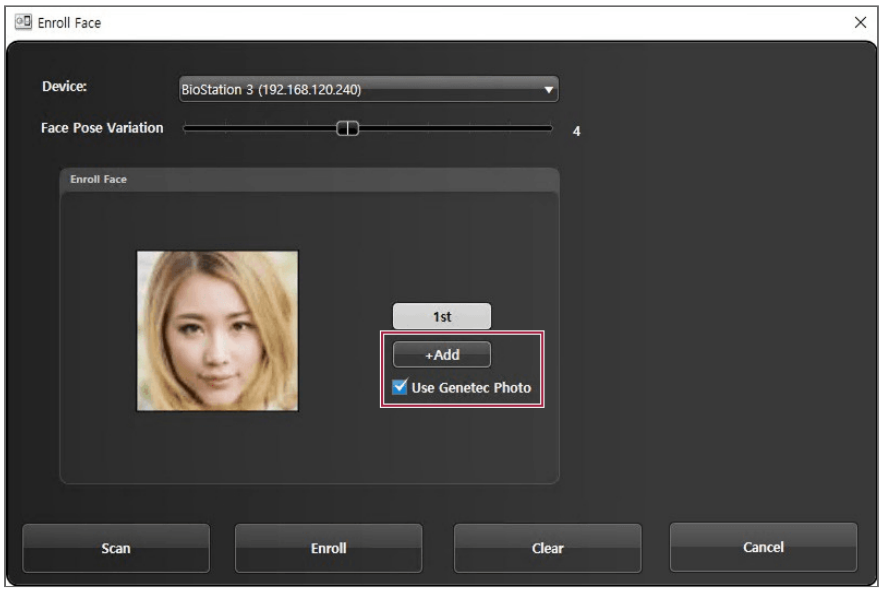
2. Click the **Face-Scan**.



3. Select the Suprema face authentication device to enroll the face credential.



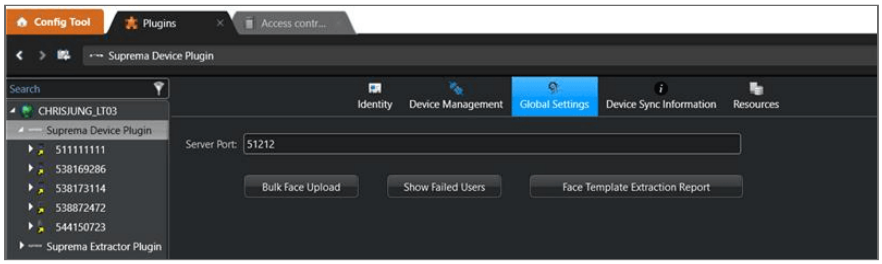
4. Click the **+Add** button to create a face template, then check **Use Genetec Photo** to automatically upload the user profile photo. The Suprema device extracts face templates from user profile photos.



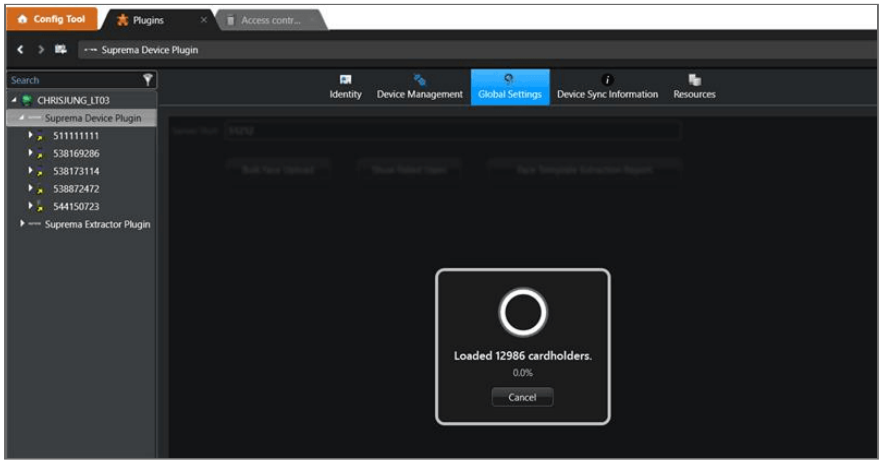
5. Check the uploaded photo, and then click the **Enroll** button to enroll the face.

Bulk Enrollment

1. Go to **Suprema Device Plugin** → **Global Settings**.



2. Click the **Bulk Face Upload** button. You can check the Face Extraction progress.

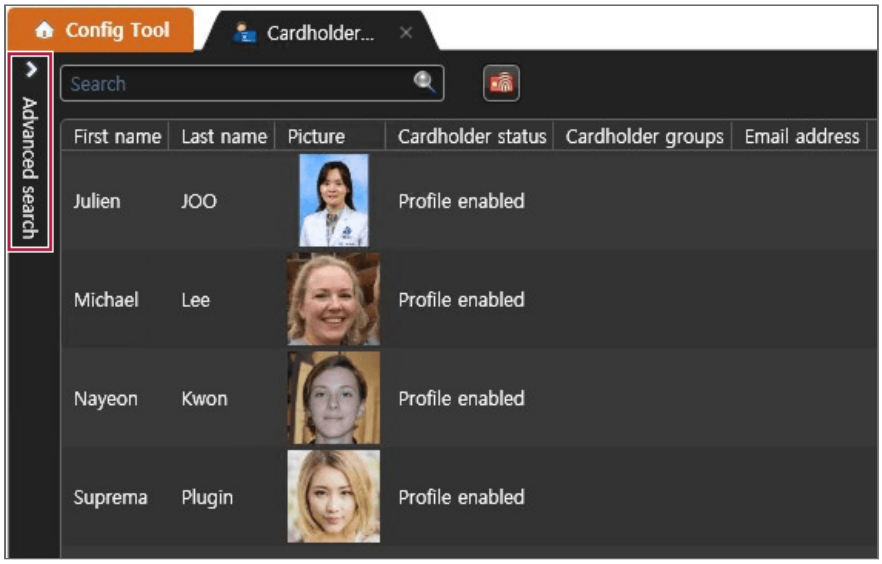


> **Info**
> Face template extraction is performed only for GSC cardholders who have a profile image.

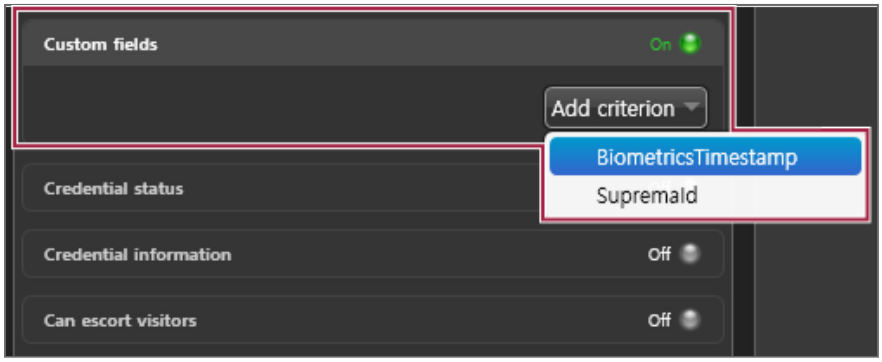
3. Once the process is completed, you can check the results.
   - Show Failed Users: View the list of users for whom face extraction failed.
   - Face Template Extraction Report: View the report related to face template extraction.

How to Search for a Cardholder with a Face Template

1. Click the **Advanced search** on the **Cardholder management** page.



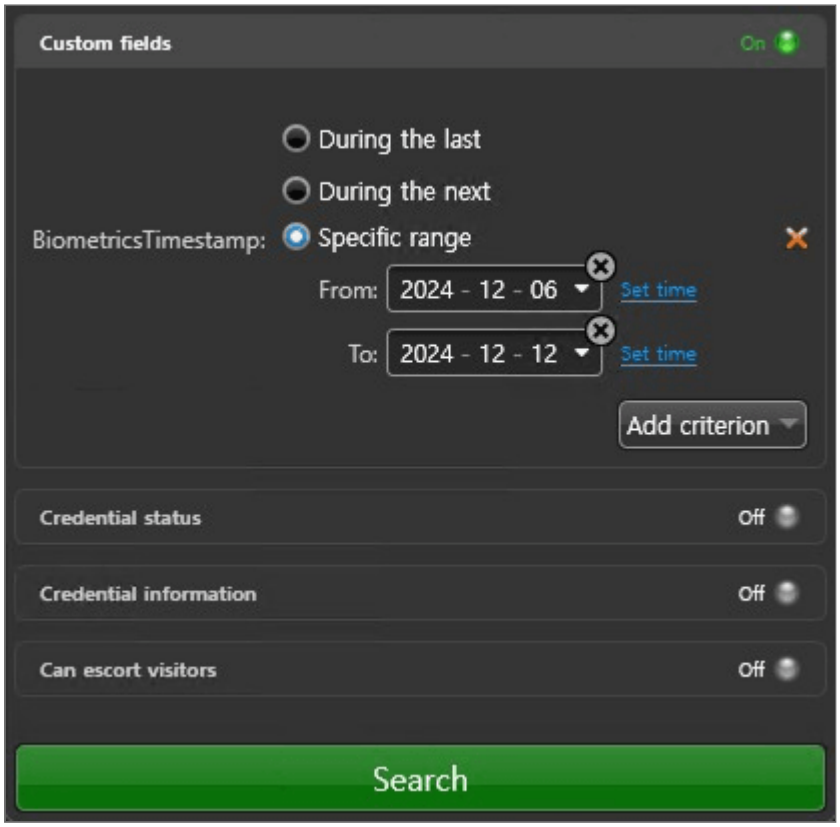
2. Click the **Custom fields**, switch it to **On**, and click **Add criterion**. Then, select the **BiometricsTimestamp**.



3. Select the **Specific range** and set the period to search.

> **Example**
> - **From**: Plugin installation date
> - **To**: Today

To search by specific time, click **Set time** and enter the time.

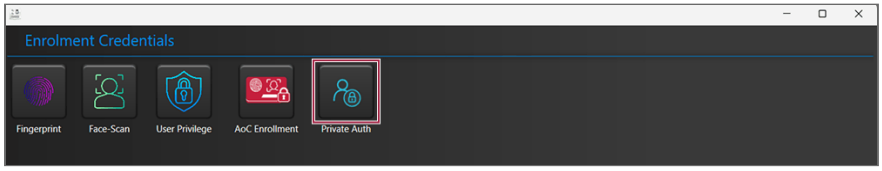


4. Click the **Search** button.
5. All cardholders who have face templates appear.

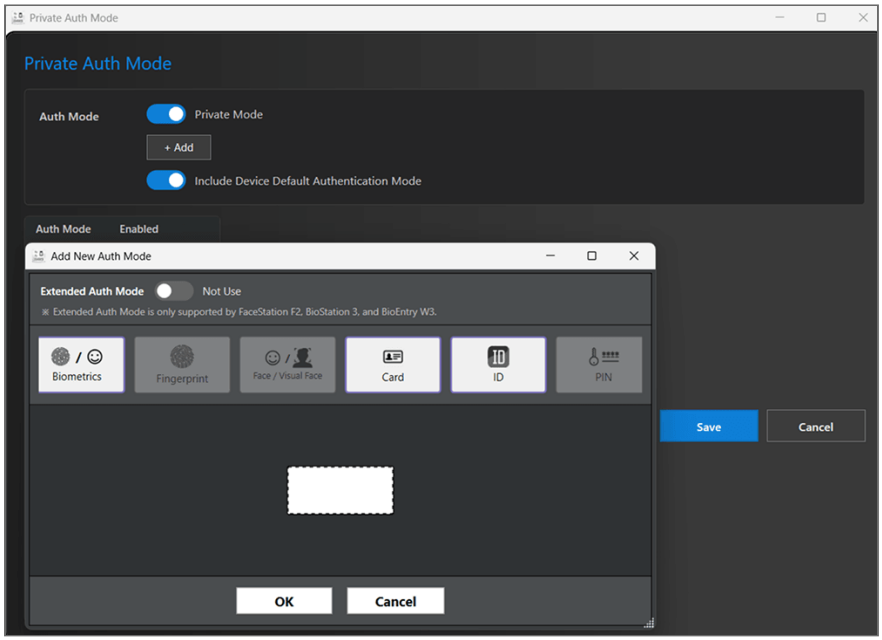
Private Authentication Mode

Set a different authentication mode for each user, in addition to or instead of the device's default authentication mode.

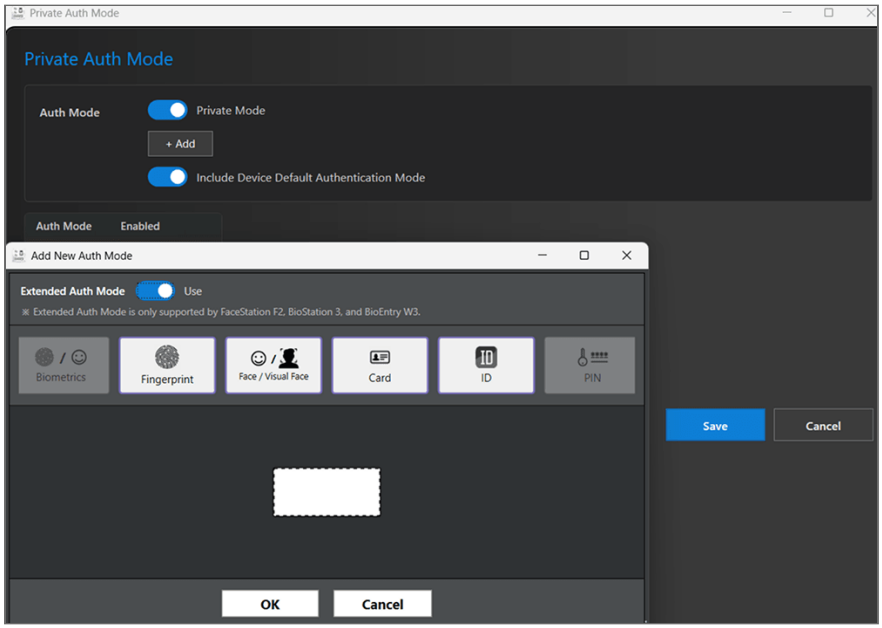
1. In the **Enrolment Credentials** window, click **Private Auth**.



2. In the **Private Auth Mode** window, turn on **Private Mode**.



3. Click **+ Add**. The **Add New Auth Mode** window appears.
4. Set **Extended Auth Mode** if needed.



   - **Not Use**: **Biometrics** (fingerprint or face) is used as one credential.
   - **Use**: **Fingerprint** and **Face / Visual Face** can be combined as separate credentials.
5. Drag the desired credentials (**Biometrics**, **Fingerprint**, **Face / Visual Face**, **Card**, **ID**, **PIN**) to the center area to make an authentication mode, then click **OK**.
6. Set **Include Device Default Authentication Mode**.
   - ON: Both the device default authentication modes and the private authentication modes are used.
   - OFF: Only the private authentication modes are used.
7. Check the added modes in the **Auth Mode** list, then click **Save**.

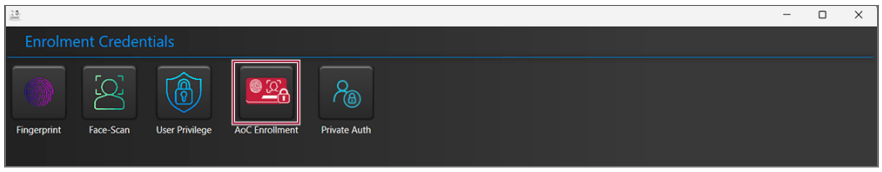
> **Info**
>
> **Extended Auth Mode** is only supported by FaceStation F2, BioStation 3, and BioEntry W3.

AoC Enrollment (Access On Card)

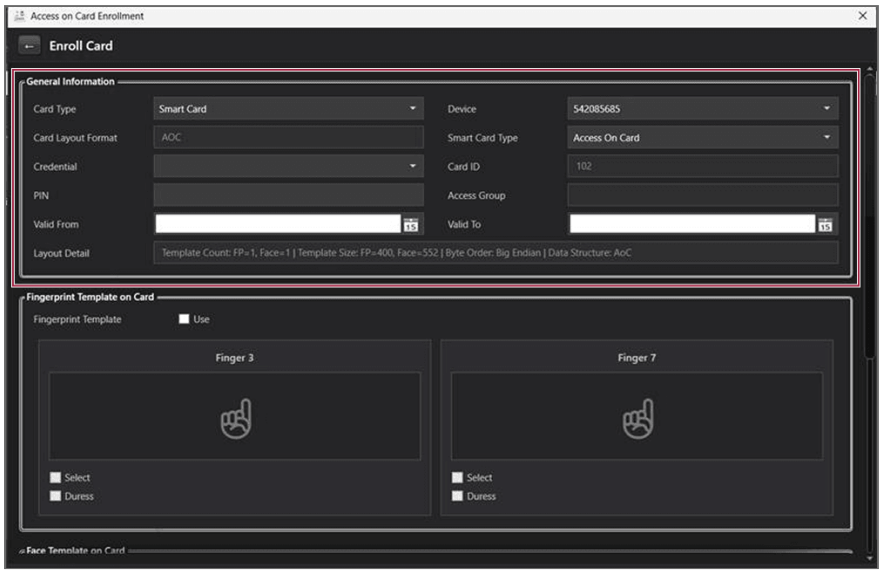
Select Access On Card to store user information on the card. This includes card ID, PIN, access group, period, fingerprint template, face template, and private authentication mode.

Before issuing, configure the smart card format (Smart Card Setting) and apply it to the device used for enrollment.

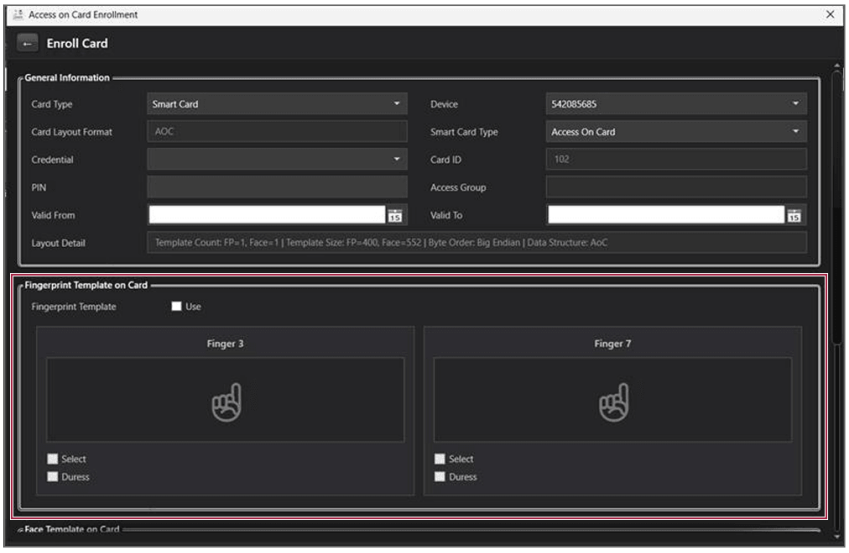
1. In the **Enrolment Credentials** window, click **AoC Enrollment**.



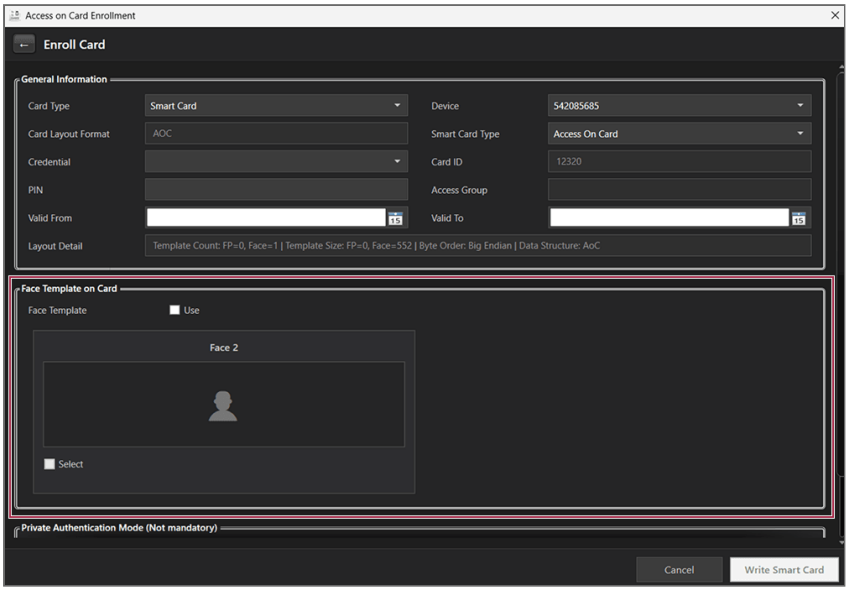
2. When the **Enroll Card** window appears, select Smart Card from the **Card Type** options.



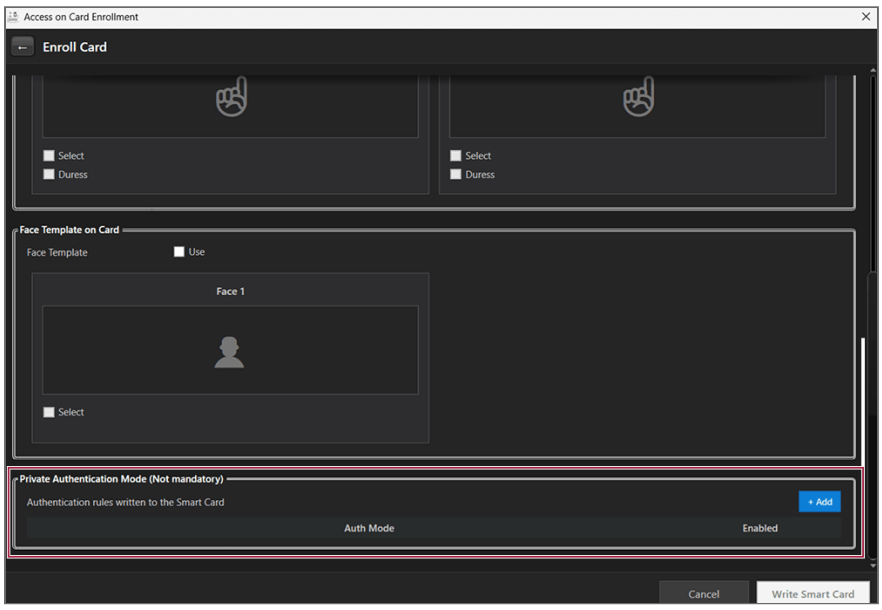
3. Select the device for card enrollment from the **Device** field.
4. Once selected, the card layout format set on the device is displayed in the **Card Layout Format** field.
5. Select **Access On Card** from the **Smart Card Type** options.
6. Select a fingerprint or face template if available. If no template is available, skip this step.
    - **Fingerprint Template on Card**: Check **Use**, then check **Select** for each finger to write. Check **Duress** for a duress fingerprint.



- **Face Template on Card**: Check **Use**, then check *Select* for the face template to write.



7. (Optional) **Private Authentication Mode**: Click **+ Add** to add authentication rules written to the smart card.



8. Click the **Write Smart Card** button.

Info

- The cardholder must have an access rule and biometric data (fingerprint or face) enrolled before an **Access On Card** can be issued.
- **Access On Card** cannot set the card ID manually.
- The **Fingerprint Template on Card** and **Face Template on Card** sections follow the card layout (**Template Count**, **Use Face Template**).

Appendices

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google/uuid

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