BioStar 2.9.2

ADMINISTRATOR GUIDE

English

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suprema

SECURITY & BIOMETRICS

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1 BioStar 2 Overview

BioStar 2 is a web-based access control management system which is OS-independent and can be used anywhere.
BioStar 2 expands its versatility even further with its support for access control and time & attendance module, API, Mobile App, and Device SDK solutions.

License

Versions

Access Control

Items		Details
Device	Max. Device	1,000
	Max. Slave per Master (RS-485)	31 (Up to 8 Fingerprint Devices)
	RS-485 Protocol	OSDP Supported
	Multi-Door Control	Supported
	Device Admin Level	All / User / Config
	Auto Reconnection to Server	Direct & Server mode
	USB Enrollment Device	BioMini, BioMini Plus 2, DUALi DE-620
	Daylight Saving Time	Supported
User	Max. Card per User	8
	Max. Fingerprint per User	10
	Auto User Sync to Device	Supported
	Access-on-Card	Supported
	Secure Credential	Supported
	iCLASS Seos Card	Supported
	Long-term Idle Users Management	Supported
	Custom Fields	Supported
Access Control	Max. Access Level	2,048 (Depends on the device)
	Max. Access Group	2,048 (Depends on the device)
	Max. Access Group per User	16
	Max. Access Level per Access Group	128
	Max. Door per Access Level	128
	Auto Access Group Sync to Device	Supported
	Access Group Report by Door/User/Elevator	Supported
Elevator	Max. Floor per Elevator	192

1 BioStar 2 Overview

Items		Details
(Floor Management)	Max. Floor Level	2,048
	Dual Auth	Supported
	Anti-passback Zone	Supported
	Fire Alarm Zone	Supported
Zone	Max. Zones	100
	Max. Device per Zone	1,000 Global, 32 Local
	Anti-passback	Door APB, Global, Local
	Fire Alarm	Global, Local
	Scheduled Unlock/Lock	Supported (Local)
	Intrusion Alarm	Supported (Local)
	Interlock	Supported (Local)
	Muster	Supported (Global)
	Occupancy Limit	Supported (Global)
Advanced	Dashboard	Supported
	Server Matching	Supported
	Audit Trail	Supported
	Video Log	Supported
	Local API Server	Supported
	BioStar 2 Mobile App	Supported (User, Door, Monitoring, Alarm)
	Mobile Access	Supported

Time Attendance

Items	Details
Number of Shifts	Unlimited
Number of Schedules	Unlimited
Number of User per Schedule	Unlimited
Shift Type	Fixed, Flexible, Floating
Time Card	Supported
Number of Leave per User	Unlimited
Calendar View	Supported

Note

- Check the License for features that your license supports.

License

You can use more features by registering the activation key after purchasing the BioStar 2 license.

For more information on license activation, refer to License.

License for Access Control

Items		Starter (Free)	Basic	Standard	Advanced	Professional	Enterprise
Access Control	Max. User	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
	Max. Device	1,000	1,000	1,000	1,000	1,000	1,000
	Max. Door	5	20	50	100	300	1,000
	Zone	-	-	Supported	Supported	Supported	Supported
	Elevator	-	-	-	Supported	Supported	Supported
	Graphic Map	-	-	-	Supported	Supported	Supported
	Server Matching	-	-	-	Supported	Supported	Supported
	Cloud	-	-	Supported	Supported	Supported	Supported
	Active Directory	-	-	-	Supported	Supported	Supported

Note

- If there is an AC Standard license already in use, it is replaced by an Advance license.

License for Time Attendance

Items	Starter (Free)	Standard	Advanced	Professional
Number of Users	100	500	1,000	Unlimited

Note

- If there is an Time Attendance license already in use, it is replaced by an Professional license.

License for Video

Items	Starter (Free)	Video License
Video Log	-	Supported

License for Visitor

Items	Starter (Free)	Visitor License
Visitor Management	-	Supported

Versions

BioStar 2.9.2

New and improved features

Category	Functionality
Setting	▪ Improved security of login password vulnerabilities for brute-force attack.

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.10.1 or later
- BioStation A2: 1.9.1 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.7.1 or later
- FaceStation 2: 1.5.3 or later
- CoreStation: 1.5.3 or later
- BioEntry P2: 1.4.4 or later
- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.5.0 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.7.0 or later
- FaceLite: 1.3.4 or later
- XPass 2: 1.3.2 or later
- FaceStation F2: 2.1.2 or later
- X-Station 2: 1.2.0 or later
- OM-120: 1.2.1 or later
- Secure I/O 2: 1.3.1 or later

- DM-20: 1.2.2 or later
- IM-120: 1.0.0 or later
- BioStation 3: 1.0.2 or later

BioStar 2.9.1

New and improved features

Category	Functionality
General	▪ Improved main screen ▪ Added features to activate licenses to use specific features of the device
User	▪ Improved security and usability when downloading CSV files
Device	▪ Support 3rd party OSDP devices as a reader for CoreStation

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.10.1 or later
- BioStation A2: 1.9.1 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.7.1 or later
- FaceStation 2: 1.5.3 or later
- CoreStation: 1.5.3 or later
- BioEntry P2: 1.4.4 or later
- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.5.0 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.7.0 or later
- FaceLite: 1.3.4 or later
- XPass 2: 1.3.2 or later
- FaceStation F2: 2.1.2 or later
- X-Station 2: 1.2.0 or later
- OM-120: 1.2.1 or later
- Secure I/O 2: 1.3.1 or later
- DM-20: 1.2.2 or later
- IM-120: 1.0.0 or later
- BioStation 3: 1.0.2 or later

1 BioStar 2 Overview

BioStar 2.9.0

New and improved features

Category	Functionality
General	▪ Adopted Improved Visual Face Algorithm
User	▪ Added Visual Face Import ▪ Added Visual Face Migration ▪ Added User Configuration Partial Update
Device	▪ Supports BioStation 3(BS3-APWB, BS3-DB) ▪ When a sync error occurs because of exceeding the maximum number of users or credentials in the device, the error message explains the reason for the sync error.

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.10.1 or later
- BioStation A2: 1.9.1 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.7.0 or later
- FaceStation 2: 1.5.2 or later
- CoreStation: 1.5.2 or later
- BioEntry P2: 1.4.3 or later
- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.5.0 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.6.0 or later
- FaceLite: 1.3.2 or later
- XPass 2: 1.3.1 or later
- FaceStation F2: 2.0.3 or later
- X-Station 2: 1.1.3 or later
- OM-120: 1.2.1 or later
- Secure I/O 2: 1.3.1 or later
- DM-20: 1.2.2 or later
- IM-120: 1.0.0 or later

1 BioStar 2 Overview

BioStar 2.8.17

New and improved features

Category	Functionality
Time & Attendance	▪ Supports setting the storage period of punch logs ▪ Improved security vulnerabilities

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.10.1 or later
- BioStation A2: 1.9.1 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.6.3 or later
- FaceStation 2: 1.5.1 or later
- CoreStation: 1.5.2 or later
- BioEntry P2: 1.4.3 or later
- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.4.1 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.6.0 or later
- FaceLite: 1.3.2 or later
- XPass 2: 1.2.4 or later
- FaceStation F2: 2.0.3 or later
- X-Station 2: 1.1.3 or later
- OM-120: 1.2.1 or later
- Secure I/O 2: 1.3.1 or later
- DM-20: 1.2.2 or later
- IM-120: 1.0.0 or later

BioStar 2.8.16

New and improved features

1 BioStar 2 Overview

Category	Functionality
General	▪ Added visual face to the dashboard ▪ Added setting.config file initialization logic ▪ Added procedure to accept to collection and use of the privacy when using cloud ▪ Updated German and French resource files
User	▪ Improved the visual face mobile enrollment usability - Improved the user interface of Visual Face Mobile Enrollment page - Added footer to email sending the visual face mobile enrollment link ▪ Added Error_Description column to user list file that failed CSV import ▪ Added Hide Face Credential Preview Image option ▪ Added the Use QR as card option
Device	▪ Improved USB Device Agent security vulnerabilities ▪ Supports setting the byte order for smart cards ▪ Allows connecting X-Station 2 as a slave device of CoreStation
Door	▪ Added relay deactivation option for exit button input ▪ Added 'All Devices' option to dual authentication setting to door
Zone	▪ Improved occupancy limit zone monitoring page
Monitoring	▪ Separated the log related to door unlock - Door Unlocked (Exit Button) - Door Unlocked (By Operator)
Video	▪ Improved security vulnerabilities
Setting	▪ Added option to delete unassigned card ▪ Support to log in to BioStar 2 with Active Directory account

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.10.1 or later
- BioStation A2: 1.9.1 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.6.3 or later
- FaceStation 2: 1.5.1 or later
- CoreStation: 1.5.2 or later
- BioEntry P2: 1.4.3 or later
- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.4.1 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.6.0 or later

- FaceLite: 1.3.2 or later
- XPass 2: 1.2.4 or later
- FaceStation F2: 1.1.4 or later
- X-Station 2: 1.1.3 or later
- OM-120: 1.2.1 or later
- Secure I/O 2: 1.3.1 or later
- DM-20: 1.2.2 or later
- IM-120: 1.0.0 or later

BioStar 2.8.15

New and improved features

Category	Functionality
General	▪ Applied Log4j 2 v2.17.1
Setting	▪ Stabilization of features for automatic user synchronization

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.10.0 or later
- BioStation A2: 1.9.0 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.6.3 or later
- FaceStation 2: 1.5.1 or later
- CoreStation: 1.5.2 or later
- BioEntry P2: 1.4.3 or later
- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.4.1 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.5.0 or later
- FaceLite: 1.3.1 or later
- XPass 2: 1.2.4 or later
- FaceStation F2: 1.1.2 or later
- X-Station 2: 1.1.2 or later
- OM-120: 1.2.1 or later
- Secure I/O 2: 1.3.1 or later

- DM-20: 1.2.2 or later
- IM-120: 1.0.0 or later

BioStar 2.8.14

New and improved features

Category	Functionality
General	▪ Supports OpenJDK ▪ Applied Log4j 2 v2.16.0 ▪ Improved security vulnerabilities ▪ Updated APIs in Swagger ▪ Improved the server performance ▪ Improved the performance of processing data on the database ▪ 26 bit Wiegand card option support for BioStar 1.x to BioStar 2.x Migration Tool
User	▪ Supports PIN enrollment via CSV Import
Device	▪ Supports Input Module (IM-120) ▪ Supports 1:N security level setting for CoreStation ▪ Improved the speed of connecting devices
Door	▪ Changed the default value of held open setting
Access Control	▪ Improved the speed of linking access groups
Monitoring	▪ Improved event log processing performance ▪ Improved the speed of accessing the monitoring menu
Setting	▪ Stabilization of features for automatic user synchronization

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.10.0 or later
- BioStation A2: 1.9.0 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.6.3 or later
- FaceStation 2: 1.5.0 or later
- CoreStation: 1.5.2 or later
- BioEntry P2: 1.4.2 or later

- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.4.1 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.5.0 or later
- FaceLite: 1.3.0 or later
- XPass 2: 1.2.4 or later
- FaceStation F2: 1.1.2 or later
- X-Station 2: 1.1.0 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.1 or later
- IM-120: 1.0.0 or later

BioStar 2.8.13

New and improved features

Category	Functionality
Time & Attendance	▪ Created the T&A report inquiry API ▪ Supports private SSL certificates with a passphrase ▪ Changed the TLS default version to 1.2 ▪ Updated T&A APIs in Swagger ▪ Improved of the T&A report inquiry performance

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.10.0 or later
- BioStation A2: 1.9.0 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.6.3 or later
- FaceStation 2: 1.5.0 or later
- CoreStation: 1.5.1 or later
- BioEntry P2: 1.4.1 or later
- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.4.0 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.5.0 or later

- FaceLite: 1.3.0 or later
- XPass 2: 1.2.3 or later
- FaceStation F2: 1.1.1 or later
- X-Station 2: 1.1.0 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.1 or later

BioStar 2.8.12

New and improved features

Category	Functionality
Device	▪ Supports X-Station 2 Fingerprint model (XS2-ODPB, XS2-OAPB)

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.10.0 or later
- BioStation A2: 1.9.0 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.6.3 or later
- FaceStation 2: 1.5.0 or later
- CoreStation: 1.5.1 or later
- BioEntry P2: 1.4.1 or later
- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.4.0 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.5.0 or later
- FaceLite: 1.3.0 or later
- XPass 2: 1.2.3 or later
- FaceStation F2: 1.1.1 or later
- X-Station 2: 1.0.3 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.1 or later

1 BioStar 2 Overview

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New and improved features

Category	Functionality
General	▪ Updated APIs in Swagger ▪ Updated a Japanese resource file
User	▪ Supports a new credential - QR/Barcode
Device	▪ Supports X-Station 2 (XS2-QDPB, XS2-QAPB, XS2-DPB, XS2-APB)
Zone	▪ Supports Occupancy Limit Zone
Setting	▪ Separated email settings of both Visual Face Mobile Enrollment and QR

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.9.0 or later
- BioStation A2: 1.8.0 or later
- BioStation L2: 1.6.1 or later
- BioEntry W2: 1.6.3 or later
- FaceStation 2: 1.4.2 or later
- CoreStation: 1.5.1 or later
- BioEntry P2: 1.4.1 or later
- BioEntry R2: 1.4.1 or later
- BioLite N2: 1.3.2 or later
- XPass D2: 1.3.2 or later
- XPass D2 (Rev 2): 1.5.0 or later
- FaceLite: 1.2.0 or later
- XPass 2: 1.2.3 or later
- FaceStation F2: 1.0.5 or later
- X-Station 2: 1.0.1 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.1 or later

1 BioStar 2 Overview

BioStar 2.8.10

New and improved features

Category	Functionality
General	▪ Supplementation of New Local API ▪ Updated a German resource file
User	▪ Supports a drag & drop method when registering Visual Face with 'Upload Image' ▪ Provides guidance on success or failure of Visual Face Mobile Enrollment ▪ Supports new Date File Export/Import
Device	▪ Added minimum threshold temperature setting function on the thermal camera ▪ Supports Intelligent Slave ▪ Screen saver option support for FaceStation 2, FaceStation F2
Setting	▪ Improved Email Settings

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.9.0 or later
- BioStation A2: 1.8.0 or later
- BioStation L2: 1.6.0 or later
- BioEntry W2: 1.6.2 or later
- FaceStation 2: 1.4.0 or later
- CoreStation: 1.4.1 or later
- BioEntry P2: 1.4.0 or later
- BioEntry R2: 1.4.0 or later
- BioLite N2: 1.3.2 or later
- XPass D2: 1.3.1 or later
- XPass D2 (Rev 2): 1.4.2 or later
- FaceLite: 1.2.0 or later
- XPass 2: 1.2.2 or later
- FaceStation F2: 1.0.2 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.0 or later

1 BioStar 2 Overview

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New and improved features

Category	Functionality
General	▪ Updated some language resource files
User	▪ Displays user information on the Mobile Access Cards ▪ Provides a guide on the screen when registering Visual Face on the mobile device
Time & Attendance	▪ Improves server synchronization structure
Setting	▪ Stabilization of features for Mobile Access - Supports Dynamic site - Improves a user interface

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.9.0 or later
- BioStation A2: 1.8.0 or later
- BioStation L2: 1.6.0 or later
- BioEntry W2: 1.6.1 or later
- FaceStation 2: 1.4.0 or later
- CoreStation: 1.4.1 or later
- BioEntry P2: 1.4.0 or later
- BioEntry R2: 1.4.0 or later
- BioLite N2: 1.3.2 or later
- XPass D2: 1.3.1 or later
- XPass D2 (Rev 2): 1.4.2 or later
- FaceLite: 1.2.0 or later
- XPass 2: 1.2.2 or later
- FaceStation F2: 1.0.1 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.0 or later

BioStar 2.8.8

1 BioStar 2 Overview

New and improved features

Category	Functionality
General	▪ BioStar 2 performance improvements ▪ Supplementation of New Local API
User	▪ Supports batch registration of Visual Face using CSV import
Device	▪ Stabilization of features for thermal camera
Monitoring	▪ Supports thermal report
Time & Attendance	▪ Fixed bugs of some features in the TIME ATTENDANCE menu
Setting	▪ Email contents improvements ▪ Stabilization of 'Specific Devices' Automatic User Synchronization option

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.9.0 or later
- BioStation A2: 1.7.1 or later
- BioStation L2: 1.6.0 or later
- BioEntry W2: 1.6.0 or later
- FaceStation 2: 1.4.0 or later
- CoreStation: 1.4.1 or later
- BioEntry P2: 1.4.0 or later
- BioEntry R2: 1.4.0 or later
- BioLite N2: 1.3.2 or later
- XPass D2: 1.3.1 or later
- XPass D2 (Rev 2): 1.4.2 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.2.2 or later
- FaceStation F2: 1.0.0 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.0 or later

BioStar 2.8.6

New and improved features

1 BioStar 2 Overview

Category	Functionality
Device	▪ Supports server matching on FaceStation 2 ▪ Supports thermal camera on face recognition devices ▪ Support FaceStation F2 ▪ Support BioEntry W2 (Rev 2)

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.1 or later
- BioStation L2: 1.6.0 or later
- BioEntry W2: 1.5.0 or later
- FaceStation 2: 1.3.1 or later
- CoreStation: 1.4.0 or later
- BioEntry P2: 1.4.0 or later
- BioEntry R2: 1.4.0 or later
- BioLite N2: 1.3.1 or later
- XPass D2: 1.3.1 or later
- XPass D2 (Rev 2): 1.4.1 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.2.1 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.0 or later

BioStar 2.8.5

New and improved features

Category	Functionality
Time & Attendance	▪ Supports Wiegand devices ▪ Improved the Individual Report usability ▪ Supports users to update TA reports

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later

- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.1 or later
- BioStation L2: 1.6.0 or later
- BioEntry W2: 1.5.0 or later
- FaceStation 2: 1.3.1 or later
- CoreStation: 1.4.0 or later
- BioEntry P2: 1.4.0 or later
- BioEntry R2: 1.4.0 or later
- BioLite N2: 1.3.1 or later
- XPass D2: 1.3.1 or later
- XPass D2 (Rev 2): 1.4.1 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.2.1 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.0 or later

BioStar 2.8.4

New and improved features

Category	Functionality
General	▪ Supplementation of New Local API ▪ Improvement of backup and recovery logic for Web-App, CGI server system.conf ▪ Exclusion of TLS V1.1 for improved security ▪ Improved Thrift communication logic log ▪ Improved security vulnerabilities on Redis
User	▪ Improved the logic for issuing mobile access cards ▪ Improved the logic for issuing mobile access cards using the CSV
Setting	▪ Stabilization of features for mobile access cards

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later

- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.1 or later
- BioStation L2: 1.5.1 or later
- BioEntry W2: 1.5.0 or later
- FaceStation 2: 1.3.1 or later
- CoreStation: 1.4.0 or later
- BioEntry P2: 1.4.0 or later
- BioEntry R2: 1.4.0 or later
- BioLite N2: 1.3.1 or later
- XPass D2: 1.3.1 or later
- XPass D2 (Rev 2): 1.4.1 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.2.1 or later
- OM-120: 1.2.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.0 or later

BioStar 2.8.3

New and improved features

Category	Functionality
General	▪ Updated language resource files
Device	▪ Supports FaceStation 2 and FaceLite as a slave of CoreStation ▪ Supports Mobile Access on BioLite N2
Elevator	▪ Improved the scheduled unlock zone function to support elevator
Setting	▪ Supports Zone in the Admin Item Settings of the custom level

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.1 or later
- BioStation L2: 1.5.1 or later
- BioEntry W2: 1.4.1 or later
- FaceStation 2: 1.3.1 or later
- CoreStation: 1.4.0 or later

- BioEntry P2: 1.4.0 or later
- BioEntry R2: 1.4.0 or later
- BioLite N2: 1.3.0 or later
- XPass D2: 1.3.0 or later
- XPass D2 (Rev 2): 1.4.0 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.2.1 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.3.0 or later
- DM-20: 1.2.0 or later

BioStar 2.8.2

New and improved features

Category	Functionality
General	▪ Fixed local file inclusion (LFI) vulnerability

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.1 or later
- BioStation L2: 1.5.1 or later
- BioEntry W2: 1.4.1 or later
- FaceStation 2: 1.3.1 or later
- CoreStation: 1.3.1 or later
- BioEntry P2: 1.3.1 or later
- BioEntry R2: 1.4.0 or later
- BioLite N2: 1.2.0 or later
- XPass D2: 1.3.0 or later
- XPass D2 (Rev 2): 1.4.0 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.2.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.5 or later

1 BioStar 2 Overview

BioStar 2.8.1

New and improved features

Category	Functionality
General	▪ Supports MS SQL Server 2019
Time & Attendance	▪ Move the 'In/Out Only and 'All Punches' options in the Individual Report

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.1 or later
- BioStation L2: 1.5.1 or later
- BioEntry W2: 1.4.1 or later
- FaceStation 2: 1.3.1 or later
- CoreStation: 1.3.1 or later
- BioEntry P2: 1.3.1 or later
- BioEntry R2: 1.4.0 or later
- BioLite N2: 1.2.0 or later
- XPass D2: 1.3.0 or later
- XPass D2 (Rev 2): 1.4.0 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.2.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.5 or later

BioStar 2.8.0

New and improved features

Category	Functionality
General	▪ DB encryption to enhance security on personal information

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.1 or later
- BioStation L2: 1.5.1 or later
- BioEntry W2: 1.4.1 or later
- FaceStation 2: 1.3.0 or later
- CoreStation: 1.3.1 or later
- BioEntry P2: 1.3.1 or later
- BioEntry R2: 1.3.1 or later
- BioLite N2: 1.2.0 or later
- XPass D2: 1.2.0 or later
- XPass D2 (Rev 2): 1.4.0 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.5 or later

BioStar 2.7.14

New and improved features

Category	Functionality
General	▪ Supports Windows Authentication for MS SQL database server connections ▪ Supports MS SQL Server 2017 ▪ Added the Floor Control API to BioStar 2 API Documents
Device	▪ Support XPass D2(Rev 2)
Setting	▪ Enhancement in Mobile Access usage ▪ Stabilization of 'Specific Devices' Automatic User Synchronization option

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later

- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.1 or later
- BioStation L2: 1.5.1 or later
- BioEntry W2: 1.4.1 or later
- FaceStation 2: 1.3.0 or later
- CoreStation: 1.3.1 or later
- BioEntry P2: 1.3.1 or later
- BioEntry R2: 1.3.1 or later
- BioLite N2: 1.2.0 or later
- XPass D2: 1.2.0 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.5 or later

BioStar 2.7.12

New and improved features

Category	Functionality
Time & Attendance	▪ Support to generate TA reports simultaneously on multiple clients
Setting	▪ Added the new Suprema Mobile Access ▪ Stabilized 'Specific Devices' Automatic User Synchronization option

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.0 or later
- BioStation L2: 1.5.1 or later
- BioEntry W2: 1.4.1 or later
- FaceStation 2: 1.3.0 or later
- CoreStation: 1.3.1 or later
- BioEntry P2: 1.3.1 or later
- BioEntry R2: 1.3.1 or later
- BioLite N2: 1.2.0 or later
- XPass D2: 1.2.0 or later

- FaceLite: 1.1.0 or later
- XPass 2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.5 or later

BioStar 2.7.11

New and improved features

Category	Functionality
General	▪ Improved dashboard usability
User	▪ Added User IP item to User Information
Device	▪ Supports the alert sound for 'Input(Event Name Change)' in the <Trigger & Action>
Monitoring	▪ Supports the sorting of lists for the User ID and User Group column of the <Muster Status> page
Setting	▪ Enhances the system security ▪ Added 'Specific Devices(Only devices belonging to the access group)' option to <Automatic User Synchronization>

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.0 or later
- BioStation L2: 1.5.1 or later
- BioEntry W2: 1.4.1 or later
- FaceStation 2: 1.3.0 or later
- CoreStation: 1.3.0 or later
- BioEntry P2: 1.3.1 or later
- BioEntry R2: 1.3.1 or later
- BioLite N2: 1.2.0 or later
- XPass D2: 1.2.0 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.1.0 or later
- OM-120: 1.1.0 or later

- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.5 or later

BioStar 2.7.10

New and improved features

Category	Functionality
Device	▪ Support FaceLite ▪ Support XPass 2
Time & Attendance	▪ Improve the Custom Level ▪ Support to use the custom user field in the T&A report ▪ Supports the sorting for entire data in the T&A report ▪ Added option to select 'First in & Last Out' or 'All in/Out Punches' to search conditions of the individual report
Visitor	▪ Support to the USB fingerprint scanner connection (BioMini, BioMini Plus, BioMini Plus 2)
Setting	▪ Update the resource files of Japanese, Arabic, and Spanish ▪ Add Automatic backup function for Setting.conf file

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.8.0 or later
- BioStation A2: 1.7.0 or later
- BioStation L2: 1.5.0 or later
- BioEntry W2: 1.4.0 or later
- FaceStation 2: 1.3.0 or later
- CoreStation: 1.3.0 or later
- BioEntry P2: 1.3.0 or later
- BioEntry R2: 1.3.0 or later
- BioLite N2: 1.2.0 or later
- XPass D2: 1.2.0 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.0.1 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.5 or later

1 BioStar 2 Overview

BioStar 2.7.8

New and improved features

Category	Functionality
Device	▪ Supports multiple use function of controllers in CoreStation ▪ Supports options for selection by card type ▪ Supports the fingerprint/face duplicate check ▪ Supports Anti-Tailgating ▪ Supports setting options for Wiegand authentication result output
Door	▪ Supports Anti-Tailgating
Visitor	▪ Supports to search option for visitors using fingerprints
Setting	▪ Supports user group synchronization in Active Directory ▪ Supports Anti-Tailgating

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.7.1 or later
- BioStation A2: 1.6.0 or later
- BioStation L2: 1.5.0 or later
- BioEntry W2: 1.4.0 or later
- FaceStation 2: 1.2.1 or later
- CoreStation: 1.3.0 or later
- BioEntry P2: 1.3.0 or later
- BioEntry R2: 1.3.0 or later
- BioLite N2: 1.1.0 or later
- XPass D2: 1.2.0 or later
- FaceLite: 1.0.0 or later
- XPass 2: 1.0.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.4 or later

1 BioStar 2 Overview

BioStar 2.7.7

New and improved features

Category	Functionality
General	▪ Change the license policy
Visitor	▪ Add the VISITOR menu
Setting	▪ Add the settings for visitor management

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.7.1 or later
- BioStation A2: 1.6.0 or later
- BioStation L2: 1.4.0 or later
- BioEntry W2: 1.3.0 or later
- FaceStation 2: 1.2.1 or later
- CoreStation: 1.2.0 or later
- BioEntry P2: 1.2.0 or later
- BioEntry R2: 1.2.0 or later
- BioLite N2: 1.1.0 or later
- XPass D2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.4 or later

BioStar 2.7.6

New and improved features

Category	Functionality
General	▪ Add BioStar 1.x to BioStar 2.x Migration Tool
Monitoring	▪ Support to the Clear APB for each user
Setting	▪ Add the event items to IMAGE LOG menu ▪ Add the encryption option to Active Directory menu ▪ Supports that the administrator can change the port 9000 in FastCGI of

Category	Functionality
	Port menu

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.7.1 or later
- BioStation A2: 1.6.0 or later
- BioStation L2: 1.4.0 or later
- BioEntry W2: 1.3.0 or later
- FaceStation 2: 1.2.1 or later
- CoreStation: 1.2.0 or later
- BioEntry P2: 1.2.0 or later
- BioEntry R2: 1.2.0 or later
- BioLite N2: 1.1.0 or later
- XPass D2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.4 or later

BioStar 2.7.5

New and improved features

Category	Functionality
User	▪ Support to the list sorting for group and status column
Device	▪ Support to the list sorting for RS-485 column ▪ Remove the unsupported AoC events ▪ Added an Ambient Brightness option to the FaceStation 2 slave device
Door	▪ Support to the list sorting for group column
Video	▪ Remove the unsupported AoC events
Setting	▪ Add the Active Directory menu ▪ Supports that the administrator can change the port 9000 in setting.conf ▪ Remove the unsupported AoC events

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.7.1 or later
- BioStation A2: 1.6.0 or later
- BioStation L2: 1.4.0 or later
- BioEntry W2: 1.3.0 or later
- FaceStation 2: 1.2.1 or later
- CoreStation: 1.2.0 or later
- BioEntry P2: 1.2.0 or later
- BioEntry R2: 1.2.0 or later
- BioLite N2: 1.1.0 or later
- XPass D2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.4 or later

BioStar 2.7.4

New and improved features

Category	Functionality
Device	▪ Support for Quick Enrollment for FaceStation 2 (FaceStation 2 FW V1.2.2 or later)
Setting	▪ Limits the use of passwords that contain the same string, consecutive string, and login ID ▪ Limits reuse of the same password ▪ Support to Spanish and Arabic ▪ Expanding the number of custom levels to unlimited

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.7.1 or later
- BioStation A2: 1.6.0 or later
- BioStation L2: 1.4.0 or later

- BioEntry W2: 1.3.0 or later
- FaceStation 2: 1.2.1 or later
- CoreStation: 1.2.0 or later
- BioEntry P2: 1.2.0 or later
- BioEntry R2: 1.2.0 or later
- BioLite N2: 1.1.0 or later
- XPass D2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.4 or later

BioStar 2.7.3

New and improved features

Category	Functionality
Device	▪ Increase the number of administrators that can be added per device ▪ Change the way new settings are applied when adding administrators using batch edit of devices
Setting	▪ Support for reconnection of devices configured as a port forwarding

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.7.0 or later
- BioStation A2: 1.6.0 or later
- BioStation L2: 1.4.0 or later
- BioEntry W2: 1.3.0 or later
- FaceStation 2: 1.2.0 or later
- CoreStation: 1.2.0 or later
- BioEntry P2: 1.2.0 or later
- BioEntry R2: 1.2.0 or later
- BioLite N2: 1.1.0 or later
- XPass D2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.4 or later

1 BioStar 2 Overview

BioStar 2.7.2

New and improved features

Category	Functionality
Monitoring	▪ Support to Live Video View on Graphic Map ▪ Support to viewing Anti-passback Zone and Fire Alarm Zone on Graphic Map
Time & Attendance	▪ Supports <Allowed a day before/after time> setting for working 24 hours or longer
Setting	▪ Add the Security menu ▪ Change Password Level options ▪ Support to the setting for Maximum Password Age and Maximum Password Change Limit ▪ Support to the setting options for password failures at login ▪ Support to the Storage Path Settings for image logs

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.7.0 or later
- BioStation A2: 1.6.0 or later
- BioStation L2: 1.4.0 or later
- BioEntry W2: 1.3.0 or later
- FaceStation 2: 1.2.0 or later
- CoreStation: 1.2.0 or later
- BioEntry P2: 1.2.0 or later
- BioEntry R2: 1.2.0 or later
- BioLite N2: 1.1.0 or later
- XPass D2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.4 or later

BioStar 2.7.1

1 BioStar 2 Overview

New and improved features

Category	Functionality
Device	▪ Support to Input(Event Name Change) in Trigger & Action ▪ Support to the OM-120 Relay time setting value from 1 second
User	▪ Support for deleting users stored on the device
Monitoring	▪ Provides the log about whether a user has been updated on the device or the server
Setting	▪ Supports synchronization of all devices connected to the server when users update the device ▪ Adds root password verification procedures during installation and upgrade

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.7.0 or later
- BioStation A2: 1.6.0 or later
- BioStation L2: 1.4.0 or later
- BioEntry W2: 1.3.0 or later
- FaceStation 2: 1.2.0 or later
- CoreStation: 1.2.0 or later
- BioEntry P2: 1.2.0 or later
- BioEntry R2: 1.2.0 or later
- BioLite N2: 1.1.0 or later
- XPass D2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.4 or later

BioStar 2.7.0

New and improved features

Category	Functionality
Device	▪ Support to the number of users, fingerprints, faces, and cards in Manage Users in Device

Category	Functionality
Access Control	▪ Support for a larger number of access groups and access groups
Monitoring	▪ Support to Graphic Map
Time & Attendance	▪ Support to Working alarm time report ▪ Improve the process for generating the time card ▪ Support to the separator option in CSV export ▪ Support to Floating shift ▪ Support to Fixed option in Meal deduction and Break Time ▪ Support to Weekend days setting option in Schedule Template
Setting	▪ Support to Custom Account Level in T&A ▪ Support to AES encryption type for DESFire card ▪ Support to DESFire Advanced option

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.7.0 or later
- BioStation A2: 1.6.0 or later
- BioStation L2: 1.4.0 or later
- BioEntry W2: 1.3.0 or later
- FaceStation 2: 1.2.0 or later
- CoreStation: 1.2.0 or later
- BioEntry P2: 1.2.0 or later
- BioEntry R2: 1.2.0 or later
- BioLite N2: 1.1.0 or later
- XPass D2: 1.1.0 or later
- OM-120: 1.1.0 or later
- Secure I/O 2: 1.2.4 or later
- DM-20: 1.1.4 or later

BioStar 2.6.4

New and improved features

Category	Functionality
Setting	▪ Support to set the same action for different triggers

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.4 or later
- BioEntry W: 2.3.4 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.6.2 or later
- BioStation A2: 1.5.1 or later
- BioStation L2: 1.3.2 or later
- BioEntry W2: 1.2.3 or later
- FaceStation 2: 1.1.1 or later
- CoreStation: 1.1.2 or later
- BioEntry P2: 1.1.2 or later
- BioEntry R2: 1.1.1 or later
- BioLite N2: 1.0.2 or later
- XPass D2: 1.0.2 or later
- OM-120: 1.0.0 or later
- Secure I/O 2: 1.2.1 or later
- DM-20: 1.1.2 or later

BioStar 2.6.3

New and improved features

Category	Functionality
Setting	▪ Support Admin Item Settings when configuring Custom Account Level

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.3 or later
- BioEntry W: 2.3.3 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.6.1 or later
- BioStation A2: 1.5.1 or later
- BioStation L2: 1.3.1 or later
- BioEntry W2: 1.2.1 or later
- FaceStation 2: 1.1.1 or later
- CoreStation: 1.1.1 or later
- BioEntry P2: 1.1.1 or later
- BioEntry R2: 1.1.0 or later

- BioLite N2: 1.0.2 or later
- XPass D2: 1.0.1 or later
- OM-120: 1.0.0 or later
- Secure I/O 2: 1.2.1 or later
- DM-20: 1.1.2 or later

BioStar 2.6.2

New and improved features

Category	Functionality
User	▪ Support the user information export/import by using the external storage (USB)
Video	▪ Support the real-time video monitoring
Monitoring	▪ Support the event log import by using the external storage (USB)

Compatible firmware

- BioLite Net: 2.3.5 or later
- BioEntry Plus: 2.3.3 or later
- BioEntry W: 2.3.3 or later
- Xpass: 2.4.4 or later
- Xpass S2: 2.4.4 or later
- BioStation 2: 1.6.1 or later
- BioStation A2: 1.5.1 or later
- BioStation L2: 1.3.1 or later
- BioEntry W2: 1.2.1 or later
- FaceStation 2: 1.1.1 or later
- CoreStation: 1.1.1 or later
- BioEntry P2: 1.1.1 or later
- BioEntry R2: 1.1.0 or later
- BioLite N2: 1.0.2 or later
- XPass D2: 1.0.1 or later
- OM-120: 1.0.0 or later
- Secure I/O 2: 1.2.1 or later
- DM-20: 1.1.2 or later

BioStar 2.6.0

1 BioStar 2 Overview

New and improved features

Category	Functionality
General	▪ Support the Daylight Saving Time(DST) ▪ Support the database encryption key management ▪ Support the system ports setting ▪ Support the system logs management ▪ Firmware upgrade notifications supported ▪ Change the license policy
User & Card	▪ Support for the auto-Increase User IDs ▪ Support the iCLASS Seos card setting ▪ Support the hexadecimal values for the primary and secondary site keys on the smart card ▪ Wiegand card search supported from the Unassigned card menu ▪ Support for automatic deletion of user information when issuing an AoC card ▪ Wiegand Legacy Mode Support ▪ Blacklist card deletion support
Device	▪ Support BioLite N2 ▪ Support XPass D2 ▪ Support BioMini Plus 2 ▪ Support the user information and log deletion when a tamper event occurs (secure tamper) ▪ Device reset excluding network settings ▪ Wiegand In/Out Support
Zone	▪ Support the interlock zone ▪ Support the muster zone
Video	▪ Support MS SQL for Video log ▪ Support the video file storage management
Monitoring	▪ Add door column to event log list

Compatible firmware

- BioLite Net: 2.3.3 or later
- BioEntry Plus: 2.3.3 or later
- BioEntry W: 2.3.3 or later
- Xpass: 2.4.3 or later
- Xpass S2: 2.4.3 or later
- BioStation 2: 1.6.0 or later
- BioStation A2: 1.5.0 or later
- BioStation L2: 1.3.0 or later
- BioEntry W2: 1.2.0 or later
- FaceStation 2: 1.1.0 or later
- CoreStation: 1.1.0 or later

- BioEntry P2: 1.1.0 or later
- BioEntry R2: 1.1.0 or later
- BioLite N2: 1.0.0 or later
- XPass D2: 1.0.0 or later
- OM-120: 1.0.0 or later
- Secure I/O 2: 1.2.1 or later
- DM-20: 1.1.2 or later

BioStar 2.5.0

New and improved features

Category	Functionality
General	▪ Setting https as the default communication protocol ▪ Oracle Database not supported
Device	▪ Supports CoreStation ▪ Supports BioEntry P2 ▪ Supports BioEntry R2 ▪ Supports the enrollment of a fingerprint from the slave device(BioLite Net does not support this feature)
Zone	▪ Supports Intrusion Alarm zone (Local)
Monitoring	▪ Event Log, Real-time Log: T&A Key column added ▪ Event Log: Supports the period setting ▪ Supports video log
Video	▪ Supports NVRs (ACTi, Dahua, Hikvision) ▪ Supports IP cameras
Setting	▪ Alert: Network disconnection detection alert added ▪ Supports Audit Trail

Compatible firmware

- BioLite Net: 2.3.3 or later
- BioEntry Plus: 2.3.3 or later
- BioEntry W: 2.3.3 or later
- Xpass: 2.4.3 or later
- Xpass S2: 2.4.3 or later
- BioStation 2: 1.5.0 or later
- BioStation A2: 1.4.0 or later
- BioStation L2: 1.2.3 or later
- BioEntry W2: 1.1.4 or later
- FaceStation 2: 1.0.3 or later

- CoreStation: 1.0.0 or later
- BioEntry P2: 1.0.0 or later
- BioEntry R2: 1.0.0 or later

BioStar 2.4.1

New and improved features

Category	Functionality
General	▪ Supports Mobile Card (NFC, BLE)
Device	▪ Supports FaceStation 2
Time & Attendance	▪ Enhanced UI/UX ▪ Merge the time card with T&A report ▪ Display of daily T&A records ▪ Time rate setting is excluded from the time code for leave management. ▪ Break time is displayed on the time slot when fixed work is used. ▪ It is possible to set the Min. Duration and Punch in Time Limit when flexible work is used.
Setting	▪ Supports Face Group Matching

Compatible firmware

- BioLite Net: 2.4.0 or later
- BioEntry Plus: 2.4.0 or later
- BioEntry W: 2.4.0 or later
- Xpass: 2.4.1 or later
- Xpass S2: 2.4.0 or later
- BioStation 2: 1.4.0 or later
- BioStation A2: 1.3.0 or later
- BioStation L2: 1.2.2 or later
- BioEntry W2: 1.1.2 or later
- FaceStation 2: 1.0.0 or later

BioStar 2.4.0

New and improved features

Category	Functionality
General	▪ Supports elevator management ▪ Supporting Oracle Database 11g, 12c

Device	▪ Supports OM-120 ▪ Supports card USB device (DUALi DE-620) ▪ Supports secure communication between BioStar 2 and a device
Time & Attendance	▪ Supports time & attendance report PDF export
Setting	▪ Change of detailed custom permission setting ▪ Supports user ID type setting (numbers/alphanumeric characters) ▪ Supports dd/mm/yyyy date format

Compatible firmware

- BioLite Net: 2.4.0 or later
- BioEntry Plus: 2.4.0 or later
- BioEntry W: 2.4.0 or later
- Xpass: 2.4.0 or later
- Xpass S2: 2.4.0 or later
- BioStation 2: 1.4.0 or later
- BioStation A2: 1.3.0 or later
- BioStation L2: 1.2.2 or later
- BioEntry W2: 1.1.2 or later

BioStar 2.3.0

New and improved features

Category	Functionality
General	▪ Supporting a low-resolution monitor ▪ Improvement in list page move
User	▪ Improvement importing/exporting CSV files
Device	▪ Supporting BioStation A2 video phone (SIP based) ▪ Supporting the batch editing the device manager ▪ Supporting an additional information display of a device firmware
Door	▪ Supporting an automatic door setting
Setting	▪ Supporting Wiegand card's facility code setting ▪ Supporting the batch editing the Wiegand card data format ▪ Supporting BioStar 2 alert sound's upload and setting (.wav, .mp3) ▪ Supporting the custom account level (up to 32)

Compatible firmware

- BioLite Net: 2.3.0 or later
- BioEntry Plus: 2.3.0 or later

- BioEntry W: 2.3.0 or later
- Xpass: 2.3.0 or later
- Xpass S2: 2.3.0 or later
- BioStation 2: 1.3.0 or later
- BioStation A2: 1.2.0 or later
- BioStation L2: 1.1.0 or later
- BioEntry W2: 1.0.0 or later

BioStar 2.2.2

New and improved features

- BioEntry W2 support

Compatible firmware

- BioLite Net: 2.2.3 or later
- BioEntry Plus: 2.2.3 or later
- BioEntry W: 2.2.3 or later
- Xpass: 2.2.3 or later
- Xpass S2: 2.2.3 or later
- BioStation 2: 1.3.0 or later
- BioStation A2: 1.1.0 or later
- BioStation L2: 1.0.0 or later
- BioEntry W2: 1.0.0 or later

BioStar 2.2.1

New and improved features

- BioStation L2 support
- Long-term idle user management
- Access control privilege management per user
- Automatic database backup
- Enrollment device management
- Custom user fields

Compatible firmware

- BioLite Net: 2.2.3 or later
- BioEntry Plus: 2.2.3 or later
- BioEntry W: 2.2.3 or later
- Xpass: 2.2.3 or later

- Xpass S2: 2.2.3 or later
- BioStation 2: 1.3.0 or later
- BioStation A2: 1.1.0 or later
- BioStation L2: 1.0.0 or later

BioStar 2.2.0

New and improved features

- BioStation A2 support
- Access On Card
- Secure Credential Card
- Global Anti-passback zone
- Image Log

Compatible firmware

- BioLite Net: 2.2.3 or later
- BioEntry Plus: 2.2.3 or later
- BioEntry W: 2.2.3 or later
- Xpass: 2.2.3 or later
- Xpass S2: 2.2.3 or later
- BioStation 2: 1.2.0 or later
- BioStation A2: 1.0.0 or later

BioStar 2.1.0

New and improved features

- BioStar API
- DM-20 support
- Global Anti-passback zone / Local Fire Alarm zone / Local Anti-passback zone
- More secure login password
- License management
- BioStar 2 Cloud support
- BioStar 2 Mobile support
- Zone status monitoring

Compatible firmware

- BioLite Net: 2.0.4 or later
- BioEntry Plus: 2.0.4 or later
- BioEntry W: 2.0.4 or later

- Xpass: 2.0.4 or later
- Xpass S2: 2.0.4 or later
- BioStation 2: 1.0.1 or later

BioStar 2.0.1

New and improved features

- BioStation 2 support
- Wireless LAN configuration
- T&A configuration
- Interphone configuration
- Display and sound configuration
- CSV import and export
- Multi-language resource support
- Memory optimization of BioStar 2 server

Compatible firmware

- BioLite Net: 2.0.0 or later
- BioEntry Plus: 2.0.0 or later
- BioEntry W: 2.0.0 or later
- Xpass: 2.0.0 or later
- Xpass S2: 2.0.0 or later

Before using BioStar 2 to implement an access control system, the BioStar 2 server must be installed on the administrator PC.
The BioStar 2 server receives event logs, user information, etc. from connected devices and stores them.

BioStar 2 can be installed easily. Before installation, please check the Minimum System Requirements.
The BioStar 2 installation file can be found on the Suprema's home page(https://www.supremainc.com).

Minimum System Requirements

Installing BioStar 2

Minimum System Requirements

Item		Small	Medium	Enterprise
Environment	Total	1 to 50	51 to 100	101 to 1,000

Item		Small	Medium	Enterprise
	Devices			
System requirement (Server)	OS	Windows 7(SP1 or higher), Windows 8, Windows 8.1, Windows 10, Windows 11, Windows Server 2008 R2(SP2 or higher), Windows Server 2012, Windows Server 2012 R2, Windows Server 2016, Windows Server 2019, Windows Server 2022 ▪ Windows virtual environments on Mac Boot Camp are not supported.		
	Database	MariaDB 10.1.10, MS SQL Server 2012, MS SQL Server 2014 SP2, MS SQL Server 2016 SP1, MS SQL Server 2017, MS SQL Server 2019		
	CPU	2 GHz Dual Core	4 GHz Quad Core	4 GHz 16 Core
	RAM	8 GB	16 GB	32 GB
	SSD	512 GB	1 TB	1 TB
System requirement (Client)	CPU	1 GHz	1 GHz	1 GHz
	RAM	4 GB	4 GB	4 GB
	Web Browser	Google Chrome 75 or later		

BioStar 2 Video Extension

Item	Minimum	Recommended
CPU	4 GHz Quad Core	4 GHz Quad Core
RAM	8 GB	16 GB
HDD	2 TB	4 TB

Note

- For the best performance, use only the 64-bit operating system.
- BioStar 2 is optimized for Google Chrome.
- To use the Video menu, use the 64bits MariaDB or MS SQL database.
- BioStar 2 supports Windows 7, but Microsoft's technical support for Windows 7 has ended. Be aware of the OS selection when installing the system.
- If you are using Windows 8.1 or Windows Server 2012 R2, install the KB2919355 update by referring to the following web page.
  https://support.microsoft.com/en-us/help/2919355/windows-rt-8-1--windows-8-1--and-windows-server-2012-r2-update-april-2
- If MS SQL Server and BioStar 2 are installed on different PCs, you should install the Native Client on a PC with BioStar 2 installed.

https://www.microsoft.com/en-us/download/details.aspx?id=50402

- Oracle Database is no longer supported. For details, please contact the Suprema Technical Support.

Installing BioStar 2

BioStar 2 supports a 32-bit operating system and a 64-bit operating system. Check the system type of your PC where BioStar 2 is to be installed and carry out its installation accordingly.

Note

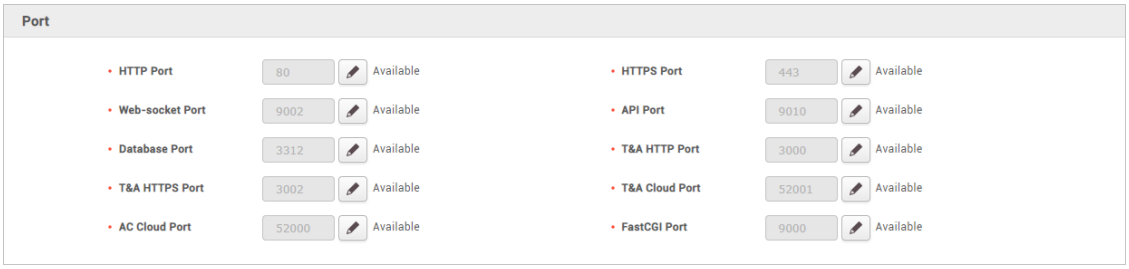
- Do not install BioStar 2 on a PC where BioStar 1 is installed. This may cause performance problems.
- If BioStar 2.3.0 is installed on top of a BioStar 2.2.1 or 2.2.2 installation, all information stored in the SQLite database is migrated to a new MariaDB database.
- Upgrading directly from the existing version to the latest version is possible from BioStar 2.6.0 or higher. If the installed version is lower than 2.6.0, installing all versions in a correct sequence until reaching version v2.6.0 is essential.

Current Version	Upgrade Path
2	2.2.1 > 2.3 > 2.4 > 2.4.1 > 2.5.0 > 2.6.4 > Latest Version
2.2 2.2.1 2.2.2	2.3 > 2.4 > 2.4.1 > 2.5.0 > 2.6.4 > Latest Version
2.3	2.4 > 2.4.1 > 2.5.0 > 2.6.4 > Latest Version
2.4	2.4.1 > 2.5.0 > 2.6.4 > Latest Version
2.5 2.6	2.6.4 > Latest Version
2.6.4 or higher	Latest Version

- If you are using Windows 8.1 or Windows Server 2012 R2, install the KB2919355 update by referring to the following web page.
  https://support.microsoft.com/en-us/help/2919355/windows-rt-8-1--windows-8-1--and-windows-server-2012-r2-update-april-2
- If you are using MS SQL 2014 Express, install the Service Pack 2 by referring to the following web page.
  https://www.microsoft.com/en-us/download/details.aspx?id=53168
- If MS SQL Server and BioStar 2 are installed on different PCs, you should install the Native Client on a PC with BioStar 2 installed.
  https://www.microsoft.com/en-us/download/details.aspx?id=50402
- If you are using MS SQL Server, set the Collation option of the server and each table to CI

(Case-insensitive).

- When backing up a database from an older version of BioStar 2, disable all services and procedures. Furthermore, if you do not back up and restore the AC database and the TA database together, you will not be able to use the TA database.
- If you want to back up the database of BioStar 2, be sure to also back up the enckey in the ₩Program Files₩BioStar 2 (x64)₩util folder and the system.conf and setting.conf file in the ₩Program Files₩BioStar 2(x64) folder. Otherwise, the database will be unavailable.
- The default values for the ports used by BioStar 2 are as follows. If another program occupies the same port, BioStar 2 may not work properly.



If you use a database configured by the user directly, check the following items before installing BioStar 2.

MariaDB

- Open the my.cnf file and then change some configurations under [mysqld] as shown below.

```
character-set-server=utf8
collation-server=utf8_unicode_ci
max_connections = 600
```

- Open the my.cnf file and then add some configurations under [mysqld] as shown below.

```
log_bin_trust_function_creators = 1
group_concat_max_len = 102400
```

- Access MariaDB with the root permission and execute the following command.

```
> GRANT SUPER ON . TO user_id@'localhost' IDENTIFIED BY "passwo
> GRANT SUPER ON . TO user_id@'%' IDENTIFIED BY "password";
```

MS SQL Server

Note

- All database and tables should set the Collation as CI(case-insensitive).

Setting the port

a) Run SQL Server Configuration Manager and set TCP/IP Protocol for Protocols for SQLEXPRESS to the desired port number.
b) Restart SQL Server Services to apply the settings.

Creating the user and database

a) Log in to the sa account using SQL Server Authentication in SQL Server Management Studio.
b) Right-click on Security and click New Login.
c) Enter the desired name in the Login Name field and select SQL Server Authentication.
d) Enter the desired password in the Password and Confirm password field, and then uncheck the Enforce password policy.
e) Click OK to save the settings.
f) Right-click on Database and click New Database.
g) Enter the desired name in the Database Name field.
h) Enter the login name in the Owner field. Use the login name set in step c).
i) In the Database Files section, we recommend that set the Initial Size (MB) to 3000 and set the Autogrowth/Maxsize to By 10 MB, Unlimited.

Setting the Windows Authentication database

1. Presetting

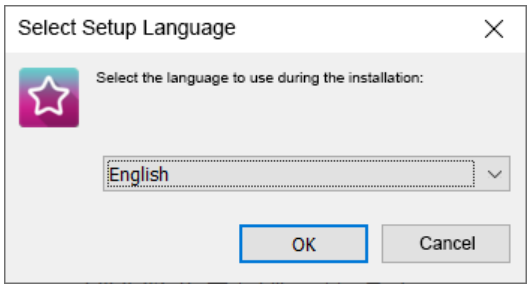
If you are using Microsoft Windows Active Directory, complete the presets as below before setting up the Windows Authentication database.

a) Log in to SQL Server Management Studio with an administrator account.
b) Right-click on Security and click New Login.
c) Select Windows Authentication and click Search.
d) In the Select a user or group window, click Location, then select the Active Directory path and click OK.
e) Enter the user name in the object name field, then click Check Names > OK.
f) Click Server Roles in the Select a page.
g) Select sysadmin and click OK.
h) Click User Mapping in the Select a page.
i) Select ac, master, ta, ve and set the Default Schema to dbo.
j) Click OK to save the settings.

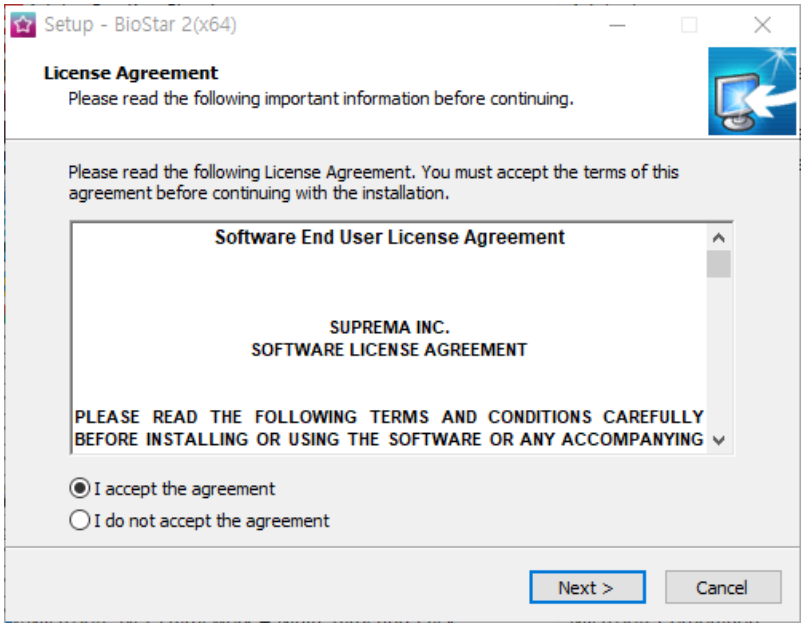
2. Setting the database

a) Run SQL Server Configuration Manager and click Client Protocol under SQL Native Client Configuration.
b) Select TCP/IP and check the default port.
c) Click Protocols for SQLEXPRESS under SQL Server Network Configuration.
d) Make sure that the ODBC port is set to the same as the default port in TCP/IP.
e) Log in to SQL Server Management Studio by an administrator account.
f) Click Security> Logins and then double-click NT AUTHORITY ₩SYSTEM.
g) Click Server Roles in the Select a page.
h) Select public, sysadmin, and then click OK.
i) Click User Mapping in the Select a page.
j) Select the ac, master, ta, and ve databases and click OK to save.

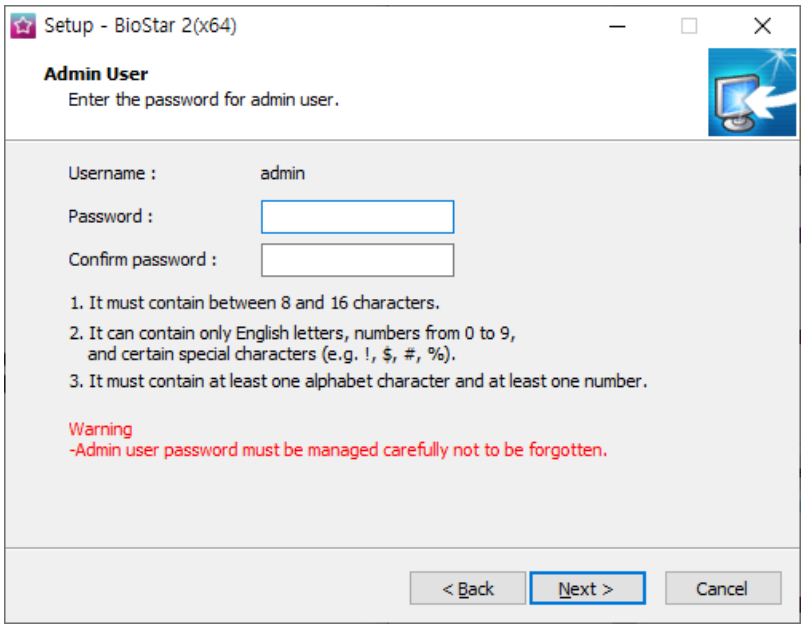
1) Double-click the downloaded setup program. (ex. 'BioStar 2 Setup.x.x.x.xxx.exe')
2) Select a language and click OK.



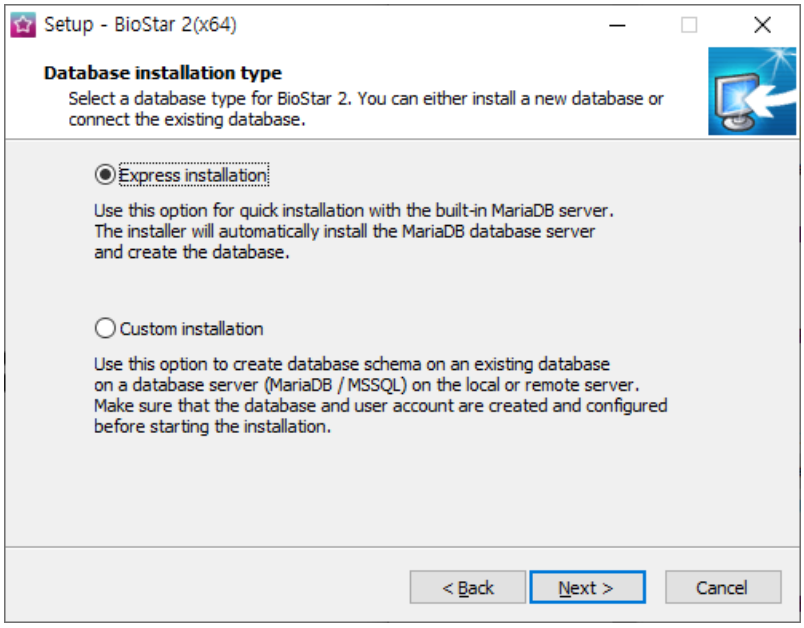
3) To continue the installation, select I accept the agreement and click Next.



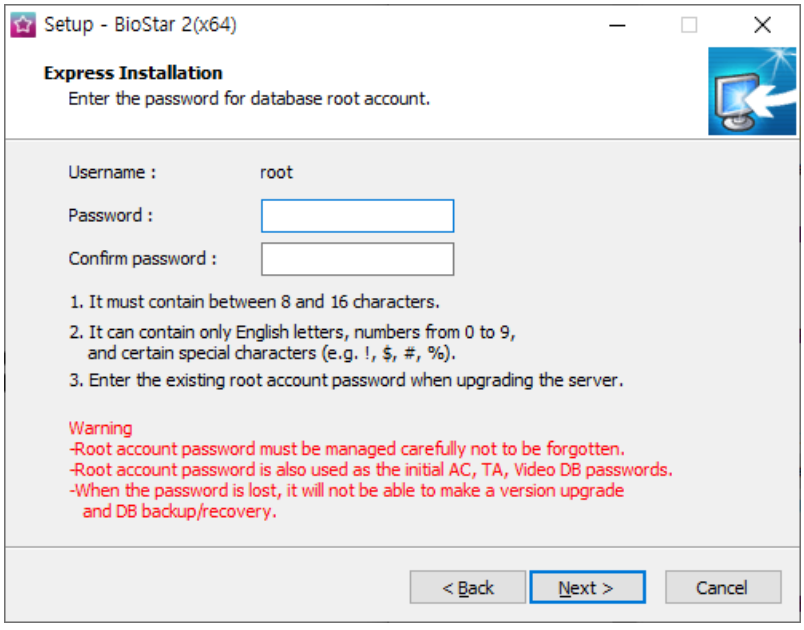
4) Enter the password for admin account and click Next. The password set in this step will be used when you log in to BioStar 2.

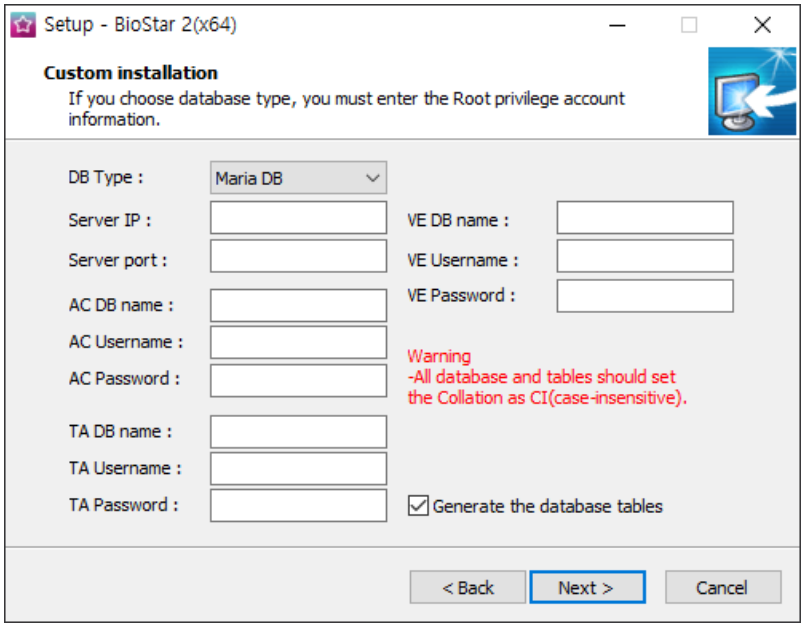


5) Install the database to be used in BioStar 2. You can install a new MariaDB or connect it to the already-installed MariaDB. Installing BioStar 2 for the first time, please select Express Installation and click Next.



6) If Express Installation has been selected from Database Installation Type, enter the database manager's account password and click Next. If Custom Installation has been selected from Database Installation Type, enter the detailed information on the already-configured database and click Next.



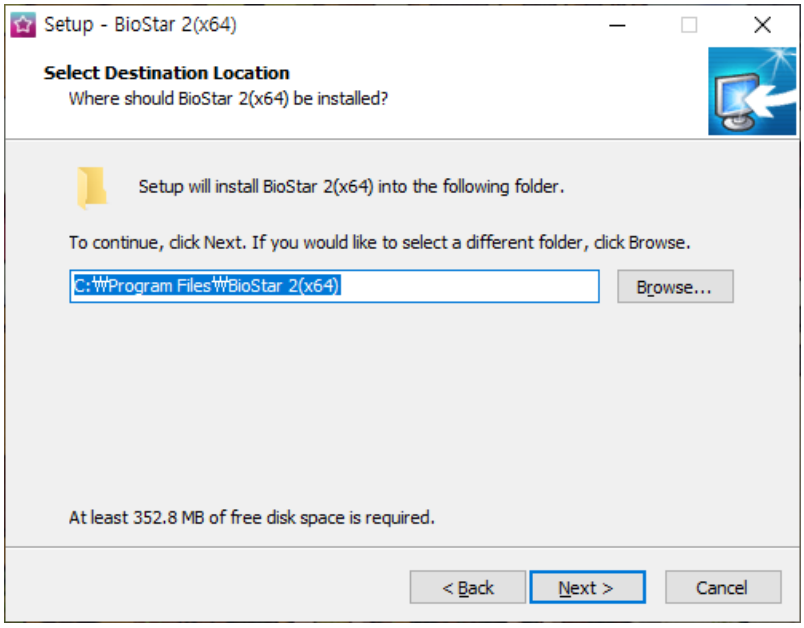


Note

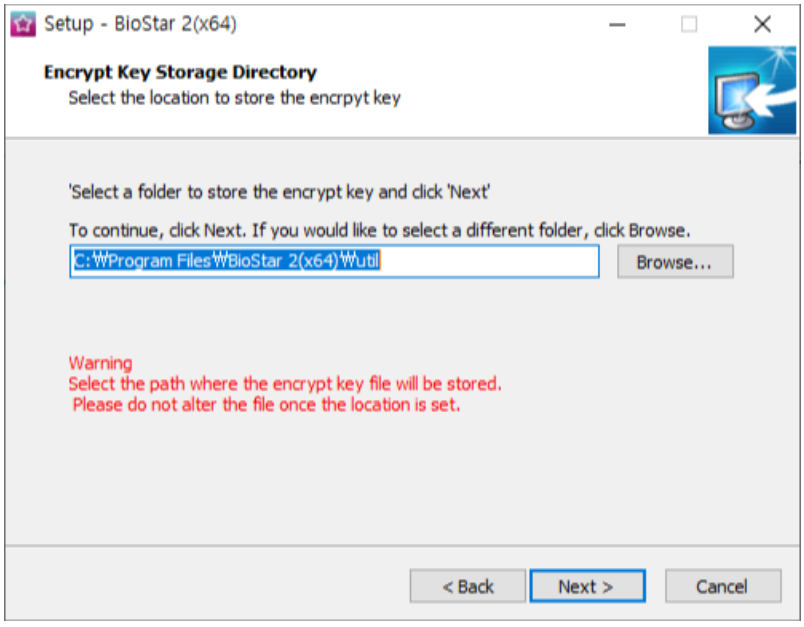
- BioStar 2 supports the following databases.
  - MariaDB 10.1.10
  - MS SQL Server 2012
  - MS SQL Server 2014 SP2
  - MS SQL Server 2016 SP1
  - MS SQL Server 2017
  - MS SQL Server 2019
- If the database table creation fails when MS SQL Server is set as the Database Type, you can create the table by executing the script in C:₩Program Files₩BioStar 2 (x64)₩dbscript ₩mssql folder.
- When installing with custom settings, AC DB name, TA DB name, and VE DB name cannot be set the same.

7) Click Next after setting a path for BioStar 2 to be installed.

2 Installation



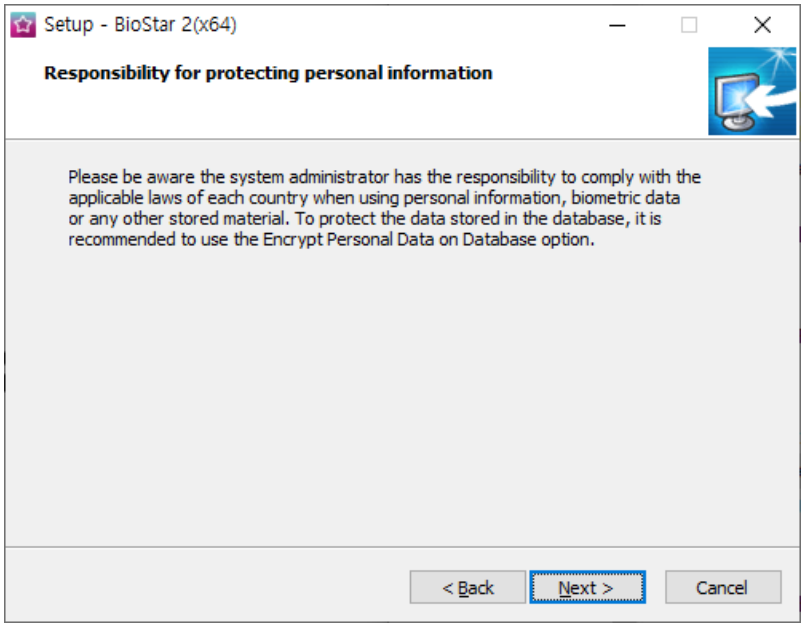
8) Click Next after setting a path for the encryption key to be stored.



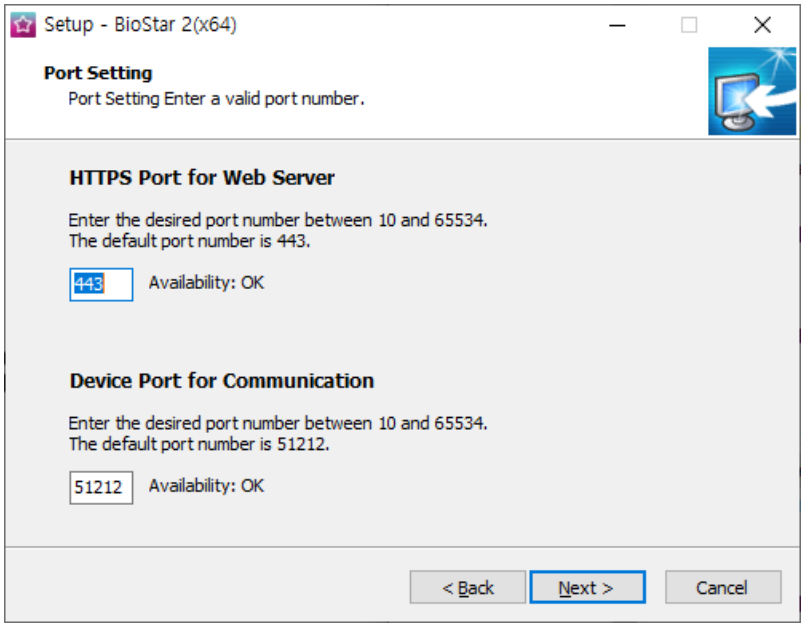
Note

- You can set a path for the encryption key to be stored. However, if the encryption key file is modified or moved after selecting the path, a system error may occur.
- If you delete BioStar 2, the encryption key files will be deleted.

9) Read the instructions on the responsibility for protecting personal information stored in the database and click Next to continue the installation.



10) Enter the port number and click Next.

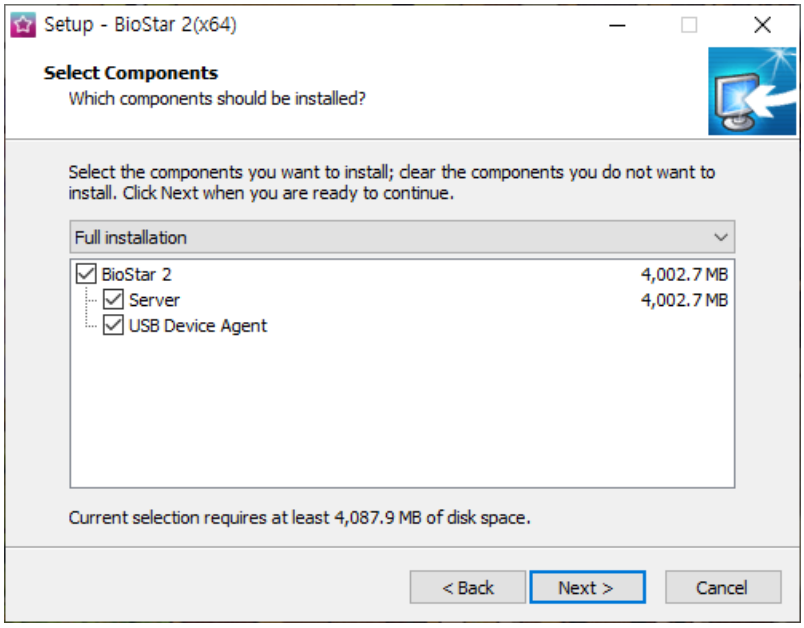


Note

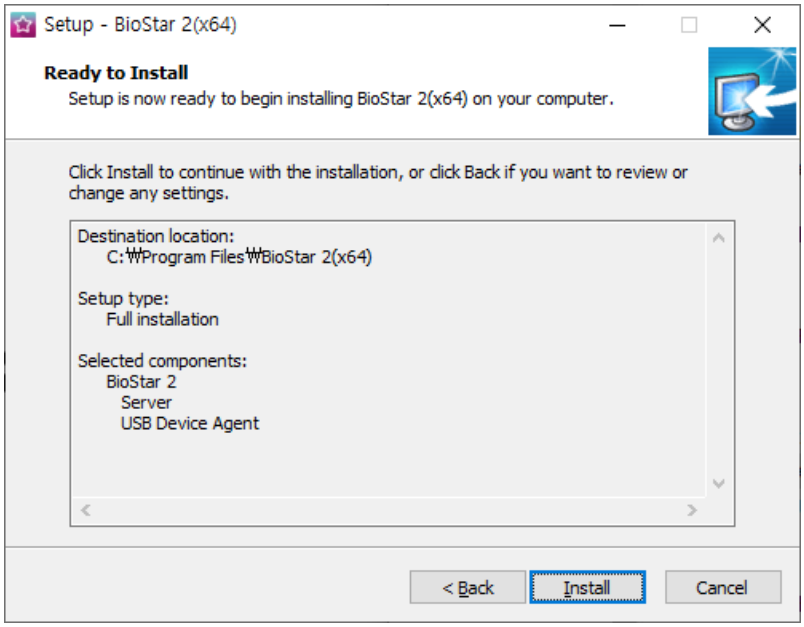
- When you install BioStar 2 on a PC where BioStar 1 is installed, the device port (51212) is not available. In this case, we recommend that uninstall BioStar 1.

9) Select a component of BioStar 2 and click Next. If you select USB Device Agent, a USB-Agent and a driver for using BioMini, BIoMini Plus 2, and DUALi DE-620 will be installed together.

2 Installation

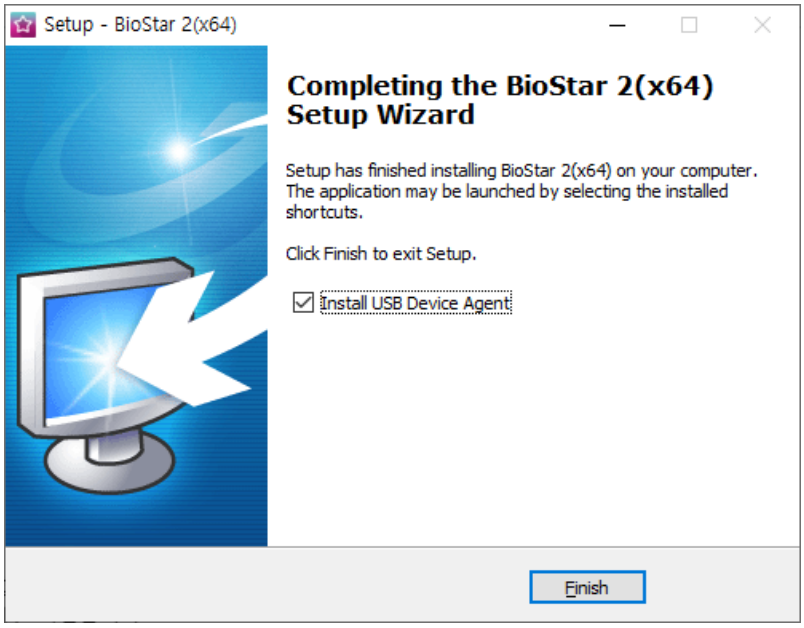


10) If ready to install, click Install.



11) Select whether to install additional program and click Finish. Follow on screen instructions to complete.

2 Installation



Note

- The USB Device Agent Certificate provided can be applied to a local network only.
- When another program uses port 443, BioStar-Setting program will be launched automatically and then you can change the port number. For more information, see Changing port of BioStar 2.
- For more information on Database setting changes, see Changing database of BioStar 2.

BioStar 2 is a web-based system which can be accessed from anywhere as long as you remember your login ID and password.

1) Run your web browser.
   - We recommend that you use Google Chrome 75 or later.

2) Run BioStar 2.
   - If running from the PC installed with BioStar 2, enter '*https://127.0.0.1*' in the address input field of the web browser.
   - If BioStar 2 is installed on another PC, enter '*https://BioStar 2 server IP address*' in the address input field of the web browser.
   - Do not use the 'Localhost' to access the BioStar 2.

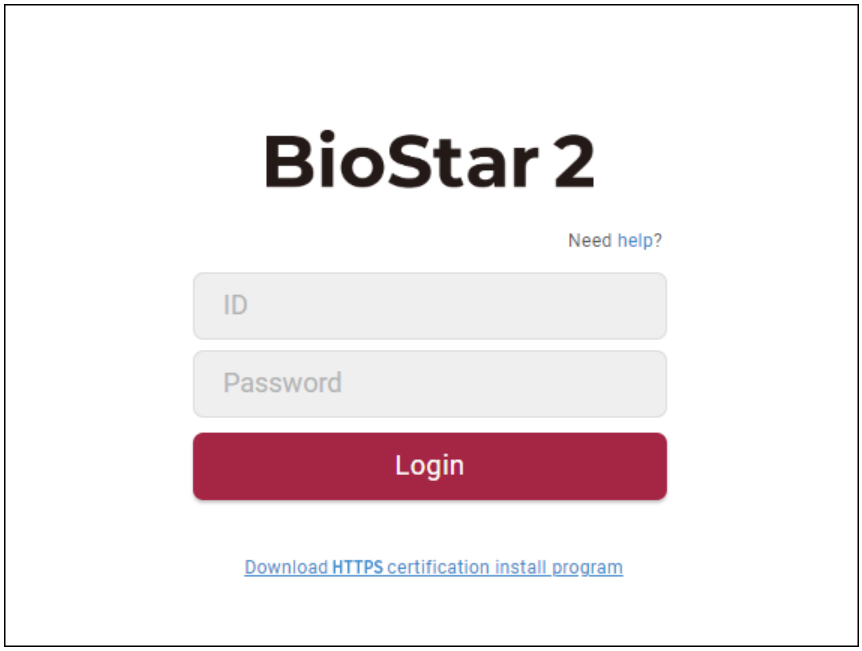
Note

- BioStar 2 uses port 443. If port 443 is used by a program, quit the program and try again. If the program cannot be closed, run 'Biostar Setting' to change the port number. For more

information, see Changing port of BioStar 2.

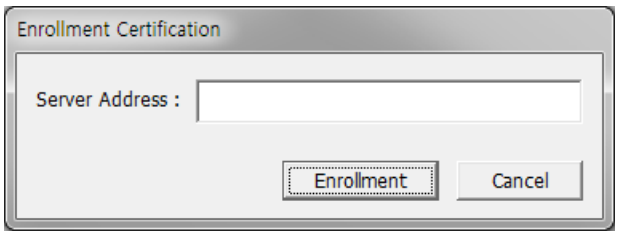
3) Log in with the administrator account. The administrator account ID is 'admin' and when you log in for the first time, Not secure warning will be displayed in the address bar.

4) To use HTTPS properly, register the IP address of the PC where BioStar 2 is installed. Click Download HTTPS certification install program.



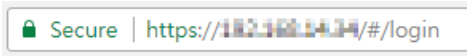
5) Unzip the downloaded file and run cert-register.exe file. Enrollment Certification window will appears.

6) Enter the IP address of the PC where BioStar 2 is installed and click Enrollment.



7) Check the security warning message and click Yes.

8) When you restart the web browser and enter the registered IP address, Secure will appear on the address bar of the web browser.

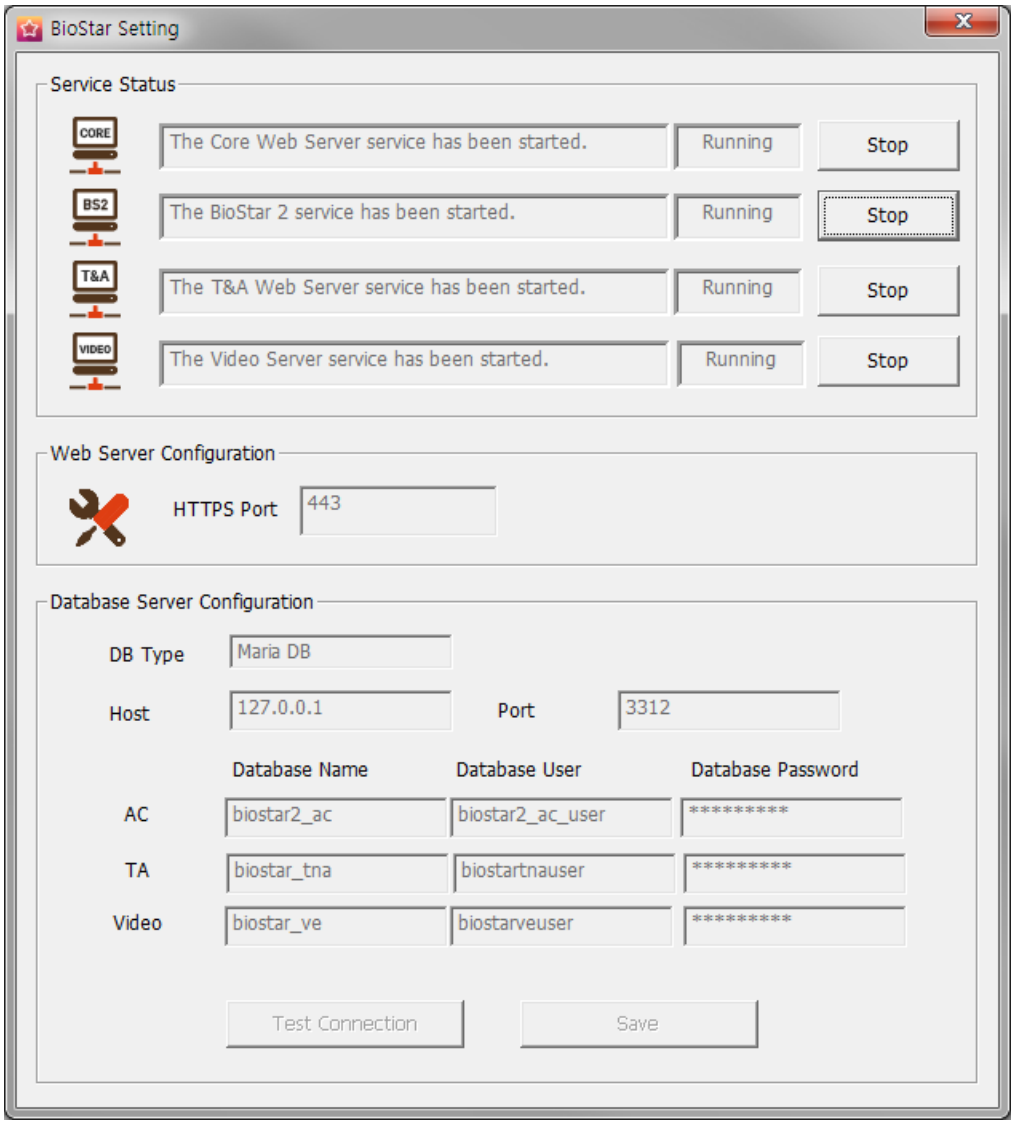


3 Login

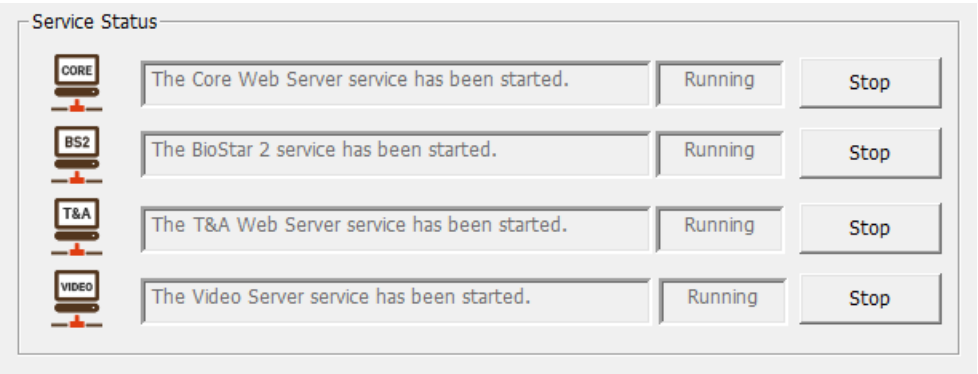
Changing server status of BioStar 2

You can check the status of the BioStar 2 server and stop or start the server.

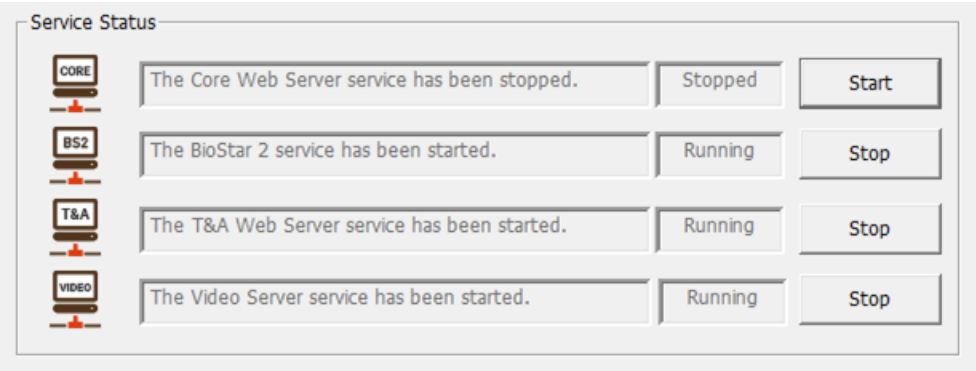
1) Click Start > All Programs > BioStar 2 > BioStar Setting.



2) Click Stop button of the server you want to stop.



3) Click Start button to restart the server.



Note

- If the time setting on the BioStar 2 server has changed, stop and restart the Core Web Server. Otherwise, BioStar 2 may not work properly.

Changing port of BioStar 2

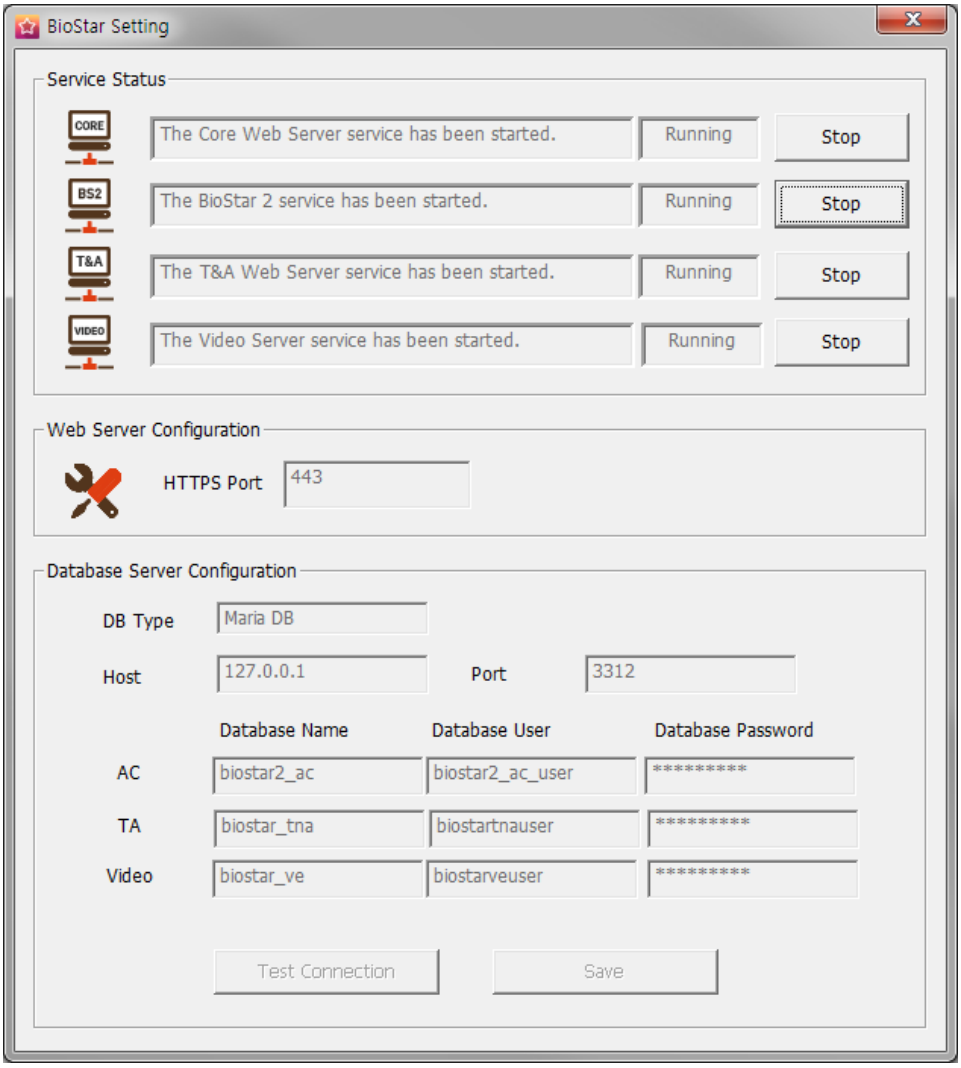
You can change the port used by BioStar 2. If BioStar 2 cannot use port 443, run BioStar Setting to change the port.

Note

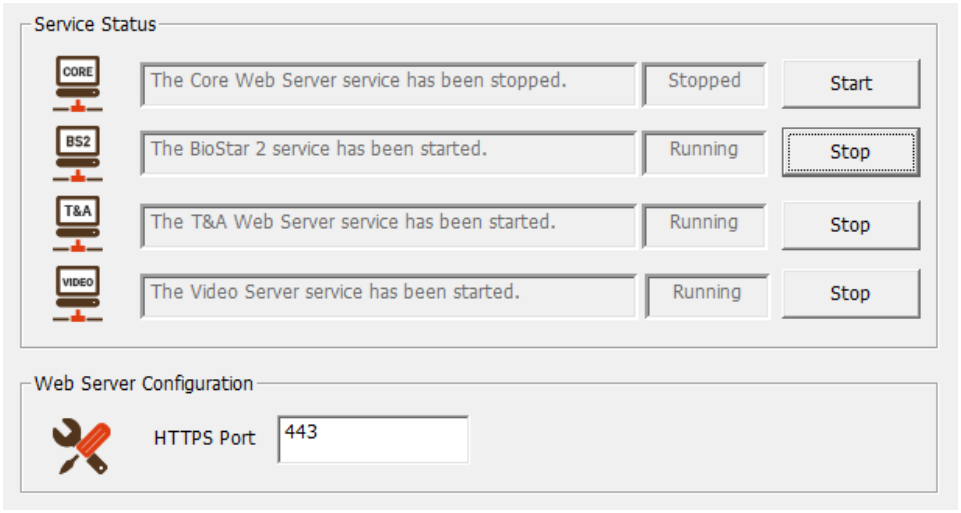
- If you use MS SQL as a database, when changes the port in BioStar 2, you must also change the port manually in the database. Otherwise, BioStar 2 may be disconnected from the database and may not work properly.

Changing with BioStar Setting (HTTPS port)

1) Click Start > All Programs > BioStar 2 > BioStar Setting.



2) Click Stop button of Core Web Server.
3) Enter the port number in HTTPS port field.



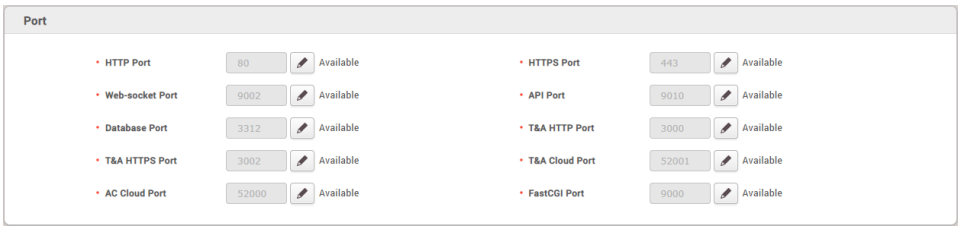
4) Click Start button of Core Web Server.
5) Run BioStar 2. If using port 450, enter '*IP address:450*'.

Changing with BioStar 2 for all port

Note

- The items may vary depending on the type of license that is activated.

1) Log in to BioStar 2 and click on the port. All ports in use in BioStar 2 are displayed.

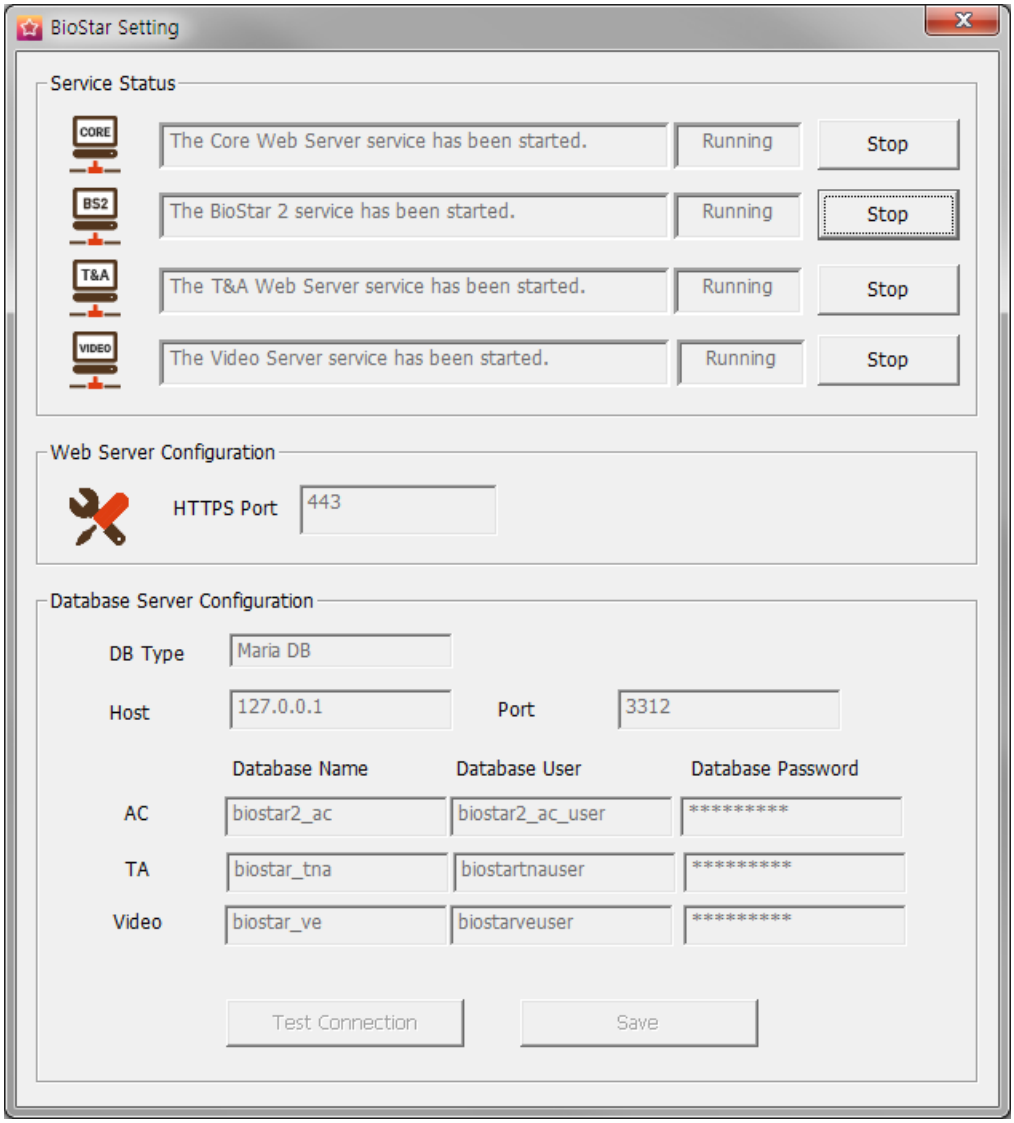


2) Click the of the port to change and enter the desired value.
3) Click Apply to save the settings.

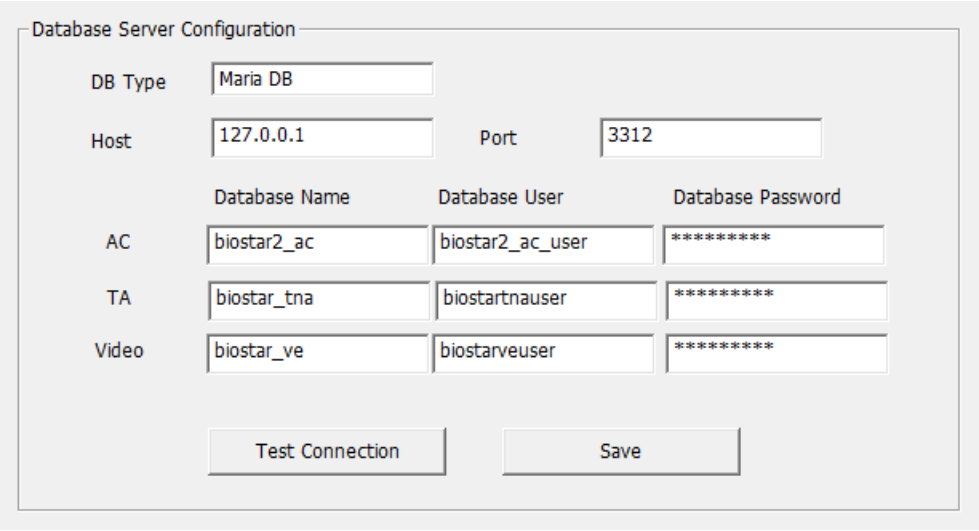
Changing database of BioStar 2

You can change the database settings of BioStar 2.

1) Click Start > All Programs > BioStar 2 > BioStar Setting.



2) Click Stop button of Core Web Server and Core Web Server. Database Server Configuration will be enabled.



3) Edit the necessary fields. If you are not sure about the each information, contact your system

administrator.

4) Click Test Connection to check if the database has been set properly.
5) Click Save to save the settings.

BioStar 2 provides web-based services and various functions concerning access control.
Access groups configured in BioStar 2 refer to access privileges. An access group can be configured using a combination of user, access level and door (device) information.
Below is a step-by-step guide on how to use BioStar 2.

❑ Step 1. Register Activation Key

You can use more features by registering the activation key after purchasing the BioStar 2 license.

Related Information

Server

❑ Step 2. Adding Devices

Add devices to connect to BioStar 2. You can set up an authentication mode for each device type or assign an administrator to each device.
You can also configure actions to be performed according to various events (authentication failure, duress fingerprint authentication, Anti-passback violation, etc.) occurring in the device.

Related Information

Adding and Managing Device Groups
Basic Search and Registration
Advanced Search and Registration
Slave Device Search and Registration
Editing Device Settings and Information

❑ Step 3. Adding and Configuring Doors

Add the information on the doors installed with devices. You can configure relay, Anti-passback, dual authentication, alarm, etc.

Related Information

Adding and Managing Door Groups
Add Door

❑ Step 4. Configuring Access Levels

You can create an access level by combining door and schedule information. Multiple doors and schedules can be registered to a single access level.

Related Information

Adding and Managing Access Levels

❑ Step 5. Configuring Access Groups

You can create an access group by combining access level (doors and schedules) and user information. Multiple access levels and users can be registered to a single access group.

Related Information

Adding and Managing Access Groups

❑ Step 6. Adding Users

Add the information to use for access control such as user information, fingerprints, etc. User information can be registered directly on the device or on the PC running BioStar 2. You can also fetch the user information registered within the device to BioStar 2 or transfer the user information registered within BioStar to the device.

Related Information

Adding and Managing User Groups

Adding User Information

Adding User Credentials

❑ Step 7. Zone Configuration

You can configure anti-passback and fire alarm zone. The fire alarm can be set to local zone and global zone. Only available when purchasing a standard license.

Related Information

Zone

Zone Status

❑ Step 8. Viewing Logs

You can view event logs, device status, door status and alert history, or just view the real-time log information.

Related Information

- Event Log
- Real-time Log
- Device Status
- Door Status
- Alert History

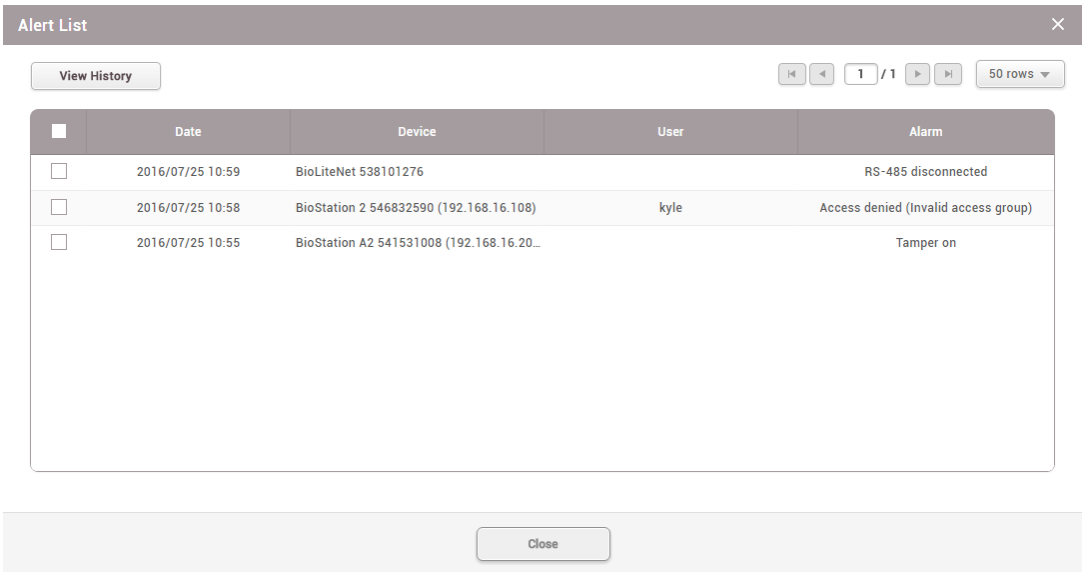
The DASHBOARD gives you an overview of the major event status, usage status, notice, alarms, etc.

1 Alert Event Status by Period	4 Notice
2 Usage Status	5 Alert List
3 Missed Alarm	

Note

- You can set what to display in "Alert Event Status by Period" in the Setting > Alert.

- 15 alarms that have been missed in the last 1 month displayed in 'Missed Alarm' in the latest order.
- You can view the list of monitored alerts and write notes by clicking the alert list icon.



Related Information

Alert History

You can use the DEVICE menu to add, delete or edit registered devices, fetch the user information registered within the device to the server or upgrade the firmware.

Adding and Managing Device Groups

Basic Search and Registration

Advanced Search and Registration

Wiegand Device Search and Registration

Slave Device Search and Registration

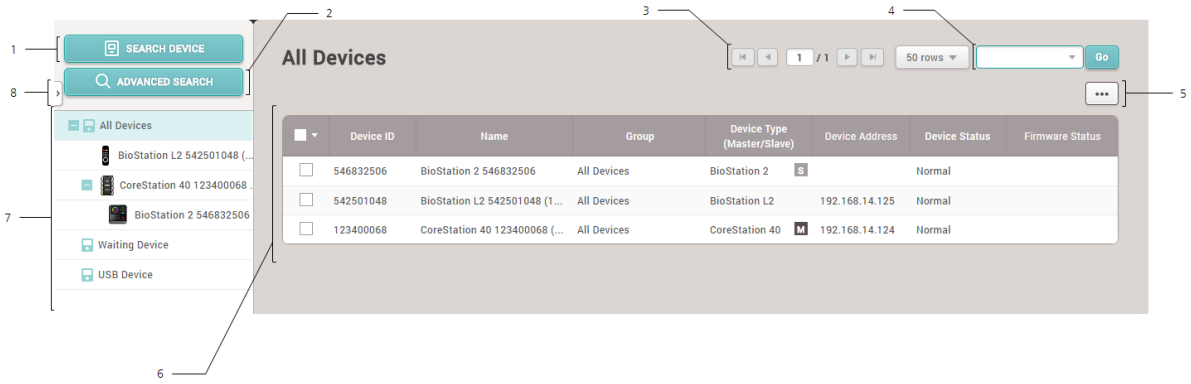
Registering and replacing 3rd party OSDP devices on CoreStation

Managing Users Registered with Devices

Upgrading Firmware

Editing Device Settings and Information

6 Device



1 Basic Search	5 Function Button (Delete Data & Sync Device, Print, Column Setting)
2 Advanced Search	6 Device List
3 Page Navigation Buttons and Number of List Rows	7 Device and Group List
4 Registered Device Search	8 Expand Button

Note

- Registered devices can be searched by Device ID, Name, Device Address.
- Only BioMini can be connected as USB device.

When you select a device on the list, you can use the following functions.

- Reconnect: Reconnects the selected device. This function is available when only one device is selected.
- Sync Device: Synchronizes the user and access control information from BioStar 2 with the registered devices. The synchronization will occur based on the information on the server database, and the users that exist on the devices only will be deleted. Click Manage Users in Device to retrieve users from the device to the BioStar server.
- Delete Data & Sync Device: You can delete user related data including users, access groups and schedules on the device and transfer the data on the server to the device. On the device list page, select the target devices, click the Function button (•••) and choose the Delete Data & Sync Device.
- Batch Edit: Edits the information on multiple devices at once. This function is available only when multiple devices are selected.
- Manage Users in Device: Uploads the user information registered with the device to BioStar 2 or deletes it.
- Firmware Upgrade: Easily upgrades the firmware of the device.
- Delete Device: Deletes the selected device from the list. You cannot delete a device that is set as a door or a zone.

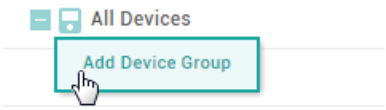
6 Device

Adding and Managing Device Groups

You can register device groups for easy management of multiple devices. Name your device groups according to installation locations of the devices for greater convenience.

─ Adding Device Groups

1) Click DEVICE.
2) Right-click on All Devices and click Add Device Group.



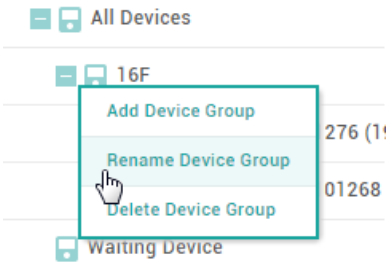
3) Enter a name.

Note

- Device groups may be created in up to 8 levels.
- Up to 48 characters may be entered for a device group name.

─ Renaming Device Groups

1) Click DEVICE.
2) Right-click on the name of a group you wish to rename and click Rename Device Group.



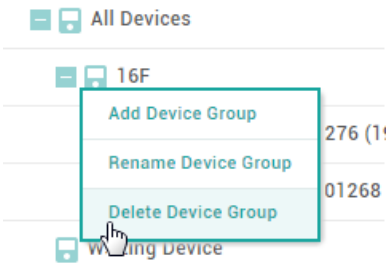
3) Enter a name.

Note

- Up to 48 characters may be entered for a device group name.

─ Deleting Device Groups

1) Click DEVICE.
2) Right-click on the name of a group you wish to delete and click Delete Device Group.



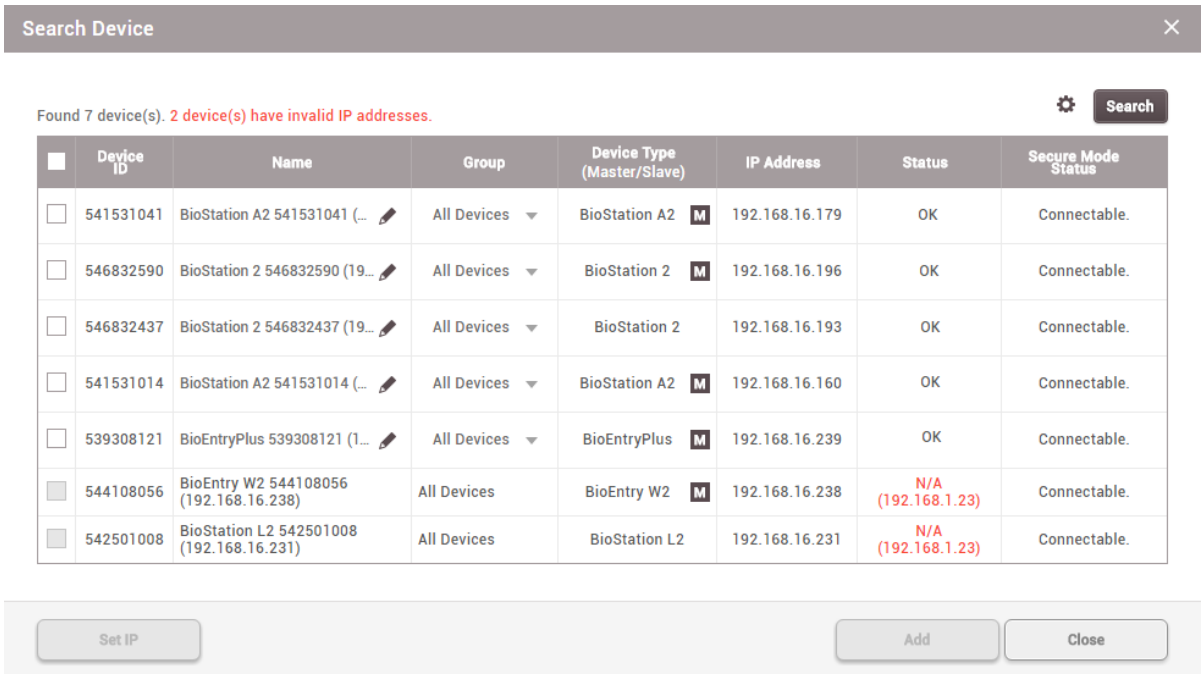
Note

- Deleting a group deletes all devices included in the group.

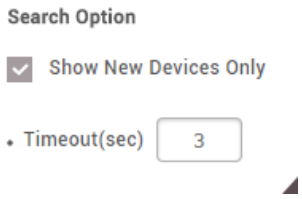
Basic Search and Registration

You can automatically search for devices connected to BioStar 2 and register them. Before searching for devices, check whether they are correctly connected. When adding multiple devices at once, it will be more convenient to know the location, ID and IP address information of each device in advance.

1) Click DEVICE > SEARCH DEVICE.
2) All available devices are shown. When the user ID type is mismatch with BioStar 2, the user ID type of the device will be automatically changed according to BioStar 2.



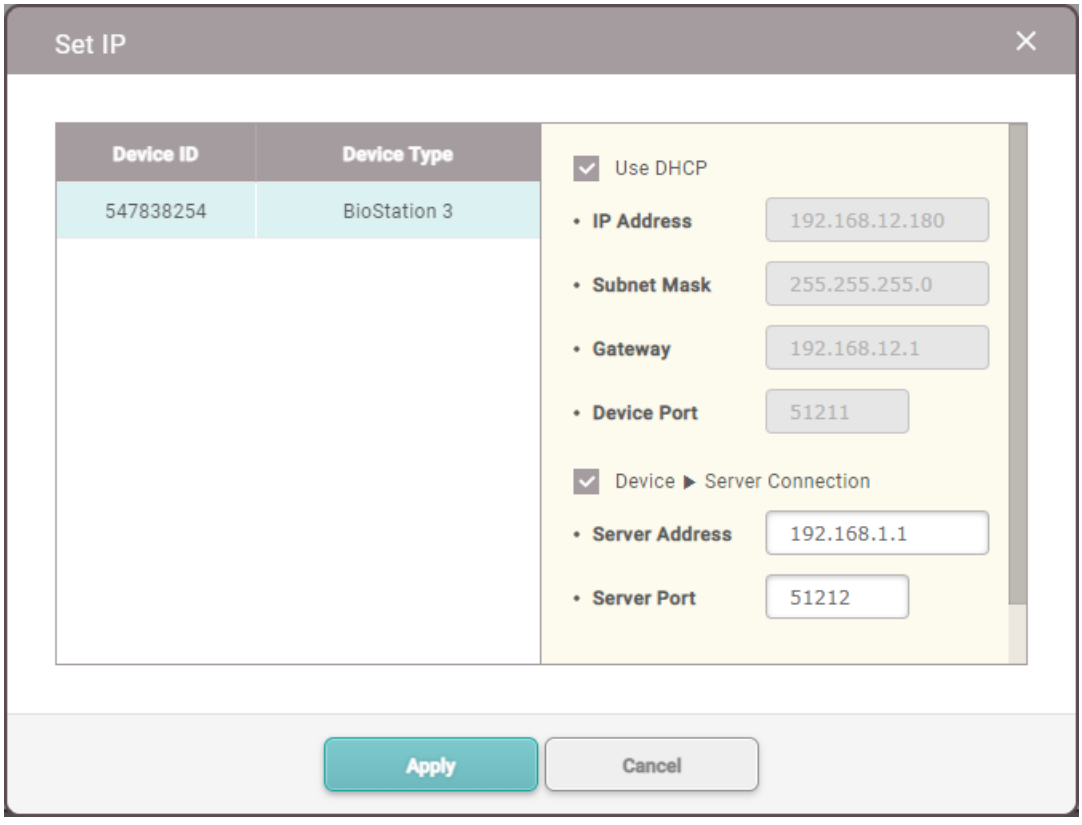
3) To view newly found devices only, click ⚙ and then click Show New Devices Only.



Note

- To hide devices which do not respond within a set period of time, click ⚙ and then enter a duration in Timeout(sec).
- If the devices you are looking for are not shown on the list, click Search to search for the devices again.

4) You may change the Name and Group of a device found to anything you like. If the IP address of the device cannot be used or otherwise needs to be changed, click Set IP to change it.
5) To use a dynamic IP address, select Use DHCP. To manually enter the IP Address, Subnet Mask and Gateway, deselect the option. To enter the BioStar 2 network information, select **Device** → Server Connection and enter the Server Address and Server Port.



6) To save the IP settings, click Apply.
7) To register the configured device, click Add.
8) Select the registered device, and click Sync Device.

Note

- If you add a new device, the key of the device changed to the value of the data encryption key

on the server. All user data on the device will be deleted when the key is changed.

- If you want to delete user related data including users, access groups and schedules on the device and transfer the data on the server to the device, click the Delete Data & Sync Device. On the device list page, select the target devices, click the Function button (•••) and choose the Delete Data & Sync Device.
- After registering a device, you can edit its details by referring to Editing Device Settings and Information.
- To register all waiting devices in the Waiting Device group, right-click on the group name and click Add All Waiting Devices. To register each device, right-click on the device name and click Add Waiting Device.
- If a different user ID type is set for BioStar 2 and a device, change the device setting according to the user ID setting of BioStar 2.
- If the user ID type of BioStar 2 is set with alphanumeric characters, some devices may not be used and/or limitations may occur. For more details, refer to Server.

Advanced Search and Registration

You can register a device by specifying its IP address and port number.

1) Click DEVICE > ADVANCED SEARCH.
2) Enter the IP address and port number of a device to search.
3) Click Search to view the list of devices found. If the device you are looking for is not shown on the list, click Search to search again.

4) Select a group to add the found device to and click Add.
5) Select the registered device, and click Sync Device.

Note

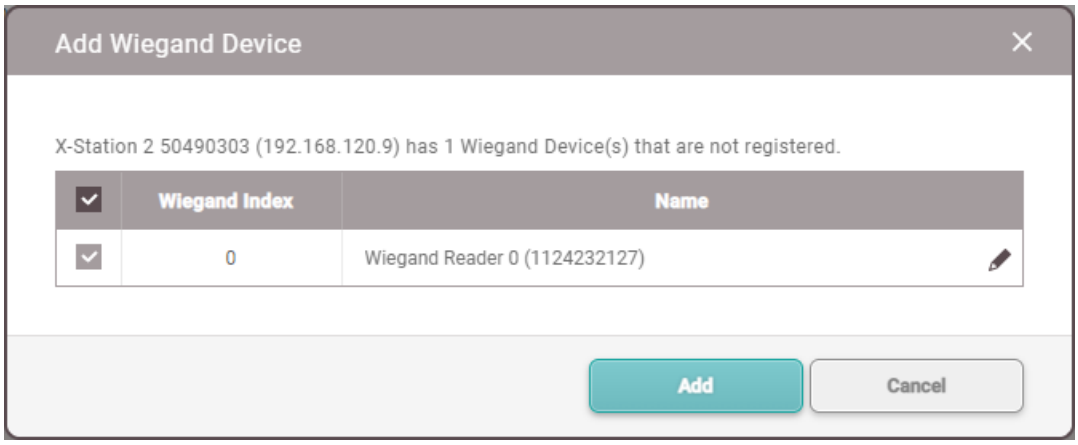
- After registering a device, you can edit its details by referring to Editing Device Settings and Information.

6 Device

Wiegand Device Search and Registration

You can easily add Wiegand devices connected to master/slave devices.

1) Click DEVICE.
2) Right-click on the name of a master/slave device to search for Wiegand devices and click Add Wiegand Device.
3) The list of Wiegand devices connected to the master/slave device is shown.

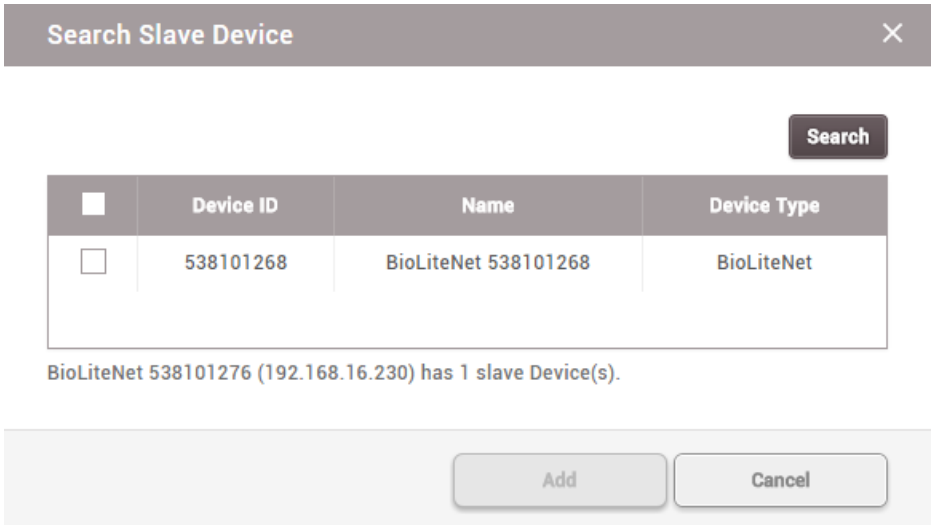


4) Select the device to add, and click Add.

Slave Device Search and Registration

You can easily expand your access control system network by adding slave devices to existing master devices. Master devices and slave devices can be connected together via RS-485. Besides regular devices, additional devices such as Secure I/O can be connected.

1) Click DEVICE.
2) Right-click on the name of a master device to search for slave devices and click Search Slave Device.
3) The list of slave devices connected to the master device is shown. If the devices you are looking for are not shown on the list, click Search to search for the devices again.



4) Select a group to register the device to and click Add.

Note

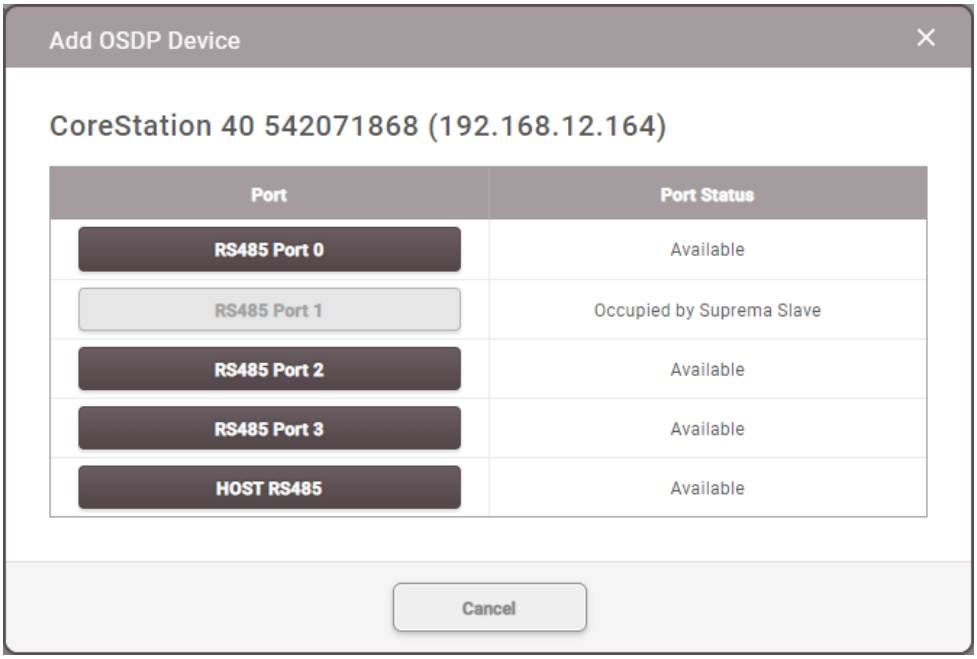
- If the fingerprint authentication device is the master device, the face authentication device cannot be added as a slave device.
- If the face authentication device is the master device and a different slave device has been added already, a face authentication device cannot be added as a slave device.
- When you connect the face authentication device as a slave device while the face authentication device is the master device, only one face authentication device can be added as a slave device.
- When the face authentication device is the master device and another face authentication device is connected to it as a slave device, you can connect one additional Secure I/O 2 and DM-20 each.
- The maximum number of slave devices available to connect varies according to the authentication method, number of users, and number of devices. Also note that the number of slave devices affects the authentication speed.

Registering and replacing 3rd party OSDP devices on CoreStation

Registering 3rd party OSDP devices

Add 3rd party OSDP devices to a registered CoreStation.

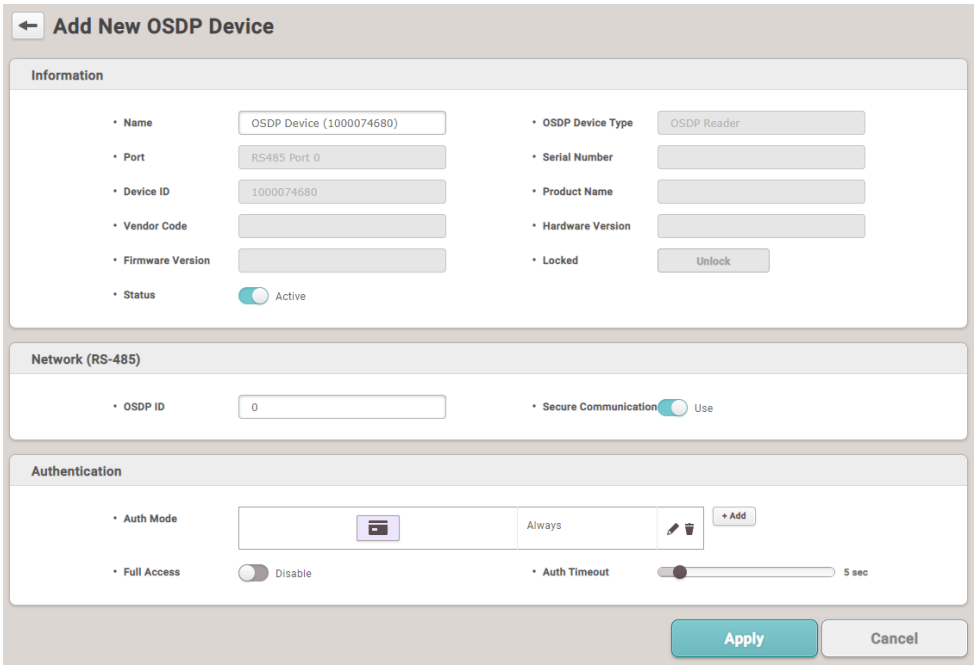
1) Click DEVICE.
2) Right-click on the name of a CoreStation and click Add OSDP Device.
3) A list of ports appears. Among the ports whose Port Status is Available, select the port to add the OSDP device.



Note

- Connect up to 2 units per port on CoreStation, for a total of 8 units.

4) Set the Information, Network (RS-485), and Authentication.



Item	Description
Information	▪ Name: Enter a device name. If not entered, it will be assigned automatically. ▪ Status: Set the device status. If set to Inactive, CoreStation will not communicate with the OSDP device.

Item	Description
Network (RS-485)	▪ OSDP ID: Enter the address of the OSDP device. Enter a number between 0 and 126. ▪ Secure Communication: Communication between CoreStation and OSDP devices can be protected with an SCB key. When Secure Communication is set to Use, CoreStation sends the SCB key to the OSDP device. OSDP devices can use this SCB key to send and receive data to and from CoreStation through a secure channel.
Authentication	▪ Auth Mode: You can configure the authentication modes of the OSDP device. BioStar 2 can use combinations of card and PIN as authentication modes. Note ▪ Click + Add and create an authentication mode by dragging and dropping available options. Select a schedule and click OK to register the authentication mode. If no desired schedule is available, click + Add Schedule to create it. ▪ For more information on configuring schedules, see Schedule. ▪ Full Access: You can grant full access to users registered within the OSDP device without setting any access groups. ▪ 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 input within this time, the authentication fails.

5) Click OK to register the configured OSDP device.

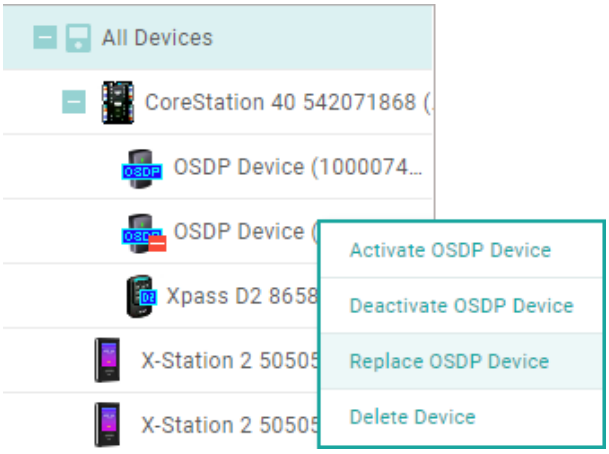
Note

- Set the LED/Buzzer behavior of the connected OSDP reader. For detailed configuring of the OSDP Device LED/Buzzer, refer to OSDP Device LED/Buzzer.

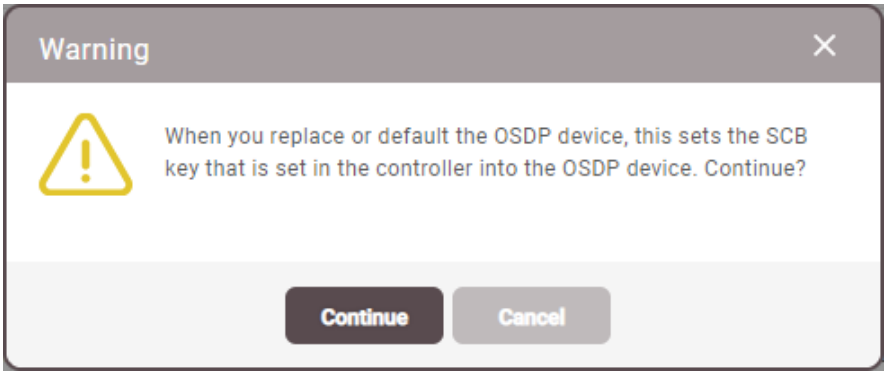
Replacing 3rd party OSDP devices

Replace the OSDP device registered to CoreStation with another device.

1) Click DEVICE.
2) Among the OSDP devices registered to CoreStation, right-click on the name of the OSDP device to be replaced and click Replace OSDP Device.



3) Click Continue after reading the warning pop-up message, Replace OSDP device process will proceed.



Note

- OSDP device replacement may fail if the OSDP device is disconnected or if the SCB key is already set. Check the connection status of the device and the SCB key, then try again.

Managing Users Registered with Devices

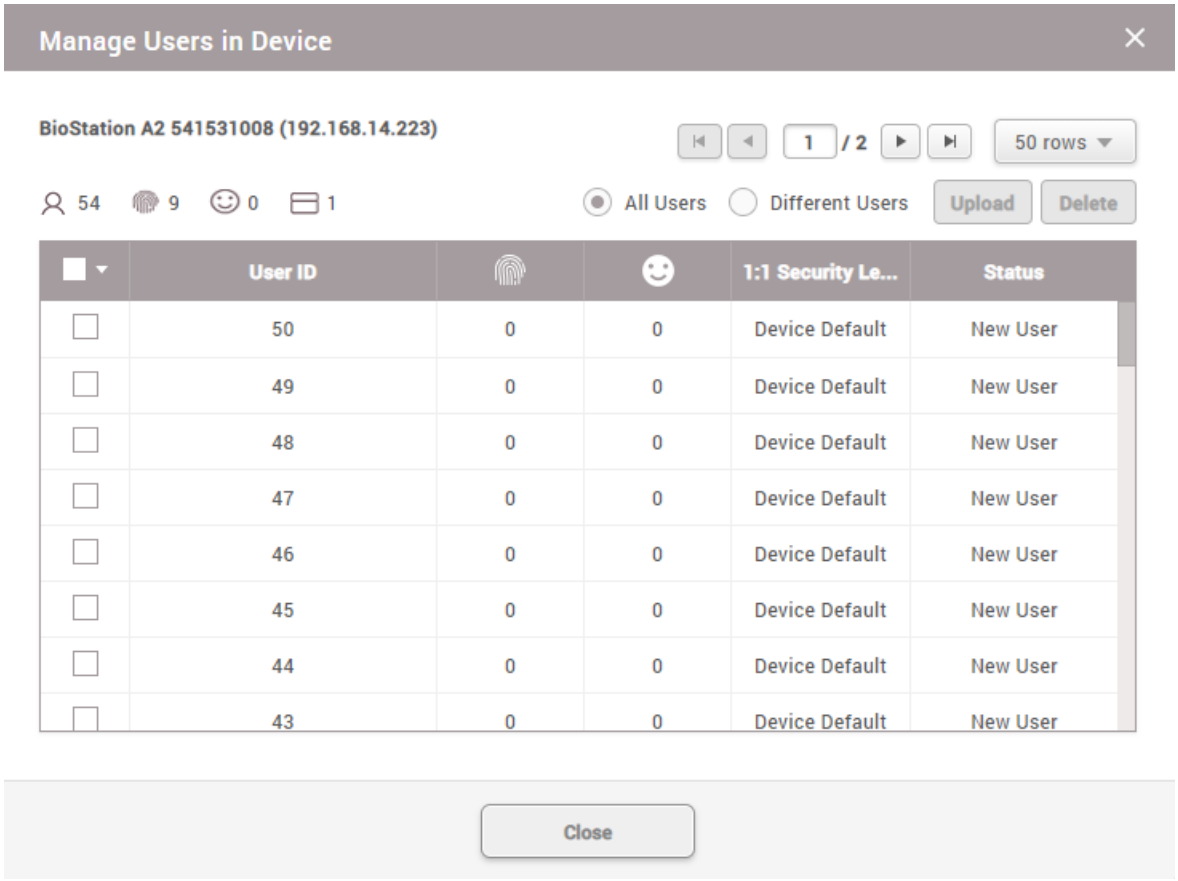
You can see the number of users, fingerprints, faces, and cards stored in the device.
You can compare the user information stored in the device with the user information registered in BioStar 2, transfer the information to BioStar 2 or delete the information.

Note

- The Manage Users in Device function is available only when one device is selected.

1) Click DEVICE.

2) Select a device and click Manage Users in Device. A comparison of the user information registered within the device and the user information registered within BioStar 2 is displayed.



- Same: The user's information is the same as the information registered within BioStar 2.
- Different: The user's information is different from the information registered with BioStar 2.
- New User: The user has not been registered with BioStar 2.

3) After selecting user information, click Delete to delete it or click Upload to upload it to BioStar 2. When you click Upload, if BioStar 2 contains user information of the same ID, it can be updated with the information in the device.

Note

- After registering a device, you can edit its details by referring to Editing Device Settings and Information.
- When you delete user information, it is only deleted from the device and the information in BioStar 2 remains intact.

Upgrading Firmware

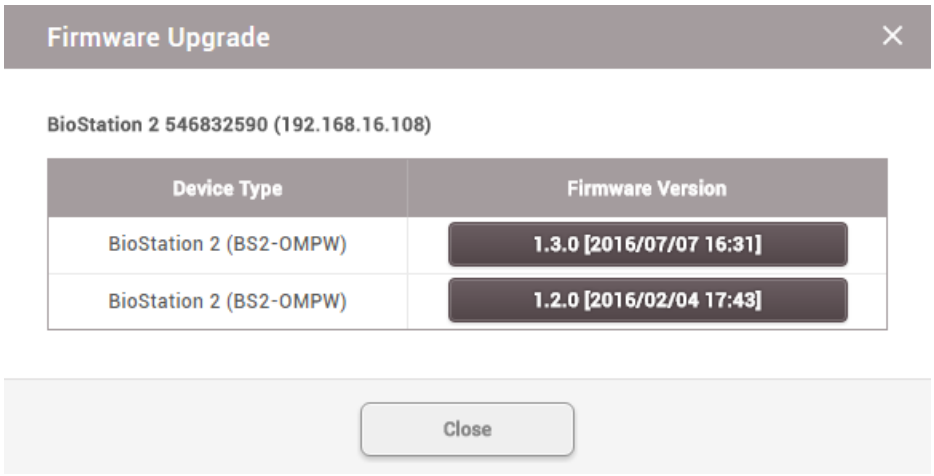
You can easily upgrade the firmware on any device connected to BioStar 2 without any additional connection or action.

Copy the firmware files that you have downloaded to the following folder. If the folder does not exist,

you need to create it.

- 32-Bit Operating Systems: C:₩Program Files₩BioStar 2₩firmware
- 64-Bit Operating Systems: C:₩Program Files₩BioStar 2(x64)₩firmware

1) Click DEVICE.
2) Select a device and click Firmware Upgrade. Multiple devices of the same type can be batch upgraded.



3) Click the firmware version to start the upgrade.

Note

- It is possible to upgrade a number of devices with the same RS-485 mode simultaneously. For example, a number of master devices can be upgraded simultaneously and a number of slave devices can be upgraded simultaneously as well.
- It is possible to upgrade a number of master devices or slave devices that have no master device simultaneously.
- It is not possible to upgrade a number of slave devices which is connected to the same master device simultaneously.

Related Information

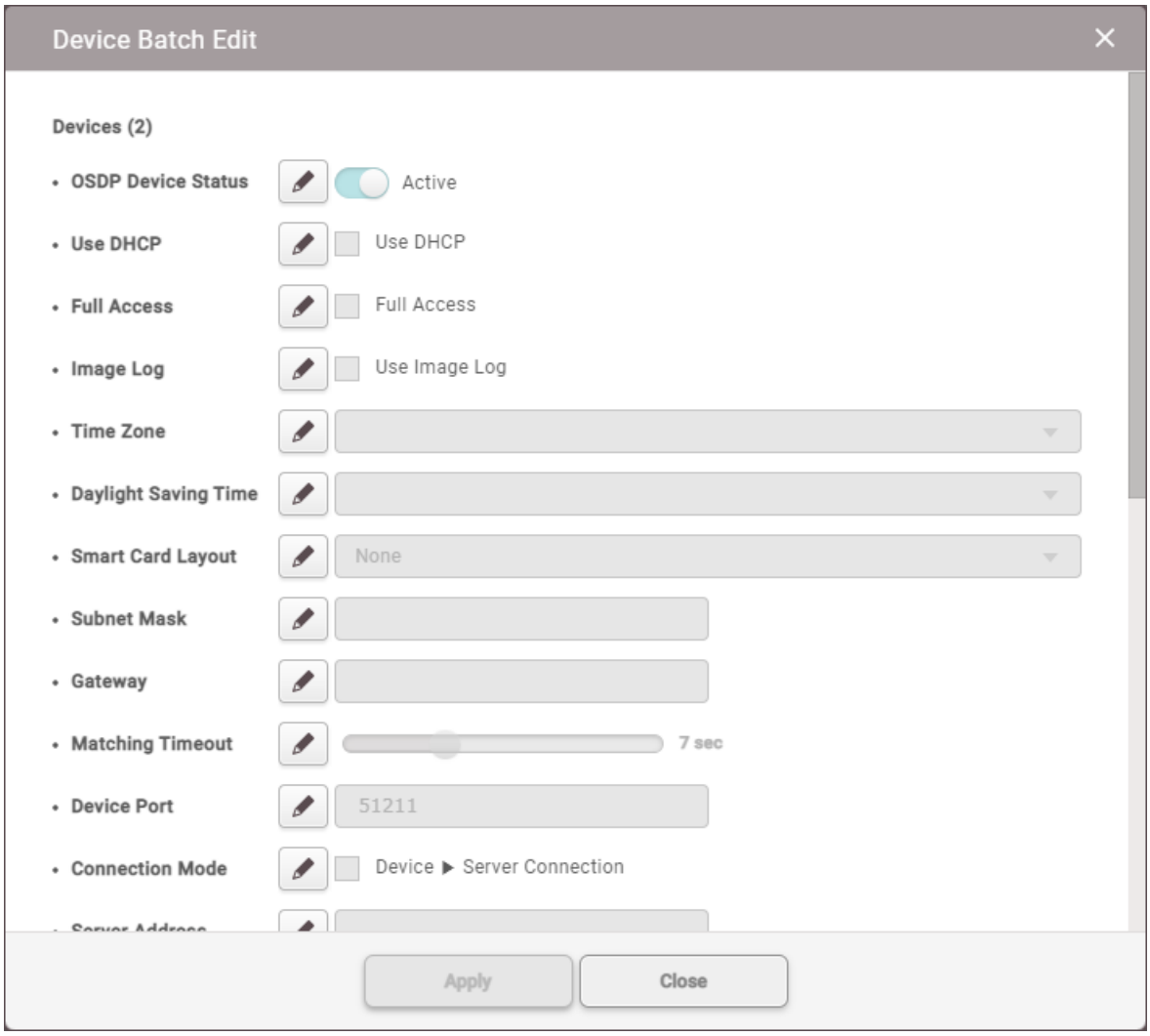
Information

Editing Device Settings and Information

You can edit detailed information of registered devices. For more information on registering devices, see Basic Search and Registration or Advanced Search and Registration.
The details shown may vary depending on the RS-485 connection type or the device type.

6 Device

1) Click DEVICE.
2) Click a device on the device list to edit.
3) Edit the fields by referring to Information, Network, Authentication, Advanced Settings, Thermal & Mask, SIP Intercom, RTSP, DM-20, OM-120, CoreStation and Wiegand Device.
4) To edit information of multiple devices, select multiple devices and click Batch Edit.



5) Click ✎ of the field you want to edit and edit the information.
6) After editing all information, click Apply.

Note

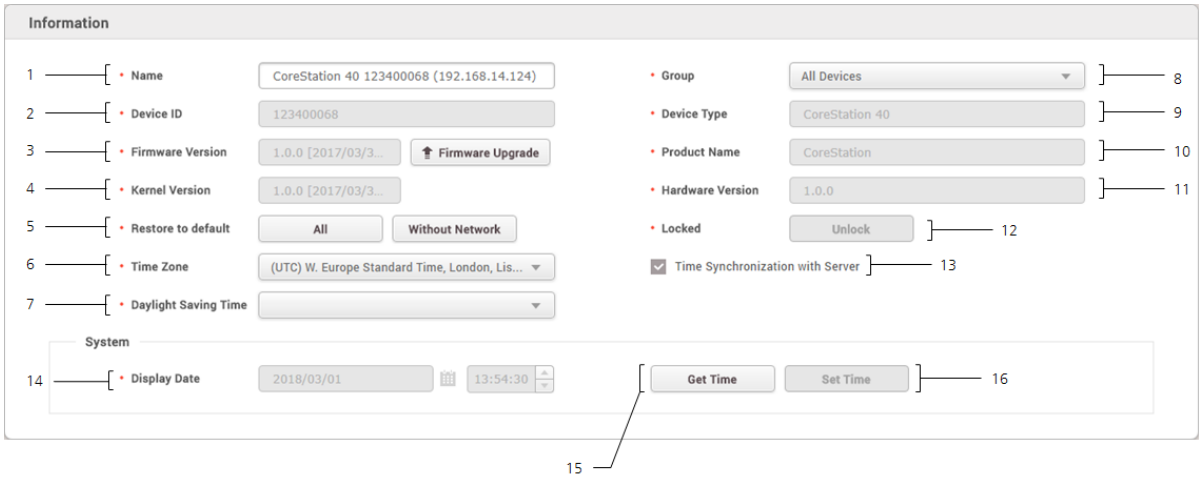
- The fields displayed for Batch Edit may vary depending on the device type selected.
- If you select both master devices and slave devices and click Batch Edit, only some of the Authentication and Display/Sound fields can be edited.

6 Device

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.

1) Edit all fields of the Information tab.



No.	Item	Description
1	Name	Enter a device name.
2	Device ID	View the device ID.
3	Firmware Version	Click Upgrade to install a new firmware version.
4	Kernel Version	View the kernel version.
5	Restore to default	Reset the settings of the device. ▪ All: Reset all settings. ▪ Without Network: Reset all settings excluding the network settings.
6	Time Zone	Set the time zone of the device.
7	Daylight Saving Time	Apply the daylight saving time to the device. To add a new daylight saving time rule, see Daylight Saving Time.
8	Group	Change the device group. For more information on adding device groups, see Adding and Managing Device Groups.
9	Device Type	View the device type.
10	Product Name	View the model name.

No.	Item	Description
11	Hardware Version	View the hardware version.
12	Locked	Unlock button will be available when the device is disabled via Trigger & Action.
13	Time Synchronization with Server	Select the option to synchronize the time information of the device with the server.
14	Date and Time	Click to manually set the date and time. If the Time Synchronization with Server option is selected, the date and time cannot be selected manually.
15	Get Time	Click the button to fetch the time set in the device.
16	Set Time	Click the button to apply the time set in BioStar 2 to the device.

2) Click Apply to save the settings.

Note

- Make sure to set the correct date and time as they are recorded in the Event Log and the Real-time Log.

Network

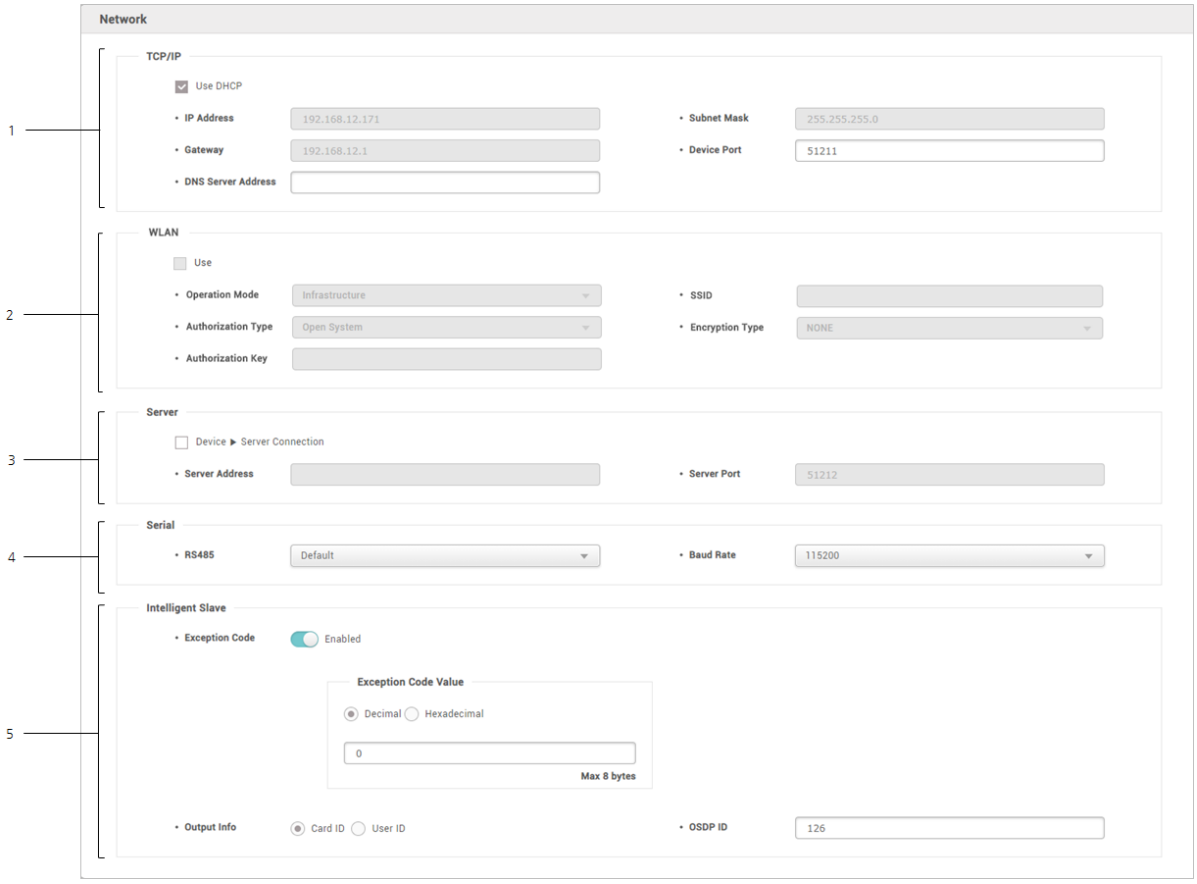
You can configure various connection settings such as TCP/IP and RS-485, etc.

Note

- Editable fields vary depending on the device type.

1) Edit all fields of the Network tab.

6 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 Address: Enter a DNS server address. Note ▪ The devices and the firmware versions where a DNS server address can be entered are as follows. - BioStation L2 FW 1.0.0 or later - BioStation A2 FW 1.0.0 or later - BioStation 2 FW 1.2.0 or later - BioLite Net FW 2.2.0 or later - BioEntry Plus FW 2.2.0 or later - BioEntry W FW 2.2.0 or later - Xpass FW 2.2.0 or later - Xpass S2 FW 2.2.0 or later - FaceStation 2 FW 1.0.0 or later

No.	Item	Description
		- BioLite N2 FW 1.0.0 or later - FaceLite FW 1.0.0 or later - XPass 2 FW 1.0.0 or later - FaceStation F2 FW 1.0.0 or later - X-Station 2 FW 1.0.0 or later - BioStation 3 FW 1.0.0 or later
2	WLAN	Turns on or off the wireless LAN. You can also configure the wireless LAN related settings from the device menu. For the detailed information, refer to the device's user guide. Note ▪ Only for BioStation 2, BioStation A2, FaceStation 2 and BioStation 3.
3	Server	You can enter connection settings to use in the server mode. ▪ **Device → Server Connection**: Select this option to configure the BioStar 2 settings for connecting to the devices. If this option is selected, BioStar 2 server network settings can be entered. ▪ Server Address: Enter the IP address or domain name of the BioStar 2 server. ▪ Server Port: Enter the port number of the BioStar 2 server. Note ▪ The devices and the firmware versions where a domain address can be entered for the server address are as follows. - BioStation L2 FW 1.0.0 or later - BioStation A2 FW 1.0.0 or later - BioStation 2 FW 1.2.0 or later - BioEntry W2 FW 1.0.0 or later - BioEntry P2 FW 1.0.0 or later - FaceStation 2 FW 1.0.0 or later - BioLite N2 FW 1.0.0 or later - BioLite Net FW 2.2.0 or later - BioEntry Plus FW 2.2.0 or later - BioEntry W FW 2.2.0 or later - Xpass FW 2.2.0 or later - Xpass S2 FW 2.2.0 or later - XPass 2 FW 1.0.0 or later - X-Station 2 FW 1.0.0 or later - BioStation 3 FW 1.0.0 or later
4	Serial	You can configure the connection mode and baud rate of devices connected over RS-485.

No.	Item	Description
		▪ RS-485: Set a RS-485 mode. ▪ Baud Rate: Set a baud rate of the RS-485 connection.
5	Intelligent Slave	When a user performs fingerprint authentication with a Suprema device connected to a third-party controller, the authentication result is transmitted as OSDP card data to perform multiple 1:1 or 1:N matching. ▪ Exception Code: When using intelligent slaves, exception codes in decimal or hexadecimal can be sent to aggregate accurate logs in exceptional situations such as authentication failures. Decimal numbers can be entered from 0 to 18446744073709551615, and hexadecimal numbers can be entered from 0 to FFFFFFFFFFFFFFFF or hexadecimal characters. ▪ Output Info: You can output the card ID or user ID when authentication is successfully done. ▪ OSDP ID: Enter the OSDP address of the device. You can enter a number from 0 to 126. Note ▪ Intelligent slave is activated only when the RS-485 option for Serial is set as Default. ▪ The devices and firmware versions that support Intelligent Slave are as follows. - BioEntry W2 FW 1.6.3 or later - BioStation L2 FW 1.6.1 or later - BioEntry P2 FW 1.4.1 or later - XPass 2 FW 1.2.3 or later - X-Station 2 FW 1.1.0 or later - BioLite N2 FW 1.4.1 or later - FaceStation F2 FW 1.1.2 or later - BioStation 3 FW 1.0.0 or later ▪ The data size of the Exception Code can be entered up to 8 bytes.

2) Click Apply to save the settings.

Authentication

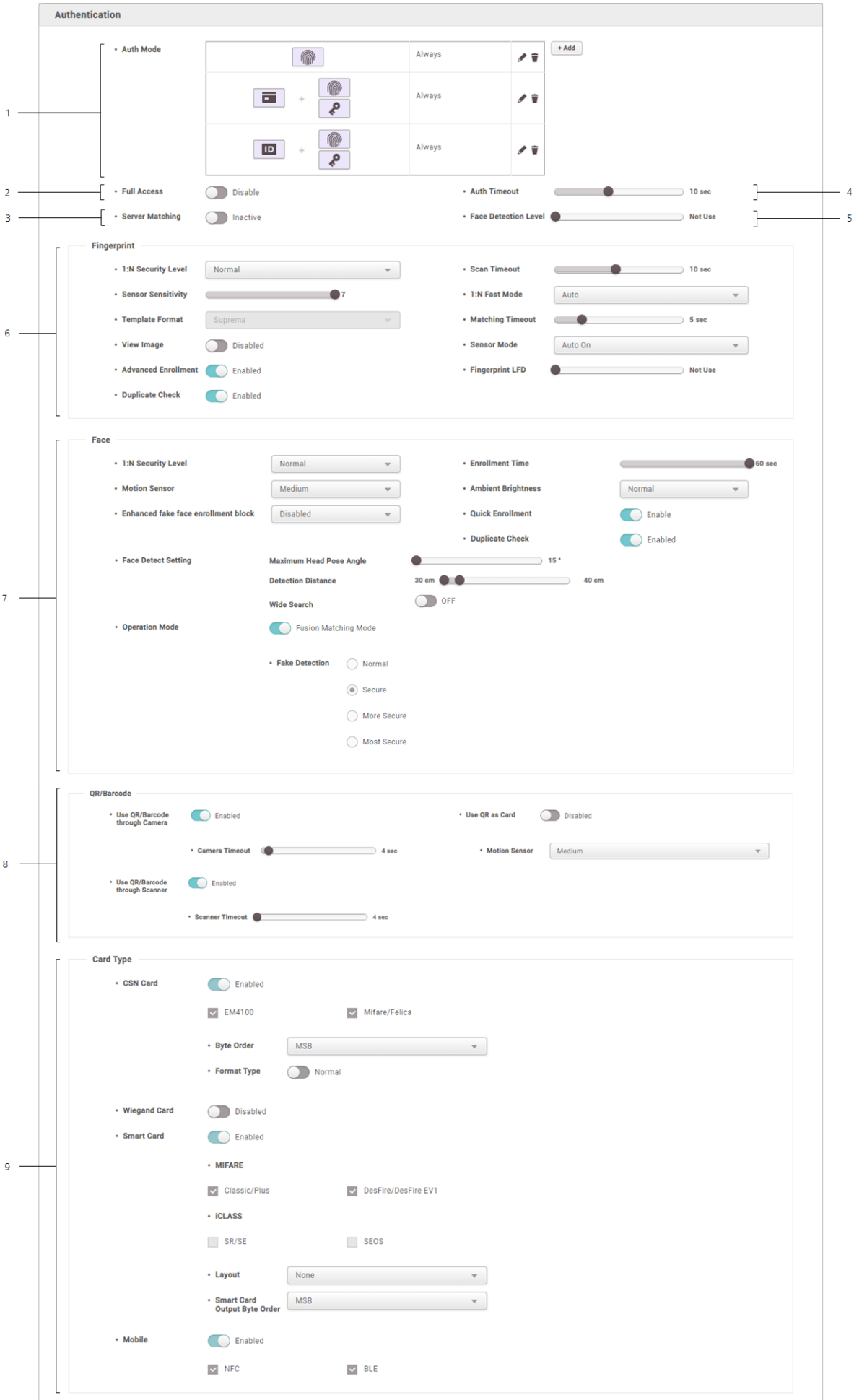
You can configure the user authentication settings of the device.

Note

- Editable fields vary depending on the device type.

1) Edit all fields of the Authentication tab.

6 Device


Authentication
Auth Mode
Always
Always
Always
+ Add
1
Full Access
Disable
2
Server Matching
Inactive
3
Auth Timeout
10 sec
4
Face Detection Level
Not Use
5
Fingerprint
1:N Security Level
Normal
Sensor Sensitivity
7
Template Format
Suprema
View Image
Disabled
Advanced Enrollment
Enabled
Duplicate Check
Enabled
Scan Timeout
10 sec
1:N Fast Mode
Auto
Matching Timeout
5 sec
Sensor Mode
Auto On
Fingerprint LFD
Not Use
6
Face
1:N Security Level
Normal
Motion Sensor
Medium
Enhanced fake face enrollment block
Disabled
Face Detect Setting
Maximum Head Pose Angle
15 °
Detection Distance
30 cm
40 cm
Wide Search
OFF
Operation Mode
Fusion Matching Mode
Fake Detection
Normal
Secure
More Secure
Most Secure
Enrollment Time
60 sec
Ambient Brightness
Normal
Quick Enrollment
Enable
Duplicate Check
Enabled
7
QR/Barcode
Use QR/Barcode through Camera
Enabled
Camera Timeout
4 sec
Use QR/Barcode through Scanner
Enabled
Scanner Timeout
4 sec
Use QR as Card
Disabled
Motion Sensor
Medium
8
Card Type
CSN Card
Enabled
EM4100
Mifare/Felica
Byte Order
MSB
Format Type
Normal
Wiegand Card
Disabled
Smart Card
Enabled
MIFARE
Classic/Plus
DesFire/DesFire EV1
iCLASS
SR/SE
SEOS
Layout
None
Smart Card Output Byte Order
MSB
Mobile
Enabled
NFC
BLE
9

No.	Item	Description
1	Auth Mode	You can configure the authentication modes of the device. BioStar 2 can 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. Select a schedule and click OK to register the authentication mode. If no desired schedule is available, click + Add Schedule to create it. ▪ For more information on configuring schedules, see Schedules.
2	Full Access	You can grant full access to users registered within the device without setting any access groups.
3	Server Matching	It is possible to set server matching. When Active is set, the authentication is carried out using the user information stored in the PC where BioStar 2 is installed, and when Inactive is set, the authentication is carried out using the user information stored in the device. When using server matching, the server matching of BioStar 2 should be also activated. For more information, refer to Server. Note ▪ The devices and the firmware versions where server matching can be used are as follows. - CoreStation FW 1.0.0 or later - BioEntry P2 FW 1.0.0 or later - BioEntry W2 FW 1.0.0 or later - BioStation L2 FW 1.0.0 or later - BioStation A2 FW 1.0.0 or later - BioStation 2 FW 1.2.0 or later - BioLite Net FW 2.2.0 or later - BioEntry Plus FW 2.2.0 or later - BioEntry W FW 2.2.0 or later - Xpass FW 2.2.0 or later - Xpass S2 FW 2.2.0 or later - BioLite N2 FW 1.0.0 or later - XPass D2 FW 1.0.0 or later - XPass 2 FW 1.0.0 or later - FaceStation 2 FW 1.4.0 or later - FaceStation F2 FW 1.0.0 or later - X-Station 2 FW 1.0.0 or later - BioStation 3 FW 1.0.0 or later ▪ Server Matching is not available for FaceLite. ▪ Server Matching of Visual Face is not available for FaceStation F2 and BioStation 3.

No.	Item	Description
4	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.
5	Face Detection	You can set an algorithm step for recognizing a face with a camera built in a device when a user tries to authenticate. If it is set to Normal, it can detect a face at an arm's length. If it is set to High, it can detect a face at a shorter distance. If it is set to Not Use, it cannot use the face recognition function. Note ▪ Only for BioStation A2 and X-Station 2.
6	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: You can set a fingerprint scan timeout period. If the fingerprint is not scanned within the set time, the authentication fails. ▪ Sensor Sensitivity: You can set a sensitivity level of the fingerprint recognition sensor. Set the sensor sensitivity higher if you wish to use a higher sensor sensitivity level and obtain more detailed fingerprint information. ▪ 1:N Fast Mode: You can set the fingerprint authentication speed. Select Auto to have the authentication speed configured according to the total amount of fingerprint templates registered within the device. ▪ Template Format: You can view the fingerprint template format. ▪ Matching Timeout: You can set the matching timeout period. If the authentication is not completed within the set time, the authentication fails. ▪ View Image: Displays the image of the fingerprint on the screen during the authentication process. ▪ Sensor Mode: If the option is set to Auto On, the sensor will automatically go on when it detects a finger. If the option is set to Always On, the sensor will always be on. ▪ Advanced Enrollment: Checks the quality of the scanned fingerprint to avoid the poor quality fingerprint template enrollment. The user will be alerted when the quality of the fingerprint scanned is low and given enrollment instructions. ▪ Fingerprint LFD: It is possible to set the live fingerprint detection level. If the live fingerprint detection level is higher, the false rejection rate on actual human fingerprints will increase.

No.	Item	Description
		▪ Duplicate Check: You can check for duplicates when registering fingerprints. Note ▪ Editable fields vary depending on the device type. ▪ View Image is available only for BioStation 2, BioStation A2, BioStation L2, BioLite N2, FaceStation F2 (FSF2-ODB) and X-Station 2 (XS2-ODPB, XS2-OAPB). ▪ Fingerprint LFD is available only for BioStation A2, BioStation L2, BioEntry W2, BioLite N2, FaceStation F2 (FSF2-ODB) and X-Station 2 (XS2-ODPB, XS2-OAPB).
7	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. ▪ Ambient Brightness: Sense the brightness near the device and adjust the intensity of IR LED. ▪ Enhanced fake face enrollment block: It is possible to set the Enhanced fake face enrollment block. If the live face detection level is higher, the false rejection rate on actual faces will increase. ▪ Light Brightness: Adjust the brightness level of IR LED manually. Select Normal or High to change the level or select Not Use to turn off the light. ▪ Quick Enrollment: Set whether or not to use a Quick Enrollment. When you set this option to Enabled, the face registration procedure is set to 1 step. If you set the option to Disabled, it is set to 3 steps. To register high-quality face templates, disable Quick Enrollment. ▪ 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. ▪ Operation Mode: Set the operation mode of the device when the face is authenticated. - Fusion Matching Mode: Use both visual and infrared cameras to increase the face authentication accuracy. - Fast Matching Mode: The device authenticates users who pass an access point without a pause within the authentication distance. ▪ Fake Detection: The device prevents user authentication using fake faces, such as photos. It is available when Operation Mode is set to

No.	Item	Description
		Fusion Matching Mode. ▪ Duplicate Check: You can check for duplicates when registering faces. Note ▪ Editable fields vary depending on the device type. ▪ Ambient Brightness, Enhanced fake face enrollment block and Quick Enrollment is available only for FaceStation 2 and FaceLite. ▪ Light Brightness is only available on FaceStation F2 firmware version 1.1.0 or later. ▪ Face Detect Setting and Operation Mode are available only for FaceStation F2 and BioStation 3.
8	QR/Barcode	You can configure the detail settings concerning QR/Barcode authentication. ▪ Use QR/Barcode through Camera: Set whether to use QR/Barcode authentication through the device's camera. ▪ Camera Timeout: You can set the camera's QR/barcode scan timeout period. If the QR/Barcode is not scanned within the set time, the authentication fails. ▪ Use QR as Card: Allows authentication with a QR code of the same data as the issued CSN card or Wiegand card. ▪ Motion Sensor: Set the sensor sensitivity of the camera for starting scanning. ▪ Use QR/Barcode through Scanner: Set whether to use QR/Barcode authentication through the device's scanner. ▪ Scanner Timeout: You can set a QR/Barcode scan timeout period. If the QR/Barcode is not scanned within the set time, the authentication fails. Note ▪ Using Use QR/Barcode through Camera requires a separate device license. For more information, refer to Device License. ▪ The devices that can use Use QR/Barcode through Camera, Camera Timeout, Use QR as Card, and Motion Sensor are as follows. - X-Station 2 (XS2-ODPB, XS2-OAPB, XS2-DPB, XS2-APB) firmware 1.2.0 or higher ▪ The devices that can use Use QR/Barcode through Scanner, and Scanner Timeout are as follows. - X-Station 2 (XS2-QDPB, XS2-QAPB)
9	Card Type	You can set the type of card used by the device. Note

No.	Item	Description
		▪ The type of card supported by the device is displayed. ▪ CSN Card: You can select the CSN card and format type and set the byte order. Note ▪ If Format Type is set to Nornal, the device will read the card serial number (CSN). If the option is set to Wiegand, the device will read the card serial number in a Wiegand format that the user has defined. ▪ If Format Type is set to Wiegand, you can select the Wiegand format to be used in the device. To set a new Wiegand format, refer to Wiegand. ▪ When Byte Order is set to MSB, the device reads a card ID from the highest byte to the lowest byte. For example, the highest byte of the card ID 0x12345678 is 0x12 and the device sequentially reads 0x12, 0x34, 0x56 and 0x78. When the option is set to LSB, the device reads a card ID from the lowest byte to the highest byte. ▪ Wiegand Card: You can select a Wiegand card type and set the Wiegand format. Note ▪ You can select the Wiegand format to be used in the device. To set a new Wiegand format, refer to Wiegand. ▪ Smart Card: It is possible to select the smart card layout to be used in the device and set the byte order. To set a new smart card layout, refer to Smart / Mobile Card. Note ▪ When Byte Order is set to MSB, the device reads a card ID from the highest byte to the lowest byte. When the option is set to LSB, the device reads a card ID from the lowest byte to the highest byte. ▪ Mobile Card: You can set the type of mobile card.

Note

- Changing the fingerprint template format makes all previously stored fingerprints unusable. Be sure to select the correct template format before registering user fingerprints.
- If Full Access is set to Enable, the device cannot be added to an Access Level.

2) Click Apply to save the settings.

Related Information

Server

Advanced Settings

You can set the administrator, display/sound and trigger & action.

1) Click Advanced tab.
2) Edit the fields by referring to Administrator, T&A, Display/Sound, Trigger & Action, Image Log, Wiegand, Secure Tamper, Analog Interphone and Camera.
3) Click Apply to save the settings.

Note

- Editable fields vary depending on the device type.

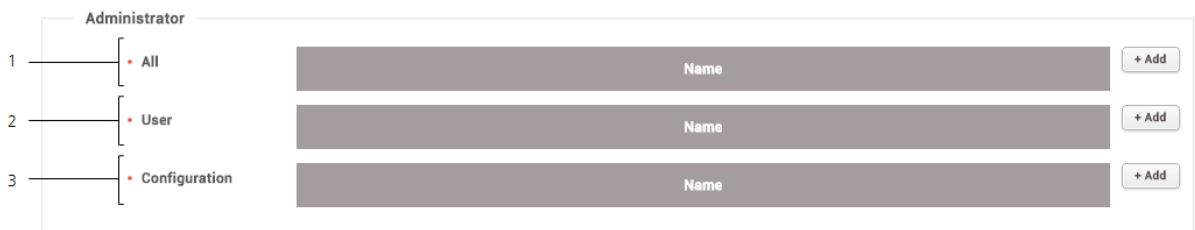
Administrator

You can assign and manage administration rights of the devices.

Note

- You can add and manage up to 1,000 administrators. The number of administrators that can be added depends on the device firmware version.

1) Click + Add and select a user.



No.	Item	Description
1	All	The assigned administrators can use all menu functions such as adding and

No.	Item	Description
		editing users.
2	User	The assigned administrators can manage the user information but cannot change the display, sound, network and RS-485 settings of the device.
3	Configuration	The assigned administrators can change the display, sound, network and RS-485 settings of the device but cannot manage the user information.

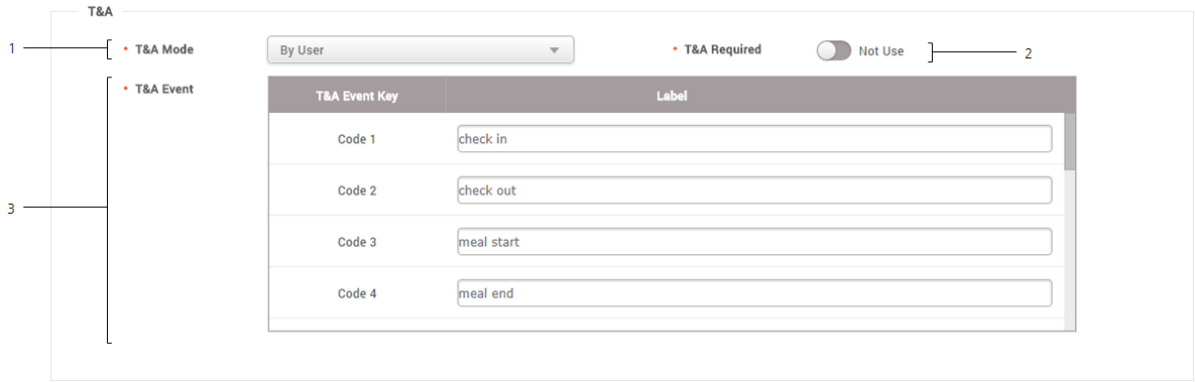
Note

- Click to delete the registered users.
- The administrator settings configured for each device do not affect the BioStar 2 privileges.

T&A

You can change the device's name of the T&A event or configure the device's T&A Mode.

1) Edit the necessary fields.



No.	Item	Description
1	T&A Mode	You can configure the T&A event settings. ▪ Not Use: The user cannot record T&A events. ▪ By User: The user can manually select a T&A event before the authentication. ▪ By Schedule: T&A event automatically changes according to the pre-defined schedule. You can select the schedule under the T&A Event option. ▪ Last Choice: The T&A event that the last user has selected remains unchanged until you change the T&A event manually. ▪ Fixed: The user can use the fixed T&A event only. Configure the T&A Mode to Fixed and select the event you want to use as fixed.

No.	Item	Description
2	T&A Required	The user will be forced to select a T&A event during the authentication process. The T&A Mode option must be set to By User in order to use the Require T&A option.
3	T&A Event	You can set the name of T&A events or you can add schedules which will be used when you set the T&A Mode as By Schedule. ▪ T&A Key: Lists the keys that you can use for T&A event selection. Choose one of the function keys that you want to edit. ▪ Label: You can change the name of the T&A event for the T&A key. ▪ Schedule: You can set a schedule for the By Schedule. The T&A mode must be set to By Schedule in order to enable this option. For more Information on configuring new schedules, see Schedules.

Note

- For a device with no LCD screen, T&A Mode can set to Fixed or By Schedule. You can register a fixed T&A event or a T&A event that changes according to the schedule.
  Supported devices are BioEntry P2, BioEntry W2, BioEntry Plus, BioEntry W, Xpass, Xpass S2, XPass D2 and XPass 2.

Display/Sound

You can edit display and sound settings of the device. You can configure LED or buzzer action for each event.

Note

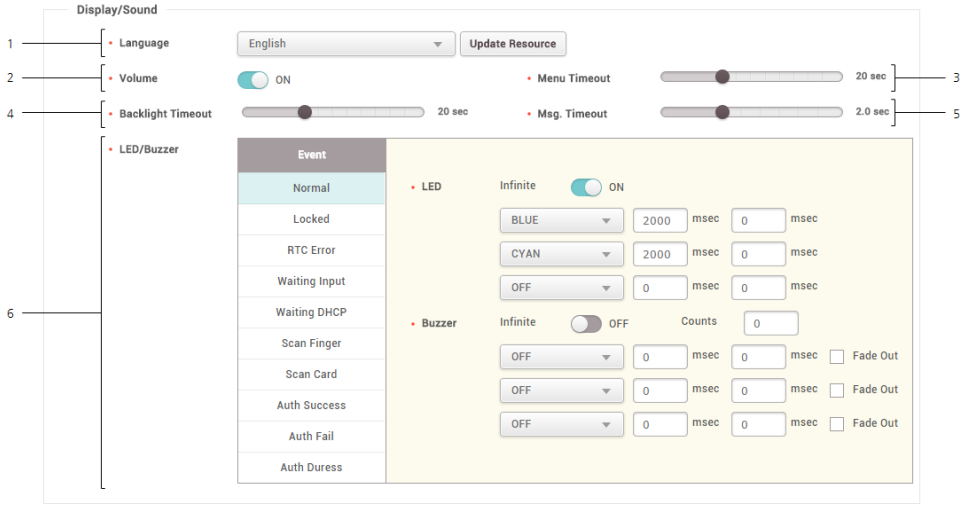
- Editable fields may vary depending on the device type.

1) Edit the necessary fields.

- BioEntry P2, BioEntry W2, BioLite Net, BioEntry Plus, BioEntry W, Xpass, Xpass S2, XPass D2, XPass 2

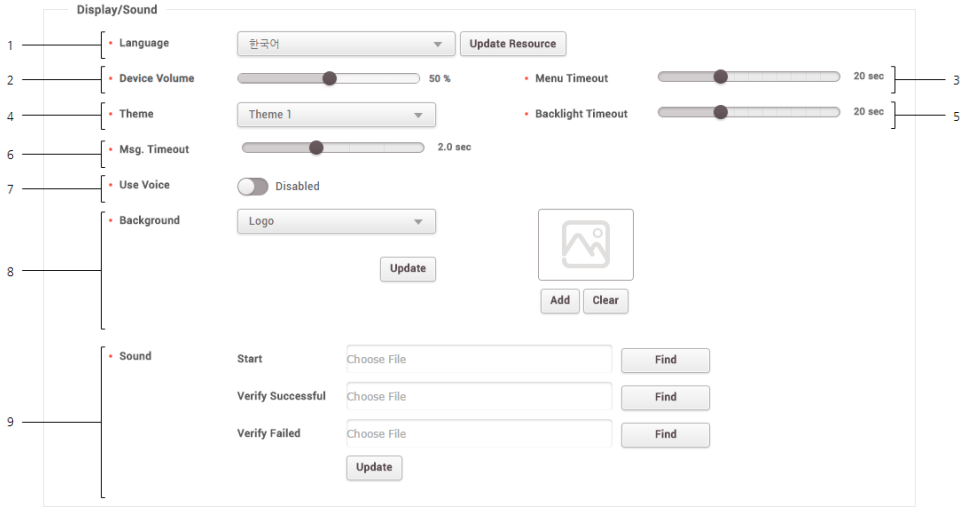
Note

- Language, Menu Timeout, Backlight Timeout, Mgs. Timeout can only be used by BioLite Net.



No.	Item	Description
1	Language	Sets the display language of the device. Click Update Resource to transfer a language resource file to the device.
2	Volume	Turns the sound on or off.
3	Menu Timeout	Sets the timeout period for changing from the menu screen to the standby screen.
4	Backlight Timeout	Sets the timeout period for the display backlight to turn off automatically.
5	Msg. Timeout	Sets the timeout period for various messages to disappear automatically.
6	LED/ Buzzer	Selects an event and set LED or buzzer actions for the event.

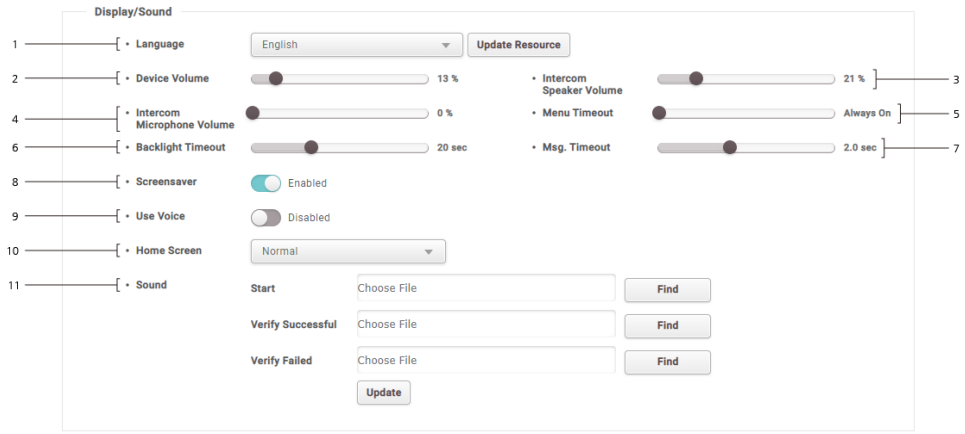
- BioStation 2, BioStation L2, BioLite N2, FaceLite



No.	Item	Description
1	Language	Sets the display language of the device. Click Update Resource to transfer a language resource file to the device.
2	Device Volume	Controls the volume.
3	Menu Timeout	Sets the timeout for the menu screen.
4	Theme	Changes the style of the device's home screen.
5	Backlight Timeout	Sets the timeout for the backlight.
6	Msg. Timeout	Sets the timeout period for various messages to disappear automatically.
7	Use Voice	Enables voice guidance.
8	Background	Sets the items to be displayed on the device's home screen. ▪ Logo: Displays the user's uploaded image on the home screen. You can upload an image by clicking Add. ▪ Notice: Displays messages typed by the administrator. ▪ Slide Show: Displays a slideshow of maximum 10 images. You can upload an image by clicking Add. Note ▪ Click Update to apply the configurations to the device instantly. ▪ Clicking Update will not apply when you change the type of the Background. Click Apply to save the configuration. ▪ Notice and Slide Show are supported on BioStation 2.
9	Sound	Configures the sound effect for boot, authentication success, and authentication failure events. Click Find and select a *.wav file(less than 500KB). Note ▪ Click Update to apply the configurations to the device in real-time.

- BioStation 3, BioStation A2, FaceStation 2, FaceStation F2, X-Station 2

6 Device



No.	Item	Description
1	Language	Sets the display language of the device. Click Update Resource to transfer a language resource file to the device.
2	Device Volume	Controls the device's default volume.
3	Intercom Speaker Volume	Sets the speaker volume when using the Intercom function.
4	Intercom Microphone Volume	Sets the microphone volume when using the Intercom function.
5	Menu Timeout	Sets the timeout for the menu screen.
6	Backlight Timeout	Sets the timeout for the backlight.
7	Msg. Timeout	Sets the timeout period for various messages to disappear automatically.
8	Screensaver	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. Note ▪ Screensaver is supported on FaceStation 2, FaceStation F2, X-Station 2 and BioStation 3.
9	Use Voice	Enables voice guidance.
10	Home Screen	Sets the items to be displayed on the device's home screen. ▪ Normal: Displays the default image on the home screen. ▪ Logo: Displays the user's uploaded image on the home

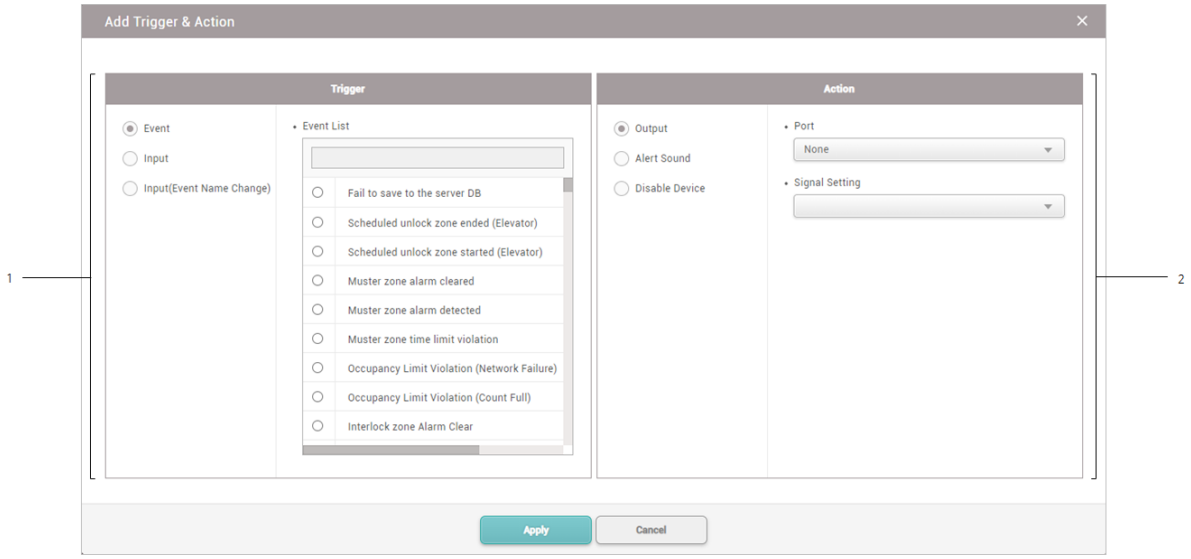
No.	Item	Description
		screen. You can upload an image by clicking Add. ▪ Notice: Displays messages typed by the administrator. Note ▪ Click Update to apply the configurations to the device instantly. ▪ Clicking Update will not apply when you change the type of the Background. Click Apply to save the configuration. ▪ When you set Logo for Home Screen and set Slide Show Enabled, you can display a slideshow of maximum 10 images on the home screen. You can upload an image by clicking Add.
11	Sound	Configures the sound effect for boot, authentication success, and authentication failure events. Click Find and select a *.wav file(less than 500KB). Note ▪ Click Update to apply the configurations to the device in real-time.

Trigger & Action

You can configure triggers and actions for each situation. For instance, you can get all alarms to go off when an authentication fails or disable the device when its RS-485 connection is lost. You can select an event or you can configure the desired triggers and actions.

1) Click + Add and configure the settings.

6 Device



No.	Item	Description
1	Trigger	You can select a pre-defined event or add a user defined trigger. ▪ Event: You can select a pre-defined event. ▪ Input: You can set a user defined trigger by selecting Port, Switch, Duration (ms), and Schedule. ▪ Input(Event Name Change): You can set a user defined trigger by selecting Port, Switch, Duration (ms), Schedule and Event Name. Note ▪ If you set the trigger as an event, you can select only one event from the event list. ▪ When configuring a user defined condition by selecting Input or Input(Event Name Change), if no desired schedule is available, click + Add Schedule to create it. For more information on configuring schedules, see Schedules. ▪ When configuring a user defined condition by selecting Input(Event Name Change), if no desired event name is available, click Add Event Name to create it. When the event occurs, the event name is displayed in the Event Log and Real-time Log. ▪ Up to 64 characters may be entered for the event name.
2	Action	You can select a pre-defined action or add a user defined action. Note ▪ When configuring a user defined action by selecting Output, if no desired signal is available, click + Add Signal to create it. ▪ If you set the trigger as Input(Event Name Change), you can set the Action to None.

6 Device

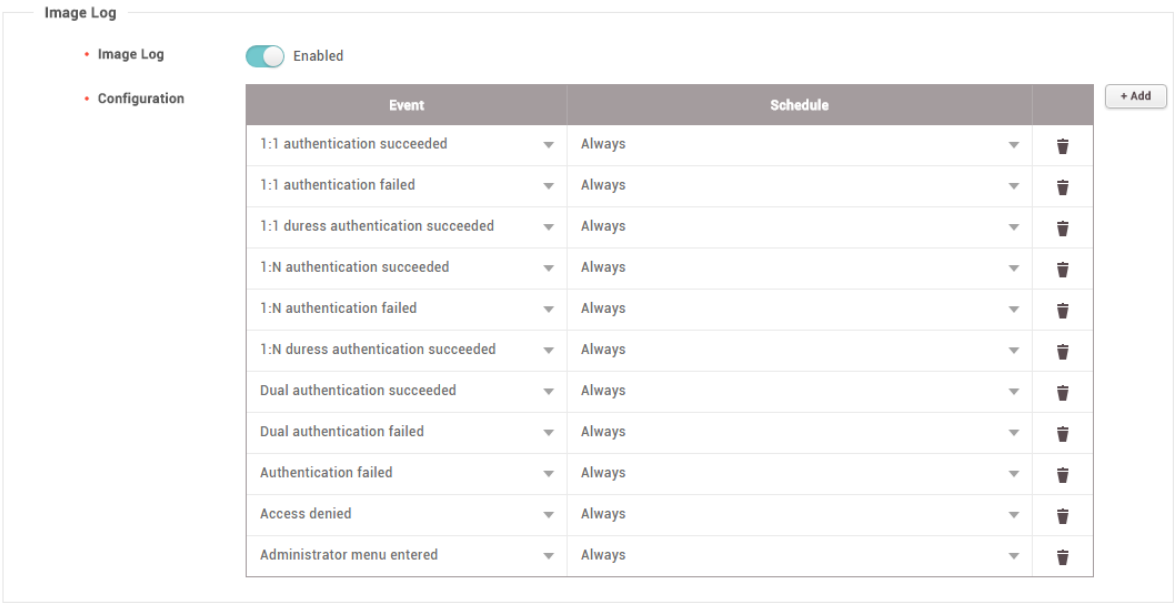
Image Log

You can set an image log event and schedule to be used in the device.

Note

- Only for BioStation A2, FaceStation 2, FaceStation F2, X-Station 2 and BioStation 3.

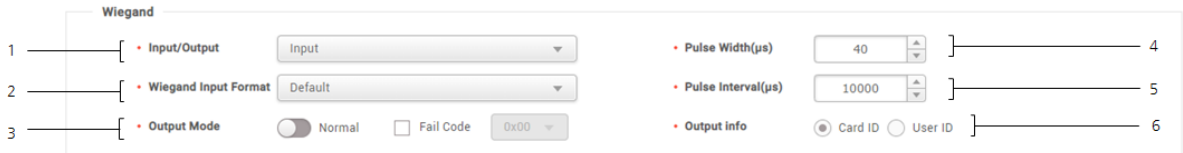
1) Set Enabled for the image log. It is possible to set Preset from Setting > Image Log. For more information, see Image Log.
2) Click + Add and set a desired event and schedule.



Wiegand

You can define the Wiegand Input/Output.

1) Edit the necessary fields.



No.	Item	Description

1	Input/ Output	You can select input/output mode.
2	Wiegand Input Format	You can set a format for Wiegand. For more information on setting a Wiegand format, see Card Format.
3	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.
4	Pulse Width	You can set the pulse width of the Wiegand signal.
5	Pulse Interval	You can set the pulse interval of the Wiegand signal.
6	Output info	You can select the information output to the device when the user authenticates.

Secure Tamper

If a tamper event occurs on the device, you can set to delete the entire user information, the entire log, and the security key stored on the device.

1) To use the secure tamper, set to On.

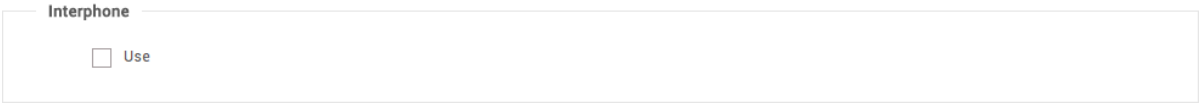
Analog Interphone

It is possible to set whether or not to use an analog interphone.

Note

- Only for BioStation 2.

1) Click Use to use a connected intercom.



6 Device

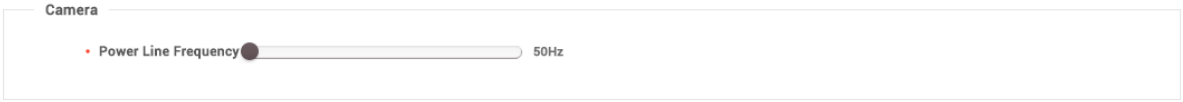
Camera

It is possible to set the camera frequency. If you set the frequency incorrectly in the environment where the fluorescent light is used, flickering on the image may occur.
Different camera frequencies are used depending on geographic location. 60 Hz is generally used in U.S., and 50 Hz is used in all other areas.
For the camera frequency of a given area, contact a sales agent.

Note

- Only for BioStation A2.

1) Select the frequency.



Thermal & Mask

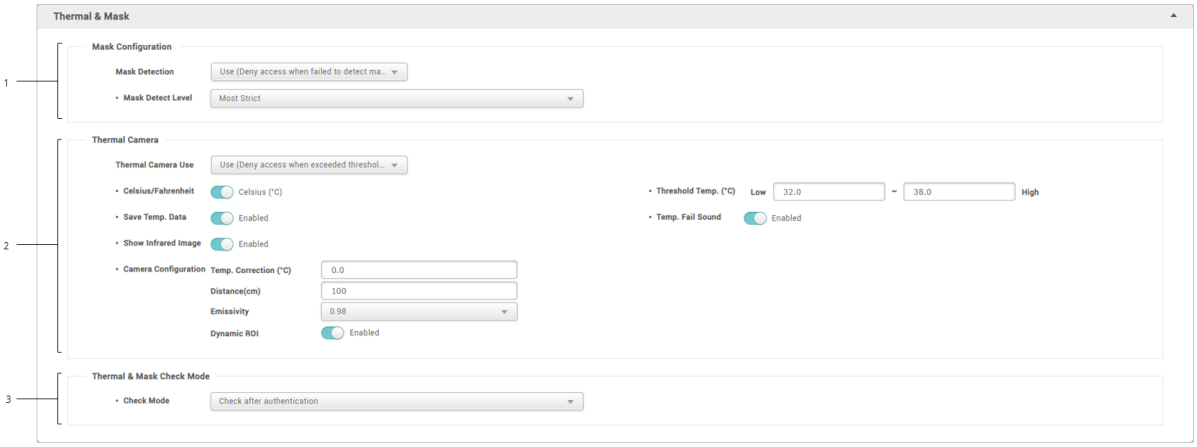
You can set the detailed settings of thermal camera and mask detection.
Thermal camera with Suprema face recognition devices measures temperature of users passing the access point and limit the access of users with higher temperature than preset threshold. And the face recognition devices can also detect masks and restrict access to users without masks.

Note

- Only FaceStation 2 and FaceStation F2 support thermal cameras.
- The supported thermal cameras are as follows.
  - TCM10-FS2
  - TCM10-FSF2
- Only FaceStation F2 and BioStation 3 support mask detection.

1) Edit the necessary items.

6 Device



No.	Item	Description
1	Mask Configuration	You can set whether to use mask detection or not. ▪ 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. ▪ Mask Detect Level: You can set sensitivity for mask detection.
2	Thermal Camera	You can set options whether to use the thermal camera and edit the detailed settings. ▪ Thermal Camera Use: You can set whether to use thermal camera or not. If you select Use (Deny access when exceeded threshold temperature), it refuses authentication of users with elevated temperature than the preset threshold and saves event logs. If you select Use (Allow access after leaving log when exceeded threshold temperature), users with elevated temperature than the preset threshold can authenticate but event logs still be saved. ▪ Celsius/Fahrenheit: Change the unit of temperature. ▪ Threshold Temp. (? /?): You can set the minimum and maximum temperature values to limit the access. The access of users with a lower or higher skin temperature than threshold temperature will be restricted depending on the Thermal Camera Use settings. It can be set in the range of 1 °C to 45 °C, and the Low value cannot be set higher than the High value. ▪ Save Temp. Data: Save temperature data. When this mode is Enabled, it saves both authentication and temperature logs. When this mode is Disabled, it only saves authentication logs. ▪ Temp. Fail Sound: Set the alerts to trigger when the temperature is higher than the preset threshold. ▪ Show Infrared Image: Display infrared imaging on the screen of the

<table>
<tr><th>No.</th><th>Item</th><th>Description</th></tr>
<tr><td></td><td></td><td>devices.
▪ Camera Configuration: Configure the thermal camera settings for accurate measurement.
- Temp. Correction (?): Depending on the device usage environment, the temperature can be calibrated to measure as high or low as a certain value. For example, in an environment where the temperature value is always measured high by 0.1? , set the temperature compensation value to -0.1? .
- Distance(cm): Set up the distance between the user and device.
- Emissivity: Set up the emissivity to precisely measure the temperature of the user.
- Dynamic ROI: If there are lights in the device field of view, you can set the thermal camera to automatically measure the user's temperature rather than that light.
- ROI X(%), ROI Y(%), ROI Width(%), ROI Height(%): If you set Dynamic ROI to Disabled, you can manually set the ROI(Region of Interest). Set the temperature measurement area by adjusting the size and position of ROI.

Note
▪ Low and High value settings of Threshold Temp. can be used from the firmware version below.
- FaceStation 2 FW 1.4.2 or later
- FaceStation F2 FW 1.0.2 or later
▪ It is recommended to maintain the default values of the camera configuration settings for the best performance. The default values ? for each option per device are as follows:
<table>
<tr><th>Items</th><th>FaceStation 2</th><th>FaceStation F2</th></tr>
<tr><td>Distance(cm)</td><td>100</td><td>100</td></tr>
<tr><td>Emissivity</td><td>0.98</td><td>0.98</td></tr>
<tr><td>ROI X(%)</td><td>47</td><td>30</td></tr>
<tr><td>ROI Y(%)</td><td>45</td><td>25</td></tr>
<tr><td>ROI Width(%)</td><td>15</td><td>50</td></tr>
<tr><td>ROI Height(%)</td><td>10</td><td>55</td></tr>
</table></td></tr>
<tr><td>3</td><td>Thermal & Mask Check Mode</td><td>Set the thermal & mask check mode depending on the desired usage.

▪ Check after authentication: Measure the temperature or detect the mask after a successful authentication.
▪ Check before authentication: Authentication is performed after checking whether the user is wearing a mask or measuring the temperature. When using this mode, it does not attempt to authenticate user's identity if they does not wear masks or their temperature has been</td></tr>
</table>

No.	Item	Description
		detected to be above the threshold. ▪ Check without authentication: The device may only be used to determine whether a mask is worn or to measure temperature. In this mode, regardless of authentication, all users wearing a mask or below the reference temperature can enter.

2) Click Apply to save the settings.

SIP Intercom

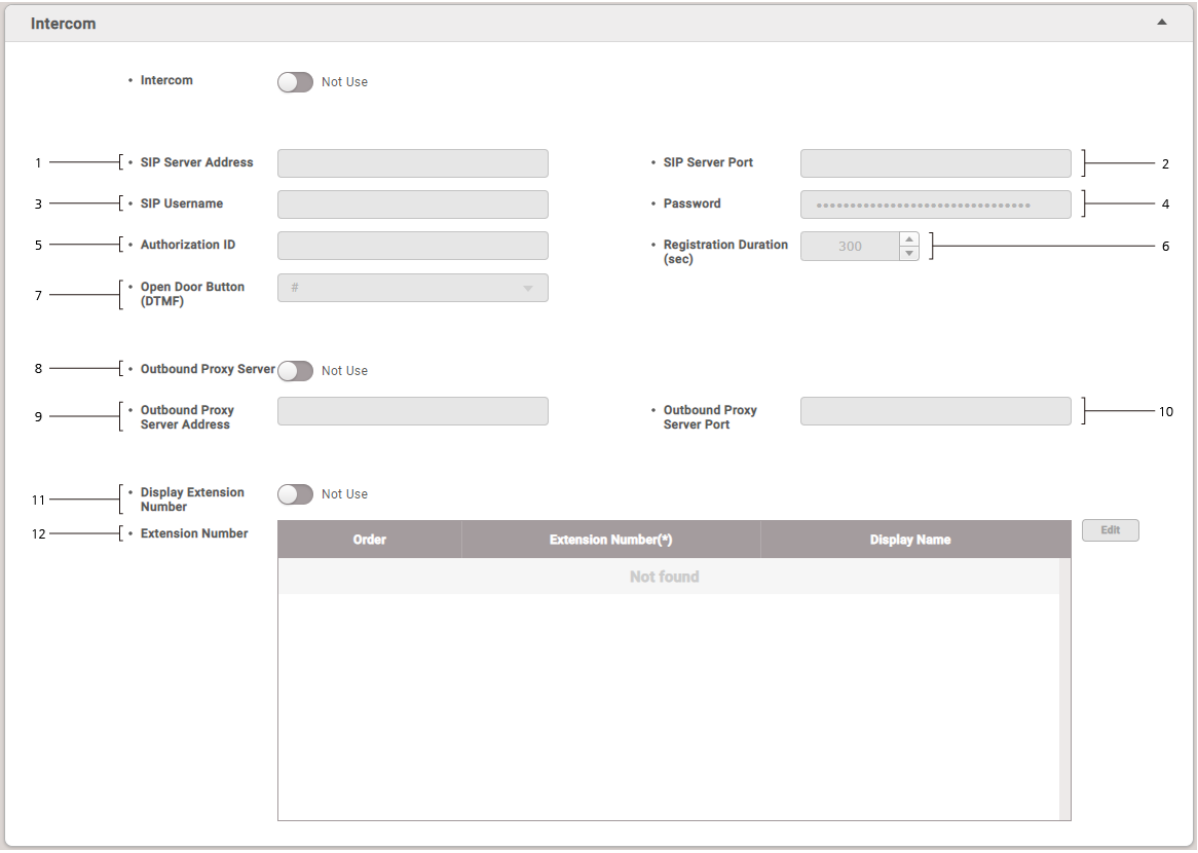
You can set the detailed settings of SIP Intercom.

Note

- SIP Intercom is only supported on BioStation 3, FaceStation 2, BioStation A2.
- Editable fields vary depending on the device type.

2) Set Intercom to Use.
3) Fill SIP configurations to register the device to your SIP server.

6 Device



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. Note ▪ 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	If your SIP service has a separate (outbound) proxy server, set this to Use.

	Proxy Server	
9	Outbound Proxy Server Address	Enter the outbound proxy server address.
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. Note ▪ If Display Name is not set, it will not be possible to distinguish receivers.
12	Extension Number	Register extension numbers up to 128. Click Edit to add / edit ▪ Send to Top: Selected extension number moves to the top of the list. ▪ CSV Import: Import extension numbers from a CSV file. ▪ CSV Export: Export extension numbers to a CSV file. ▪ Add: Add an extension number ▪ Delete: Delete an extension number ▪ Reorder: Reorder extension numbers by drag and drop. Note ▪ Max. Number of Extension Numbers for FaceStation 2 and BioStation A2 is up to 16. ▪ CSV file cannot contain more than maximum number of supported extension numbers.

4) Click Apply to save the settings.

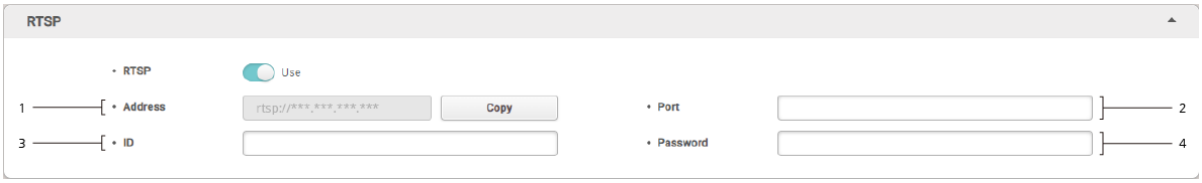
RTSP

It is possible to set whether to use RTSP.

Note

- RTSP is only supported on BioStation 3.

1) Set RTSP to Use.
2) Enter the necessary fields.



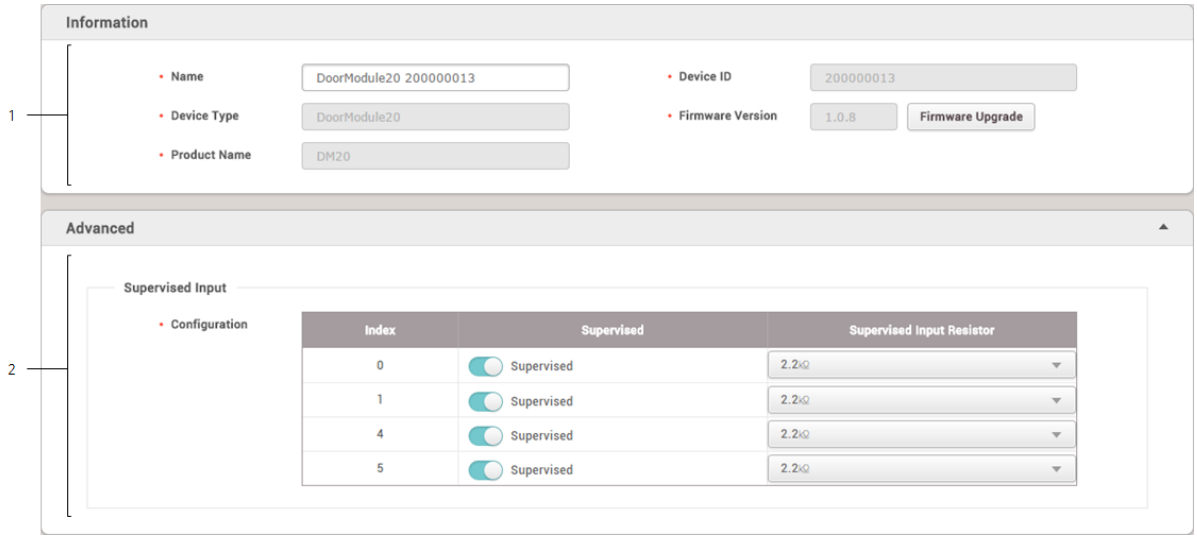
No.	Item	Description
1	Address	RTSP address is fixed. ▪ Copy: Easily copy the RTSP address.
2	Port	Set RTSP port.
3	ID	Set ID of your RTSP credential.
4	Password	Set password of your RTSP credential.

3) Click Apply to save the settings.

DM-20

You can edit detailed settings of registered DM-20.

1) Click DEVICE.
2) Click a DM-20 on the device list to edit.



No.	Item	Description
1	Information	You can modify the device's settings.

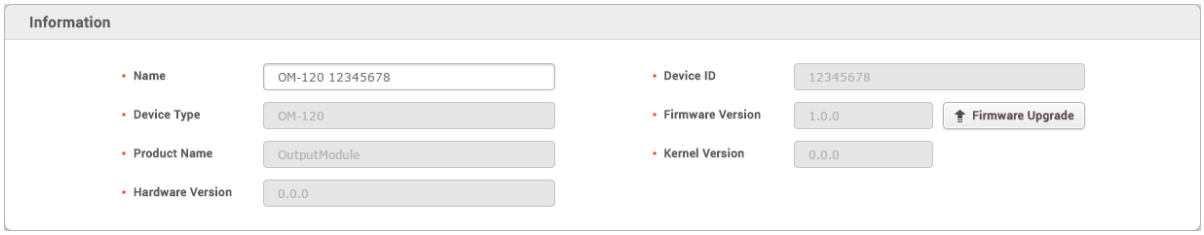
No.	Item	Description
		▪ Name: Enter a device name. ▪ Device ID: View the device ID. ▪ Device Type: View the device type. ▪ Firmware Version: Click Firmware Upgrade to install a newer firmware version. ▪ Product Name: View the model name.
2	Advanced	You can modify the Supervised Input settings. The DM-20 can oversee the On, Off, Open, and Short status of the device connected to the Supervised Input port, and can set the terminating resistor as 1kΩ, 2.2kΩ, 4.7kΩ, 10kΩ.

3) Click Apply to save the settings.

OM-120

You can edit detailed settings of registered OM-120.

1) Click DEVICE.
2) Click a OM-120 on the device list to edit.



Item	Description
Information	You can modify the device's settings. ▪ Name: Enter a device name. ▪ Device ID: View the device ID. ▪ Device Type: View the device type. ▪ Firmware Version: Click Firmware Upgrade to install a newer firmware version. ▪ Product Name: View the model name. ▪ Kernel Version: View the kernel version. ▪ Hardware Version: View the hardware version.

3) Click Apply to save the settings.

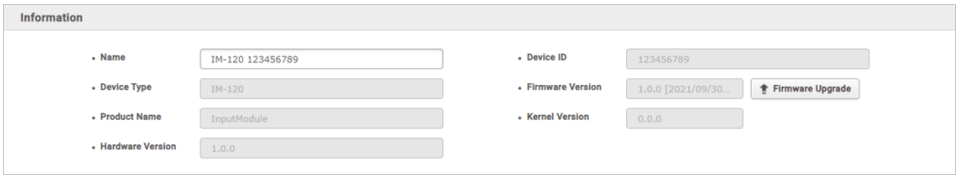
6 Device

IM-120

IM-120 provides instant relay behavior by connecting to BioStar 2 for detected inputs in real-time and it operates a relay or saves logs for detected inputs while it is disconnected from the master device. You can edit detailed settings of registered OM-120.

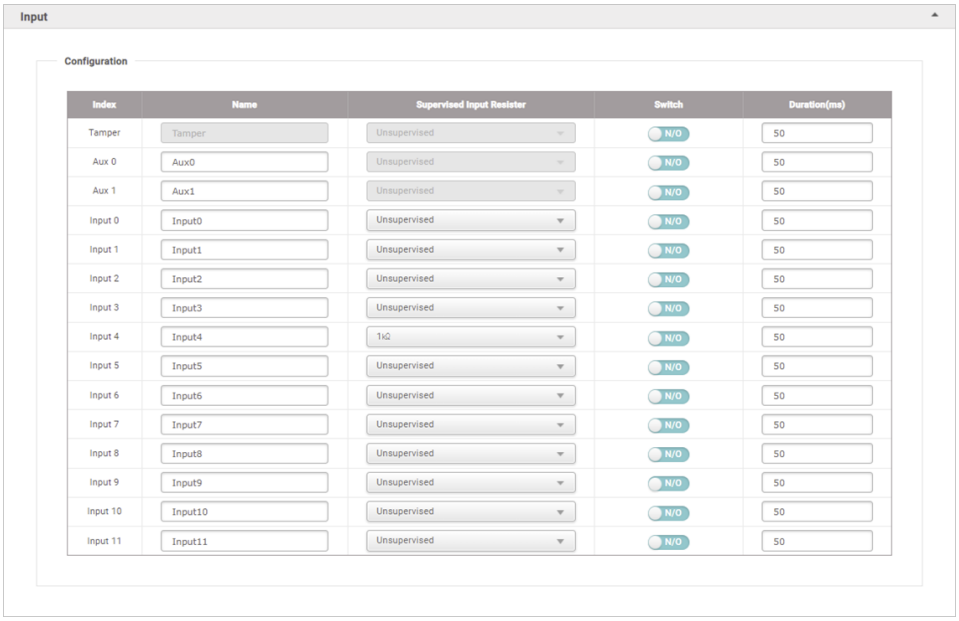
1) Click DEVICE.
2) Click a IM-120 on the device list to edit.
3) Edit the necessary items.

Information



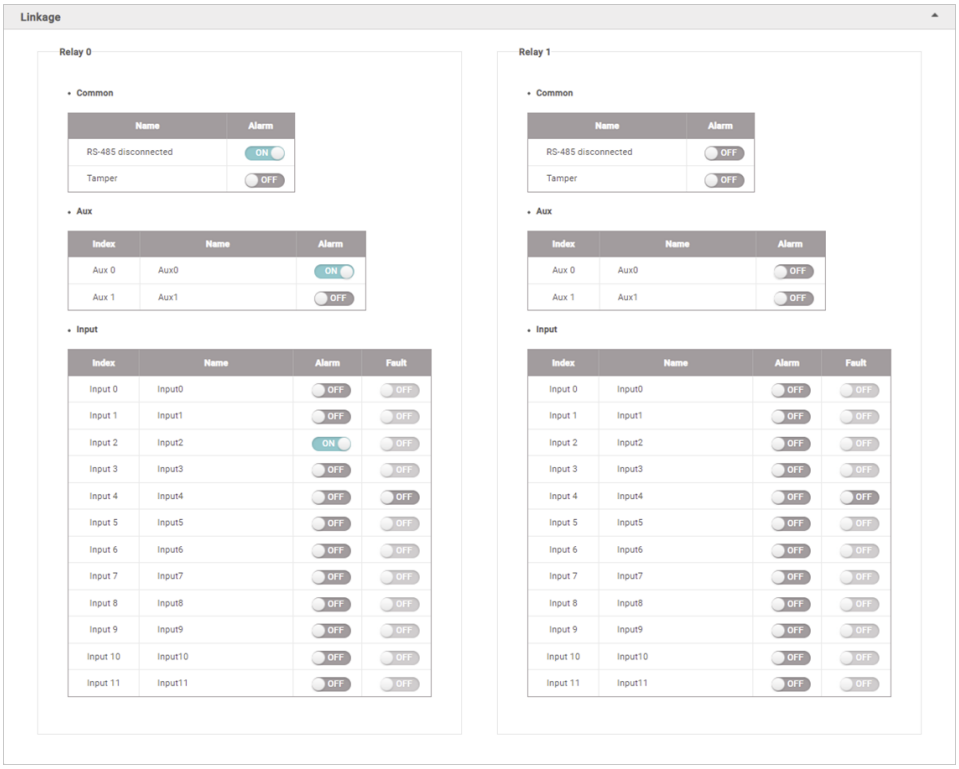
Item	Description
Information	You can modify the device's settings. ▪ Name: Enter a device name. ▪ Device ID: View the device ID. ▪ Device Type: View the device type. ▪ Firmware Version: Click Firmware Upgrade to install a newer firmware version. ▪ Product Name: View the model name. ▪ Kernel Version: View the kernel version. ▪ Hardware Version: View the hardware version.

Input



Item	Description
Input	You can enter the name of each input port and set the resistance value, switch, and duration. ▪ Index: 12 inputs, 2 AUX inputs, and tamper supported by IM-120 are displayed in the index column. ▪ Name: Enter a name for each input. ▪ Supervised Input Resister: You can set whether to use supervised input or not and the resistance value. Supervised input allows you to monitor the on, off, cut, and short status of the device by detecting the voltage flowing through the device circuit connected to that port. When Supervised Input Resister is set to Unsupervised, the supervised input port is used as a TTL input. 1kΩ, 2.2kΩ, 4.7kΩ and 10kΩ can be set for the resistance value. Note ▪ Set the resistance value the same as the resistor connected to the input device. ▪ Switch: The Switch can be set to N/C or N/O. ▪ Duration(ms): You can set the minimum time for an input signal to be considered valid when it occurs. Duration can only be entered numbers from 50 to 65535.

Linkage



Item	Description
Linkage	You can set the action of relay for each input. You can set the action of Relay 0 and Relay 1 respectively. ▪ Common - RS-485 disconnected: You can set whether to trigger an alarm when the connection with the master device is lost. - Tamper: You can set whether to trigger an alarm when a tamper occurs. ▪ AUX: You can set whether to trigger an alarm when an AUX signal occurs. The AUX port can be used to connect a power failure detector or a dry contact output from another device. ▪ Input: You can set whether to operate an alarm or a fault when an input signal occurs. Fault (cut and short) is only activated when the supervised input is enabled by selecting a resistance value in the Supervised Input Resister.

4) Click Apply to save the settings.

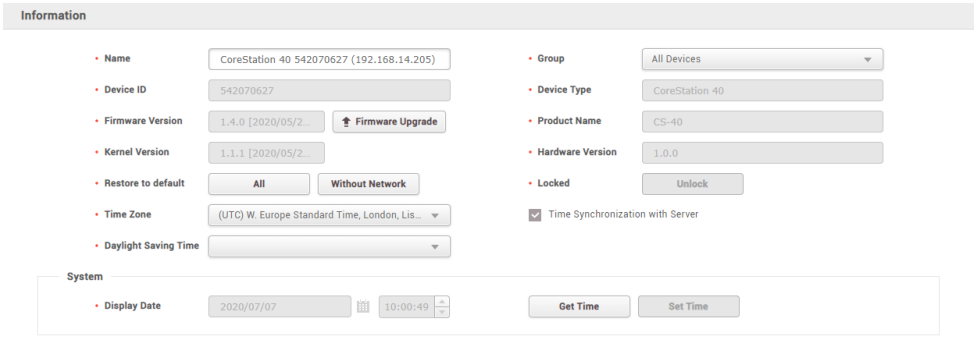
CoreStation

You can edit detailed settings of registered CoreStation.

1) Click DEVICE.

2) Click a CoreStation on the device list to edit..
3) Edit the necessary items.

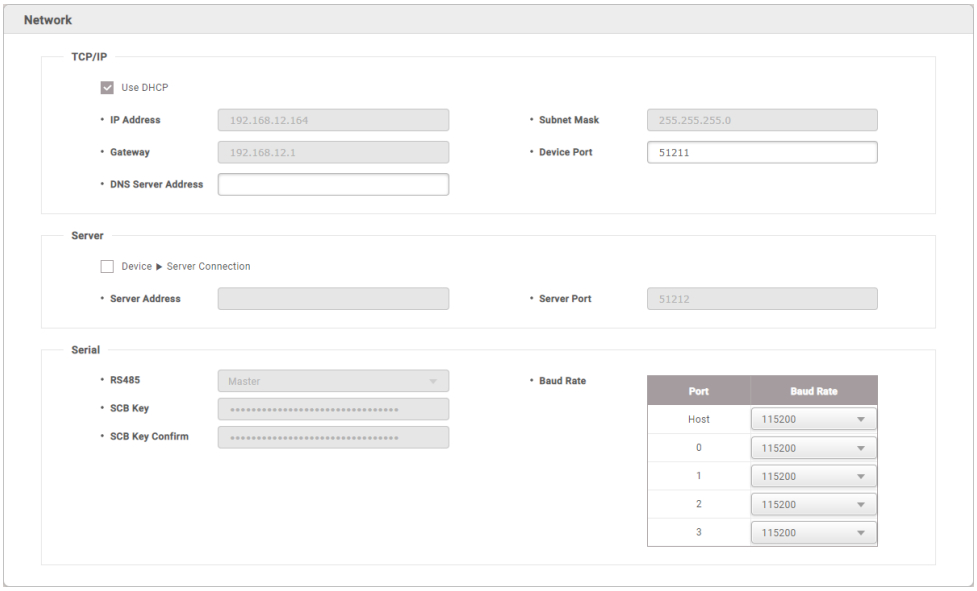
Information



Item	Description
Information	▪ Name: Enter a device name. ▪ Device ID: View the device ID. ▪ Firmware Version: Click Firmware Upgrade to install a newer firmware version. ▪ Kernel Version: View the kernel version. ▪ Restore to default: Reset the settings of the device. Click All to reset all settings. Click Without Network to reset all settings excluding the network settings. ▪ Time Zone: Set the time zone of the device. You can set a different standard time zone of the device from the time zone of the BioStar 2 server. ▪ Daylight Saving Time: Apply the daylight saving time to the device. To add a new daylight saving time rule, see Daylight Saving Time. ▪ Group: Change the device group. For more information on adding device groups, see Adding and Managing Device Groups. ▪ Device Type: View the device type. ▪ Product Name: View the model name. ▪ Hardware Version: View the hardware version. ▪ Locked: Unlock button will be available when the device is disabled via Trigger & Action. ▪ Time Synchronization with Server: Select the option to synchronize the time information of the device with the server.
System	▪ Display Date: Click to manually set the date and time. If the Time Synchronization with Server option is selected, the date and time cannot be selected manually. ▪ Get Time: Click the button to fetch the time set in the device. ▪ Set Time: Click the button to apply the time set in BioStar 2 to the device.

6 Device

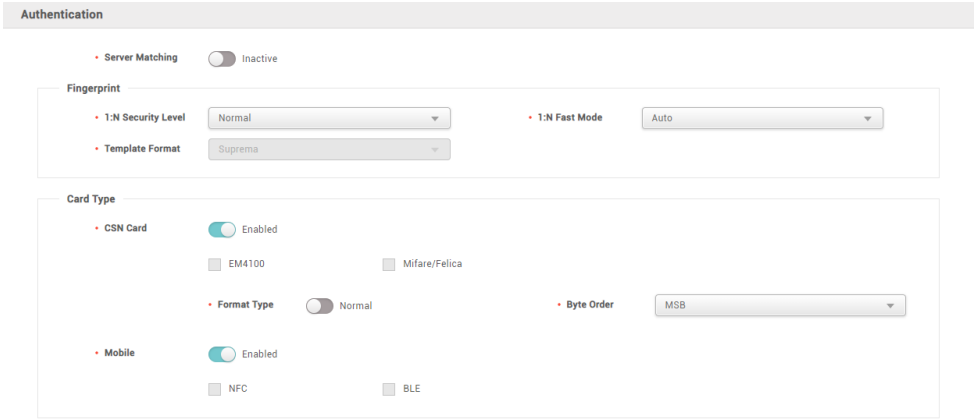
Network



Item	Description
TCP/IP	▪ 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: To assign a fixed IP to the device, enter the information of each network. Uncheck Use DHCP and enter the information. ▪ Device Port: Enter a port to be used by the device. This port is used for the communication between BioStar 2 and the device. ▪ DNS Server Address: Enter a DNS server address.
Server	▪ **Device → Server Connection**: Select this option to configure the BioStar 2 settings for connecting to the devices. If this option is selected, BioStar 2 server network settings can be entered. ▪ Server Address: Enter the IP address or domain name of the BioStar 2 server. ▪ Server Port: Enter the port number of the BioStar 2 server.
Serial	▪ RS-485: You can only use Master. ▪ Baud Rate: Set a baud rate of the RS-485 connection. ▪ SCB Key: Set the SCB key of the device. This feature is active only when there is no RS-485 device connected to the CoreStation. ▪ SCB Key Confirm: Make sure it matches the SCB key you set. This feature is active only when there is no RS-485 device connected to the CoreStation.

Item	Description
	Note ▪ The SCB Key can be entered up to 16 bytes.

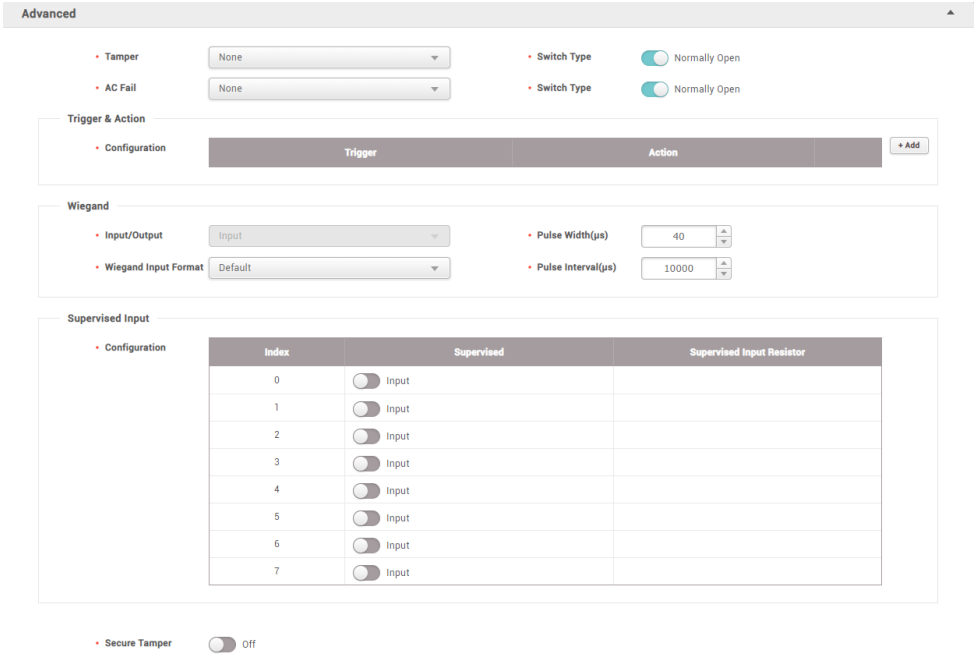
Authentication



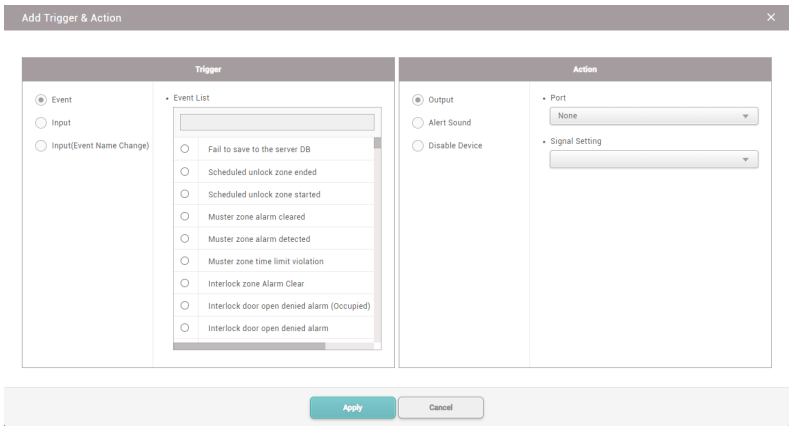
Item	Description
Authentication	▪ Server Matching: It is possible to set server matching. When Active is set, the authentication is carried out using the user information stored in the PC where BioStar 2 is installed, and when Inactive is set, the authentication is carried out using the user information stored in the device. When using server matching, the server matching of BioStar 2 should be also activated. For more information, refer to Server.
Fingerprint	▪ 1:N Security Level: You can set a security level to use for fingerprint or face authentication. The higher the security level is set, the false rejection rate (FRR) gets higher, but the false acceptance rate (FAR) gets lower. ▪ 1:N Fast Mode: You can set the fingerprint authentication speed. Select Auto to have the authentication speed configured according to the total amount of fingerprint templates registered within the device. ▪ Template Format: You can view the fingerprint template format.
Card Type	You can set the type of card used by the device. Note ▪ The type of card supported by the device is displayed. ▪ CSN Card: You can select the CSN card and format type and set

Item	Description
	the byte order. Note ▪ If Format Type is set to Nornal, the device will read the card serial number (CSN). If the option is set to Wiegand, the device will read the card serial number in a Wiegand format that the user has defined. ▪ If Format Type is set to Wiegand, you can select the Wiegand format to be used in the device. To set a new Wiegand format, refer to Wiegand. ▪ When Byte Order is set to MSB, the device reads a card ID from the highest byte to the lowest byte. For example, the highest byte of the card ID 0x12345678 is 0x12 and the device sequentially reads 0x12, 0x34, 0x56 and 0x78. When the option is set to LSB, the device reads a card ID from the lowest byte to the highest byte. ▪ Mobile Card: You can set the type of mobile card.

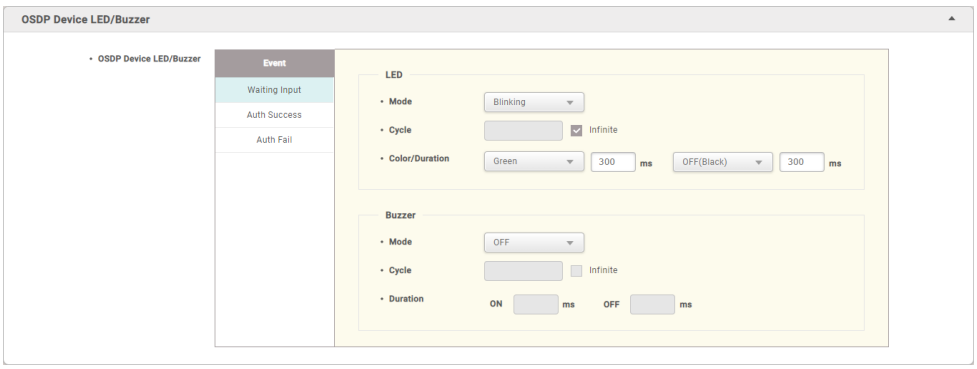
Advanced



Item	Description
Advanced	▪ Tamper: You can set the AUX port where the tamper is connected. ▪ AC Fail: You can set the AUX port that monitors the power input

Item	Description
	signal.
Trigger & Action	▪ Configuration: You can set the operation of the device according to a pre-defined alarm or signal input. For example, you can set to output a signal set by the user or not to use the device when a temper on signal occurs in CoreStation. 
Wiegand	▪ In/Out: You can only use input mode. ▪ Input Format: You can set a format for Wiegand. For more information on setting a Wiegand format, see Card Format. ▪ Pulse Width: You can set the pulse width of the Wiegand signal. ▪ Pulse Interval: You can set the pulse interval of the Wiegand signal.
Supervised Input	You can set the supervised input port of CoreStation to be used as TTL input port and set a resistance value to be used for supervised input. 1kΩ, 2.2kΩ, 4.7kΩ and 10kΩ can be set for the resistance value.
Secure Tamper	If a tamper event occurs on the device, you can set to delete the entire user information, the entire log, and the security key stored on the device.

OSDP Device LED/Buzzer



Item	Description
OSDP Device LED/Buzzer	When an event occurs in all OSDP devices connected to CoreStation, LED and buzzer operations can be set collectively. Note ▪ If the OSDP device connected to CoreStation does not support LED and buzzer, it may not operate as set.
LED	Sets the LED operation when Waiting Input, Auth Success, and Auth Fail events occur. ▪ Mode: Set the desired operation among OFF, Constant, and Blinking. ▪ Cycle: When Mode is set to Blinking, enter the number of LED blinks. Check Infinite to continuously repeat the set Mode. ▪ Color / Duration: When Mode is set to Blinking, select two colors to blink at the set repeat count and enter Duration. When Mode is set to Constant, select one color to indicates and enter Duration.
Buzzer	Sets the buzzer operation when Waiting Input, Auth Success, and Auth Fail events occur. ▪ Mode: Set the desired operation among OFF, Constant, and Beeping. ▪ Cycle: When Mode is set to Beeping, enter the number of buzzer plays. Check Infinite to continuously repeat the set Mode. ▪ Duration: When Mode is set to Beeping, enter the duration for the buzzer to be plays at each set repeat count. When Mode is set to Constant, enter the duration for the buzzer to be plays.

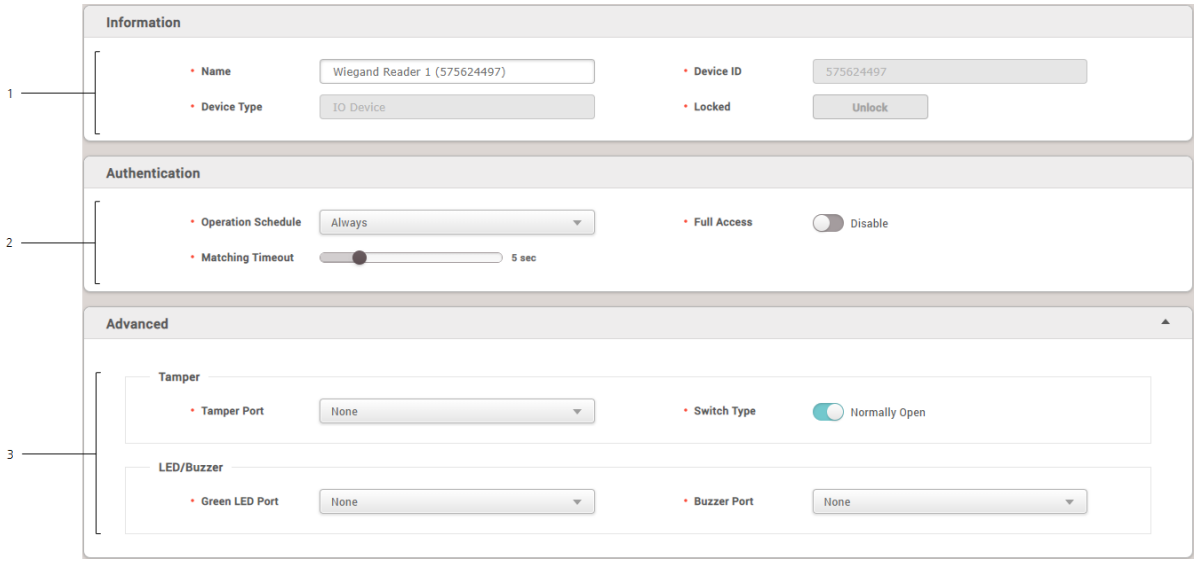
4) Click Apply to save the settings.

Wiegand Device

You can edit detailed information of registered Wiegand devices.

1) Click DEVICE.
2) Click a Wiegand device on the device list to edit.

6 Device



No.	Item	Description
1	Information	You can modify the settings of the Wiegand device. ▪ Name: Enter a device name. ▪ Device ID: View the device ID. ▪ Device Type: View the device type.
2	Authentication	Modify the Wiegand device's authentication settings. ▪ Operation Schedule: Configure the activating time for the device. ▪ Full Access: Allows the user to authenticate anytime. This overrides the access group of the user on the master device. ▪ Matching Timeout: You can set the matching timeout period. If the authentication is not completed within the set time, the authentication fails.
3	Advanced	Modify the Wiegand device's tamper switch and LED settings. ▪ Tamper Port: Select the input port where the Wiegand device's tamper switch is connected. ▪ Switch Type: Select the tamper switch type for the tamper operation. ▪ Green LED Port: Select the control port for the green LED. ▪ Buzzer Port: Select the control port for the buzzer.

3) Click Apply to save the settings.

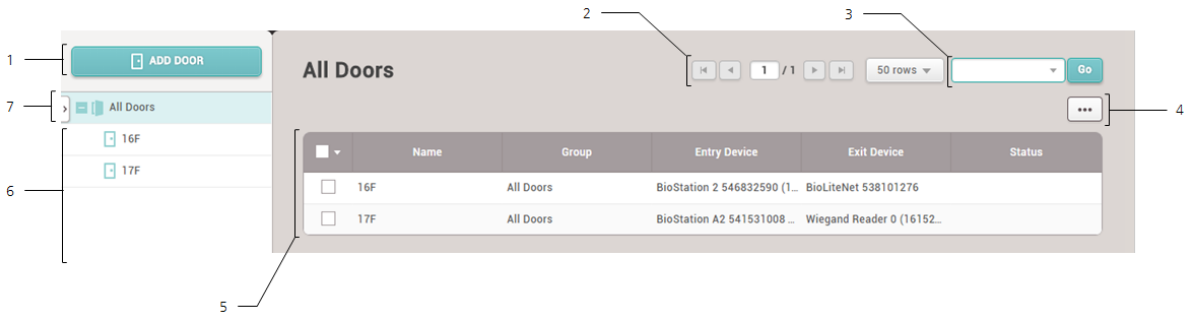
You can use the DOOR menu to add the information on doors connected to devices.
You can configure relay, dual authentication, anti-passback, forced open and held open alarm settings of the device. The door information is then used as a component of the access levels.

Adding and Managing Door Groups

7 Door

Add Door

Editing Doors



1 Add Door	5 Door List
2 Page Navigation Buttons and Number of List Rows	6 Door and Group List
3 Registered Device Search	7 Expand Button
4 Function Button (Print, Column Setting)	

After selecting a door, you can perform the following actions.

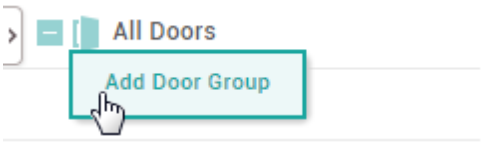
- Delete Door: Deletes the selected door from the list.

Adding and Managing Door Groups

You can add groups for easy management of multiple doors. Name your door groups according to door locations or office names for greater convenience.

━ Adding Door Groups

1) Click DOOR.
2) Right-click on All Door Groups and click Add Door Group.



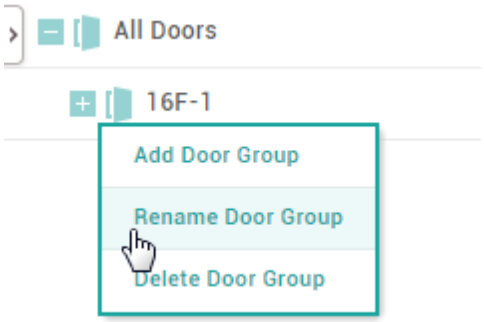
3) Enter a group name.

Note

- Door groups may be created in up to 8 levels.
- Up to 48 characters may be entered for a door group name.

Renaming Door Groups

1) Click DOOR.
2) Right-click on the name of a group you wish to rename and click Rename Door Group.



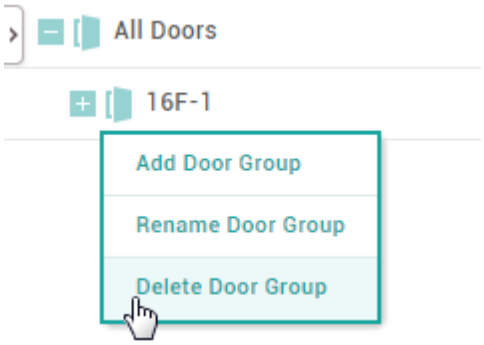
3) Enter a name.

Note

- Up to 48 characters may be entered for a door group name.

Deleting Door Groups

1) Click DOOR.
2) Right-click on the name of a group you wish to delete and click Delete User Group.



Note

- Deleting a group deletes all doors in the group.

7 Door

Adding Doors

You can configure the doors to use in your access control installation. You can select an entry device and an exit device, configure Anti-passback settings for improved security, or configure alarms for each door.

1) Click DOOR and click ADD DOOR.
2) Configure the settings by referring to Information, Configuration, Option, Anti PassBack and Alarm.
3) After editing all information, click Apply.

Related Information

Basic Search and Registration

Slave Device Search and Registration

Adding and Managing Access Levels

Information

You can enter or edit the name, group and description of the door.

1) Edit all fields of the Information tab.

No.	Item	Description
1	Name	Enter a door name.
2	Group	Set a door group. For more information on adding door groups, see Adding and Managing Door Groups.
3	Description	Enter a short description of the door.

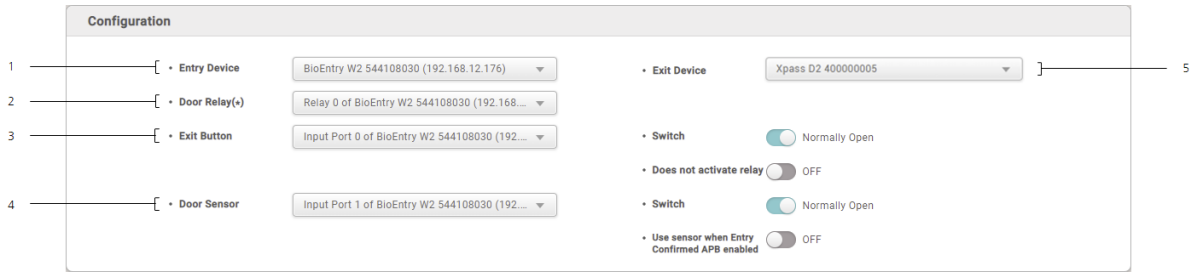
2) Click Apply to save the settings.

Configuration

You can configure various settings for the device, exit button, door sensor, etc.

7 Door

1) Edit all fields of the Configuration tab.



No.	Item	Description
1	Entry device	Select a device to use for entry. You can select a device from the list of registered devices. If no registered device is available, see Basic Search and Registration, Advanced Search and Registration, Wiegand Device Search and Registration, or Slave Device Search and Registration.
2	Door relay	Select a relay to control the door lock.
3	Exit button	Select a port to use for the exit button. ▪ The Switch can be set to Normally Closed or Normally Open. ▪ Does not activate relay: You can set the door open request log to occur but the relay not to operate when the exit button is pressed.
4	Door sensor	Select a port to check the door status. ▪ The Switch can be set to Normally Closed or Normally Open. ▪ Use sensor when Entry Confirmed APB enabled: You can set whether to use the door sensor when using Entry Confirmed APB. ▪ If Door Sensor is set to None, the Alarm tab cannot be edited.
5	Exit device	Select a device to use at exit. An exit device can only be used when there is a slave device connected. If there is no registered slave device, see Basic Search and Registration, Advanced Search and Registration, Wiegand Device Search and Registration, or Slave Device Search and Registration. ▪ If no exit device is selected, the Anti Pass Back tab cannot be edited.

2) Click Apply to save the settings.

Note

- CoreStation can not be set as either an entry device or an exit device.

Related Information

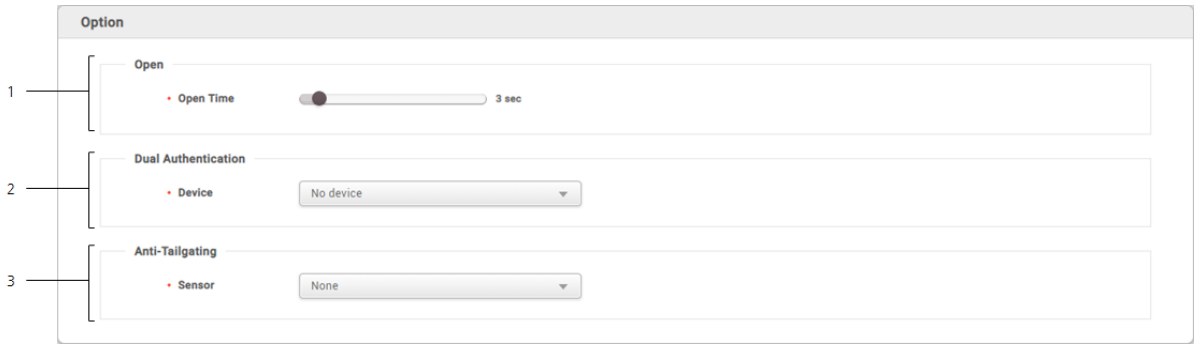
Anti Passback

7 Door

Option

You can configure additional options.

1) Edit all fields of the Option tab.



No.	Item	Description
1	Open	You can configure options concerning the opening of the door. ▪ Open Time: Set the duration for which the door will remain open after a user authentication is completed. When the authentication is successful, the relay will be activated for the set time. When this time elapses, the relay no longer sends the signal to the door. Note ▪ Open Time may vary depending on the type of door lock used. ▪ Lock when door is closed: When the door sensor detects that the door is closed, the door is locked. This option is not available if Use Automatic Door is set to ON. ▪ Use Automatic Door: When using an automatic door as an entrance door, a relay can operate regardless of the status of a door sensor. This option is not available if Lock when door is closed is set to ON.
2	Dual Authentication	You can configure the door to open only when authenticating credentials of two persons (an ordinary user and an administrator). ▪ Device: Select a device to use dual authentication. If No device is selected, the dual authentication mode is disabled. Note ▪ If you want to use the Dual Authentication feature on the device previously set as either the Entry

No.	Item	Description
		Device or the Exit Device in Occupancy Limit Zone, click Zone > Occupancy Limit and set the device as either the Entry Device or the Exit device again. For more information, refer to Occupancy Limit Zone. ▪ Schedule: Set a schedule to use dual authentication. If no desired schedule is available, click + Add Schedule to create it. For more information on configuring schedules, refer to Schedules. ▪ Approval Type: You can configure the administrator authentication order. Setting to None will require two users to authenticate regardless to the access group. Setting to Last will require an authentication by a user belonging to an access group that has been set after a normal user authentication. ▪ Authentication Group: You can configure a group to which the administrator belongs. ▪ Authentication Timeout: Set a timeout period for authenticating the second credential after the first credential has been authenticated. If the second credential is not authenticated within the timeout period after the first credential has been authenticated, the door will not open.
3	Anti-Tailgating	You can configure the door to detect the tailgating. ▪ Sensor: You can select the sensor to detect tailgating.

2) Click Apply to save the settings.

Anti-passback

You can use Anti-passback to manage the access history and enhance security.
Anti-passback can help prevent the users from using an access card to enter and then passing the card over to another user. It can also prevent unauthorized persons who have entered by following users with access privileges from getting out on their own. This feature is available when both an entry device and an exit device are installed. If Exit Device is set to None, this feature is unavailable.
For more information on configuring exit devices, see Configuration.

Note

- A master device and a slave device should be connected via the RS-485 interface in order to activate the Anti-passback section on the Door page.

1) Edit all fields of the Anti PassBack tab.

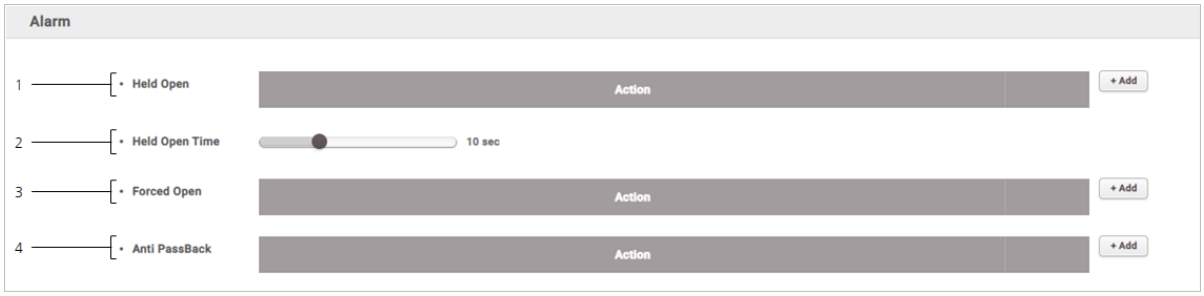
No.	Item	Description
1	Type	Select an Anti-passback type. ▪ None: Select this option to disable the Anti-passback feature. ▪ Soft APB: Select this option to allow entry but set off an alarm or create a log entry in BioStar 2 when Anti-passback is violated. ▪ Hard APB: Select this option to prohibit entry and set off an alarm or create a log entry in BioStar 2 when Anti-passback is violated.
2	Reset Time	You can set a time period for resetting the Anti-passback feature. The maximum possible duration is 7 days (10080 min.). If set to 0, the feature is not reset.

2) Click Apply to save the settings.

Alarm

You can configure an alarm to go off or the device to lock when the door is opened by force, held open or an anti-passback violation occurs.

1) Edit all fields of the Alarm tab. To add an action, click + Add.



No.	Item	Description
1	Held Open	You can configure alarm actions to be taken when the door is held open. Click + Add and select an action. Click OK to add the action.
2	Held Open Time	You can configure the maximum allowed time for the door to remain open.
3	Forced Open	You can configure alarm actions to be taken when the door is opened by force. Click + Add and select an action. Click OK to add the action.

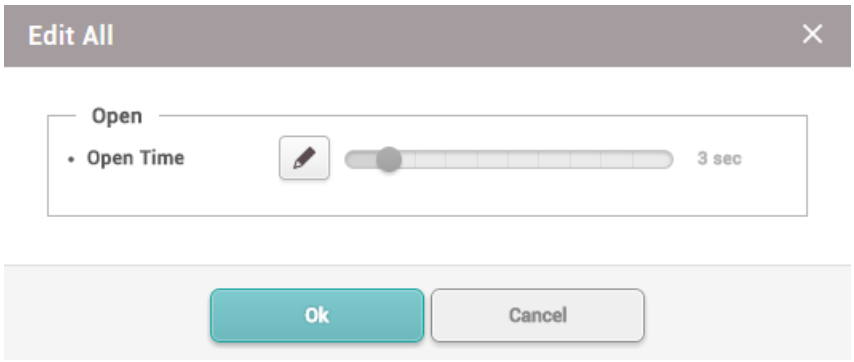
No.	Item	Description
4	Anti-passback	You can configure alarm actions to be taken when an Anti-passback violation occurs. Click + Add and select an action. Click OK to add the action. ▪ An exit device must be registered before the Anti-passback setting can be configured.

2) Click Apply to save the settings.

Editing Doors

You can edit an existing door or batch edit multiple doors.

1) Click DOOR.
2) In the door list, click a door to edit.
3) Edit the details by referring to the instructions in Adding Doors .
4) To edit information on multiple doors, select multiple doors and click Batch Edit.



4) Click of the field you want to edit and edit the information.
5) After editing all information, click OK.

You can configure the elevator to control floors with the access control device and OM-120 by using the ELEVATOR menu.

Adding and Managing Elevator Groups

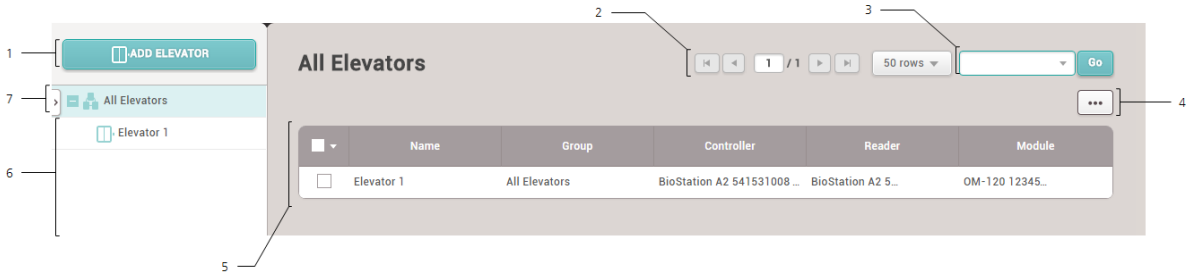
Adding Elevators

Editing Elevatos

8 Elevator

Note

- The ELEVATOR menu will appear when the Advanced or higher license is activated.



1 Add Elevator	5 Elevator List
2 Page Navigation Buttons and Number of List Rows	6 Elevator and Group List
3 Registered Elevator Search	7 Expand Button
4 Function Button (Print, Column Setting)	

After selecting an elevator, you can perform the following actions.

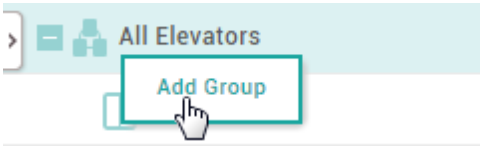
- Delete Elevator: Deletes the selected elevator from the list.

Adding and Managing Elevator Groups

You can add groups for easy management of multiple elevators. Name your elevator groups according to elevator locations for greater convenience.

━ Adding Elevator Groups

1) Click ELEVATOR.
2) Right-click on All Elevators and click Add Group.



3) Enter a group name.

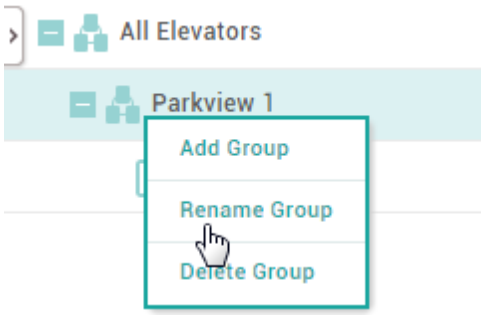
Note

- Elevator groups may be created in up to 8 levels.

- Up to 48 characters may be entered for an elevator group name.

Renaming Elevator Groups

1) Click ELEVATOR.
2) Right-click on the name of a group you wish to rename and click Rename Group.



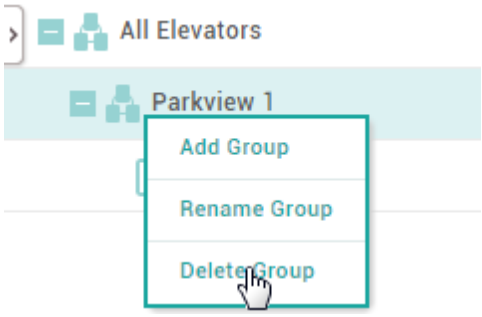
3) Enter a name.

Note

- Up to 48 characters may be entered for an elevator group name.

Deleting Elevator Groups

1) Click ELEVATOR.
2) Right-click on the name of a group you wish to delete and click Delete Group.



Note

- Deleting a group deletes all elevators in the group.

Adding Elevators

You can configure the elevators to use for the floor control.

1) Click ELEVATOR and click ADD ELEVATOR.
2) Configure the settings by referring to Information, Detail, Option, and Alarm.
3) After editing all information, click Apply.

Related Information

Basic Search and Registration

Slave Device Search and Registration

Adding and Managing Access Levels

Information

You can enter or edit the name, group and description of the elevator.

1) Edit all fields of the Information tab.

No.	Item	Description
1	Name	Enter an elevator name.
2	Group	Set an elevator group. For more information on adding door groups, see Adding and Managing Elevator Groups.
3	Description	Enter a short description of the elevator.

2) Click Apply to save the settings.

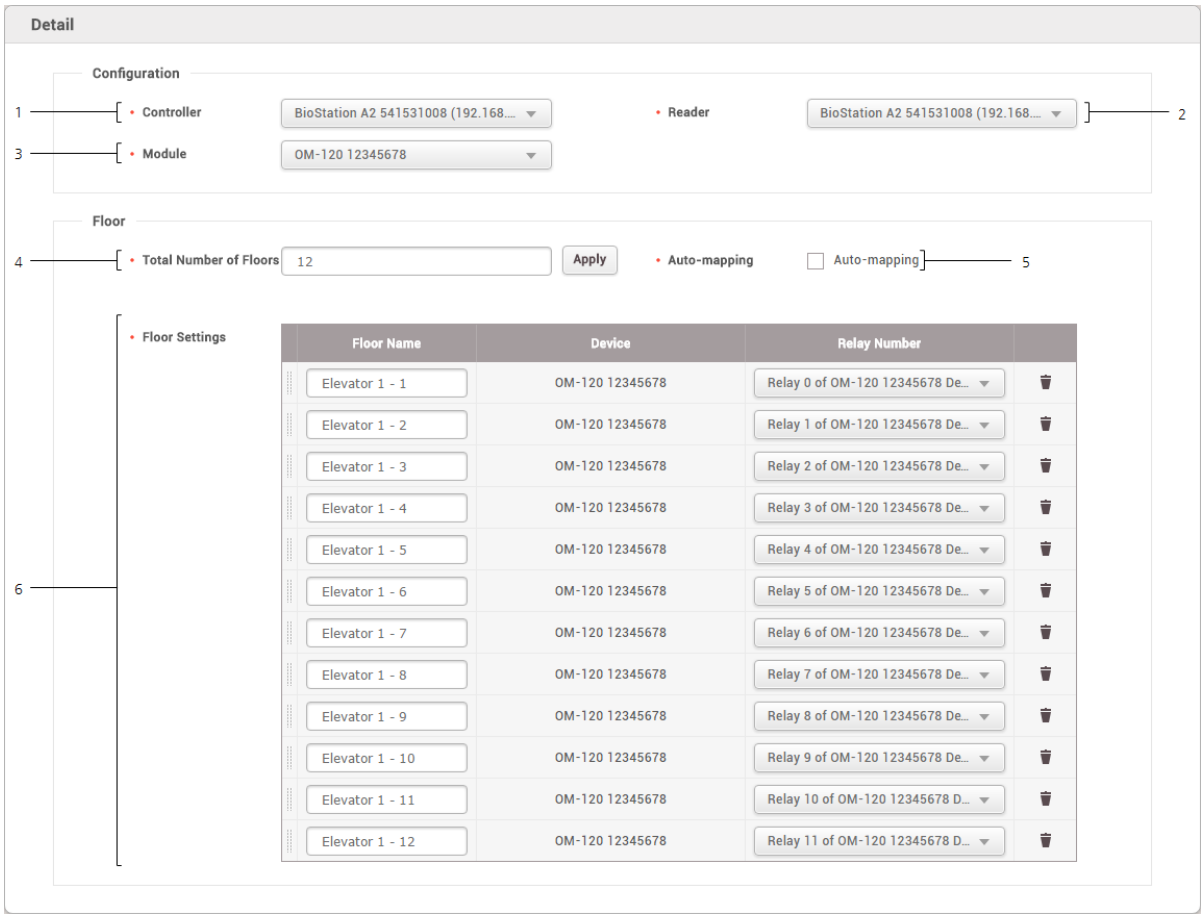
Detail

You can select a device to connect to the elevator and floor information.

Note

- BioEntry Plus, BioEntry W, BioLite Net are not available as a controller.

1) Edit all fields of the Detail tab.



No.	Item	Description
1	Controller	Select a device that controls the elevator access permission. Note ▪ Only a master device can be selected. ▪ You can select it from the list of registered devices. If there is no registered device, refer to Basic Search and Registration.
2	Reader	Select a device you intend to use for authentication. Note ▪ You can select a device among the master device, slave device, and Wiegand device. ▪ You can select up to 4 readers. ▪ OM-120 cannot be set as the reader.
3	Module	Select OM-120 to control the elevator button relay. Note ▪ Only OM-120 can be selected.

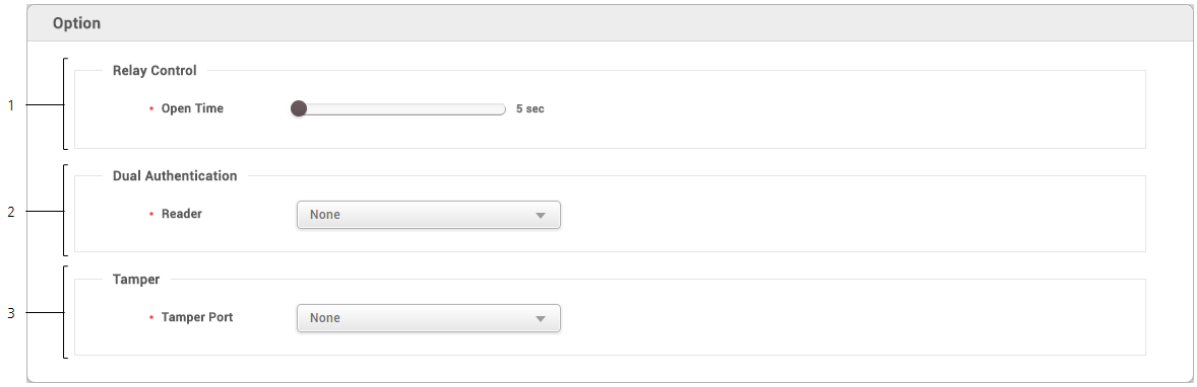
No.	Item	Description
4	Total Number of Floors	Enter the total number of floors that you can move using the elevator. Note ▪ Up to 192 floors can be entered.
5	Auto-mapping	Select whether or not to use auto-mapping. If Auto-mapping is used, Relay Number is assigned in consecutive order.
6	Floor Settings	You can set the floor name and the relay number to control the floor.

2) Click Apply to save the settings.

Option

You can configure additional options.

1) Edit all fields of the Option tab.



No.	Item	Description
1	Relay Control	You can configure options concerning the activating of the relay of the floor. ▪ Open Time: Set the duration for which the floor button will remain activate after a user authentication is completed. When the authentication is successful, the relay will be activated for the set time. When this time elapses, the relay no longer sends the signal to the relay of the floor.
2	Dual Authentication	You can configure the floor button to activate only when authenticating credentials of two persons (an ordinary user and an administrator). ▪ Device: Select a device to use dual authentication. If No device is selected, the dual authentication mode is disabled.

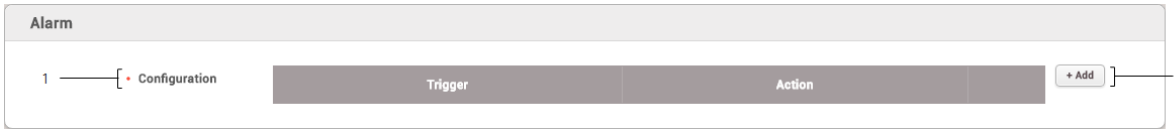
No.	Item	Description
		Note ▪ If you want to use the Dual Authentication feature on the device previously set as either the Entry Device or the Exit Device in Occupancy Limit Zone, click Zone > Occupancy Limit and set the device as either the Entry Device or the Exit device again. For more information, refer to Occupancy Limit Zone. ▪ Schedule: Set a schedule to use dual authentication. If no desired schedule is available, click + Add Schedule to create it. For more information on configuring schedules, see Schedules. ▪ Approval Type: You can configure the administrator authentication order. Setting to None will require two users to authenticate regardless to the access group. Setting to Last will require an authentication by a user belonging to an access group that has been set after a normal user authentication. ▪ Authentication Group: You can configure a group to which the administrator belongs. ▪ Authentication Timeout: Set a timeout period for authenticating the second credential after the first credential has been authenticated. If the second credential is not authenticated within the timeout period after the first credential has been authenticated, the door will not open.
3	Tamper	You can set a port to output the tamper signal.

2) Click Apply to save the settings.

Alarm

An action can be set to be performed when tamper input or a separate input signal is detected.

1) Edit all fields of the Alarm tab. To add an action, click + Add.



No.	Item	Description
1	Trigger	Tamper input detection or separate input signal detection can be set.

No.	Item	Description
2	Action	An action can be set to be performed according to the status set under trigger. The floor button of the elevator can be activated, and/or output of a specific signal can be set.

2) Click Apply to save the settings.

Editing Elevators

You can edit an existing elevator or batch edit multiple elevators.

1) Click ELEVATOR.
2) In the elevator list, click an elevator to edit.
3) Edit the details by referring to the instructions in Adding Elevators.
4) To edit information on multiple elevators, select multiple elevators and click Batch Edit.
5) Click of the field you want to edit and edit the information.
6) After editing all information, click OK.

You can use the ACCESS CONTROL menu to create access levels by configuring doors and access schedules and to configure access groups using access levels and user group information.
The configured access groups are then used as components of the access control.

Adding and Managing Access Levels

Adding and Managing Access Groups

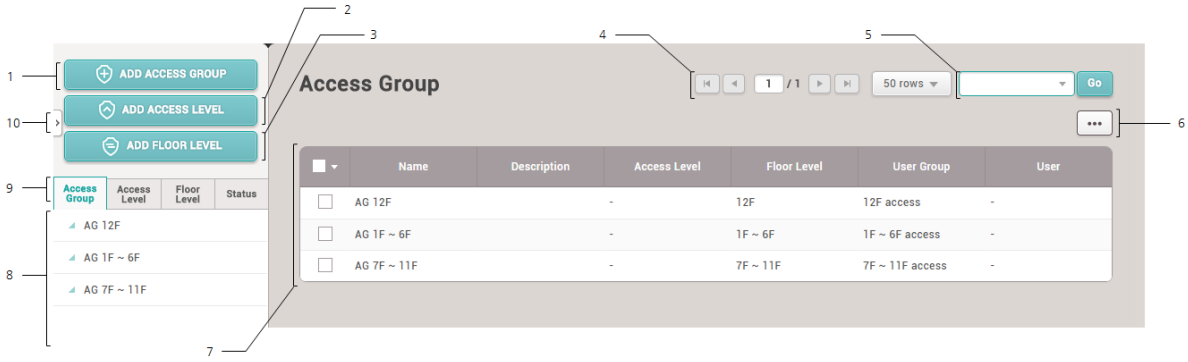
Adding and Managing Floor Levels

Access Privilege Status

Note

- The Floor Level tab and ADD FLOOR LEVEL button will appear when the Advanced or higher license is activated.

9 Access Control



1	Add Access Group	6	Function Button (Print, Column Setting)
2	Add Access Level	7	Access Group / Access Level / Floor Level List
3	Add Floor Level	8	Access Groups / Access Level / Floor Level Groups
4	Page Navigation Buttons and Number of List Rows	9	Tab buttons for the Access Group, Access Level, Floor Level and Status list pages
5	Registered Item Search	10	Expand Button

After selecting an access group or an access level, you can perform the following actions.

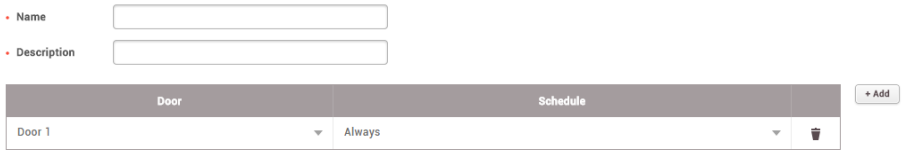
- Delete Access Group: Deletes the selected access group from the list.
- Delete Access Level: Deletes the selected access level from the list.
- Delete Floor Level: Deletes the selected floor level from the list.

Adding and Managing Access Levels

You can configure a schedule during which users are allowed to access the door and add it to an access level.

━ Adding Access Level

1) Click ACCESS CONTROL > ADD ACCESS LEVEL.
2) Enter Name and Description for the access level.
3) Click + Add.
4) Click ▾ to select a door and a schedule.



Note

- Click to search for an item.
- If no desired door is available, add it by referring to Adding Doors.
- If no desired schedule is available, click + Add Schedule to create it. For more information on configuring schedules, see Schedules.
- You can add up to 128 access levels per access group.
- Click to delete an item.

5) Click Apply to save the settings.

Editing Access Level

1) Click ACCESS CONTROL > Access Level tab.
2) In the access level list, select an access level to edit.
3) After editing the necessary fields, click Apply.

Deleting Access Level

1) Click ACCESS CONTROL > Access Level tab.
2) In the access level list, select an access level to delete.
3) Click Delete Access Level.

Adding and Managing Access Groups

You can configure access privileges by using access levels and user group information.

Adding Access Group

1) Click ACCESS CONTROL > ADD ACCESS GROUP.
2) Enter Name and Description for the access group.
3) Click + Add for each field.
4) Click to select an access level, a floor level, a user group or a user.

Note

- If no desired access level is available, click + Add Access Level to create it. For more information on access levels, see Adding and Managing Access Levels.
- If no desired floor level is available, click + Add Floor Level to create it. For more information on floor levels, see Adding and Managing Floor Levels.
- Click to delete an item.

4) Click Apply to save the settings.

Editing Access Group

1) Click ACCESS CONTROL > Access Group tab.
2) In the access group list, select an access group to edit.
3) After editing the necessary fields, click Apply.

Deleting Access Group

1) Click ACCESS CONTROL > Access Group tab.
2) In the access group list, select an access group to delete.
3) Click Delete Access Group.

Adding and Managing Floor Levels

You can configure the floor access privileges by using elevators and floor information.

Note

- The Floor Level tab and ADD FLOOR LEVEL button will appear when the AC standard license is activated.

Adding Floor Level

1) Click ACCESS CONTROL > ADD FLOOR LEVEL.
2) Enter Name and Description for the floor level.
3) Click + Add.
4) Click ▼ to select an elevator, a floor name, and a schedule.

Note

- Click 🔍 to search for an item.
- If no desired elevator is available, add it by referring to Adding Elevators.
- If no desired schedule is available, click + Add Schedule to create it. For more information on configuring schedules, see Schedules.
- Click 🗑 to delete an item.

5) Click Apply to save the settings.

Editing Floor Level

1) Click ACCESS CONTROL > Floor Level tab.
2) In the floor level list, select a floor level to edit.
3) After editing the necessary fields, click Apply.

Deleting Floor Level

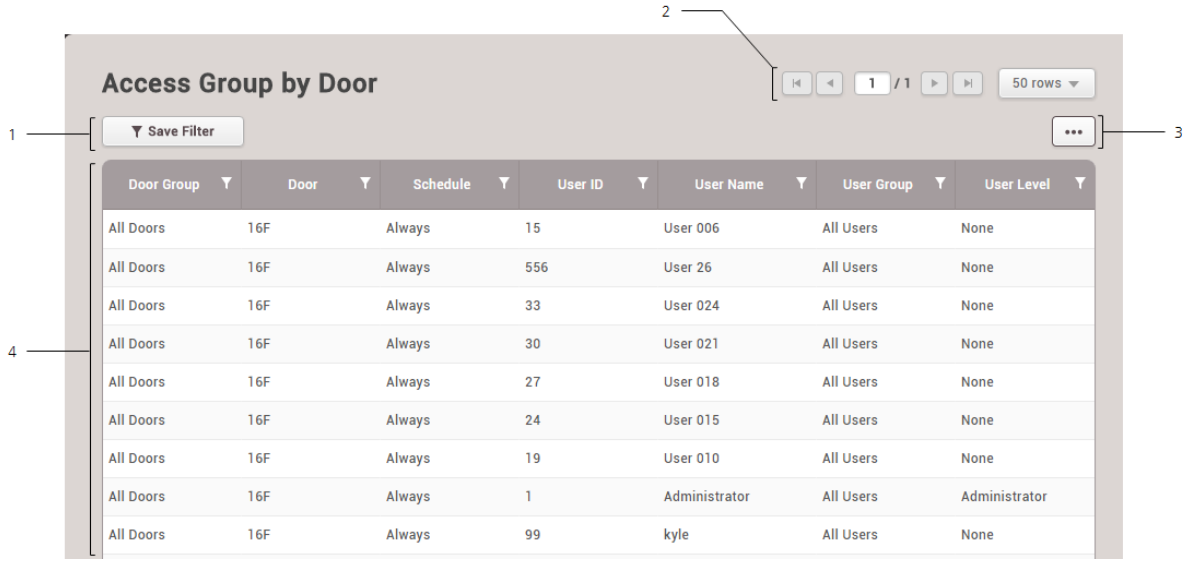
1) Click ACCESS CONTROL > Floor Level tab.
2) In the floor level list, select a floor level to delete.
3) Click Delete Access Level.

Access Group Status

On the Status page, you can view who has the right to access certain doors. You can use a filter or

combine filters to narrow down the result. You can also export the result as a CSV file. There are two types of the access privilege status view: by user and by door.

1) Click ACCESS CONTROL > Status.
2) Choose Door Permission by Door, Door Permission by User, Elevator permission by Floor, or Elevator Permission by User.
3) To view the result of a specific type only, click the ▼ of a column and apply a filter.



No.	Item	Description
1	Save Filter Button	Saves the set filter.
2	Page Navigation Buttons and Number of List Rows	You can move a page or set the number of list rows to be displayed on one page. ▪ |: Go to the first page. ▪ <: Go to the previous page. ▪ 2 / 2: Enter the page number to move to. ▪ >: Go to the next page. ▪ >|: Go to the last page. ▪ 25 rows: Set the number of list rows to be displayed on one page.
3	Function Buttons (Print, CSV Export, Column Setting)	You can print the list of logs or save it as a CSV file. Also, the column settings can be modified.
4	Access Privilege Status List	Shows the access privilege status of users.

9 Access Control

You can use the USER menu to add users to BioStar 2 or to devices and manage their information. You can also add users' fingerprints, manage their authentication credentials such as cards and PINs and use them in access control, or grant administrator privileges.

Adding and Managing User Groups

Adding User Information

Adding User Credentials

Enroll Card

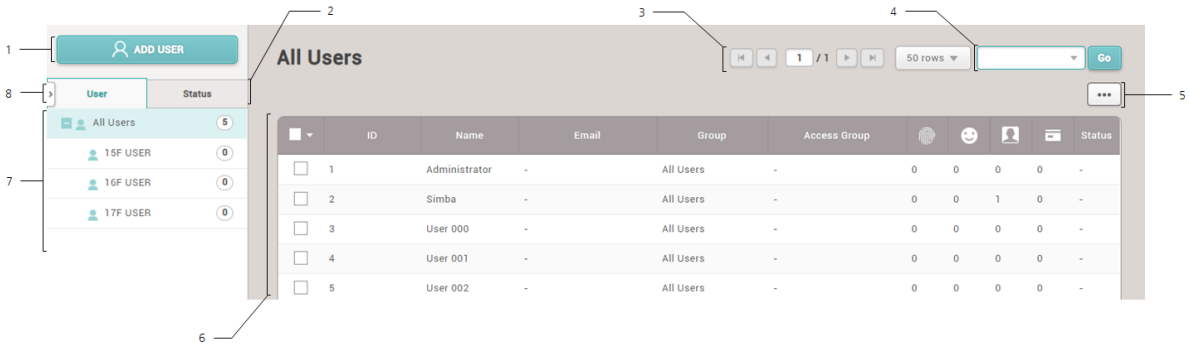
Transferring User Information to Devices

Deleting User from Devices

Editing User Information

Managing Long-term Idle Users

Visual Face Migration



1	Add User	5	Function Button (Print, Column Setting, CSV Export, CSV Import, Visual Face Import, Data File Export, Data File Import, Send Visual Face Mobile Enrollment Link, Visual Face Migration)
2	Tab buttons for the User and Long-term Idle User list pages	6	User List
3	Page Navigation Buttons and Number of List Rows	7	User Group
4	Registered User Search	8	Expand Button

Note

- Registered users can be searched by Name, Email.

- For more information on Send Visual Face Mobile Enrollment Link, see Enroll Visual Face.

When you select a user, you can perform the following functions.

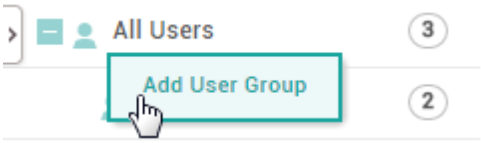
- Batch Edit: Batch edits the information on multiple users. This function is available only when multiple users are selected.
- Transfer to Device: Transfers user information registered with BioStar 2 to devices.
- Delete User: Deletes the selected user from BioStar 2. User information registered in devices is not deleted.

Adding and Managing User Groups

You can add groups for easy management of multiple users. Name your user groups according to users' organizations for greater convenience.

━ Adding User Groups

1) Click USER.
2) Right-click on All User Groups and click Add User Group.



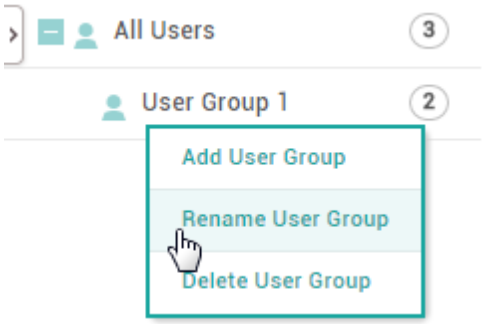
3) Enter a group name.

Note

- User groups may be created in up to 8 levels.
- Up to 48 characters may be entered for a user group name.

━ Renaming User Groups

1) Click USER.
2) Right-click on the name of a group you wish to rename and click Rename User Group.



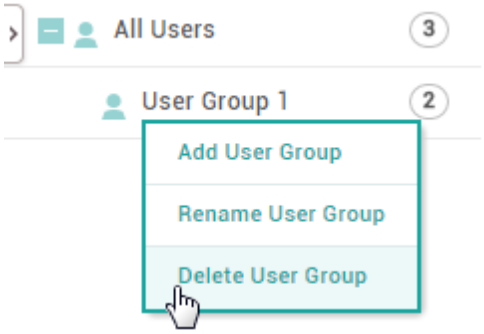
3) Enter a group name.

Note

- Up to 48 characters may be entered for a user group name.

Deleting User Groups

1) Click USER.
2) Right-click on the name of a group you wish to delete and click Delete User Group.



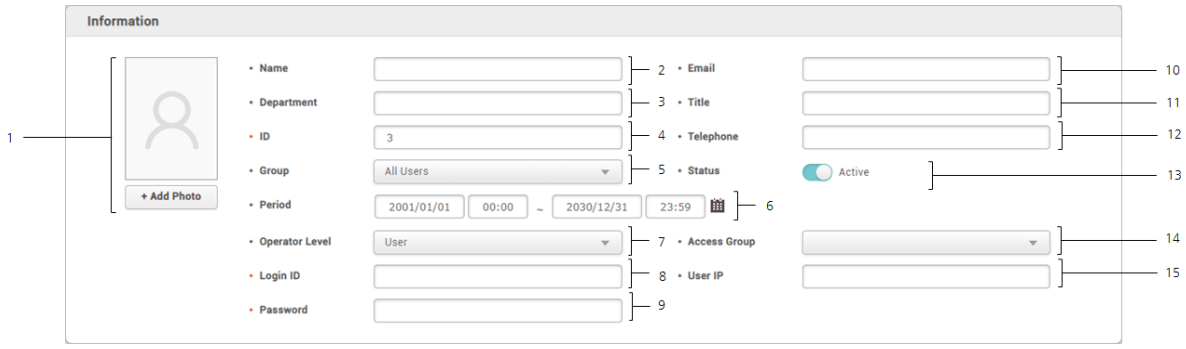
Adding User Information

You can add photo, name, email, telephone, etc. of a user.
A fingerprint scanner is required for adding users' fingerprints. If a fingerprint scanner is already connected to BioStar 2, you can use the scanner to add fingerprints.

1) Click USER > ADD USER.
2) Enter or select the necessary fields in the Information tab.

Note

- The information with * must be entered.



No.	Item	Description
1	Photo	Add the user's photo. Click + Add Photo to select the user's photo. Note ▪ Only an image file can be uploaded. ▪ User's photo is required to display the user's image on the mobile access card.
2	Name	Enter the user's name. Note ▪ It is possible to enter up to 48 characters.
3	Department	Enter the department the user belongs to. Note ▪ Department is required to display the user's department on the mobile access card. ▪ It is possible to enter up to 64 characters including spaces or underbars(_) only.
4	ID	Enter a unique ID to assign to the user. Note ▪ When Number is set for User ID Type in Setting > Server, a number between 1 and 4294967294 can be entered. ▪ When Alphanumeric is set for User ID Type in Setting > Server, a combination of alphabetic characters and numbers can be entered. ▪ Do not use spaces when entering ID. ▪ Numbers or Alphanumeric characters can be set for the user ID type. For more details, refer to Server.
5	Group	Select a user group. If no desired user group is available, add it by referring to Adding and Managing User Groups.

No.	Item	Description
6	Period	Set an active period of the account.
7	Operator Level	Set a BioStar operator privilege level. ▪ None: The user has no operator privilege. ▪ Administrator: The user can use all menus. ▪ User Operator: The user can only use the USER and PREFERENCE menus. ▪ Monitoring Operator: The user can use the MONITORING and PREFERENCE menus and only view the DASHBOARD, USER, DEVICE, DOOR, ZONE and ACCESS CONTROL menus. ▪ Video Operator: The user can only use the VIDEO menu. ▪ T&A Operator: The user can only use the TIME ATTENDANCE menu and only view the USER menu. ▪ User: The user can only view own information and T&A records. Note ▪ To set a new user permission, refer to Adding Custom Account Level. ▪ If you have upgraded from BioStar 2.5.0 to BioStar 2.6.0 and you are using custom account level for monitoring, set operator level again.
8	Login ID	Enter the login ID. Note ▪ The login ID appears when you set the Operator Level.
9	Password	Enter the login password. You can change the password level by referring to Security. Note ▪ The password appears when you set the Operator Level. ▪ The Confirm Password will appear when you enter the password. Enter the password again to confirm.
10	Email	Enter the email address. Note ▪ If the mobile access messaging option set as Email, user's email address is required when using the mobile access. ▪ User's email address is required when using Visual Face Mobile Enrollment or Secure QR.
11	Title	Enter the user's title. Note

No.	Item	Description
		▪ Title is required to display the user's title on the mobile access card. ▪ It is possible to enter up to 64 characters including spaces or underbars(_) only.
12	Telephone	Enter the telephone number. Note ▪ If the mobile access messaging option set as Text Message, user's telephone number is required when using the mobile access.
13	Status	You can temporarily deactivate the user's account.
14	Access Group	Set an access group. If no desired access group is available, add it by referring to Adding and Managing Access Groups.
15	USER IP	Enter the user IP. If you register user IP, you can strengthen the security by allowing access only when the IP information registered in the account and the IP information of the PC match. Note ▪ The user IP can be entered in the format xxx.xxx.xxx.xxx. Each octet can only be entered in numbers between 0 and 255. ▪ Users whose user IP is not registered can log in regardless of the IP information of the PC. ▪ When using the cloud, the users can log in regardless of the IP information of the PC.

3) Enter or select the necessary fields in the Credential tab and click Apply. For more information on adding credentials, see Adding User Credentials.

Note

- You can refer to the User/Device Management on the Server to learn how to add custom user fields for extra user information.

Related Information

Adding User Credentials

Enroll Card

Account

Server

10 Users

Export/Import CSV

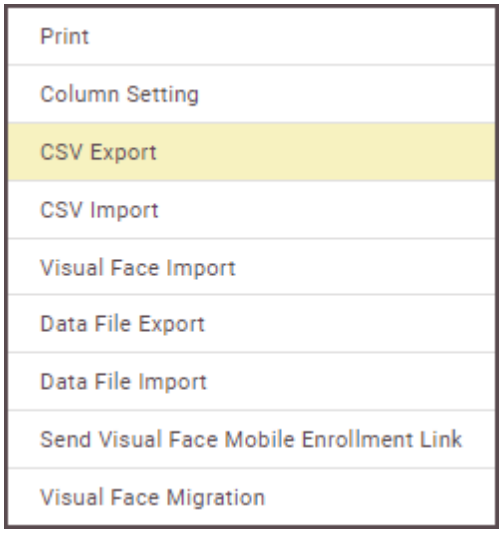
You can export/import user data in CSV files. This feature is useful when you create users in bulk or when you transfer users to another 3rd party systems.

Note

- If a CSV file to import contains data for custom user fields and the fields do not exist on the server, then the data for the fields will be ignored during the import process. You can refer to the Server to learn how to add custom user fields.
- If you enter the user information in a language other than English or Korean, save the CSV file in UTF-8 format.

CSV Export

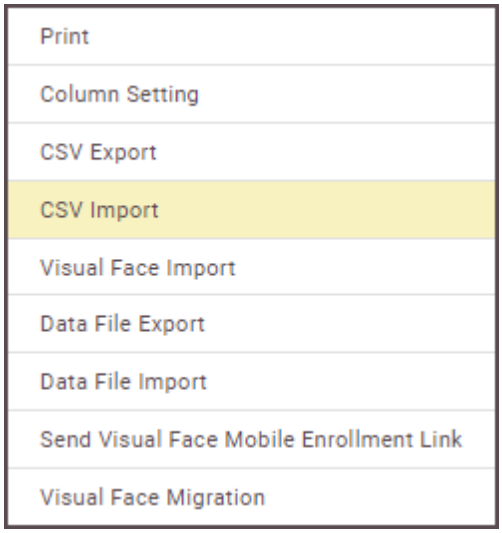
1) Select users from the user list you intend to save to a CSV file and click ••• .
2) Click CSV Export.



3) The CSV file will be downloaded automatically.

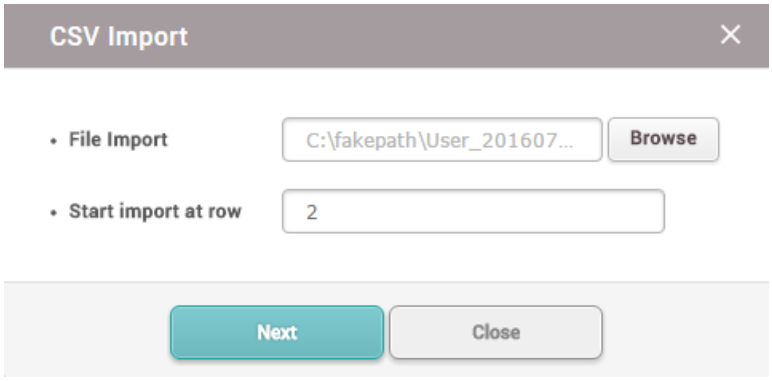
CSV Import

1) Click ••• and then click CSV Import.



2) Select the CSV file and then click Open.

3) Set Start import at row and then click Next.



4) The user data field of the CSV file and the user data field of BioStar 2 are mapped and displayed automatically. When you click Remap, the fields of the same name will be remapped.

5) Click Next after selecting whether to maintain the user data of which user ID has been already registered to BioStar 2 or overwrite with the CSV file information.

Note

- You can issue Mobile Access Cards via CSV Import. When using Regular site, 1 credit will be deducted per Mobile Access Card in the Airfob Portal once CSV import is complete. Disable matching if you do not want to issue Mobile Access Cards.
- If the same data as the Mobile Access Card issued to the user who is already registered in BioStar 2 exists in the CSV file, data can be maintained or overwritten, and the existing Mobile Access Card is maintained.
- If there is data different from the mobile access card issued to the user who is already registered in BioStar 2 in the CSV file, the existing Mobile Access Card is maintained if the data is retained, and if overwritten, a new Mobile Access Card is issued to the user.

- When using a dynamic site, if you issue a mobile access card to a user using CSV import, mobile_start_datetime and mobile_expiry_datetime fields must be entered.
- You cannot issue BioStar 2 QR via CSV import.
- You can enroll user's visual face via CSV Import. For more information, see Enroll Visual Face.
- You can enroll user's PIN via CSV Import. For more information, see Adding PIN.

6) If an error occurs during the import of CSV file information, you can upload it again after checking only the erroneous CSV data.

Note

- If there are additional columns in the CSV file other than the basic user columns, BioStar 2 will fail to import the CSV file.

Export/Import User Information

You can store the data file on external storage (USB) and import to BioStar 2 or device. Up to 500,000 users can be moved from server to device or from device to device.

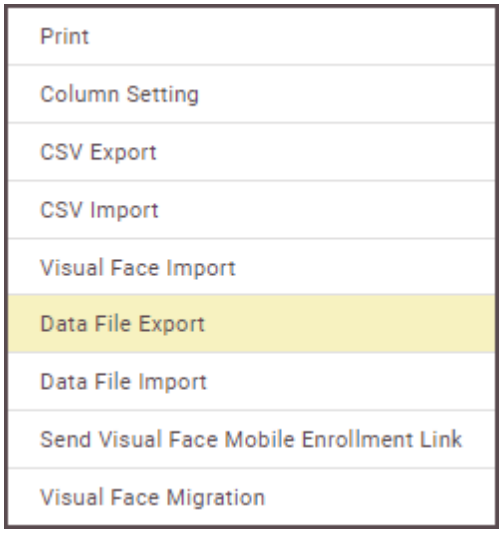
Note

- The exported data file from devices using older firmware version cannot be imported into BioStar 2. Make sure always use the latest version of firmware.
- If you use BioStar 2.8.10 or later, data exported from the previous version of BioStar 2 cannot be imported.
- If you use BioStar 2.8.10 or later, it is impossible to read data from a device that are using older firmware version. Upgrade the device's firmware to a compatible version. Compatible devices and firmware versions are as follows.
  - BioStation 2 FW 1.9.0 or later
  - BioStation A2 FW 1.8.0 or later
  - FaceStation 2 FW 1.4.0 or later
  - FaceStation F2 FW 1.0.0 or later
  - X-Station 2 FW 1.0.0 or later
  - BioStation 3 FW 1.0.0 or later
- If the fingerprint template format is different, the data file cannot be imported. For example, the data file exported from a device which uses the Suprema fingerprint template format cannot be imported into a device which uses the ISO fingerprint template format.
- When importing user data with visual faces enrolled from FaceStation F2, the existing data will be retained if there are already visual face data enrolled on BioStar 2 via Upload Image or

a mobile device.

Data File Export

1) Select users from the user list you intend to export to a data file and click ⋯.
2) Click Data File Export.



3) Select a device type to apply the exported data file. Only devices with USB port is displayed.

4) The data file is automatically downloaded.

Note

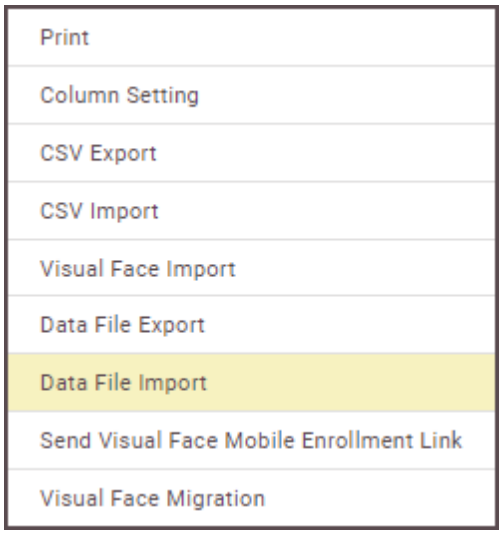
- The exported data file includes the profile photo, user ID, name, period,

access group, PIN, auth mode, credentials (face, fingerprint, card, mobile access card, visual face, BioStar 2 QR, QR/Barcode), 1:1 security level.

- Be sure that the device is selected correctly. Otherwise, the device cannot recognize the data file.

─ Data File Import

1) Click ••• and then click Data File Import.



2) Select the desired file (*.tgz) and then click Open.
3) A success message will appear on the screen when import successfully.

Adding User Credentials

You can add various user credentials such as PINs, fingerprints and cards.

Adding PIN
Auth Mode
Enroll Fingerprint
Enroll Face
Enroll Visual Face
Enroll Card
Enroll Mobile Access Card
Enroll QR/Barcode
Biometric Credential Sync

10 Users

Adding PIN

Add a PIN.

1) Select the PIN option and enter a PIN to use.

2) For confirmation, enter the PIN again in Confirm PIN.
3) Click Apply to save the settings.

Register by CSV Import

You can enroll user's PIN by importing CSV file.

1) Add the pin column to the CSV file to be imported.
2) Enter the user's PIN on the pin column and save the file.
3) Import CSV file that added PINs into BioStar 2 by referring to Import CSV.

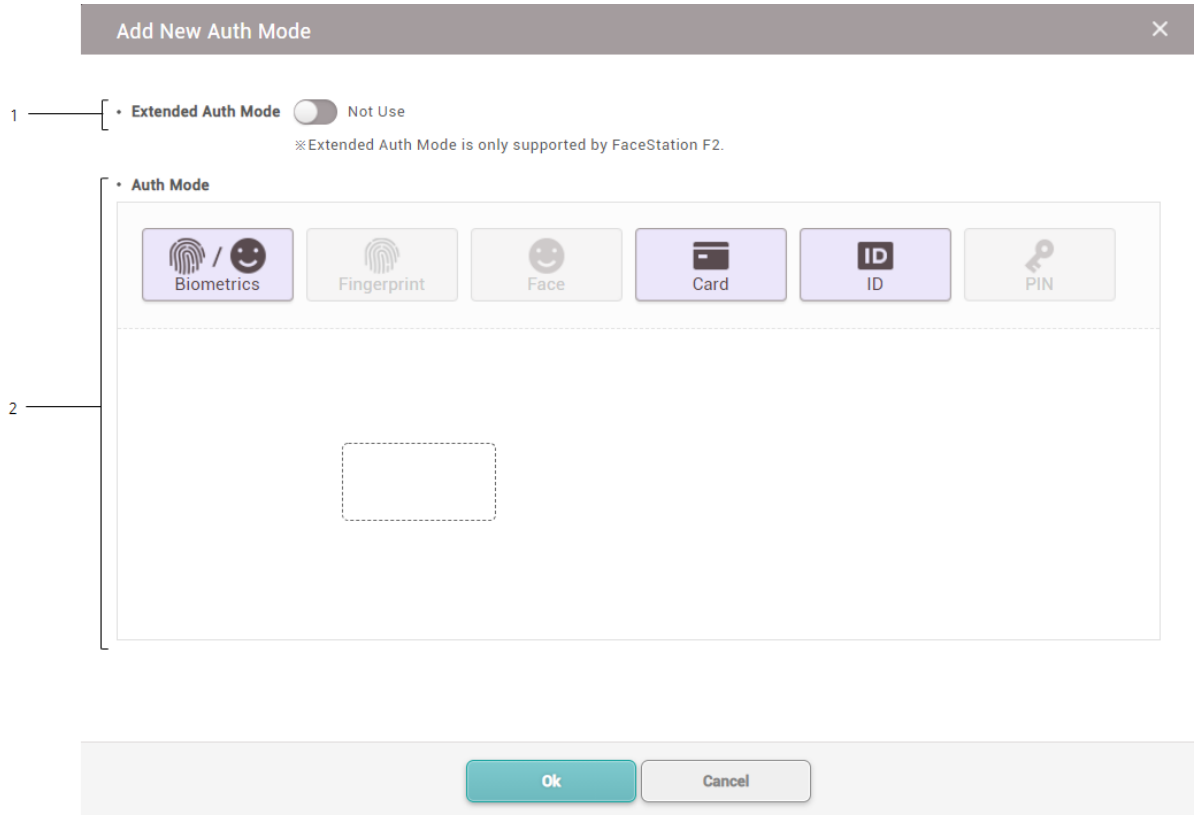
Note

- Enrolled PIN data cannot be exported to a CSV file.

Auth Mode

You can configure an authentication mode for each user.
Select Device Default to allow the user to authenticate using the modes configured in Authentication, or select Private Mode to assign a unique authentication mode to each user.

1) Set Auth Mode to Private Mode.
2) Click + Add and configure the settings.

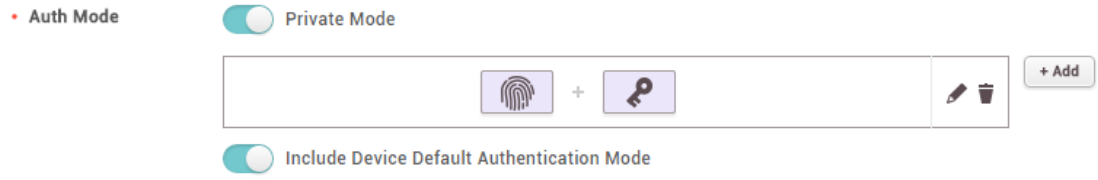


No.	Item	Description
1	Extended Auth Mode	Set whether to use Extended Auth Mode. When Extended Auth Mode is set to Use, the auth mode can be combined including both face and fingerprint. Note ▪ Extended Auth Mode is only supported by FaceStation F2 and BioStation 3.
2	Auth Mode	Drag and drop authentication methods to use.

3) Click Apply to add the authentication mode.

Note

- If Exclude Device Default Authentication Mode is set, only the personal authentication mode set in BioStar 2 can be used. If Include Device Default Authentication Mode is set, both the authentication mode set in the device and the personal authentication mode set in BioStar 2 can be used.



10 Users

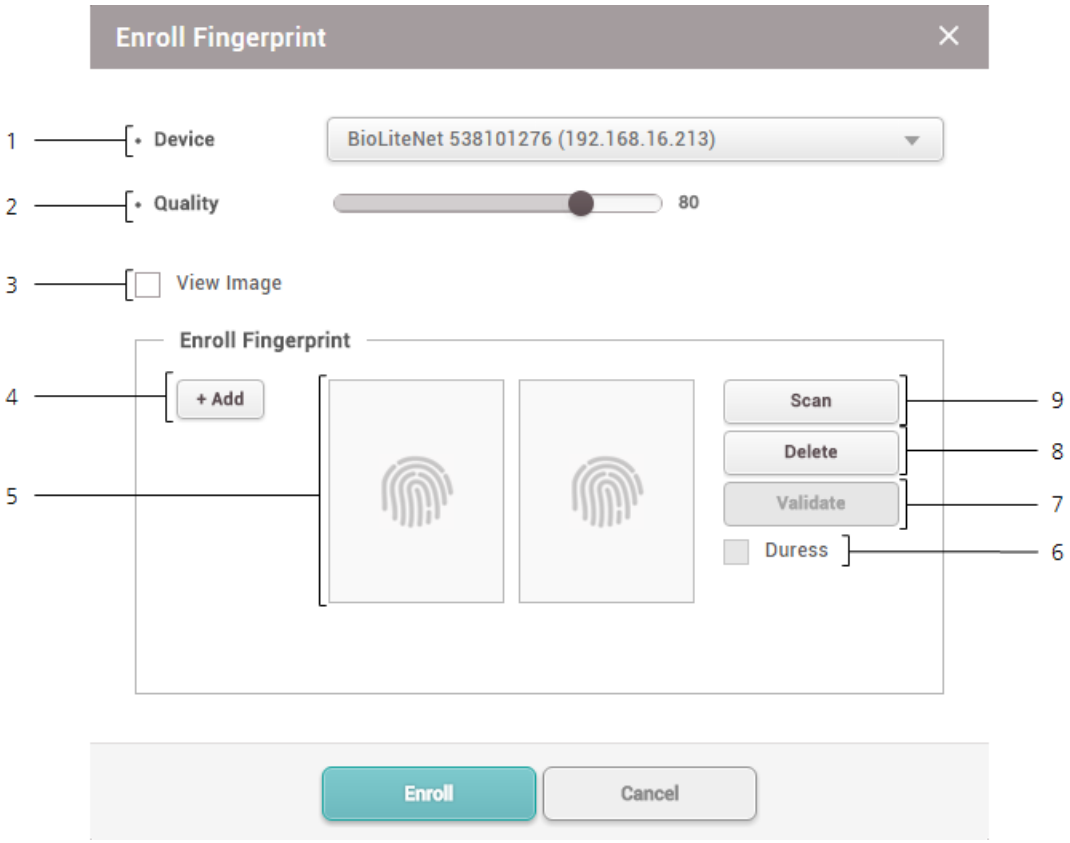
Enroll Fingerprint

You can add the user's fingerprints if the device supports fingerprint authentication. Fingerprints can be scanned using a finger scanner or at the installation location.

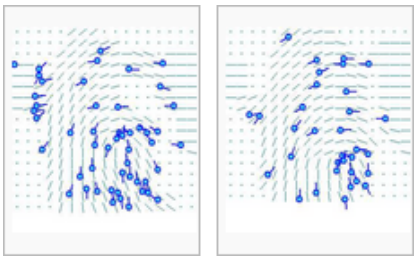
Note

- Make sure that the user's finger is clean and dry.
- Do not add fingers with wounds or faint fingerprints.

1) Click + Fingerprint and configure the settings.



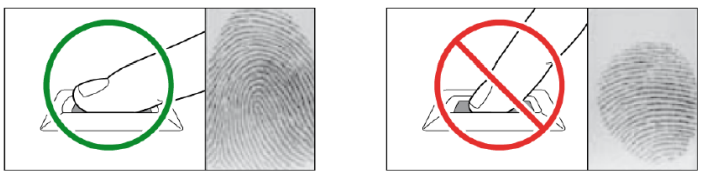
No.	Item	Description
1	Device	Select a device to enroll the fingerprint with.
2	Quality	Select a fingerprint enrollment quality level. Any fingerprint which does not meet the quality requirement will not be enrolled.
3	View Image	Select this option to view the original image when a fingerprint is scanned.
4	Enroll Fingerprint	Click + Add to add a fingerprint. Up to 10 fingerprints can be added.

No.	Item	Description
5	Fingerprint Image	This section shows the analysis of the fingerprint enrolled. 
6	Duress	Select this option to add the fingerprint as a duress fingerprint. When threatened by someone to open the door, the user can authenticate using this fingerprint to send an alarm signal to BioStar 2.
7	Validate	It is possible to check if the fingerprint has been enrolled already or not when using the server matching.
8	Delete	Deletes the selected fingerprint.
9	Scan	Click Scan and then place a finger on the fingerprint scanner or the device sensor.

2) Click Enroll to enroll the fingerprint.
3) Set the 1:1 Security Level and click Apply.

Note

- Fingerprints used for regular access should not be registered as duress fingerprints.
- The View Image option shows the fingerprint image but does not store it on BioStar.
- If the fingerprint authentication rate is low, delete the existing fingerprint information and add a new fingerprint.
- Use an adequate security level. If 1:1 Security Level is too high, the fingerprint authentication rate may be too low or the false rejection rate (FRR) may be too high.
- For best fingerprint scanning quality, make sure to cover the entire surface of the fingerprint sensor with the finger. We recommend using the index finger or the middle finger.



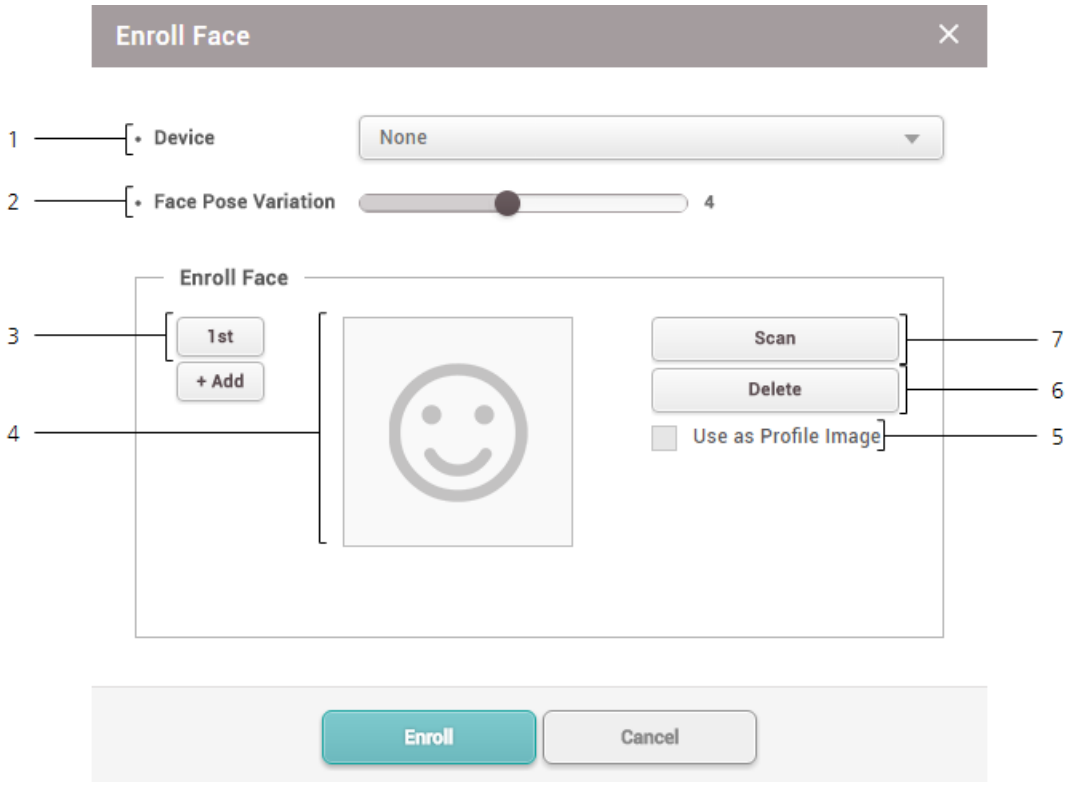
Enroll Face

You can add the user's faces if the device supports face authentication.

Note

- When registering a face, maintain a distance of 40cm to 80cm between the device and the face.
- Be careful not to change the facial expression. (smiling face, drawn face, wink, etc.)
- If you do not follow the instructions on the screen, the face registration may take longer or may fail.
- Be careful not to cover the eyes or eyebrows.
- Do not wear hats, masks, sunglasses or eyeglasses.
- Be careful not to display two faces on the screen. Register one person at a time.
- It is recommended for a user wearing glasses to register both faces with and without glasses.

1) Click + Face and configure the settings.



No.	Item	Description
1	Device	Select a device to enroll the face with.
2	Face Pose Variation	Set the sensitivity for the position, angle, and distance of a face when registering the face. Set the sensitivity high if you wish to obtain a detailed face template.
3	Enroll Face	Click + Add to add a face. Up to 5 faces can be added.
4	Face Image	View the registered face.
5	Use as	Select the registered face you wish to use as your profile image.

No.	Item	Description
	Profile Image	
6	Delete	Deletes the selected face.
7	Scan	Click Scan and then follow the instructions on the device screen to scan.

2) Click Enroll to enroll the face.
3) Set the 1:1 Security Level and click Apply.

Note

- If the face authentication rate is low, delete the existing face information and add a new face.
- Use an adequate security level. If 1:1 Security Level is too high, the authentication rate may be too low or the false rejection rate (FRR) may be too high.

Enroll Visual Face

Visual Face is a credential that captures the user's face with a visual camera. It is different from face information captured with an infrared camera and is only available on devices that support Visual Face. Visual Face can also be registered non-face-to-face using a user's mobile device.

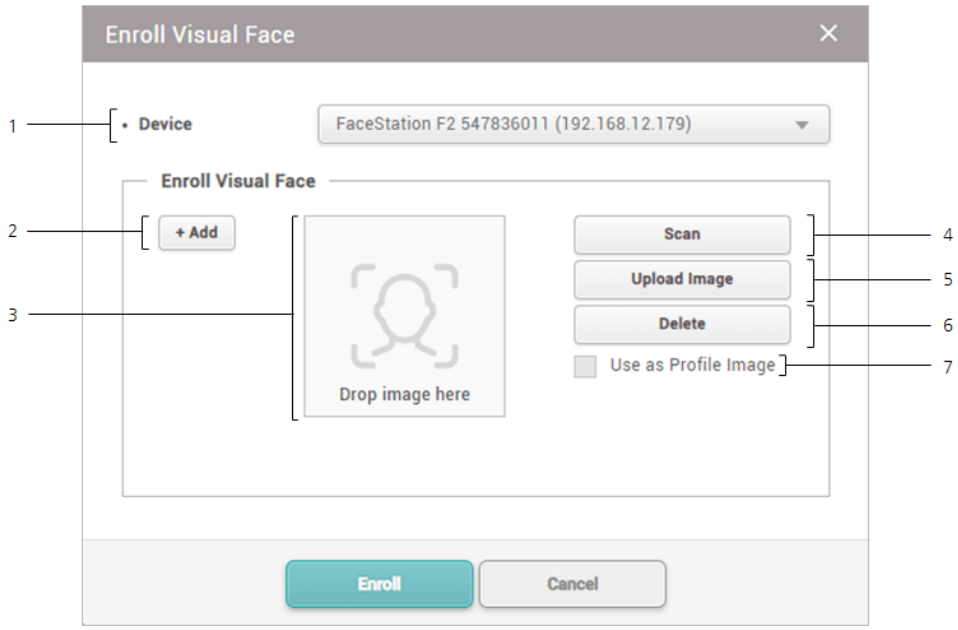
Note

- The devices that can use Visual Face are as follows.
  - FaceStation F2, BioStation 3
- Cautions for enrolling a visual face
  - When enrolling a face on the device, maintain a distance of 60–100 cm between the device and the face.
  - When enrolling a face on the device, stand still and enroll the face by staring at the screen.
  - When enrolling a face on the device or the mobile device, if the user does not follow the instructions on the screen, the face enrollment may take longer or fail.
  - Do not change the user's face expression.
  - Do not enroll a face while the user is wearing masks, hats, or eye patches.
  - Do not enroll a face with the user raising their head or bowing.
  - Do not wear thick makeup.
  - Users should not enroll their faces with their eyes closed.
  - Make sure that both of user's shoulders correctly appear on the screen.
  - Be careful not to display two faces on the screen. Enroll one person at a time.

Register by Device

You can enroll a visual face by FaceStation F2 and BioStation 3.

1) Click + Visual Face and configure the settings.



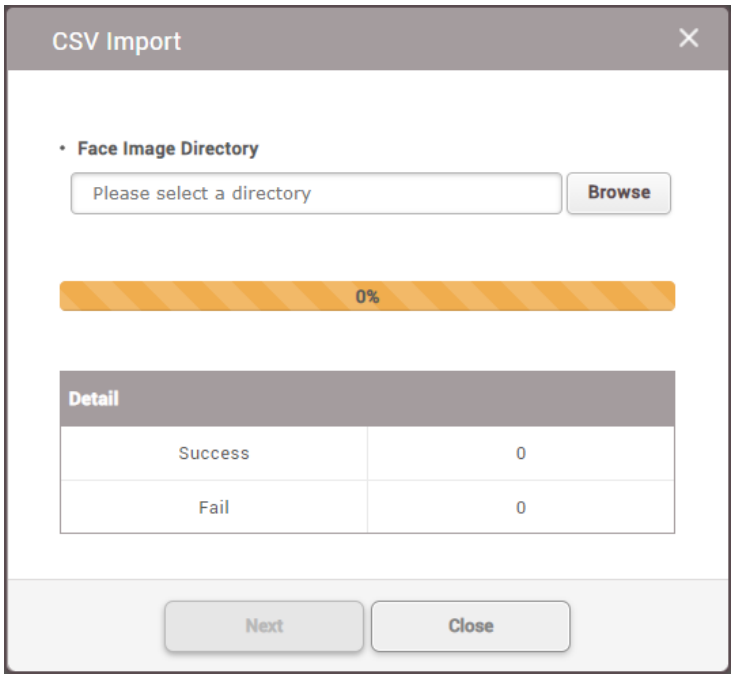
No.	Item	Description
1	Device	Select a device to enroll the visual face with.
2	Enroll Visual Face	Click + Add to add a visual face. Up to 2 visual faces can be added.
3	Visual Face Image	View the scanned or uploaded image. You can also upload image files by dragging and dropping.
4	Scan	Click Scan and then follow the instructions on the device screen to scan.
5	Upload Image	Upload the image to use as a visual face. Note ▪ Supported image file size is up to 10MB. ▪ Supported image file formats are JPG, JPEG and PNG.
6	Delete	Deletes the selected visual face.
7	Use as Profile Image	Select the registered face you wish to use as your profile image.

2) Click Enroll to enroll the visual face.

Register by CSV Import

You can enroll user's visual face by importing CSV.

1) Click USER.
2) Select users from the user list you intend to enroll visual faces.
3) Export the selected list to a CSV file by referring to CSV Export.
4) Enter the file name of visual face image, including the extension in visual face column (face_image_file1, face_image_file2) of CSV file, and then save it.
5) Import CSV file that added visual faces into BioStar 2 by referring to Import CSV.
6) Click Browse, select the path where visual face images are stored, then click Upload.



Note

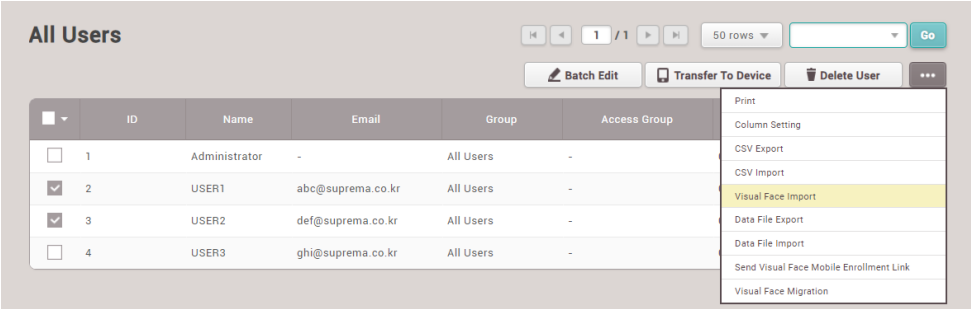
- It is recommended to use the same path for the CSV file and visual face image files to be loaded.
- Supported image file size is up to 10MB.
- Supported image file formats are JPG, JPEG and PNG.

7) Click Next to complete the CSV import. If an error occurs during the import of CSV file information, you can upload it again after checking only the erroneous CSV data.

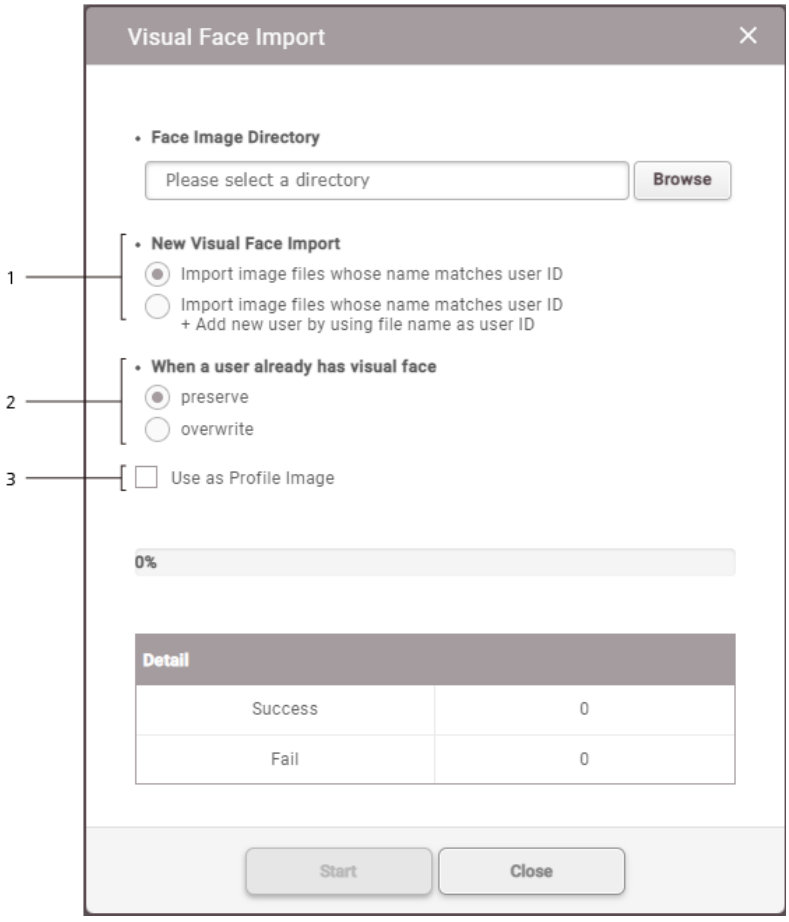
Register by Visual Face Import

You can enroll user's visual face by importing face image files that match user ID.

1) Click Visual Face Import.



2) Click Browse, select the directory where face image files are stored, then click Upload.



No.	Item	Description
1	New Visual Face Import	▪ Import image files whose name matches user ID: The image is imported only when the user ID registered in BioStar 2 and the file name match, and files that do not match are ignored. ▪ Import image files whose name matches user ID +

No.	Item	Description
		Add new user by using file name as user ID: If the file name matches the user ID registered in BioStar 2, the image is imported, and if there is a file name that does not match, a new user is added using the file name as the user ID and the Visual Face is enrolled.
2	When a user already has visual face	▪ preserve: Maintains the already enrolled users visual face. ▪ overwrite: Overwrites the newly imported visual face over the existing visual face.
3	Use as Profile Image	Check this option if you want to use an imported visual face as a user's profile image.

3) Click Start to complete the Visual Face Import. If an error occurs during image file import, BioStar 2 will return a list of image files failed to import, you can check which face image files are not suitable.

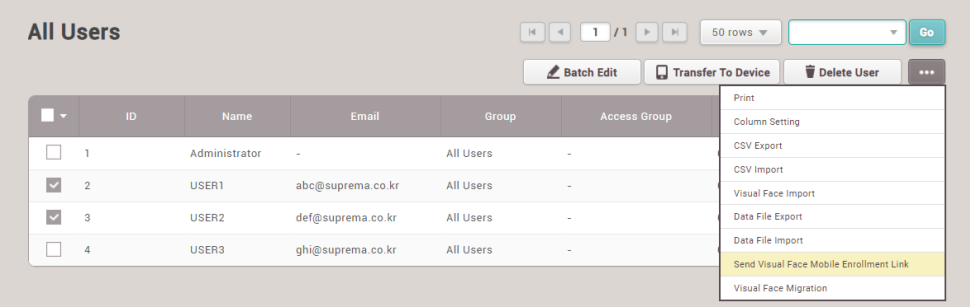
Note

- Supported image file size is up to 10MB.
- Supported image file formats are JPG, JPEG and PNG.
- Only one visual face can be imported per user ID.

Register by Mobile Device

You can send the visible face mobile enrollment link to users via email. Users can access the link from their mobile device and enroll their visual face directly.

1) Select users from the user list you intend to enroll the visual face and click ••• .

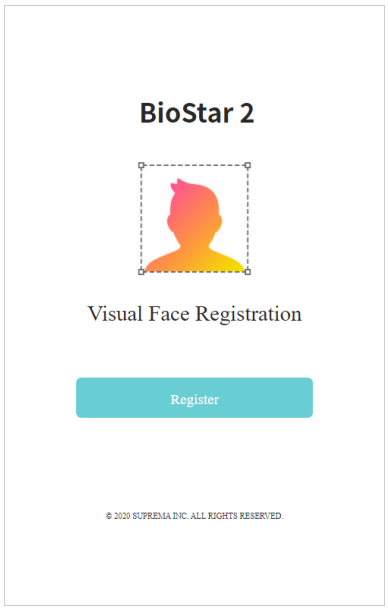


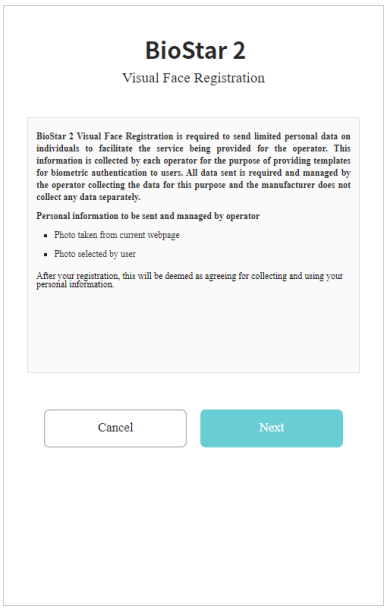
2) Select Send Visual Face Mobile Enrollment Link and then click Yes. The visual face enrollment link will be sent to the email of the selected user. When the user completes the upload, the visual face is enrolled in the user

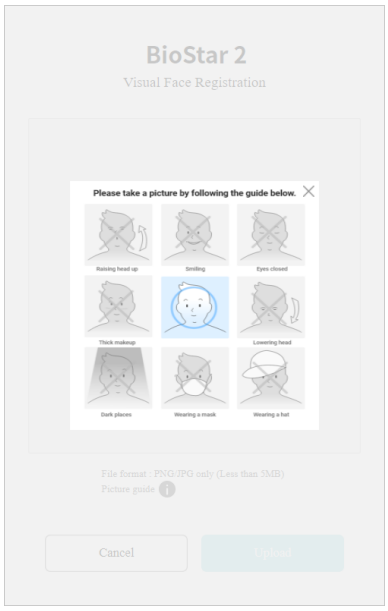
information.

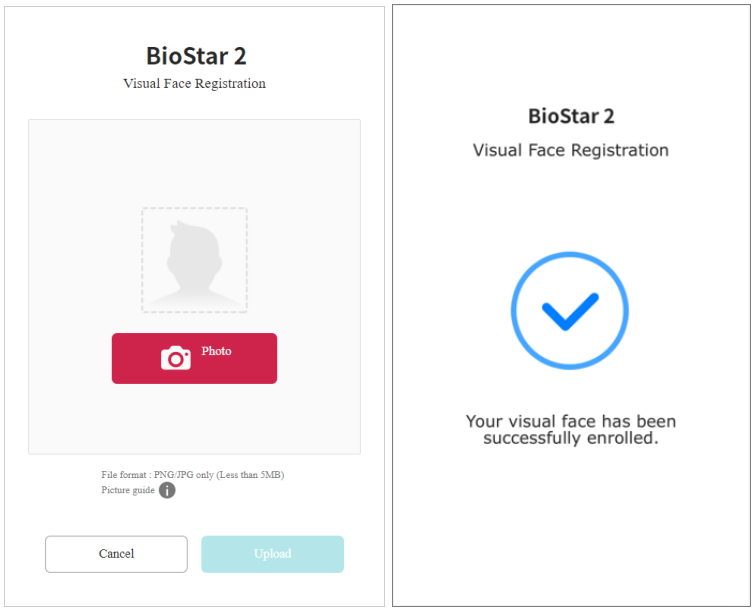
Note

- Complete the email settings including SMTP settings before using Visual Face Mobile Enrollment. Refer to the Email Setting for more information.
- You can check whether the email was successfully sent or not in the audit trail. See the Audit Trail for more information.
- If the user receiving the visual face mobile enrollment link uses an external email application, the language of the email application must be set to the language of their country. If the language does not support Unicode, the text in the email may be broken.
- When the user clicks on Visual Face Mobile Enrollment link, the Visual Face Enrollment Service is executed as follows.
  Follow the instructions on the screen to enroll the visual face.









- Supported image file size is up to 10MB.
- Supported image file formats are JPG, JPEG and PNG.
- Visual Face Enrollment link sent will expire after 24 hours.
- Once the Visual Face Mobile Enrollment process is successful after uploading a face picture, an enrollment success message appears on the screen. If enrollment fails, a failure message and reason are displayed, and the user can retry the Visual Face Enrollment again using a different face picture.

Enroll Card

You can assign access cards to users or manage the existing cards.
For the types of card supported by the device, refer to the device manual.

Registering CSN Card

Registering Wiegand Card

Registering Smart / Mobile Cards

[Card Enrollment using the USB Agent]

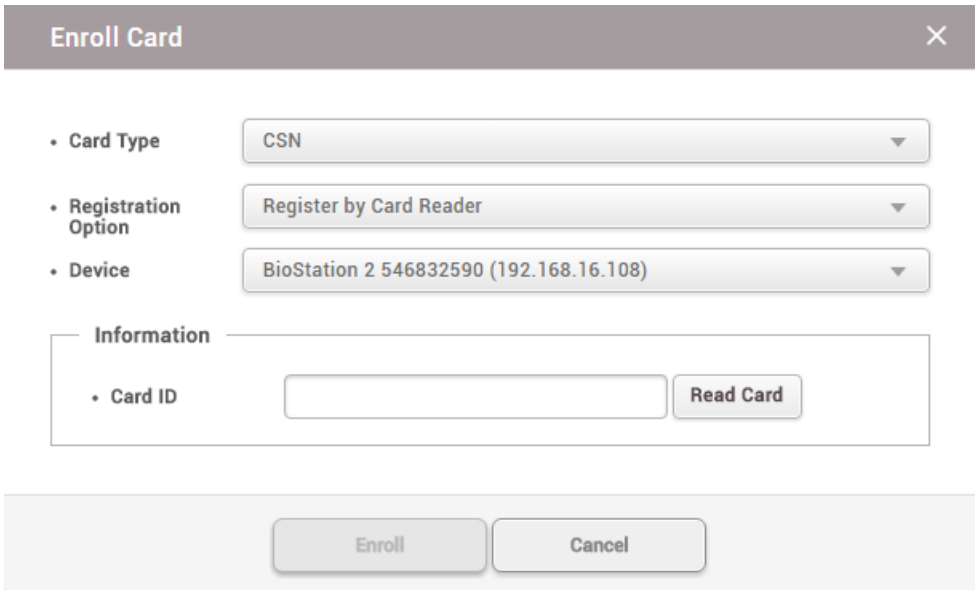
Card Type	CSN	Wiegand	Smart Card
EM	X	X	X
MIFARE	O	X	O

Card Type	CSN	Wiegand	Smart Card
DESFire	O	X	O
FeliCa	O	X	X
HID Prox	X	X	X
HID iCLASS	X	X	X

Registering CSN Card

You can register the CSN cards.

1) Click + Card.
2) Select CSN for Card Type.



3) Select a desired Registration Option.

- Register by Card Reader

You can register a card by scanning the card information with the device connected to BioStar 2.

a) Select Register by Card Reader for Registration Option.
b) Select the device to scan a card.
c) Click Read Card and scan a card with the device.

- Assign Card

You can assign a registered card to a user.

a) Select Assign Card for Registration Option.
b) Click the card to be assigned from the list or search for the card.

Enter Manually

You can register a card by entering a card number directly.

a) Select Enter Manually for Registration Option.
b) Click Use User ID or enter directly.

4) Click Enroll to register a card.

Related Information

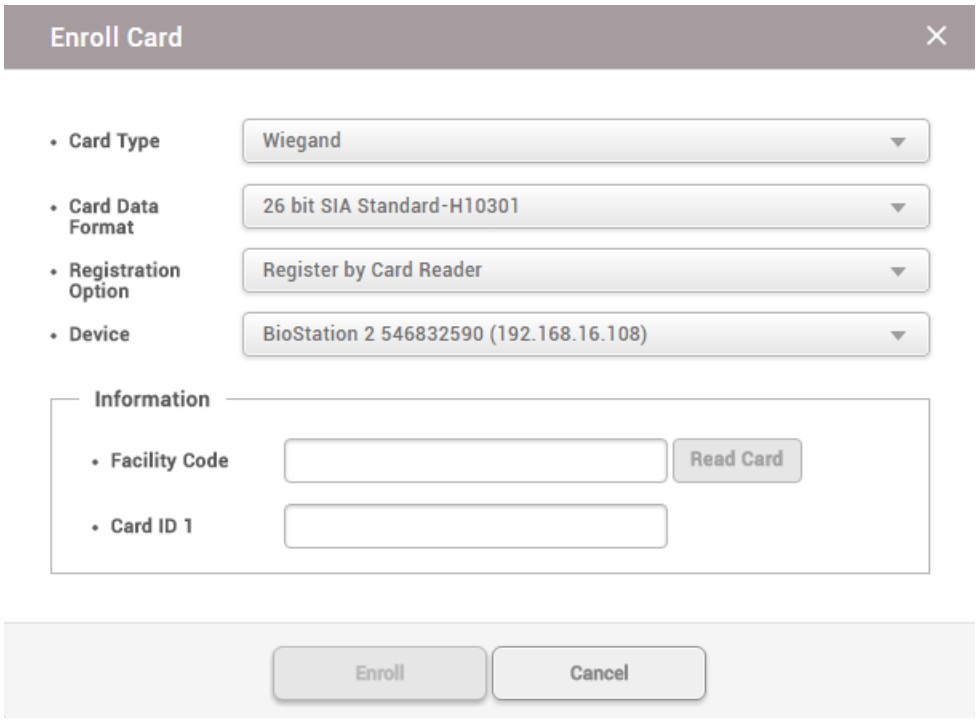
Card Usage Status

Card Format

Registering Wiegand Card

You can register the Wiegand cards.

1) Click + Card.
2) Select Wiegand for Card Type.



3) Set a Card Data Format. If no desired card data format is available, see Wiegand to set a Wiegand format.

4) Select a desired Registration Option.

- Register by Card Reader

You can register a card by scanning the card information with the device connected to BioStar 2.

a) Select Register by Card Reader for Registration Option.
b) Select the device to scan a card. The available devices will be displayed on the top of device list, if no device is available, see CSN Card Format of Authentication.
c) Click Read Card and scan a card with the device.

- Assign Card

You can assign a registered card to a user.

a) Select Assign Card for Registration Option.
b) Select the card to be assigned from the list.

Note

- Only the cards with the set Card Data Format will be displayed on the list.

- Enter Manually

You can register a card by entering a card number directly.

a) Select Enter Manually for Registration Option.
b) Enter the Facility Code or Card ID 1.

4) Click Enroll to register a card.

Related Information

Card Usage Status

Card Format

Registering Smart / Mobile Cards

It is possible to enroll the Access on card or Secure credential card.

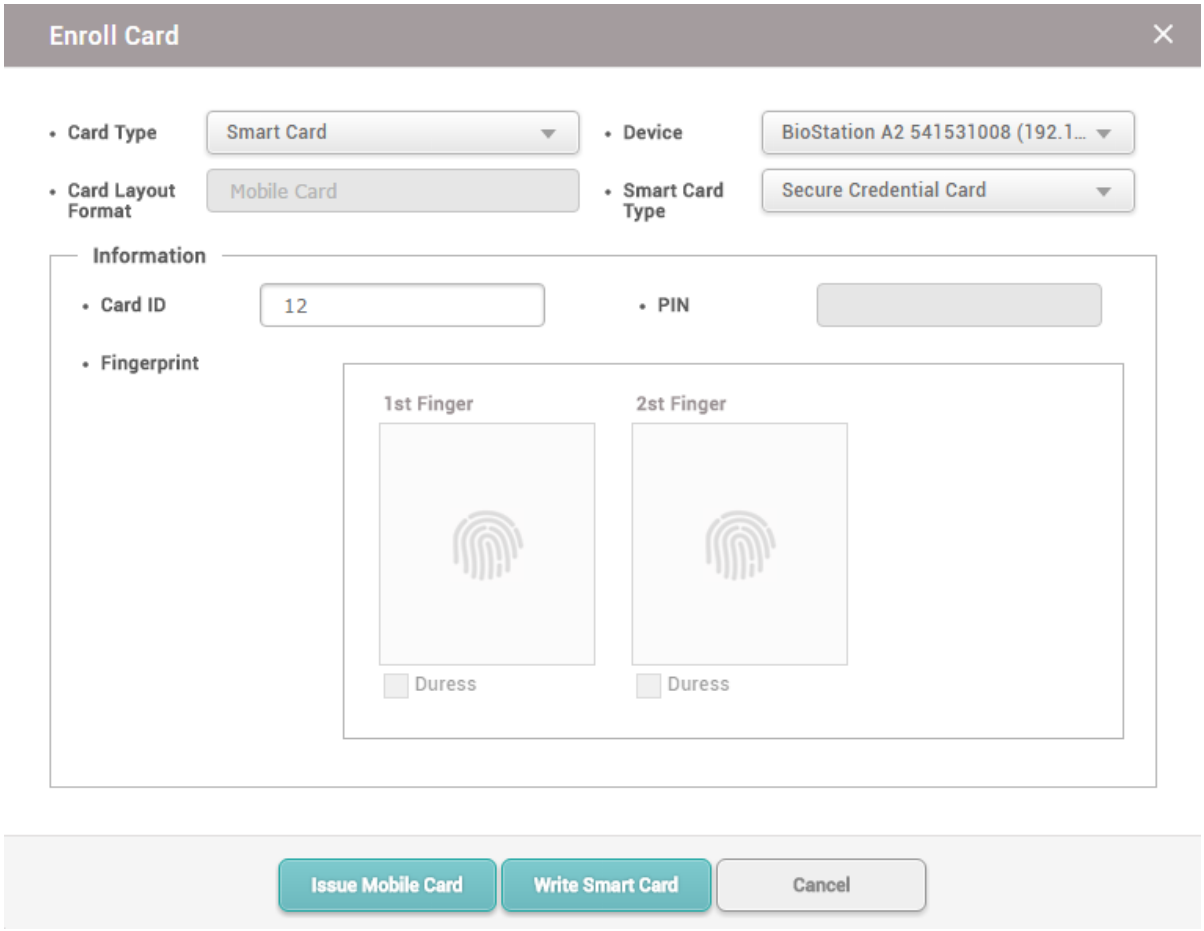
Note

- To set the mobile card, set Active for Mobile Card Enrollment on the User / Device

Management tab of Setting > SERVER.

- To issue a smart card or a mobile card, the correct card type must be set. For detailed contents regarding the card type, refer to Smart / Mobile Card.

1) Click + Card.



1) Select Smart Card for Card Type.
2) Select a device where the smart card can be used. To set the smart card layout, refer to Card ID Format on Authentication.
3) Set Card Layout Format. It is possible to set the card layout from Smart Card.
4) Select Smart Card Type.
   - Access On Card: Allows you to save user information (Card ID, PIN, Access Group, Period, and fingerprint templates) on the card.
   - Secure Credential Card: Allows you to save user information (Card ID, PIN, and fingerprint templates) on the card. The authentication is unavailable if the fingerprint template and PIN information of the user is not in the card, and the authentication is only available when the user information is stored in the device or BioStar 2. In order to use information stored in BioStar 2, server matching must be activated.
5) Select the fingerprint template to be enrolled on the card.
6) Clicking Issue Mobile Card or Write Smart Card will enroll the card.

Note

- If a mobile card has been issued, it can be used only after the issued card is activated through the BioStar 2 Mobile app.
- It is possible to set card ID for the Secure credential card directly.
- The information stored in BioStar 2 is used for the user information to be stored in the smart card. If the new user information is not stored, incorrect user information may be stored in the smart card. Also, if the changed user information is not synchronized with the device, the device may not be able to carry out authentication.

Related Information

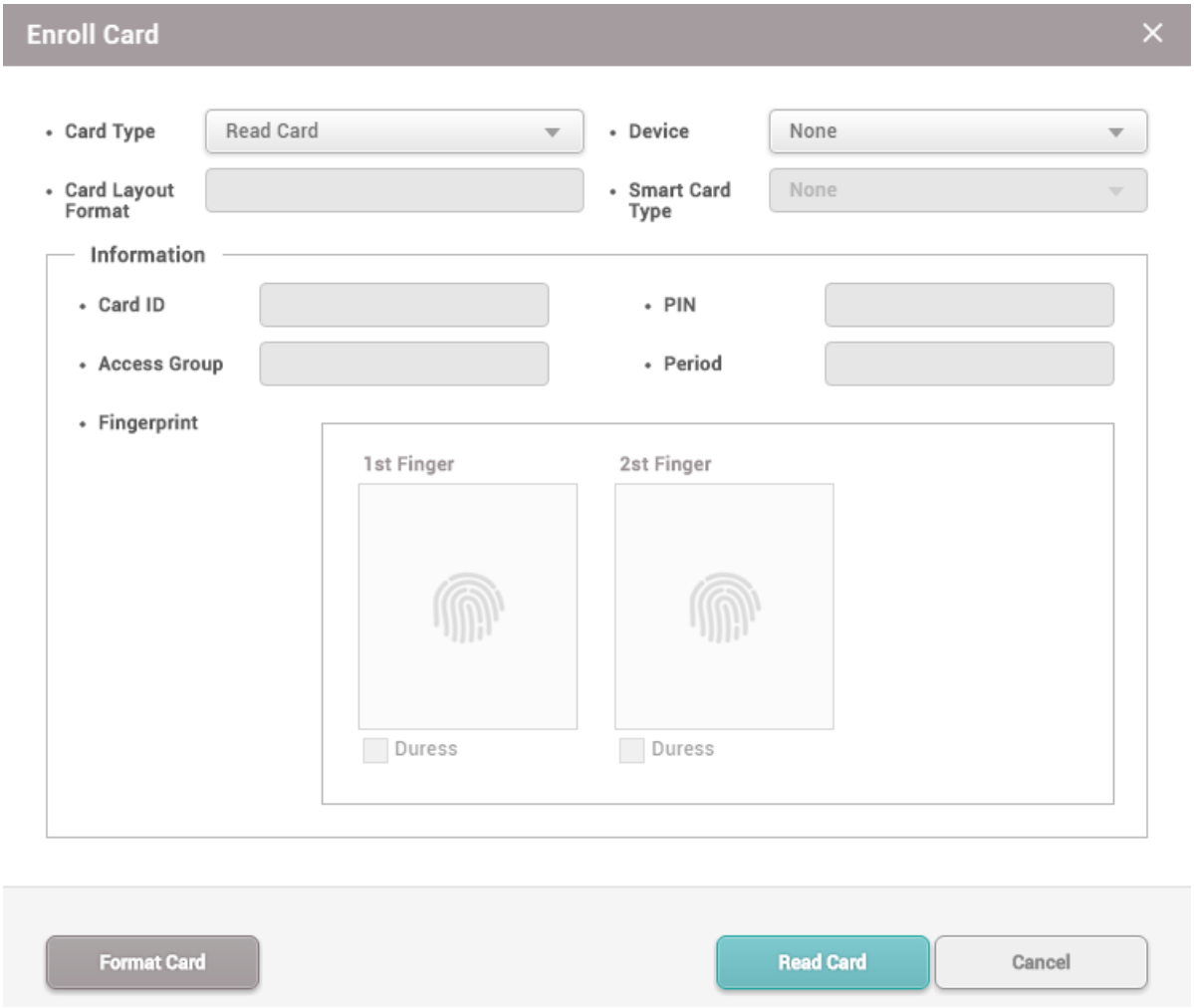
Card Usage Status

Card Format

Read/Format Smart Cards

It is possible to format the smart card and record information again.

1) Click + Card.



2) Select Read Card for Card Type.
3) Select a device which can read the smart card. The list of devices only appears when the smart card layout is set. For setting, refer to Card ID Format on Authentication.
4) Select Smart Card Type.
5) Click Read Card.
6) Check the card information and click Format Card.

Related Information

Card Usage Status

Card Format

Enroll Mobile Access Card

You can assign the mobile access to users when using the mobile access in conjunction with Suprema Airfob Portal.
Mobile Access Card supports registration either of each user individually or of multiple users at once via CSV Import.

10 Users

Depending on the issuance method of Mobile Access Card set in the Airfob Portal, the user's email or phone number should be entered.

Note

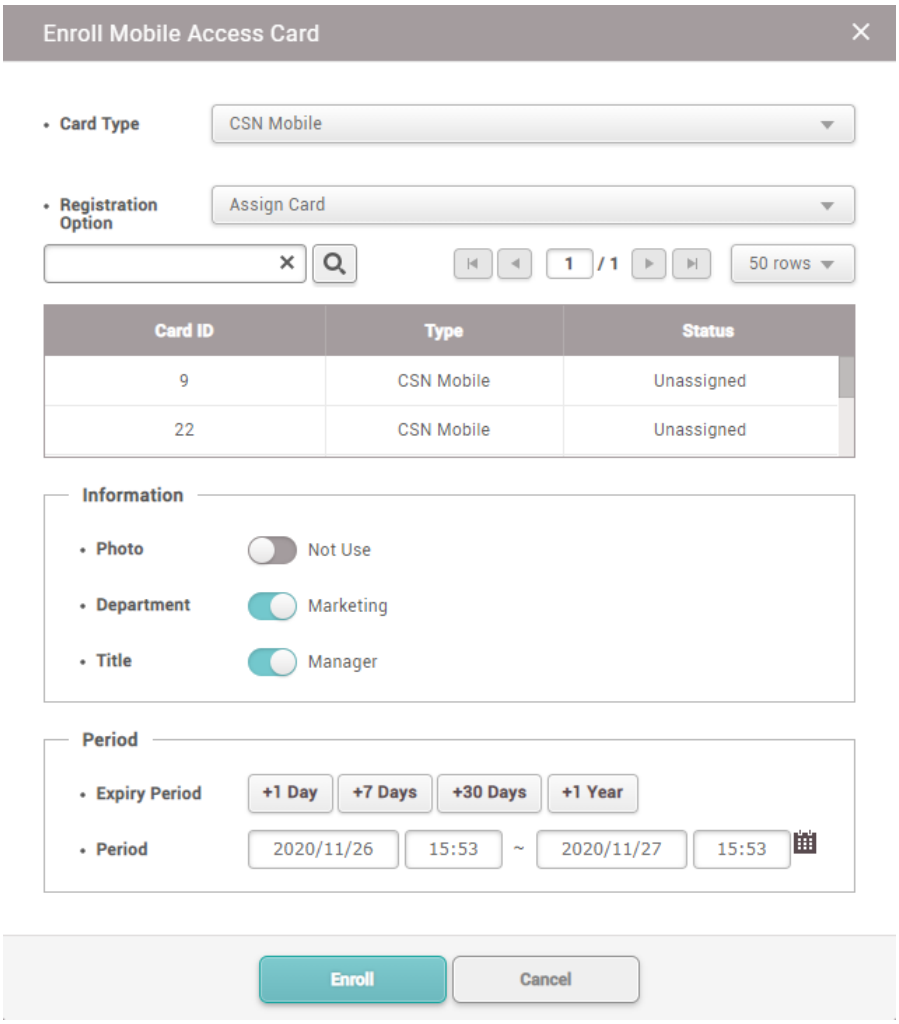
- For more information about using Suprema Airfob Portal and Mobile Access, see Mobile Access.

1) Click + Mobile.
2) Select a desired Registration Option.

Assign Card

Unassigned CSN Mobile cards registered in BioStar 2 can be assigned to users.

a) Select Assign Card for Registration Option.



b) Click the card to be assigned from the list or search for the card.

c) After setting Information and Period, click Enroll.

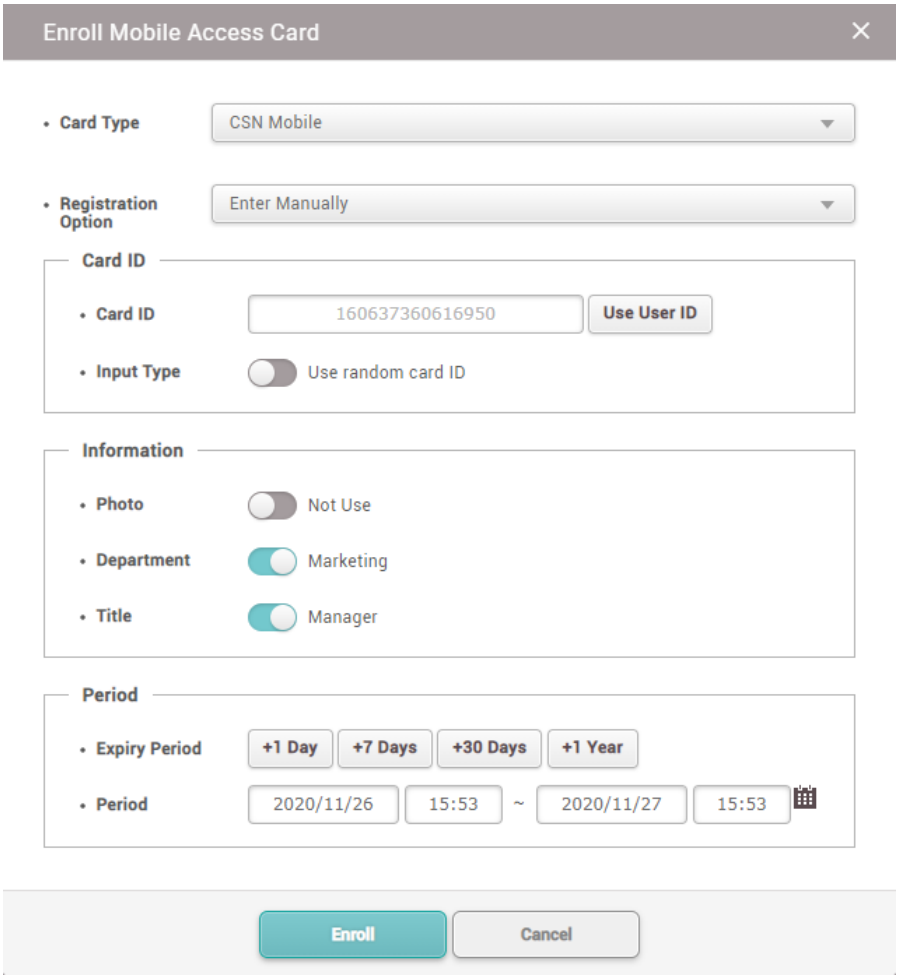
Note

- If the user's photo, department, and title are set in User Information, the corresponding information can be displayed on the user's mobile access card. Activate the items to be displayed on the mobile access card.
- The Expiry Period is only active when using the site type Dynamic. You can set the user's mobile access card expiry period and usage period.

Enter Manually

CSN Mobile cards can be registered with a card ID entered manually or a random card ID.

a) Select Enter Manually for Registration Option.



b) If Input Type is set as Use random card ID, a card ID is automatically generated. Click Use User ID to use the user ID as the card ID.
If Input Type is set at Enter manually, a card ID can be entered manually.

c) After setting Information and Period, click Enroll.

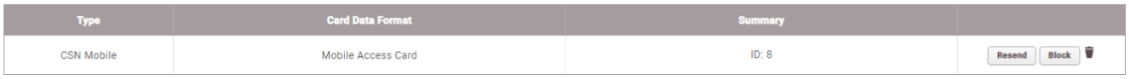
Note

- It is recommended to set Input Type to Use random card ID to prevent duplicate card ID generation.
- If the user's photo, department, and title are set in User Information, the corresponding information can be displayed on the user's mobile access card. Activate the items to be displayed on the mobile access card.
- The Expiry Period is only active when using the site type Dynamic. You can set the user's mobile access card expiry period and usage period.

3) Click Enroll to register a mobile access card.

Note

- If the activation code sent to you via email or text message is lost or deleted, you can reissue the activation code by clicking Resend. However, Mobile Access Cards activated in the Airfob Portal cannot be reissued.



Related Information

Adding User Information

Mobile Access

Enroll QR/Barcode

You can use QR/Barcodes as a means of authentication.

Note

- The devices that can use Use QR/Barcode through Scanner are as follows.
  - X-Station 2 (XS2-QDPB, XS2-QAPB)
- The devices that can use Use QR/Barcode through Camera are as follows.
  - X-Station 2 (XS2-ODPB, XS2-OAPB, XS2-DPB, XS2-APB) firmware 1.2.0 or higher
  - Using Use QR/Barcode through Camera requires a separate device license. For more information, refer to Device License.

1) Click + QR/Barcode.
2) Select the QR/Barcode Type.

– BioStar 2 QR

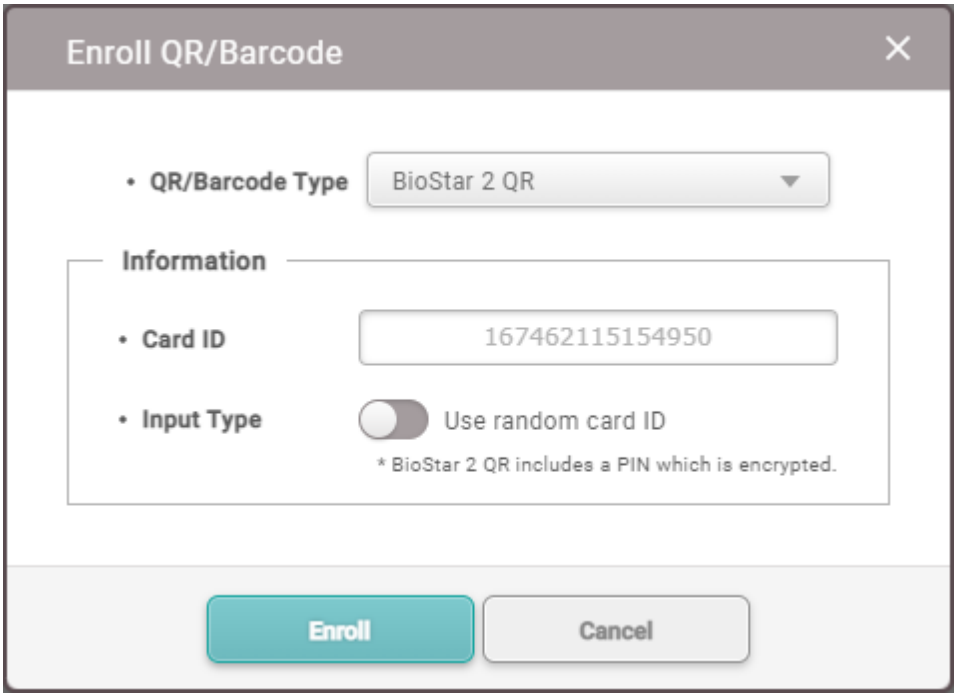
You can directly issue a QR code that contains an encrypted PIN on BioStar 2.

A QR code will be sent via email registered in user information.

Note

- Complete the email settings including SMTP settings before using BioStar 2 QR. Refer to the Email Setting for more information.
- To issue a BioStar 2 QR, the user's email address must be registered in user information.

a) Select BioStar 2 QR in the QR/Barcode Type.



b) Set details of a card to be issued in Information section. When setting the Input Type option to Use random card ID, a card ID is automatically generated. When setting the Input Type option to Enter manually, you need to enter a user ID manually.

Note

- It is recommended to set Input Type to Use random card ID to prevent duplicate card ID generation.

QR/Barcode

You can register users with QR/Barcodes issued from 3rd party systems.

a) Select QR/Barcode in the QR/Barcode Type.

b) Select Enter Manually in the Registration Option.

c) Enter an existing QR/Barcode ID manually.

Note

- You can enter a card ID up to 32 characters including alphabets, numbers, or special characters.

3) Click Enroll to register a QR/Barcode.

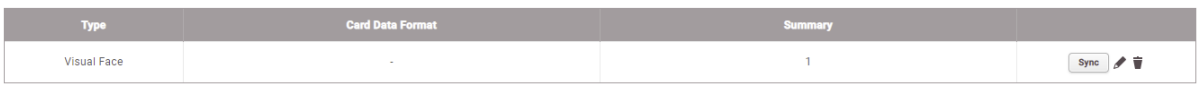
Biometric Credential Sync

You can resend biometric credentials to devices.

Note

- If Automatic User Synchronization is set to Not Used in Setting > Server > User/ Device Management, Sync is not available.

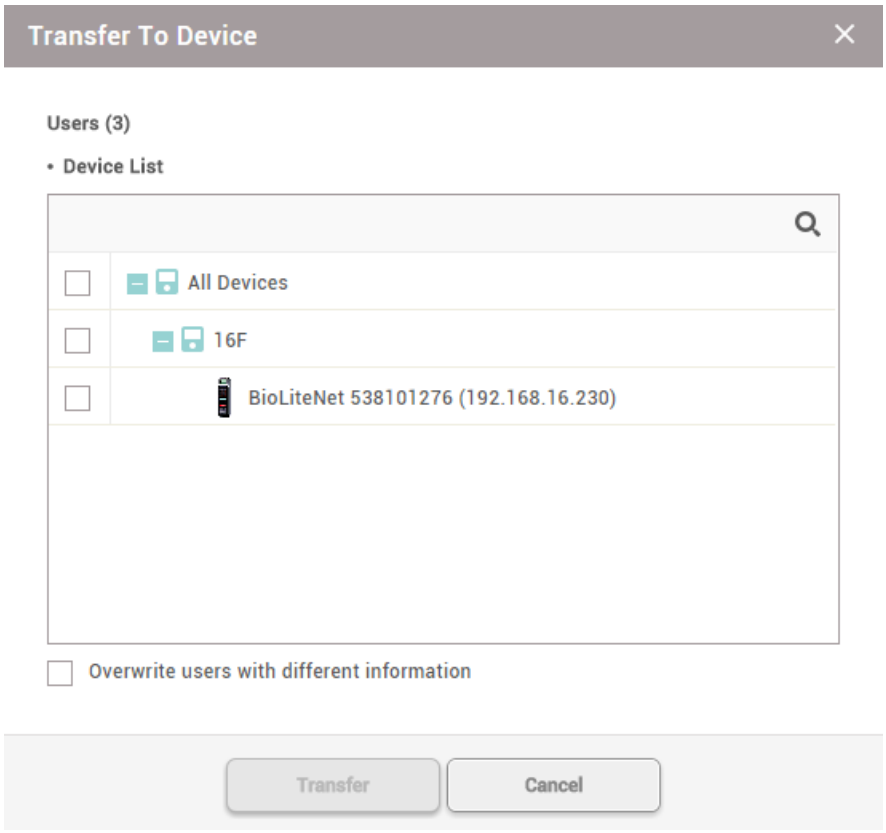
1) Click Sync.



Transferring User Information to Devices

You can transfer user information registered with BioStar 2 to devices.

1) Select a user to transfer and click Transfer to Device.



2) Select the Overwrite users with different information option to overwrite duplicate user information.
3) Select devices to transfer the information to. Click to search for a device.
4) Click Transfer to transfer the user information.

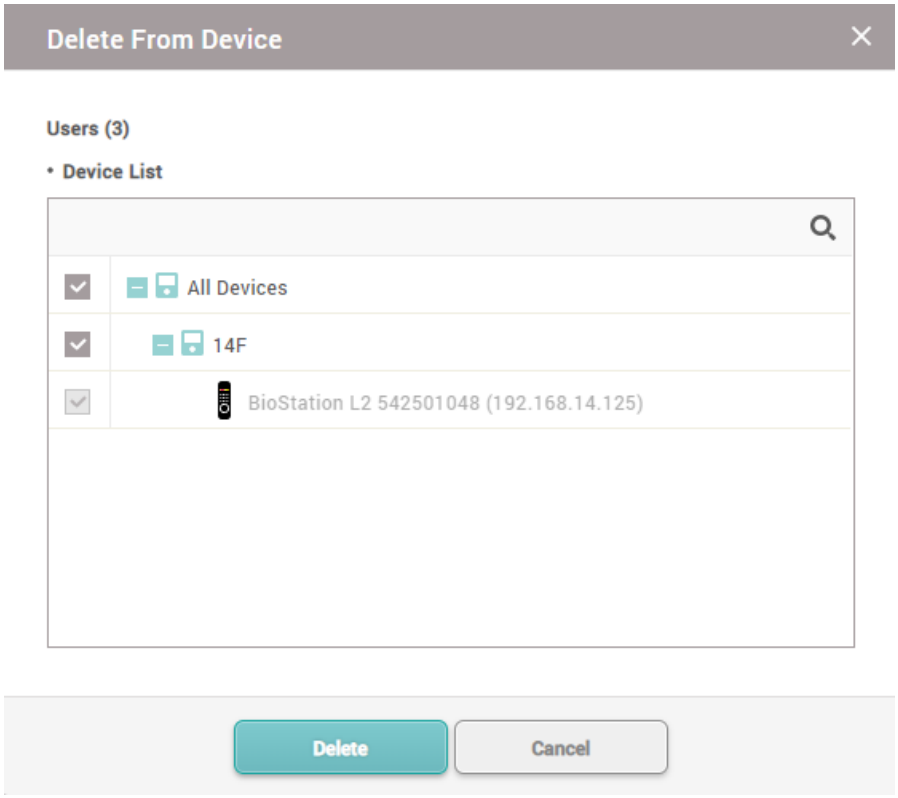
Related Information

Managing Users Registered with Devices

Deleting User from Devices

You can delete users from each device registered in BioStar 2.

1) Select a user to delete from the device and click Delete From Device.



Note

- The Delete From Device button is activated only when the Automatic User Synchronization is set as Not Used. You can refer to the User/Device Management for more detailed information on the Automatic User Synchronization.

2) Select devices to delete the users. Click to search for a device.
3) Click Delete to delete users.

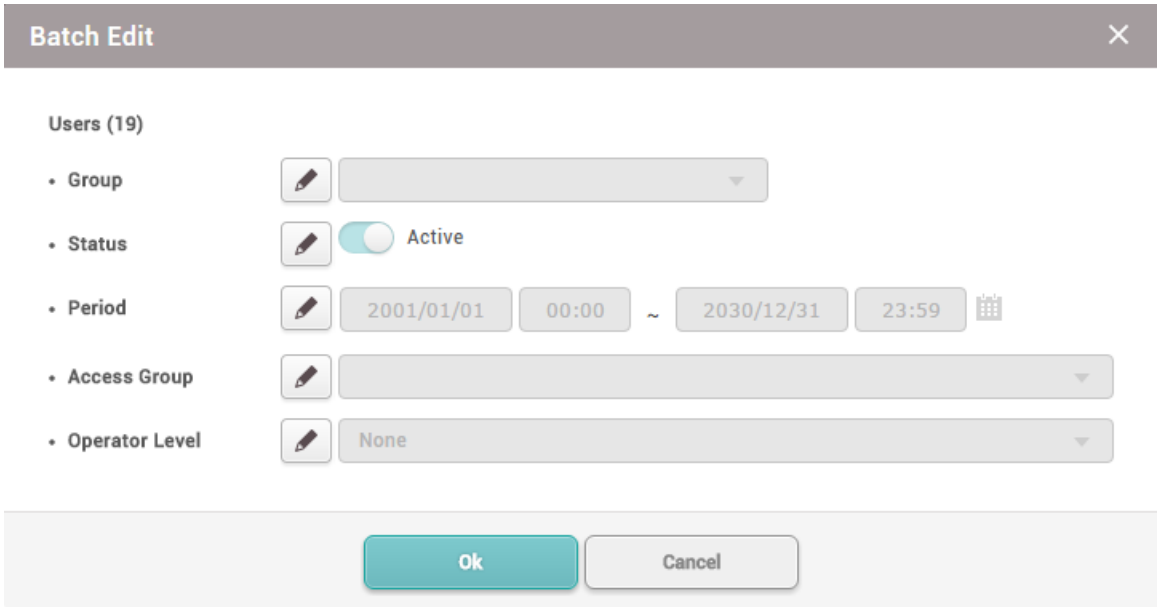
Note

- When you delete a user, it is only deleted from the device and the user in BioStar 2 remains intact.

Editing User Information

You can edit an existing user or batch edit multiple users.

1) In the user list, click a user to edit.
2) Edit the details by referring to the instructions in Adding User Information, Adding User Credentials and Enroll Card.
3) To batch edit information of multiple users, select multiple users and click Batch Edit.



4) Click of a field to edit its information.
5) Click OK to save the changes.

Note

- You cannot modify the Operator Level of "Administrator".

Managing Long-term Idle Users

You can view, edit and delete the users who do not have access events for the recent months.
You can use a filter or combine filters to narrow down the result and export it as a CSV file.

1) Click Status tab.
2) Set the idle period. You can choose from one month to six months.
3) You can narrow down the result by setting the filters on the headers of the result table.
4) Click Delete User after selecting multiple users if you want to delete the multiple users.

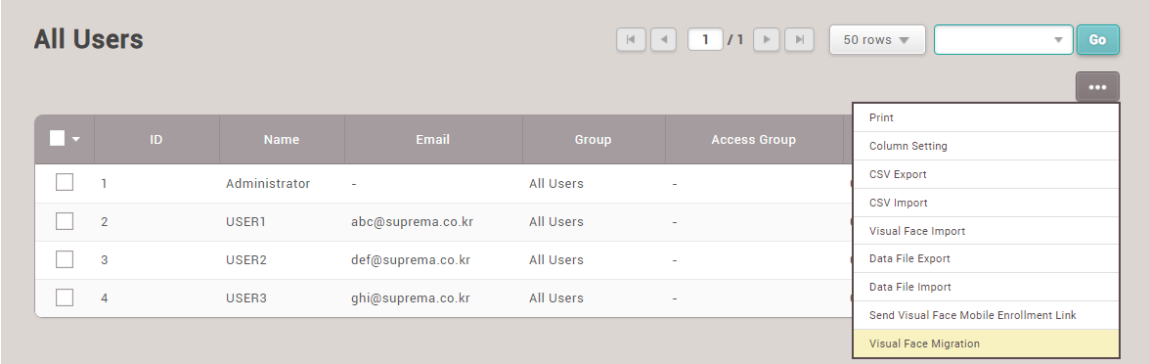
Note

- Only users with the operator level of Administrator or User Operator can use the Delete User menu. You can refer to the Adding User Information for more detailed information on the operator level.

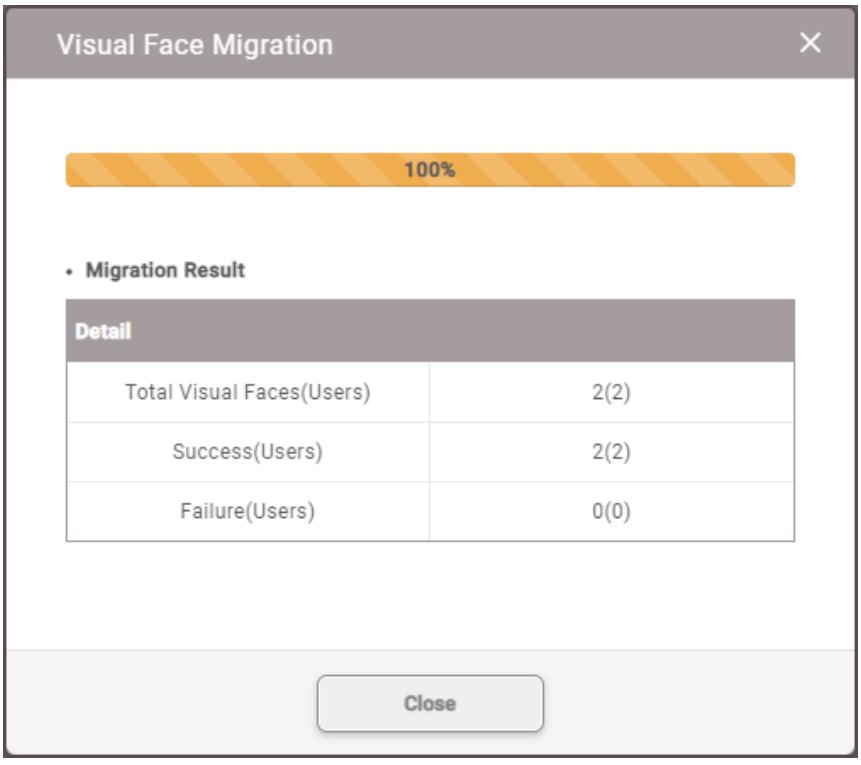
Visual Face Migration

Migrate all the visual faces from the previous version to the improved visual face algorithm.

1) Click USER.
2) Click ••• and then select the Visual Face Migration.



3) Click Continue after reading the warning pop-up message, Visual Face Migration process goes on.
4) When Visual Face Migration is complete, a result popup appears. You can check the total number of Visual Face enrolled in BioStar 2, and the number of migrations succeeded visual faces and the migration failed visual faces.



5) If a migration error case occurs, the list of users who have failed migration will be provided as a CSV file. You can delete the visual faces that have failed migration at once by clicking Delete.

On the ZONE page, you can add anti-passback, fire alarm, schedule lock and schedule unlock zones, and configure the settings.

11 Zone

Anti-passback Zone

Fire Alarm Zone

Schedule Lock Zone

Scheduled Unlock Zone

Intrusion Alarm Zone

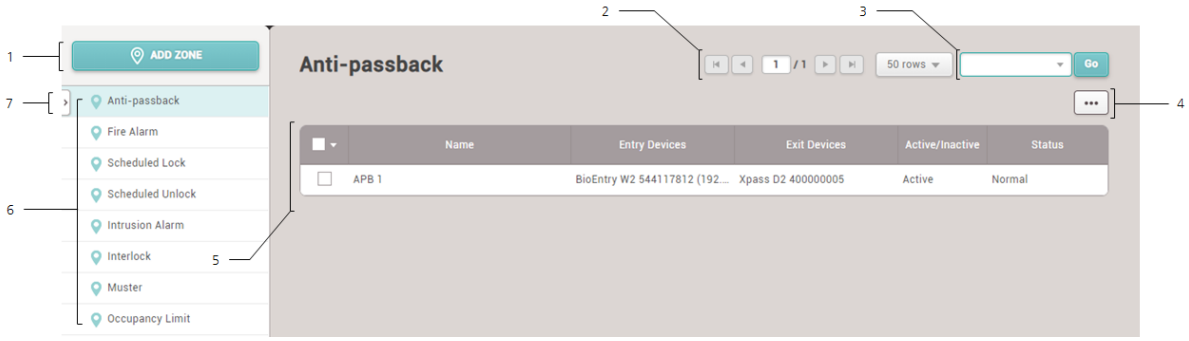
Interlock Zone

Muster Zone

Occupancy Limit Zone

Note

- The ZONE menu will appear when the Advanced or higher license is activated.



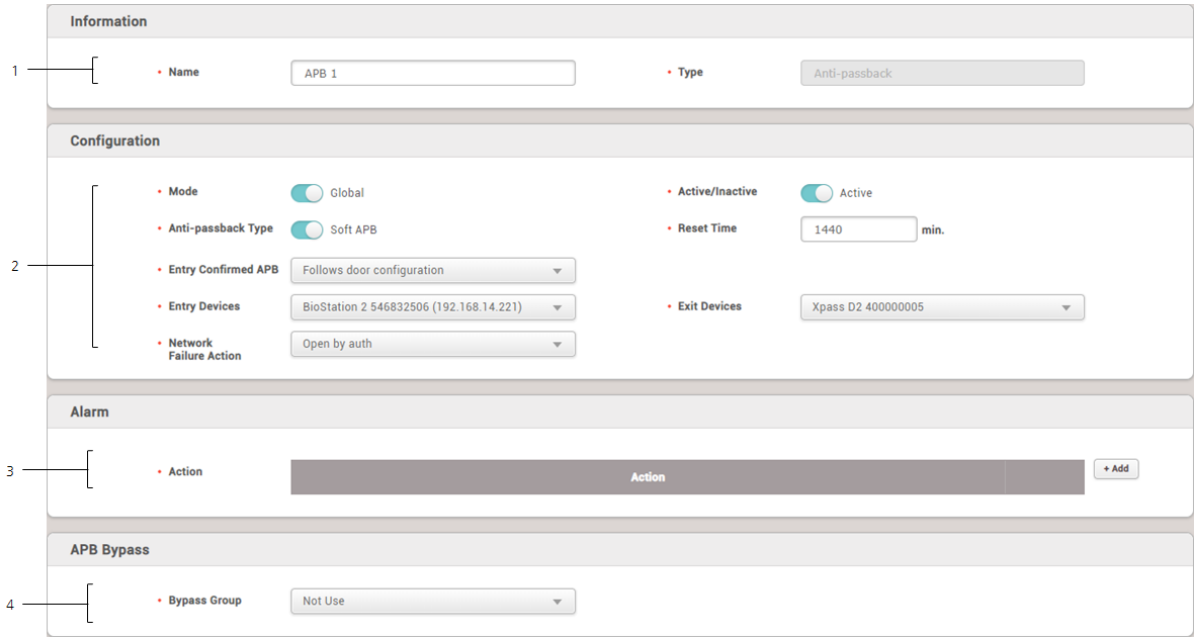
1 Add Zone	5 Zone List
2 Page Navigation Buttons and Number of List Rows	6 Zone Type
3 Registered Zone Search	7 Expand Button
4 Function Button (Column Setting)	

Anti-passback Zone

Anti-passback zone provides an enhanced function than the door based anti-passback feature.

1) Click ZONE and click ADD ZONE.
2) Click Anti-passback and click Apply.

11 Zone



No.	Item	Description
1	Information	Modify the information of the anti-passback zone. ▪ Name: Enter an anti-passback name. ▪ Type: View the zone type.
2	Configuration	Modify the zone settings of the anti-passback. ▪ Mode: It is possible to set either Local or Global for the range of zone application. If Local is set, the zone can be set only with the entry devices and devices connected with RS-485, and if Global is set, the zone can be set with all devices enrolled in BioStar 2. ▪ Active / Inactive: You can disable the anti-passback zone. Select Active to enable it. ▪ Anti-passback Type: Select an Anti-passback type. ▪ Reset Time: You can set a time period so that all anti-passback violations can be deleted. This allows the user to be granted access after the time period. The maximum possible duration is 7 days (10080 minutes). If set to 0, anti-passpack violations will not be deleted and the users who have previously violated the anti-passback rule will not be granted access. ▪ Entry Confirmed APB: You can set the range to apply the anti-passback. If Entry Confirmed APB is set to ON, the anti-passback is applied according to the actual operation of the door that the entry and exit device are configured. If this option is set to OFF, the rule is applied according to the user's authentication regardless of the door operation. When set to Follows door configuration, the anti-passback rule is applied according to the setting of the Use sensor when Entry Confirmed APB enabled option of the door. ▪ Entry Devices: Select a device to use for entry. You can select a device

No.	Item	Description
		from the list of added devices. If no registered device is available, see Basic Search and Registration, Advanced Search and Registration, Wiegand Device Search and Registration, or Slave Device Search and Registration. ▪ Exit Devices: Select a device to use at exit. You can select a device from the list of added devices. If there is no registered slave device, see Basic Search and Registration, Advanced Search and Registration, Wiegand Device Search and Registration, or Slave Device Search and Registration. ▪ Network Failure Action: It is possible to set the door operation in case the communication between BioStar 2 and the device where anti-passback is set has been lost. Setting is available when Global is set for Mode. When Open by auth is set, the door opens when the user has been authenticated normally. When Open by auth & record APB log is set, an anti-passback violation alarm occurs and the door opens. When Door locked & record APB log is set, an anti-passback violation alarm occurs and the door does not open.
3	Alarm	Choose the operation to be triggered when an APB violation occurs.
4	APB Bypass	Select an access level. Users who have the access level will not be restricted by the anti-passback rule.

3) Click Apply to save the settings.

Related Information

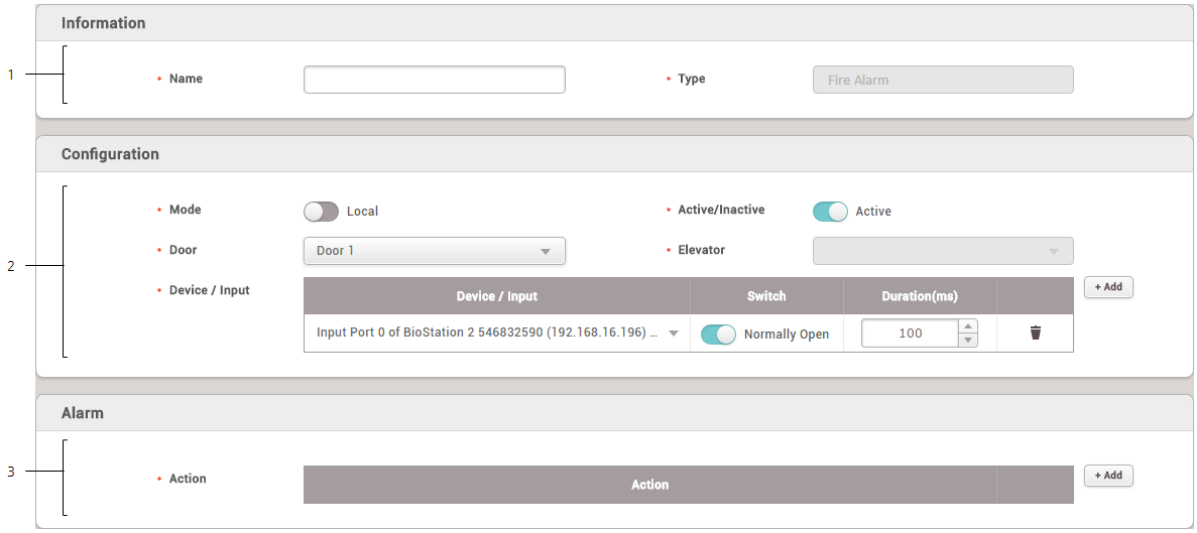
Anti-passback

Fire Alarm Zone

Configure the fire alarm zone.

1) Click ZONE and click ADD ZONE.
2) Click Fire Alarm and click Apply.

11 Zone



No.	Item	Description
1	Information	Modify the information of the fire alarm zone. ▪ Name: Enter a fire alarm zone name. ▪ Type: View the zone type.
2	Configuration	Modify the zone settings of the fire alarm zone. ▪ Mode: You can set fire alarm in two different modes. Local mode will allow the master device and slave devices that are connected via RS-485 to be selected. Global mode will allow selection of all devices added to BioStar 2. ▪ Active / Inactive: Disable the fire alarm zone. Select Active to enable it. ▪ Door: Select the door(s) to include in the fire alarm zone. ▪ Elevator: Select the elevators to include in the fire alarm zone. You can select multiple elevators. ▪ Device / Input: Click + Add and configure the device to set off the fire alarm signal. Note ▪ When Local is set for Mode, either Door or Elevator can be set as the fire zone. ▪ When Global is set for Mode, both Door and Elevator can be set as the fire zone at the same time.
3	Alarm	Choose the operation to be triggered when a fire alarm signal occurs.

3) Click Apply to save the settings.

11 Zone

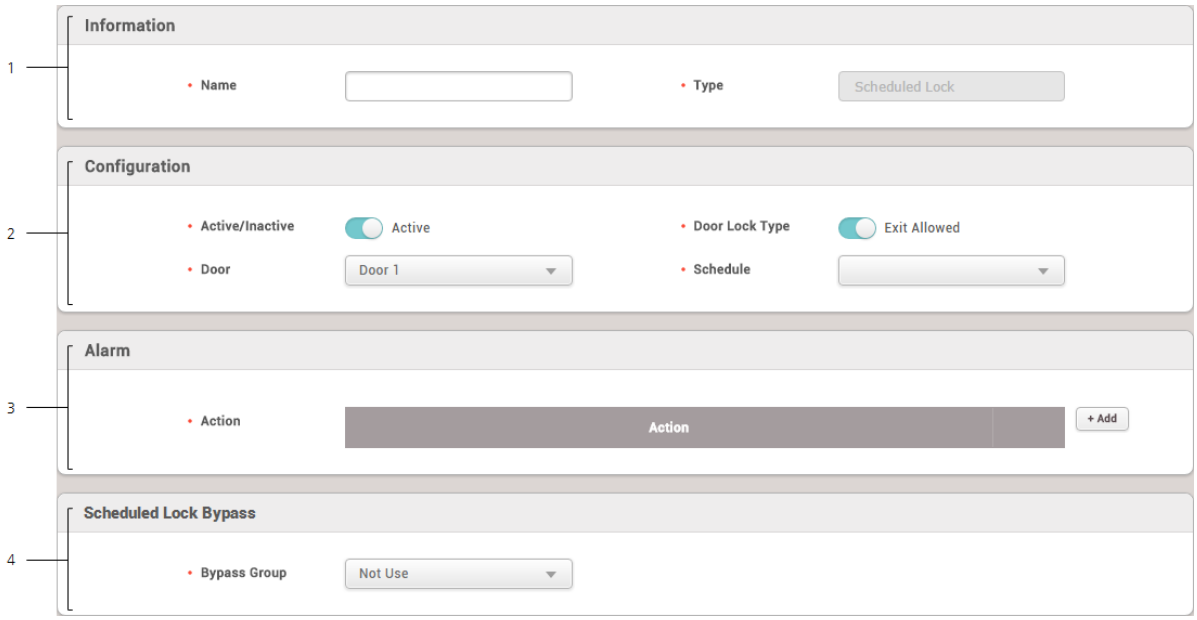
Scheduled Lock Zone

You can configure the scheduled lock zone. The scheduled lock zone keeps the door locked based on the schedule that has been set.

Note

- The scheduled lock zone only supports local mode.

1) Click ZONE and click ADD ZONE.
2) Click Scheduled Lock and click Apply.



No.	Item	Description
1	Information	Modify the information of the scheduled lock zone. ▪ Name: Enter a scheduled lock zone name. ▪ Type: View the zone type.
2	Configuration	Modify the zone settings of the scheduled lock. ▪ Active / Inactive: Disable the scheduled lock zone. Select Active to enable it. ▪ Lock Type: You can configure the zone to lock only the entering device, or to lock both entering and exiting device. ▪ Door: Select the door(s) to include in the scheduled lock zone. ▪ Schedule: Select a schedule. If no desired schedule is available, click + Add Schedule to create it.

No.	Item	Description
		Note ▪ You can configure a scheduled lock zone by selecting multiple doors in local mode.
3	Alarm	Choose the operation to be triggered when a scheduled lock signal occurs.
4	Scheduled Lock Bypass	Select an access level. Users who have the access level will not be restricted by the scheduled lock rule.

3) Click Apply to save the settings.

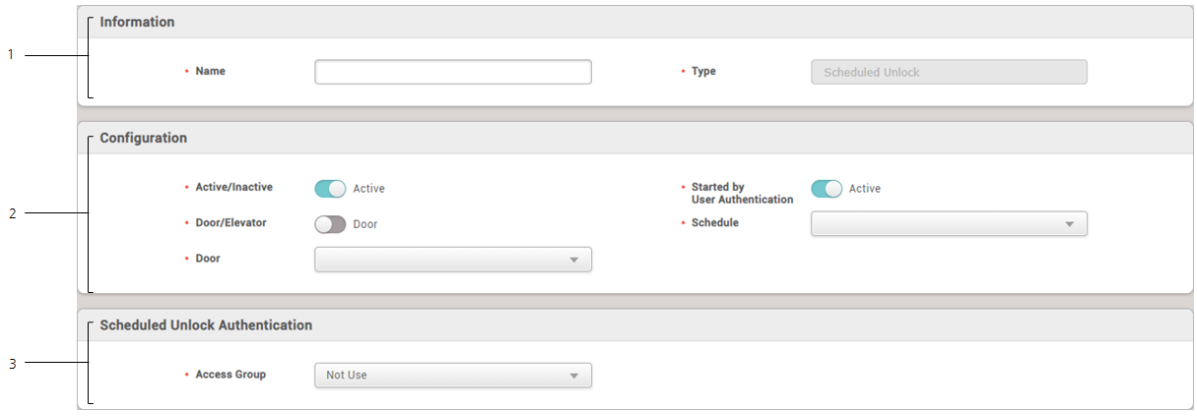
Scheduled Unlock Zone

You can configure the scheduled unlock zone. The scheduled unlock zone keeps the door open based on the schedule that has been set.

Note

- The scheduled unlock zone only supports local mode.

1) Click ZONE and click ADD ZONE.
2) Click Scheduled Unlock and click Apply.



No.	Item	Description
1	Information	Modify the information of the scheduled unlock zone. ▪ Name: Enter a scheduled unlock zone name. ▪ Type: View the zone type.
2	Configuration	Modify the zone settings of the scheduled unlock.

No.	Item	Description
		▪ Active / Inactive: Disable the scheduled unlock zone. Select Active to enable it. ▪ Started by User Authentication: When set as Active, the user who belongs to the access group must authenticate in the configured schedule to start a schedule unlock. ▪ Door / Elevator: You can set doors or elevators as schedule unlock zones. ▪ Schedule: Select a schedule. If no desired schedule is available, click + Add Schedule to create it. ▪ Door: If you select Door, the door list is activated. Select the door(s) to include in the scheduled unlock zone. ▪ Elevator: If you select Elevator, the elevator list is activated. Select the elevators to include in the scheduled unlock zone. You can select multiple elevators. ▪ Floor: You can select the floor of the selected elevator. Note ▪ You can configure a scheduled unlock zone by selecting multiple doors in local mode. ▪ If you select an elevator that has already been configured with a different scheduled unlock zone, you cannot set the same floor.
3	Alarm	Choose the operation to be triggered when a scheduled unlock signal occurs.
4	Scheduled Unlock Authentication	You can select the access group where the user belongs who can start a scheduled unlock.

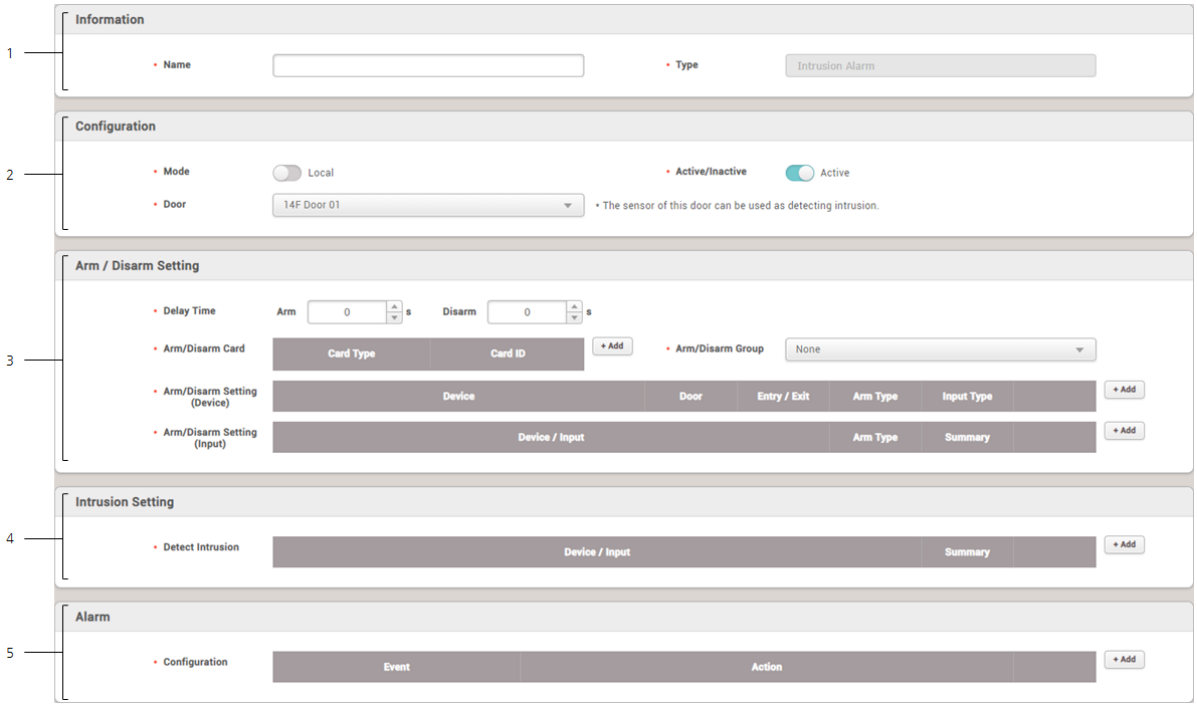
3) Click Apply to save the settings.

Intrusion Alarm Zone

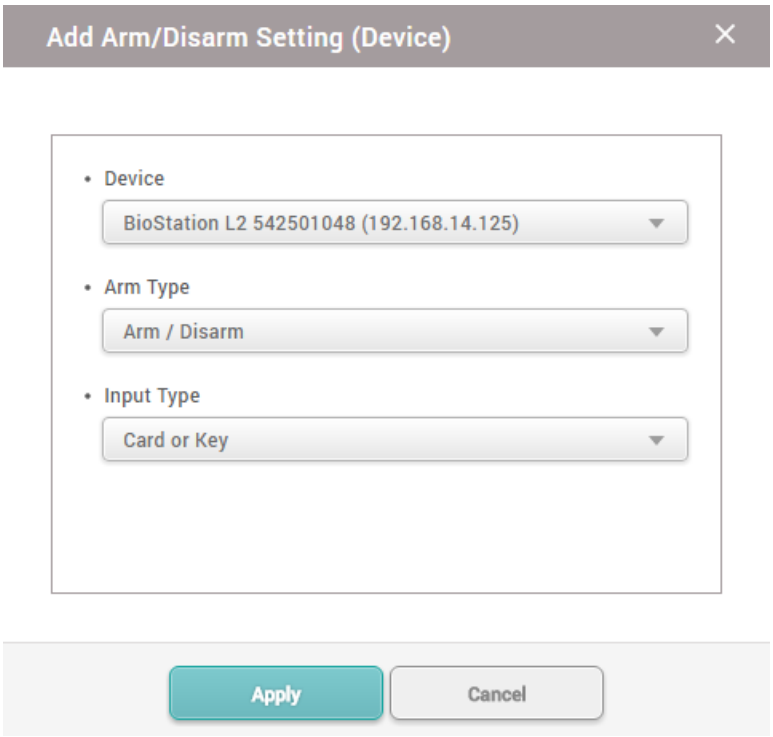
When intrusion alarm zone is used, you can detect trespassing of an unauthorized user to a designated zone without permission.

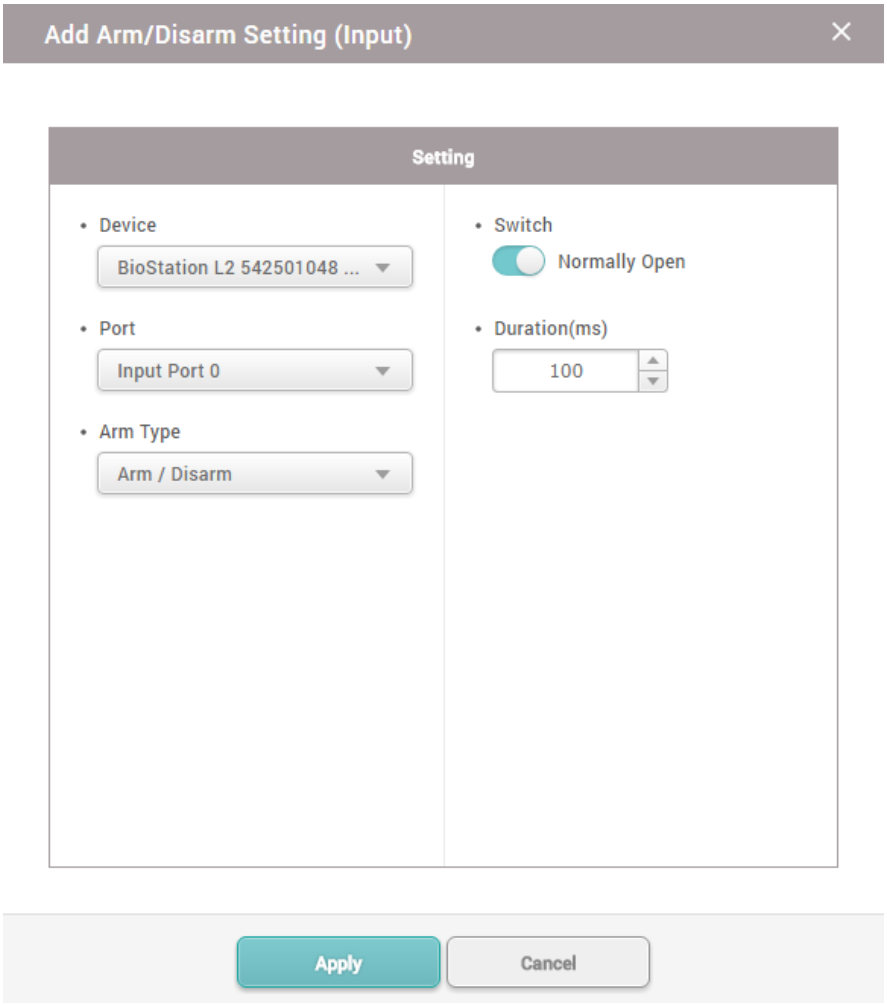
1) Click ZONE and click ADD ZONE.
2) Click Intrusion Alarm and click Apply.

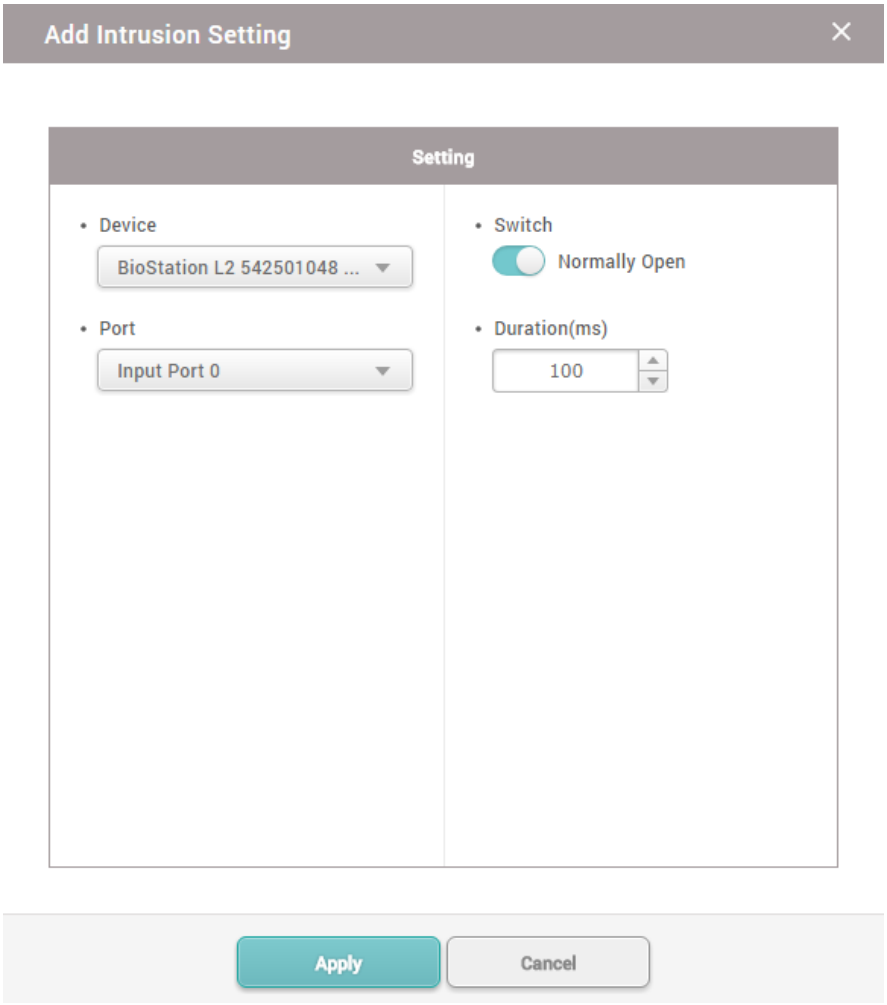
11 Zone



No.	Item	Description
1	Information	Modify the information of the intrusion alarm zone. ▪ Name: Enter an intrusion alarm zone name. ▪ Type: View the zone type.
2	Configuration	You can change the general settings of an intrusion alarm zone. ▪ Mode: You can check the application range of the zone. Only Local mode is supported for intrusion alarm zone, and the zone can be set only with devices connected to the entry device and RS-485. ▪ Active / Inactive: You can disable the intrusion alarm zone. Select Active to enable it. ▪ Door: Select the doors to include in the intrusion alarm zone.
3	Arm / Disarm Setting	You can add an authentication setting for arm and disarm. ▪ Delay Time: You can set the delay time to arm or disarm. Arm is the delay time from the authentication to the arm, and Disarm is the delay time from the intrusion detection to the alarm occurs. ▪ Access Card: You can add a card with permission to arm or disarm. You can register up to 128 access cards. ▪ Access Group: You can add an access group with permission to arm or disarm. You can register up to 128 access groups. ▪ Arm/Disarm Setting: You can set the arming and disarming by device or input signal. Click + Add and set each item. Add arming and disarming by device

No.	Item	Description
		Click Device to select a device to control the intrusion alarm zone among the entry and exit devices of the door, and select Arm Type. Card, Key, and Card or Key can be selected for the Input type. Only Card is available as the input type for a device with no LCD screen.  Add arming and disarming by input signal Click Device to select the device that controls the intrusion alarm zone. Click Port and select an input port of the selected device. Select Arm Type and set the switch type and the signal duration.

No.	Item	Description
		 Note ▪ It is activated only when Door is set from Configuration.
4	Intrusion Setting	You can set the intrusion detection signal. When you click + Add and set as shown in the screen below, the device recognizes the detection of intrusion if N/O sensor connected to input port 0 of BioStation L2 sends a signal for 100(ms).

No.	Item	Description
		 Note ▪ It is activated only when Door is set from Configuration.
5	Alarm	Set the alarm action to carry out when a specific event occurs at the intrusion alarm zone. Note ▪ It is activated only when Door is set from Configuration.

3) Click Apply to save the settings.

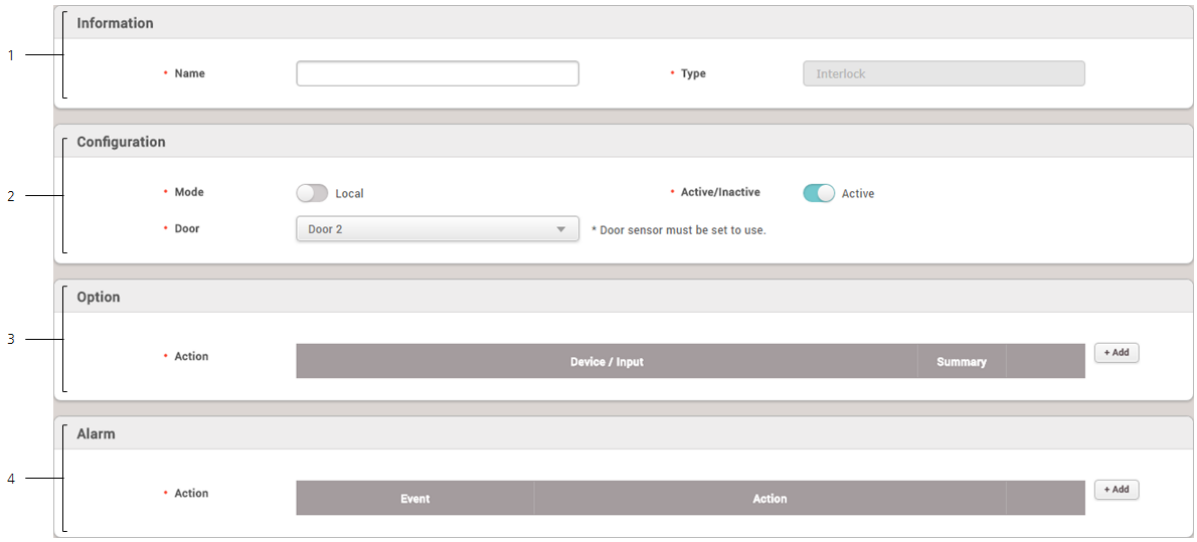
Interlock Zone

Interlock zone monitors the status of two or more doors by door sensor and relay state to control that one door cannot be opened or close if other doors are open or unlocked. You can also disable access if a user stays within the zone.

Note

- An interlock zone can be configured with up to 4 doors.
- An interlock zone can only set the doors with the devices connected to the CoreStation.
- A device set as an interlock zone cannot be set to another zone.
- A door set as an interlock zone cannot be set to another zone other than the fire alarm zone.

1) Click ZONE and click ADD ZONE.
2) Click Interlock and click Apply.
3) Edit the necessary items.



No.	Item	Description
1	Information	Modify the information of the interlock zone. ▪ Name: Enter an interlock zone name. ▪ Type: View the zone type.
2	Configuration	You can change the general settings of an interlock zone. ▪ Mode: You can check the application range of the zone. Only Local mode is supported for interlock zone, and the zone can be set only with devices connected to the CoreStation and RS-485. ▪ Active / Inactive: You can disable the interlock zone. Select Active to enable it. ▪ Door: Select the doors to include in the interlock zone. You must select at least two doors that are the door sensor is connected.
3	Option	If a user stays in the zone, this option can prevent others from entering the zone. Note

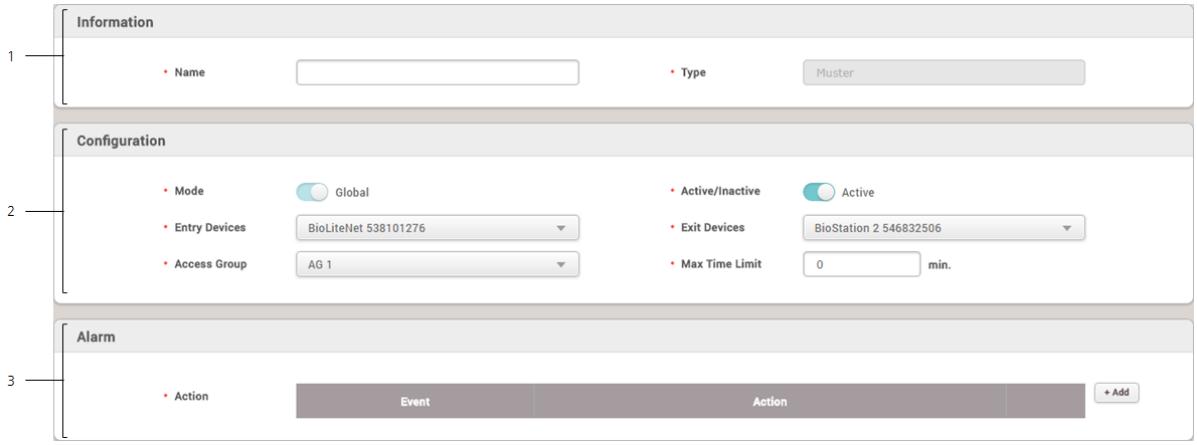
No.	Item	Description
		▪ It is activated only when Door is set from Configuration.
4	Alarm	Set the alarm action to carry out when a specific event occurs at the interlock zone. Note ▪ It is activated only when Door is set from Configuration.

4) Click Apply to save the settings.

Muster Zone

The muster zone is used as a place where users gather when an emergency occurs. It can also be used for the purpose of monitoring the number of users and list of users in a specific area, or for notifying the manager of alarms and alerts when a user stays in a specific area for a long time.

1) Click ZONE and click ADD ZONE.
2) Click Muster and click Apply.
3) Edit the necessary items.



No.	Item	Description
1	Information	Modify the information of the muster zone. ▪ Name: Enter a muster zone name. ▪ Type: View the zone type.
2	Configuration	You can change the general settings of a muster zone. ▪ Mode: You can check the application range of the zone. Only Global mode is supported for muster zone, and the zone can be set with all devices added to BioStar 2. ▪ Active / Inactive: You can disable the muster zone. Select Active to

No.	Item	Description
		enable it. ▪ Entry Devices: Select a device to use for entry. You can select a device from the list of added devices. If no registered device is available, see Basic Search and Registration, Advanced Search and Registration, Wiegand Device Search and Registration, or Slave Device Search and Registration. ▪ Exit Devices: Select a device to use at exit. You can select a device from the list of added devices. If there is no registered slave device, see Basic Search and Registration, Advanced Search and Registration, Wiegand Device Search and Registration, or Slave Device Search and Registration. ▪ Access Group: Set the access group to which the user who will be staying in the muster zone. Up to 16 access groups can be set. ▪ Max Time Limit: Set the maximum amount of time that user can stay in the zone. It can be set up to 4320 minutes, and an alarm occurs when the user stays in the muster zone exceeding the specified time.
3	Alarm	Set the alarm action to carry out when a specific event occurs at the muster zone. Note ▪ It is activated only when Entry Devices and Exit Devices is set from Configuration.

4) Click Apply to save the settings.

Occupancy Limit Zone

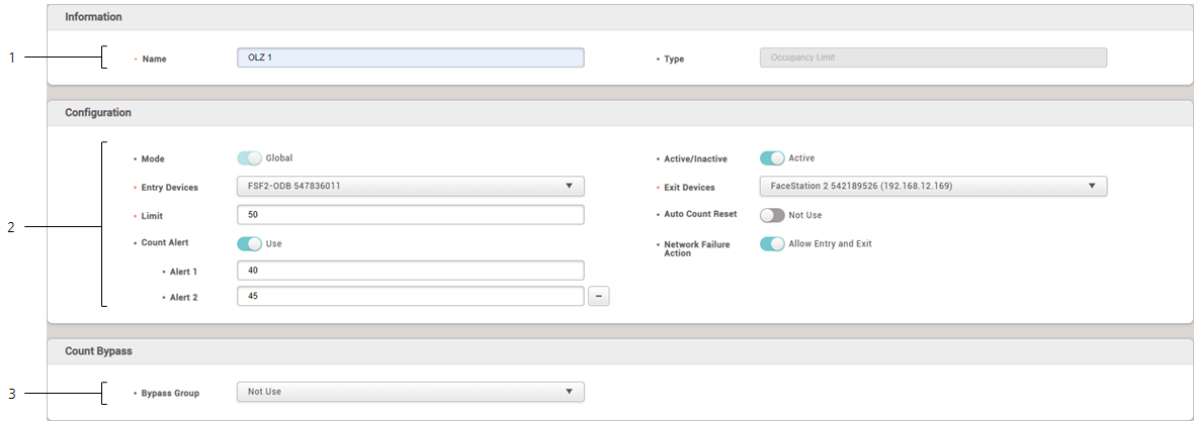
You can manage and control the population density of certain areas with Occupancy Limit Zone to prevent overcrowding. You can also monitor the occupancy limit zone status or set an alert to get notified when the zone has reached capacity.

Note

- Up to 100 occupancy limit zones can be added.

1) Click ZONE and click ADD ZONE.
2) Click Occupancy Limit and click Apply.
3) Edit the necessary items.

11 Zone

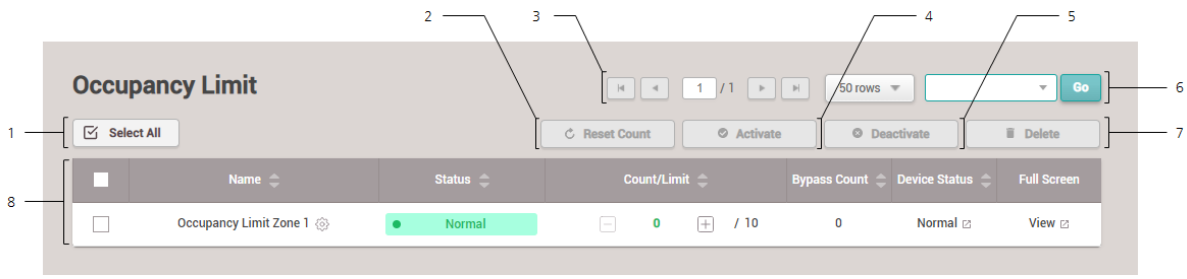


No.	Item	Description
1	Information	Modify the information of the occupancy limit zone. ▪ Name: Enter an occupancy limit zone name. ▪ Type: View the zone type. Note ▪ Name can be up to 48 characters in length and cannot be set to the same name as other zones.
2	Configuration	Modify the settings of the occupancy limit zone. ▪ Mode: Check the application range of the zone. It only supports Global mode for the occupancy limit zone. ▪ Active / Inactive: Deactivate the occupancy limit zone. If the zone is deactivated, both Count that refers to the number of users in the zone and Count Bypass settings will be initialized. Select Active to enable it. ▪ Entry Devices: Select a device to use for entry. You can select a device from the list of added devices. If no registered device is available, see Basic Search and Registration or Advanced Search and Registration. ▪ Exit Devices: Select a device to use at exit. You can select a device from the list of added devices. If there is no registered slave device, see Basic Search and Registration or Advanced Search and Registration. ▪ Limit: Enter the number of users who will be restricted from entering the zone. If the number of users in the zone reaches the limit, entry will be restricted. You can enter a number from 0 to 10,000, and if it is set to 0, people can enter the zone without limit. ▪ Auto Count Reset: Set the time to automatically initialize Count. The Count will be initialized at the time you set every day. ▪ Count Alert: Set an alert to an administrator or set to save event logs before Count reaches the occupancy limit. When Count Alert is activated, the input field for Alert 1 appears. Click the + to set Alert 2. ▪ Network Failure Action: Set whether to allow users to enter or leave when a network error occurs in the device set in the zone. If you set it to

No.	Item	Description
		Allow Entry and Exit, it stops entry restrictions when the device loses network connection, and people can enter the zone even if Count in the zone exceeds the occupancy limit. Note ▪ Devices and firmware versions that are compatible with the occupancy limit zone features are as follows: - FaceStation F2 firmware version 1.1.0 or later - FaceStation 2 firmware version 1.5.0 or later ▪ A device cannot be assigned to the entry device and exit device simultaneously. ▪ You can set entry devices and exit devices up to 128 in total. ▪ A device using Dual Authentication cannot be set as the entry or exit device. ▪ Set the time of Auto Count Reset based on UTC in the country where the zone is located. For example, if the time is set to 00:00 in UTC+9, the count is automatically reset at 01:00 in UTC+10. ▪ You can set up two alerts for Count Alert and only enter numbers smaller than the Limit value. The values of both alerts must be different.
3	Count Bypass	Set Count Bypass by selecting bypass groups to allow users in the group to enter the zone at any time without affecting the number of Count. The Bypass Count column displays the number of people from Count Bypass in the zone list. Note ▪ It is not able to use the Count Bypass feature when you set Thermal & Mask Check Mode as Check without authentication while using the device with a thermal camera. ▪ Up to 16 bypass groups can be added.

4) Click Apply to save the settings.

The list of the registered occupancy limit zones will be display and it shows the current status of zones.



11 Zone

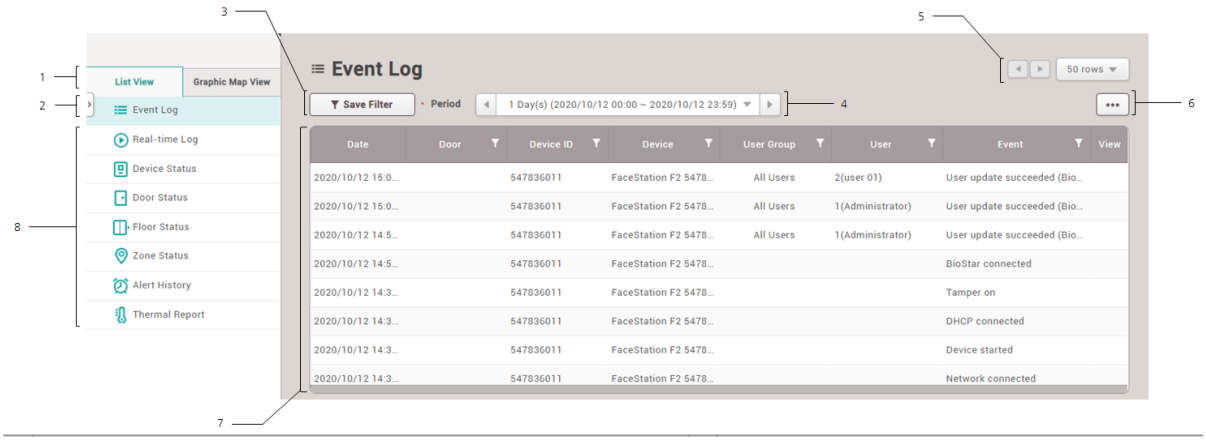
No.	Item	Description
1	Select All	Select all occupancy limit zones in the list.
2	Reset Count	Initialize both Count and Bypass Count settings. After initialization, user's entry and exit logs will be deleted, and Count may be inaccurate depending on the network status.
3	Page Navigation Buttons and Number of List Rows	You can move a page or set the number of list rows to be displayed on one page. ▪ : Go to the first page. ▪ : Go to the previous page. ▪ 2 / 2 : Enter the page number to move to. ▪ : Go to the next page. ▪ : Go to the last page. ▪ 25 rows : Set the number of list rows to be displayed on one page.
4	Activate	Activate the deactivated zone.
5	Deactivate	Deactivate the occupancy limit zone. If the zone is deactivated, both Count and Bypass Count settings will be initialized.
6	Search	Search the registered zone.
7	Delete	Delete the zone.
8	Occupancy Limit Zone List	The list of the registered occupancy limit zones will be display and it shows the current status of zones. ▪ Name: View the zone name. ▪ Status: View the zone status. - Normal: The number of users in the zone has not reached either preset alerts or the occupancy limit, and more users can enter the zone. - Count Alert: The number of users in the zone has reached alert 1 or alert 2. - Full: The number of users in the zone has reached the occupancy limit, and further entry will be restricted. ▪ Count / Limit: View the number of users currently in the zone and the occupancy limit. An administrator can directly modify the Count by clicking the - or + buttons or by inputting a value after clicking the Count section. ▪ Bypass Count: View the number of users belonging to Count Bypass in the zone. ▪ Device Status: View the network status of devices set in the zone. - Normal: Networks work properly. - Network Failure: A network error occurs in one or more devices. ▪ Full Screen: View the current status of the occupancy limit zone on the full screen.

No.	Item	Description
		Note ▪ If you have set Limit, you can enter up to 50,000. If you have not set Limit, you can enter up to 999,999. (numeral character only) You cannot enter a number above the maximum input value. If the actual number of people in the zone is greater than the maximum input value, the value exceeded will not be saved in the database.

You can use the MONITORING menu to view lists of access control events, device and door status, zone status and the alert history.
You can see and control the status of the doors in real-time in the graphic if you add a graphic map.

List View

Graphic Map View



1 Tab buttons for List View and Graphic Map View	5 Page Navigation Buttons and Number of List Rows
2 Expand Button	6 Function Button (Print, CSV Export, Data File Import, Column Setting)
3 Save Filter Button	7 List of Selected Monitoring Items
4 Search period of Event Log	8 Monitoring Categories

Note

- The Floor Status, Zone Status and Graphic Map View will appear when the AC standard license is activated.

- The Live Video Viewl menu will appear when the Video license is activated.

List View

You can see lists of access control events, device and door status, zone status and the alert history. You can also apply filters to the collected monitoring data and view specific types of monitoring information.

Event Log

Real-time Log

Live Video View

Device Status

Door Status

Floor Status

Zone Status

Alert History

Thermal Report

Note

- The Floor Status and Zone Status menu will appear when the AC standard license is activated.
- The Live Video Viewl menu will appear when the Video license is activated.

Event Log

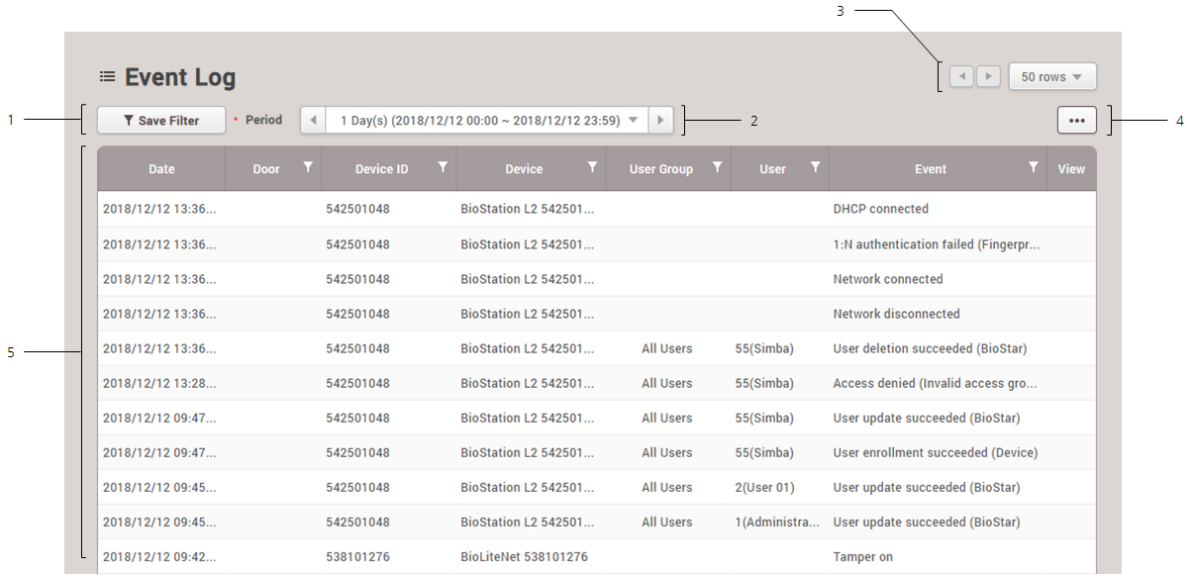
You can view all the logs of all past events. You can also apply various filters to sort the displayed data.

Note

- Make sure to check the time and date setting of the device. For more information on configuring device time, see Information.
- When the image log is set, you can view or store a stored image in its actual size.
- Use a separate storage media for the video log. Video logs might not be saved if the video storage space is reduced by the external processing(such as copying files and creating files), To change the path to save video logs, see Video.

1) Click MONITORING > List View > Event Log.
2) To view log entries of a specific type only, click the ▼ of a column and apply a filter.

12 Monitoring



No.	Item	Description
1	Save Filter Button	Saves the set filter.
2	Period	You can set a desired period and sort event logs.
3	Page Navigation Buttons and Number of List Rows	You can move a page or set the number of list rows to be displayed on one page. ▪ : Go to the first page. ▪ : Go to the previous page. ▪ 25 rows : Set the number of list rows to be displayed on one page.
4	Function Buttons (Print, CSV Export, Data File Import, Column Setting)	You can use the additional features with event logs. ▪ Print the event log ▪ Export to CSV file ▪ Import the data file ▪ Change the column setting Note ▪ For more information about importing a data file, see Import Event Logs.
5	Event Log	Shows the event log. When an image log exists, it is displayed as and you can view or store a captured image in its actual size in PC.

Note

- When Log Upload is set to Manual, the user can import the log manually by clicking Update Log. For how to change log upload setting, refer to Server.

If Latest is set, the log saved after the date of the log saved last in BioStar 2 will be imported from the device, and if All is set, all logs of the device will be imported to BioStar 2. You can also set a date range within which to import logs.

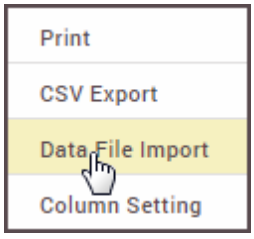
Import Event Logs

You can view all the logs of all past events. You can also apply various filters to sort the displayed data.

Note

- The exported data file from devices using older firmware version cannot be imported into BioStar 2. Make sure always use the latest version of firmware.
- Only data files exported from FacaStation F2, FaceStation 2, FaceLite, BioStation A2, BioStation 2, X-Station 2 and BioStation 3 can be imported.
- Some information of event log may appear as a blank if a door, elevator, or zone is not set by the BioStar 2.

1) Click ••• and then click Data File Import.



2) Select the desired file (*.tgz) and then click Open.
3) A success message will appear on the screen when import successfully.

Real-time Log

You can view a log of various events in real time.

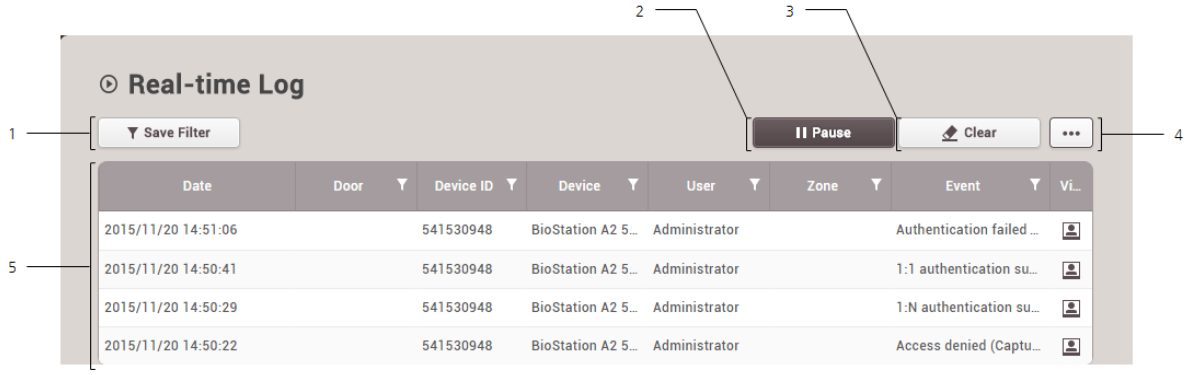
Note

- Make sure to check the time and date setting of the device. For more information on configuring the device time, see Information.
- The real-time log can only be viewed while the Real-time Log page is displayed. In other words, when the administrator is viewing another page for changing device settings, etc., the

real-time log cannot be viewed.

- If Log Upload is set to Manual in the Server, the real-time log cannot be viewed.
- When the image log is set, you can view or store a stored image in its actual size.

1) Click MONITORING > List View > Real-time Log.
2) To view log entries of a specific type only, click the ▼ of a column and apply a filter.



No.	Item	Description
1	Save Filter Button	Saves the set filter.
2	Start/Pause Button	Pauses or starts real-time log collection.
3	Clear Button	Clears the collected log information. To view the entire event log, see Event Log.
4	Function Buttons (Column Setting)	Changes the column setting of the log.
5	Event Log	Shows the event log. When an image log occurs, a notification will pop up on the left side of the browser screen and you can view a captured image in its actual size of store in PC. You can also press to check.

Live Video View

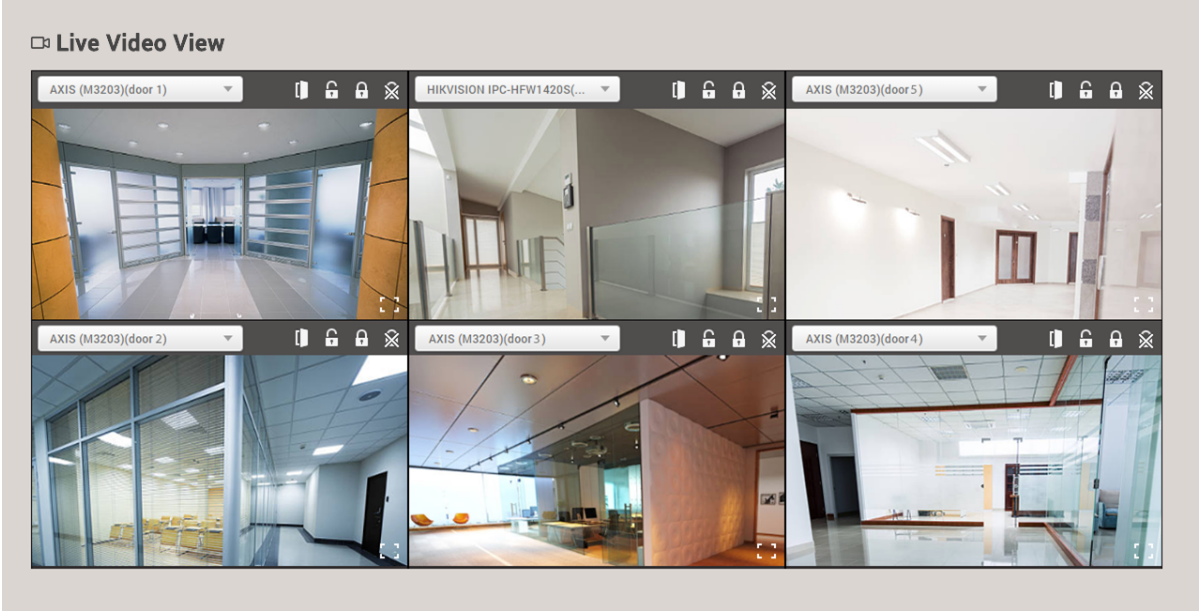
You can see the screen of IP camera set in Video menu and event log set up in real time. In addition, Open, Manual Unlock, Manual Lock, and Release functions are available for the door control function.

Note

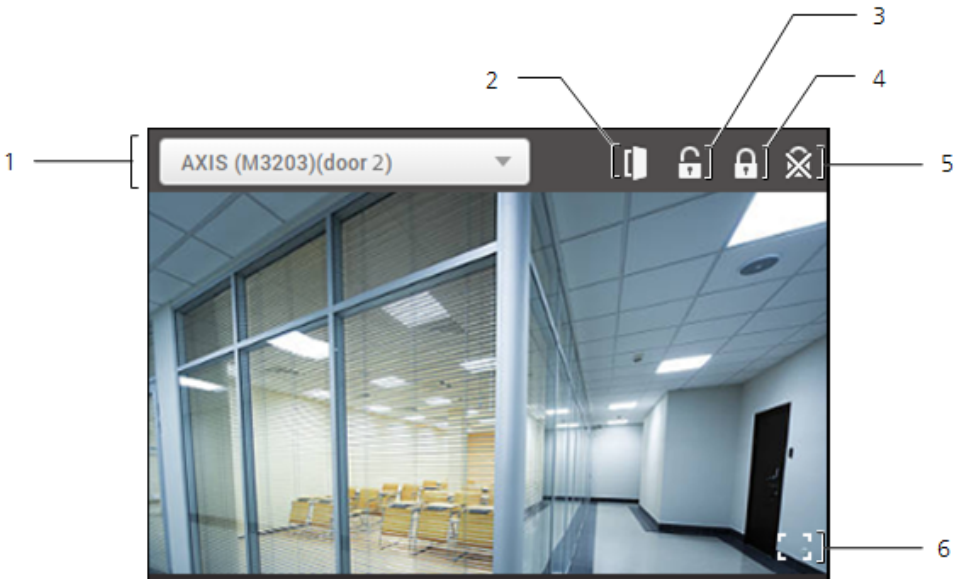
- The Live Video Viewl menu will appear when the Video license is activated.
- For more information on registering the NVR and IP camera, see Video.
- IP cameras that do not support the live streaming feature are displayed as "Disconnected".

- PC-NVR does not support the live video view.

1) Click MONITORING > List View > Live Video View.



2) Refer to the explanation below for how to operate the screen.



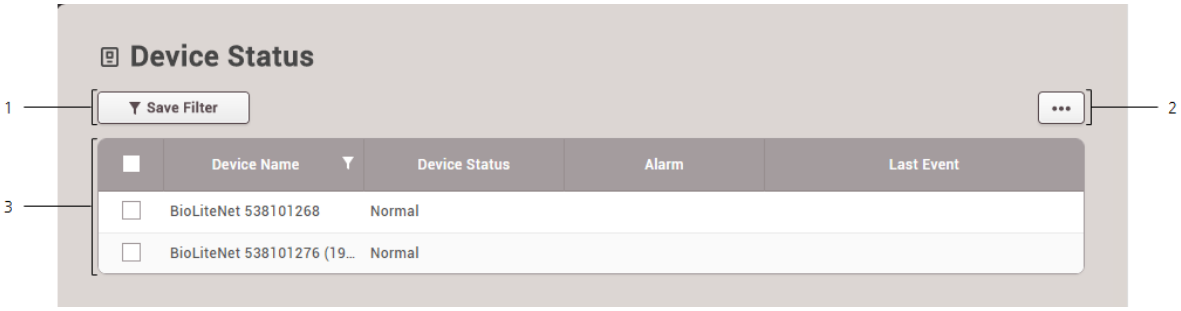
No.	Item	Description
1	IP camera	Select the IP camera to monitor. If there is no desired the IP camera, see Video.
2	Open	Open the door temporarily.
3	Manual Unlock	Unlock the door manually.
4	Manual Lock	Lock the door manually.

No.	Item	Description
5	Release	Release the manual unlock or manual lock.
6	Large size view	The live view screen can be viewed in a large size.

Device Status

You can view various device status information such as the device status, alarm and last event.

1) Click MONITORING > List View > Device Status.
2) To view log entries of a specific type only, click the ▼ of a column and apply a filter.



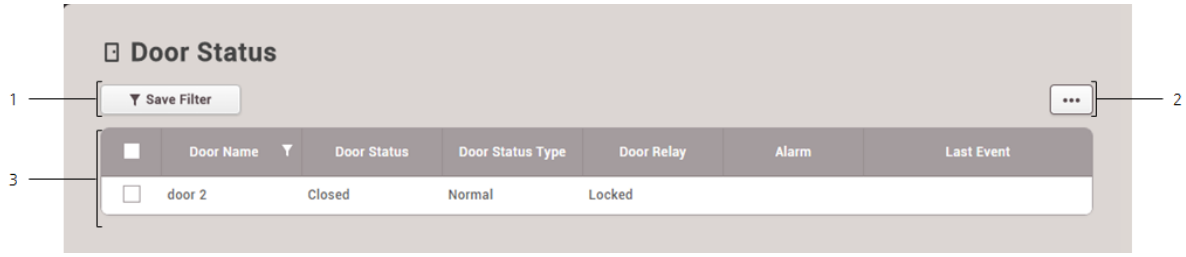
No.	Item	Description
1	Save Filter Button	Saves the set filter.
2	Function Buttons (Column Setting)	Changes the column setting of the log.
3	Status List	Shows the device status list. ▪ Select a device and click Clear Alarm to clear the alarm.

Door Status

You can view various door status information such as the door status, relay status, alarm and last event.
You can also apply various filters to sort the displayed data.

1) Click MONITORING > List View > Door Status.
2) To view log entries of a specific type only, click the ▼ of a column and apply a filter.

12 Monitoring



No.	Item	Description
1	Save Filter Button	Saves the set filter.
2	Function Buttons (Column Setting)	Changes the column setting of the log.
3	Status List	Shows the door status list. The following operations are available for the selected door: ▪ Manual Lock: Click after selecting a door to lock the door manually. If you set Manual Lock, the door will have remained inaccessible even if a user authenticates. ▪ Manual Unlock: Click after selecting a door to unlock the door manually. If you set Manual Unlock, the door will have remained accessible even if a user does not authenticate. ▪ Release: Release the manual lock or manual unlock set by the administrator. ▪ Open: Click after selecting a door to open the door temporarily. ▪ Clear Alarm: Clear alarms of all doors. If an alarm is set in the Zone, the alarm may be continuously output even if the door alarm is released. Click Clear Alarm on Zone Status. ▪ Clear APB: Reset the anti-passback violation by selecting all or each user.

Note

Refer to below for the explanation on door events.

- Fire alarm unlocked: A state where the door designated as a fire alarm zone is unlocked because a fire has broken out.
- Manual Lock: A state where the door is locked because the administrator has locked it manually.
- Manual Unlock: A state where the door is unlocked and able to enter without an authentication because the administrator has unlocked it manually.
- Schedule Locked: A state where the door is locked by the schedule that has been set.
- Schedule Unlocked: A state where the door is unlocked by the schedule that has been set.
- Normal: A state where a user can enter the door after an authentication.

12 Monitoring

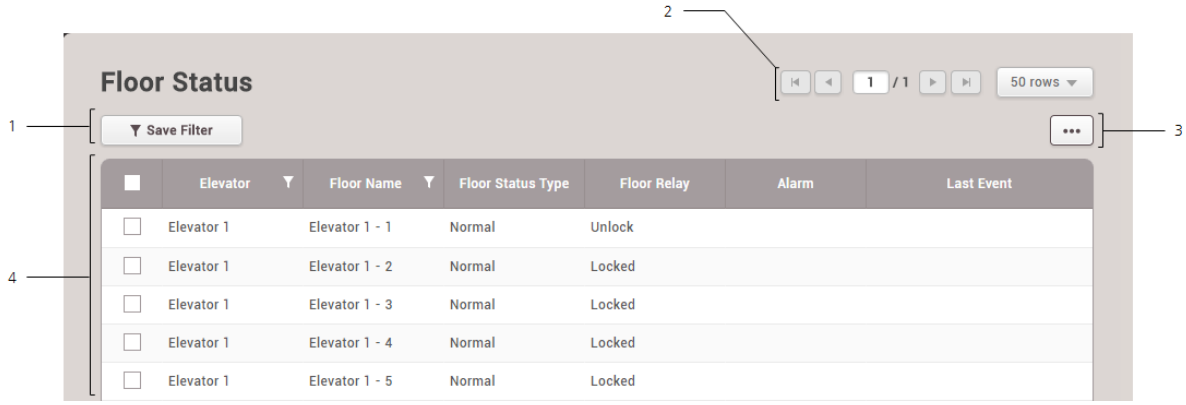
Floor Status

You can view various floor status information such as the floor status, relay status, alarm and last event.

Note

- The Floor Status menu will appear when the Advance or higher license is activated.

1) Click MONITORING > List View > Floor Status.
2) To view log entries of a specific type only, click the ▼ of a column and apply a filter.



No.	Item	Description
1	Save Filter Button	Saves the set filter.
2	Function Buttons (Column Setting)	Changes the column setting of the log.
3	Status List	Shows the floor status list. The following operations are available for the selected floor: ▪ Manual Lock: Click after selecting a floor to lock the floor manually. ▪ Manual Unlock: Click after selecting a floor to unlock the floor manually. ▪ Release: Release the manual lock. ▪ Open: Click after selecting a floor to open the floor temporarily. ▪ Clear Alarm: Clears alarms of all floors.

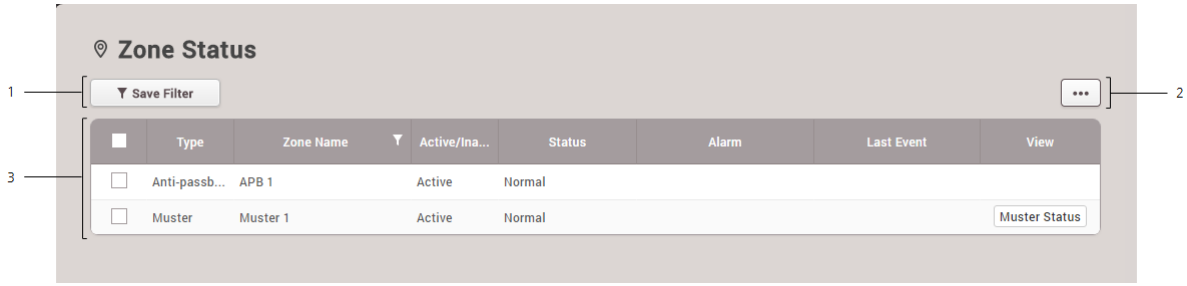
Zone Status

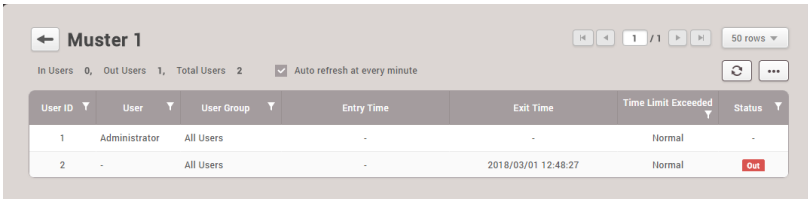
View zone status information such as the zone active status, alarm status, and the last event that has occurred.

Note

- The Zone Status menu will appear when the Standard or higher license is activated.
- To see the current status of Occupancy Limit Zone, click ZONE > Occupancy Limit.

1) Click MONITORING > List View > Zone Status.
2) To view log entries of a specific type only, click the ▼ of a column and apply a filter.



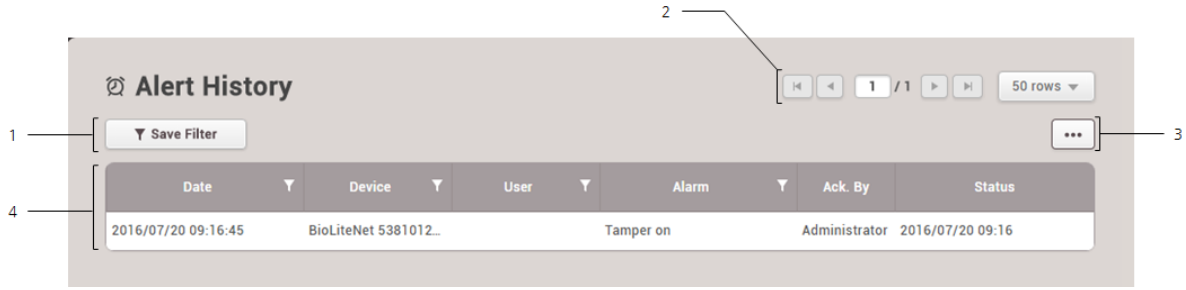
No.	Item	Description
1	Save Filter Button	Saves the set filter.
2	Function Button (Column Setting)	Changes the column setting of the log.
3	Status List	Shows the zone status list. The following operations are available for the selected zone: ▪ Clear APB: Reset the anti-passback violation by selecting all or each user. This can be only used when selecting an anti-passback zone. ▪ Clear Alarm: Release the anti-passback violation alarm when selecting an anti-passback zone, and closes the door relays that has been opened by the fire alarm when selecting a fire alarm zone. Note ▪ If a muster zone is set, you can check the user's status by clicking the Muster Status. 

Alert History

12 Monitoring

You can view the history and status of various alerts. You can also apply various filters to sort the displayed data.

1) Click MONITORING > List View > Alert History.
2) To view log entries of a specific type only, click the ▼ of a column and apply a filter.



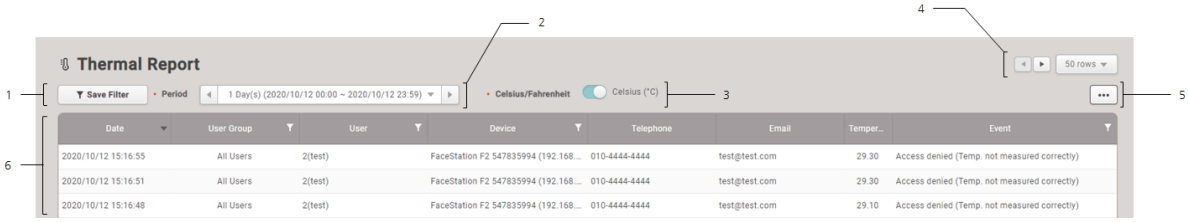
No.	Item	Description
1	Save Filter Button	Saves the set filter.
2	Page Indicator and Navigation Buttons	You can move a page or set the number of list rows to be displayed on one page. ▪ |: Go to the first page. ▪ <: Go to the previous page. ▪ 2 / 2: Enter the page number to move to. ▪ >: Go to the next page. ▪ >|: Go to the last page. ▪ 25 rows: Set the number of list rows to be displayed on one page.
3	Function Buttons (Print, Column Setting)	Prints the log or changes the column setting.
4	Alert History	Shows the alert list. Click to view the alert details.

Thermal Report

You can view the events including user's temperature information.

1) Click MONITORING > List View > Thermal Report.
2) To view log entries of a specific type only, click the ▼ of a column and apply a filter.

12 Monitoring



No.	Item	Description
1	Save Filter Button	Saves the set filter.
2	Period	You can set a desired period and sort thermal reports.
3	Celsius/ Fahrenheit	You can set the unit of temperature.
4	Page Navigation Buttons and Number of List Rows	You can move a page or set the number of list rows to be displayed on one page. ▪ |: Go to the first page. ▪ |: Go to the previous page. ▪ 25 rows: Set the number of list rows to be displayed on one page.
5	Function Buttons (Print, CSV Export, Column Setting)	You can use the additional features with thermal reports. ▪ Print the event log ▪ Export to CSV file ▪ Change the column setting
6	Reports	You can view the events including user's temperature information. Note ▪ You can sort the list in ascending or descending order by clicking on the Date column.

Related Information

Thermal & Mask

Graphic Map View

If you add a graphic map, you can see and control the status of the doors in real-time in the graphic. You can control the door and relay using the icons in the door status bar and see the alarm when an event occurs at the door.

12 Monitoring

Adding and Managing Graphic Map Groups

Adding and Managing Graphic Maps

Note

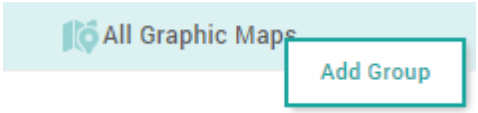
- The Graphic Map View will appear when the AC standard license is activated.

Adding and Managing Graphic Map Groups

You can register graphic map groups for easy management of multiple devices. Name your graphic map groups according to door locations or office names for greater convenience.

Adding Graphic Map Groups

1) Click MONITORING > Graphic Map View.
2) Right-click on All Graphic Maps and click Add Group.



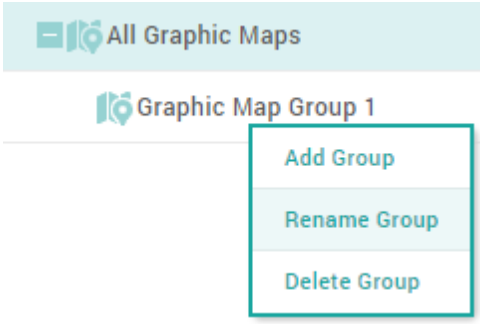
3) Enter a group name.

Note

- Graphic map groups may be created in up to 8 levels.
- Up to 48 characters may be entered for a graphic map group name.

Renaming Graphic Map Groups

1) Click MONITORING > Graphic Map View.
2) Right-click on the name of a group you wish to rename and click Rename Group.



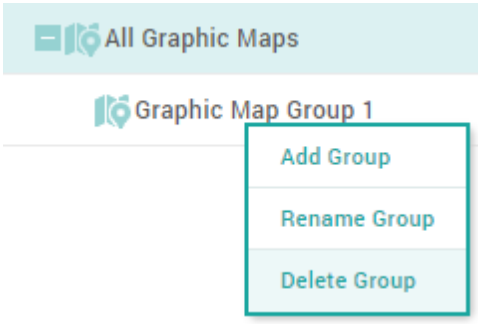
3) Enter a group name.

Note

- Up to 48 characters may be entered for a graphic map group name.

Deleting Graphic Map Groups

1) Click MONITORING > Graphic Map View.
2) Right-click on the name of a group you wish to delete and click Delete Group.



Note

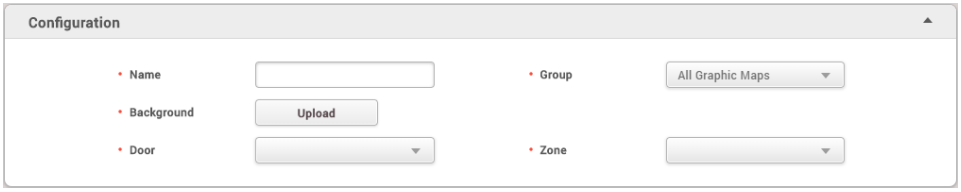
- You cannot delete a group if it contains a graphic map. To delete a group, you must delete all graphic maps belonging to the group.

Adding and Managing Graphic Maps

If you add a graphic map, you can see and control the status of the doors in real-time in the graphic.

Adding Graphic Map

1) Click MONITORING > Graphic Map View.
2) Click ADD GRAPHIC MAP.

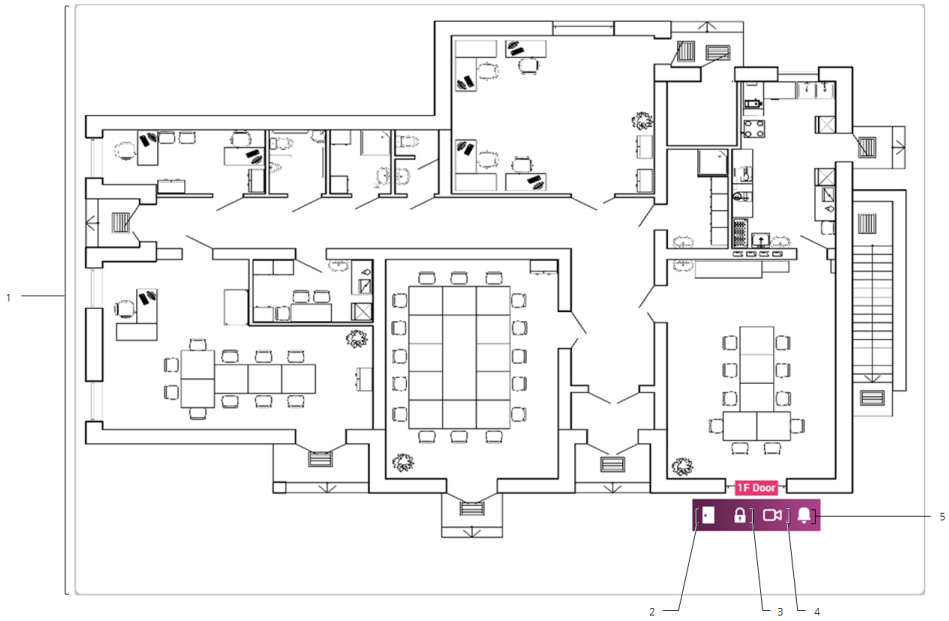


3) Set the name and group of the graphic map.
4) Click Upload and select the background you want to use as the graphic map.

Note

- The max size of the images that can be used as a background is 5MB.
- Supported image file formats are BMP, GIF, JPG, JPEG, PNG.
- If you back up the BioStar 2 database, the image file registered in the graphic map may be deleted. If you want to continue using images registered as a background even after database backup, back up the image files.

5) Select the door you want to display on the graphic map from the Door. The door status bar appears.



No.	Item	Description
1	Graphic Map	The uploaded background image appears.
2	Door Status	You can see the door status and temporarily open the door.
3	Door Relay	You can lock or unlock the door manually.
4	Live Video View	You can see the screen of the IP camera registered at the door in real time. Note ▪ The Live Video View button is activated only when the camera is registered at the door.
5	Alarm	You can see or clear the alarm that has occurred on the door.

6) Select the zone you want to display on the graphic map from the Zone. The Zone status bar appears.

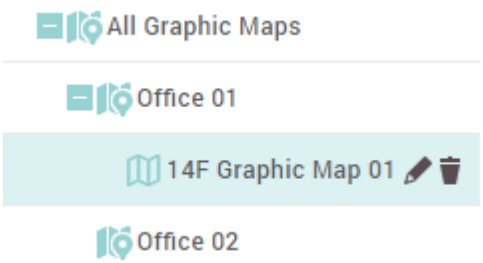
No.	Item	Description
1	Zone	You can see the type of zone.

No.	Item	Description
		Note ▪ The zones can be selected up to 100.
2	Alarm	You can see or clear the alarm that has occurred on the zone.

7) Drag the door and zone status bar to the location of the door and zone in the graphic map.
8) When setting is finished, click Apply.

Editing Graphic Map

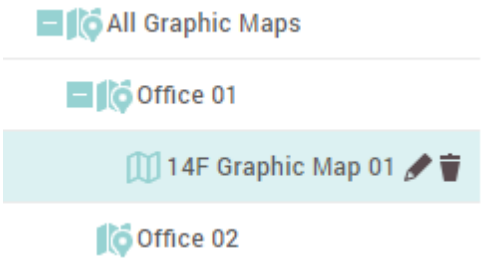
1) Click MONITORING > Graphic Map View.
2) Click in the graphic map that you want to edit.



3) After editing the information you want, click Apply.

Deleting Graphic Map

1) Click MONITORING > Graphic Map View.
2) Click in the graphic map that you want to delete.



3) Click Yes to delete the selected graphic map.

You can use the VIDEO menu to interlock an IP camera with an event of the door. You can set the IP camera to record video or image logs when a set event occurs. Saved videos can be viewed in the MONITORING menu.

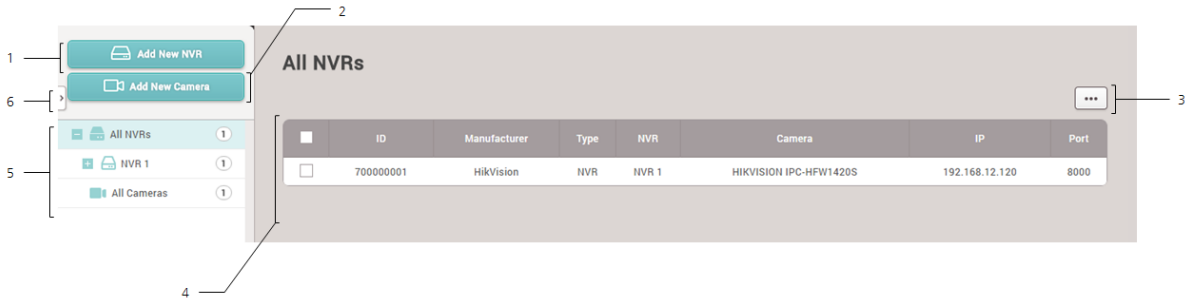
13 Video

Adding NVRs

Adding IP Cameras

Note

- The VIDEO menu will appear when the Video license is activated.
- If you connect BioStar 2 using the Cloud, cannot access to the VIDEO menu.
- Set the Network Time Protocol (NTP) on a PC with BioStar 2 installed before using the Video menu. Go to the Control Panel > Date and Time and then click Change setting on the Internet Time to set up. Use *time.windows.com* for the server address.
- If the network connection fails, video and image logs that occurred during that period may be missing.



1	Add NVR	4	NVR and IP Camera List
2	Add IP Camera	5	NVR and IP Camera Hierarchy
3	Function Button (Column Setting)	6	Expand Button

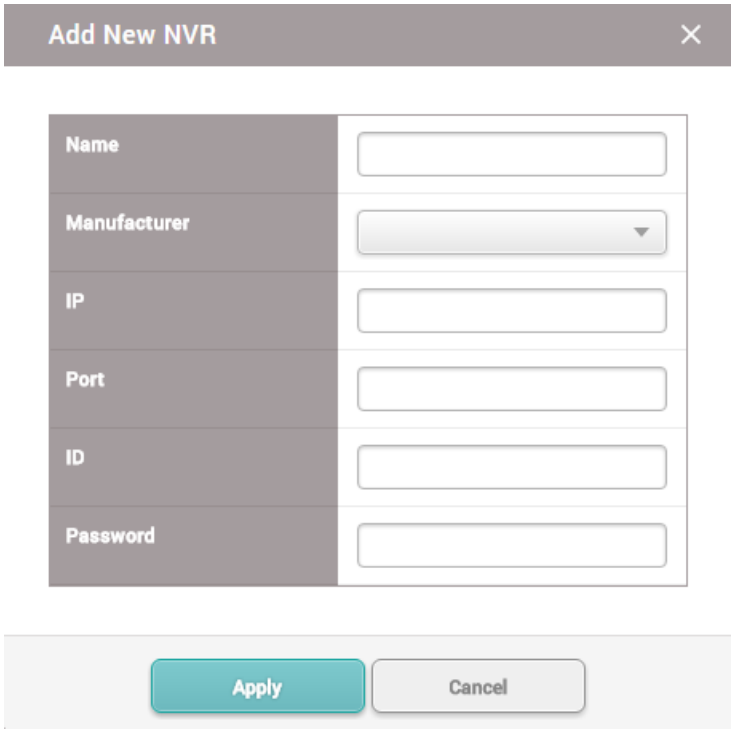
Adding NVRs

You can add NVR to save video logs or image logs.

Note

- ACTi, Dahua, and Hikvision products can be added for NVR. Before adding NVR, check its manufacturer.
- Set the Network Time Protocol (NTP) to synchronize the time between the BioStar 2 server and the NVR. Use *time.windows.com* for the server address.
- PC-NVR does not support the live video view.
- NVR types that support the live video view are as follows.
  - Dahua: DH-NVR4416-16P, DH-NVR608-32-4K
  - Hikvision: DS-7616NI-E2 / 16P, DS-7608NI-E2 / 8P

1) Click VIDEO > Add New NVR.
2) Edit the necessary items.



No.	Item	Description
1	Name	Enter the name of NVR.
2	Manufacturer	Select the manufacturer of NVR. ACTi, Dahua and Hikvision products are supported.
3	IP	Enter the IP address of NVR.
4	Port	Enter the port of NVR.
5	ID	Enter the account information (ID) to access NVR. Note ▪ Enter the default administrator account information for the ID. If you enter the ID after creating a custom administrator account in NVR setting, the function may not work properly.
6	Password	Enter the account information (password) to access NVR.

3) Click Apply to save the changes.

Note

- Contact the system administrator for the detailed information of NVR (IP, Port, ID,

Password).

Adding IP Cameras

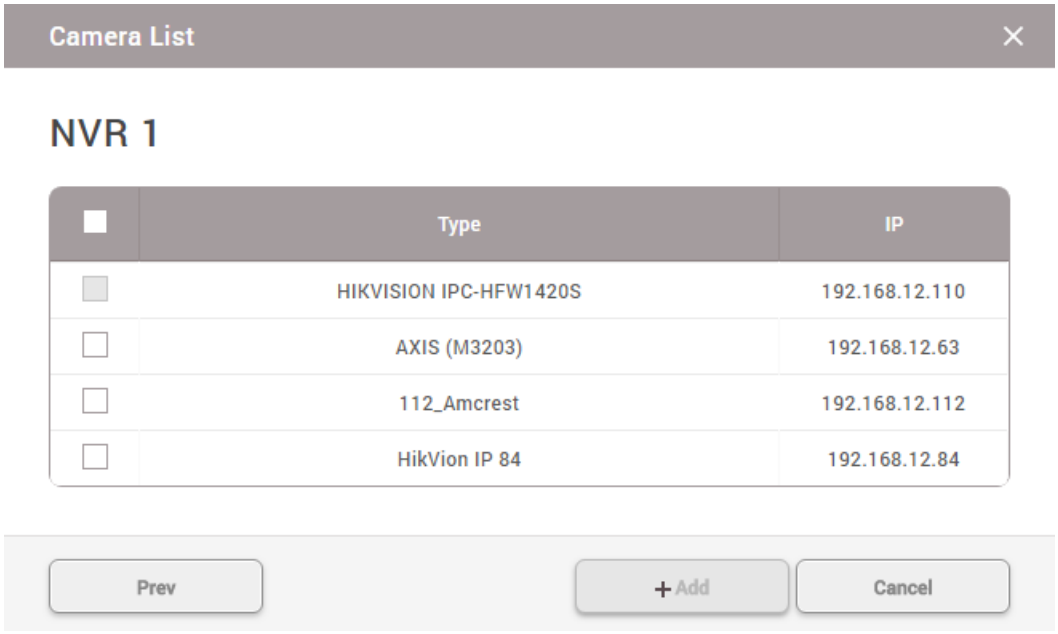
You can add an IP camera connected to NVR.

Note

- Before adding an IP camera, add NVR first. For more details, refer to Adding NVRs.
- Set the Network Time Protocol (NTP) to synchronize the time between the BioStar 2 server and the IP camera. Use *time.windows.com* for the server address.

1) Click VIDEO > Add New Camera.
2) Select an added NVR from the list and click Next.

3) The list of cameras connected to NVR will appear. Select a camera to add and click + Add. To select a different NVR, click Prev.

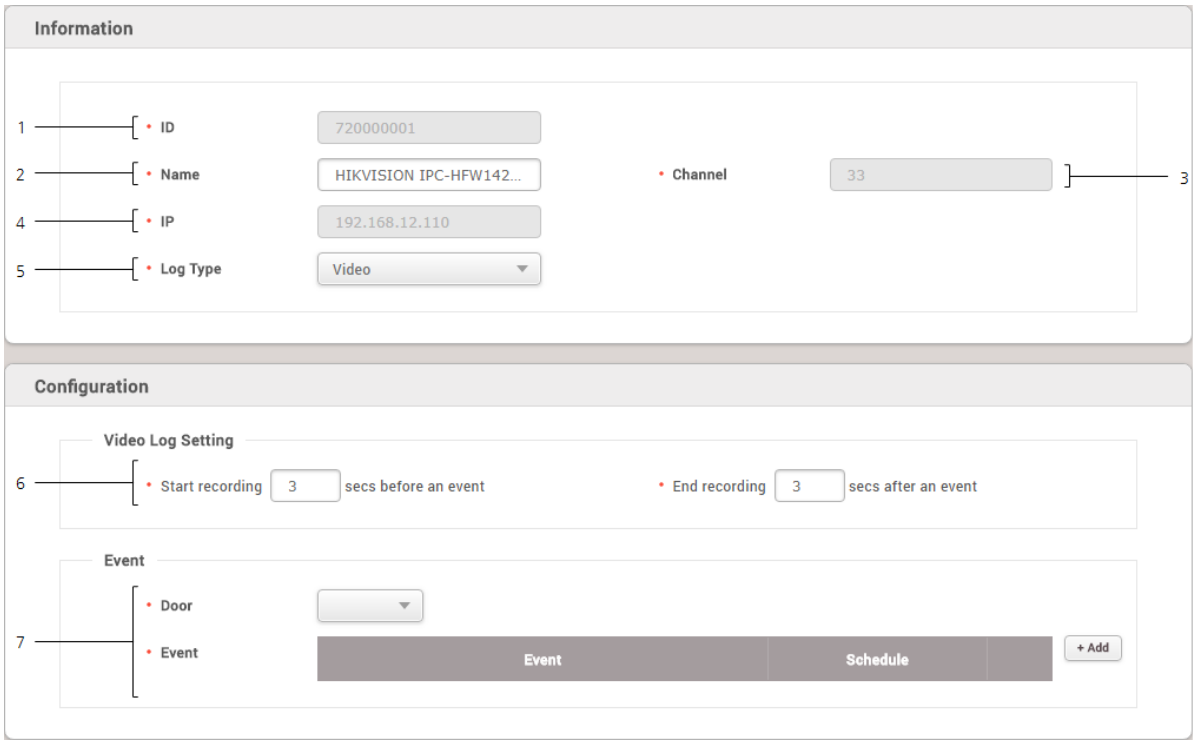


4) After adding the camera, you can set the camera to record a video log according to an event occurring at the door. For more details, refer to Editing IP Camera Settings.

Editing IP Camera Settings

You can set the time interval to capture a video log or an image log and link the door and event type to the IP camera.

1) In the camera list, click a camera to edit.
2) Edit the necessary items.



No.	Item	Description
1	ID	You can view the camera ID.
2	Name	You can change the camera name.
3	Channel	You can view the camera channel.
4	IP	You can view the IP address of the camera.
5	Log Type	You can set the log type to be captured by the camera. ▪ None: A video log or an image log is not captured. ▪ Video: A video log is captured. ▪ Image: An image log will captured. Note ▪ You can set Video Log Setting or Image Log Setting according

No.	Item	Description
		to the set Log Type. ▪ None is set for Log Type, you cannot set the Video Log Setting, Image Log Setting, and Event.
6	Video Log Setting / Image Log Setting	You can set the time to capture a video log or an image log. Note ▪ You can set Video Log Setting or Image Log Setting according to the set Log Type. When Log Type is set to Video • Start recording 3 secs before an event • End recording 3 secs after an event When Log Type is set to Image • Capture an image 3 s before an event Note ▪ Recorded video/image logs does not mean the real-time log. It can view after storing in in BioStar 2 database.
7	Event	Select a pre-registered entrance door. Click + Add and set a desired event and schedule. Note ▪ Door should be set. ▪ Only one door can be set per camera. ▪ If there is no registered entrance door, register one by referring to Adding Doors. ▪ If there is no desired schedule, click Setting > Schedule and register a new schedule. For more details, refer to Schedule. ▪ You can delete an added event by clicking .

3) Click Apply to save the changes.

You can set the time code, shift, and schedule and/or view time card or report by using the TIME ATTENDANCE menu.

Shift

Schedule

Report

Setting

Set according to the following order when registering the schedule for the first time.

Step 1. Time code setting

You can set the attendance and leave time code, overtime time code, and the go out/outside work/ vacation time code. You can also set the time rate and assign and display a color to make it easily recognizable.

Related information

Time code

Step 2. Shift setting

You can set the service rule on a daily basis (24 hours). The shift includes the time code setting, the start time of day setting and the rounding rule.

Related information

Shift

Step 3. Schedule template setting

You can set the schedule template with the shift on a daily basis. You can also set the weekly and daily schedule template.

Related information

Schedule template

Step 4. Overtime rule setting

This can be used conveniently when the overtime time code has not been added to the shift. Overtime set in the service rule has a start time and an end time, but Overtime rule calculates the total time exceeding the range of regular service time. Overtime rule can be used conveniently for managing total daily, weekly and monthly overtime hours, and when Overtime rule is set, it applies instead of the overtime time code added to the shift.

Related information

Overtime Rule

Step 5. Schedule setting

You can set the period, user, overtime rule, and vacation schedule to apply to the schedule template set in the previous step.

Related information

Schedule

Shift

You can set the time code, time segment for time code, schedule template, and overtime rule. These are the main components of T&A management.

Time Code

Shift

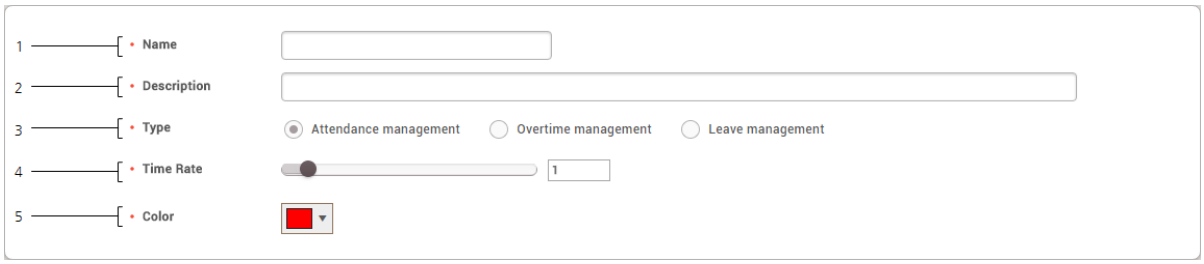
Schedule Template

Overtime Rule

Time Code

You can set the time code to be used for worktime calculation. It can be set for T&A records, time code for overtime, and time code for vacation management.
You can assign and use a different time rate for each time code.

1) Click TIME ATTENDANCE > Shift > Time Code.
2) Click ADD TIME CODE and set each item.



No.	Item	Description
1	Name	Enter the desired time code name.
2	Description	Enter a brief description of the time code.
3	Type	Set the time code type. ▪ Attendance management: You can set the time code to be used for the T&A record. ▪ Overtime management: You can set the time code to be used for overtime. ▪ Leave management: You can set the time code to be used for go out, outside work, business trip and vacation. Note ▪ If the time code currently used by shift, Type cannot be changed. ▪ If Type is set to Leave management, Time Rate cannot be set.
4	Time Rate	Set the time rate according to the time code. 1 is the default time rate. If 2 is set, it is calculated with twice the hourly pay when the set time code is applied.
5	Color	Set a color to distinguish the time code.

3) To save settings, click Apply. To add a shift, click Apply & Next. To save the settings and add another time code, click Apply & Add New.

Related information

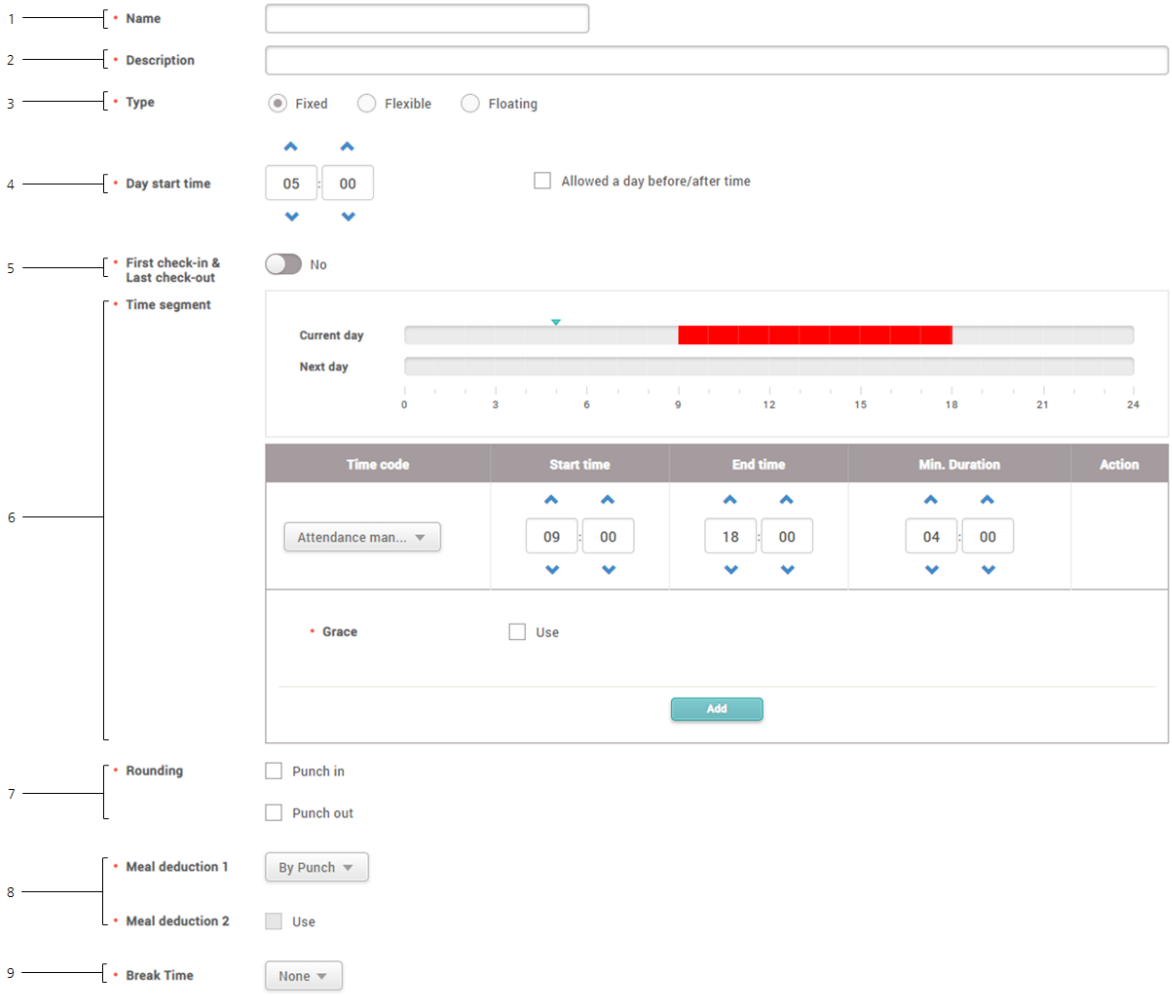
Shift

Shift

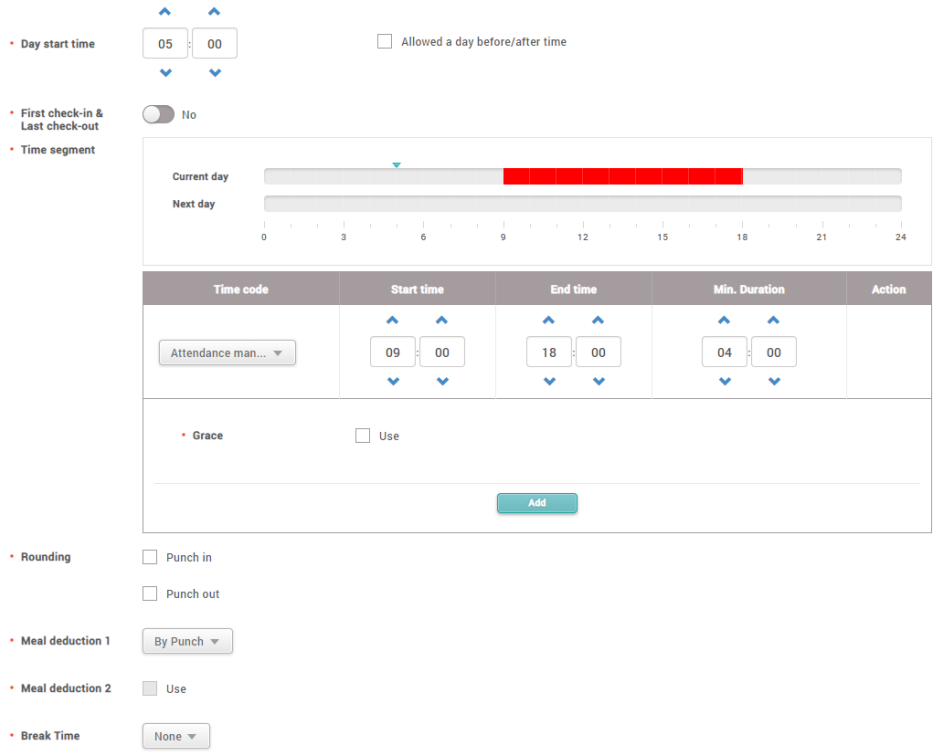
You can create a shift by applying a different time code for each hour based on a 24 hour cycle. You can select either a fixed working shift , flexible working shift or floating working shift and you can set the start time of day and rounding rule.

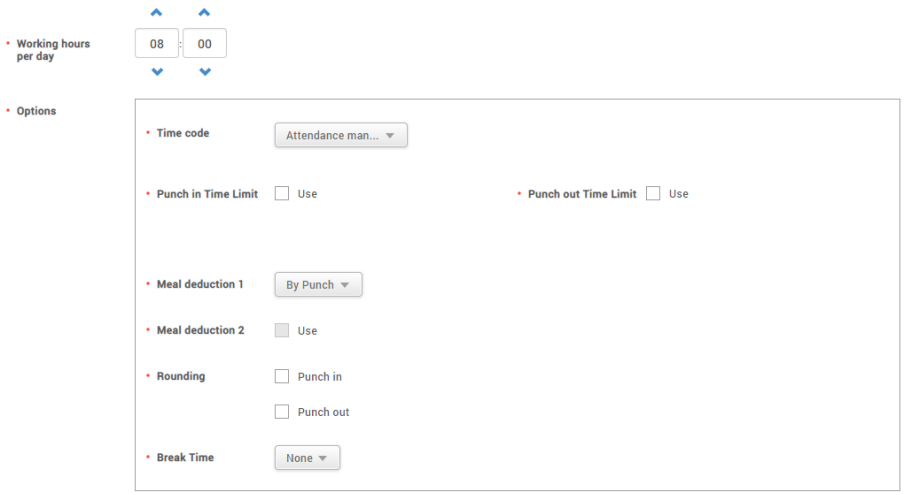
1) Click TIME ATTENDANCE > Shift > Shift.
2) Click ADD SHIFT and set each item.

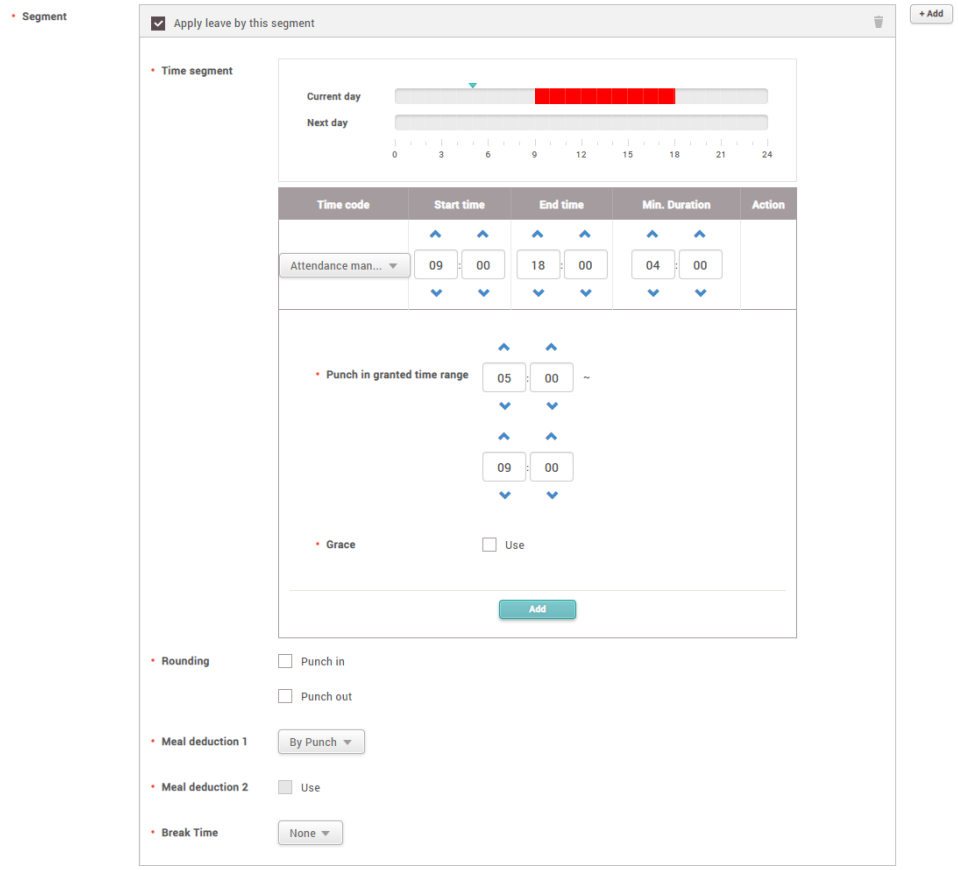
14 Time & Attendance



No.	Item	Description
1	Name	Enter the desired shift name.
2	Description	Enter a brief description of the shift.
3	Type	Set the shift type. The detailed setting varies according to the shift type. ▪ Fixed: You can set the fixed service to attend and leave at a fixed time. ▪ Flexible: You can set the flexible service with no fixed attendance and leave times. ▪ Floating: You can set the floating service with no fixed attendance and leave times. In this shift type, the shift is automatically applied according to the attendance time.
4	Day Start Time	Set the start time of day. If you use Allowed a day before/after time, you can set Shift for work hours exceeding 24 hours based on the Day start time set.

No.	Item	Description
		Note ▪ Allowed a day before/after time is activated only when you set the type of Shift to Fixed.
5	First check-in & Last check-out	When Yes is set, the first user authentication time is recorded as check-in time, and the last user authentication time is recorded as check-out time. Note ▪ If the First check-in & Last check-out is set to Yes, Break by Punch should be set for recording the user's break time.
6	Time segment	When Fixed is selected for Type,  Select the salary code set as T&A record and then set Start time, End time and Min. Duration. You can also set Grace, Rounding, Meal deduction and Break Time. When setting is finished, click Add. Note ▪ The Allowed a day The before/after time can be set up to 6 hours. ▪ You can only add one time code set as Attendance management to the shift. ▪ For the time code set as Overtime management, you can only set Start

No.	Item	Description
		time, End time, Min. Duration, Rounding . When Flexible is selected for Type,  Set the working hours per day, and then select the time code. You can also set Punch in Time limit, Punch out Time Limit, Meal deduction, Rounding, Break Time. Note ▪ If Flexible is selected for Type, the time code for overtime cannot be added. When Floating is selected for Type,

No.	Item	Description
		 Select the time code and set Start time, End time, Min. Duration, and Punch in granted time range. You can also set Grace, Rounding, Meal deduction, and Break time. Note ▪ You can configure the shift by up to 5 time slots. ▪ If you use the floating shift, you must select Apply leave by this segment when setting up a leave management. You can select Apply leave by this segment from the time segment configured as shifts. ▪ For the time code set as Overtime management, you can only set Start time, End time, Min. Duration, Rounding.
7	Rounding	You can set the time rounding rule. Unit is the time to round off to and Point is the time to apply rounding off. For example, 10 minutes are set for Unit and 7 minutes are set for Point, an event occurring at 8:05 is considered to have occurred at 8 and an event occurring at 8:08 is considered to have occurred at 8:10. Select the item which you intend to use, and then set Unit and Point. ▪ Punch in: You can set the rounding rule to process the registered time when an

No.	Item	Description
		attendance event is registered earlier/later than the set start time. ▪ Punch out: You can set the rounding rule to process the registered time when a leave event is registered earlier/later than the set end time. Note ▪ Rounding applies in preference to Grace.
8	Meal deduction 1, 2	You can set to deduct meal time from the shift. ▪ By Punch: You can set it to be deducted according to the record registered in the device, without a fixed meal deduction time. ▪ Auto: You can set the meal deduction by setting Deduction time and Minimal hours before deduction. ▪ Fixed: You can set the fixed meal deduction by setting Start time and End time. Note ▪ You can deduct two meal times from the shift if you use Meal deduction 2. ▪ When using the meal deduction type as Auto or Fixed, Meal deduction 1 and Meal deduction 2 can be set only for the same type.
9	Break Time	You can set the break time. ▪ By Punch: You can set it to be confirmed according to the record registered in the device, without a fixed break time. If you select By Punch, you can set Max. allowed break time. ▪ Fixed: You can set the fixed break time by setting Start time and End time.

3) To save settings, click Apply. To add a schedule template, click Apply & Next. To save the settings and add another shift, click Apply & Add New.

Related information

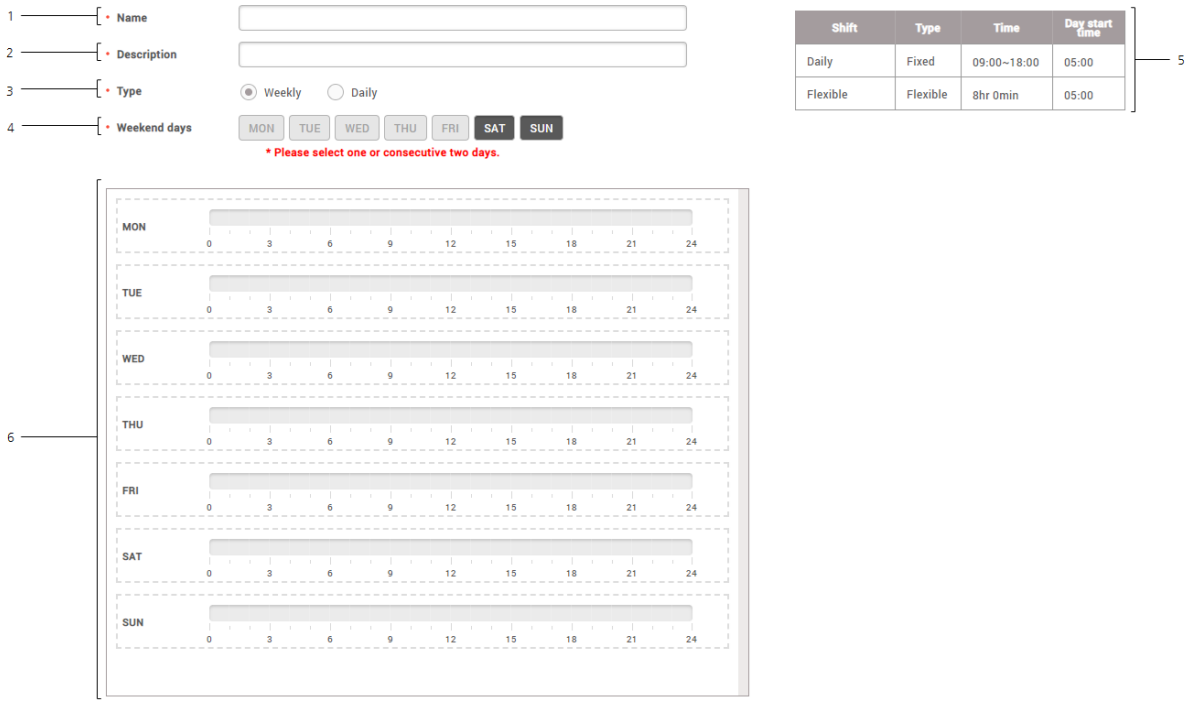
Schedule Template

Schedule Template

You can create a weekly and daily schedule by using the set shift.

14 Time & Attendance

1) Click TIME ATTENDANCE > Shift > Schedule Template.
2) Click ADD SCHEDULE TEMPLATE and set each item.



No.	Item	Description
1	Name	Enter the desired schedule template name.
2	Description	Enter a brief description of the schedule template.
3	Type	You can set either Weekly or Daily for the schedule template, and when Daily is selected, you can set the period to be used repeatedly.
4	Weekend days	You can set the days of the week that you want to use as the weekend.
5	Shift	You can view the list of set service rules.
6	Schedule	Set drag & drop for the set service rule. To apply all at once, click Copy All. Note ▪ To apply a shift that setting the Allowed a day before/after time, Allowed a day before/after time cannot be set 24 hours before Day start time on Shift the day before.

3) To save settings, click Apply. To add a schedule, click Apply & Next. To save the settings and add another schedule template, click Apply & Add New.

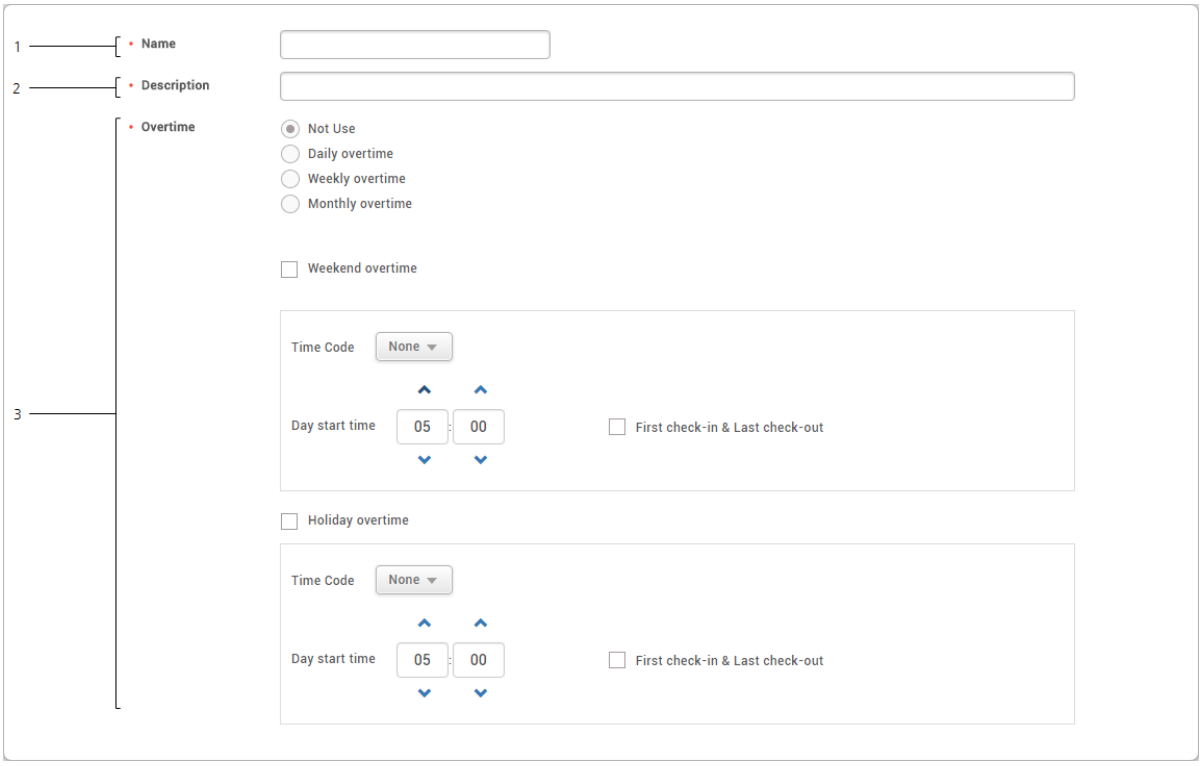
Related information

Overtime Rule

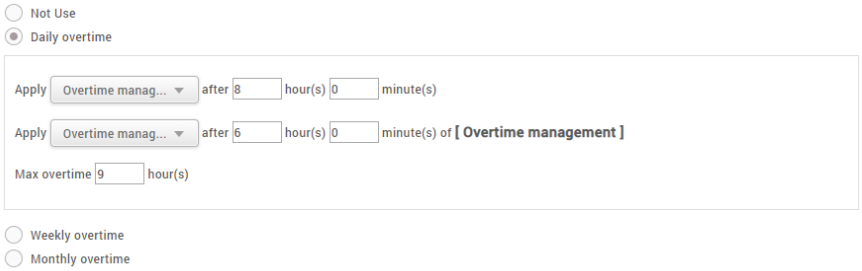
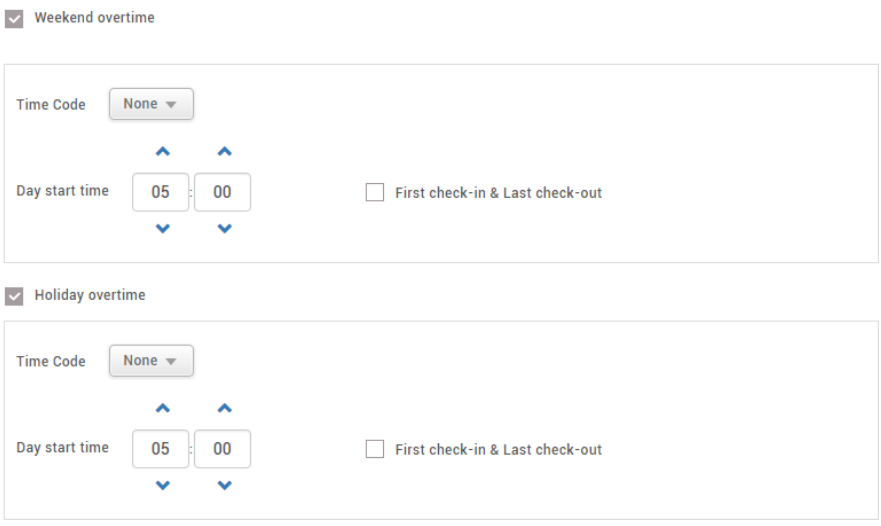
Rule

This can be used conveniently when the overtime time code has not been added to the shift. Overtime set in the shift has a start time and an end time, but Rule calculates the total time exceeding the range of regular working time. Rule can be used conveniently for managing total daily, weekly and monthly overtime hours, and when Rule is set, it applies instead of the overtime time code added to the shift.

1) Click TIME ATTENDANCE > Shift > Rule.
2) Click ADD RULE and set each item.



No.	Item	Description
1	Name	Enter the desired overtime rule name.
2	Description	Enter a brief description of the overtime rule.
3	Overtime	Set the overtime rule. Daily overtime, Weekly overtime, Monthly overtime rules can set the overtime time code to be applied after the regular working time, and a different overtime time code can be applied after a certain time. You can

No.	Item	Description
		also limit the overtime hours for an employee by setting the maximum overtime hours. When you set as follows, the 'Overtime management' time code applies from 5 PM to 11 PM if the normal working time is from 8 AM to 5 PM, and the 'Overtime management' time code applies from 11 PM to 2 AM. Also, the maximum overtime hours for an employee for one day is limited to 9 hours, and the daily payroll is calculated only using the record of providing work until 2 AM.  Note ▪ Total working time does not include break time or meal time. For Weekend overtime and Holiday overtime rules, Time code and Day start time can be set, and only First check-in & Last check-out can be set. 

3) To save settings, click Apply. To add a schedule, click Apply & Next. To save the settings and add another rule, click Apply & Add New.

14 Time & Attendance

Related information

Schedule

Schedule

You can create a service schedule by assigning the set schedule template, overtime rule, period, and holiday to a user.
You can also add a temporary schedule or personal vacation to the created service schedule.

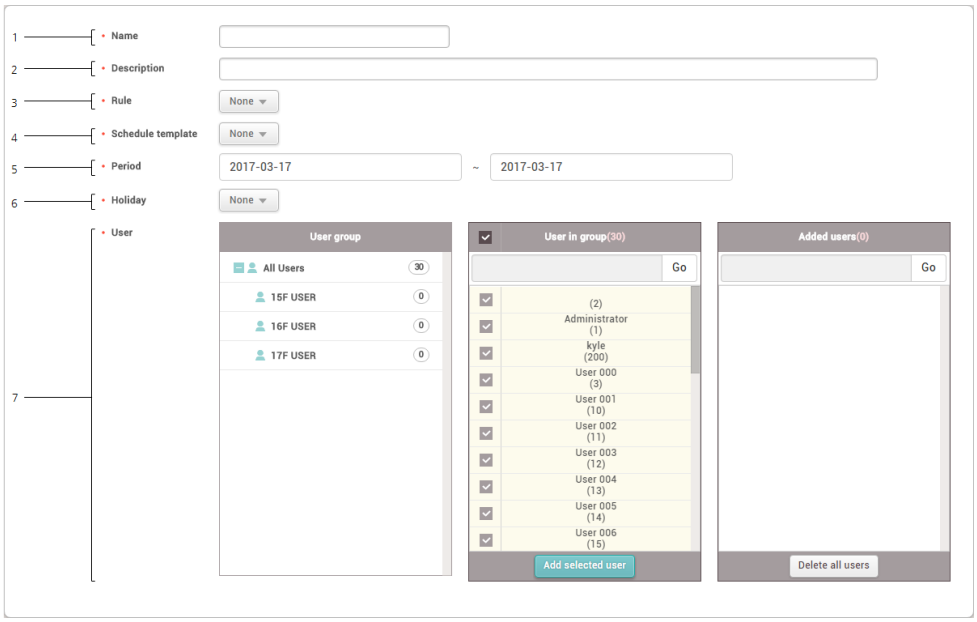
Note

- Before creating a schedule, check if the Time Code, Shift, Schedule Template, and Holiday which you will use have been created correctly.

Adding & deleting a schedule

You can create a service schedule for a registered user.

1) Click TIME ATTENDANCE > Schedule.
2) Click Add and set each item.



No.	Item	Description
1	Name	Enter the desired schedule name.

No.	Item	Description
2	Description	Enter a brief description of the schedule.
3	Rule	Select the set overtime rule. When the overtime rule is set, the overtime service salary code set to the service rule will not apply. If you do not wish use it, set None. Note ▪ If there is no desired overtime rule, set one by referring to the Overtime Rule.
4	Schedule Template	Select the set schedule template. Note ▪ If there is no desired schedule template, set one by referring to the Schedule Template. ▪ Once schedule template is set, it cannot be changed.
5	Period	Set the period to collect T&A events. Note ▪ Once the start date is set, it cannot be changed. The end date can be changed, and when it is changed to a date which is earlier than the set date, leave events for the changed period will be deleted.
6	Holiday	Select the set vacation schedule. If you do not wish use it, set None. Note ▪ If there is no desired vacation schedule, add a vacation schedule by referring to the Schedule.
7	User	Add a user to apply the rule.

3) To save settings, click Apply.
4) To delete a schedule, select the schedule you wish to delete from the list, and then click Delete schedule.

Note

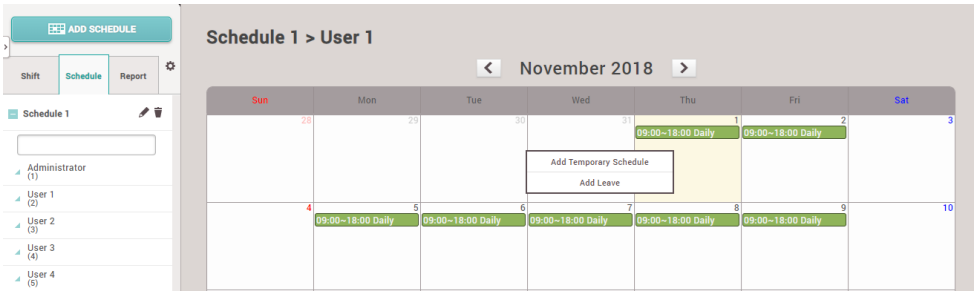
- The number of users included in the entire schedule cannot exceed the maximum number of users for the T&A license you chose. To learn more about the maximum number of users per license, refer to License.

14 Time & Attendance

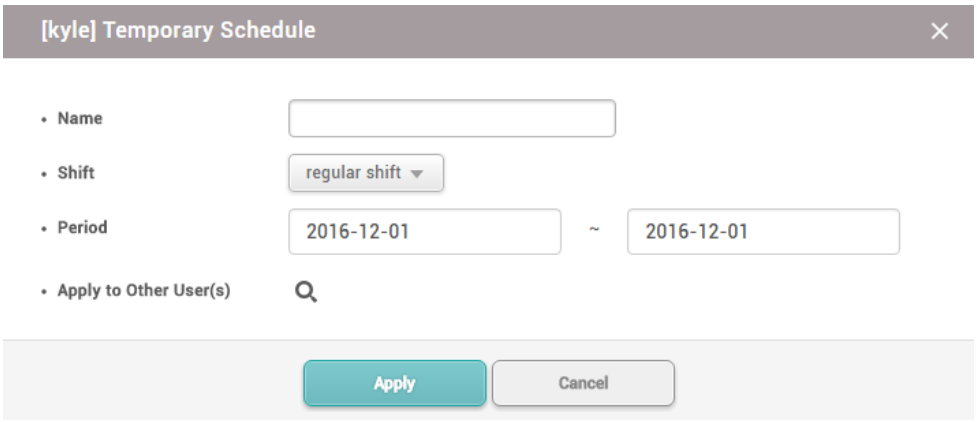
━ Adding & deleting a temporary schedule

If you have already registered schedule. you can set a different service rule to a user temporarily.

1) Select a user assigned to the schedule from the list and click a date on the calendar.



2) Select Add Temporary Schedule and set each item. To apply it to other users equally, add a user by clicking 🔍.

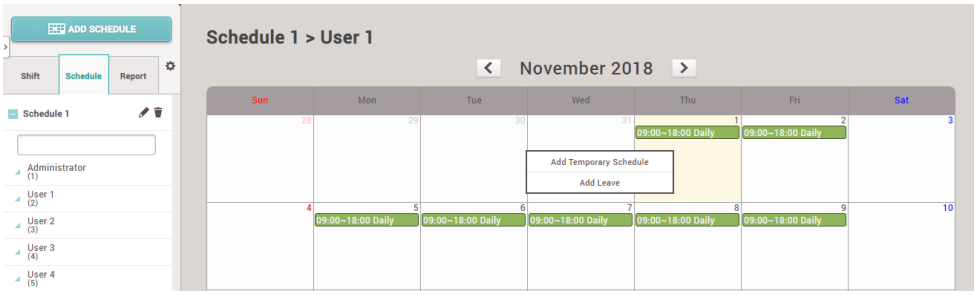


3) When you click Apply, the shift for the set period will be changed.
4) To delete a temporary schedule, click the service schedule of the set temporary schedule, and then click Yes.

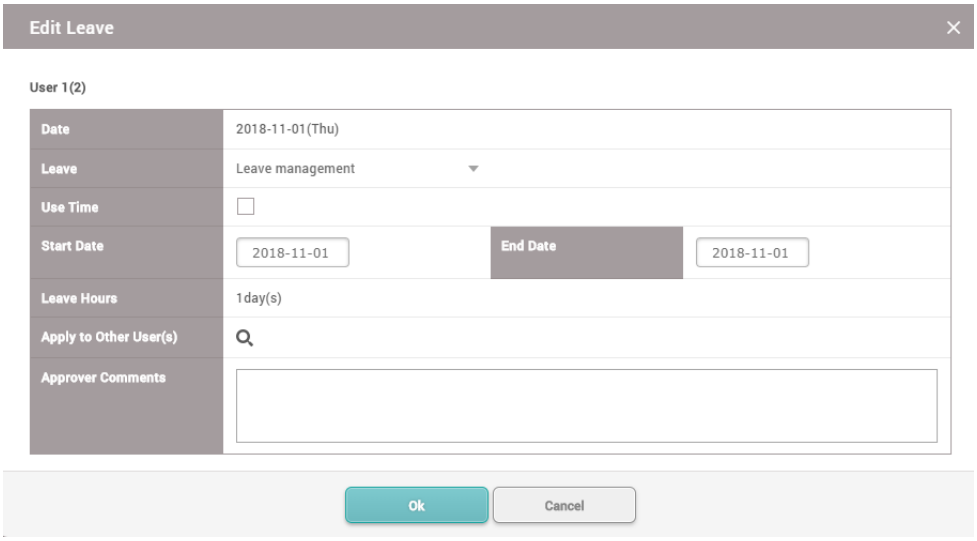
━ Adding & deleting a leave

You can add a user's personal leave schedule.

1) Select a user assigned to the schedule from the list and click a date on the calendar.



2) Select Add Leave and set each item. To apply it to other users equally, add a user by clicking .



3) When you click OK, the leave will be registered on the set period.
4) To delete a leave, click the registered leave and click Yes.

Note

- If there is no desired leave management Time code, add one by referring to the Time Code.

Report

You can create a T&A report with T&A events of a user collected through the system, and edit or export time records as a CSV file or a PDF file.
7 preset report filters can be used conveniently, or the administrator can set the filter manually.

+ Before Using the Multilingual Report

BioStar 2 supports Korean and English language. To use multilingual report, please check the following.

Font Setting

1. Go to [C:₩Program Files₩BioStar 2(x64)₩ta₩dist₩setup₩report_fonts].
2. Create a folder with the language name you want to use. Refer to the ISO 639-1 standard for language name. For example, to use Spanish, create a folder named "es".
3. Copy and paste the font file into the folder you created. Only one TrueType Font is supported.

PDF View Setting

1. Click the link to install the PDF viewer on Google Chrome.
   https://chrome.google.com/webstore/detail/pdf-viewer/oemmndcbldboiebfnladdacbdfmadadm

Before Updating the Report

BioStar 2 uses MariaDB as the default database. If you are using MS SQL database, please check the following.

When using BioStar 2 with MS SQL database, your PC's memory usage will accumulate each time you update the report if there are a large number of registered users. Reset Max Server Memory for the MS SQL database.

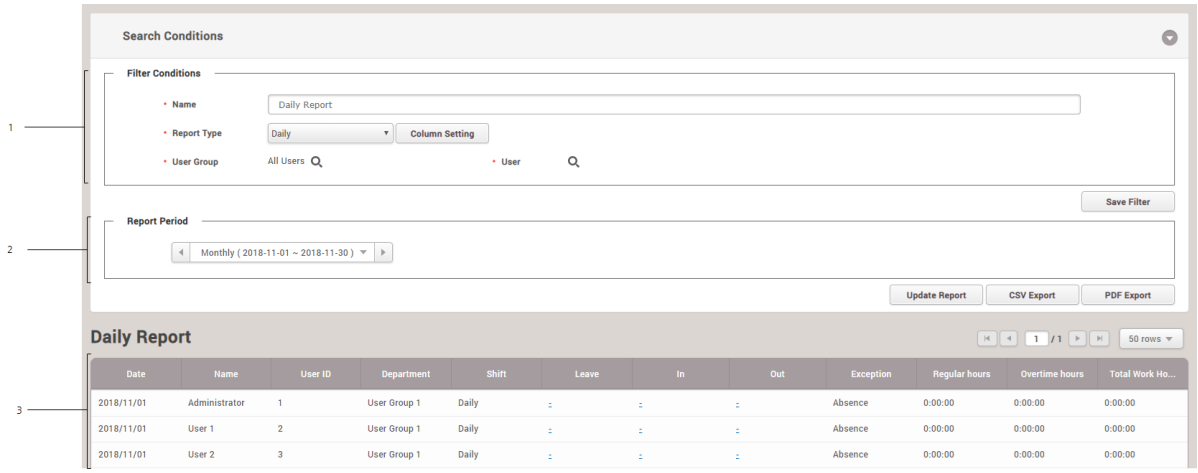
1. Run **Microsoft SQL Server Management Studio**.
2. Right-click BioStar 2 database in **Object Explorer** and click **Property**.
3. Click **Memory** and then decrease the value of **Max Server Memory**.

Note

- For more information on MariaDB and MS SQL Server settings, see Installing BioStar 2.

1) Click TIME ATTENDANCE > Report.
2) To use a preset filter list, select a desired filter type, set either User Group or User and click Update Report.
3) To register a new filter, click ADD FILTER and set each item.

14 Time & Attendance

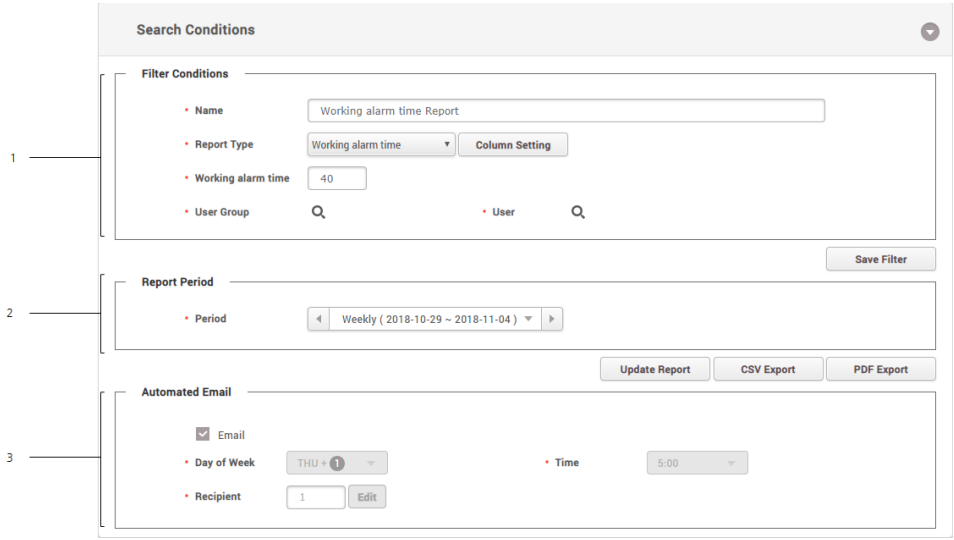


No.	Item	Description
1	Filter Conditions	Set a new T&A report. ▪ Name: Enter the desired report name. ▪ Report Type: Select the desired report type. Daily, Daily Summary, Individual, Individual Summary, Leave, Exception, Edit History, Working alarm time reports are available. ▪ Column Setting: Change or hide the order of columns in the report table. ▪ Filter: This function is enabled only when Leave or Exception is set for Report Type, and detailed conditions for leave or exception records can be selected. ▪ User Group / User: Select a user group or a user to create a report. ▪ Save Filter: Save the set T&A report as the filter.
2	Report Period	Set the period of report. ▪ Period: Set the period for creating a report to Daily, Weekly, Monthly, or Custom. ▪ In/Out Only: Select to output only the check-in and check-out logs of the user to the report. ▪ All Punches: Select to output all punches of the user to the report. Note ▪ In/Out Only and All Punches are enabled only in Individual Report. ▪ Update Report: Update the report table to the most recent information. ▪ CSV Export: Save the created report as a CSV file. ▪ PDF Export: Save the created report as a PDF file.
3	Report	View the created report.

Adding the Working alarm time report

You can update the report for users who have reached their specified working hours, or notify the administrator by email.
You can update the Working alarm time report weekly.

1) Click TIME ATTENDANCE > Report > Working alarm time Report.
2) Set each item in Filter Conditions and Report Period and then click Update Report.
3) Set Automated Email if you want to send an email notification to the administrator for users who have reached their specified working hours.



No.	Item	Description
1	Filter Conditions	Set a new T&A report. ▪ Name: Enter the desired report name. ▪ Report Type: Select the desired report type. ▪ Column Setting: Change or hide the order of columns in the report table. ▪ Working alarm time: Set the time to generate Working alarm time report. ▪ User Group / User: Select a user group or a user to create a report. ▪ Save Filter: Save the set T&A report as the filter.
2	Report Period	Set the period of report. ▪ Period: Set the period for creating a report. ▪ Update Report: Update the report table to the most recent information.

No.	Item	Description
		▪ CSV Export: Save the created report as a CSV file. ▪ PDF Export: Save the created report as a PDF file.
3	Automated Email	You can notify about users who have reached their specified working hours for the administrator by email. ▪ Email: Click to send an email to an administrator automatically. ▪ Day of Week: You can set the days of the week to send an email to administrators. ▪ Time: You can set the time to send an email to administrators. ▪ Recipient: You can add an administrator's email address that receives the email. Note ▪ You need to configure Filter Conditions and then save the filter in order to set up Automated Email. ▪ You can set the sender information for automatically sent emails in ⚙

Editing T&A Records

You can modify T&A records by clicking the created report table.

Note

- In order to modify T&A records, a report must be created first. For details about the creation of a report, refer to Report.
- The attendance and leave record of a user whose T&A schedule has not been registered cannot be modified.

1) Click a row to modify the record from the created report table.
2) Modify a T&A record or add a leave according to the desired method.

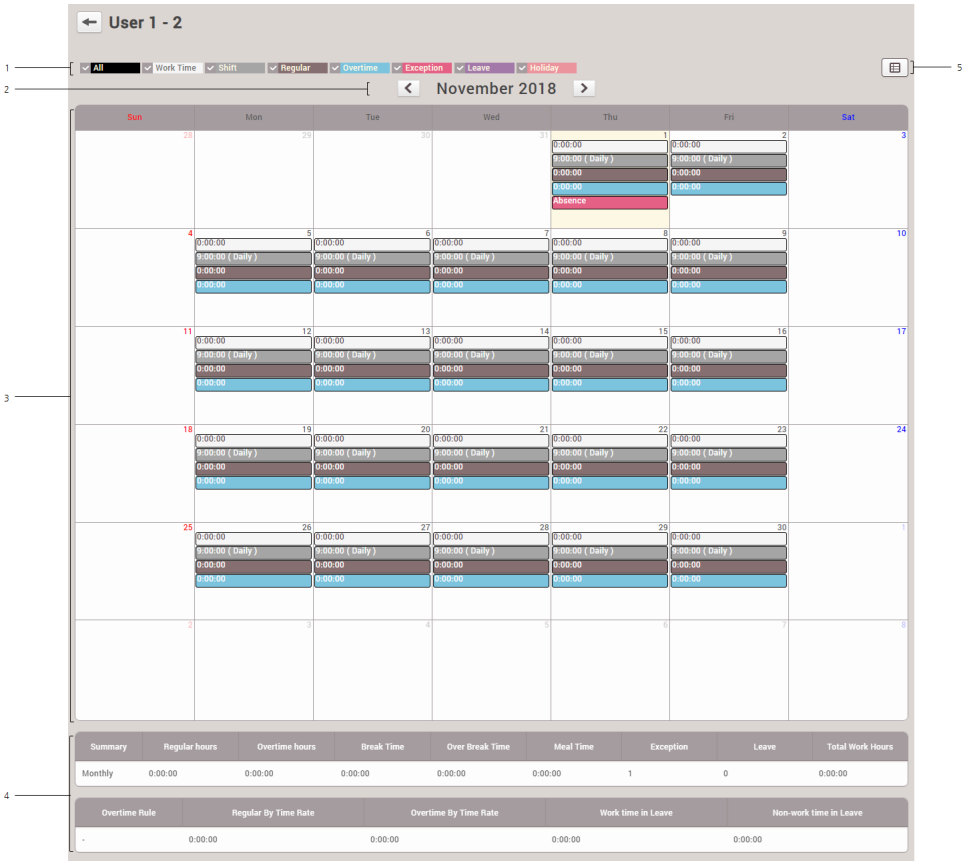
━ Modifying in the List

14 Time & Attendance

No.	Item	Description
1	Period	You can set the period for the T&A record to be displayed as a list.
2	Daily T&A record	You can view the daily T&A record. Note ▪ You can add, modify or delete a T&A record by clicking In/Out time. Click after clicking In/Out time to modify the registered T&A record. When you click OK, changes will be saved. ▪ You can add a leave by clicking . To add a leave, the Time Code set as Leave management is necessary. You can click of the added leave to delete it.
3	T&A record summary	You can view T&A records according to the set period.
4	View in calendar button	You can view T&A records in a calendar.

- Modifying in the calendar

14 Time & Attendance



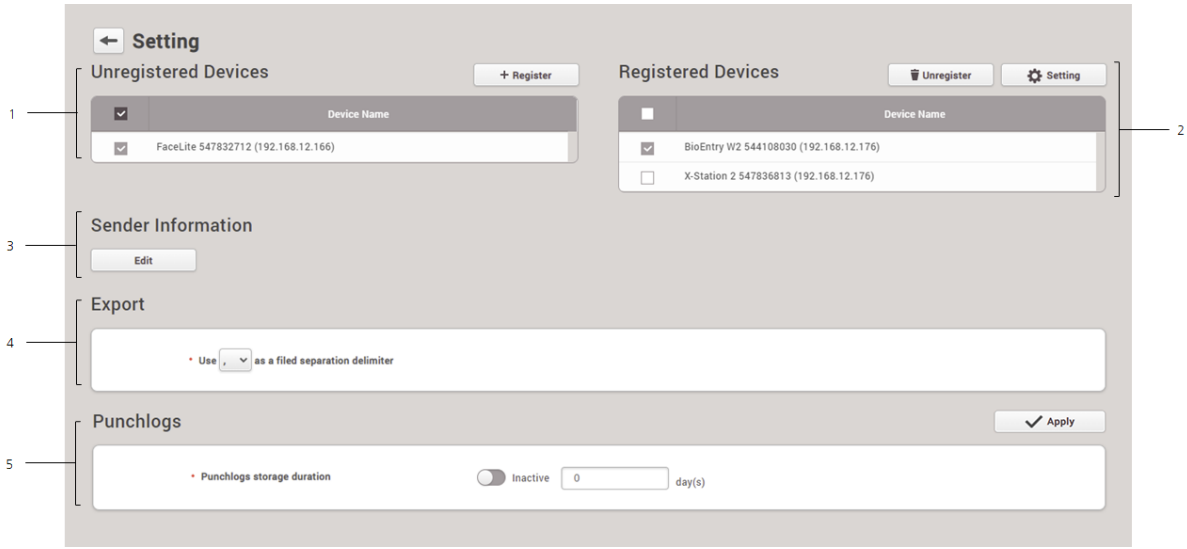
No.	Item	Description
1	Event Type	You can click each event type to display or hide on the calendar.
2	Month	You can move to the previous or next month by clicking < or >.
3	Daily T&A record	You can view the daily T&A record. Note ▪ You can add, modify or delete a T&A record by clicking the work time (white). You can modify the registered T&A record by clicking, and when you click OK, changes will be saved. ▪ You can add a leave by clicking the shift (gray). To add a leave, the Time Code set as Leave management is necessary. You can click of the added leave to delete it.
4	T&A record summary	You can view monthly the T&A record.
5	View in list button	You can view T&A records in a list.

14 Time & Attendance

Setting

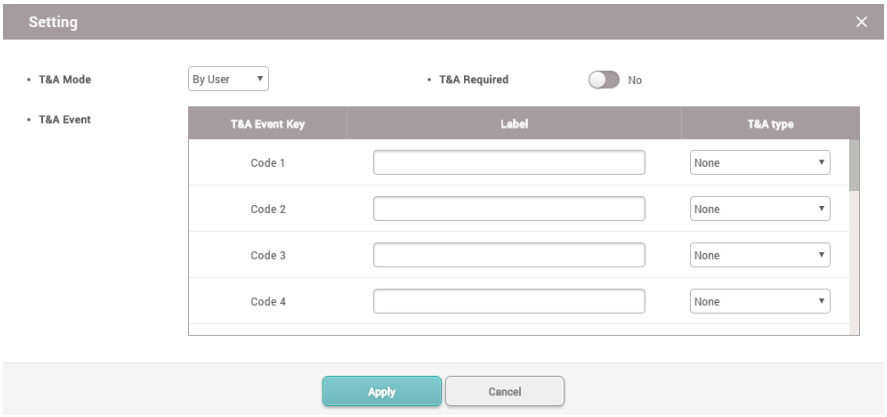
You can register a device used for T&A management or set the user list synchronization option.

1) Click TIME ATTENDANCE > .
2) Set each item.



No.	Item	Description
1	Unregistered Devices	This is the list of devices for which T&A management is available. Select the desired device and click + Register to register the selected device as a T&A management device.
2	Registered Devices	This is the list of T&A management devices being used currently. To cancel registration, select the desired device and click Unregister. You can also change the T&A setting of a registered device by clicking Setting. For details, refer to the device's T&A. T&A type is a setting to map the T&A Event Key and T&A event type(Check In, Check Out, Break Start, Break End, Meal Time Start, Meal Time End).

14 Time & Attendance

No.	Item	Description
		 Note ▪ It is possible to edit the device's T&A settings only while the device is connected.
3	Sender Information	You can set the sender information to use when sending out notification emails.
4	Export	You can select the delimiter of the document when exporting T&A report to CSV export.
5	Punchlogs storage duration	You can set the period for storing the punch logs.

Note

- When a registered device is deleted in DEVICE menu, the registered T&A management device will be also deleted automatically.

You can manage the access of visitors by using the VISITOR menu.
You can also set up a PC where visitors can apply for a visit.

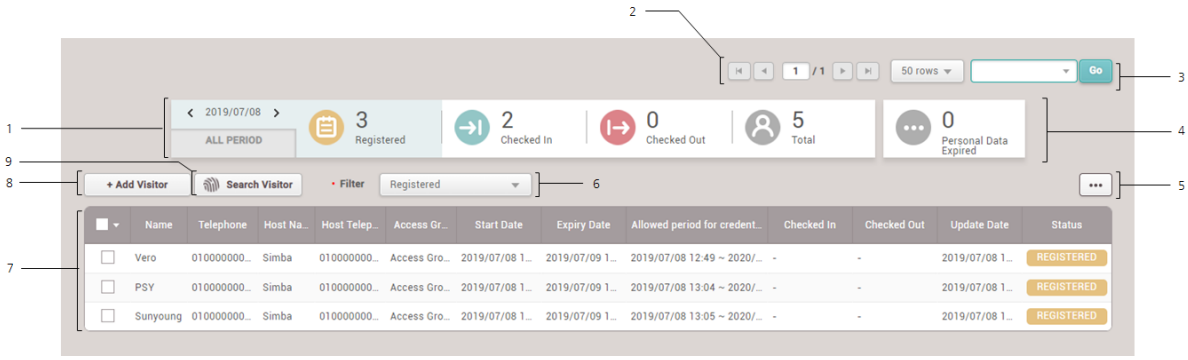
Applying to Visit

Managing Visitors

Note

- The VISITOR menu will appear when the Visitor license is activated.

15 Visitor



1 Period and Number of Visitors by Status	6 Filter of Visitors by Status
2 Page Navigation Buttons and Number of List Rows	7 List of Visitors by Status
3 Search for Visitors in List of Selected	8 Add Visitor Button
4 List of Visitors Expired the Personal Data	9 Search Visitor Button
5 Function Button (Column Setting)	

Applying to Visit

Visitors can view and accept the terms and conditions or the privacy policy for access.
Visitors with a visit record can also apply for a visit by reusing previously registered information, such as their name, telephone number, and fingerprint.

Applying to First Visit

Applying to Visit Using Existing Info

Note

- You can access the visit application page on the visiting PC. If there is not the shortcut of the visit application page on the visiting PC, create the shortcut by referring to Visit PC Settings.

Applying to First Visit

If you are visiting for the first time, apply for a visit on the visit application page.

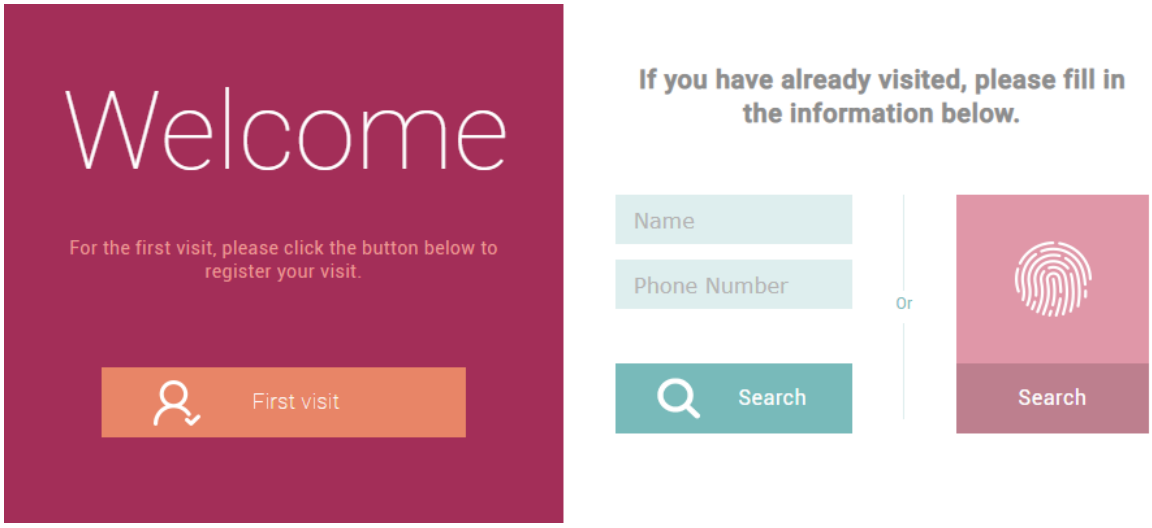
Note

- You can access the visit application page on the visiting PC. If there is not the shortcut of the visit application page on the visiting PC, create the shortcut by referring to Visit PC Settings.

15 Visitor

If you visit the site for the first time, apply to visit on the visit application page.

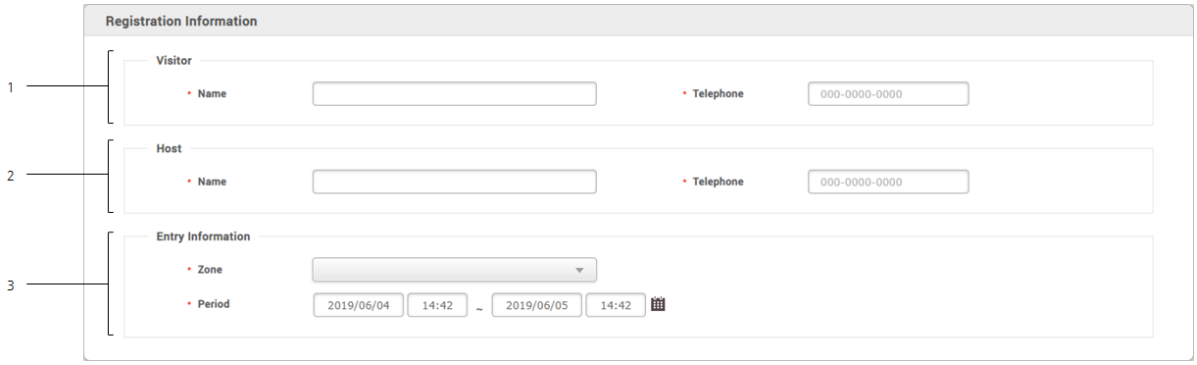
1) Run the visit application page on the visiting PC.



2) Click First visit.

3) Check and accept the terms and conditions or the privacy policy for access and then click Next.

4) Enter or select the necessary fields.



No.	Item	Description
1	Visitor	Enter the visitor's information. ▪ Name: Enter the name. ▪ Telephone: Enter the telephone number. Note ▪ If the Custom Visitor Field is set in the VISITOR setting, that fields are activated. ▪ Up to 48 characters may be entered for a name.
2	Host	Enter the host's information. ▪ Name: Enter the name.

No.	Item	Description
		▪ Telephone: Enter the telephone number. Note ▪ Up to 48 characters may be entered for a name.
3	Entry Information	Set the zone and period to visit. ▪ Zone: Set the access group. ▪ Period: Set the period for visit. Note ▪ Only access groups of sites assigned to visiting PC in VISITOR setting are displayed.

5) Click Next.

6) Set the credentials.

No.	Item	Description
1	Fingerprint	Click + Fingerprint to use the fingerprint authentication. And enroll the fingerprint.
2	Card	Set the card to Request to use the card authentication. And get a card from the visitor operator.

7) Click Next.

8) To apply for a visit, click Register.

Related Information

Visitor

Applying to Visit Using Existing Info

Applying to Visit Using Existing Info

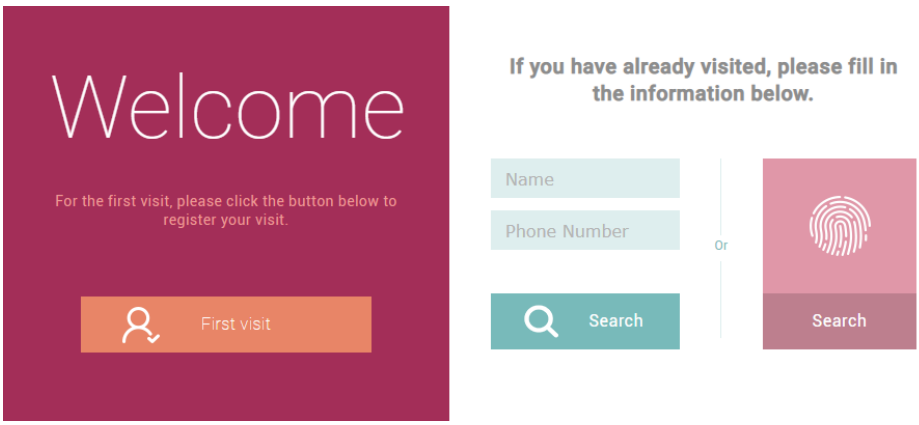
Visitors with a visit record can also apply for a visit by reusing previously registered information, such as their name, telephone number, and fingerprint.

15 Visitor

Search by name and telephone number

If you have visited the site, you can use your existing visit information again to request a visit.

1) Run the visit application page on the visiting PC.

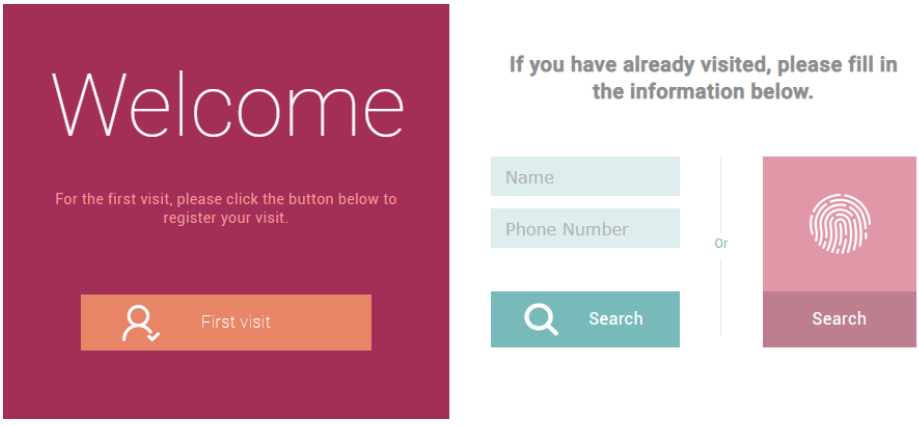


2) Enter the name and telephone number and then click Search.
3) Check and accept the terms and conditions or the privacy policy for access and then click Next.
4) Check the Registration Information. If there are items that need to be modified, modify each item by referring to Applying to first visit and click Next.
5) Check the Credential. If there are items that need to be modified, modify each item by referring to Applying to first visit and click Next.
6) To apply for a visit, click Register.

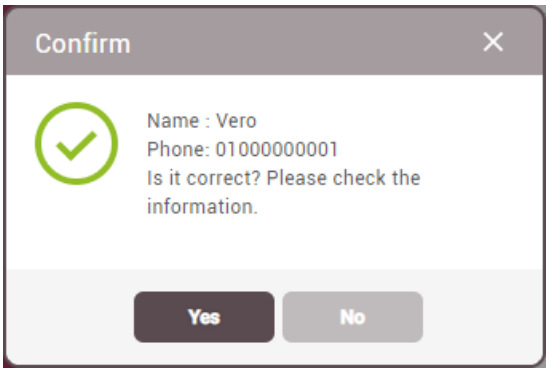
Search by fingerprint

If you have a fingerprint registered in the site of visit, you can search the fingerprint and apply for a visit using the existing visit information.

1) Run the visit application page on the visiting PC.



2) Click Search at the bottom of the fingerprint icon.
3) Scan your fingerprint to search the registered visitor.
4) If the visitor information is correct, click Yes.



5) Check and accept the terms and conditions or the privacy policy for access and then click Next.
6) Check the Registration Information. If there are items that need to be modified, modify each item by referring to Applying to first visit and click Next.
7) Check the Credential. If there are items that need to be modified, modify each item by referring to Applying to first visit and click Next.
8) To apply for a visit, click Register.

Related Information

Visitor

Applying to First Visit

Managing Visitors

You can check the list of visitors and manage the check in and check out of them. You can also add, delete, or modify visitor information.

Managing Registered Visitors

Managing Check In Visitors

Managing Checked Out Visitors

Managing All Visitors

Deleting Personal Data Expired

Note

- The VISITOR menu will appear when the Visitor license is activated.

15 Visitor

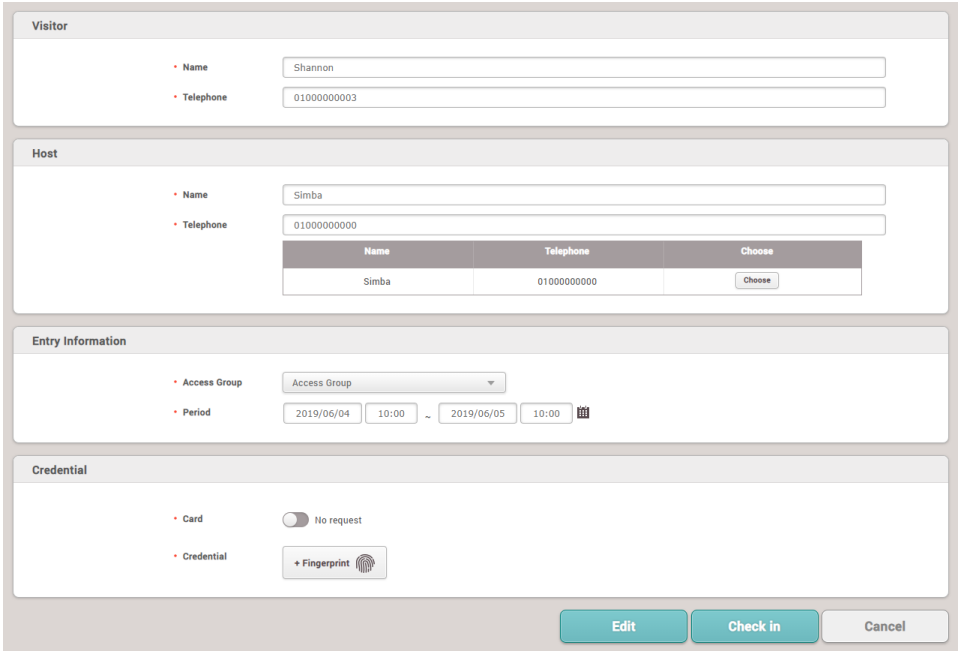
Managing Registered Visitors

You can approve a visit or edit the registration information. You can also add or delete visitors.

Approve the Visit

You can approve a visit.

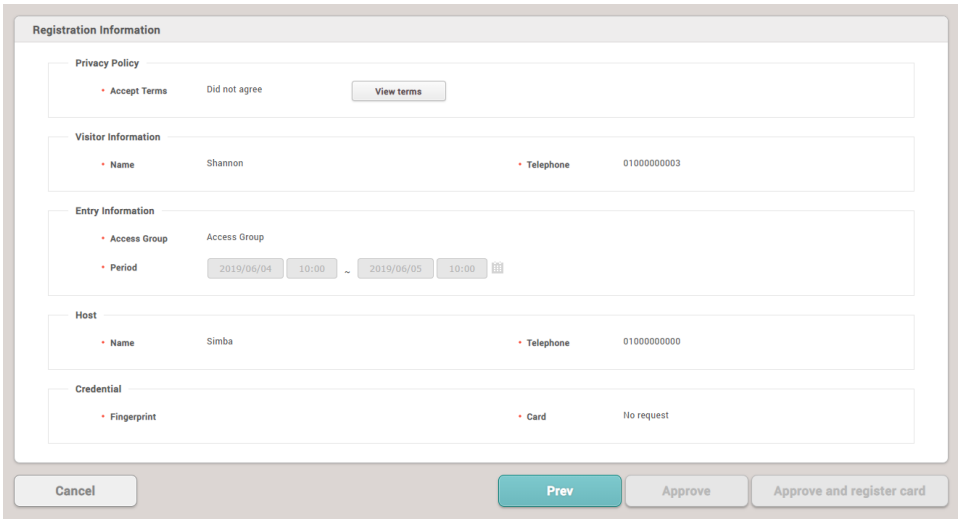
1) Click VISITOR.
2) Click a visitor in the Registered.
3) Check the information of the visitor and then click Check in.



Note

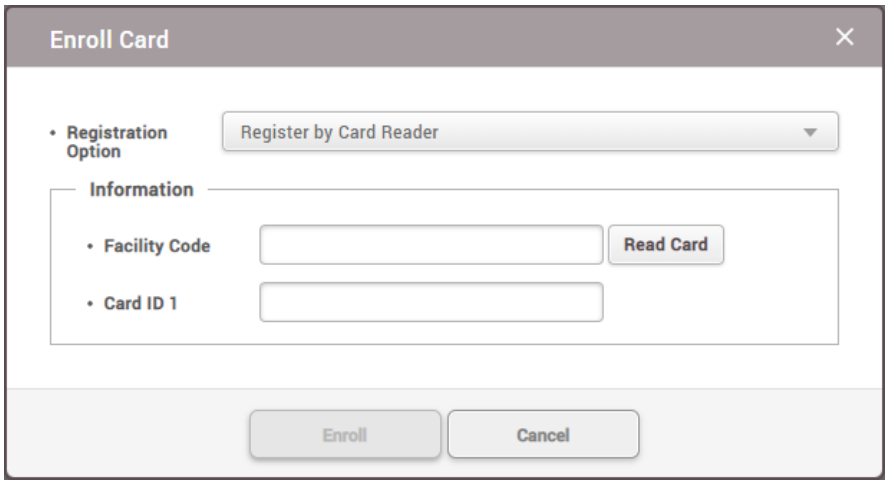
- If there are items that need to be modified, modify each item and click Edit.

4) Check the Registration Information and then click Approve to approve the visit.



Note

- The Approve button is deactivated for visitors who did not agree to the terms and conditions when applying for a visit. Click View terms to provide the visitor with the terms and conditions and request the agreement. If a visitor does not accept the terms and conditions, the visitor will be restricted from visiting.
- If a card device is set on the visiting PC, the Approve and register card button is activated. Click Approve and register card to approve the visit and issue an access card.



a) Select a desired Registration Option.

Register by Card Reader

You can register a card by scanning the card information with the device connected to the visiting PC.

a) Select Register by Card Reader for Registration Option.
b) Click Read Card and scan a card with the device.

Enter Manually

You can register a card by entering a card number directly.

a) Select Enter Manually for Registration Option.

b) Enter the Facility Code or Card ID 1.

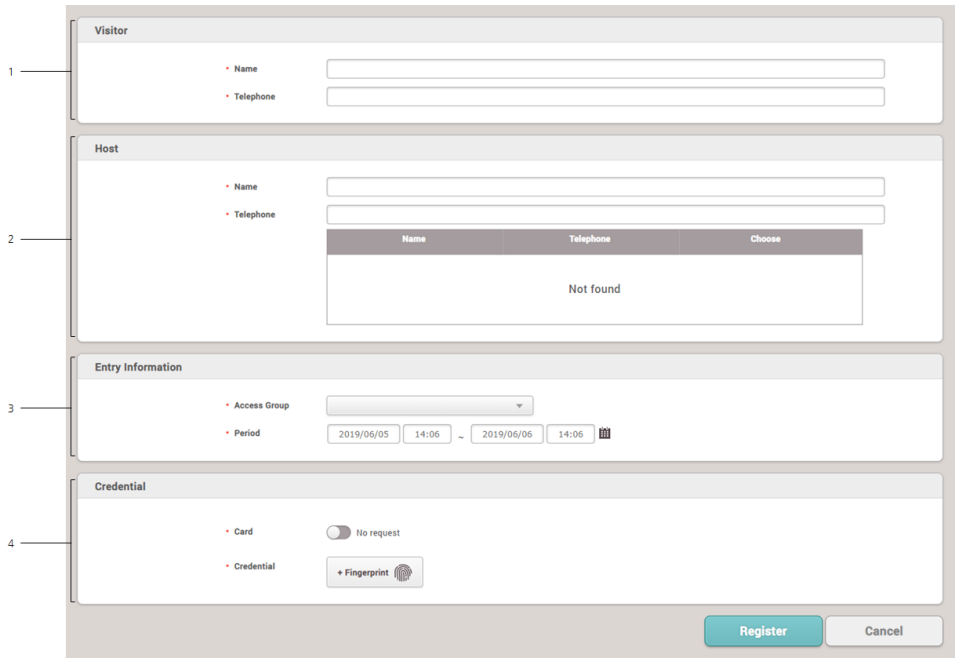
b) Click **Enroll** to register a card.

Add Visitors

You can add visitors.

1) Click VISITOR.

2) Click + Add Visitor.



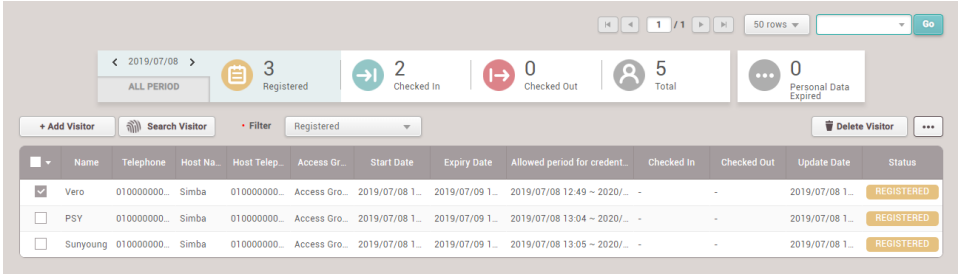
No.	Item	Description
1	Visitor	Enter the visitor's information. ▪ Name: Enter the name. ▪ Telephone: Enter the telephone number. Note ▪ If the Custom Visitor Field is set in the VISITOR setting, that fields are activated. ▪ Up to 48 characters may be entered for a name.

No.	Item	Description
2	Host	Enter the host's information. ▪ Name: Enter the name. ▪ Telephone: Enter the telephone number. Note ▪ Up to 48 characters may be entered for a name. ▪ When you enter the name or telephone number, a list of users with information that matches is displayed. Click Choose to set a user of that list to the host.
3	Entry Information	Set the zone and period to visit. ▪ Zone: Set the access group. ▪ Period: Set the period for visit. Note ▪ Only access groups of sites assigned to visiting PC in VISITOR setting are displayed.
4	Credential	Set the credentials. ▪ Card: Set the card to Request to use the card authentication. ▪ Credential: Click + Fingerprint to use the fingerprint authentication. And enroll the fingerprint.

3) Click Register to complete adding visitors.

Delete Visitors

1) Click Visitor.
2) Click a visitor to delete in the Registered.



3) Click Delete Visitor and then click Yes.

Note

- The Delete Visitor button is activated if you click ☐ (check box).
- You can delete visitors only in the Registered.

Related Information

Applying to Visit

Managing Check In Visitors

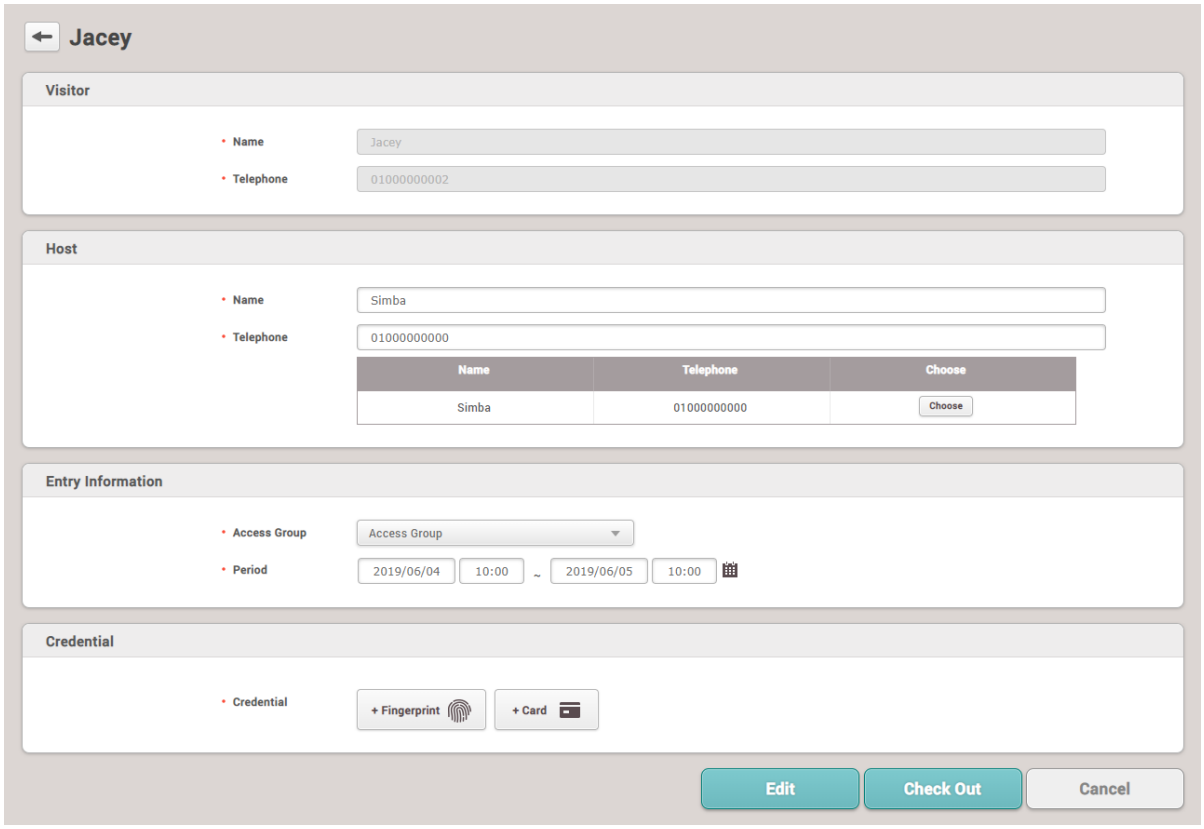
Managing Check Out Visitors

Visitor

Managing Check In Visitors

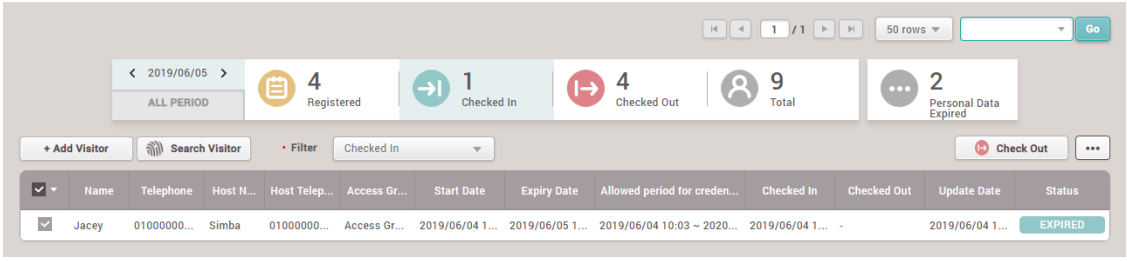
You can check which visitors have been checked in and edit the registration information of them. And you can also let the visitors check out.

1) Click VISITOR.
2) Click a visitor in the Checked In.
3) Check the information of the visitor and then click Check Out.



Note

- If there are items that need to be modified, modify each item and click Edit.
- You can let the visitors check out in the list. The Check Out button is activated if you click ☐ (check box).

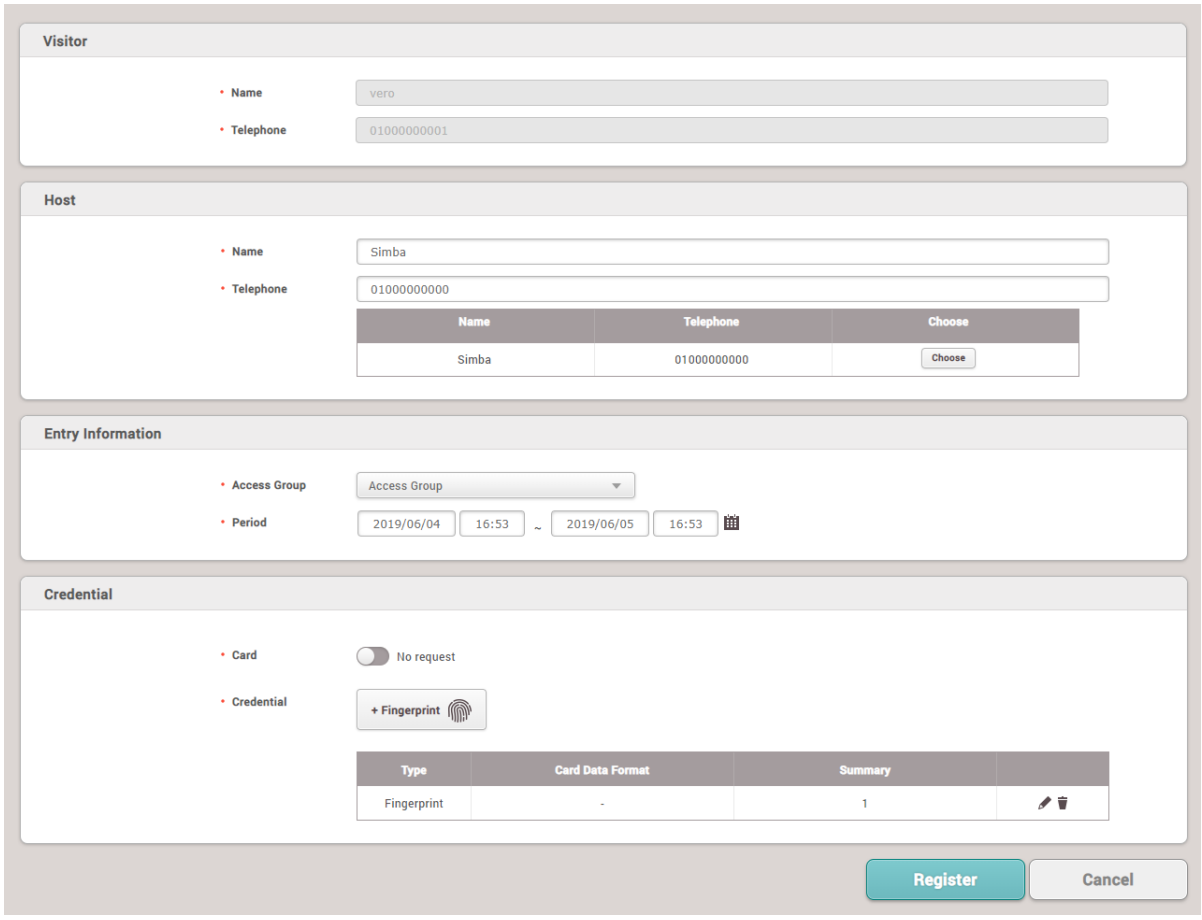


Managing Check Out Visitors

You can check which visitors have been checked out and register the visit again using that visitor's registration information.

1) Click VISITOR.
2) In the Checked Out list, click the visitor to re-register.
3) Click Edit.

15 Visitor



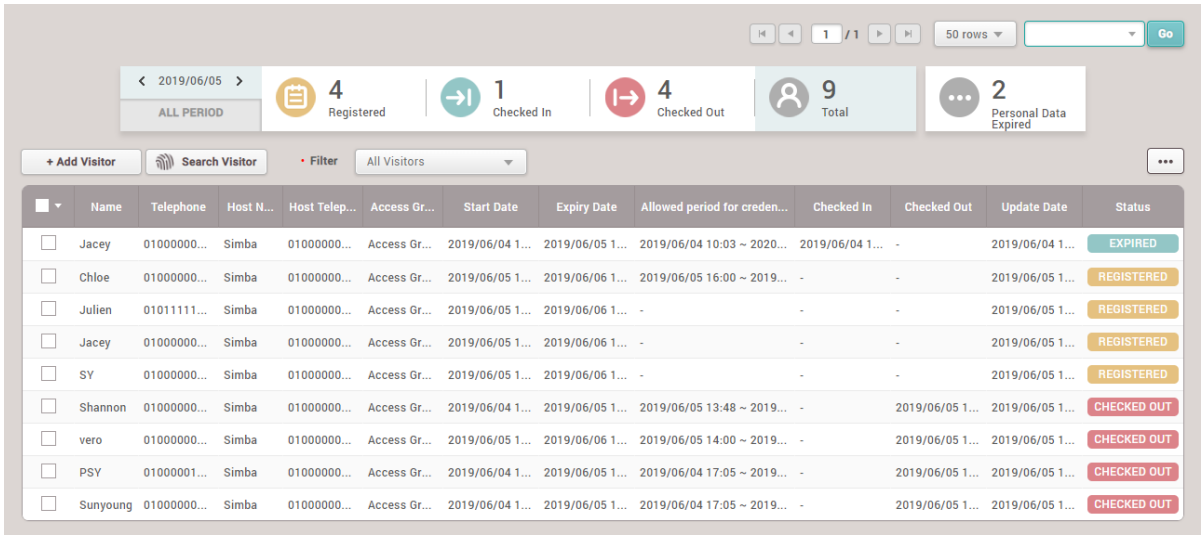
4) If there are items that need to be modified, modify each item and click Register.

Managing All Visitors

You can view all visitors that have been registered, checked in, and checked out for the set period. You can also add visitors.

1) Click VISITOR.
2) Click Total.

15 Visitor



Note

- You can approve the visit and add visitors in Total. For more details, refer to Managing Registered Visitors.
- You can manage the checked in or checked out visitors in Total. For more details, refer to Managing Check In Visitors or Managing Check Out Visitors.

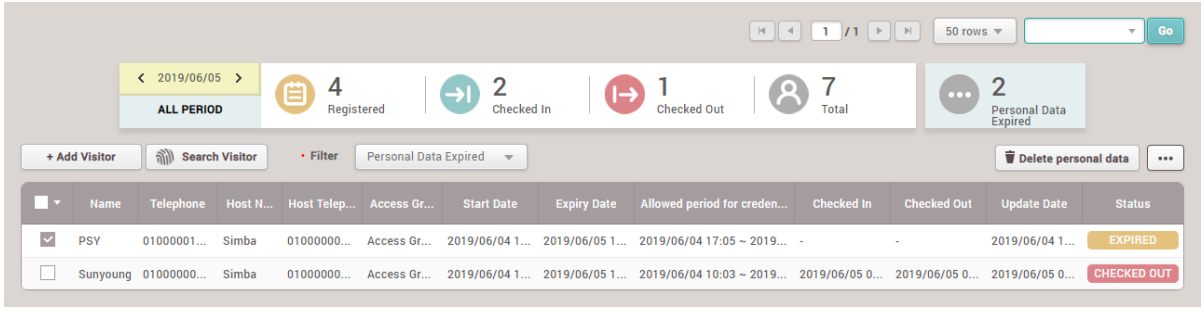
Deleting Personal Data Expired

You can delete the visitors that have the personal data expired.

Note

- Only users with the operator level of Administrator can view the list of visitors who have expired. You can refer to the Adding User Information for more detailed information on the operator level.

1) Click VISITOR.
2) Click Personal Data Expired. The visitors that have personal data expired is displayed.



Note

- For more information on configuring the period for the credential, see Terms & Visitor Settings.

3) Click ☐ (check box) to select the visitors you want to delete.
4) Click Delete personal data and then click Yes.

You can use the Setting menu to configure user privileges, language, time, date, access card management, server connection, doors, etc.
The modifiable items may differ depending on the user permission.

Account

Preferences

Card

Card Format

Server

Trigger & Action

Schedules

Alert

HTTPS

Cloud

Image Log

USB Agent

Face Group Matching

Audit Trail

Video

Daylight Saving Time

Security

Active Directory

Visitor

Mobile Access

Email Setting

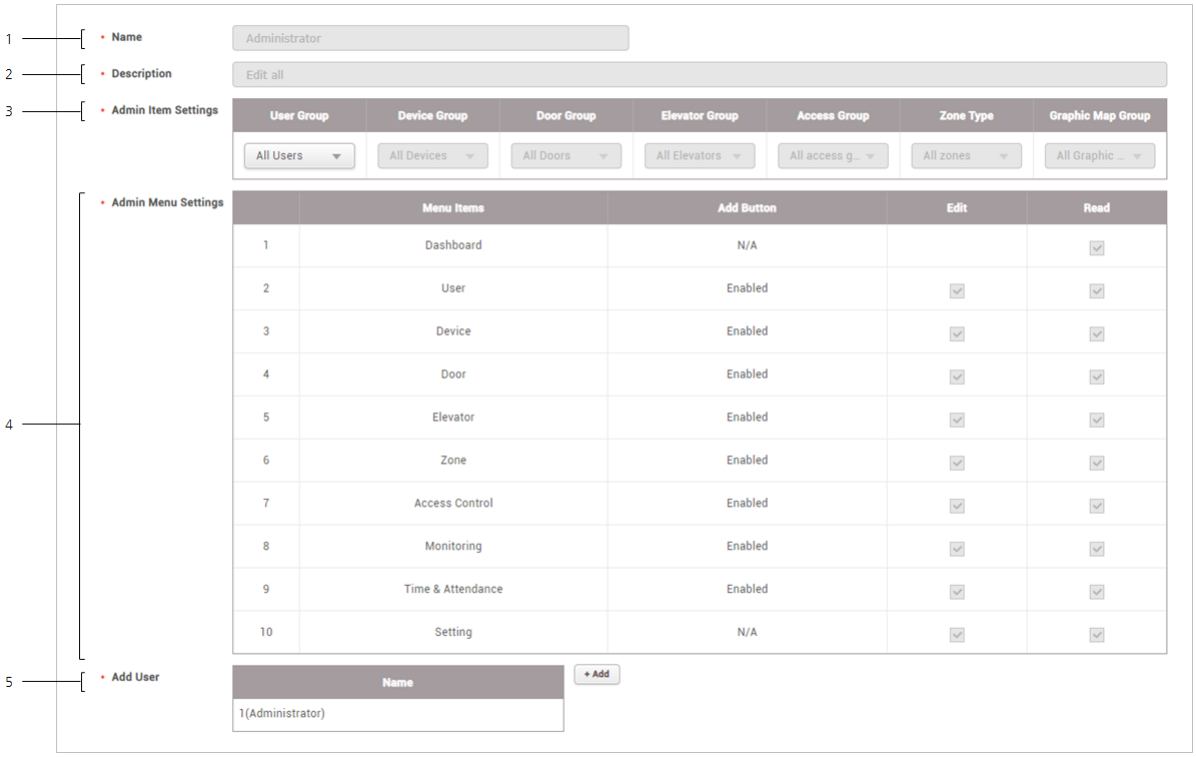
License

Account

16 BioStar 2 Settings

You can assign BioStar 2 operator account levels to registered users.

1) Click Settings > ACCOUNT.
2) Click an account type. Depending on the type of license activated, the account type may vary.
   - Administrator: The user can use all menus.
   - User Operator: The user can only use the USER and PREFERENCE menus.
   - Monitoring Operator: The user can use the MONITORING and PREFERENCE menus and only view the DASHBOARD, USER, DEVICE, DOOR, ZONE and ACCESS CONTROL menus.
   - Video Operator: The user can only use the VIDEO menu.
   - T&A Operator: The user can only use the TIME ATTENDANCE menu and only view the USER menu.
   - User: The user can only view own information and T&A records.
   - Visitor Operator: The user can only use the VISITOR menu.
3) Click + Add and select a user or click to search for a user.



No.	Item	Description
1	Name	Shows the account level name.
2	Description	Show a brief description of the account level.
3	Admin Item Settings	Show the group assigned the permission.
4	Admin Menu Settings	Shows the assigned privileges.

No.	Item	Description
5	Add User	Shows the list of users assigned with the privileges. Click + Add to add a user. ▪ Click to delete the registered users.

4) Click Apply to save the settings.

Note

- If privileges have already been assigned while adding or editing users, the assigned users are shown on the list.
- Unless a user with the privilege for Edit saves settings after changing the detailed settings of each menu, the user with a Read privilege only can see the previous information yet to be modified.

Related Information

Editing User Information

Adding Custom Account Level

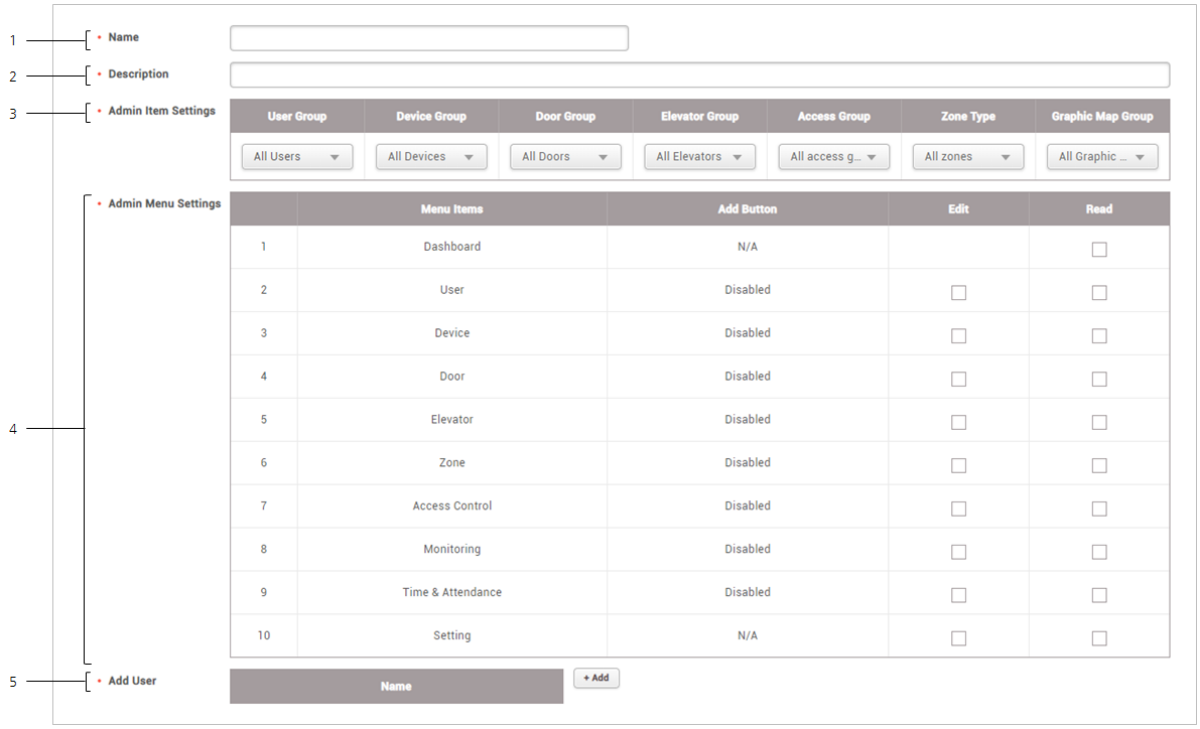
Adding Custom Account Level

You can assign BioStar 2 operator privilege levels to registered users.

Note

- The Admin Menu Settings may vary depending on the type of license that is activated.

1) Click Settings > ACCOUNT.
2) Click ADD CUSTOM LEVEL.
3) Enter or select the necessary items. Depending on the type of license activated, the account type may vary.



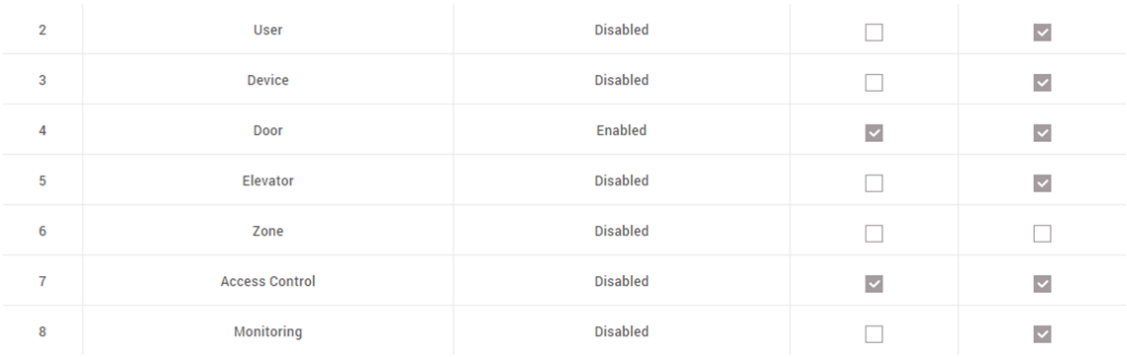
No.	Item	Description
1	Name	Enter the desired account level name.
2	Description	Enter a brief description of the account level.
3	Admin Item Settings	Set the detailed permission for each item. You can select groups to assign the edit and read permissions for each menu. Admin Item Settings can be set for User Group, Device Group, Door Group, Elevator Group, Access Group, Zone Type, Graphic Map Group and it can be set based on the already created group information. If there is no group you want, add a new group to that menu. For details about the creation of a group, refer to Adding and Managing User Groups, Adding and Managing Device Groups, Adding and Managing Door Groups, Adding and Managing Elevator Groups, Adding and Managing Access Groups, Adding and Managing Graphic Map Groups.
4	Admin Menu Settings	Set the edit and read permissions for the menu. A different permission can be set according to each menu. ▪ Edit: The permission to add, edit, and delete the items of the menu. ▪ Read: The permission to read the items of the menu. Note ▪ If you assign the edit permission to each menu, Add Button will be enabled. However, there is no Add Button in Dashboard and Setting menu, so it is displayed as N/A. And Add button in Access Control menu is only enabled when Access Group is set as All access groups in Admin Item Settings and the edit permission is assigned.

No.	Item	Description
5	Add User	You can add or view the users assigned with the privilege. If you want to add a user, click + Add to add a user. ▪ Click to delete the registered users.

4) Click Apply to save the settings.

Note

- Refer to the following example for configuring Admin Item Settings and Admin Menu Settings.



- User: You can see the user information in the 'User Group 01'. However, you cannot add a new user or edit existing users.
- Device: You can see the device information in the 'Device Group 01'. However, you cannot add a new device or edit existing devices.
- Door: The setting of doors included in the 'Door Group 01' can be edited or deleted. You can edit the device of the door included in 'Door Group 01'. You can also add a new door to 'Door Group 01'.
- Elevator: You can see the setting of all the elevators. However, you cannot add a new elevator or edit existing elevators.
- Zone: You do not have permission.
- Access Control: The setting of access groups included in the 'AC Group' can be deleted. You can add or delete users and user groups to 'AC Group'.
- Monitoring: You can see the access control events of the devices included in 'Device Group 01'. And you can see the device and door status zone status and the alert history. You can also see a graphic map of 'All Graphic Maps'. However, you cannot control each status.

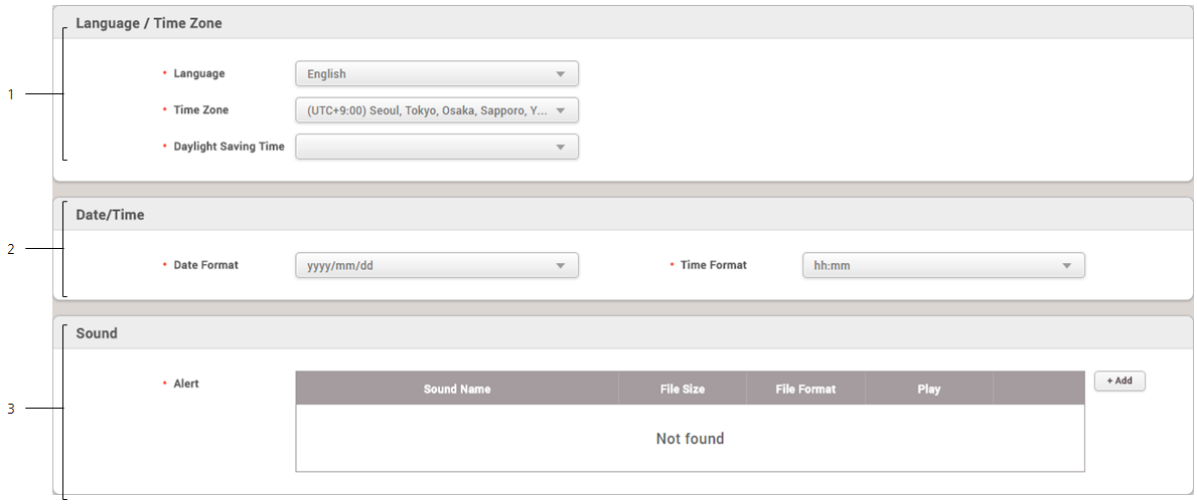
- If the configuring for Admin Item Settings and Admin Menu Settings do not match, the permission will not be assigned for that item. If you select the item of the menu by the account to which this custom permission was assigned, the 'Permission Denied' message is displayed.

- You can add an unlimited number of custom account levels.

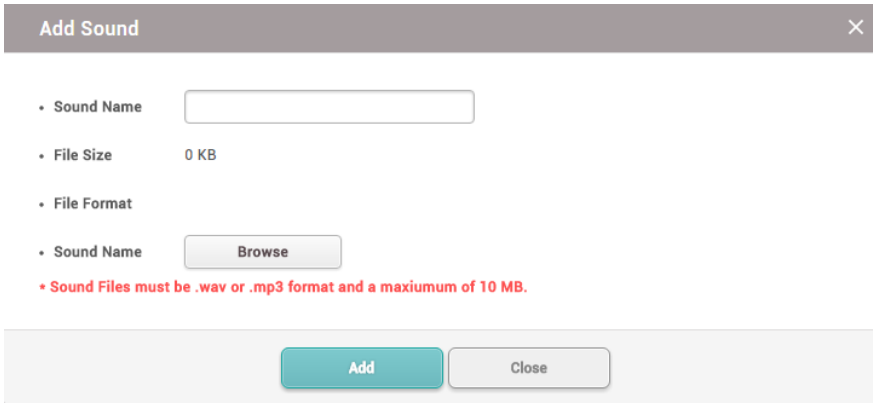
Preference

You can change language, time zone, time/date format, and upload a sound file to be used as an alert.

1) Click Settings > PREFERENCE.
2) Edit the necessary fields.



No.	Item	Description
1	Language / Time Zone	You can configure the BioStar 2 language and time zone settings. ▪ Language: Select a language to use. ▪ Time Zone: Select a time zone to use. ▪ Daylight Saving Time: Select the daylight saving time to apply to BioStar 2 server. If no registered daylight saving time, see Daylight Saving Time.
2	Date/Time Format	You can configure the date and time format to use in BioStar 2. ▪ Date Format: Changes the date format. ▪ Time Format: Changes the time format.
3	Sound	You can upload a sound file to use in BioStar 2. a) Click + Add.

No.	Item	Description
		 b) Click Browse to select a file. c) Select .wav file or .mp3 file and then click Open. d) Click Add to upload Note ▪ Sound files must be .wav or .mp3 format. ▪ A maximum file size is 10MB.

3) Click Apply to save the settings.

Related Information

Alert

Card

You can view the card status, assigned users, blacklist, etc.

1) Click Setting > CARD. The list of registered cards is shown.

Card Type	Card ID	Status	User ID	User Name
CSN	1225051669057584	Assigned	2	User 1
CSN	4276710323	Unassigned	-	-
CSN	989777499	Unassigned	-	-
CSN	1217252008448048	Unassigned	-	-
CSN	1234938686282624	Unassigned	-	-
CSN	308871143	Unassigned	-	-

2) Click Unassigned Card, Activated Card or Blacklist Card to view the list of corresponding

cards.

Note

- If a card is blocked, the card information will appear in Blacklist Card list. To unblock the card, select a card and click Unblock.

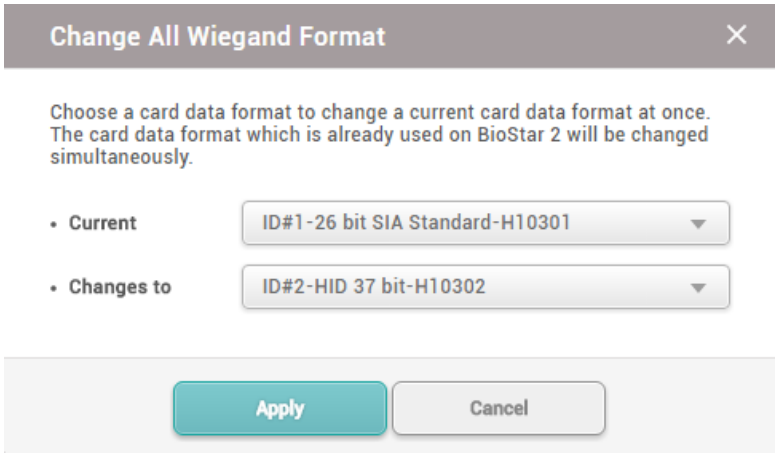
Changing Wiegand Card Data Format

You can change the Wiegand card data formats in use simultaneously.

Note

- The data format of the card already assigned to the user will be changed.

1) Click Settings > CARD.
2) Click ••• and then select Change All Wiegand Format.
3) Select a card data format to be changed from the list of Current and select a desired card data format from the list of Changes to.



4) Click Apply to change the card data format.

Card Format

It is possible to set the Wiegand type of the card or the website key and layout of the smart / mobile card.

1) Click Settings > CARD FORMAT.

2) Configuring the settings by reffering to information, Wiegand and Smart / Mobile Card.

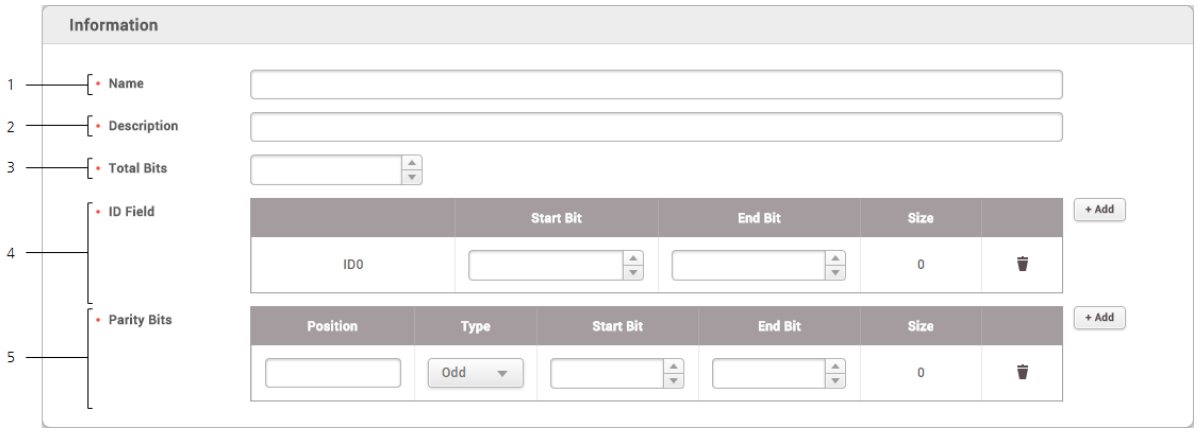
Wiegand

You can configure the format for reading card data. The card data is processed in the set Wiegand format.

Note

- The data format of the card already assigned to the user will be changed.

1) Click Settings > CARD FORMAT.
2) Click Wiegand.
3) Click from the list and then configure the settings.



No.	Item	Description
1	Name	Enter a Wiegand format name.
2	Description	Enter a short description.
3	Total Bits	Enter the total bit count.
4	Facility Code Field	You can set whether or not to use a facility code. If you want to use a facility code, click ☐(check box) and enter a start bit and end bit.
4	ID Field	Enter a start bit and end bit of the ID to use. Click + Add to add an ID field.
5	Parity Bits	Set parity bits. Click + Add to add a parity bit. Note ▪ You must enter the total bit to add a parity bit.

3) Click Apply to add the Wiegand format.

Note

- Pre-defined formats cannot be edited or deleted.

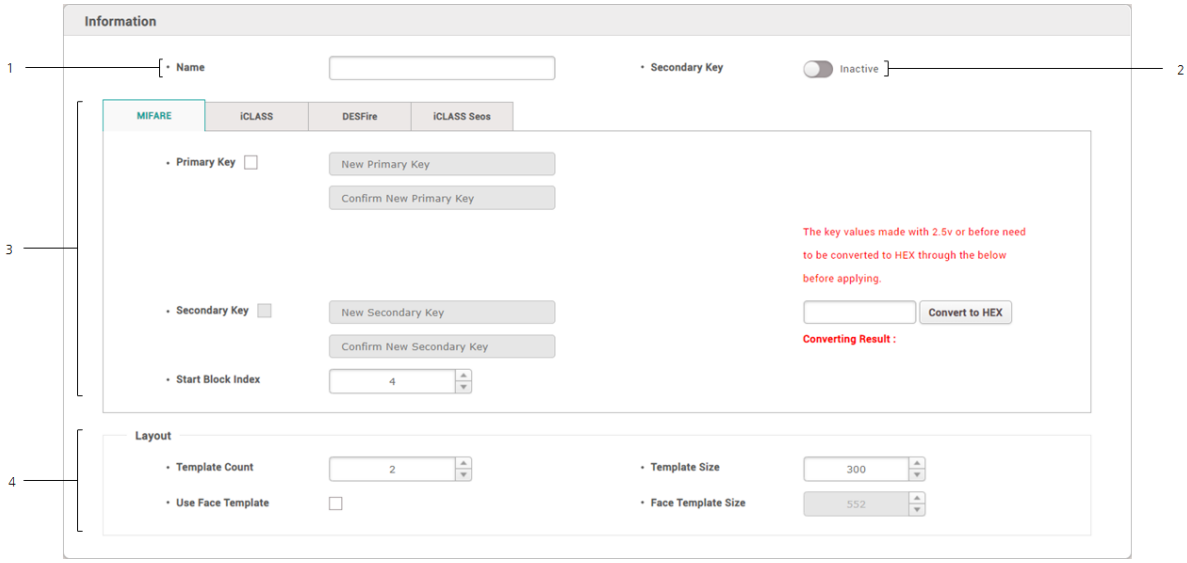
Smart / Mobile Card

It is possible to set the layout of smart cards such as MIFARE, iCLASS, DESFire, iCLASS Seos and mobile.

Note

- To set the mobile card, set Active for Mobile Card Enrollment on the User / Device Management tab of Setting > SERVER.

1) Click Settings > CARD FORMAT.
2) Click ADD SMART CARD and configure the setting.



No.	Item	Description
1	Name	Enter the name of the smart card.
2	Secondary Key	It is possible to set whether or not to use the secondary website key. If Active is set, you can set Secondary Key. When a secondary site key is set, authentication is carried out using the secondary website key when the basic site key of the card does not match.
3	Smart Card Setting	It is possible to set the structure of smart cards such as MIFARE, iCLASS, DESFire, iCLASS Seos and mobile. The primary site key and the secondary site key support only HEX values. In the field on the right side of the screen, enter the key value and click Convert to HEX. Use the converted value as your site key.

No.	Item	Description
		▪ DESFire Advanced: You can use a DESFire card issued by a third-party. Setting is available only for DESFire. Note ▪ To use DESFire Advanced, 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, and Encryption Type correctly. ▪ Primary Key: Key which encrypts the communication between the smart key and the card reader. ▪ Secondary Key: It is possible to set secondary website key. ▪ Start Block Index: Select the start block where each template will be saved. This block is the index of block where user information will be saved. If the user already has the smart key, set available block for saving. Setting is available only for MIFARE and iCLASS. ▪ App ID: Set the application ID. This plays a role of directory which includes file ID. Setting is available only for DESFire. ▪ File ID: Set the file ID. Setting is available only for DESFire. ▪ Encryption Type: It is possible to set the encryption type to DES/3DES or AES. Setting is available only for DESFire. ▪ ADF Address Value: ADF address where digital credential is stored and only the iCLASS Seos card is available.
4	Layout	It is possible to change the layout where user information and fingerprint information are recorded. ▪ Template Count: Set the number of fingerprint templates to be included in the layout. ▪ Template Size: Set the number of bytes used by the fingerprint template. ▪ Use Face Template: Select whether to use the face template. ▪ Face Template Size: Set the number of bytes used by the face template. Note ▪ Face templates are only available on FaceStation F2.

3) Click Apply to enroll a smart card setting.

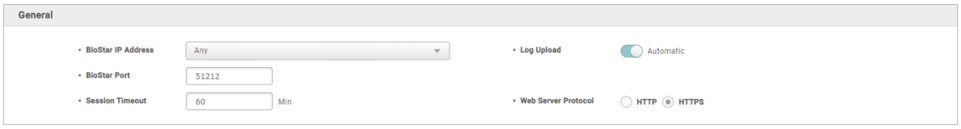
Server

16 BioStar 2 Settings

You can configure the BioStar 2 server information, user management, device management and automatic upgrade settings.

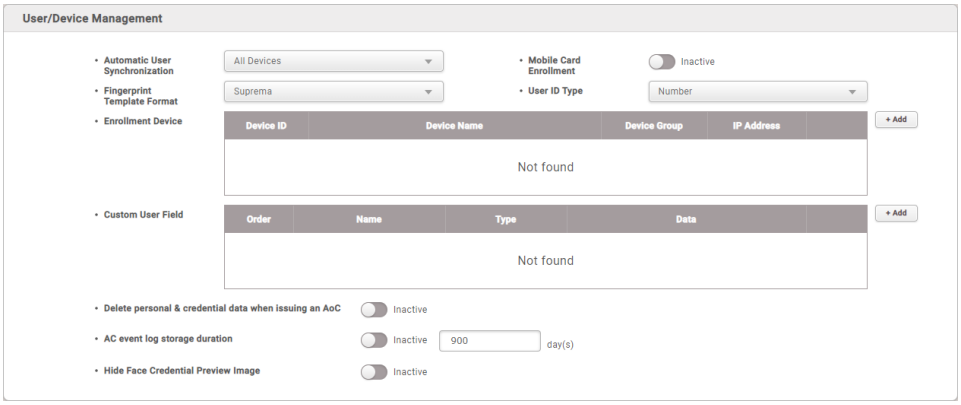
1) Click Settings > SERVER and configure the settings.

General



Item	Description
General	You can configure the general information on BioStar 2. ▪ BioStar IP Address: Set the server IP address. Change the setting to use a specific IP address. ▪ BioStar Port: Set the server port. ▪ Session Timeout: Set a session timeout period. If there is no activity on BioStar 2 for the set time after logging in, the session is logged out automatically. ▪ Log Upload: Select an event log upload method. If real-time communication with the server is difficult, set this to Manual. ▪ Web Server Protocol: Set a server communication protocol.

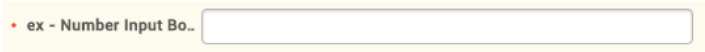
User / Device Management

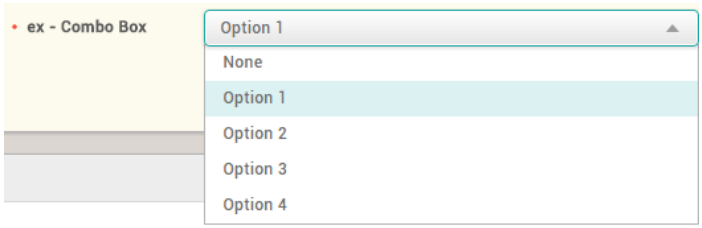


Item	Description
User/ Device Manage	You can configure the user synchronization and fingerprint template format settings.

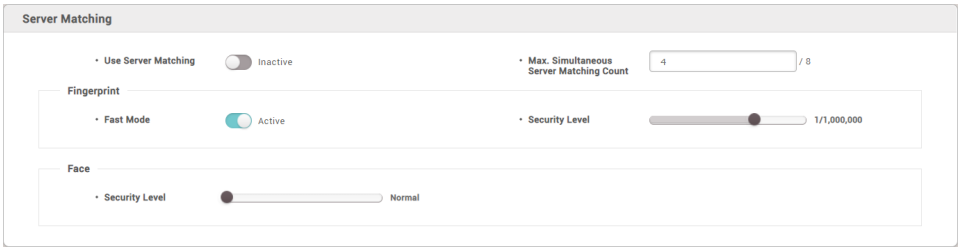
Item	Description
ment	▪ Automatic User Synchronization: Change the user information synchronization method. Select All Devices to have the user information automatically synchronized with the server. Select All Devices(Including user update from device) to have the user information changed on the device automatically synchronized to all devices that registered on the server. Select Specific Devices(Only devices belonging to the access group) to automatically synchronize only the devices belonging to the access group with the changes. ▪ Mobile Card Enrollment: Set to Enabled to use the mobile card. ▪ Fingerprint Template Format: Set the fingerprint template format. Available options include SUPREMA, ISO and ANSI378. If there are still user fingerprint template remaining in the device, selecting a different format is not possible. ▪ User ID Type: Use of Number or Alphanumeric can be set for user ID. When Alphanumeric is set for User ID Type, BioLite Net, BioEntry Plus and BioEntry W cannot be used. In addition, all users saved in Xpass and Xpass S2 will be deleted and all settings except for the network will be initialized. ▪ Enrollment Device: You can designate certain devices that you frequently use for fingerprint and card enrollment as an enrollment device. Click the + Add and choose the devices. ▪ Custom User Field: You can add custom user fields for extra user information and these fields appear on the User page. There are three types of custom user fields: Number Input Box, Text Input Box and Combo Box. If you choose the Combo Box for a custom user field, you can add up to 20 items with 32 characters each, and each item is separated by a semicolon (;). ▪ Delete personal & credential data when issuing an AoC: If you issue an AoC card which stores user's credentials on the smart card, you can set BioStar 2 to delete user's data and credential information automatically. ▪ AC event log storage duration: You can set the period for storing the access control event logs. ▪ Hide Face Credential Preview Image: To protect users' privacy, preview images can be hidden when enrolling face credentials. If you enable this option, a preview will not be provided when enrolling the user's face or visual face. Note ▪ If you select Automatic User Synchronization as Specific Devices(Only devices belonging to the

Item	Description
	access group), users stored in the device that do not belong to the access group cannot be managed by the server. If you use this option, go to DEVICE menu and click Delete Data & Sync Device for each device to proceed with the synchronization. ▪ Even if you select Automatic User Synchronization as Specific Devices(Only devices belonging to the access group), Access groups set up for special purposes, such as the following, will be synchronized regardless of the device's access group. - Dual authentication access group set up in the Devices and Elevators - Bypass Group in the Anti-passback Zone - Bypass Group in the Scheduled Lock Zone - Scheduled Unlock Authentication Group in the Scheduled Unlock Zone - Arm/Disarm Group in the Intrusion Alarm Zone ▪ Even if you select Automatic User Synchronization as Specific Devices(Only devices belonging to the access group), Users set to device administrator will be synchronized regardless of the access group. ▪ NFC card is supported with the below conditions. - Mobile device OS: Android 5.0 Lollipop or later, Android 10 or earlier - BioStar 2 Mobile 2.4.1 or later - Xpass S2: XPS2M-V2 FW 2.4 or later - BioStation 2: BS2-OMPW, BS2-OIPW FW 1.4 or later, FW 1.8 or earlier - BioStation A2: BSA2-OMPW, BSA2-OIPW FW 1.3 or later, FW 1.7.1 or earlier - BioStation L2: BSL2-OM FW 1.2 or later - BioEntry W2: BEW2-OAP, BEW2-ODP FW 1.1 or later, FW 1.5 or earlier - FaceStation 2: FS2-D, FS2-AWB FW 1.3.1 or earlier - BioLite N2: BLN2-ODB, BLN2-OAB, BLN2-PAB FW 1.2 or earlier - XPass D2: XPD2-MDB, XPD2-GDB, XPD2-GKDB FW 1.3 or earlier - FaceLite: FL-DB FW 1.1 or earlier - XPass 2: XP2-MDPB, XP2-GDPB, XP2-GKDPB FW 1.0 or later - BioEntry P2: BEP2-OD, BEP2-OA FW 1.0 or later - BioEntry R2: BER2-OD FW v1.1.0 or later ▪ BLE card is supported with the below conditions. - Mobile device OS: Android 5.0 Lollipop or later, Android

Item	Description
	10 or earlier / iOS 9.0 or later - BioStar 2 Mobile 2.4.1 or later - FaceStation 2: FS2-AWB FW 1.3.1 or earlier - BioLite N2: BLN2-ODB, BLN2-OAB, BLN2-PAB FW 1.2 or earlier - XPass D2: XPD2-MDB, XPD2-GDB, XPD2-GKDB FW 1.3 or earlier - FaceLite: FL-DB FW 1.1 or earlier - XPass 2: XP2-MDPB, XP2-GDPB, XP2-GKDPB FW 1.0 or later ▪ You can use either Mobile card or Mobile Access. The firmware does not support Mobile card or Mobile Access simultaneously. ▪ When User ID Type is changed from Alphanumeric to Number, all user information registered on BioStar 2 should be deleted. ▪ The devices and the firmware versions where the User ID Type can be changed are as follows. - CoreStation FW 1.0.0 or later - FaceStaion 2 FW 1.0.0 or later - FaceLite FW 1.0.0 or later - BioEntry W2 FW 1.1.0 or later - BioStation L2 FW 1.2.0 or later - BioStation A2 FW 1.3.0 or later - BioStation 2 FW 1.4.0 or later - BioLite N2 FW 1.0.0 or later - BioEntry P2 FW 1.0.0 or later - BioEntry R2 FW 1.0.0 or later - XPass 2 FW 1.0.0 or later - XPass D2 FW 1.0.0 or later - Xpass FW 2.4.0 or later - Xpass S2 FW 2.4.0 or later - X-Station 2 FW 1.0.0 or later - BioStation 3 FW 1.0.0 or later ▪ If you change the value in the Order field, the position of the custom field on the User page changes. ▪ For a number input field, a number from 0 to 4294962795 is allowed and characters are not allowed.  ▪ For a text input field, up to 32 characters are allowed. ▪ For a combo box field, the items that have been set to the field are displayed as item. If you want to configure a combo box field as shown in the screenshot below, you

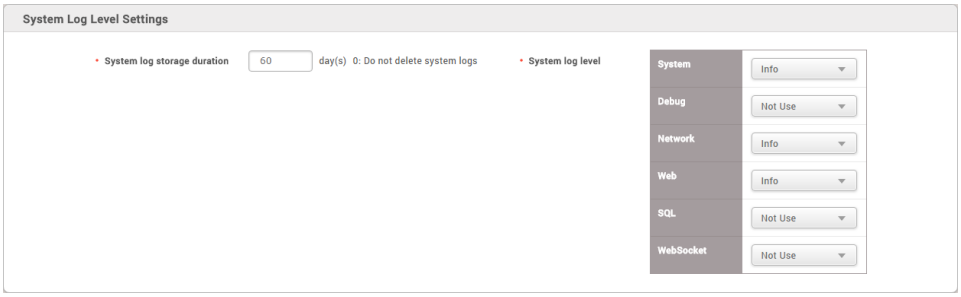
Item	Description
	need to enter *Option 1;Option 2;Option 3;Option 4* in the data field. 

Server Matching



Item	Description
Server Matching	You can configure server matching. If you use server matching, the user's fingerprint will be matched from BioStar 2, not the device. The Server Matching will appear when the Advance or higher license is activated. ▪ Use Server Matching: Activates/Deactivates server matching. ▪ Max. Simultaneous Server Matching Count: You can configure how many matchings can be done simultaneously. ▪ Fast Mode: You can configure the fingerprint matching speed. ▪ Security Level: You can configure the server matching's security level for fingerprints and faces. The higher the security level is set, the more the false rejection rate (FRR) can occur. Note ▪ Max. Simultaneous Server Matching Count depends on the PC's CPU performance.

System Log Level Settings



Item	Description
System Log Level Settings	You can set the duration and log level of the system log to be stored in the database. The system log storage period can be set up to 120 days, and logs is not deleted when setting to 0. System logs are managed according to pre-defined categories, and the log level is divided into Trace, Debug, Info, Warning, and Error. The high level contains all lower level logs. For example, when set to Trace, you can store the logs including Debug, Info, Warning, and Error logs.

2) Click Apply to save the settings.

Note

- Please inquire your network administrator for any help necessary with the web server protocol configuration.

Related Information

Real-time Log

Trigger & Action

You can set the device or BioStar to do a specific operation when a specific event has occurred at the devices, doors and zones.

1) Click Settings > TRIGGER & ACTION.
2) Click ADD TRIGGER & ACTION and configure the settings.

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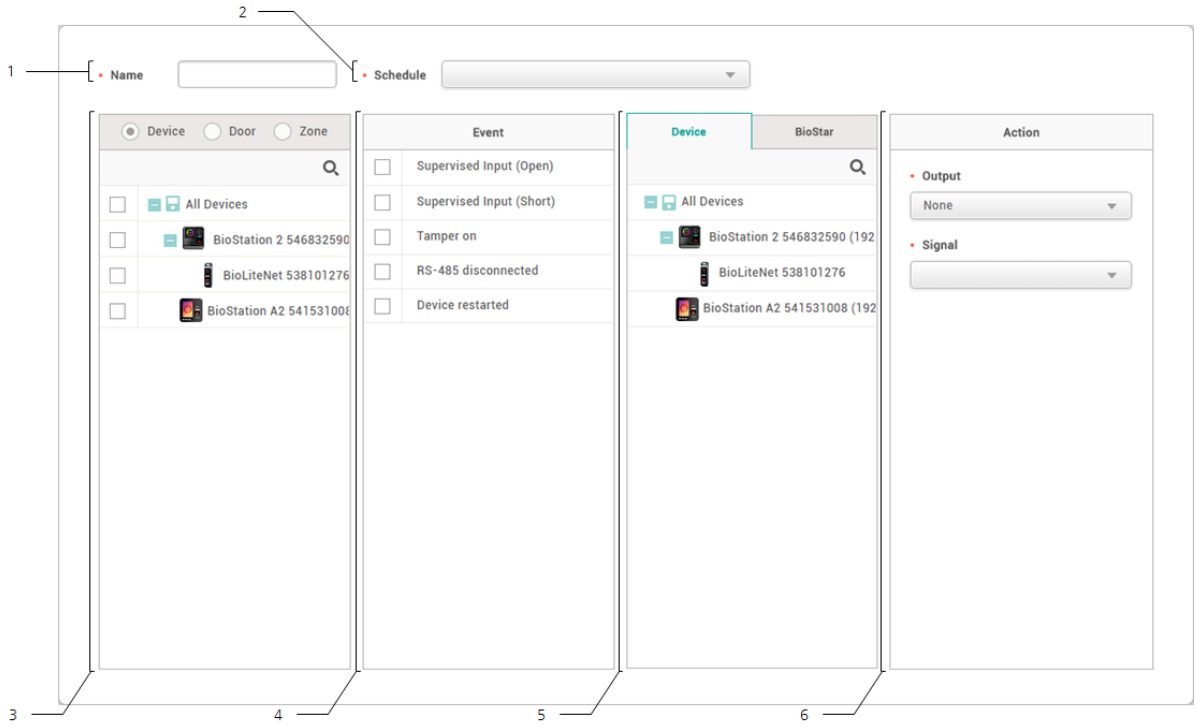


No.	Item	Description
1	Name	Enter a name of the trigger & action.
2	Schedule	Select a schedule. Note ▪ When configuring a user defined condition by selecting Input, if no desired schedule is available, click + Add Schedule to create it. ▪ For more information on configuring schedules, see Schedules.
3	Device, Door, Zone	Select a device/door/zone at which a specific event will be monitored. Multiple devices/doors/zones can be selected. The devices/doors/zones work independently even when they are disconnected from the BioStar server. Note ▪ The Zone will appear when the Advance or higher license is activated.
4	Triggering Event	Set a triggering event. At least one event must be selected. Note ▪ Event lists may be activated differently depending on the options selected in Device, Door, and Zone.
5	Device and BioStar 2	Select a device which performs the action. You can select a device or BioStar 2 to perform an action.

No.	Item	Description
6	Action	Set a signal to send when the selected triggering event occurs. You can also set an email to which the log will be sent from BioStar 2. • Select BioStar and click ⚙ to configure the email server information. • To add an email address, click + Add and enter an email address. Click OK to add the recipient.

3) Click Apply to save the settings.

Note

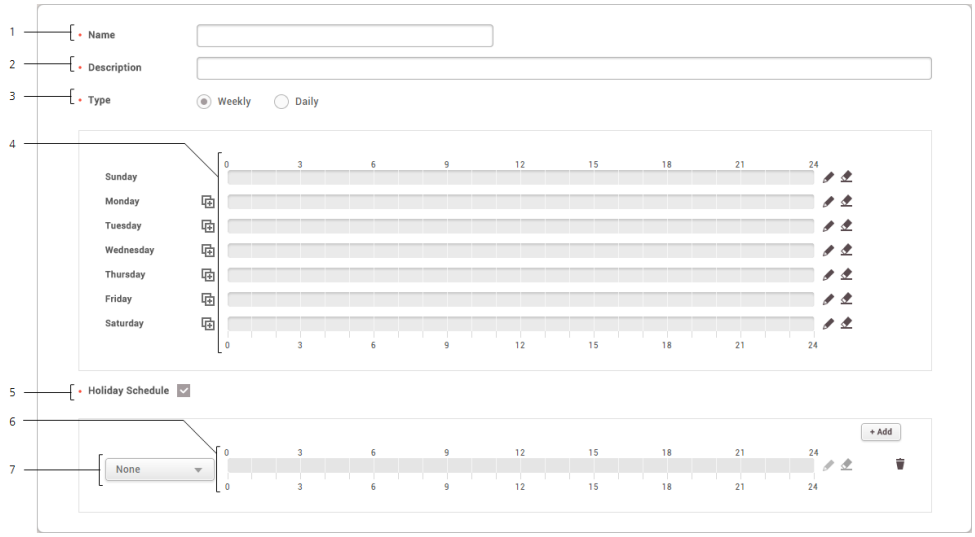
- For more information on email server information, contact your system administrator.

Schedules

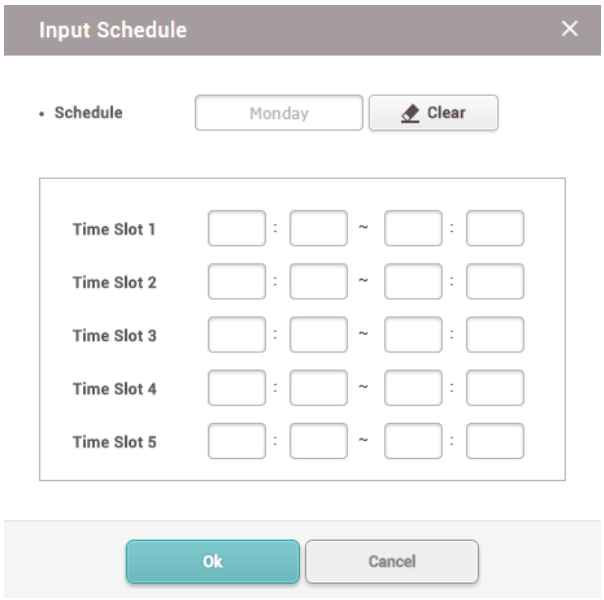
You can add access schedules and holiday schedules.

Adding New Schedule

1) Click Settings > SCHEDULE.
2) Click ADD SCHEDULE.
3) Enter the required information into the fields and set a schedule for each day of the week.



No.	Item	Description
1	Name	Enter a name of the schedule.

No.	Item	Description
2	Description	Enter a short description of the schedule.
3	Type	For schedule type, select Weekly or Daily. When set to Daily, Cycle and Start Date can be selected.
4	Time Slots	Click on time slots to set a desired schedule and click OK.  ▪ Up to 5 time slots can be configured for each day of the week or each day. ▪ After setting a schedule, click to copy the time slots set immediately above. ▪ Click to edit the time slots. Click to delete the set time slots.
5	Holiday Schedule	Specify whether to apply a holiday schedule. When the option is selected, the detailed settings can be applied.
6	Holiday Time Slots	Click on time slots to set a desired schedule for holidays. ▪ Click to edit the time slots. Click to delete the set time slots.
7	Holiday Selection	Select pre-defined holidays. ▪ Click + Add to add a pre-defined holiday. ▪ Click to delete a holiday.

4) Click Apply to add the holiday schedule.

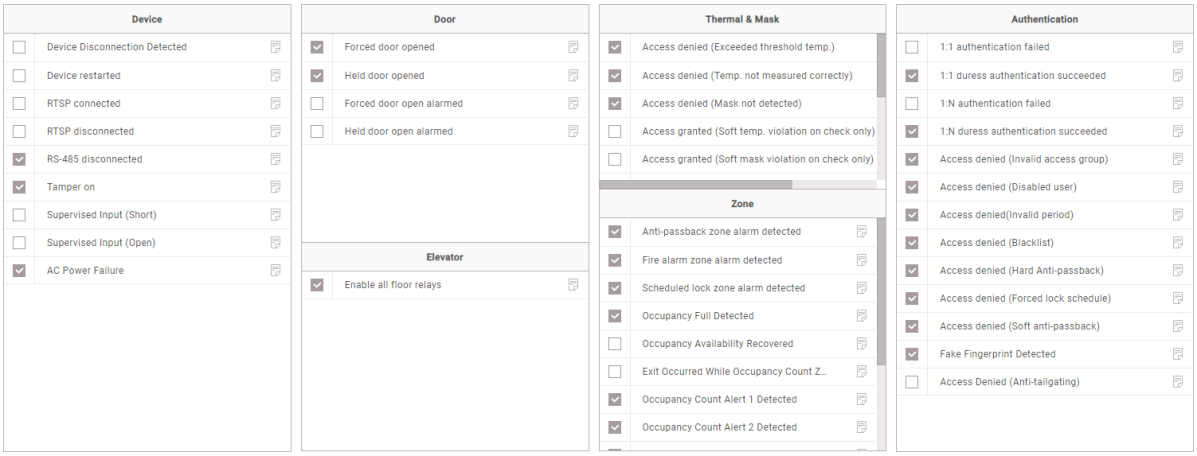
+ Adding Holiday Schedule

16 BioStar 2 Settings

Alert

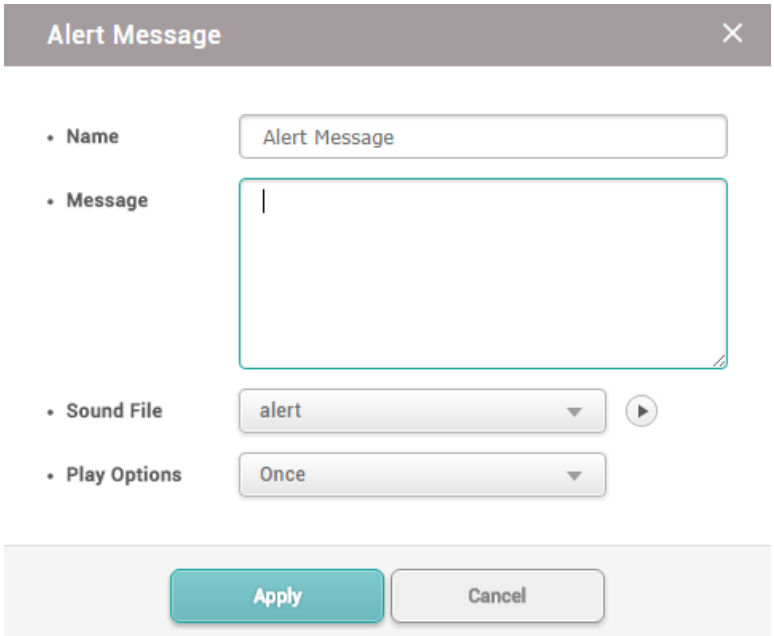
You can set the alarm type and message to display when a specific event has occurred at the devices, doors and zones. You can adjust settings so that BioStar 2 can play the uploaded sound file upon the occurrence of alarms.

1) Click Settings > ALERT.



2) Select event types to display on the screen.

3) Click and enter a message to display on the screen. If you have uploaded the sound file to play upon the occurrence of a corresponding event, select it from the list of Sound File and set the Play Options. If there is no sound file to play, upload it with reference to the Sound of Preference.



4) Click Apply to save the alert messages.

5) Click Apply to save the changes.

Related Information

Preference

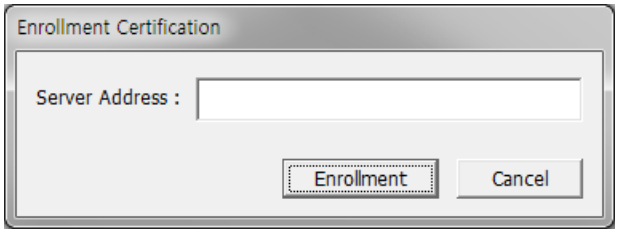
HTTPS

In order to connect BioStar 2 through HTTPS, it is necessary to register the IP address where BioStar 2 is installed and install the certificate. For correct network connection, install the certificate before using BioStar 2.

Note

- BioStar 2.5.0 uses HTTPS as the default communication protocol.

1) Click Settings > HTTPS.
2) Click Cert. Download.
3) Unzip the downloaded file and run cert-register.exe file. Enrollment Certification window will appears.



4) Enter the IP address of the PC where BioStar 2 is installed and click Enrollment.
5) Check the security warning message and click Yes.
6) When you restart the web browser and enter the registered IP address, Secure will appear on the address bar of the web browser.

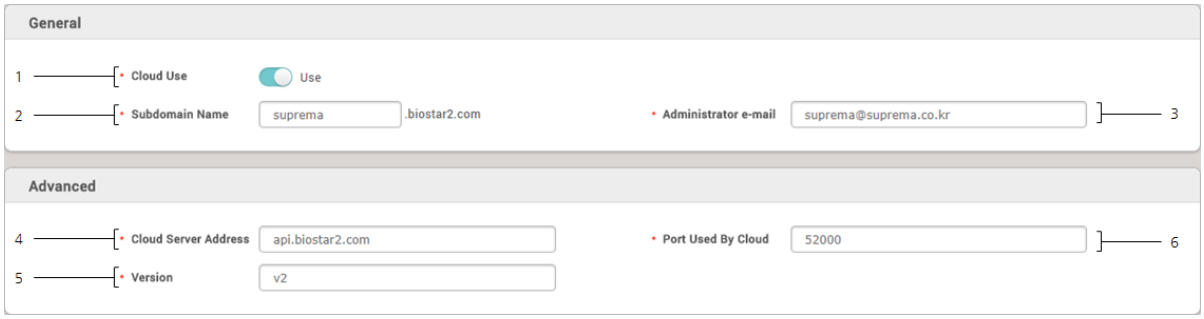
Cloud

You need to configure the cloud settings in order to access your BioStar 2 server remotely (outside of the local network). Additionally, the cloud settings should be done in order to use the BioStar 2 Mobile app.

Note

- The Cloud will available when the Standard or higher license is activated.
- If you use BioStar 2 Cloud, cannot connect to BioStar 2 through Internet Explorer or Edge.
- If you connect BioStar 2 using the Cloud, cannot access to the VIDEO menu.

1) Click Settings > CLOUD.
2) Edit the necessary fields.



No.	Item	Description
1	Cloud Use	To use the cloud set it as Use. If you set it as Not Use, it will be unable to access BioStar 2 using BioStar 2 Mobile. Note ▪ If you set Cloud Use as Use, Password Level should be set as Medium or Strong. For more information, see Server.
2	Subdomain Name	Enter the subdomain for usage. You can use the subdomain to access BioStar 2 using BioStar 2 Mobile. The subdomain is a unique value for identification same as user ID, so use a unique word such as company names.
3	Administrator e-mail	Enter the cloud administrator email.
4	Cloud Server Address	The Cloud server's address. Normally set as default.
5	Version	The Cloud server's version. Normally set as default.
6	Port Used By Cloud	This is the port number the cloud uses. Normally set as default (52000). If the cloud does not operate normally, modify the inbound and outbound rules from the firewall setting on the PC where BioStar 2 is installed. For more information, contact the system administrator. ▪ Ports to be added to the inbound rule: BioStar 2 server port (Default value: 80, user-specification), BioStar 2 cloud port (Default value: 52000, user-specification) ▪ Ports to be added to the outbound rule: 4443, all ports used by ngrok

3) Click Apply to save the changes.

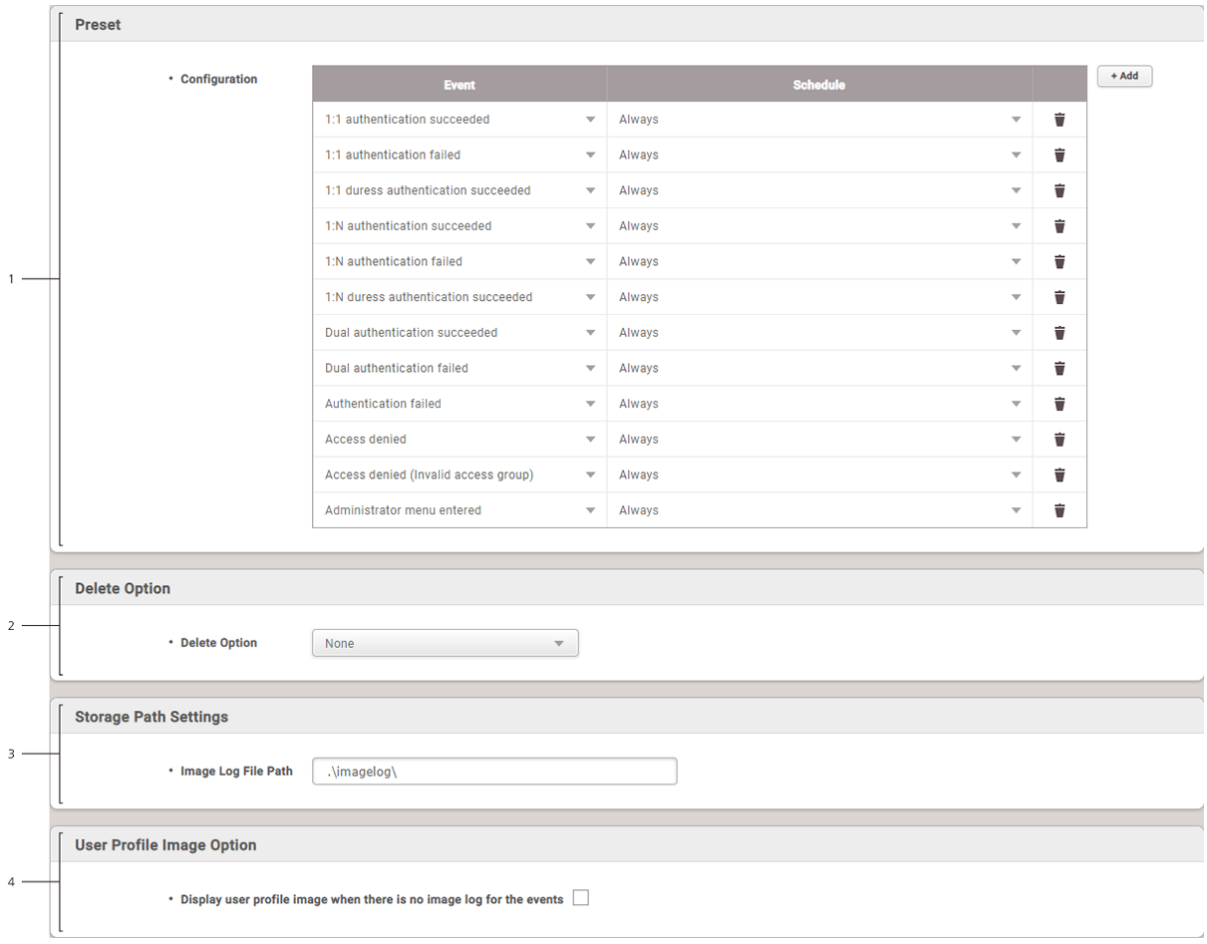
Note

- E-mail transfer may take up to 10 minutes.
- For the cloud, BioStar server must always be turned on. If the server loses more than one week of connection, you must proceed with a re-register process via email.

Image Log

It is possible to set the default value which can be added when using the delete option of image log and an image log from the device.

1) Click Settings > Image Log.
2) Edit the necessary fields.



No.	Item	Description
1	Preset	It is possible to set the default setting to be used when adding an image log to the device. It is possible to add an event and schedule to delete by clicking + Add. Note

No.	Item	Description
		▪ If there is no desired schedule, set a desired condition by clicking + Add Schedule.
2	Delete Option	It is possible to set the delete condition of image log. ▪ Delete Option: It is possible to set the condition to delete an image log. ▪ Amount of Image Log: It is possible to set the unit of condition set at Delete Option. ▪ Delete Cycle: It is possible to set the cycle to carry out the delete condition of image log set from Delete Option and Amount of Image Log.
3	Storage Path Settings	Set the path to save image log files. Note ▪ The save path must be set to a directory that has already been created.
4	User Profile Image Option	If this option is on, the profile image registered for a user is displayed on the Event Log and Real-time Log pages when there are user related events. This option is particularly useful when you have devices that do not have a built-in camera. Note ▪ Even if the user profile image option is on, the image captured from the device camera is displayed when there is an image log for the event.

3) Click Apply to save the changes.

Note

- The default setting set from Setting > Image Log does not apply to the device. To add or change an image log of the device, refer to Image Log.

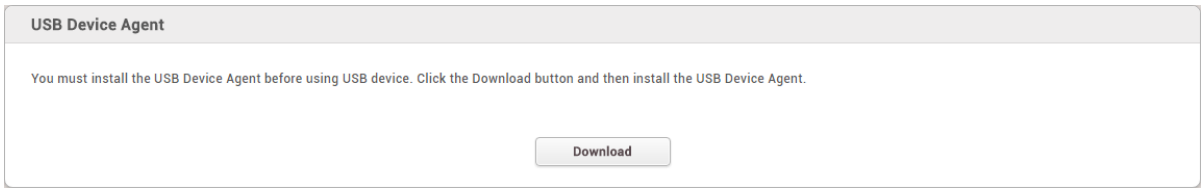
USB Agent

If you want to use the USB Device when logging into BioStar 2 from a client PC, installing the USB Device Agent is required.

Note

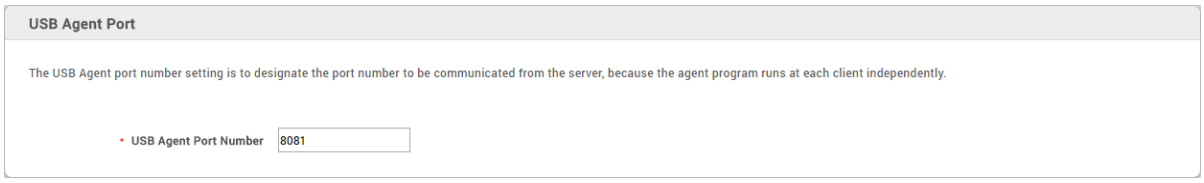
- If User Account Control is enabled in Windows, USB Agent cannot be run automatically. Disable the User Account Control or run as administrator.

1) Click Settings > USB AGENT.
2) Download the file by clicking Download, and install it.



3) Select the byte order of USB card device.

4) Set the port that the USB Agent will use.



5) Click Apply to save the changes.

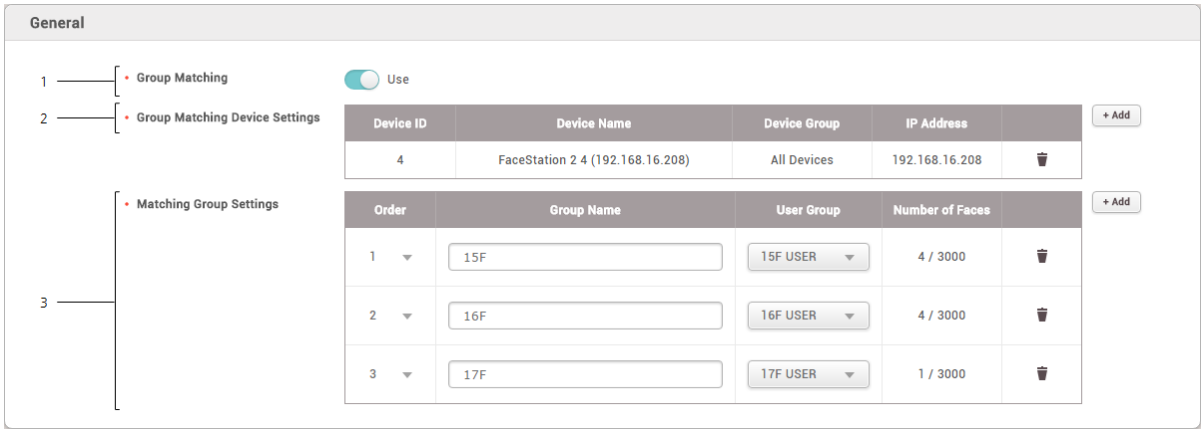
Face Group Matching

Face group matching is the function used to specify a matching group based on the user groups set in BioStar 2 and authenticate users in that manner.

Note

- Up to 10 matching groups can be created.
- Each group can include up to 3,000 face templates.
- The total number of face templates in the matching group cannot exceed 5,000.

1) Click Settings > Face Group Matching.
2) Edit the necessary fields.



No.	Item	Description
1	Group Matching	Set whether or not to use Group Matching. Note ▪ To disable the group matching while it is being used, all devices set previously and the group settings must be deleted.
2	Group Matching Device Settings	Set a device to use the group matching. Only FaceStation 2 can be added.
3	Matching Group Settings	Click + Add and set Group Name and User Group. Note ▪ Up to 10 matching groups can be created. ▪ A number of user groups can be set for one matching group. ▪ If the number of face templates included in the user group exceeds 3,000, it cannot be set as a matching group.

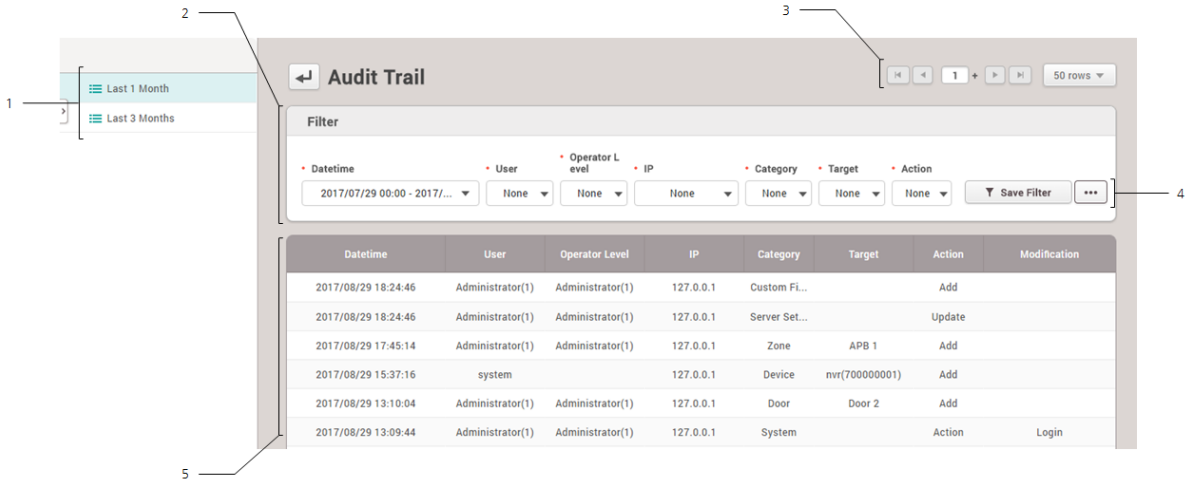
3) Click Apply to save the changes.

Audit Trail

Audit trail tracks user access information as well as all the information changed in the system. You can set a filter for each item for sorting.

1) Click Settings > Audit Trail.

16 BioStar 2 Settings



No.	Item	Description
1	Period	You can set the previous 1 month or 3 months conveniently for the period.
2	Filter	You can set conditions for each filter item. Click Save Filter to save the filter.
3	Page Navigation Buttons and Number of List Rows	You can move a page or set the number of list rows to be displayed on one page. ▪ : Go to the first page. ▪ : Go to the previous page. ▪ 2 / 2 : Enter the page number to move to. ▪ : Go to the next page. ▪ : Go to the last page. ▪ 25 rows : Set the number of list rows to be displayed on one page.
4	Function Buttons (CSV Export, Column Setting)	You can save the list of audit list as a CSV file or changes the column setting.
5	Audit List	Shows the audit list.

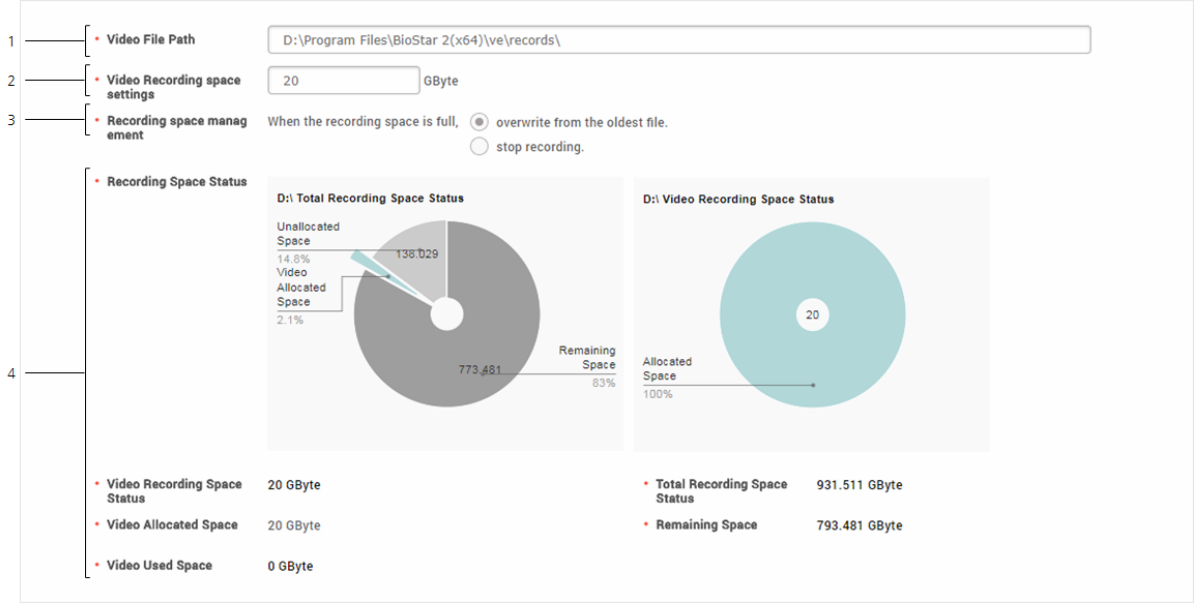
Video

You can set the path to save video files and the storage duration.

Note

- The VIDEO menu will appear when the Video license is activated.
- Use a separate storage media for the video log. Video logs might not be saved if the video storage space is reduced by the external processing(such as copying files and creating files),

1) Click Settings > Video.
2) Edit the necessary items.



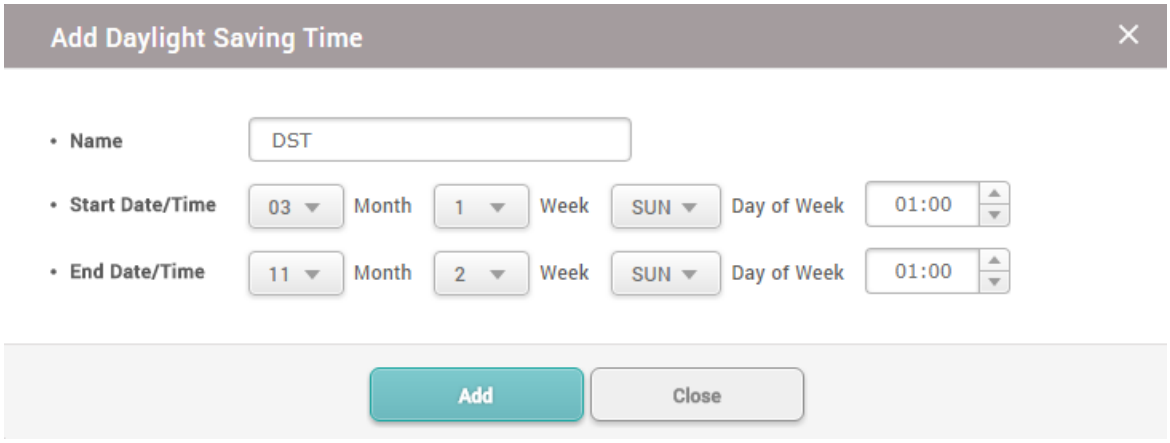
No.	Item	Description
1	Video File Path	You can change the path to save a video file. It is recommended to use a separate storage media for saving files securely.
2	Video Recording space settings	You can set the recording space to store video files.
3	Recording space management	If there is insufficient storage space, you can set the file processing method.
4	Recording Space Status	You can view the video storage space status.

3) Click Apply to save the changes.

Daylight Saving Time

Daylight Saving Time (DST) is a function that adjusts the time to better utilize natural daylight.

1) Click Settings > Daylight Saving Time.
2) Click + Add.
3) Edit the necessary items and click Add.



4) Click Apply to save the settings.

Note

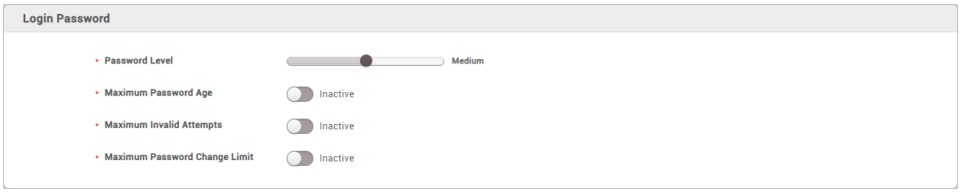
- You cannot edit or delete a daylight saving time that is already in use.

Security

You can set the password level and the maximum password age. You can also set the maximum invalid attempts and the maximum password change limit.

1) Click Settings > SECURITY.
2) Edit the necessary items.

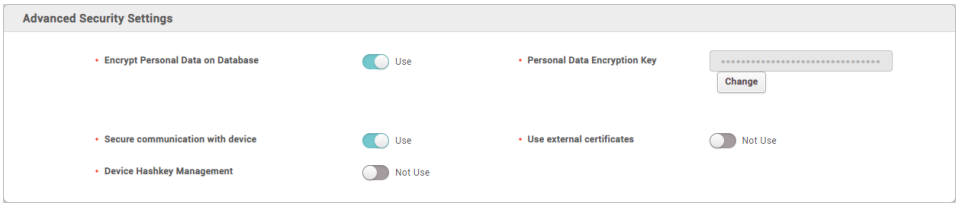
Login Password



Item	Description
Password Level	Set the policy for the password complexity for BioStar 2 login. ▪ Low: You can enter up to 32 characters.

Item	Description
	▪ Medium: You must combine 8 to 32 alphabetic characters (uppercase or lowercase), and numbers. ▪ Strong: You must combine 10 to 32 alphabetic characters (uppercase and lowercase, at least one alphabetic capital), numbers, and symbols. Note ▪ If Cloud Use set to Use, you can only use Medium or Strong.
Maximum Password Age	You can set the period for which you want to use the password. If the Maximum Password Age is exceeded, a password change request message is displayed at login. Note ▪ You can set the Maximum Password Age from 1 day to 180 days.
Maximum Invalid Attempts	You can set the Maximum Invalid Attempts and the time limit. If you enter the wrong password more than the set number of times, you will not be able to log in for the time limit.
Maximum Password Change Limit	You can set the Maximum Password Change Limit. Note ▪ You can set the Maximum Password Change Limit up to 10 times.

Advanced Security Settings



Item	Description
Encrypt Personal Data on Database	When Use is set for Encrypt Personal Data on Database, all sensitive data including credential data and personal information will be stored in the database as encrypted. If this option is set as Not Use, the encrypted data will be decrypted and the user's personal information will be stored in an unencrypted state.

Item	Description
	Note ▪ Items to be encrypted when using Encrypt Personal Data on Database are as follows. - Profile image - User ID - Name - Phone number - User IP - Email information for sender ans recipients - Login ID - Login password - Face template - Fingerprint template - Card ID - Smart card layout key - Custom information for user and visitor - Image log files ▪ Do not force start the server while encrypting personal data on the database. Errors such as failure to log in to BioStar 2 may occur.
Personal Data Encryption Key	You can set the personal data encryption key. Click Change and set a new encryption key. If changing the encryption key, the existing data will be re-encrypted. Note ▪ You can enter the encryption key with 32 characters using letters, numbers, and symbols.
Secure communication with device	The communication between BioStar 2 and a device can be protected using a certificate. When Use is set for Secure communication with device, BioStar 2 creates and sends a certificate to the device. The device can use a secure channel for exchanging data with BioStar 2 using this certificate. In order to use an external certificate, Root certificate, Public key certificate, and Private key files must be uploaded. If Device Hashkey Management set to Use, you can set a new data encryption key and administrator password. Note ▪ The devices and the firmware versions where the secure communication can be set are as follows.

Item	Description
	- FaceStation 2 FW 1.1.0 or later - BioStation A2 FW 1.5.0 or later - BioStation 2 FW 1.6.0 or later - BioStation L2 FW 1.3.0 or later - BioLite N2 FW 1.0.0 or later - BioEntry P2 FW 1.1.0 or later - BioEntry W2 FW 1.2.0 or later - FaceLite FW 1.0.0 or later - XPass 2 FW 1.0.0 or later - CoreStation FW 1.1.0 or later - X-Station 2 FW 1.0.0 or later - BioStation 3 FW 1.0.0 or later ▪ BioStar 2 creates or deletes a certificate according to the setting status of Secure communication with device, and the same certificate as the previous certificate will not be created. For example, if the setting of Secure communication with device is changed in the order of [Use - Not Use], the created certificate will be deleted automatically. When the setting is changed in the order of [Use - Not Use - Use], the operation of [Create A certificate - Delete A certificate - Create B certificate] is carried out. ▪ If the device is disconnected from the network physically while using the secure communication of BioStar 2, do not turn off the secure communication option. In such a case, the certificate of BioStar 2 will be deleted, and the device will not be able to connect again. To connect it again, the certificate saved in the device must be deleted or the device must be reset to factory default. For more details, refer to the manual of the device.

Note

- The Advanced Security Settings tab is activated only when a user signs in as an administrator who is using ID number 1.

Session Security

Item	Description
Simultaneous Connection Allow	You can set whether to allow simultaneous connections using the same account. If you set Simultaneous Connection Allow to Inactive, a previously logged in user will be logged out when attempting to connect to the same account simultaneously.

3) Click Apply to save the settings.

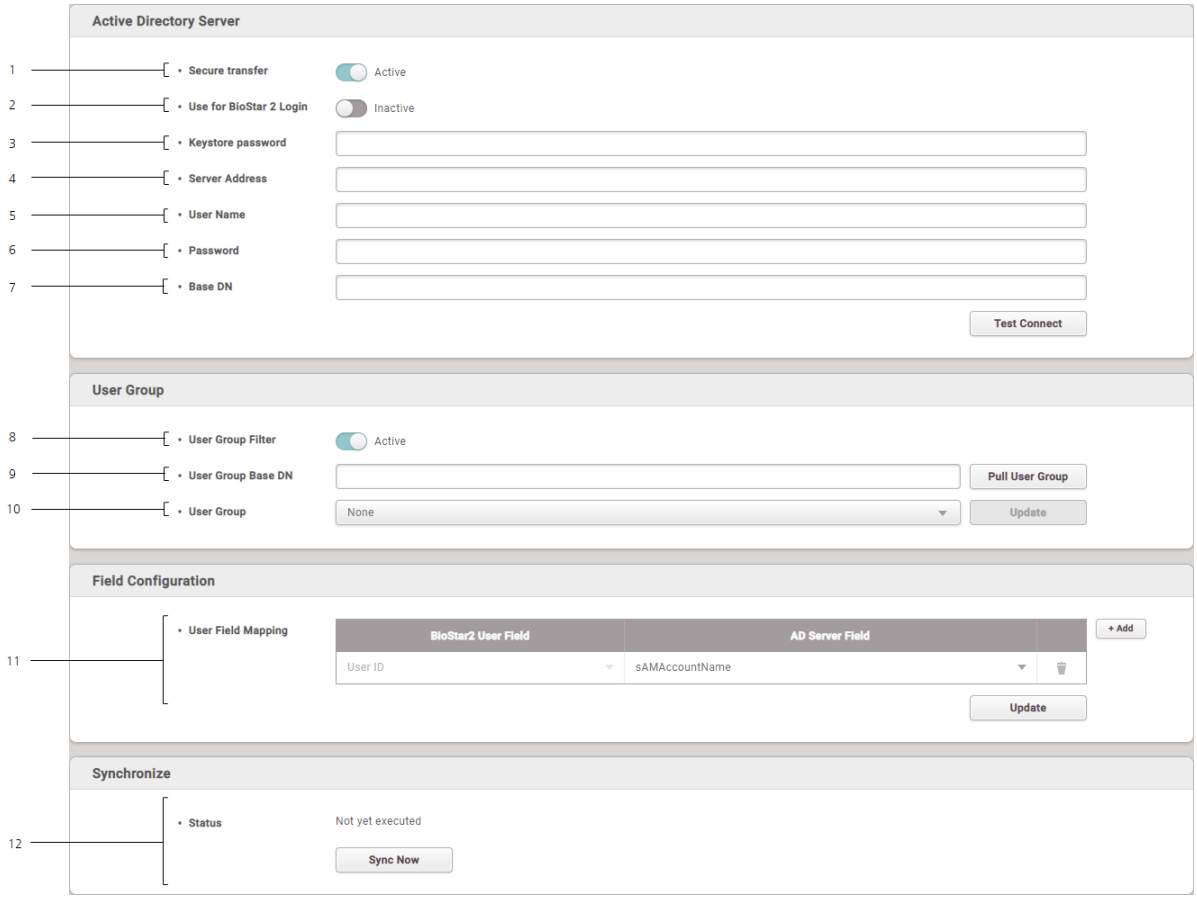
Active Directory

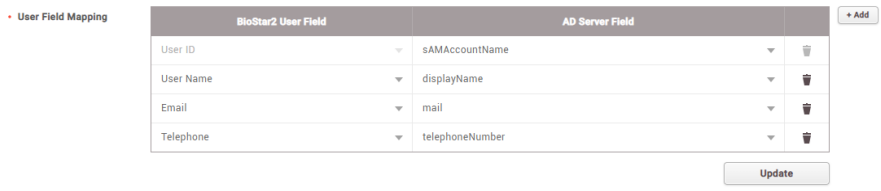
You can synchronize user data stored in Microsoft Windows Active Directory to BioStar 2.

Note

- The Active Directory setting will appear when the AC Advanced license is activated.
- The Active Directory is available for a system environment with Windows Server 2008 R2 or later.
- To use the Active Directory, set the User ID Type to Alphanumeric by referring to User/ Device Management.

1) Click Settings > ACTIVE DIRECTORY.
2) Edit the necessary items.



No.	Item	Description
1	Secure transfer	You can use the encryption when communicating with a Windows Active Directory server. Install Active Directory Certificate Services and set the keystore password by referring to Active Directory Encryption.
2	Use for BioStar 2 Login	Enable logging into BioStar 2 using the Windows Active Directory account.
3	Keystore password	Enter the Windows Active Directory server encryption key store password. This can be only used when activating the Secure transfer.
4	Server Address	Enter the server address for Windows Active Directory.
5	User Name	Enter the user name used by Windows Active Directory.
6	Password	Enter the password used by Windows Active Directory.
7	Base DN	Enter the base domain name for Windows Active Directory. You can find the base domain name in the following way. a) Run the Active Directory Administrative Center. b) Right-click on the node where user data is stored, and then click Property. c) In the property window, click Expand and then click Attribute Editor. d) View the value of distributedName.
8	User Group Filter	You can enable or disable synchronization by user group.
9	User Group Base DN	Enter the base domain name of the user group for Windows Active Directory. This can be only used when activating the User Group Filter.
10	User Group	Select the user group to synchronize. This can be only used when activating the User Group Filter.
11	User Field Mapping	You can map data fields in Windows Active Directory to user fields in BioStar 2. The user fields to be mapped can be set as shown below.  a) Click + Add to add a user field slot. b) Set the BioStar 2 User Field and AD Server Field to map the correct data to the user field in BioStar 2. c) Click Update to apply user field mapping settings.

No.	Item	Description
		Note ▪ The User ID field is a static item and cannot be deleted.
12	Synchronize	Click Sync Now to synchronize the user data. The last synchronization time and date are displayed.

3) Click Apply to save the settings.

Active Directory Encryption

You can use the encryption when communicating with a Windows Active Directory server.
Set according to the following order when using the encryption for the first time.

Step 1. Installing Active Directory Certificate Services

To use Windows Active Directory server encryption communication, you must install the Active Directory Certificate Services.
The Active Directory Certificate Services can be installed as follows:

1) On the PC where the Windows Active Directory server is installed, run Server Manager, and then click Manage > Add Roles and Features.
2) On Before You Begin, click Next.
3) On Select Installation Type, select Role-Based or feature-based installation and then click Next.
4) On Select destination server, select Select a server from the server pool, check the server, and click Next.
5) On Select Server Roles, select Active Directory Certificate Services and click Next.
6) When a pop-up window appears, view the details and click Add Features > Next.
7) View the details of Active Directory Certificate Services and click Next.
8) On Confirm installation selections, click Install. When installation is complete, click Configure Active Directory Certificate Services on the destination server.
9) When AD CS Configuration wizard appears, view the details and click Next.
10) On Role Services, click Certification Authority > Next.
11) On the Setup Type page, select Enterprise CA and click Next.
12) On the Specify the type of the CA page, select Root CA and click Next.
13) On the Specify the type of the private key page, select Create a new private key and click Next.
14) Set the Cryptography for CA, CA Name, and Validity Period, and then click Next.
15) On the CA Database page, set the folder location for the certificate database and the

certificate database log and then click Next.

16) On Confirmation page, view the details of Active Directory Certificate Services and click Configure.

Step 2. Connecting IDAPS

1) Click Start > Run.
2) Enter ldp in the input field.
3) When the Ldp-disconnected window appears, click Connect.
4) Fill in Server and Port fields and select SSL. And then click OK.

Step 3. Copying the root certificate

1) Run Command Prompt on the PC where the Windows Active Directory server is installed.
2) Enter certutil -ca.cert client.crt command to copy the root certificate.
3) Enter keytool -import -keystore ad.jks -file client.crt command to convert the server certificate to .jks format.
4) Save the .jks-formatted server certificate to the BioStar 2 installation path.

Visitor

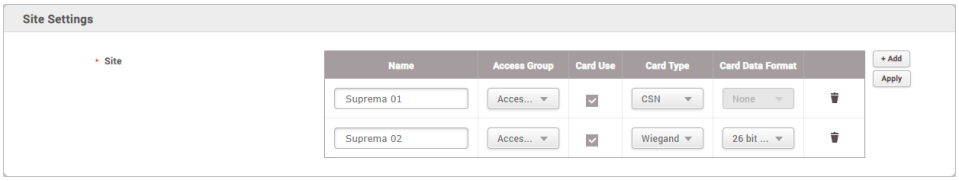
You can configure visiting sites and PCs. You can also set the terms and conditions for visitors.
And You can create the information fields that you want to know from the visitors by using the Custom Visitor Field.

Note

- The VISITOR setting will appear when the Visitor license is activated.
- Activate the Automatic User Synchronization or Use Server Matching option to use the VISITOR.

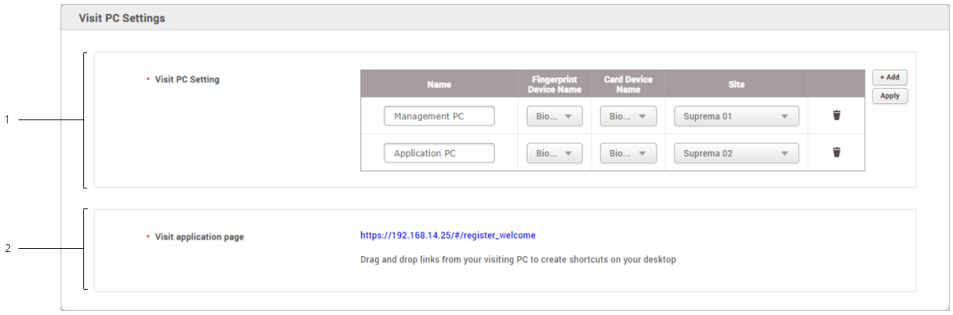
1) Click Settings > VISITOR.
2) Set the necessary items.

Site Settings



Item	Description
Site	You can set the access group to use in the visiting PC and managing PC of each site. You can also set whether or not to use cards. If you are using a card, you can also set Card Type and Card Data Format. ▪ Name: You can set the name of site. ▪ Access Group: You can select the access group to assign to the visitor. ▪ Card Use: You can set whether or not to use a card. ▪ Card Type: You can select the type of card to use in the site. The card type is activated only when you select Card Use. ▪ Card Data Format: You can configure the format for reading card data. The Card Data Format is activated only when you set the Card Type to Wiegand. Note ▪ Up to 48 characters may be entered for a site name. Click Apply to save the setting of the site.

Visit PC Settings



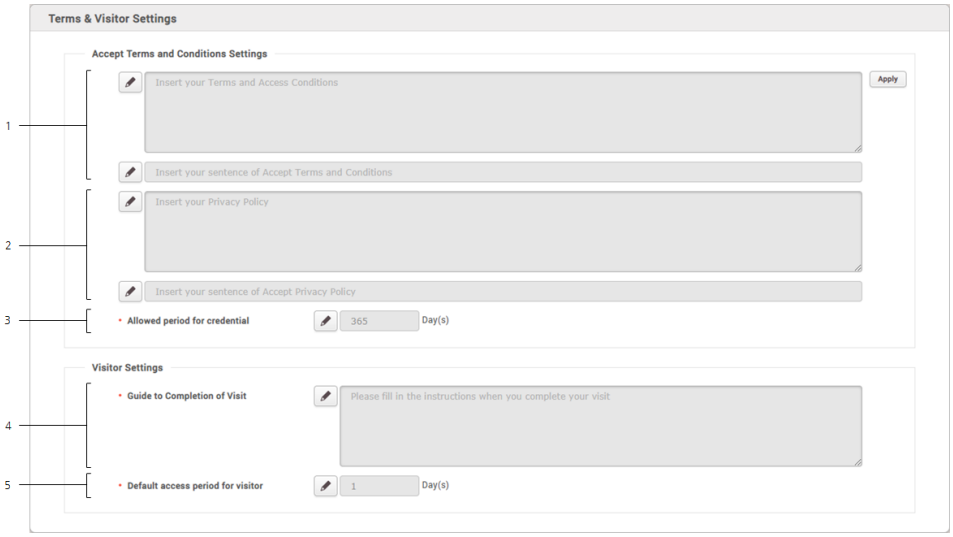
No.	Item	Description
1	Visit PC Setting	You can set the visiting PC and managing PC. ▪ Name: You can set the name of the visiting PC and managing PC. ▪ Fingerprint Device Name: Select a device to enroll visitors' fingerprints when visitors access the site using the fingerprint authentication. ▪ Card Device Name: Select a device to issue the card to visitors when visitors access the site using the card authentication.

No.	Item	Description
		▪ Site: Select a site to manage the visit on the visiting PC. Note ▪ Up to 48 characters may be entered for a name of the visiting PC. ▪ You can use the fingerprint and card device at the same time. You can select only one for each. ▪ You can only select one site per PC. Click Apply to save the setting of the Visit PC Setting.
2	Visit application page	You can create a shortcut icon of Visit application page on the desktop of the visiting PC. Drag and drop the link to the desktop of the visiting PC.

Visit PC Select

Item	Description
Visit PC Select	You can select the PC set in Visit PC Setting and assign it to the current PC. Click Apply to save the setting.

Terms & Visitor Settings



No.	Item	Description
1	Terms and Conditions	You can set the terms and conditions for visitors. Click to activate the input field and enter the contents of terms and conditions. Note ▪ Up to 65,535 characters may be entered for the sentence of terms and conditions. ▪ Up to 64 characters may be entered for the sentence of accept terms and conditions.
2	Privacy Policy	You can set the privacy policy for visitors. Click to activate the input field and enter the privacy policy. Note ▪ Up to 65,535 characters may be entered for the sentence of privacy policy. ▪ Up to 64 characters may be entered for the sentence of accept privacy policy.
3	Allowed period for credential	You can set the period for keeping personal data that visitors provide when they visit. Click to activate the input field and enter the number of days to keep personal data. Note ▪ You can delete the visitors that have the personal data expired in VISITOR menu.
4	Guide to Completion of Visit	You can set the guide to appear on the screen as a pop-up when a visitor completes an application for a visit. Click to activate the input field and enter the guide for visitors. Note ▪ Up to 65,535 characters may be entered for the sentence of guide. ▪ If you do not enter the sentence of a guide, nothing will be displayed on the screen when visitors complete their visit application.

No.	Item	Description
5	Default access period for visitor	You can set the access period for visitors. Click to activate the input field and enter the default access period for visitors.

Custom Visitor Field

Item	Description
Custom Visitor Field Settings	You can add custom visitor fields for extra visitor information and these fields appear on the visit application page. ▪ Order: You can set the order of the Custom Visitor Field. ▪ Name: You can set the name of the Custom Visitor Field. ▪ Type: You can choose the Text Input Box, Number Input Box or Combo Box. ▪ Data: Enter the options to appear in the combo boxes. Each item is separated by a semicolon (;). Data is only activated when Type is set to Combo Box. Note ▪ For a Text Input Box, characters and numbers are allowed. • Purpose of visit ▪ For a Number Input Box, numbers are allowed and characters are not allowed. • Number of visitors ▪ For a Combo Box, the items that have been set to the field are displayed as item. If you want to configure a combo box field as shown in the screenshot below, you need to enter Option 1;Option 2;Option 3;Option 4 in the data field. • Option None None Option1 Option2 Option3 Option4

Item	Description
	Click Apply to save the setting of the Custom Visitor Field.

Mobile Access

By linking BioStar 2 and Airfob Portal, you can issue the mobile access cards to users in BioStar 2. Users can be issued mobile access cards through a link received by email or SMS without signing up for Airfob Portal or registering mobile access cards separately.

Note

- The devices and the firmware versions that can use the mobile access are as follows.
  - XPass 2 FW 1.1.0 or later
  - XPass D2(Rev 2) FW 1.4.0 or later
  - BioLite N2 FW 1.3.0 or later
  - BioEntry W2(Rev 2) FW 1.6.0 or later
  - FaceStation 2 FW 1.4.0 or later
  - FaceStation F2 FW 1.0.0 or later
  - BioStation 2 FW 1.9.0 or later (Only models with NFC features are compatible.)
  - BioStation A2 FW 1.8.0 or later (Only models with NFC features are compatible.)
  - FaceLite FW 1.2.0 or later
  - X-Station 2 FW 1.0.0 or later
  - BioStation 3 FW 1.0.0 or later

You can set up Suprema Mobile Access as shown below.

Step 1. Join Airfob Portal and open site

In Airfob Portal, you can set up mobile access cards and registration devices, and manage sites and credits.

Related information

Airfob Portal

Step 2. Configure the Mobile Access in BioStar 2

You can set whether to use the mobile access and manage settings related to Airfob Portal.
You can also register devices to use mobile access cards.

Related information

Configuring Mobile Access

Step 3. Registering Devices

You can register devices to use mobile access directly from the Airfob Pass application or BioStar 2.

Related information

Configuring Mobile Access

Step 4. Issuing Mobile Access Card

You can issue mobile access cards to users registered with BioStar 2.
To issue a mobile access card to a user, you must enter user information based on the messaging option.

Related information

Adding User Information

Enroll Mobile Access Card

Airfob Portal

In Airfob Portal, you can set up mobile access cards and registration devices, and manage sites and credits.

1) Access the Airfob Portal(https://mc.suprema.io).
2) Click Get Started to sign up and create a site.
3) Enter the Airfob Portal administrator's email address in the Email input field and click Get Started. The authentication code will be sent to the email address you entered.
4) Enter the authentication code you received in the authentication code field and click Confirm.

Note

- The authentication code is a 6 digit number.

5) Check the Privacy and Terms and click Agree.
6) Set the password and nickname to use in the Airfob Portal and click Create Account. Creating the

account will be completed.

7) Click Sign In.
8) Enter the email and password, then click Sign In.
9) Click Create Site to open the site.

Note

- Site means an organization or company that uses the mobile access.

10) Set the name and country of the site, and then click Next.
11) Select the site type.

Note

- You can select types either Dynamic or Regular depending on the type of sites or situations.
  - Dynamic: This type allows you to reissue, revoke, or stop mobile access cards or specify the expiration date of it. It deducts credits according to the period of use or devices. Dynamic can be used in gyms, libraries, or shared facilities where it provides membership services.
  - Regular: This type can be used permanently until an administrator deletes the access authority. It deducts credits according to the number of issuances. Regular can be used in companies as employee ID cards or access cards.
- BioStar 2 only supports regular card sites. Dynamic cards will be supported in the future.

12) Click Create. Creating the site will be completed.
13) Click the site name to access the Airfob Portal of the site.

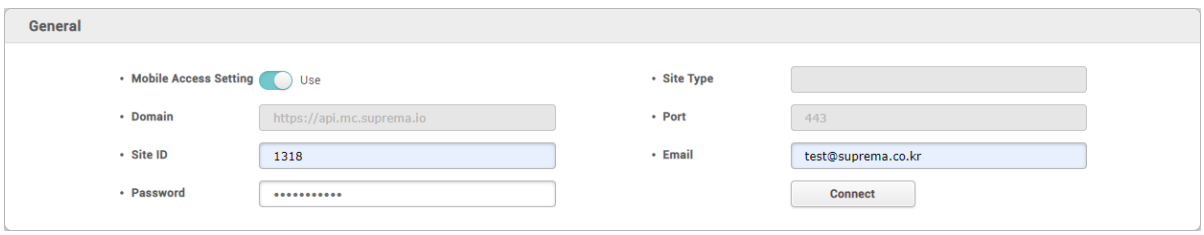
Note

- For more information on using the Airfob Portal, see the Airfob Portal(https://mc.suprema.io).

Configuring Mobile Access

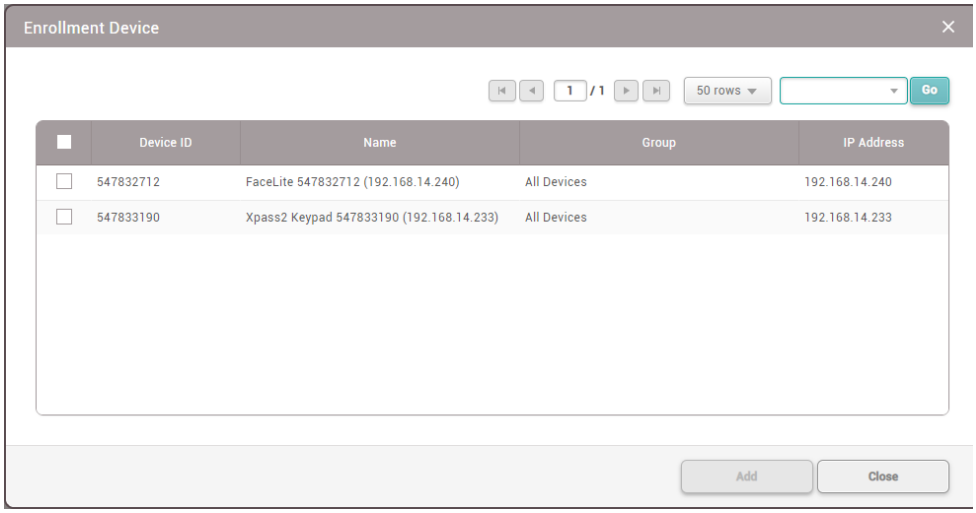
You can set whether to use the mobile access and manage settings related to Airfob Portal.
You can also register devices to use mobile access cards.

1) Click Settings > MOBILE ACCESS.
2) Edit the necessary items.

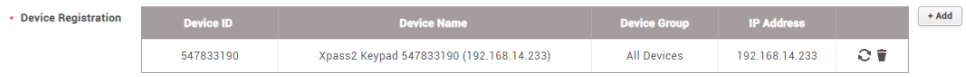


Item	Description
General	▪ Mobile Access Setting: You can set whether to use the mobile access. If you set the Mobile Access Setting to Use, you can issue mobile access cards to users. Note ▪ To use Mobile Access with BioStar 2, complete the Airfob Portal sign-up and initial setup first. ▪ Site Type: You can see the site type. Note ▪ You can select types either Dynamic or Regular depending on the type of sites or situations. - Dynamic: This type allows you to reissue, revoke, or stop mobile access cards or specify the expiration date of it. It deducts credits according to the period of use or devices. Dynamic can be used in gyms, libraries, or shared facilities where it provides membership services. - Regular: This type can be used permanently until an administrator deletes the access authority. It deducts credits according to the number of issuances. Regular can be used in companies as employee ID cards or access cards. ▪ Domain: You can see the domain address of the Airfob Portal. ▪ Port: You can see the port number of the Airfob Portal. ▪ Site ID: Enter the site ID that you created in the Airfob Portal. You can find the site ID in Settings > Site menu of the Airfob Portal. ▪ Email: Enter the email address of the mobile access administrator. ▪ Password: Enter the password of the mobile access administrator. ▪ Device Registration: You can register devices to use the mobile access. Device Registration appears when you complete entering the Domain, Port, Site ID, Email, and Password, and then click Connect to successfully connect to the Airfob Portal. Click + Add to add devices to use the mobile access. The list of devices registered in BioStar 2 is displayed.

Item	Description



Select the device and click Add.



The devices that have been added to the list of devices are displayed. Click to resend the mobile access certificate. Click to delete the registered device.

Note

- The devices and the firmware versions that can use the mobile access are as follows.
  - XPass 2 FW 1.1.0 or later
  - XPass D2(Rev 2) FW 1.4.0 or later
  - BioLite N2 FW 1.3.0 or later
  - BioEntry W2(Rev 2) FW 1.6.0 or later
  - FaceStation 2 FW 1.4.0 or later
  - FaceStation F2 FW 1.0.0 or later
  - BioStation 2 FW 1.9.0 or later (Only models with NFC features are compatible.)
  - BioStation A2 FW 1.8.0 or later (Only models with NFC features are compatible.)
  - FaceLite FW 1.2.0 or later
  - X-Station 2 FW 1.0.0 or later
  - BioStation 3 FW 1.0.0 or later
- You can also register devices using the Airfob Pass application.
- If you delete the registered device, the mobile access certificate sent to the device will be deleted.

16 BioStar 2 Settings

Email Setting

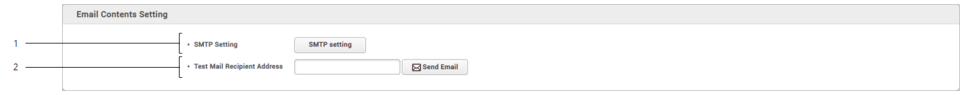
You can set contents such as title, company name, company logo, and contact of email that will send users a visual face mobile enrollment link or issue a QR/barcode.

Note

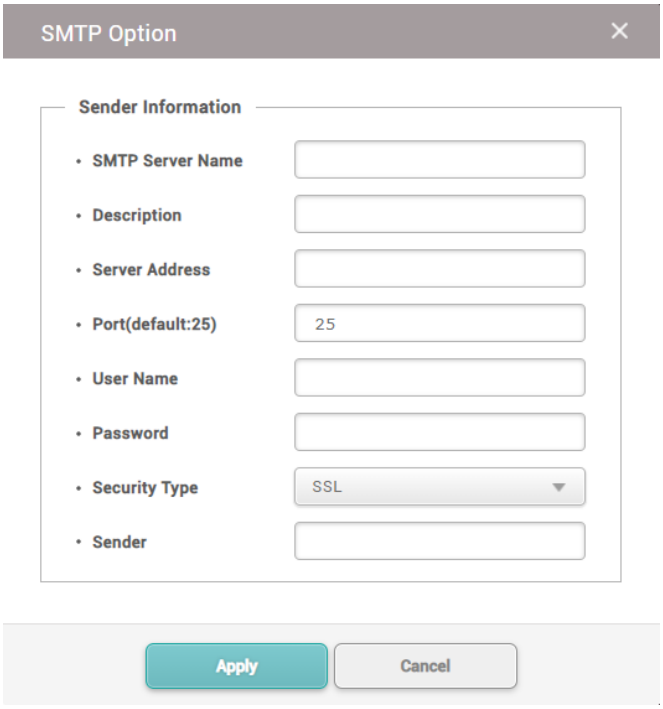
- Before setting an email contents, activate the Cloud. The Cloud will be available when the Standard or higher license is activated.
- Enter user's email address in the user information to use visual face mobile enrollment or Secure QR.
- The devices that can use Visual Face are as follows.
  - FaceStation F2, BioStation 3
- The devices that can use Use QR/Barcode through Scanner are as follows.
  - X-Station 2 (XS2-QDPB, XS2-QAPB)
- The devices that can use Use QR/Barcode through Camera are as follows.
  - X-Station 2 (XS2-ODPB, XS2-OAPB, XS2-DPB, XS2-APB) firmware 1.2.0 or higher
  - Using Use QR/Barcode through Camera requires a separate device license. For more information, refer to Device License.

1) Click Settings > EMAIL SETTING.
2) Edit the necessary items.

Email Contents Setting

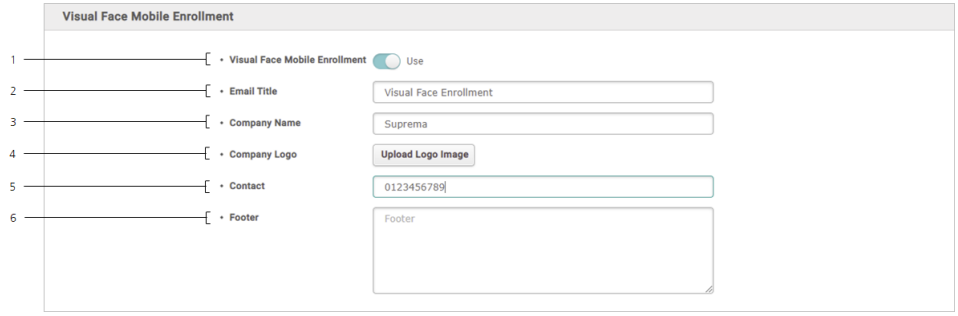


No.	Item	Description
1	SMTP Setting	Set the SMTP(Simple Mail Transfer Protocol) for sending emails.

No.	Item	Description
		 ▪ SMTP Server Name: Enter the SMTP server name. ▪ Description: Enter the description. ▪ Server Address: Enter the SMTP server address. SMTP server address is the same form as 'smtp. Email Service Provider.com', and you can check it on the settings screen of email to use as an SMTP . ▪ Port(default:25): Enter the port number of the SMTP server. you can check it on the settings screen of email to use as an SMTP. ▪ User Name: Enter the account of the SMTP service. ▪ Password: Enter the password of the SMTP service. ▪ Security Type: Select security type. ▪ Sender: Enter the email address of the sender. Note ▪ For more information on SMTP information, contact your system administrator. ▪ When using the SMTP server as an email account with two-factor authentication and change the password of the account, note the following: Once you set up two-factor authentication, the SMTP password is the same as the app password generated using two-factor authentication, not the password of the email account. At this time, if the password of the

No.	Item	Description
		email account is changed, the app password is automatically deleted, and the SMTP password is no longer available. When changing the password for the email account, regenerate the app password and then set the SMTP password again.
2	Test Mail Recipient Address	Enter an email address to receive the test email and click Send Email.

Visual Face Mobile Enrollment



No.	Item	Description
1	Visual Face Mobile Enrollment	To use the visual face mobile enrollment set it as Use. If you set it as Not Use, it will be unable to send the visual face mobile enrollment link to users.
2	Email Title	Enter the title of the email.
3	Company Name	Enter the company name.
4	Company Logo	Upload the company logo image. Note ▪ Supported image file formats are GIF, JPG, JPEG, JPE, JFIF, PNG. ▪ Supported image file size is up to 5MB.
5	Contact	Enter the contact information of the person in charge.
6	Footer	Enter the content to notify the user who is enrolling the visual face, such as a legal notice. It appears at the bottom of the email.

No.	Item	Description
		Note ▪ Footer can be up to 5,000 characters in length.

QR

No.	Item	Description
1	QR	To use the QR/Barcode set it as Use. If you set it as Not Use, it will be unable to issue the QR/Barcode to users via email.
2	Email Title	Enter the title of the email.
3	Company Name	Enter the company name.
4	Company Logo	Upload the company logo image. Note ▪ Supported image file formats are GIF, JPG, JPEG, JPE, JFIF, PNG. ▪ Supported image file size is up to 5MB.
5	Contact	Enter the contact information of the person in charge.

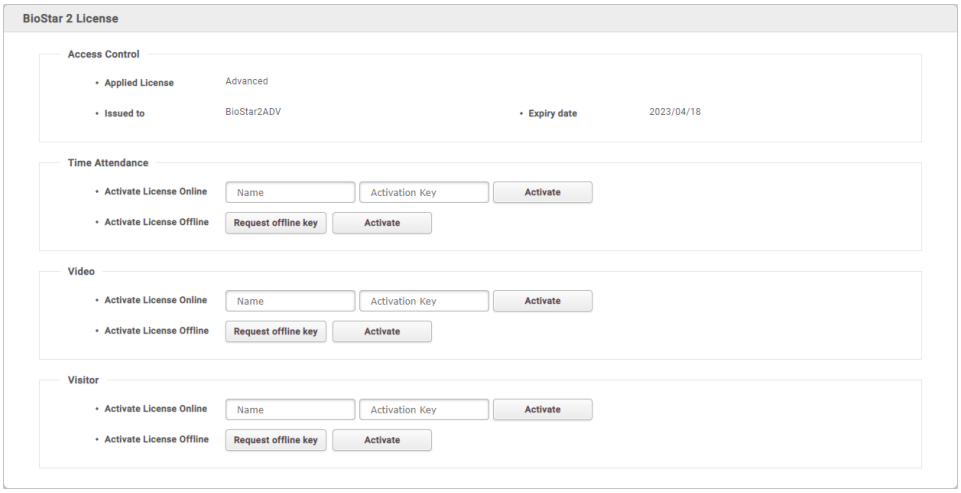
3) Click Apply to save the settings.

License

Activate BioStar 2 License and Device License.

BioStar 2 License

1) Click Setting > LICENSE.



Item	Description
BioStar 2 License	You can activate the purchased BioStar 2 license. To activate the BioStar 2 license online, click Activate after entering your name and the activation key that you've received from Suprema. To activate the BioStar 2 license offline, click Request offline key, then the Activate License Offline dialog will appear. Follow the instructions on the dialog.

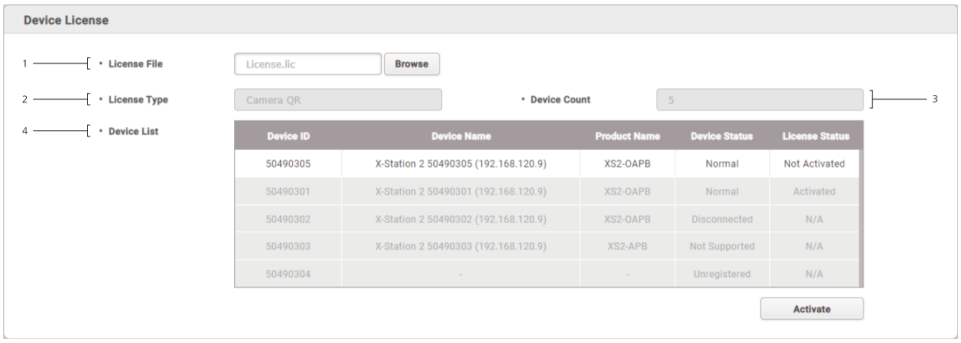
Device License

Activating a device license issued by Suprema allows using specific features corresponding to the license.
Contact the place of purchase to issue a device license.
Device license can be activated on the device using BioStar 2 and USB memory.

Note

- One feature is available per device license.
- You can include multiple device licenses in one device license file. (Supports up to 100)
- The device license file is an encrypted file and cannot be modified arbitrarily.
- Device licenses are issued based on device ID. If the device ID is changed in an unusual way, the warranty service for the license is not provided.

1) Click Setting > LICENSE.



No.	Item	Description
1	License File	Click Browse to load the device license file from the path where the device license is saved, and License Type, Device Count, and Device List are displayed.
2	License Type	Check the type of license included in the device license file. ▪ Camera QR Note ▪ Devices that can use Camera QR are as follows. - X-Station 2 (XS2-ODPB, XS2-OAPB, XS2-DPB, XS2-APB) firmware 1.2.0 or higher
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17 Troubleshooting

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- Details of the error message
- BioStar 2 system log
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18 Appendix

Version 2, June 1991

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libfcgi

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Written by: Philip Hazel
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University of Cambridge Computing Service,
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18 Appendix

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18 Appendix

Redux Toolkit

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Axios

https://xn--xy1bk56a.run/axios/guide/api.html

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Classnames

https://www.npmjs.com/package/classnames

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https://day.js.org/

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i18next-http-backend

https://www.npmjs.com/package/i18next-http-backend

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Immer

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prop-types

https://www.npmjs.com/package/prop-types

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React Hook Form

https://react-hook-form.com/

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REACT ROUTER-dom

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react-i18next

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react-number-format

https://www.npmjs.com/package/react-number-format

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redux-persist

https://github.com/rt2zz/redux-persist

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async.min.js

https://github.com/caolan/async
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ngDraggable.js

https://github.com/fatlinesofcode/ngDraggable

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springBoot

https://spring.io/projects/spring-boot

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mssqlJdbc

https://github.com/microsoft/mssql-jdbc

18 Appendix

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hibernate

https://hibernate.org

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More detailed explanation

The original version of the LGPL was written in 1991 with embedded C programming in mind, before Java existed. This has sometimes led to questions about how to interpret LGPL in a Java context. The “L” in LGPL originally stood for “library”; LGPL was designed to enable libraries to be used by proprietary applications in situations that might be impermissible under the ordinary GPL. For this reason, the LGPL is classified as a “weak copyleft” license, in contrast to the GPL which is considered a “strong copyleft”. The “L” in LGPL was later reinterpreted to mean “lesser”, to communicate the fact that it has more limited scope than the GPL and is not meant exclusively for libraries.

18 Appendix

By the 2000s, the LGPL had become one of the most widely used and best known open source licenses. At this time, some Java developers naturally began to adopt the LGPL for their projects as a more permissive and flexible alternative to the GPL. For projects like Hibernate, the LGPL had a simple interpretation in the Java setting, which can be summarized as follows:

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This has been the consistent interpretation of the LGPL by the maintainers of Hibernate ever since the project adopted LGPL.

Use in GraalVM native images
Recently there has been interest in native compilation for Java using tools like GraalVM, such as commonly used in frameworks like Quarkus. The view of the Hibernate maintainers is that native compilation is a technical detail that does not fundamentally change how LGPL works for Java code. In a native image that includes LGPL-licensed code from Hibernate, the Hibernate code remains under the terms of the LGPL, but the other code in the generated binary is not affected by the licensing of the Hibernate code.

ASL 2.0
Some Hibernate projects are released under ASL 2.0.

This is mostly due to our work with the Java Community Process: implementing a reference implementation in practice requires such a liberal license (or a fully proprietary one strangely enough).

lombok

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annotationApi

https://github.com/javaee/javax.annotation

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```
 */


-----------------------------------------------
For lib/py/compat/win32/stdint.h

// ISO C9x  compliant stdint.h for Microsoft Visual Studio
// Based on ISO/IEC 9899:TC2 Committee draft (May 6, 2005) WG14/N1124
//
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Codegen template in t_html_generator.h

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*
```

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This Agreement will be governed by and construed in accordance with the laws of the Republic of Korea, without regard to or application of conflict of laws rules or principles. The United Nations Convention on Contracts for the International Sale of Goods will not apply.

14. Arbitration.

In the event of any dispute controversy or claim arising out of, or in connection with, or relating to this Agreement, or the breach, termination or invalidity of this Agreement, all attempts shall be made to solve it through mutual consultation in a spirit of confidence and integrity. If all attempts so made through mutual consultations have proved to be of no help within a reasonable time, arbitration rather than legal proceedings shall solve it. The matter shall be finally settled by arbitration in Seoul, Korea in accordance with the Domestic(International) Arbitration Rules of the Korean Commercial Arbitration

Board and under the Law of Korea.

15. General.

You may not assign or transfer this Agreement or any rights granted hereunder, by operation of law or otherwise, without Company's prior written consent, and any attempt by you to do so, without such consent, will be void. Except as expressly set forth in this Agreement, the exercise by either party of any of its remedies under this Agreement will be without prejudice to its other remedies under this Agreement or otherwise. All notices or approvals required or permitted under this Agreement will be in writing and delivered by electronic mail, confirmed facsimile transmission, by overnight delivery service, or by certified mail, and in each instance will be deemed given upon receipt. All notices or approvals will be sent to the addresses set forth in the applicable ordering document or invoice or to such other address as may be specified by either party to the other in accordance with this section. The failure by either party to enforce any provision of this Agreement will not constitute a waiver of future enforcement of that or any other provision. Any waiver, modification or amendment of any provision of this Agreement will be effective only if in writing and signed by authorized representatives of both parties. If any provision of this Agreement is held to be unenforceable or invalid, that provision will be enforced to the maximum extent possible, and the other provisions will remain in full force and effect. This Agreement is the complete and exclusive understanding and agreement between the parties regarding its subject matter, and supersedes all proposals, understandings or communications between the parties, oral or written, regarding its subject matter, unless you and Company have executed a separate agreement. Any terms or conditions contained in your purchase order or other ordering document that are inconsistent with or in addition to the terms and conditions of this Agreement are hereby rejected by Company and will be deemed null.

16. Contact Information.

If you have any questions regarding this Agreement, please visit https://www.supremainc.com/en/support.

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