suprema

# BioStar 2.8.8

# ADMINISTRATOR GUIDE

Version 1.8.8
English

EN 102.00.BS2 V1.8.8A

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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 |
| | Inactive User Report | 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. Door per Access Level | 128 |
| | Auto Access Group Sync to Device | Supported |
| | Access Group Report by Door/User/Elevator | Supported |
| Elevator (Floor Management) | Max. Floor per Elevator | 192 |
| | Max. Floor Level | 2,048 |
| | Dual Auth | Supported |

| Items | | Details |
|---|---|---|
| | 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) |
| 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.

### License for Access Control

# 1 BioStar 2 Overview

| 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 2.8.8

**New and improved features**

| Category | Functionality |
|---|---|
| Time & Attendance | ▪ Fixed bugs of some features in the TIME ATTENDANCE 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: 1.9.0 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 2.8.7

# 1 BioStar 2 Overview

**New and improved features**

| Category | Functionality |
|---|---|
| General | ▪ BioStar 2 performance improvements<br>▪ 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 |
| Setting | ▪ Email contents improvements<br>▪ 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: 1.6.0 or later
- BioEntry W2: 1.6.0 or later
- FaceStation 2: 1.3.1 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): 1.4.1 or later
- FaceLite: 1.1.0 or later
- XPass 2: 1.2.1 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**

| Category | Functionality |
|---|---|
| Device | ▪ Supports server matching for face recognition devices<br>▪ Supports thermal camera on face recognition devices<br>▪ Support FaceStation F2<br>▪ 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<br>▪ Improved the Individual Report usability<br>▪ 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<br>▪ Improvement of backup and recovery logic for Web-App, CGI server system.conf<br>▪ Exclusion of TLS V1.1 for improved security<br>▪ Improved Thrift communication logic log<br>▪ Improved security vulnerabilities on Redis |
| User | ▪ Improved the logic for issuing mobile access cards<br>▪ 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<br>▪ 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<br>▪ Supports MS SQL Server 2017<br>▪ Added the Floor Control API to BioStar 2 API Documents |
| Device | ▪ Support XPass D2(Rev 2) |
| Setting | ▪ Enhancement in Mobile Access usage<br>▪ 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<br>▪ 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<br>▪ 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<br>▪ Support XPass 2 |
| Time & Attendance | ▪ Improve the Custom Level<br>▪ Support to use the custom user field in the T&A report<br>▪ Supports the sorting for entire data in the T&A report<br>▪ 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<br>▪ 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

## BioStar 2.7.8

**New and improved features**

| Category | Functionality |
|---|---|
| Device | ▪ Supports multiple use function of controllers in CoreStation<br>▪ Supports options for selection by card type<br>▪ Supports the fingerprint/face duplicate check<br>▪ Supports Anti-Tailgating<br>▪ 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<br>▪ 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<br>▪ Add the encryption option to Active Directory menu<br>▪ 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<br>▪ Remove the unsupported AoC events<br>▪ 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<br>▪ Supports that the administrator can change the port 9000 in setting.conf<br>▪ 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<br>▪ Limits reuse of the same password<br>▪ Support to Spanish and Arabic<br>▪ 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<br>▪ 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<br>▪ 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<br>▪ Change Password Level options<br>▪ Support to the setting for Maximum Password Age and Maximum Password Change Limit<br>▪ Support to the setting options for password failures at login<br>▪ 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

**New and improved features**

| Category | Functionality |
|---|---|
| Device | ▪ Support to Input(Event Name Change) in Trigger & Action<br>▪ 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<br>▪ 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<br>▪ Improve the process for generating the time card<br>▪ Support to the separator option in CSV export<br>▪ Support to Floating shift<br>▪ Support to Fixed option in Meal deduction and Break Time<br>▪ Support to Weekend days setting option in Schedule Template |
| Setting | ▪ Support to Custom Account Level in T&A<br>▪ Support to AES encryption type for DESFire card<br>▪ 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)<br>▪ Support the database encryption key management<br>▪ Support the system ports setting<br>▪ Support the system logs management<br>▪ Firmware upgrade notifications supported<br>▪ Change the license policy |
| User & Card | ▪ Support for the auto-Increase User IDs<br>▪ Support the iCLASS Seos card setting<br>▪ Support the hexadecimal values for the primary and secondary site keys on the smart card<br>▪ Wiegand card search supported from the Unassigned card menu<br>▪ Support for automatic deletion of user information when issuing an AoC card<br>▪ Wiegand Legacy Mode Support<br>▪ Blacklist card deletion support |
| Device | ▪ Support BioLite N2<br>▪ Support XPass D2<br>▪ Support BioMini Plus 2<br>▪ Support the user information and log deletion when a tamper event occurs (secure tamper)<br>▪ Device reset excluding network settings<br>▪ Wiegand In/Out Support |
| Zone | ▪ Support the interlock zone<br>▪ Support the muster zone |
| Video | ▪ Support MS SQL for Video log<br>▪ 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<br>▪ Oracle Database not supported |
| Device | ▪ Supports CoreStation<br>▪ Supports BioEntry P2<br>▪ Supports BioEntry R2<br>▪ 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<br>▪ Event Log: Supports the period setting<br>▪ Supports video log |
| Video | ▪ Supports NVRs (ACTi, Dahua, Hikvision)<br>▪ Supports IP cameras |
| Setting | ▪ Alert: Network disconnection detection alert added<br>▪ 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<br>▪ Merge the time card with T&A report<br>▪ Display of daily T&A records<br>▪ Time rate setting is excluded from the time code for leave management.<br>▪ Break time is displayed on the time slot when fixed work is used.<br>▪ 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<br>▪ Supporting Oracle Database 11g, 12c |

| | |
|---|---|
| Device | ▪ Supports OM-120<br>▪ Supports card USB device (DUALi DE-620)<br>▪ Supports secure communication between BioStar 2 and a device |
| Time & Attendance | ▪ Supports time & attendance report PDF export |
| Setting | ▪ Change of detailed custom permission setting<br>▪ Supports user ID type setting (numbers/alphanumeric characters)<br>▪ 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<br>▪ Improvement in list page move |
| User | ▪ Improvement importing/exporting CSV files |
| Device | ▪ Supporting BioStation A2 video phone (SIP based)<br>▪ Supporting the batch editing the device manager<br>▪ Supporting an additional information display of a device firmware |
| Door | ▪ Supporting an automatic door setting |
| Setting | ▪ Supporting Wiegand card's facility code setting<br>▪ Supporting the batch editing the Wiegand card data format<br>▪ Supporting BioStar 2 alert sound's upload and setting (.wav, .mp3)<br>▪ 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 system requirements.
The BioStar 2 installation file can be found on the Suprema's home page(www.supremainc.com).

System Requirements

Installing BioStar 2

# Minimum System Requirements

| Item | | Small | Medium | Enterprise |
|---|---|---|---|---|
| Environment | Total Devices | 50 | 100 | 1,000 |

| Item | | Small | Medium | Enterprise |
|---|---|---|---|---|
| System requirement (Server) | OS | ▪ Windows 7 Home Basic 64bit SP1 or later<br>▪ Windows 7 Home Basic 32bit SP1 or later | ▪ Windows Server 2008 R2 Standard 64bit SP2 or later<br>▪ Windows 7 Home Premium 64bit SP1 or later | ▪ Windows Server 2008 R2 Standard 64bit SP2 or later<br>▪ Windows 7 Home Premium 64bit SP1 or later |
| | 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 |
| | Others | Java 1.8.0_201 | | |
| 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.

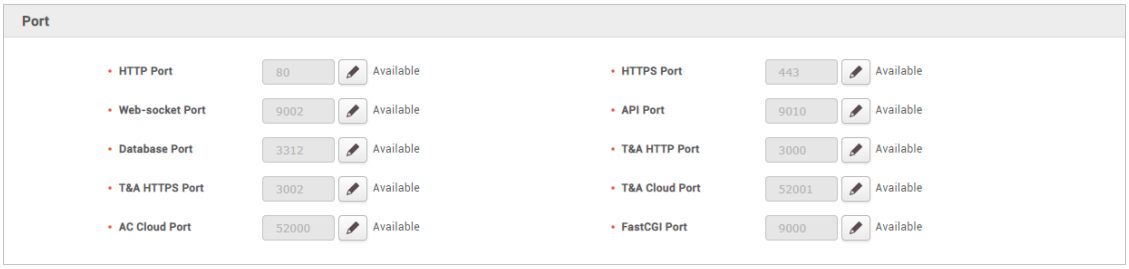
**Note**

- 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.x or 2.7.x > 2.8.x |
| 2.2 | 2.3 > 2.4 > 2.4.1 > 2.5.0 > 2.6.x or 2.7.x > 2.8.x |
| 2.2.1 | 2.3 > 2.4 > 2.4.1 > 2.5.0 > 2.6.x or 2.7.x > 2.8.x |
| 2.2.2 | 2.3 > 2.4 > 2.4.1 > 2.5.0 > 2.6.x or 2.7.x > 2.8.x |
| 2.3 | 2.4 > 2.4.1 > 2.5.0 > 2.6.x or 2.7.x > 2.8.x |
| 2.4 | 2.4.1 > 2.5.0 > 2.6.x or 2.7.x > 2.8.x |
| 2.5 | 2.6.x or 2.7.x > 2.8.x |
| 2.6 | 2.8.x |
| 2.7 | 2.8.x |

- 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

- 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

**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**.

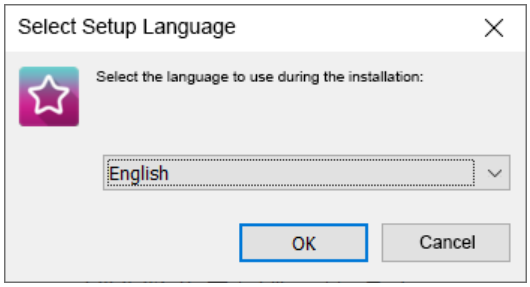
h) Select **public**, **sysadmin**, and then click **OK**.

i) Click **User Mapping** in the **Select a page**.

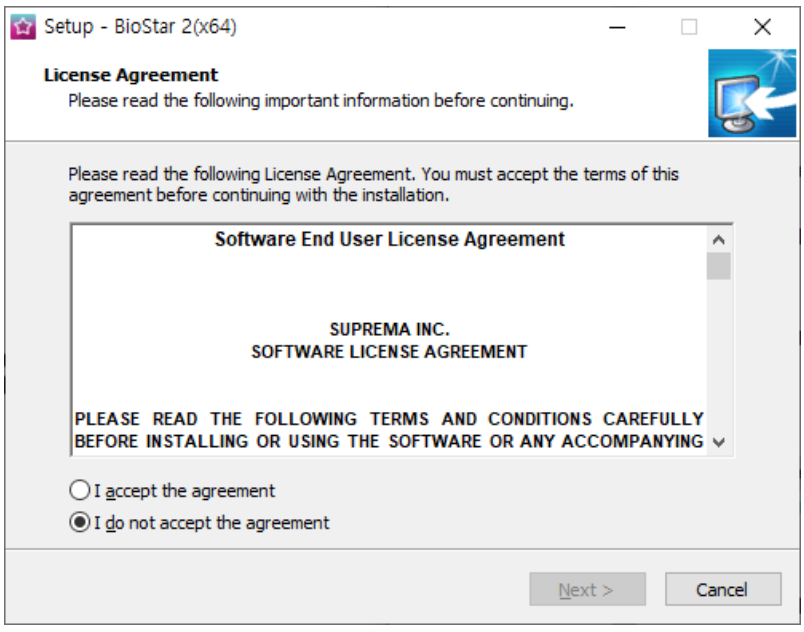
j) Select the **ac**, **master**, **ta**, and **ve** databases and click **OK** to save.

1) Double-click the downloaded setup program. (ex. 'BioStar 2 Setup.x.x.x.xxx.exe')

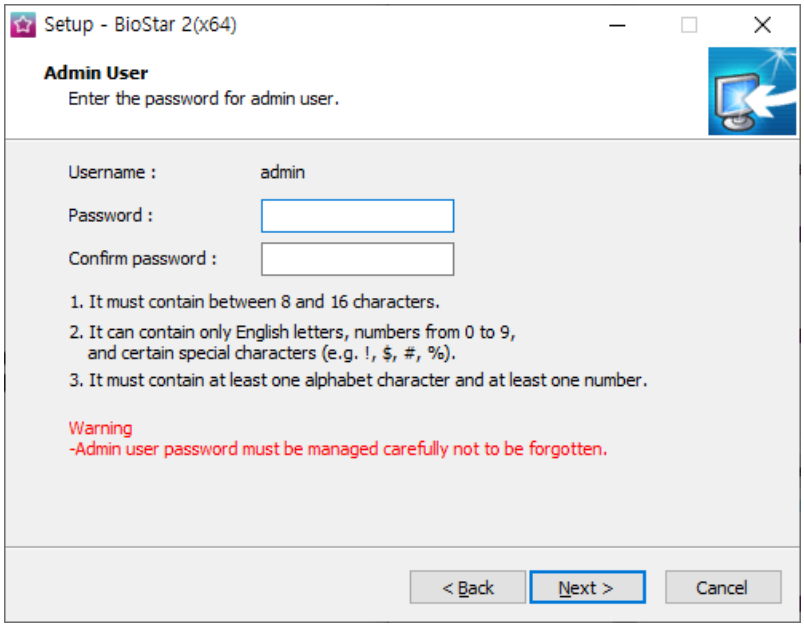
2) Select a language and click **OK**.



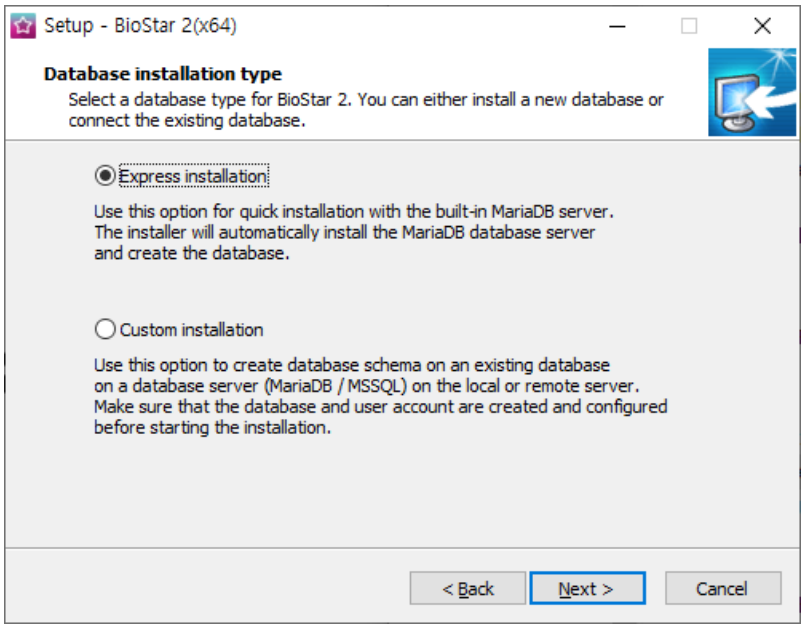

3) To continue the installation, select **I accept the agreement** and click **Next**.



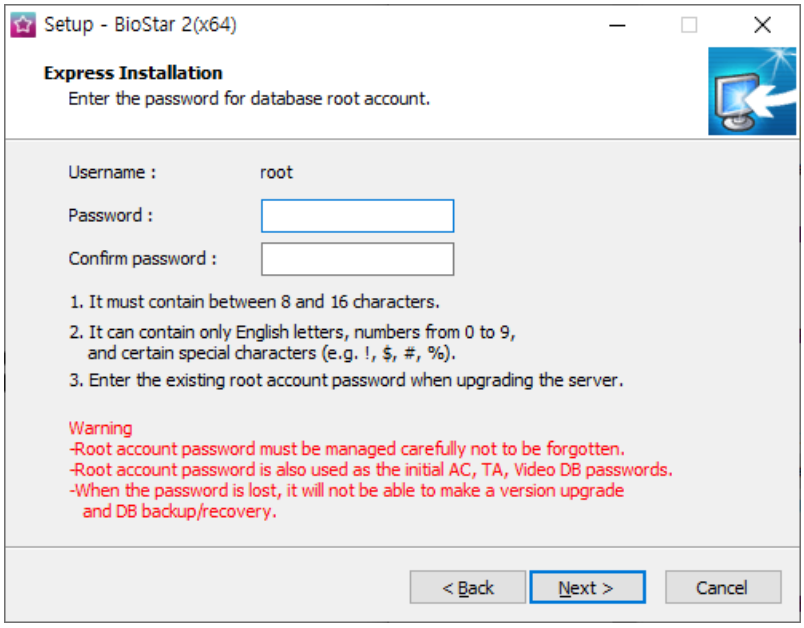
4) Enter the password for admin account and click **Next**. The password set in this step will be used when you log in to BioStar 2.

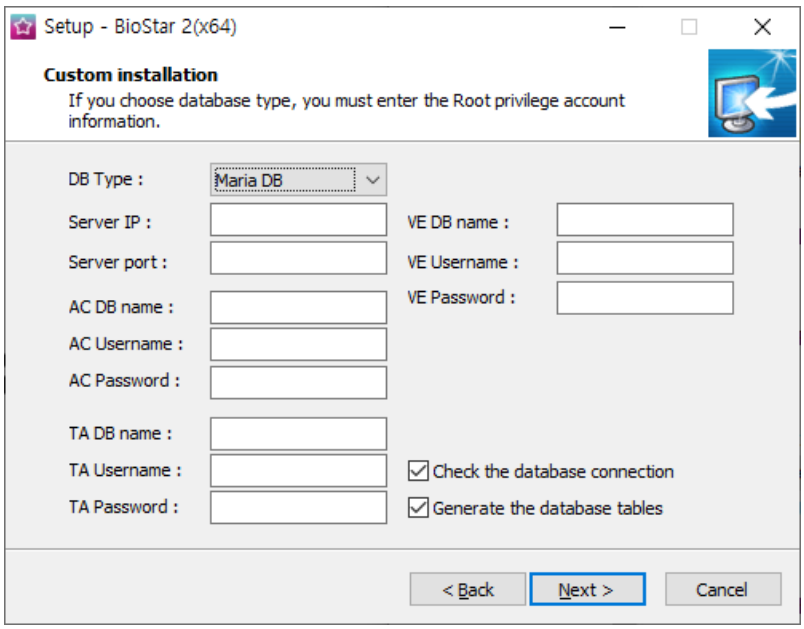



5) Install the database to be used in BioStar 2. You can install a new MariaDB or connect it to the already-installed MariaDB. Installing BioStar 2 for the first time, please select **Express Installation** and click **Next**.




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**.

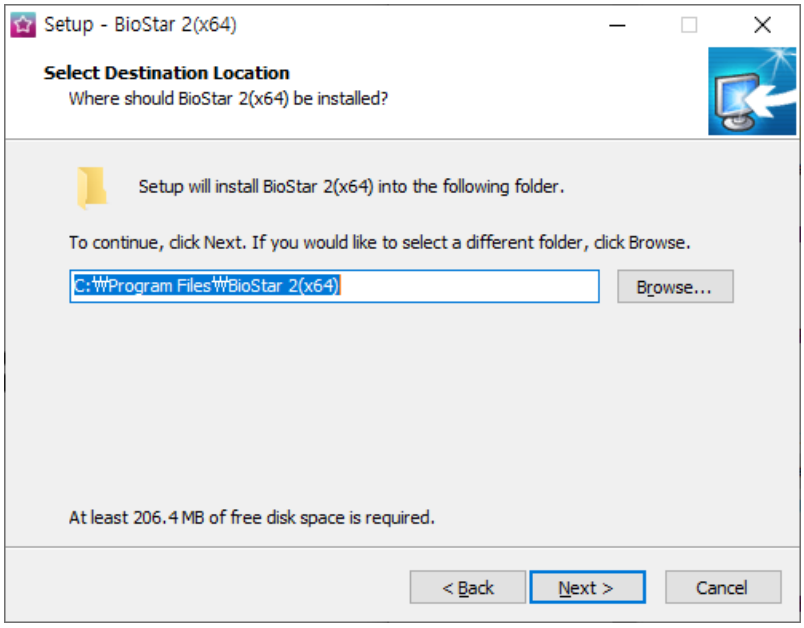


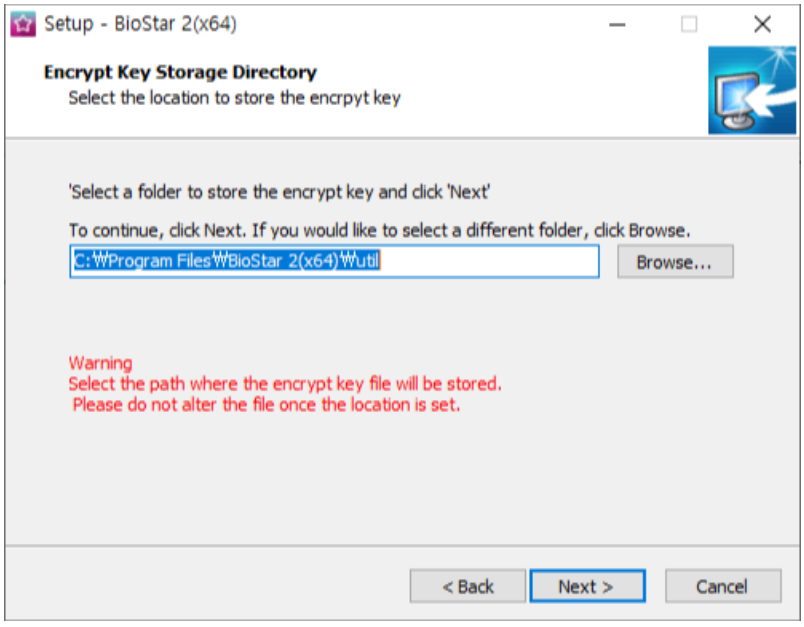

**Note**

- BioStar 2.8.8 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.

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



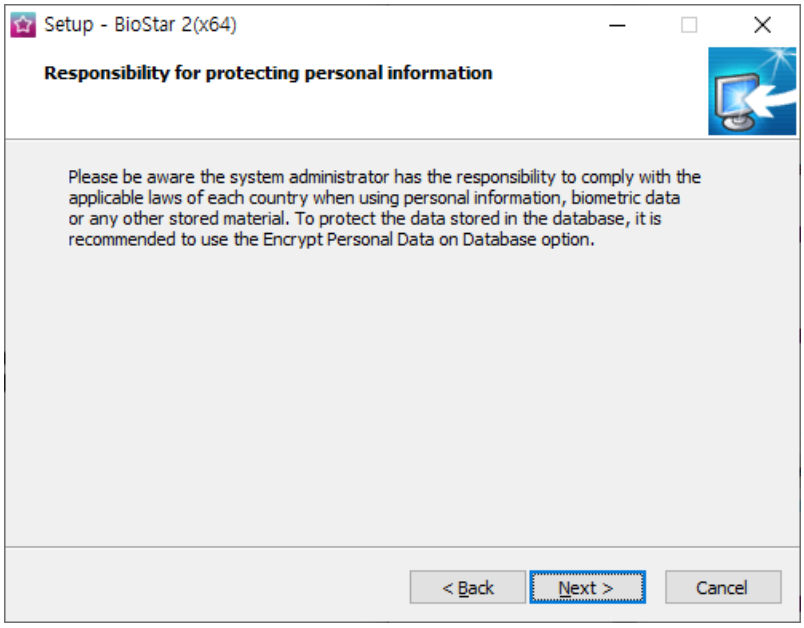

8) Click **Next** after setting a path for the encryption key to be stored.



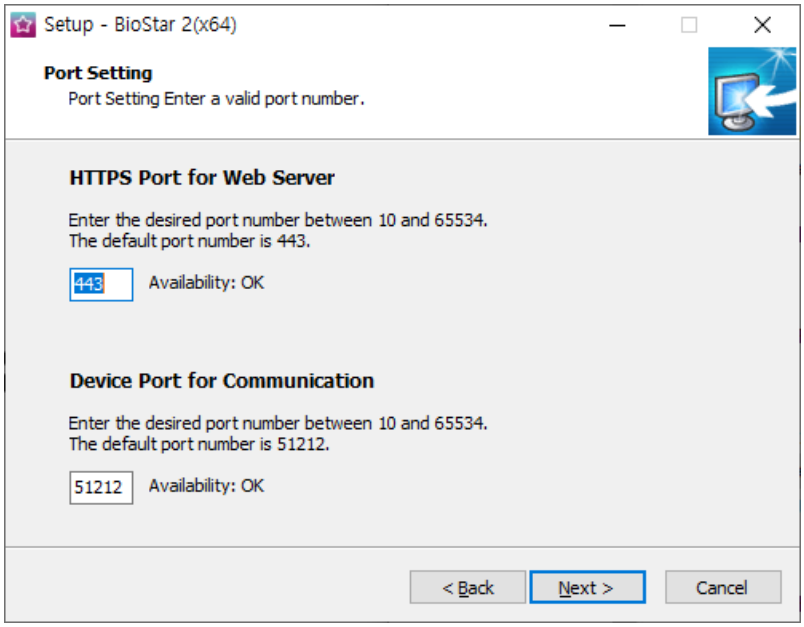

**Note**

- 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**.

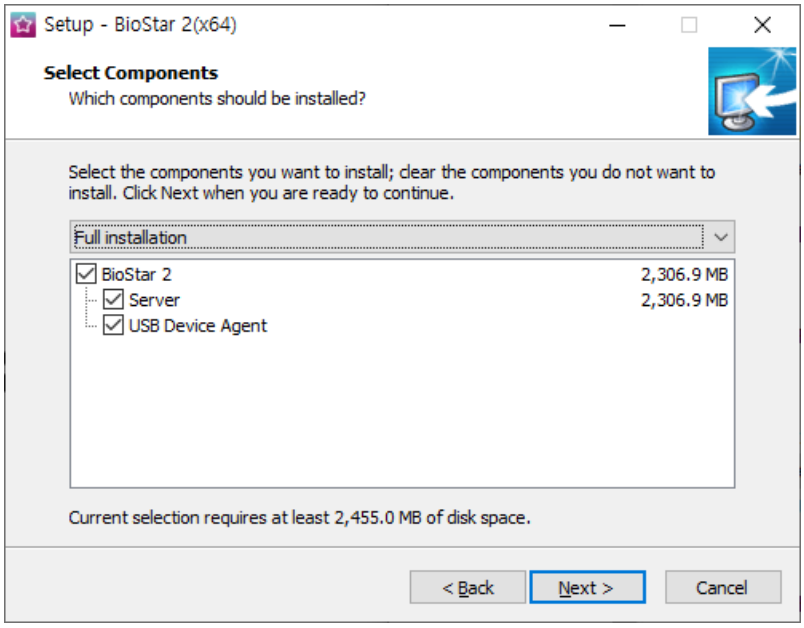



**Note**

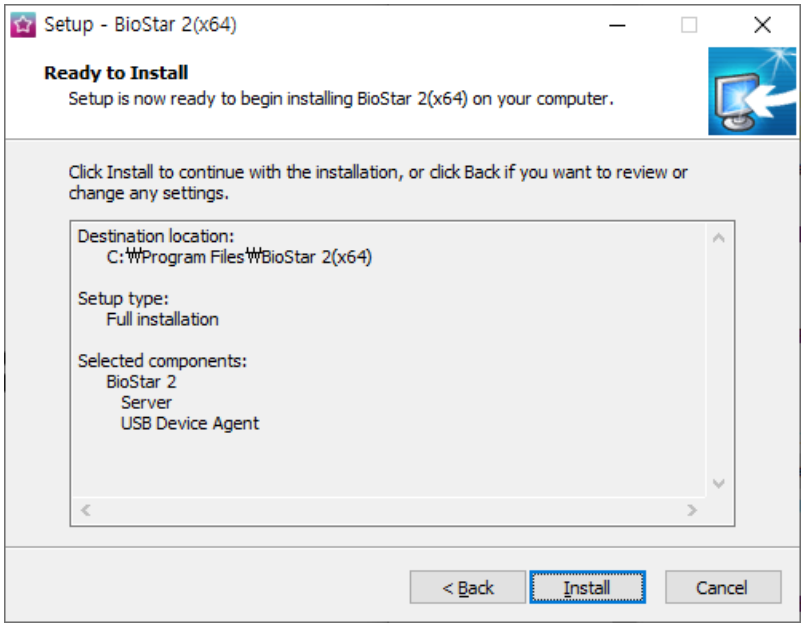
- When you install BioStar 2 on a PC where BioStar 1 is installed, the device port (51212) is not available. In this case, we recommend that uninstall BioStar 1.

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

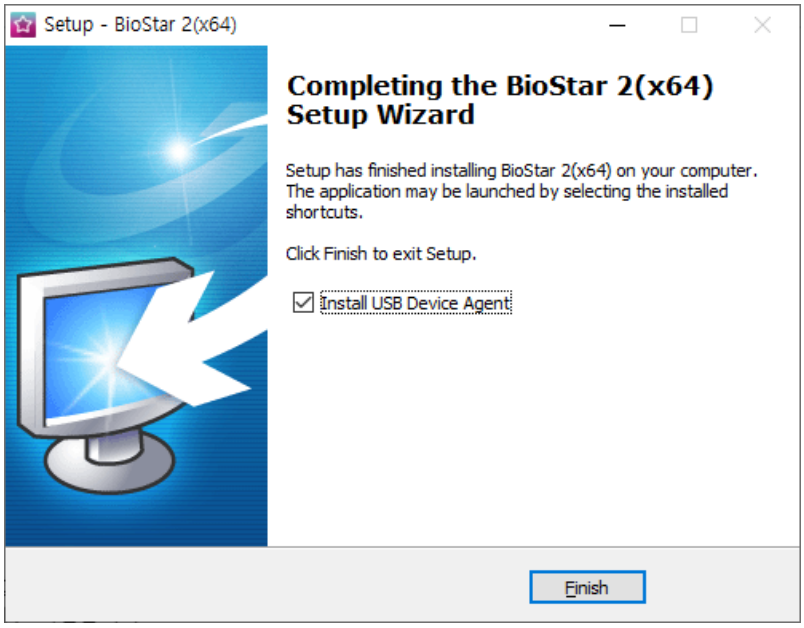



10) If ready to install, click **Install**.




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 BioStar 2 Database Change.

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.

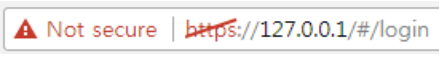
**Note**

- 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.

- BioStar 2 uses Java version 1.8.0_201. If BioStar 2 does not run correctly, re-install Java version 1.8.0_201.
  http://www.oracle.com/technetwork/java/javase/downloads/java-archive-javase8-2177648.html

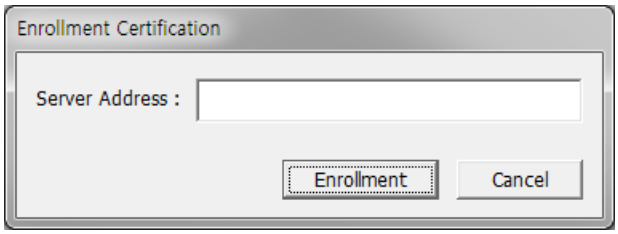
3) Log in with the administrator account. The administrator account ID is 'admin' and when you log in for the first time, **Not secure** warning will be displayed in the address bar.




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

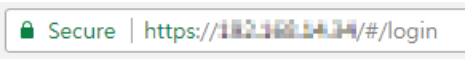
5) Unzip the downloaded file and run **cert-register.exe** file. **Enrollment Certification** window will appears.

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**.

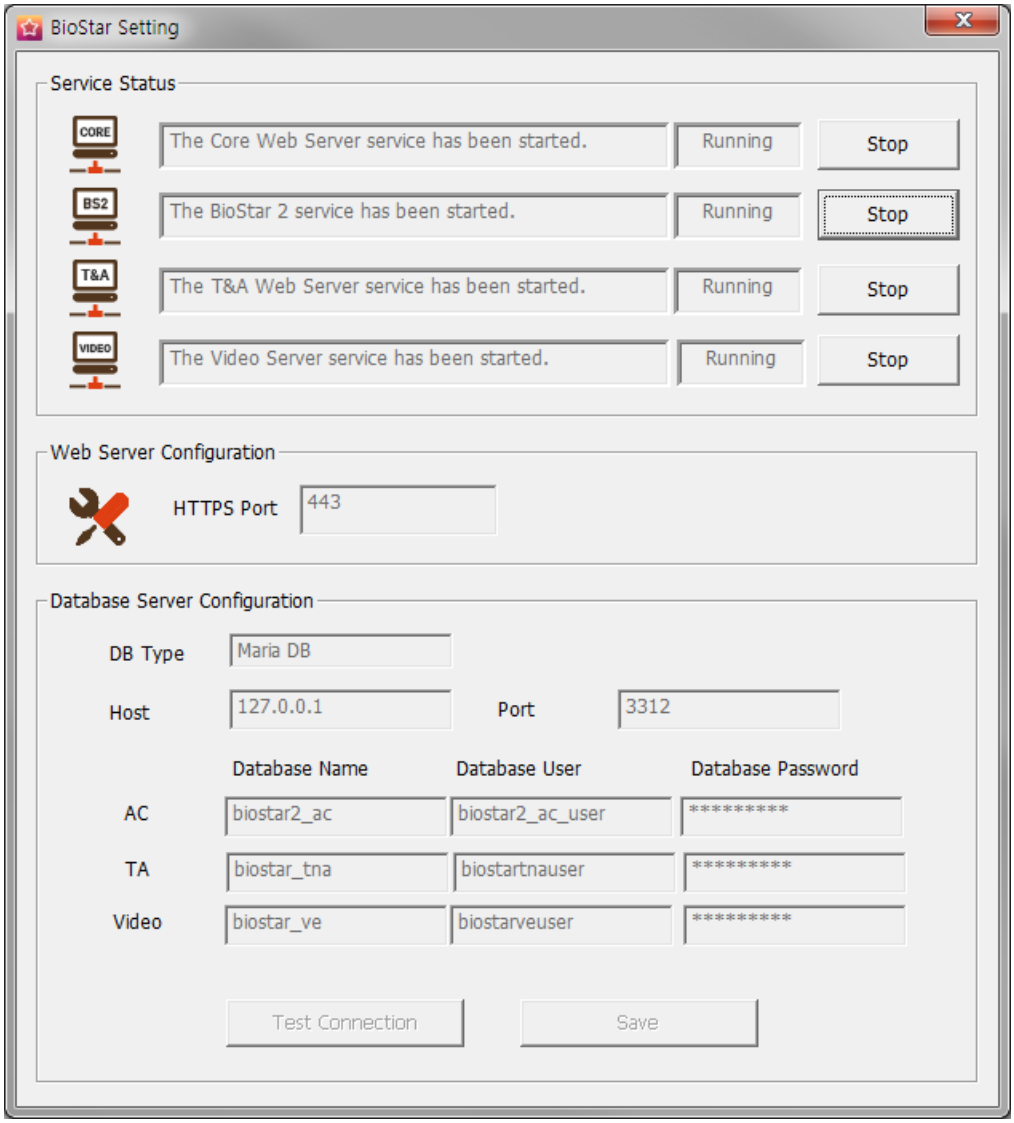
8) When you restart the web browser and enter the registered IP address, **Secure** will appear on the address bar of the web browser.




## Changing server status of BioStar 2

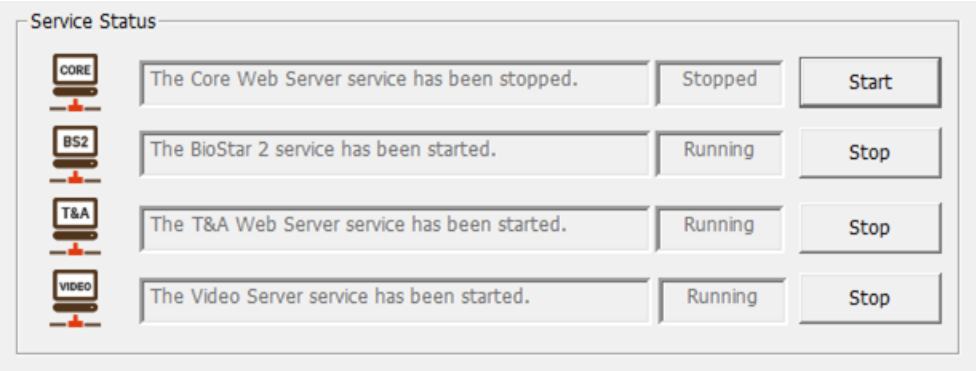
You can check the status of the BioStar 2 server and stop or start the server.

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

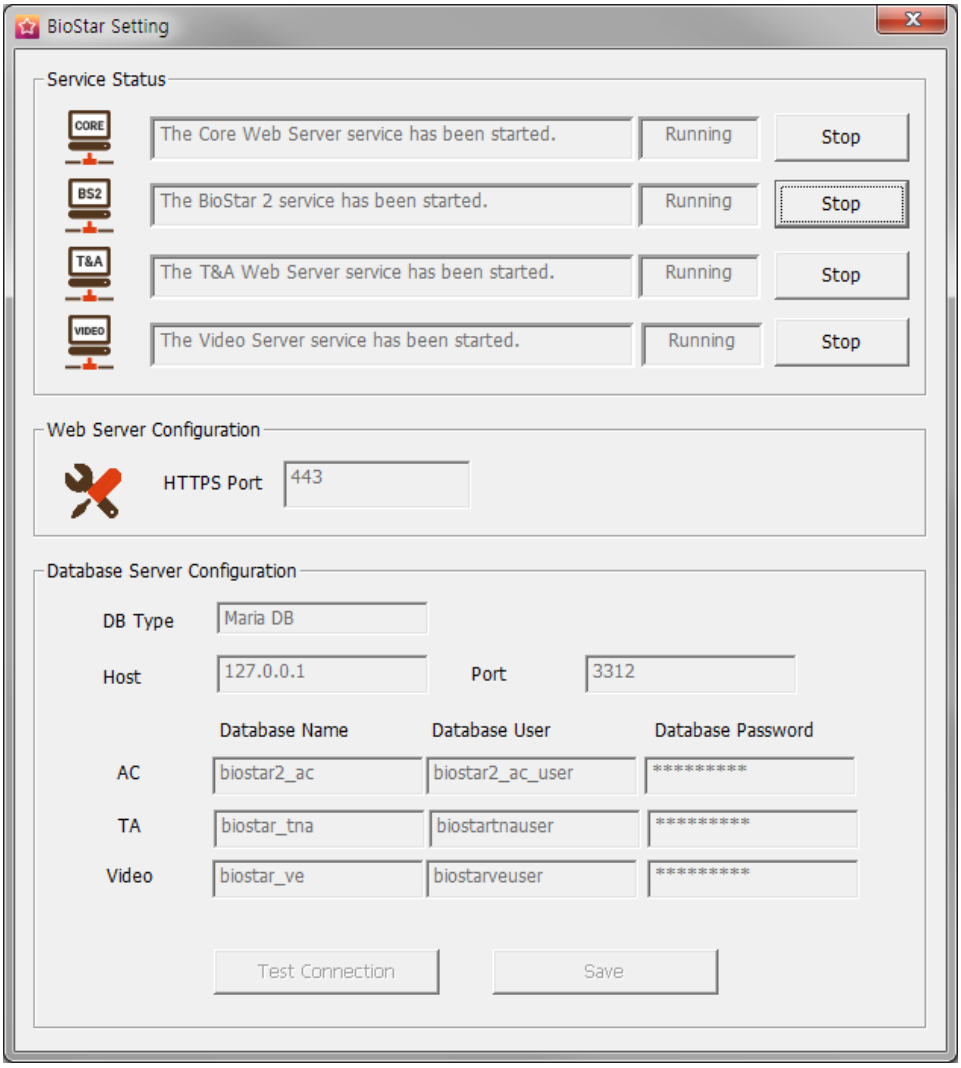
You can change the port used by BioStar 2.

**Note**

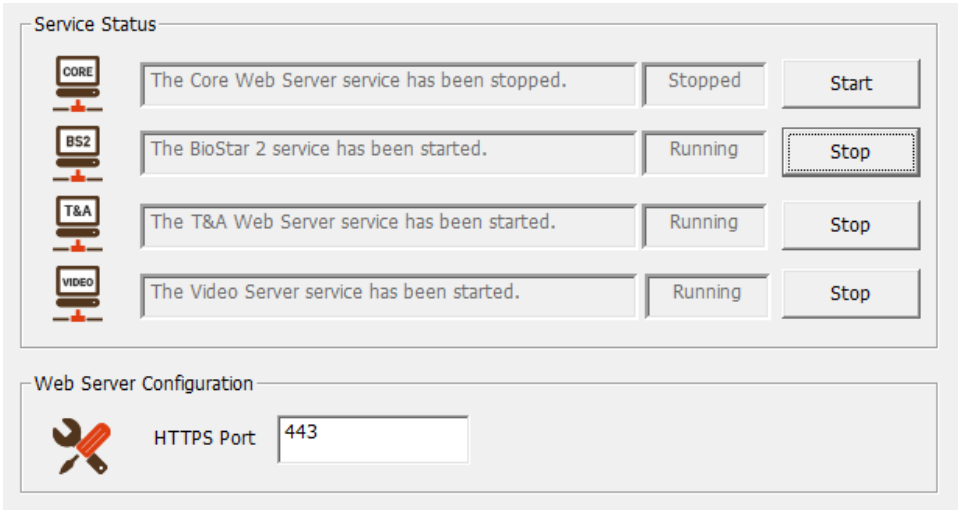
- If you use MS SQL as a database, when changes the port in BioStar 2, you must also change the port manually in the database. Otherwise, BioStar 2 may be disconnected from the database and may not work properly.

**Changing with BioSar 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 **HTTP port** field.



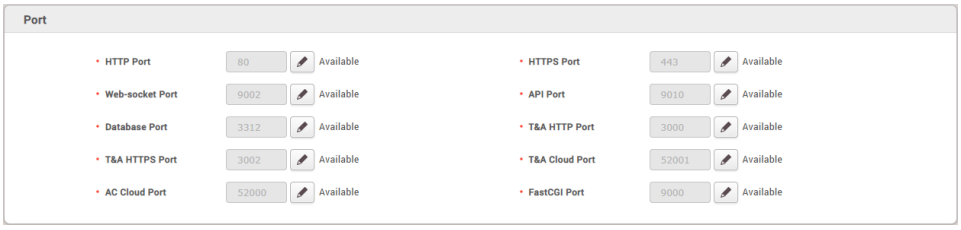

4) Click **Start** button of Core Web Server.
5) Run BioStar 2.
   - If using port 450, enter '*IP address::450*'.

**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.

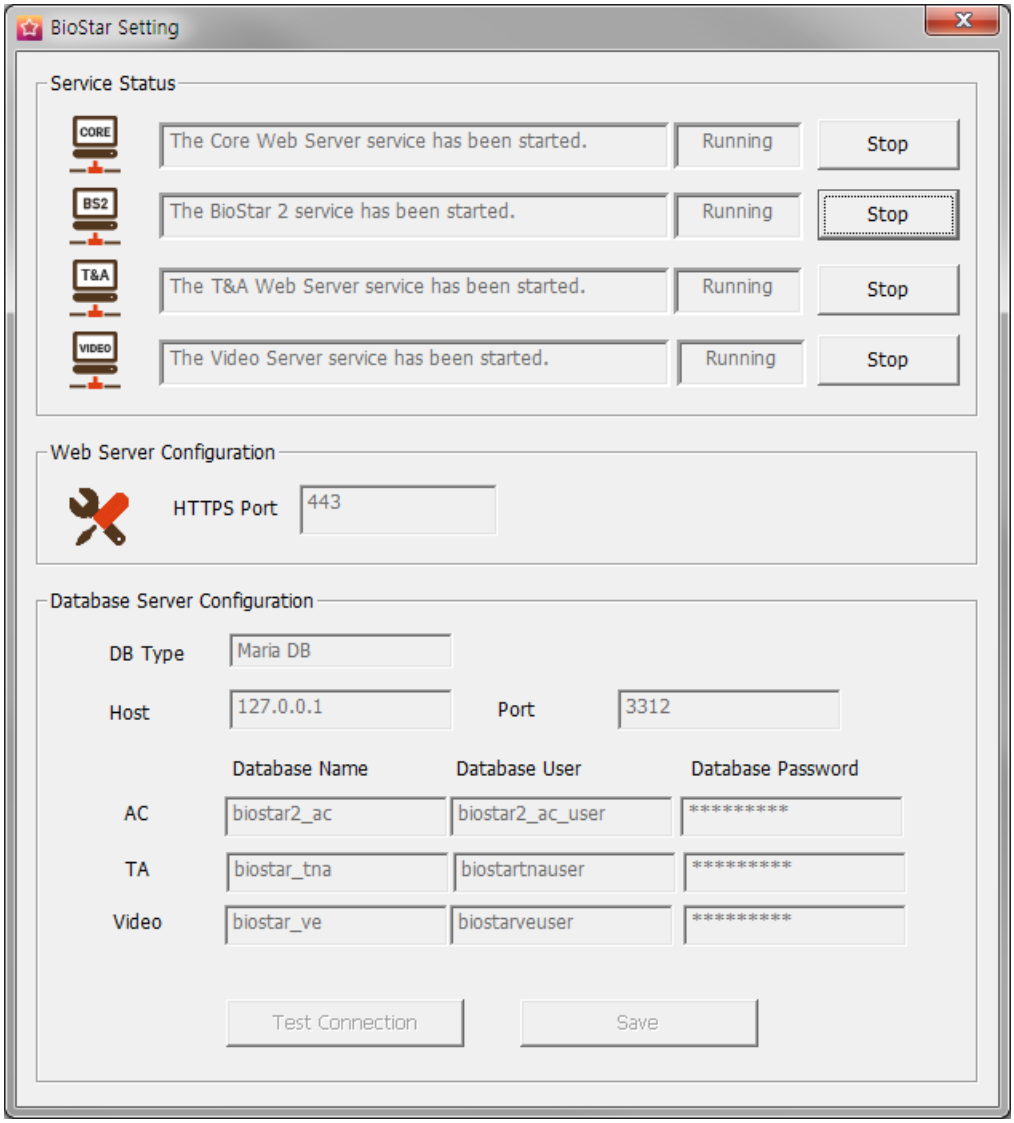



2) Click the of the port to change and enter the desired value.
3) Click **Apply** to save the settings.

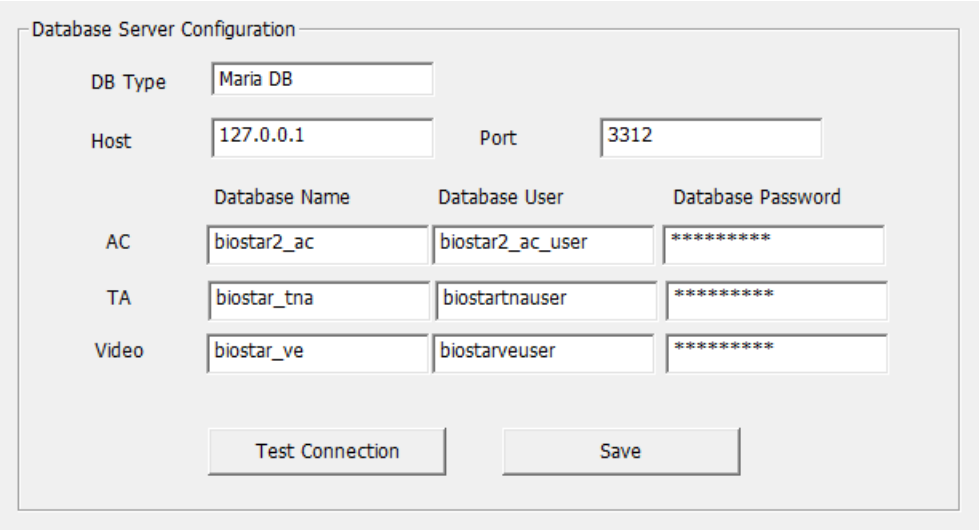
## Changing database of BioStar 2

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

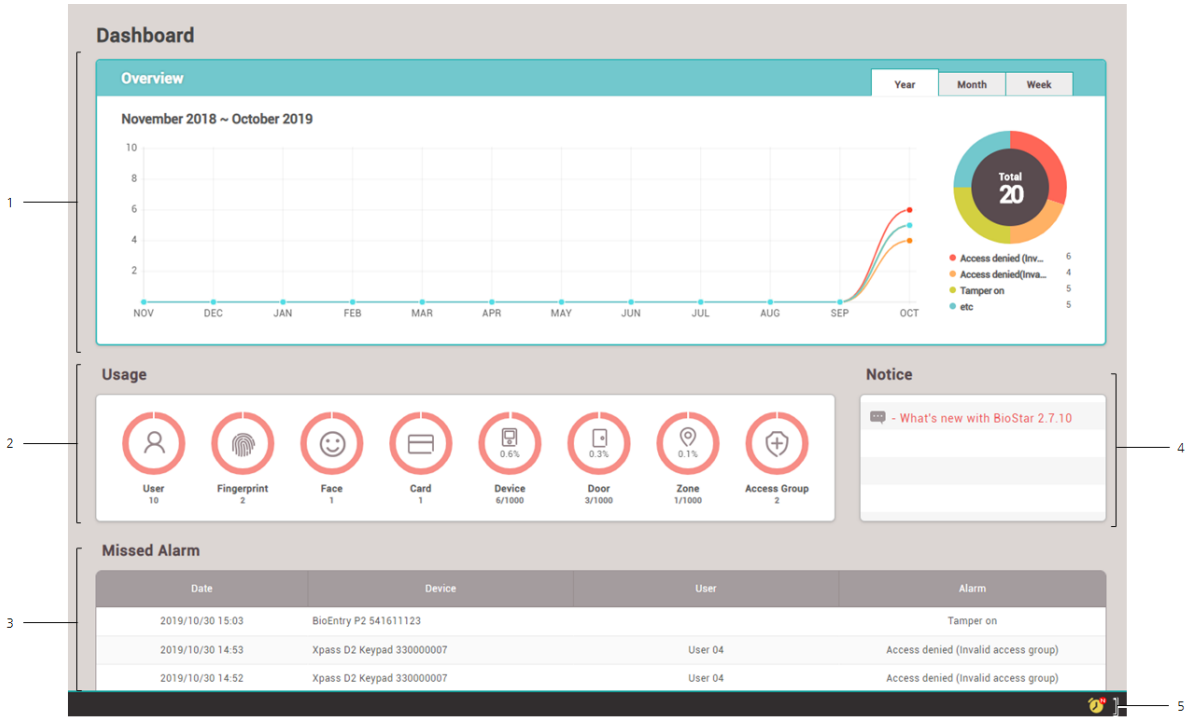
Real-time Log

Device Status

Door Status

Alert History

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

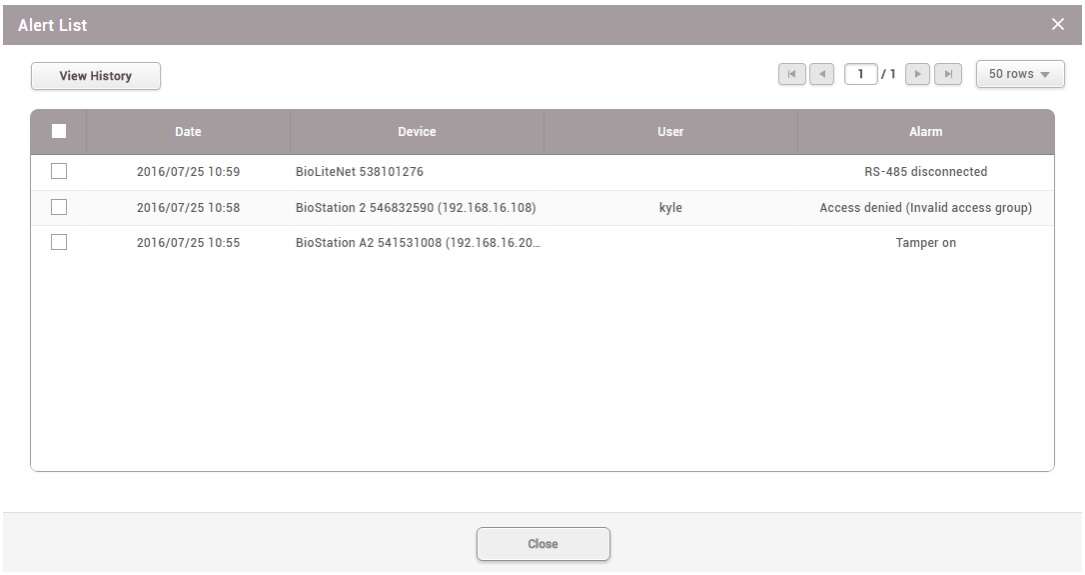



| | |
|---|---|
| 1 Alert Event Status by Period | 4 Notice |
| 2 Usage Status | 5 Alert List |
| 3 Missed Alarm | |

### 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 6 months are 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

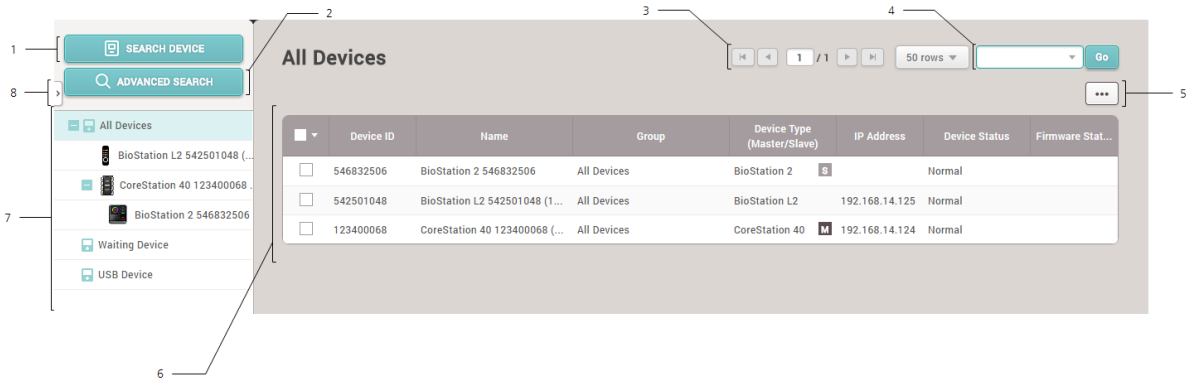
Slave Device Search and Registration

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 **ID**, **Name**, **IP 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.

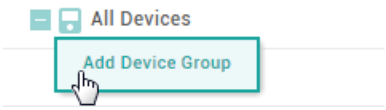
# 6 Device

## 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**.



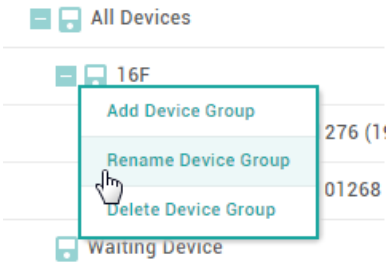

3) Enter a name.

**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**.



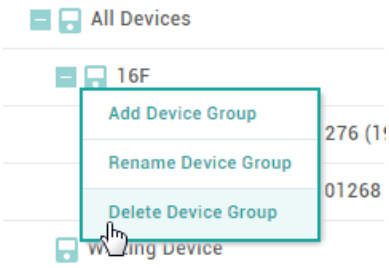

3) Enter a name.

**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**.



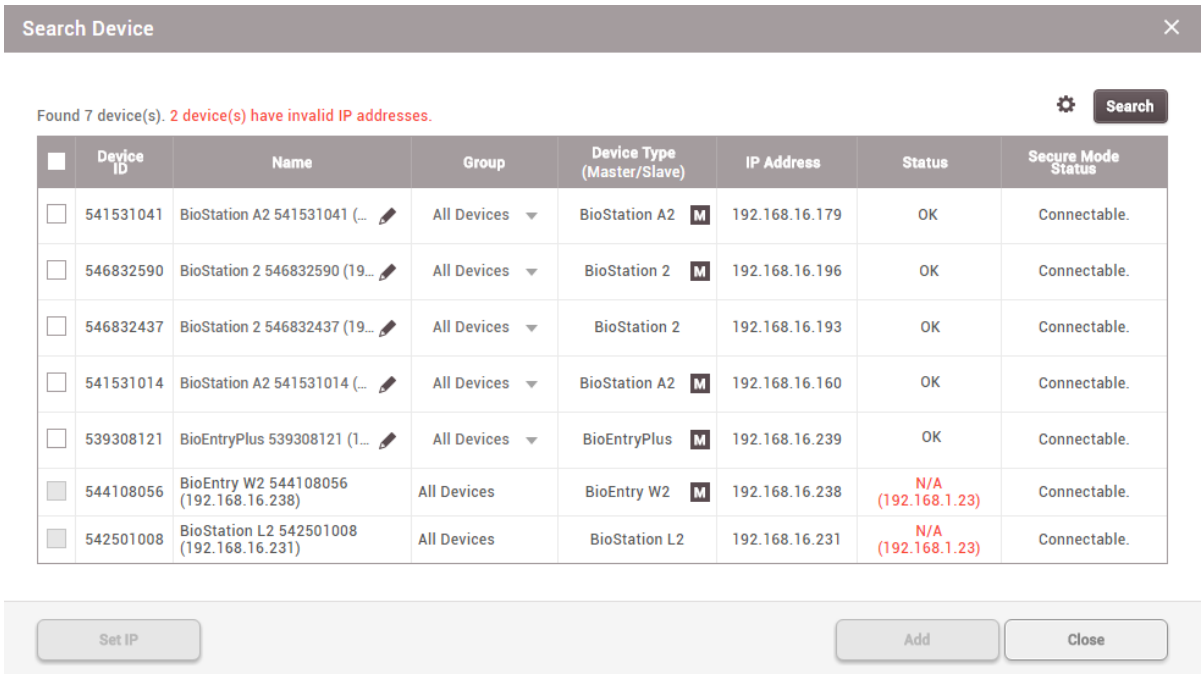

**Note**

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

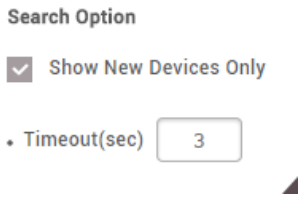
## Basic Search and Registration

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.



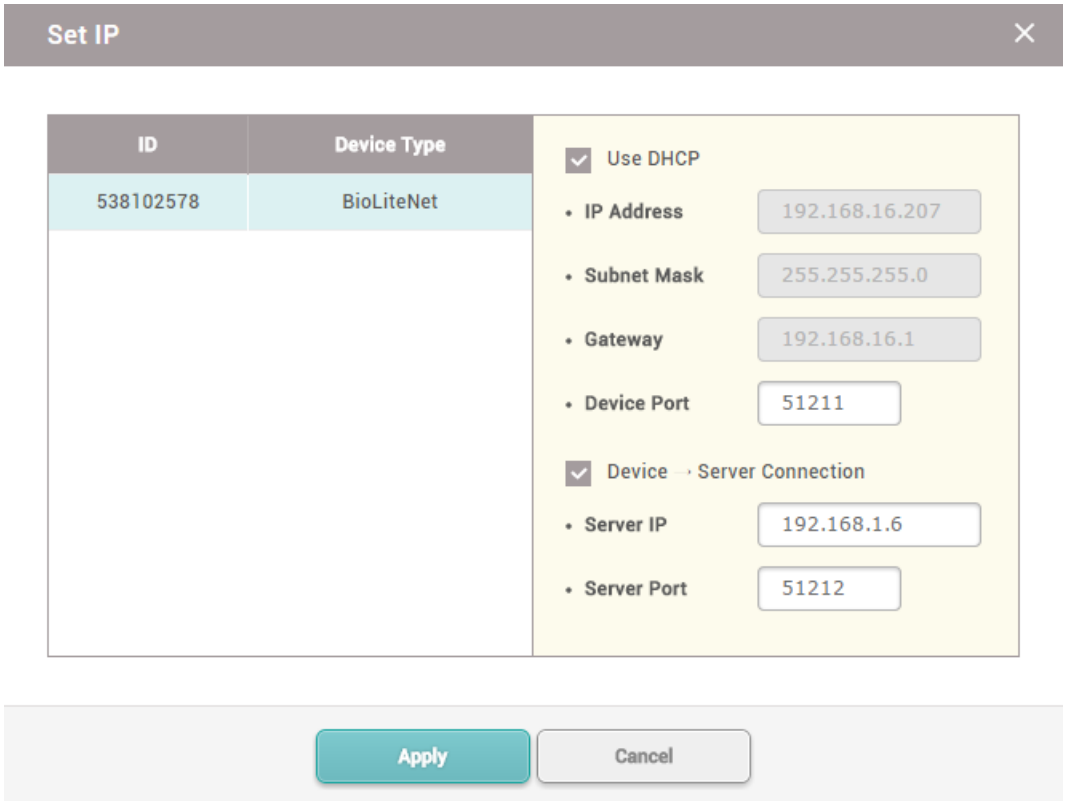

3) To view newly found devices only, click ⚙ and then click **Show New Devices Only**.




**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** and enter the **Server IP** 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**

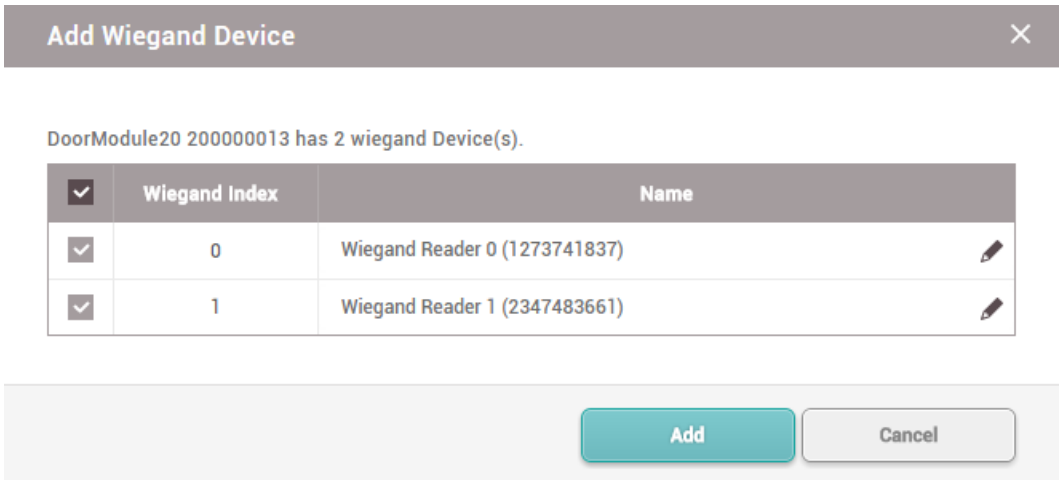
- After registering a device, you can edit its details by referring to Editing Device Settings and Information.

# 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.

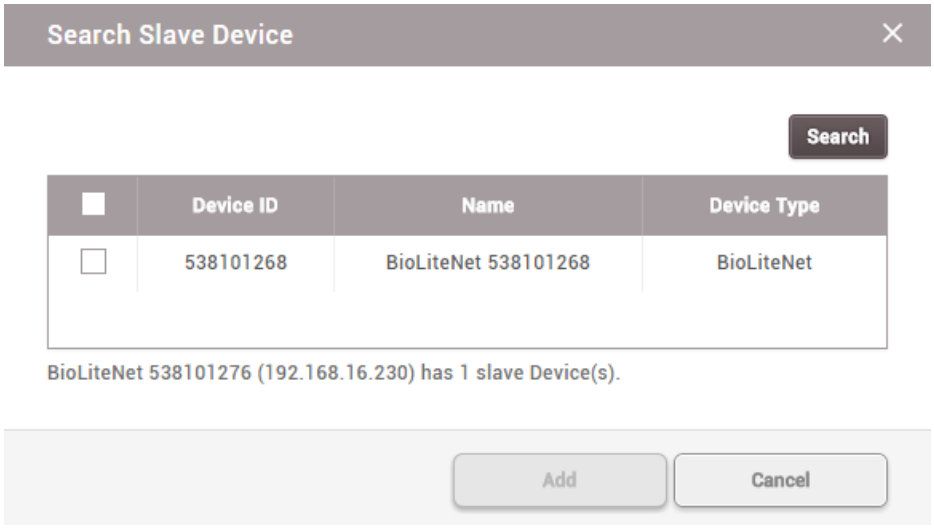



4) Select the device to add, and click **Add**.

## 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, FaceStation 2 cannot be added as a slave device.
- FaceStation 2 cannot be added as a slave device with a different device. FaceStation 2 must be added separately.
- If FaceStation 2 is the master device and a different slave device has been added already, FaceStation 2 cannot be added as a slave device.
- When you connect FaceStation 2 as a slave device while FaceStation 2 is the master device, only one FaceStation 2 can be added as a slave device.

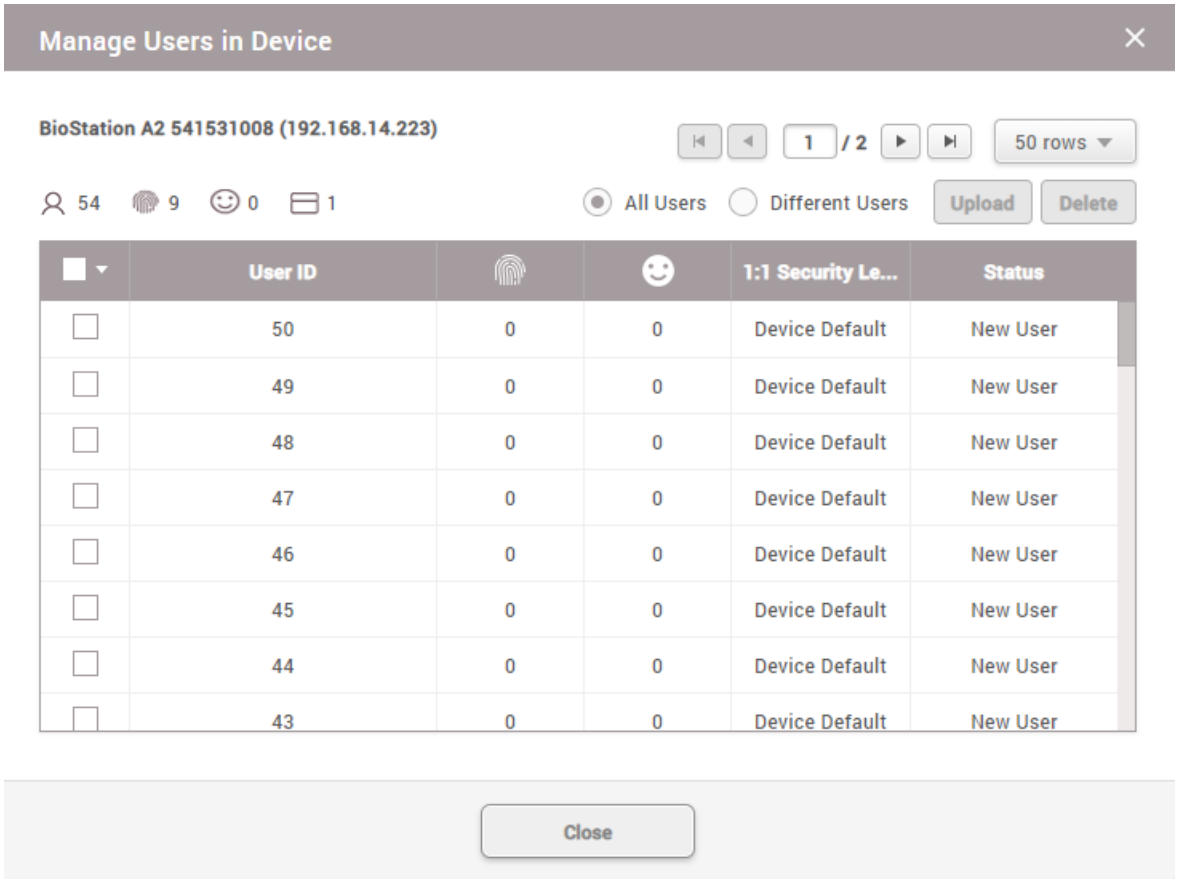
## Managing Users Registered with Devices

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.

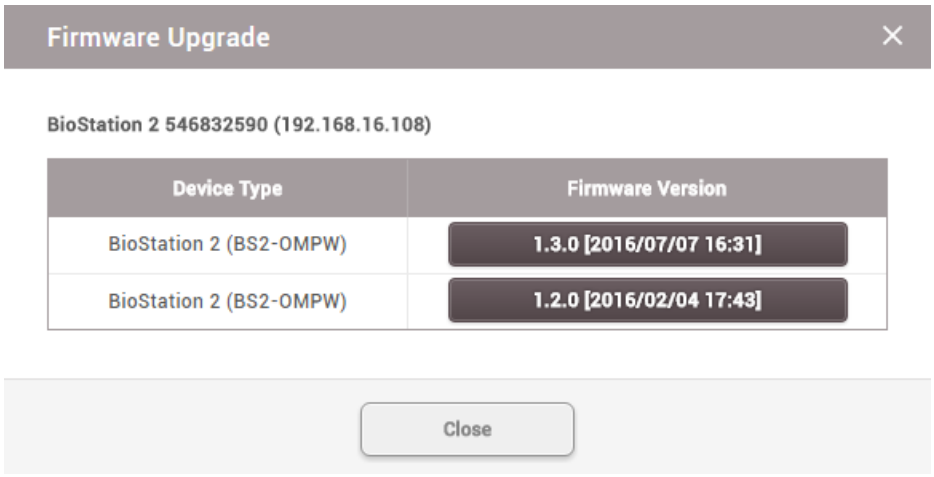
## Upgrading Firmware

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 (x86)₩BioStar 2₩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**

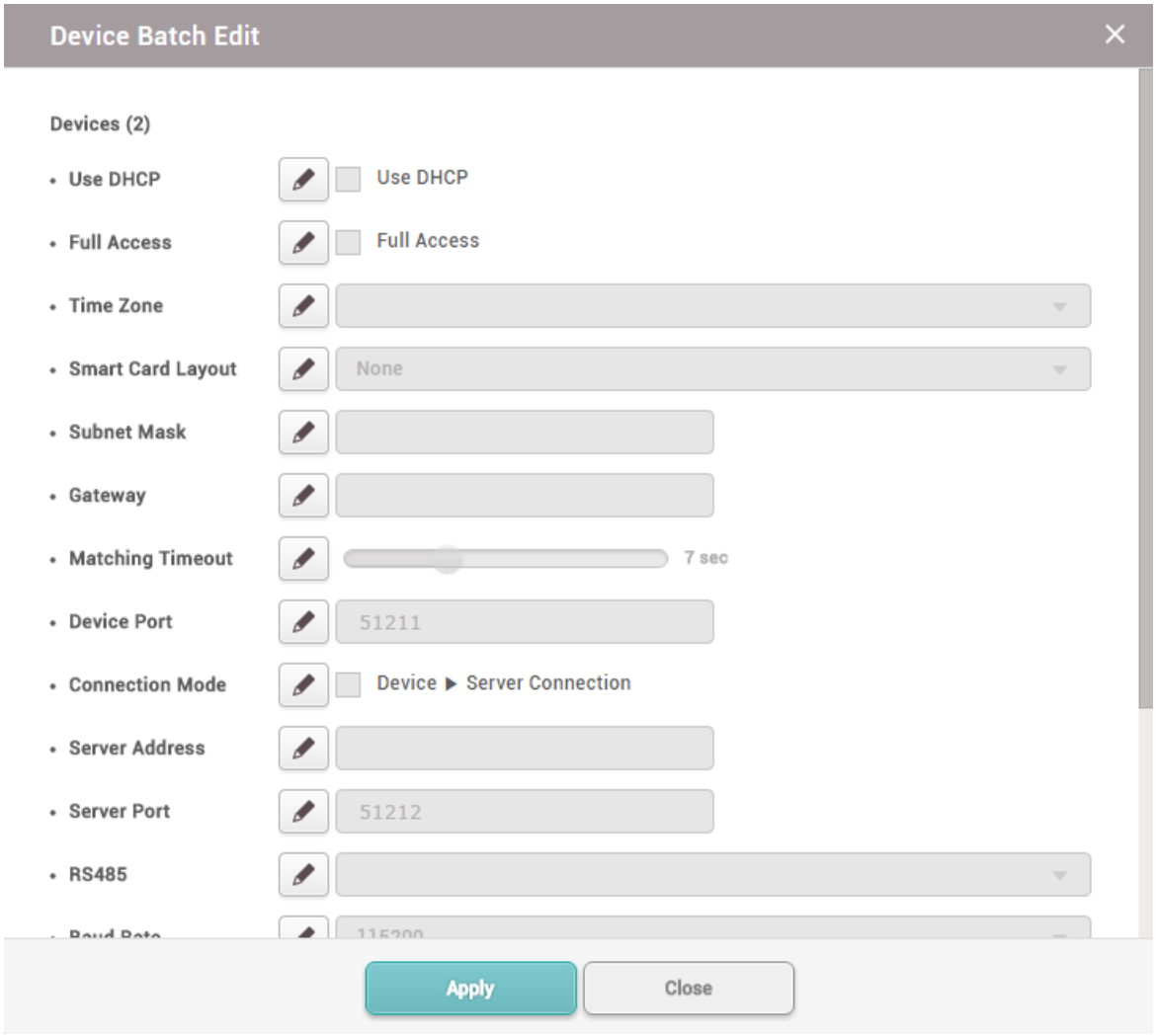
Information

## 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.

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, 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**

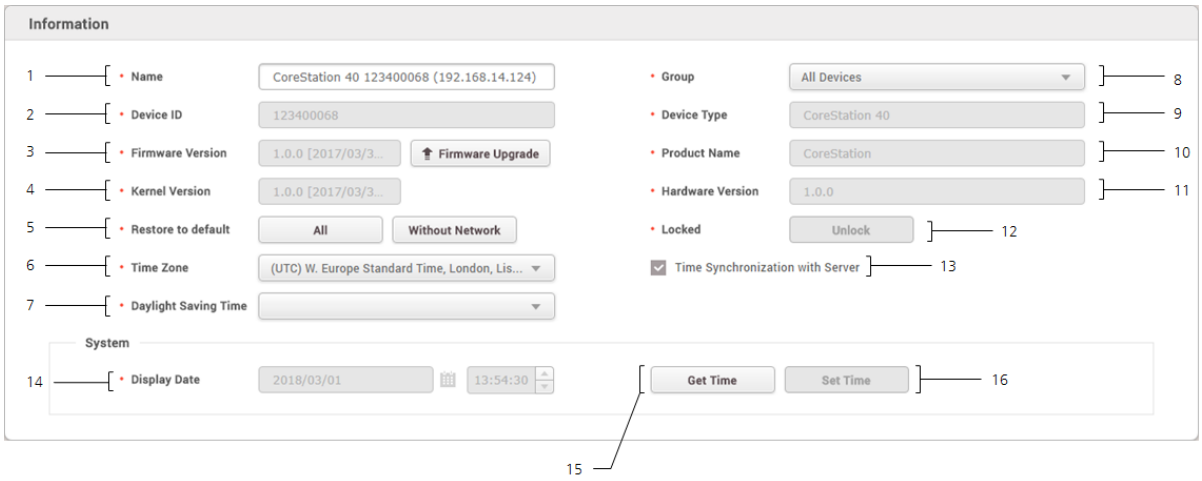
- The fields displayed for **Batch Edit** may vary depending on the device type selected.
- If you select both master devices and slave devices and click **Batch Edit**, only some of the Authentication and Display/Sound fields can be edited.

## 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.

# 6 Device

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.<br>▪ **All**: Reset all settings.<br>▪ **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. |
| 11 | Hardware Version | View the hardware version. |
| 12 | Locked | **Unlock** button will be available when the device is disabled via **Trigger & Action**. |

| No. | Item | Description |
|---|---|---|
| 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

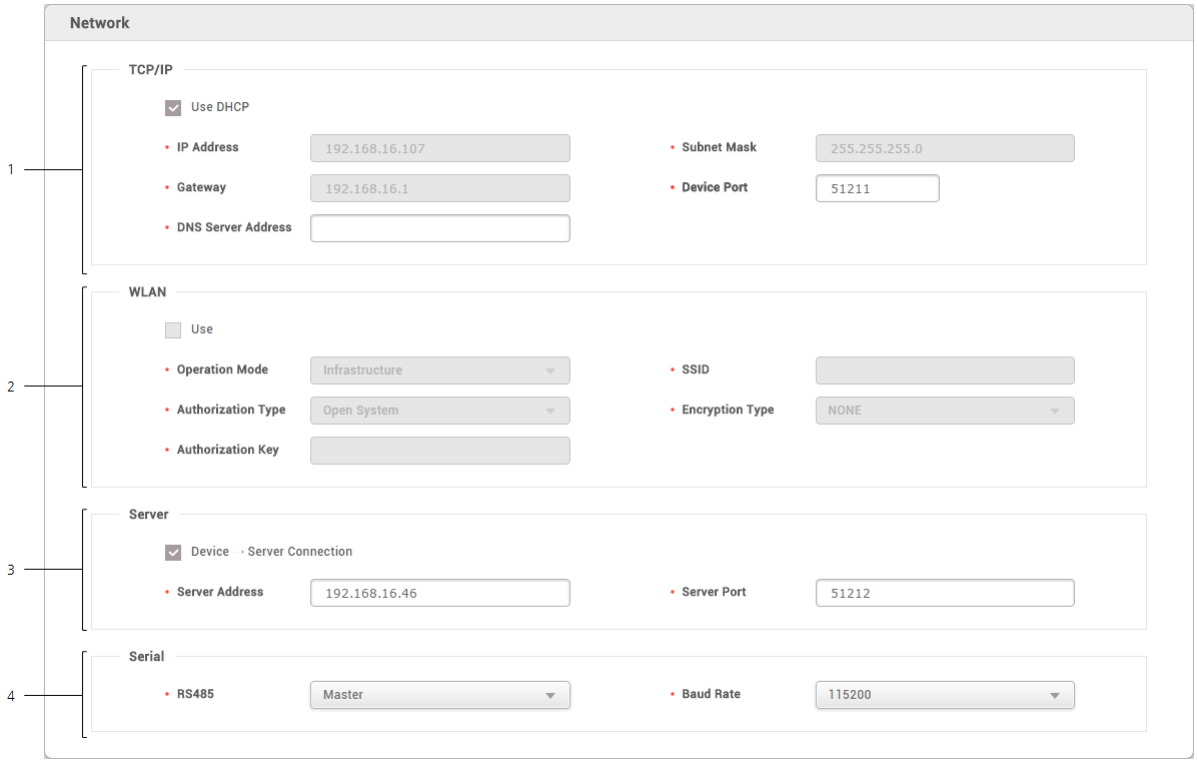
You can configure various connection settings such as TCP/IP and RS-485, etc.

**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.<br><br>▪ **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.<br>▪ **IP Address**, **Subnet Mask**, **Gateway**: Enter network settings of the device.<br>▪ **Device Port**: Enter a port to be used by the device.<br>▪ **DNS Server Address**: Enter a DNS server address.<br><br>**Note**<br><br>▪ The devices and the firmware versions where a DNS server address can be entered are as follows.<br>- BioStation L2 FW 1.0.0 or later<br>- BioStation A2 FW 1.0.0 or later<br>- BioStation 2 FW 1.2.0 or later<br>- BioLite Net FW 2.2.0 or later<br>- BioEntry Plus FW 2.2.0 or later<br>- BioEntry W FW 2.2.0 or later<br>- Xpass FW 2.2.0 or later<br>- Xpass S2 FW 2.2.0 or later<br>- FaceStation 2 FW 1.0.0 or later<br>- BioLite N2 FW 1.0.0 or later<br>- FaceLite FW 1.0.0 or later<br>- XPass 2 FW 1.0.0 or later |

| No. | Item | Description |
|---|---|---|
| 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.<br><br>**Note**<br>▪ Only for BioStation 2, BioStation A2 and FaceStation 2. |
| 3 | Server | You can enter connection settings to use in the server mode.<br><br>▪ **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.<br>▪ **Server Address**: Enter the IP address or domain name of the BioStar 2 server.<br>▪ **Server Port**: Enter the port number of the BioStar 2 server.<br><br>**Note**<br>▪ The devices and the firmware versions where a domain address can be entered for the server address are as follows.<br>- BioStation L2 FW 1.0.0 or later<br>- BioStation A2 FW 1.0.0 or later<br>- BioStation 2 FW 1.2.0 or later<br>- BioLite Net FW 2.2.0 or later<br>- BioEntry Plus FW 2.2.0 or later<br>- BioEntry W FW 2.2.0 or later<br>- Xpass FW 2.2.0 or later<br>- Xpass S2 FW 2.2.0 or later |
| 4 | Serial | You can configure the connection mode and baud rate of devices connected over RS-485.<br><br>▪ **RS-485**: Set a RS-485 mode.<br>▪ **Baud Rate**: Set a baud rate of the RS-485 connection. |

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.


| 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.<br><br>▪ 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.<br>▪ For more information on configuring schedules, see Schedules. |

| No. | Item | Description |
|---|---|---|
| 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.<br><br>**Note**<br>▪ The devices and the firmware versions where server matching can be used are as follows.<br>- CoreStation FW 1.0.0 or later<br>- BioEntry P2 FW 1.0.0 or later<br>- BioEntry W2 FW 1.0.0 or later<br>- BioStation L2 FW 1.0.0 or later<br>- BioStation A2 FW 1.0.0 or later<br>- BioStation 2 FW 1.2.0 or later<br>- BioLite Net FW 2.2.0 or later<br>- BioEntry Plus FW 2.2.0 or later<br>- BioEntry W FW 2.2.0 or later<br>- Xpass FW 2.2.0 or later<br>- Xpass S2 FW 2.2.0 or later<br>- BioLite N2 FW 1.0.0 or later<br>- XPass D2 FW 1.0.0 or later<br>- XPass 2 FW 1.0.0 or later<br>- FaceStation 2 FW 1.4.0 or later<br>▪ **Server Matching** is not available for FaceLite. |
| 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.<br>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.<br>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.<br><br>**Note**<br>▪ Only for BioStation A2. |

| No. | Item | Description |
|---|---|---|
| 6 | Fingerprint / Face | You can configure the detail settings concerning fingerprint authentication.<br><br>▪ **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.<br>▪ **Scan Timeout**: You can set a fingerprint scan timeout period. If the fingerprint is not scanned within the set time, the authentication fails.<br>▪ **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.<br>▪ **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.<br>▪ **Template Format**: You can view the fingerprint template format.<br>▪ **Matching Timeout**: You can set the matching timeout period. If the authentication is not completed within the set time, the authentication fails.<br>▪ **View Image**: Displays the image of the fingerprint on the screen during the authentication process.<br>▪ **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.<br>▪ **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.<br>▪ **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.<br>▪ **Duplicate Check**: You can check for duplicates when registering fingerprints or faces.<br>▪ **Enrollment Time**: If a face is not registered during the set time when registering a user's face, the face registration will be canceled.<br>▪ **Motion Sensor**: Set the sensitivity for detecting motion near the device.<br>▪ **Ambient Brightness**: Sense the brightness near the device and adjust the intensity of IR LED.<br>▪ **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.<br>▪ **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. |

| No. | Item | Description |
|---|---|---|
| | | **Note**<br>▪ **Fingerprint LFD** is available only for BioStation A2, BioStation L2, BioEntry W2 and BioLite N2.<br>▪ **Enrollment Time**, **Motion Sensor, Ambient Brightness**, **Enhanced fake face enrollment block** and **Quick Enrollment** is available only for FaceStation 2. |
| 7 | Card Type | You can set the type of card used by the device.<br>**Note**<br>▪ The type of card supported by the device is displayed.<br>▪ **CSN Card**: You can select the CSN card and format type and set the byte order.<br>**Note**<br>▪ 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.<br>▪ 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.<br>▪ 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.<br>▪ **Wiegand Card**: You can select a Wiegand card type and set the Wiegand format.<br>**Note**<br>▪ You can select the Wiegand format to be used in the device. To set a new Wiegand format, refer to Wiegand.<br>▪ **Smart Card**: It is possible to select the smart card layout to be used in the device. To set a new smart card layout, refer to Smart / Mobile Card.<br>▪ **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, Interphone and Camera.
3) Click **Apply** to save the settings.

**Note**

- Editable fields vary depending on the device type.

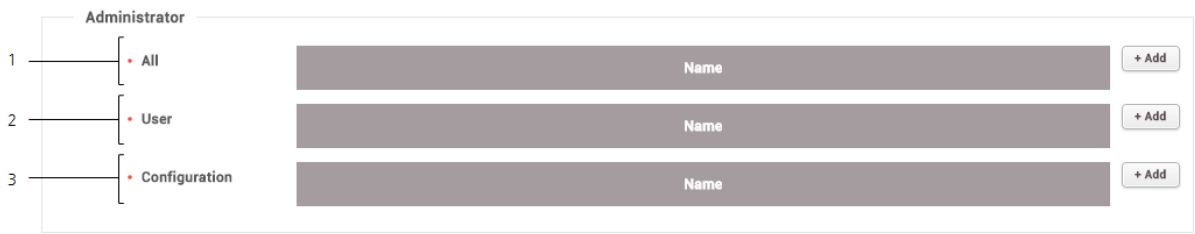
### Administrator

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 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. |

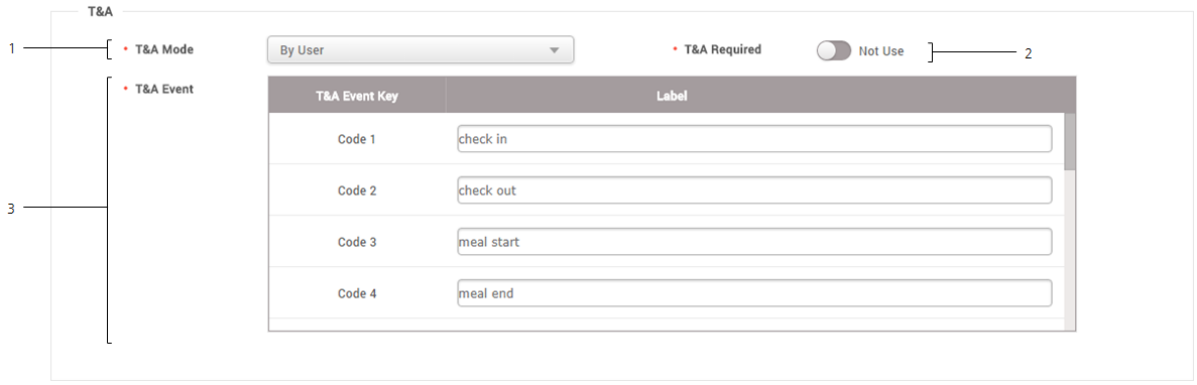
**Note**

- 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.<br><br>▪ **Not Use**: The user cannot record T&A events.<br>▪ **By User**: The user can manually select a T&A event before the authentication.<br>▪ **By Schedule**: T&A event automatically changes according to the pre-defined schedule. You can select the schedule under the **T&A Event** option.<br>▪ **Last Choice**: The T&A event that the last user has selected remains unchanged until you change the T&A event manually.<br>▪ **Fixed**: The user can use the fixed T&A event only. Configure the **T&A** |

| No. | Item | Description |
|---|---|---|
| | | **Mode** to **Fixed** and select the event you want to use as fixed. |
| 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**.<br><br>▪ **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.<br>▪ **Label**: You can change the name of the T&A event for the T&A key.<br>▪ **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**

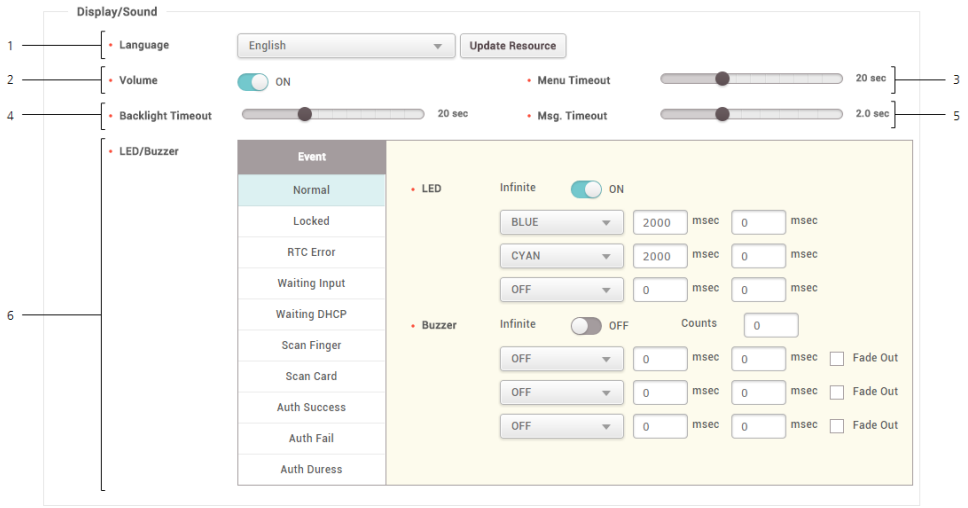
- Editable fields may vary depending on the device type.

1) Edit the necessary fields.

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

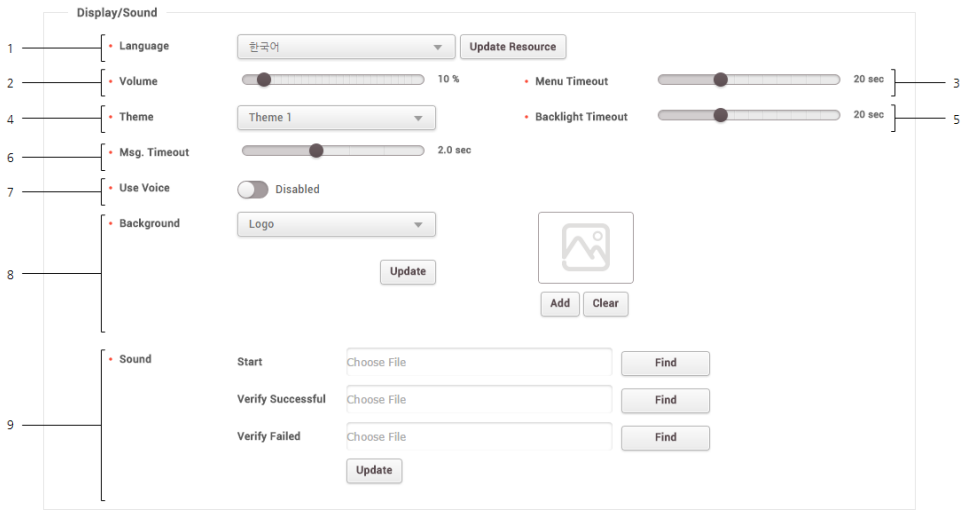
**Note**

- **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.<br>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. |

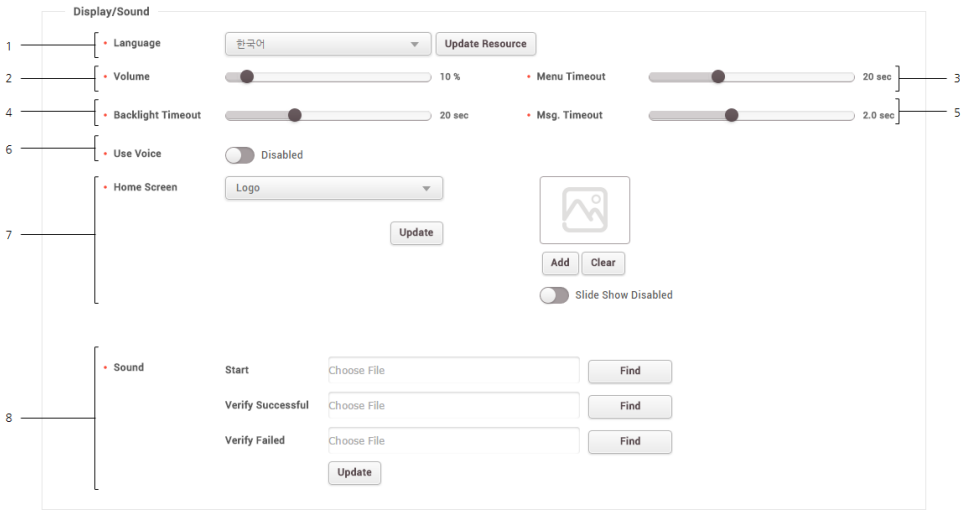
- BioStation 2, BioStation L2, BioLite N2, FaceLite



| No. | Item | Description |
|---|---|---|
| 1 | Language | Sets the display language of the device.<br>Click **Update Resource** to transfer a language resource file to the device. |
| 2 | 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.<br>▪ **Logo**: Displays the user's uploaded image on the home screen. You can upload an image by clicking **Add**.<br>▪ **Notice**: Displays messages typed by the administrator.<br>▪ **Slide Show**: Displays a slideshow of maximum 10 images. You can upload an image by clicking **Add**.<br>**Note**<br>▪ Click **Update** to apply the configurations to the device instantly.<br>▪ Clicking **Update** will not apply when you change the type of the **Background**. Click **Apply** to save the configuration. |
| 9 | Sound | Configures the sound effect for boot, authentication success, and authentication failure events.<br>Click **Find** and select a *.wav file(less than 500KB).<br>**Note**<br>▪ Click **Update** to apply the configurations to the device in real-time. |

- BioStation A2, FaceStation 2

# 6 Device



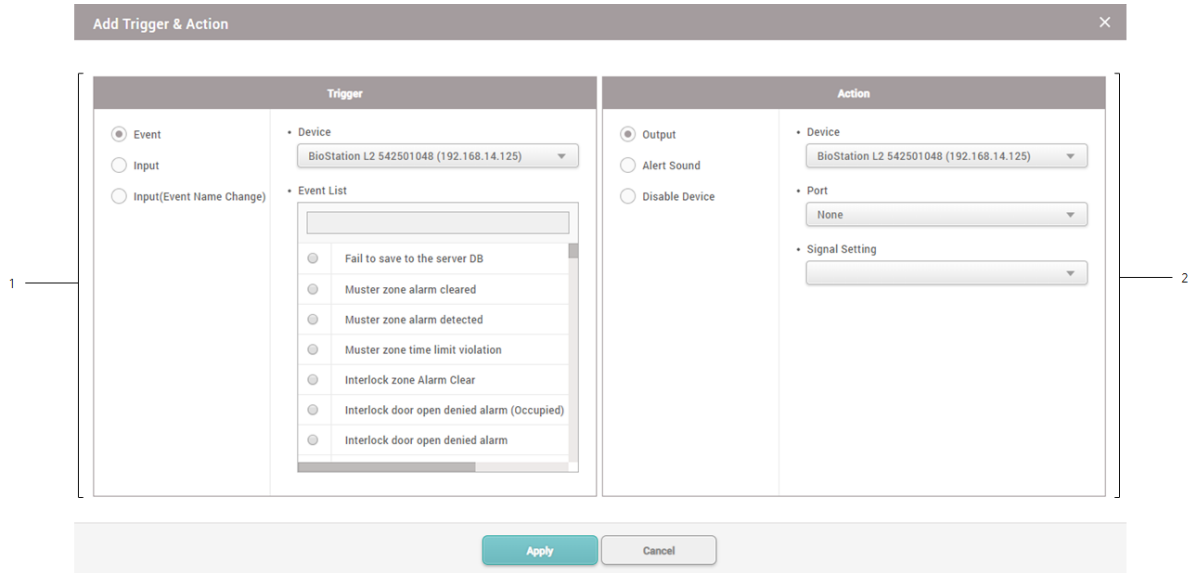

| No. | Item | Description |
|---|---|---|
| 1 | Language | Sets the display language of the device.<br>Click **Update Resource** to transfer a language resource file to the device. |
| 2 | Volume | Controls the volume. |
| 3 | Menu Timeout | Sets the timeout for the menu screen. |
| 4 | Backlight Timeout | Sets the timeout for the backlight. |
| 5 | Msg. Timeout | Sets the timeout period for various messages to disappear automatically. |
| 6 | Use Voice | Enables voice guidance. |
| 7 | Home Screen | Sets the items to be displayed on the device's home screen.<br><br>▪ **Normal**: Displays the default image on the home screen.<br>▪ **Logo**: Displays the user's uploaded image on the home screen. You can upload an image by clicking **Add**.<br>▪ **Notice**: Displays messages typed by the administrator.<br><br>**Note**<br><br>▪ Click **Update** to apply the configurations to the device instantly.<br>▪ Clicking **Update** will not apply when you change the type of the **Background**. Click **Apply** to save the configuration.<br>▪ 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**. |

| No. | Item | Description |
|---|---|---|
| 8 | Sound | Configures the sound effect for boot, authentication success, and authentication failure events.<br>Click **Find** and select a *.wav file(less than 500KB).<br><br>**Note**<br>▪ 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.




| No. | Item | Description |
|---|---|---|
| 1 | Trigger | You can select a pre-defined event or add a user defined trigger.<br><br>▪ **Event**: You can select a pre-defined event.<br>▪ **Input**: You can set a user defined trigger by selecting Port, Switch, Duration (ms), and Schedule.<br>▪ **Input(Event Name Change)**: You can set a user defined trigger by selecting Port, Switch, Duration (ms), Schedule and Event Name. |

| | | |
|---|---|---|
| | | **Note**<br>▪ If you set the trigger as an event, you can select only one event from the event list.<br>▪ 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.<br>▪ 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.<br>▪ 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.<br>**Note**<br>▪ When configuring a user defined action by selecting **Output**, if no desired schedule is available, click **+ Add Schedule** to create it. For more information on configuring schedules, see Schedules.<br>▪ If you set the trigger as **Input(Event Name Change)**, you can set the Action to **None**. |

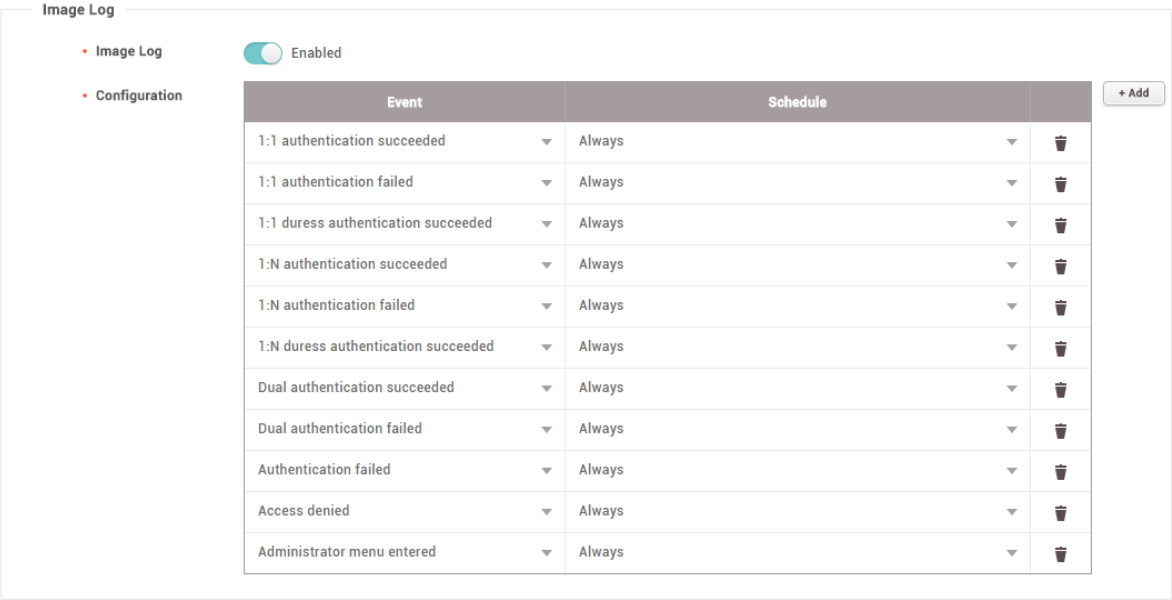
Image Log

You can set an image log event and schedule to be used in the device. An image log can be used in the device with a built-in camera, and 25 types of event can be used.

**Note**

- Only for BioStation A2 and FaceStation 2.

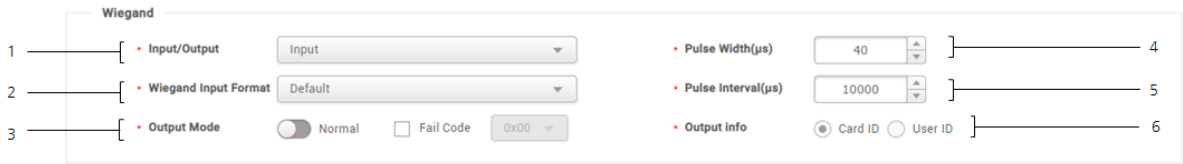
1) Set **Enabled** for the image log. It is possible to set **Preset** from **Setting** > **Image Log**. For more information, see Image Log.
2) Click **+ Add** and set a desired event and schedule.




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.<br>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**.


Interphone

You can set the interphone.

Analog Interphone

SIP Interphone

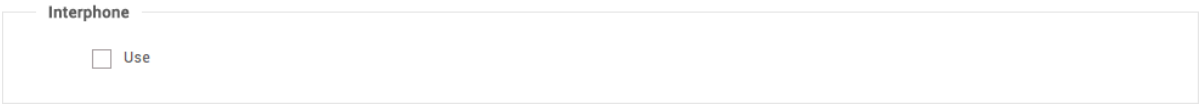
Analog Interphone

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.



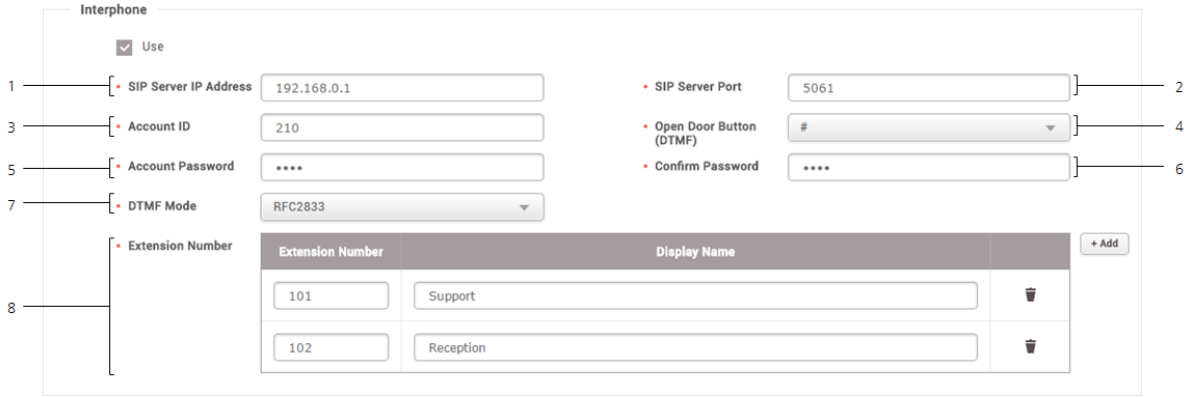

SIP Interphone

It is possible to set whether or not to use a SIP interphone.

**Note**

- Only for BioStation A2 and FaceStation 2.
- It is recommended to use Asterisk for the SIP server.

1) Click Use to to use a connected interphone.
2) Edit the necessary fields.




| No. | Item | Description |
|---|---|---|
| 1 | SIP Server IP Address | You can enter the IP address of the SIP server. |
| 2 | SIP Server Port | You can set the SIP server port. The default value is 5061. |
| 3 | Account ID | You can enter the account ID of the SIP server. |
| 4 | Open Door Button(DTMF) | You can set a button for carrying out an entrance door relay. |
| 5 | Account Password | You can enter the account password of the SIP server. |
| 6 | Confirm Password | Enter the account password one more time. |
| 7 | DTMF Mode | You can set the mode for transmitting DTMF signals. |
| 8 | Extension Number | You can register up to 16 extension numbers. Click **+ Add** to add an extension number. |

Camera

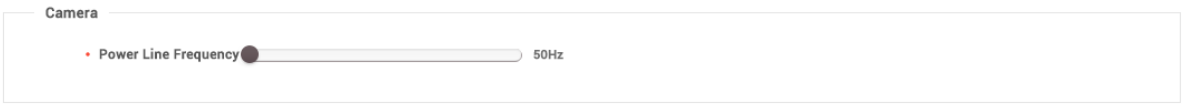
It is possible to set the camera frequency. If you set the frequency incorrectly in the environment where the fluorescent light is used, flickering on the image may occur.
Different camera frequencies are used depending on geographic location. 60 Hz is generally used in

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.



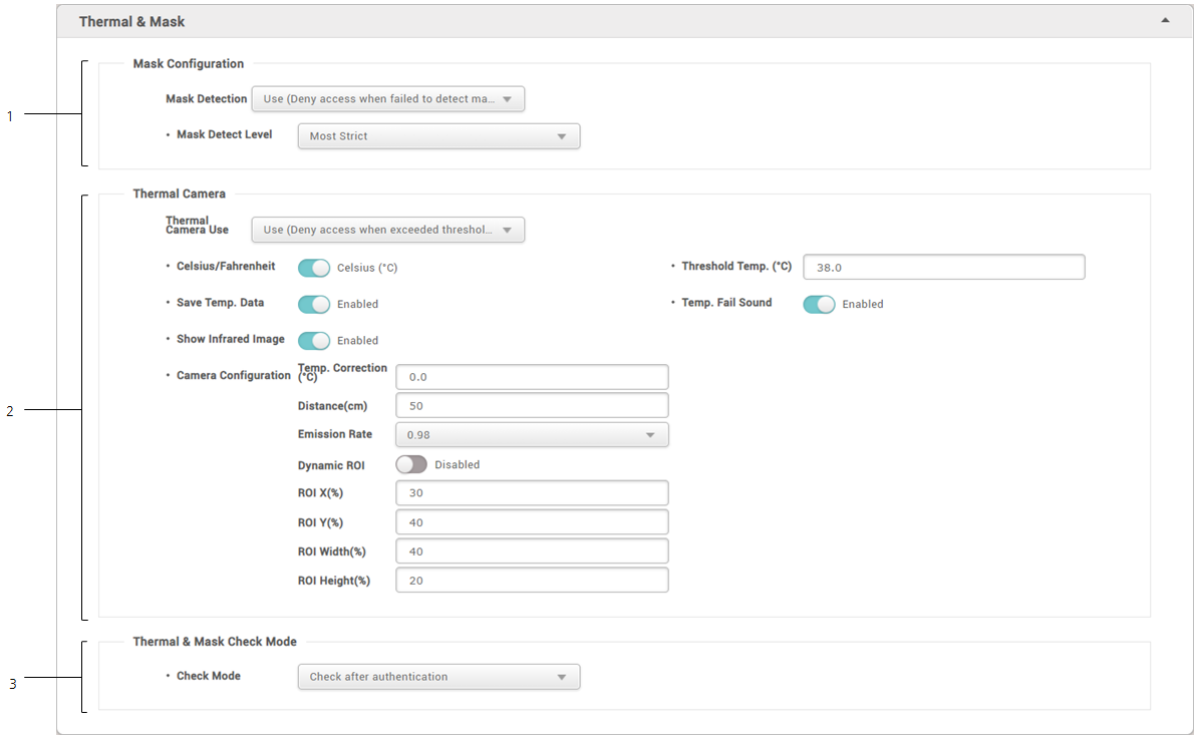

## Thermal & Mask

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 supports mask detection.

1) Edit the necessary items.




| No. | Item | Description |
|---|---|---|
| 1 | Mask Configuration | You can set whether to use mask detection or not.<br><br>▪ **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.<br>▪ **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.<br><br>▪ **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.<br>▪ **Celsius/Fahrenheit**: Change the unit of temperature.<br>▪ **Threshold Temp. (? /? )**: Set the threshold temperature to limit the access. Users with detected temperature over the threshold will be denied access.<br>▪ **Save Temp. Data**: Save temperature data. When this mode is **Enabled**, it saves both authentication and temperature logs. When this mode is |

| No. | Item | Description |
|---|---|---|
| | | **Disabled**, it only saves authentication logs.<br>▪ **Temp. Fail Sound**: Set the alerts to trigger when the temperature is higher than the preset threshold.<br>▪ **Show Infrared Image**: Display infrared imaging on the screen of the devices.<br>▪ **Camera Configuration**: Configure the thermal camera settings for accurate measurement.<br>- **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? .<br>- **Distance(cm)**: Set up the distance between the user and device.<br>- **Emission Rate**: Set up the emissivity to precisely measure the temperature of the user.<br>- **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.<br>- **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.<br><br>**Note**<br><br>▪ It is recommended to maintain the default values of the camera configuration settings for the best performance. The default values of each option are as follows:<br>- **Distance(cm)**: The distance may have different default values ? depending on the device. (FaceStation 2: 80 cm / FaceStation F2: 50 cm)<br>- **Emission Rate**: 0.98<br>- **ROI X(%)**: 30<br>- **ROI Y(%)**: 40<br>- **ROI Width(%)**: 40<br>- **ROI Height(%)**: 20 |
| 3 | Thermal & Mask Check Mode | Set the thermal & mask check mode depending on the desired usage.<br><br>▪ **Check after authentication**: Measure the temperature or detect the mask after a successful authentication.<br>▪ **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 detected to be above the threshold. |

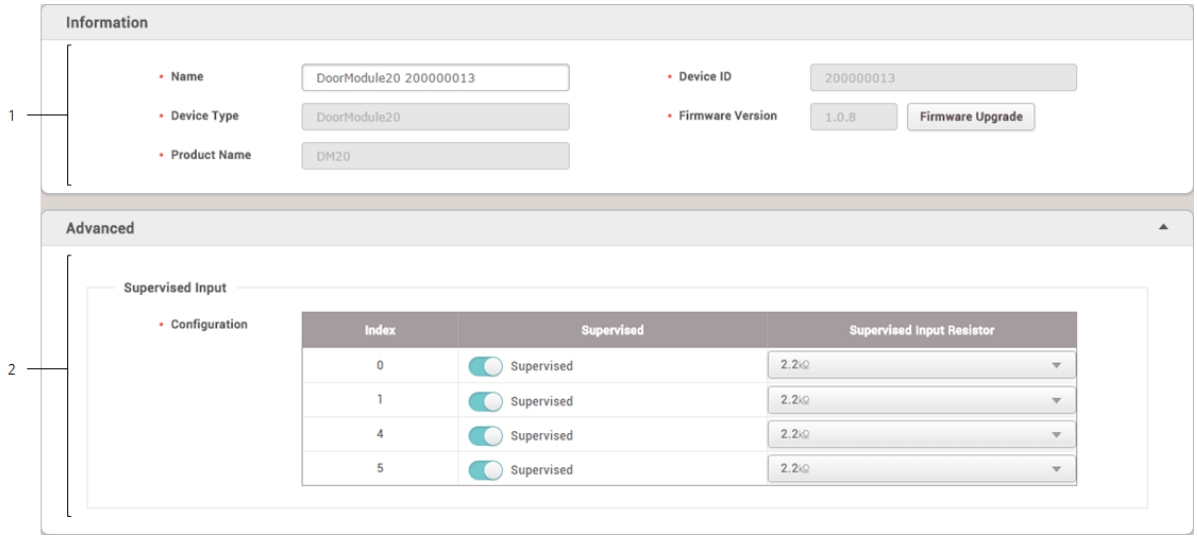
| No. | Item | Description |
|---|---|---|
| | | ▪ **Check without authentication**: The device may only be used to determine whether a mask is worn or to measure temperature. In this mode, regardless of authentication, all users wearing a mask or below the reference temperature can enter. |

2) Click **Apply** to save the settings.

## 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.<br><br>▪ **Name**: Enter a device name.<br>▪ **Device ID**: View the device ID.<br>▪ **Device Type**: View the device type.<br>▪ **Firmware Version**: Click **Firmware Upgrade** to install a newer firmware version.<br>▪ **Product Name**: View the model name. |

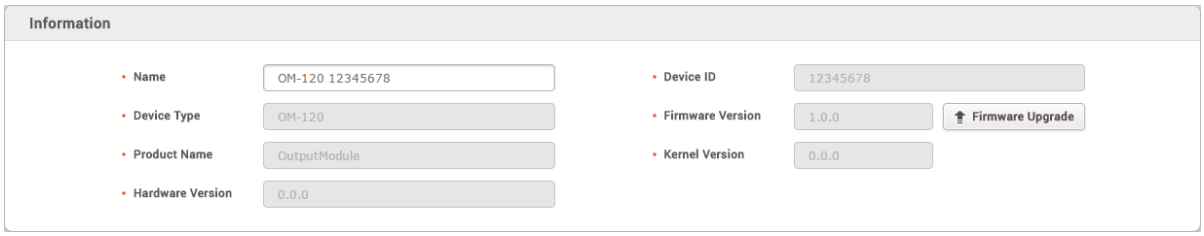
| No. | Item | Description |
|---|---|---|
| 2 | Advanced | You can modify the Supervised Input settings. The DM-20 can oversee the On, Off, Open, and Short status of the device connected to the Supervised Input port, and can set the terminating resistor as 1㏀, 2.2㏀, 4.7㏀, 10㏀. |

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.




| No. | Item | Description |
|---|---|---|
| 1 | Information | You can modify the device's settings.<br><br>▪ **Name**: Enter a device name.<br>▪ **Device ID**: View the device ID.<br>▪ **Device Type**: View the device type.<br>▪ **Firmware Version**: Click **Firmware Upgrade** to install a newer firmware version.<br>▪ **Product Name**: View the model name.<br>▪ **Kernel Version**: View the kernel version.<br>▪ **Hardware Version**: View the hardware version. |

3) Click **Apply** to save the settings.

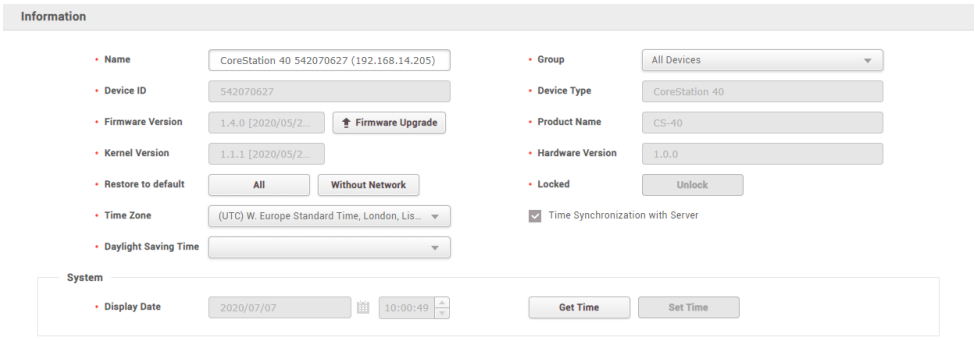
## CoreStation

You can edit detailed settings of registered CoreStation.

# 6 Device

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

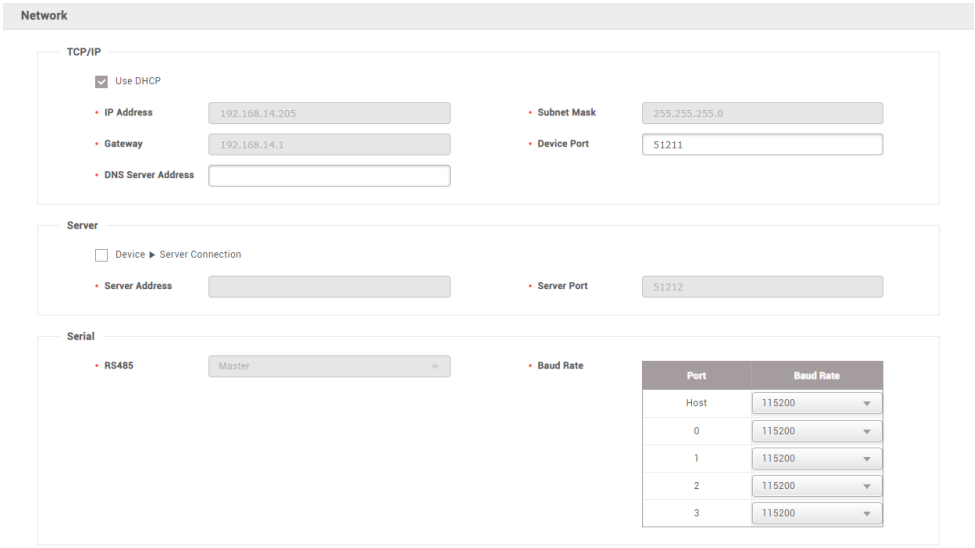
## ─ Information




| Item | Description |
|---|---|
| Information | ▪ **Name**: Enter a device name.<br>▪ **Device ID**: View the device ID.<br>▪ **Firmware Version**: Click **Firmware Upgrade** to install a newer firmware version.<br>▪ **Kernel Version**: View the kernel version.<br>▪ 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.<br>▪ **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.<br>▪ **Daylight Saving Time**: Apply the daylight saving time to the device. To add a new daylight saving time rule, see Daylight Saving Time.<br>▪ **Group**: Change the device group. For more information on adding device groups, see Adding and Managing Device Groups.<br>▪ **Device Type**: View the device type.<br>▪ **Product Name**: View the model name.<br>▪ **Hardware Version**: View the hardware version.<br>▪ **Locked**: **Unlock** button will be available when the device is disabled via **Trigger & Action**.<br>▪ **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.<br>▪ **Get Time**: Click the button to fetch the time set in the device.<br>▪ **Set Time**: Click the button to apply the time set in BioStar 2 to the |

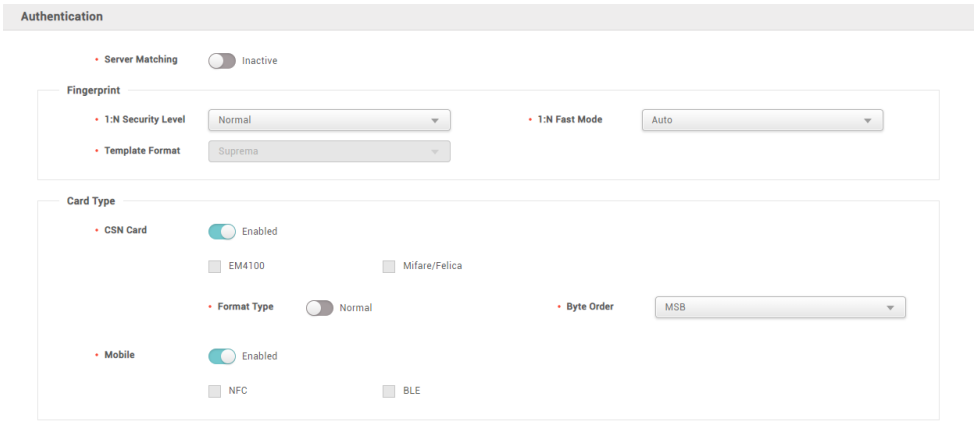
| Item | Description |
|---|---|
| | device. |

## 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.<br>▪ **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.<br>▪ **Device Port**: Enter a port to be used by the device. This port is used for the communication between BioStar 2 and the device.<br>▪ **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.<br>▪ **Server Address**: Enter the IP address or domain name of the BioStar 2 server.<br>▪ **Server Port**: Enter the port number of the BioStar 2 server. |
| Serial | ▪ **RS-485**: You can only use **Master**.<br>▪ **Baud Rate**: Set a baud rate of the RS-485 connection. |

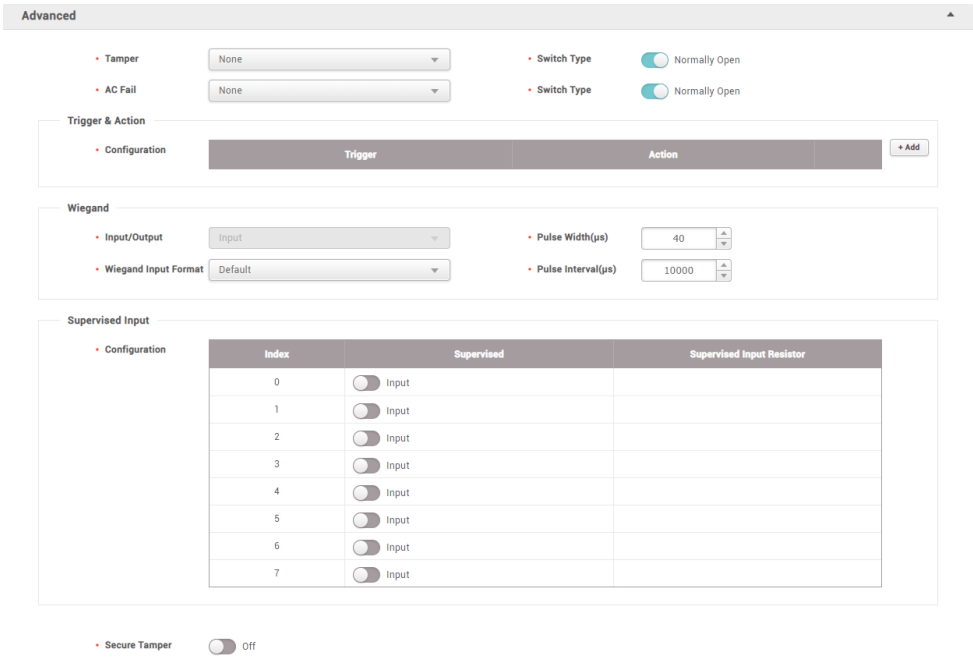
## Authentication



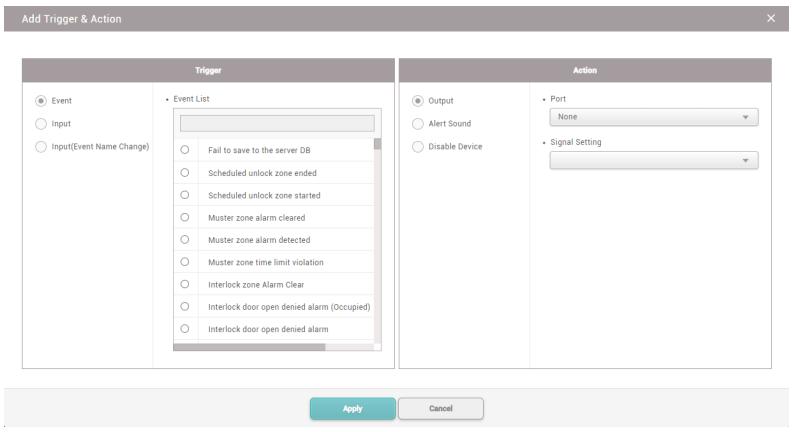

| Item | Description |
|---|---|
| Authentication | ▪ **Server Matching**: It is possible to set server matching. When **Active** is set, the authentication is carried out using the user information stored in the PC where BioStar 2 is installed, and when **Inactive** is set, the authentication is carried 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.<br>▪ **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.<br>▪ **Template Format**: You can view the fingerprint template format. |
| Card Type | You can set the type of card used by the device.<br><br>**Note**<br>▪ The type of card supported by the device is displayed.<br><br>▪ **CSN Card**: You can select the CSN card and format type and set the byte order.<br><br>**Note**<br>▪ 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.<br>▪ If **Format Type** is set to **Wiegand**, you can select the |

| Item | Description |
|---|---|
| | Wiegand format to be used in the device. To set a new Wiegand format, refer to Wiegand.<br>▪ 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.<br>▪ **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.<br>▪ **AC Fail**: You can set the AUX port that monitors the power input 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. |

| Item | Description |
|---|---|
| |  |
| Wiegand | ▪ **In/Out**: You can only use input mode.<br>▪ **Input Format**: You can set a format for Wiegand. For more information on setting a Wiegand format, see Card Format.<br>▪ **Pulse Width**: You can set the pulse width of the Wiegand signal.<br>▪ **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. 1㏀, 2.2㏀, 4.7㏀ and 10㏀ 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. |

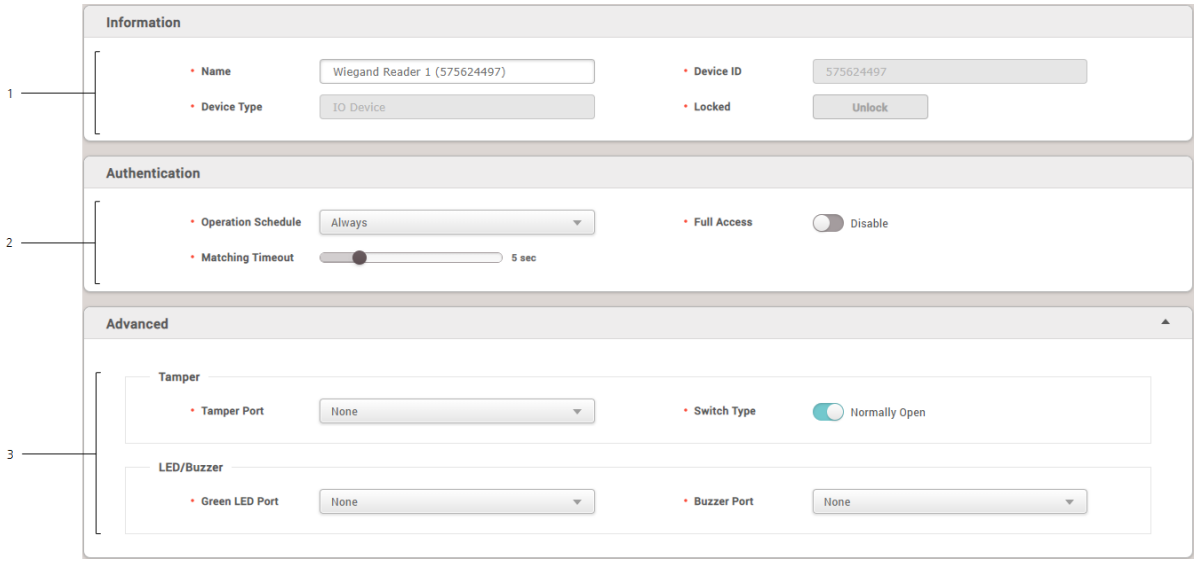
4) Click **Apply** to save the settings.

## 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.<br><br>▪ **Name**: Enter a device name.<br>▪ **Device ID**: View the device ID.<br>▪ **Device Type**: View the device type. |
| 2 | Authentication | Modify the Wiegand device's authentication settings.<br><br>▪ **Operation Schedule**: Configure the activating time for the device.<br>▪ **Full Access**: Allows the user to authenticate anytime. This overrides the access group of the user on the master device.<br>▪ **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.<br><br>▪ **Tamper Port**: Select the input port where the Wiegand device's tamper switch is connected.<br>▪ **Switch Type**: Select the tamper switch type for the tamper operation.<br>▪ **Green LED Port**: Select the control port for the green LED.<br>▪ **Buzzer Port**: Select the control port for the buzzer. |

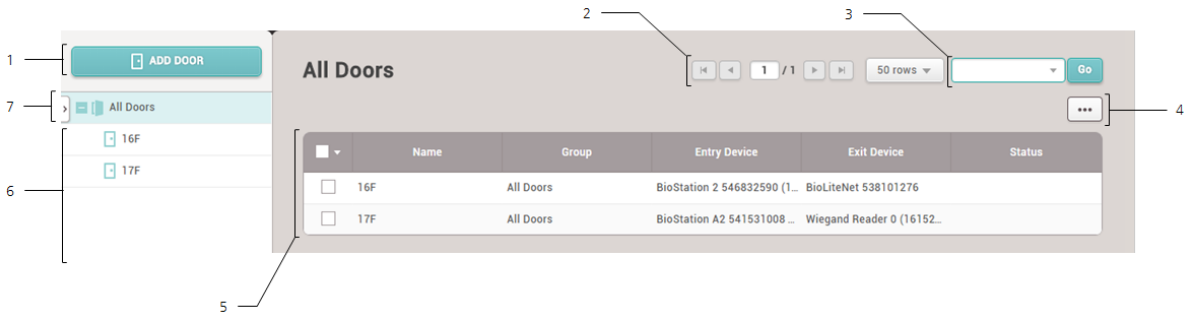
3) Click **Apply** to save the settings.

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






| | |
|---|---|
| 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.

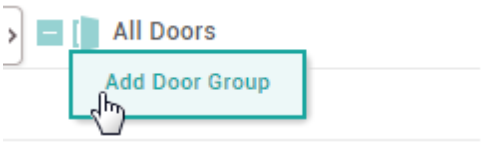
- **Delete Door**: Deletes the selected door from the list.

## 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**.



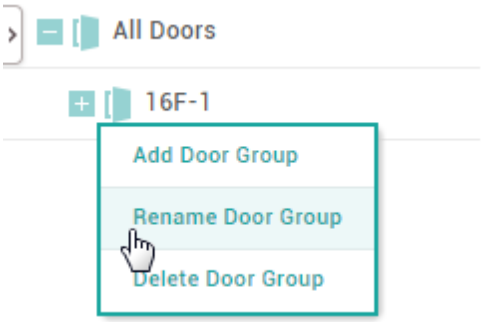

3) Enter a group name.

**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**.



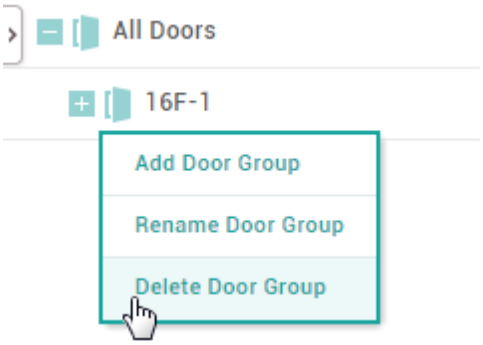

3) Enter a name.

**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.

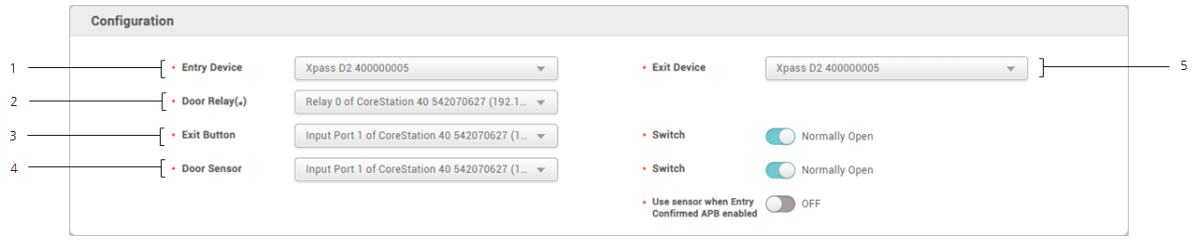

| No. | Item | Description |
|---|---|---|
| 1 | Name | Enter a door name. |
| 2 | Group | Set a door group. For more information on adding door groups, see Adding and Managing Door Groups. |
| 3 | Description | Enter a short description of the door. |

2) Click **Apply** to save the settings.

### Configuration

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

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.<br>▪ The **Switch** can be set to **Normally Closed** or **Normally Open**. |
| 4 | Door sensor | Select a port to check the door status.<br>▪ The **Switch** can be set to **Normally Closed** or **Normally Open**.<br>▪ **Use sensor when Entry Confirmed APB enabled**: You can set whether to use the door sensor when using **Entry Confirmed APB**.<br>▪ 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.<br>▪ 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**

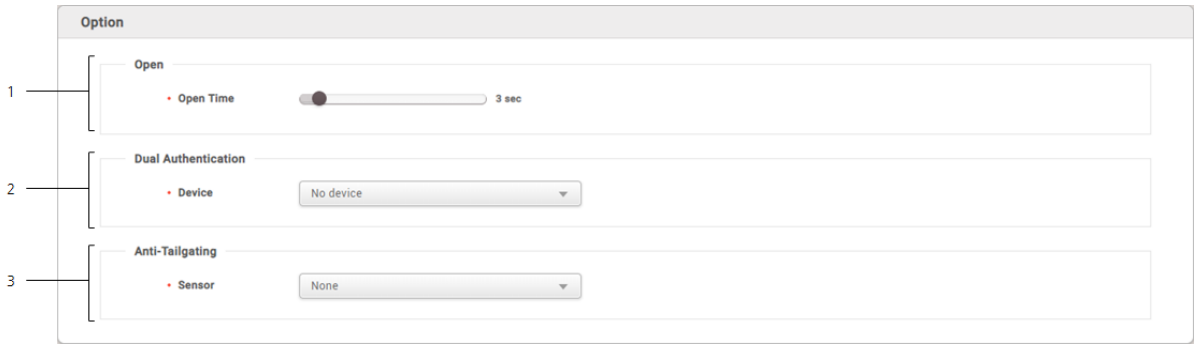
Anti Passback

# 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.<br><br>▪ **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.<br><br>**Note**<br>▪ **Open Time** may vary depending on the type of door lock used.<br><br>▪ **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**.<br>▪ **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 Authenticati on | You can configure the door to open only when authenticating credentials of two persons (an ordinary user and an administrator).<br><br>▪ **Device**: Select a device to use dual authentication. If **No device** is selected, the dual authentication mode is disabled.<br>▪ **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.<br>▪ **Approval Type**: You can configure the administrator authentication order. Setting to **None** will require two users to authenticate regardless to |

| No. | Item | Description |
|---|---|---|
| | | 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.<br>▪ **Authentication Group**: You can configure a group to which the administrator belongs.<br>▪ **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.<br><br>▪ **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.<br><br>▪ **None**: Select this option to disable the Anti-passback feature.<br>▪ **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. |

| No. | Item | Description |
|---|---|---|
| | | ▪ **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**.

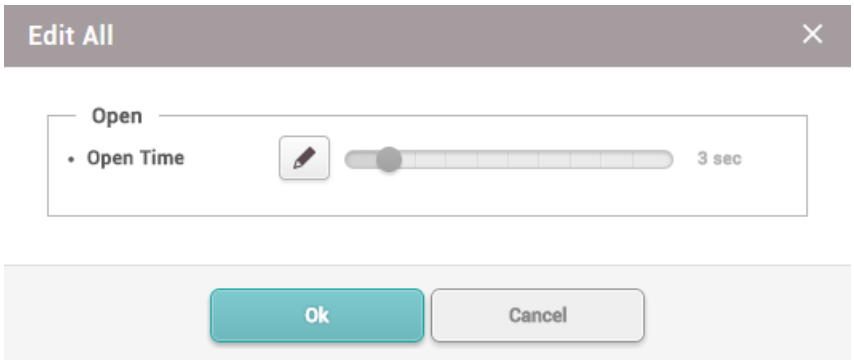

| No. | Item | Description |
|---|---|---|
| 1 | Held Open | You can configure alarm actions to be taken when the door is held open.<br>Click **+ Add** and select an action. Click **OK** to add the action. |
| 2 | Held Open Time | You can configure the maximum allowed time for the door to remain open. |
| 3 | Forced Open | You can configure alarm actions to be taken when the door is opened by force.<br>Click **+ Add** and select an action. Click **OK** to add the action. |
| 4 | Anti-passback | You can configure alarm actions to be taken when an Anti-passback violation occurs.<br>Click **+ Add** and select an action. Click **OK** to add the action.<br>▪ 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

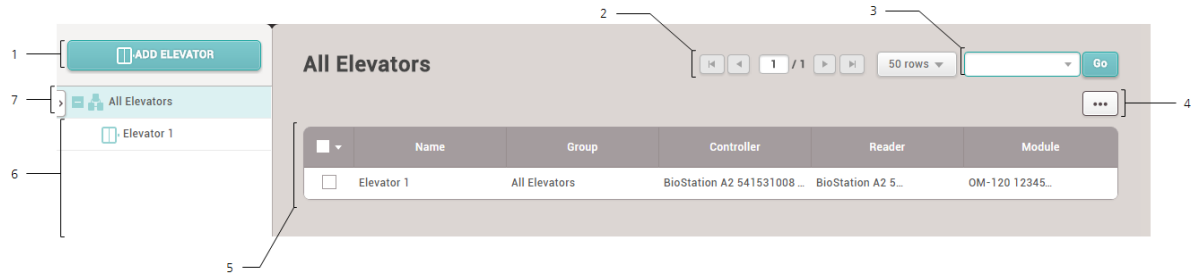
Adding Elevators

Editing Elevatos

**Note**

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

# 8 Elevator




| | |
|---|---|
| 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.

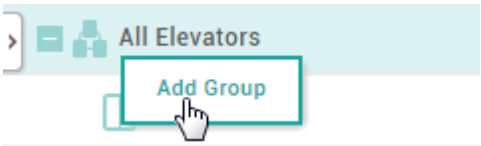
- **Delete Elevator**: Deletes the selected elevator from the list.

## 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**.



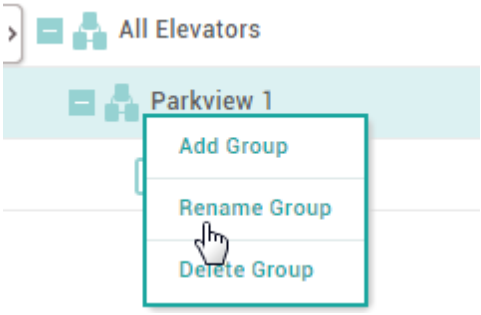

3) Enter a group name.

**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**.



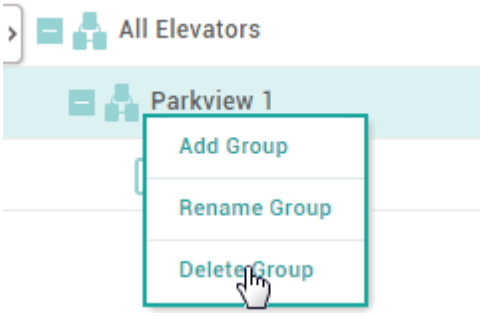

3) Enter a name.

**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

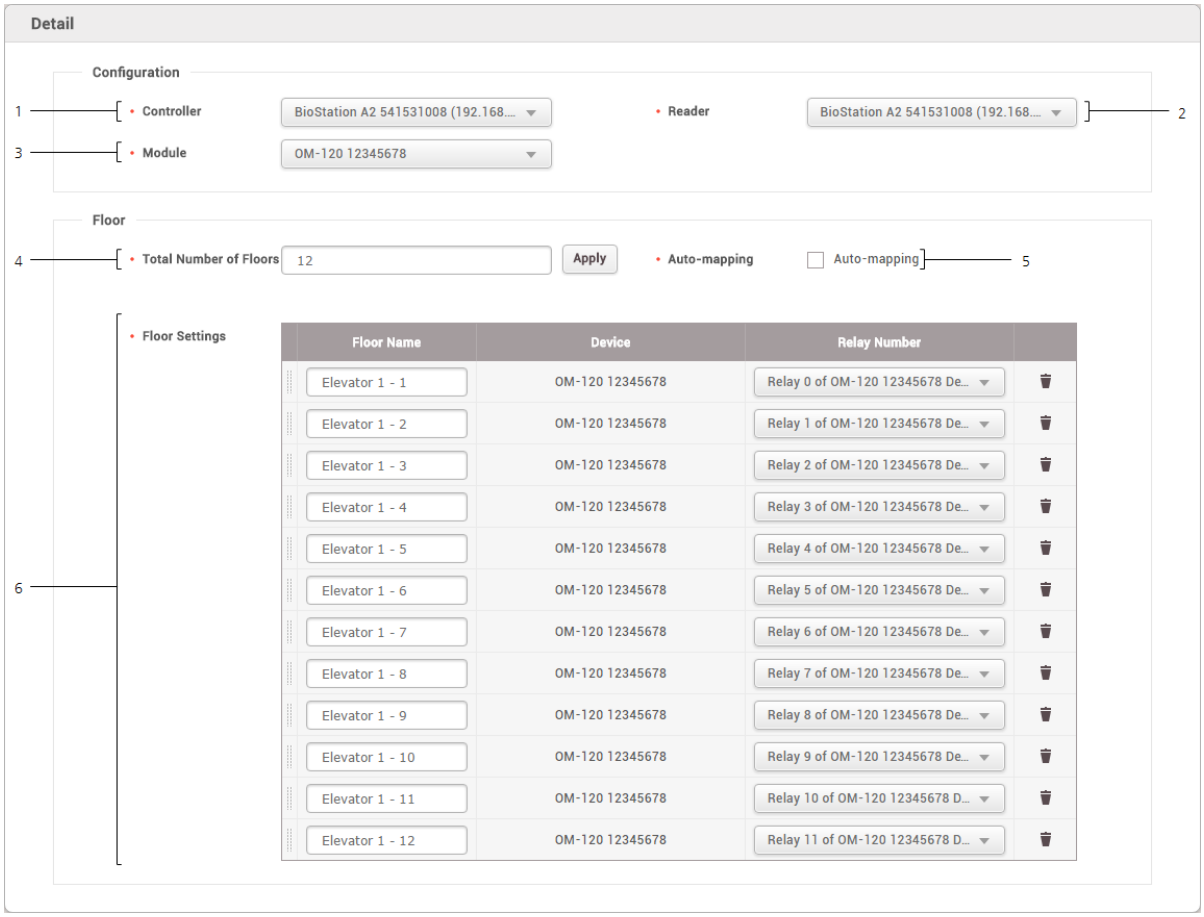
You can select a device to connect to the elevator and floor information.

**Note**

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

1) Edit all fields of the **Detail** tab.

# 8 Elevator




| No. | Item | Description |
|---|---|---|
| 1 | Controller | Select a device that controls the elevator access permission.<br><br>**Note**<br>▪ Only a master device can be selected.<br>▪ 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.<br><br>**Note**<br>▪ You can select a device among the master device, slave device, and Wiegand device.<br>▪ OM-120 cannot be set as the reader. |
| 3 | Module | Select OM-120 to control the elevator button relay.<br><br>**Note**<br>▪ Only OM-120 can be selected. |
| 4 | Total Number of | Enter the total number of floors that you can move using the elevator. |

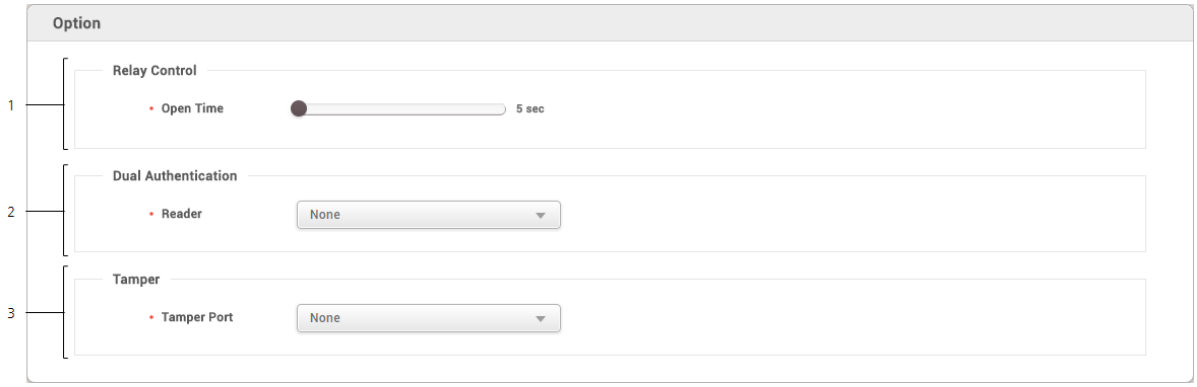
| No. | Item | Description |
|---|---|---|
| | Floors | **Note**<br>▪ Up to 192 floors can be entered. |
| 5 | Auto-mapping | Select whether or not to use auto-mapping. If **Auto-mapping** is used, **Relay Number** is assigned in consecutive order. |
| 6 | Floor Settings | You can set the floor name 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.<br>▪ **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).<br>▪ **Device**: Select a device to use dual authentication. If **No device** is selected, the dual authentication mode is disabled.<br>▪ **Schedule**: Set a schedule to use dual authentication. If no desired schedule is available, click **+ Add Schedule** to create it. For more |

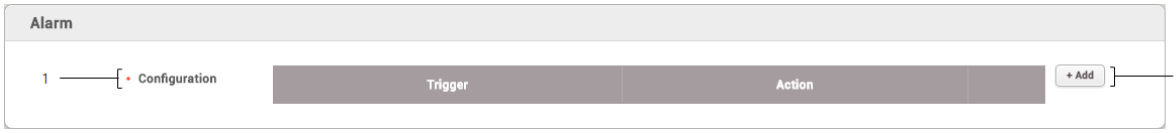
| No. | Item | Description |
|---|---|---|
| | | information on configuring schedules, see Schedules.<br>▪ **Approval Type**: You can configure the administrator authentication order. Setting to **None** will require two users to authenticate regardless to the access group. Setting to **Last** will require an authentication by a user belonging to an access group that has been set after a normal user authentication.<br>▪ **Authentication Group**: You can configure a group to which the administrator belongs.<br>▪ **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. |
| 2 | Action | An action can be set to be performed according to the status set under trigger.<br>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.

# 8 Elevator

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

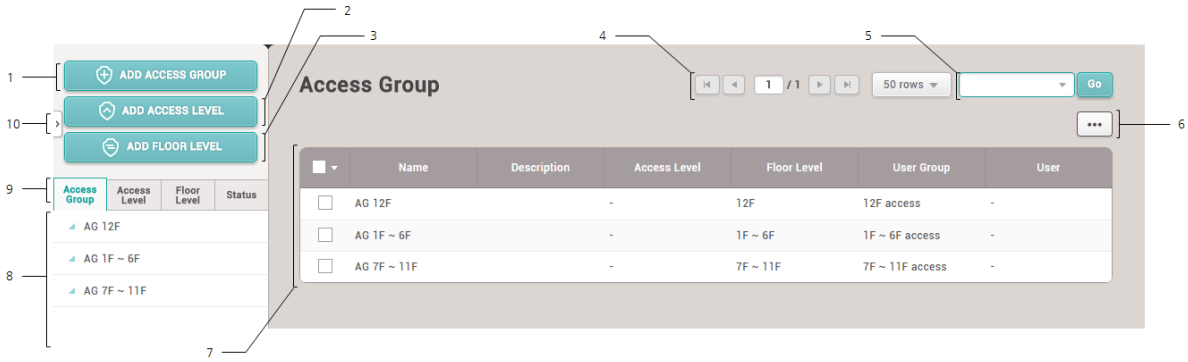
Adding and Managing Access Groups

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.




| | |
|---|---|
| 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 |

| | |
|---|---|
| 1 Add Access Group | 6 Function Button (Print, Column Setting) |
| 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.
- 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

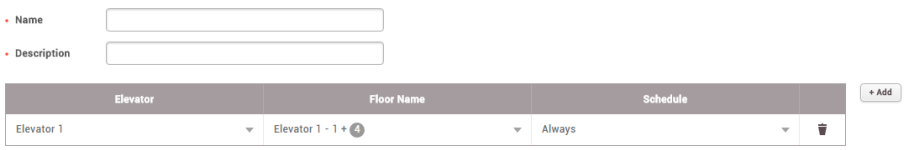
You can configure the floor access privileges by using elevators and floor information.

**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**.

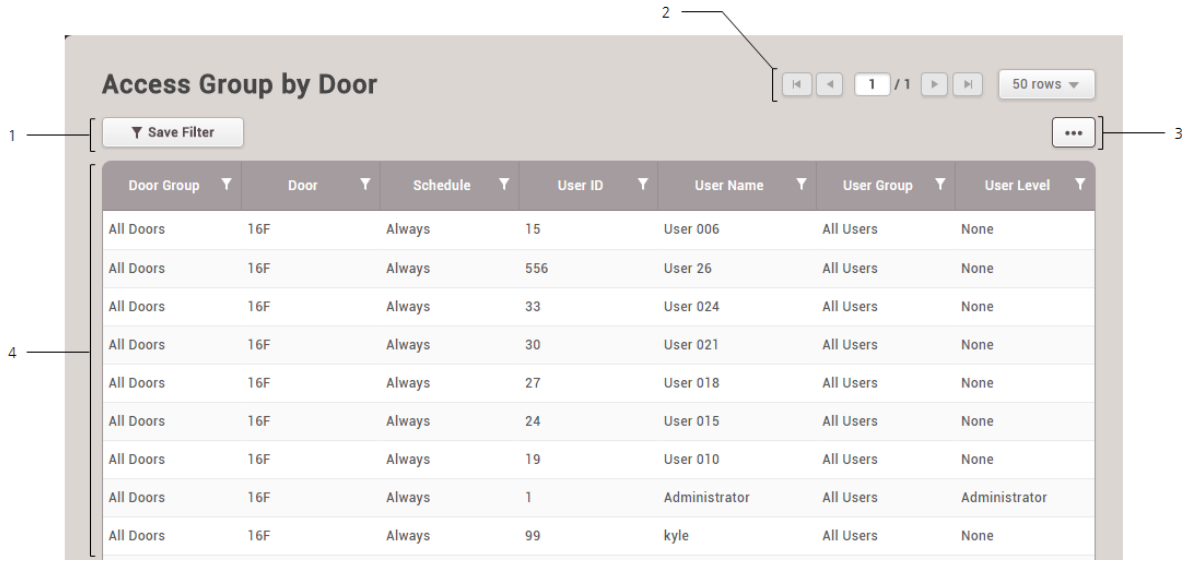
### ▬ Deleting Floor Level

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.



# 9 Access Control

| 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.<br>▪ : Go to the first page.<br>▪ : Go to the previous page.<br>▪ 2 / 2: Enter the page number to move to.<br>▪ : Go to the next page.<br>▪ : Go to the last page.<br>▪ 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. |

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

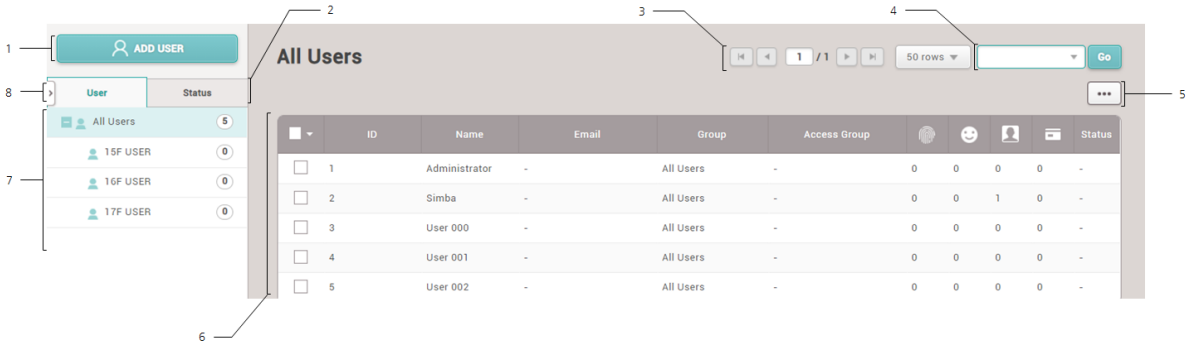
Enroll Card

Transferring User Information to Devices

Editing User Information

Managing Long-term Idle Users

# 10 Users




| | | | |
|---|---|---|---|
| 1 | Add User | 5 | Function Button (Print, Column Setting, CSV Export, CSV Import, Data File Export, Data File Import, Send Visual Face Mobile Enrollment Link) |
| 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.

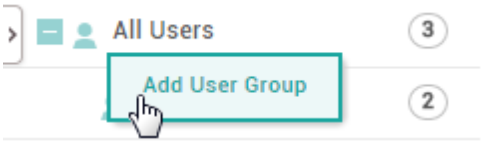
- **Batch Edit**: Batch edits the information on multiple users. This function is available only when multiple users are selected.
- **Transfer to Device**: Transfers user information registered with BioStar 2 to devices.
- **Delete User**: Deletes the selected user from BioStar 2. User information registered 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**.



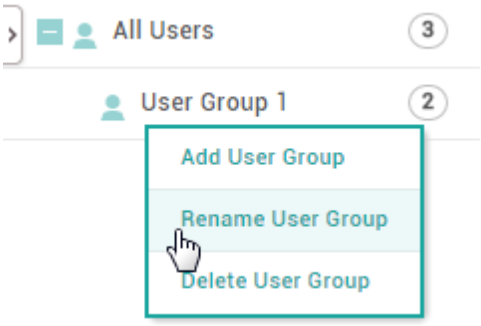

3) Enter a group name.

**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**.



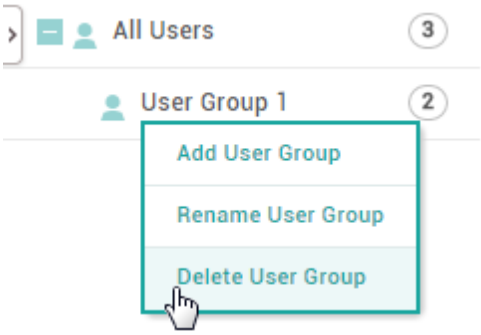

3) Enter a group name.

**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**.




**Note**

- Deleting a group deletes all users in the group from BioStar 2.

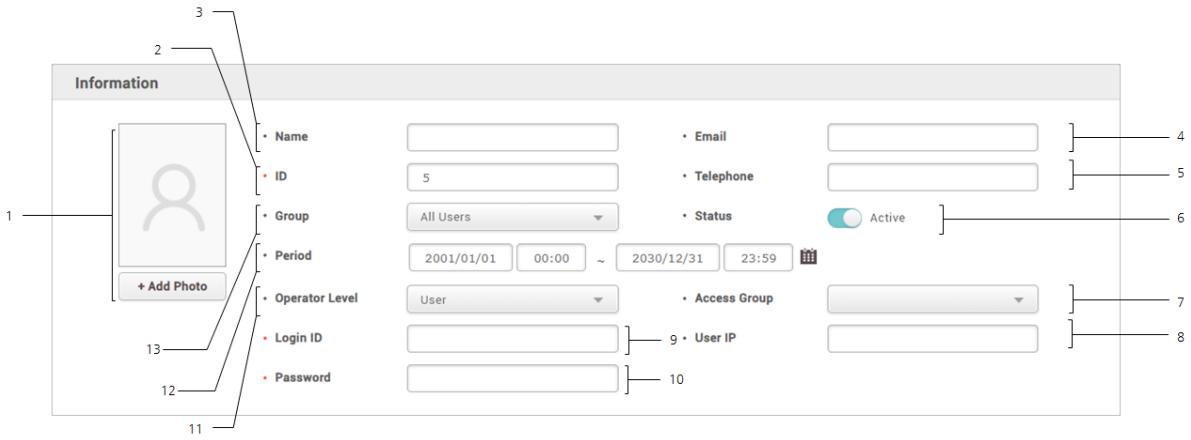
## Adding User Information

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.<br>**Note**<br>▪ Only an image file can be uploaded. |

| No. | Item | Description |
|---|---|---|
| 2 | ID | Enter a unique ID to assign to the user.<br><br>**Note**<br>▪ When **Number** is set for **User ID Type** in **Setting** > **Server**, a number between 1 and 4294967295 can be entered.<br>▪ When **Alphanumeric** is set for **User ID Type** in **Setting** > **Server**, a combination of alphabetic characters and numbers can be entered.<br>▪ Do not use spaces when entering ID.<br>▪ Numbers or Alphanumeric characters can be set for the user ID type. For more details, refer to Server. |
| 3 | Name | Enter the user's name.<br><br>**Note**<br>▪ Up to 48 characters may be entered for the user's name. |
| 4 | Email | Enter the email address.<br><br>**Note**<br>▪ If the mobile access messaging option set as **Email**, user's email address is required when using the mobile access.<br>▪ User's email address is required when using visual face mobile enrollment. |
| 5 | Telephone | Enter the telephone number.<br><br>**Note**<br>▪ If the mobile access messaging option set as **Text Message**, user's telephone number is required when using the mobile access. |
| 6 | Status | You can temporarily deactivate the user's account. |
| 7 | Access Group | Set an access group. If no desired access group is available, add it by referring to Adding and Managing Access Groups. |
| 8 | 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.<br><br>**Note**<br>▪ 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.<br>▪ Users whose user IP is not registered can log in regardless of the IP information of the PC. |
| 9 | Login ID | Enter the login ID. |

| No. | Item | Description |
|---|---|---|
| | | **Note**<br>▪ The login ID appears when you set the **Operator Level**. |
| 10 | Password | Enter the login password. You can change the password level by referring to Server.<br>**Note**<br>▪ The password appears when you set the **Operator Level**.<br>▪ The **Confirm Password** will appear when you enter the password. Enter the password again to confirm. |
| 11 | Operator Level | Set a BioStar operator privilege level.<br>▪ **None**: The user has no operator privilege.<br>▪ **Administrator**: The user can use all menus.<br>▪ **User Operator**: The user can only use the **USER** and **PREFERENCE** menus.<br>▪ **Monitoring Operator**: The user can use the **MONITORING** and **PREFERENCE** menus and only view the **DASHBOARD**, **USER**, **DEVICE**, **DOOR**, **ZONE** and **ACCESS CONTROL** menus.<br>▪ **Video Operator**: The user can only use the **VIDEO** menu.<br>▪ **T&A Operator**: The user can only use the **TIME ATTENDANCE** menu and only view the **USER** menu.<br>▪ **User**: The user can only view own information and T&A records.<br>**Note**<br>▪ To set a new user permission, refer to Adding Custom Account Level.<br>▪ 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. |
| 12 | Period | Set an active period of the account. |
| 13 | Group | Select a user group. If no desired user group is available, add it by referring to Adding and Managing User Groups. |

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

## 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.

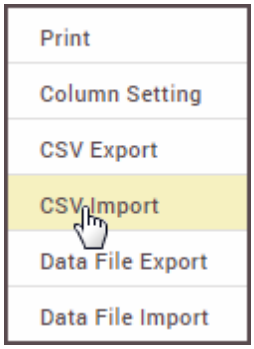
### CSV Export

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

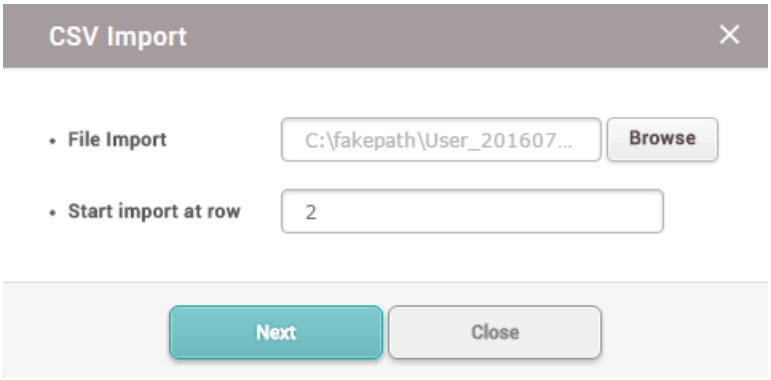

3) The CSV file will be downloaded automatically.

### CSV Import

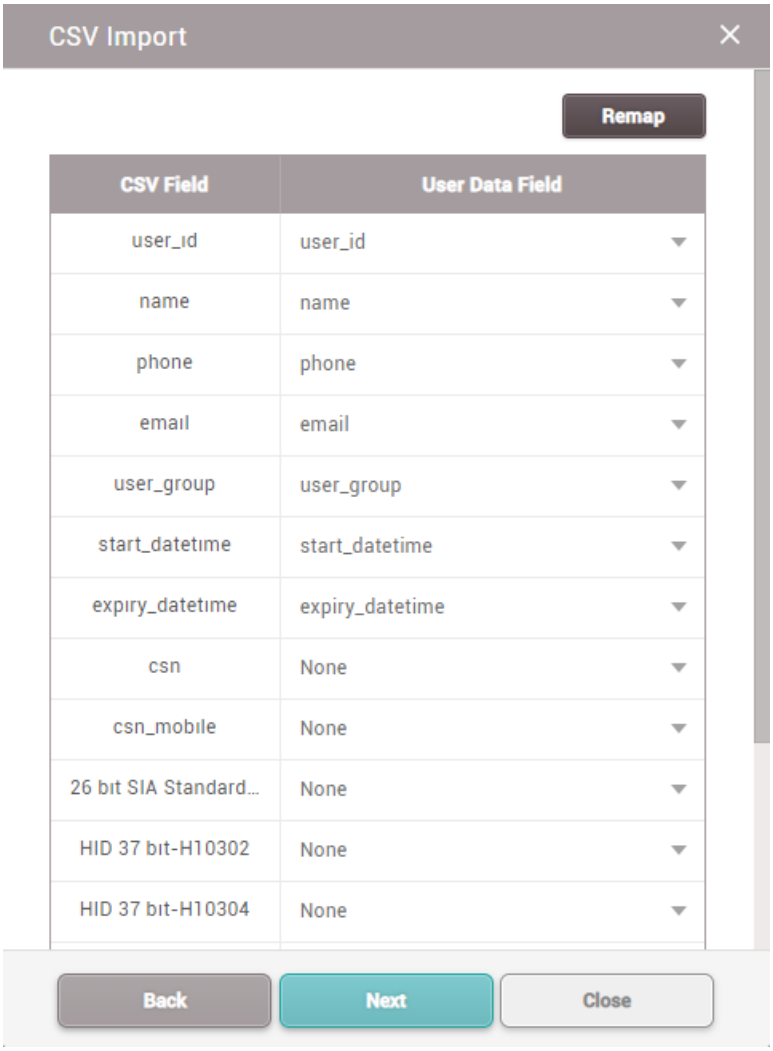
1) Click ··· and then click **CSV Import**.




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 CSV Import is complete, 1 credit will be deducted per Mobile Access Card in the Airfob Portal. 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.
- You can enroll user's visual face via CSV Import. For more information,

see Enroll Visual Face.

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

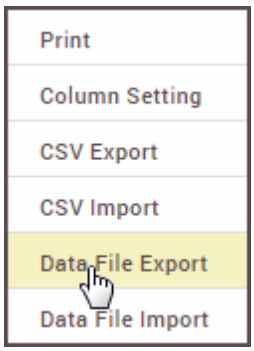
You can store the data file on external storage (USB) and import to BioStar 2 or device. Up to 500,000 users can be moved from server to device or from device to device.

**Note**

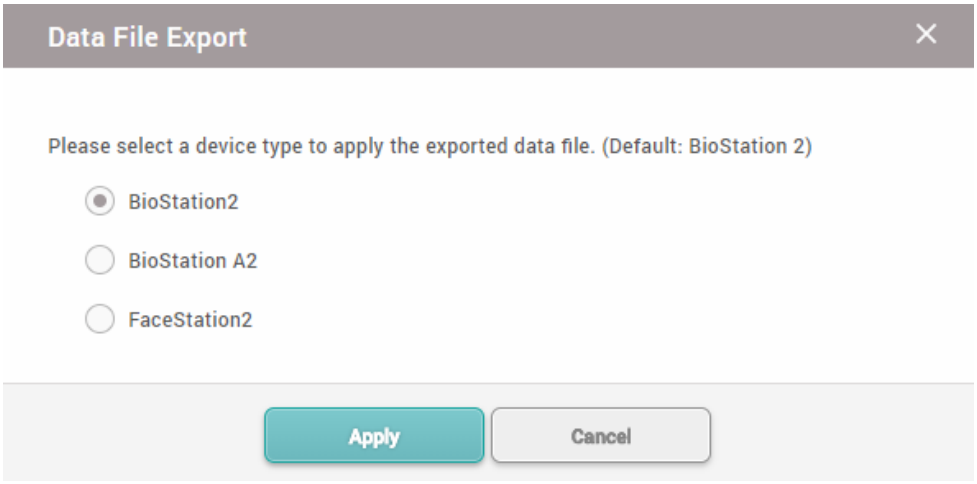
- The exported data file from devices using older firmware version cannot be imported into BioStar 2. Make sure always use the latest version of firmware.
- If the fingerprint template format is different, the data file cannot be imported. For example, the data file exported from a device which uses the Suprema fingerprint template format cannot be imported into a device which uses the ISO fingerprint template format.

### ─ 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), 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.

# 10 Users



## Adding PIN

Add a PIN.

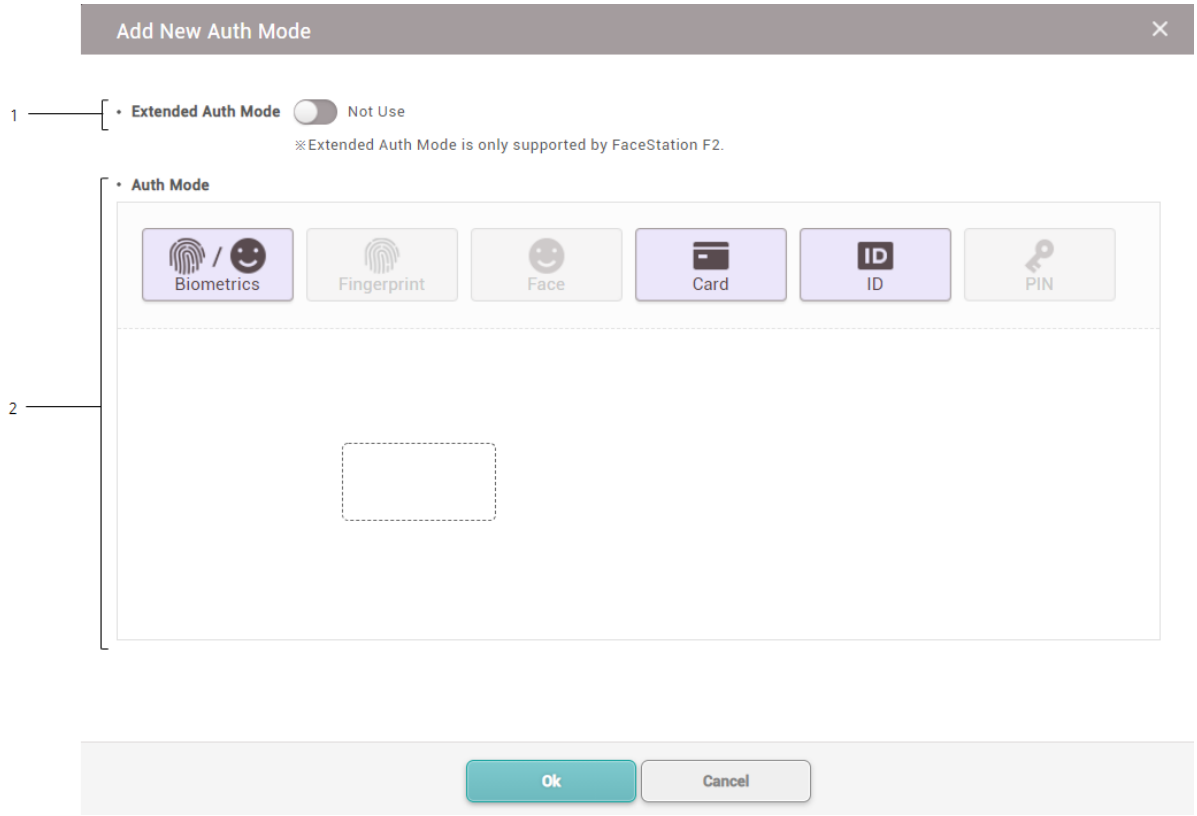
1) Select the **PIN** option and enter a PIN to use.


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

## 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.

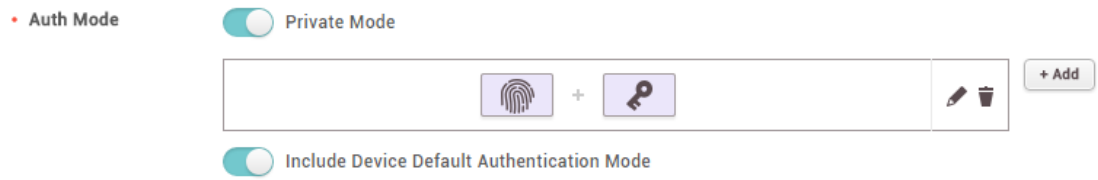



| No. | Item | Description |
|---|---|---|
| 1 | Extended Auth Mode | Set whether to use Extended Auth Mode. When Extended Auth Mode is set to Use, the auth mode can be combined including both face and fingerprint.<br>**Note**<br>▪ Extended Auth Mode is only supported by FaceStation F2. |
| 2 | Auth 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

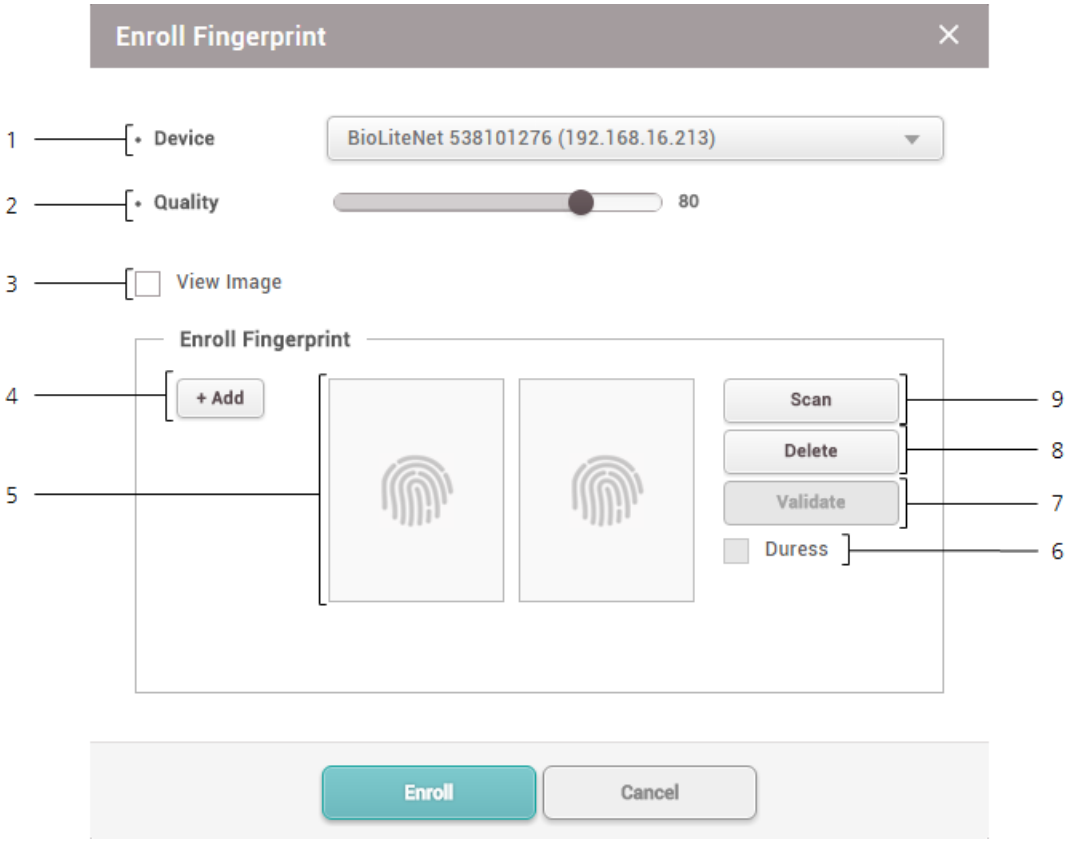
## Enroll Fingerprint

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.

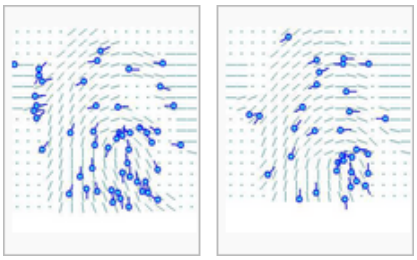
**Note**

- 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.



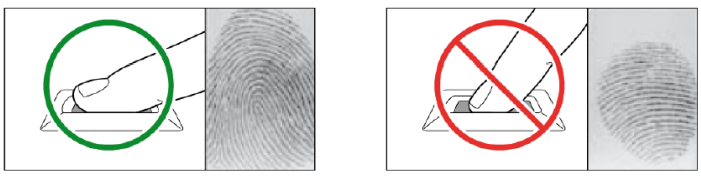

| No. | Item | Description |
|---|---|---|
| 1 | Device | Select a device to enroll the fingerprint with. |
| 2 | Quality | Select a fingerprint enrollment quality level. Any fingerprint which does not meet the quality requirement will not be enrolled. |
| 3 | View Image | Select this option to view 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.



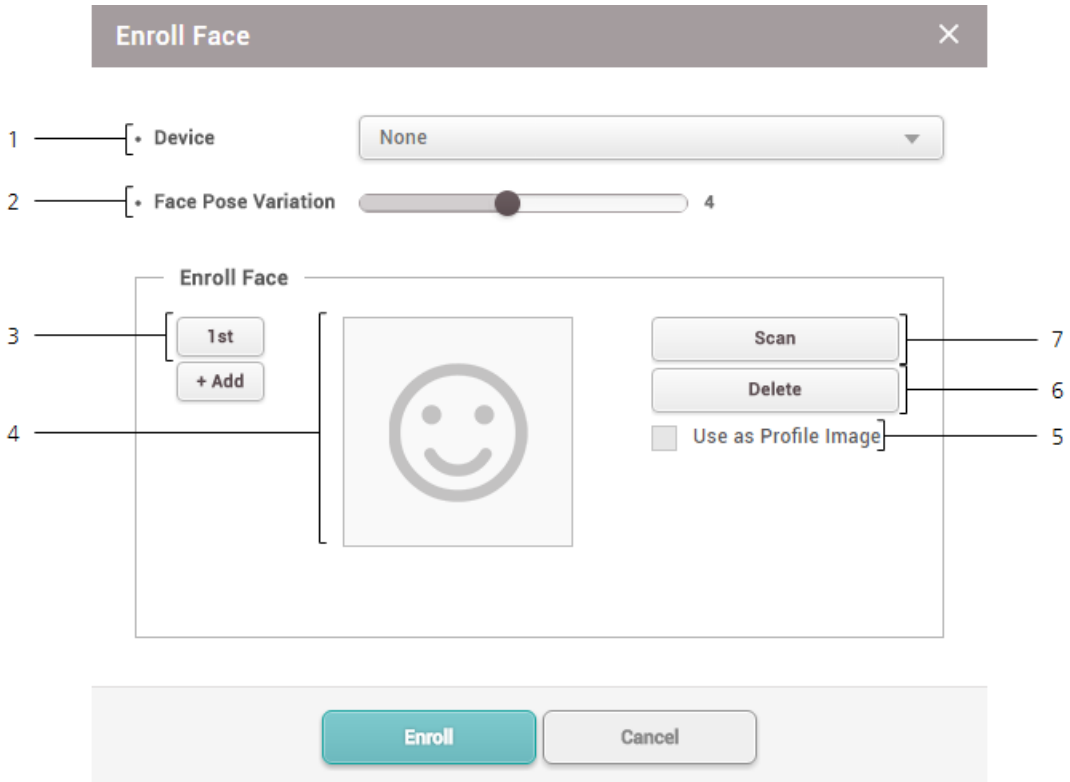
## Enroll Face

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.

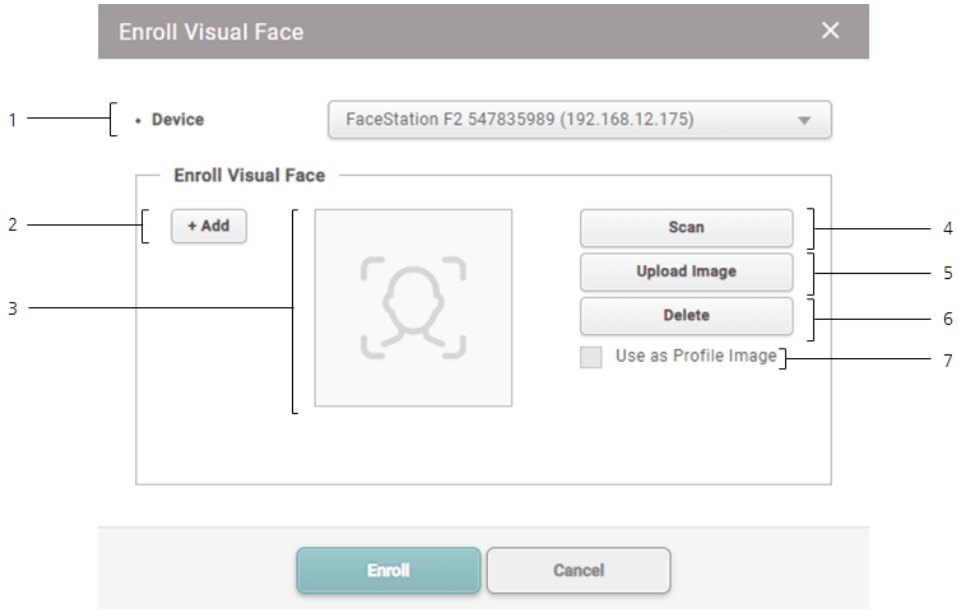
**Note**

- The devices that can use Visual Face are as follows.
  - FaceStation F2

### ─ Register by Device

You can enroll a visual face by FaceStation F2.

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 registered visual face. |
| 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.<br>**Note**<br>▪ It is recommended to use image files larger than 250*250, and the max size of the image is up to 10MB.<br>▪ 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.

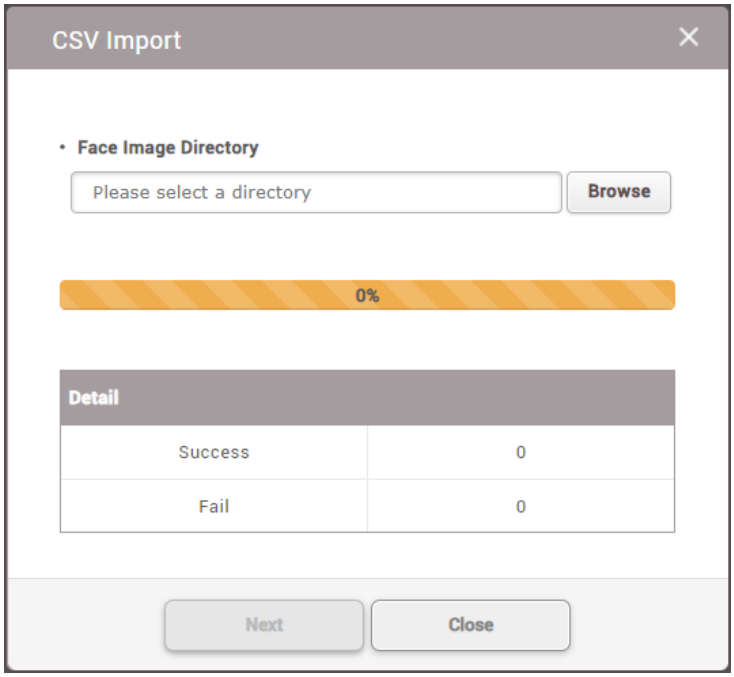
### Register by CSV Import

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.

| | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|
| 1 | name | phone | email | user_group | start_datetime | expiry_datetime | face_image_file1 | face_image_file2 |
| 2 | Administrator | | | All Users | 2001-01-01 0:00 | 2030-12-31 23:59 | admin_01.png | |
| 3 | USER1 | 012-3456-7890 | abc@suprema.co.kr | All Users | 2001-01-01 0:00 | 2030-12-31 23:59 | user_01.jpg | user_01_b.png |
| 4 | USER2 | | def@suprema.co.kr | All Users | 2001-01-01 0:00 | 2030-12-31 23:59 | user_02.jpg | user_02_b.jpg |
| 5 | USER3 | | ghi@suprema.co.kr | All Users | 2001-01-01 0:00 | 2030-12-31 23:59 | user_03.png | |

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**

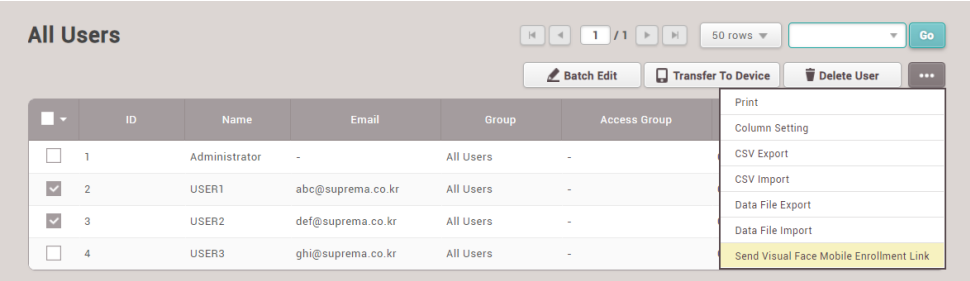
- It is recommended to use the same path for the CSV file and visual face image files to be loaded.
- It is recommended to use image files larger than 250*250, and the max size of the image is up to 10MB.
- Supported image file formats are JPG, JPEG and PNG.

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 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.

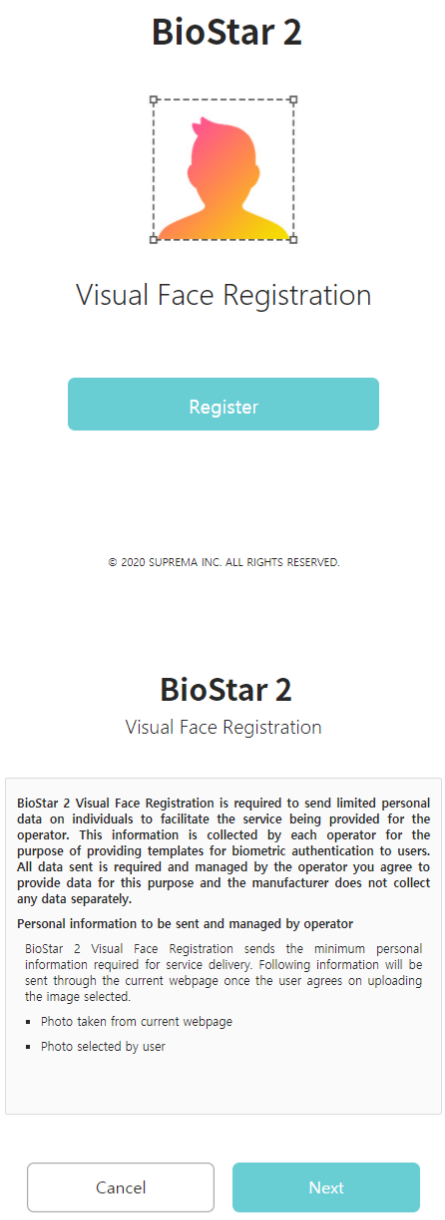
1) Select users from the user list you intend to enroll the visual face and click ••• .




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 contents setting before using Visual Face Mobile Enrollment. See the Email Contents 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.


BioStar 2
Visual Face Registration
Register
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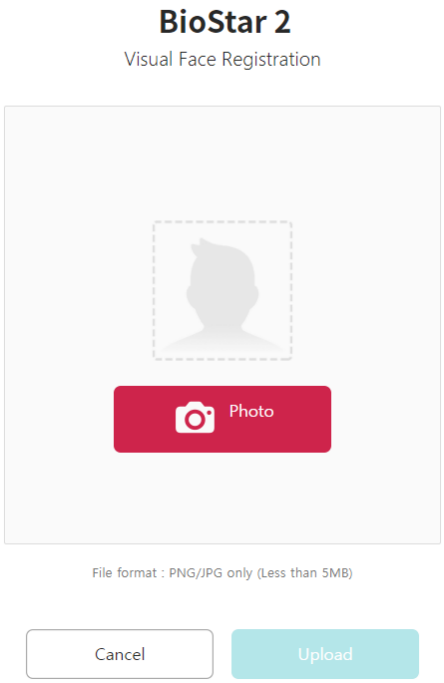
BioStar 2
Visual Face Registration
BioStar 2 Visual Face Registration is required to send limited personal data on individuals to facilitate the service being provided for the operator. This information is collected by each operator for the purpose of providing templates for biometric authentication to users. All data sent is required and managed by the operator you agree to provide data for this purpose and the manufacturer does not collect any data separately.
Personal information to be sent and managed by operator
BioStar 2 Visual Face Registration sends the minimum personal information required for service delivery. Following information will be sent through the current webpage once the user agrees on uploading the image selected.
Photo taken from current webpage
Photo selected by user
Cancel
Next




- It is recommended to use image files larger than 250*250, and the max size of the image is up to 10MB.
- Supported image file formats are JPG, JPEG and PNG.
- Visual Face Enrollment link sent will expire after 24 hours.

## 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]

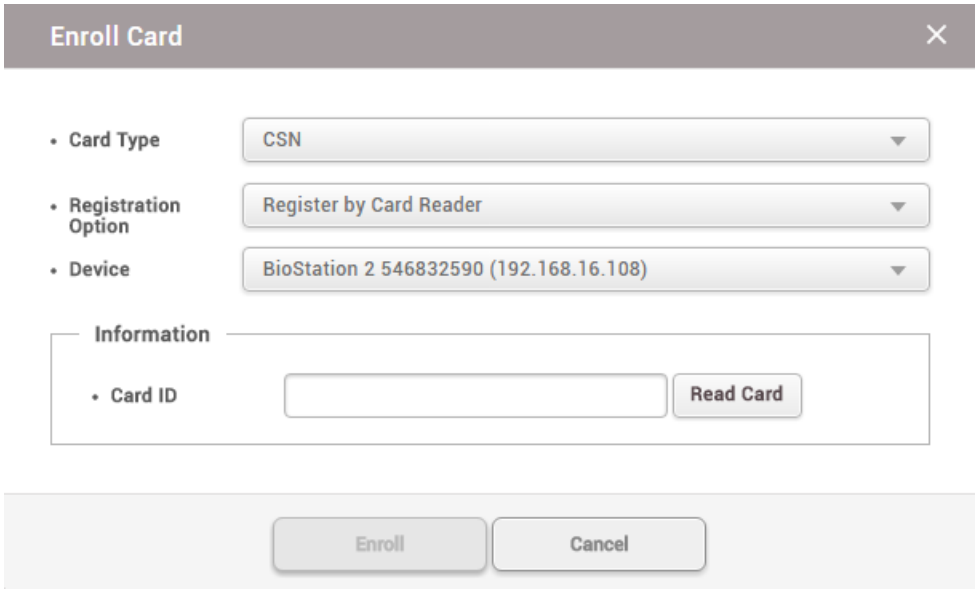
| Card Type | CSN | Wiegand | Smart Card |
|---|---|---|---|
| EM | X | X | X |
| MIFARE | O | X | O |
| DESFire | O | X | O |
| FeliCa | O | X | X |

| Card Type | CSN | Wiegand | Smart Card |
|---|---|---|---|
| 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**

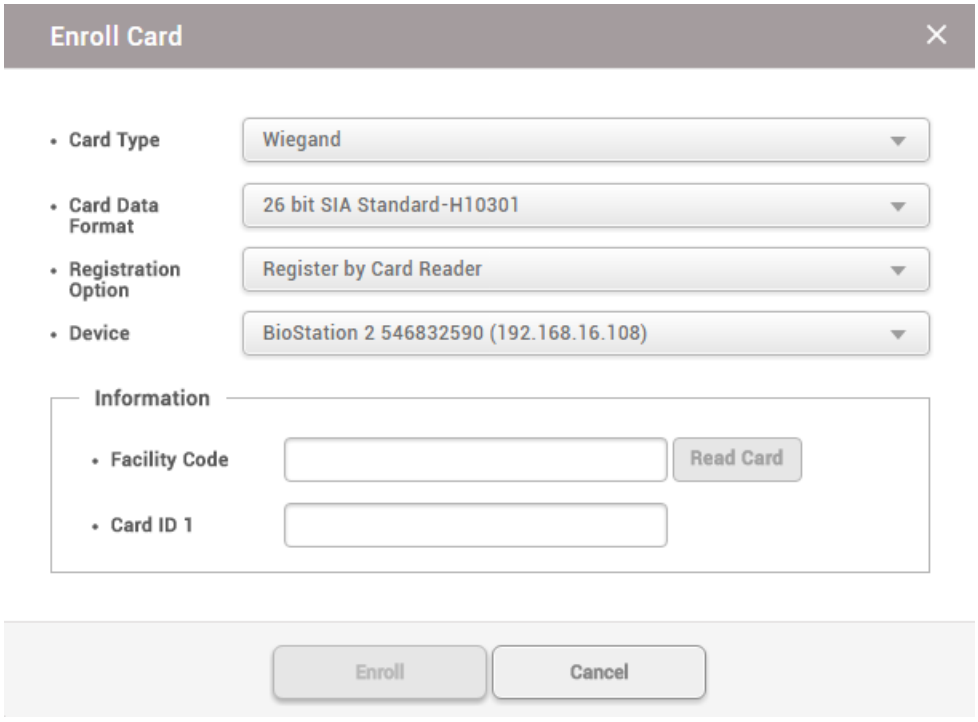
Card Usage Status

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

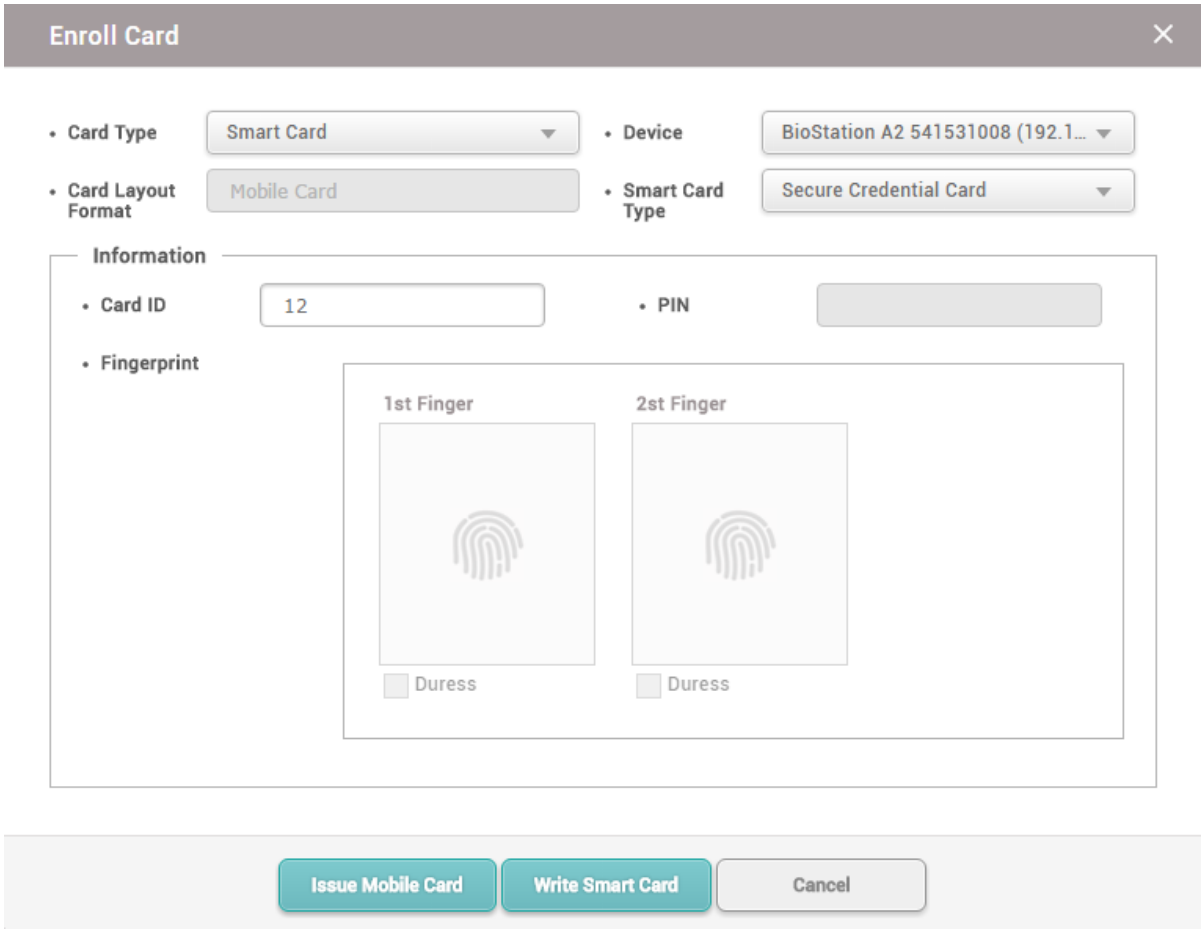
Registering Smart / Mobile Cards

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**

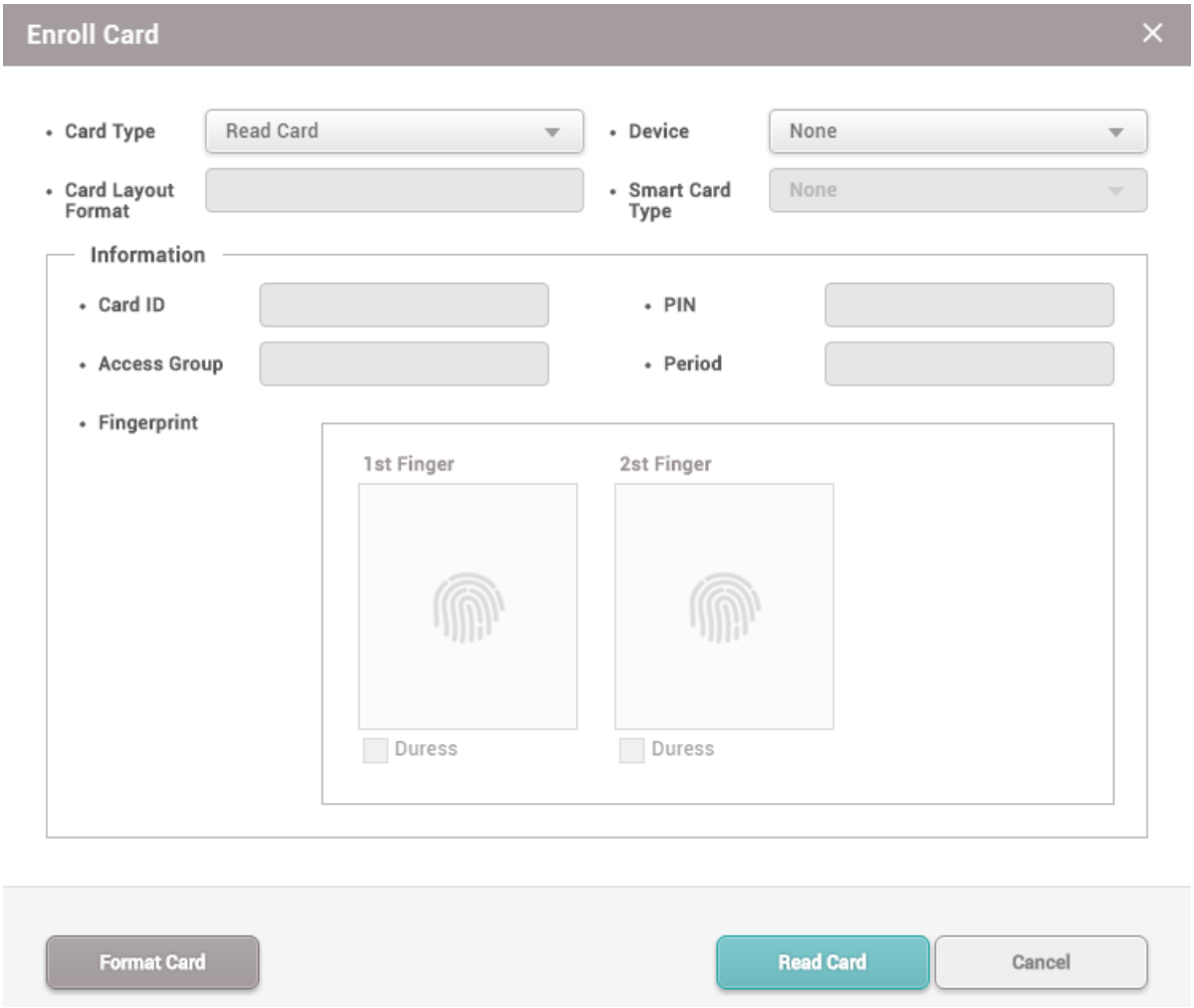
Card Usage Status

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.

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**

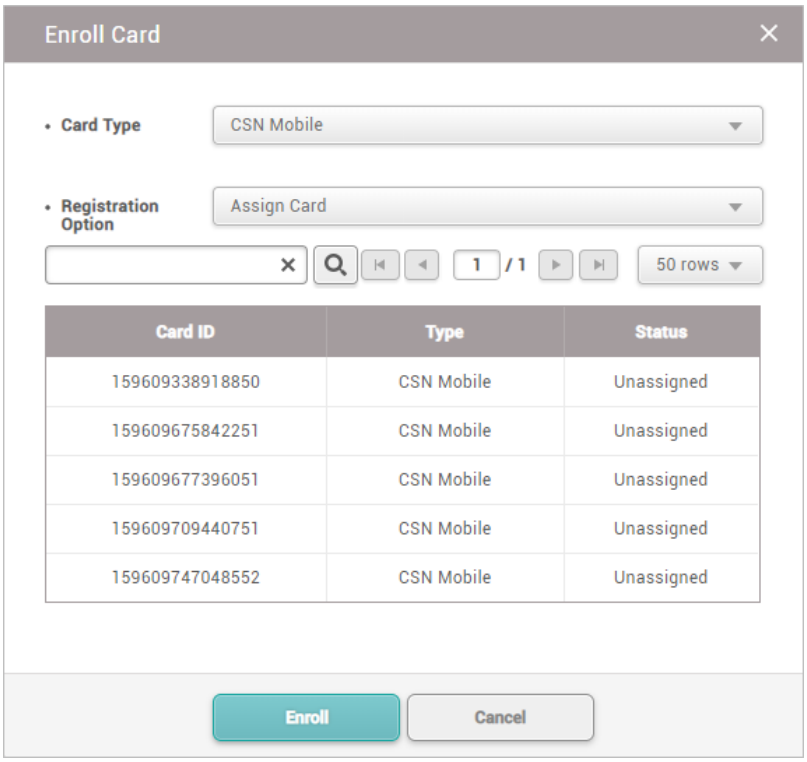
- For more information about using Suprema Airfob Portal and Mobile Access, see Mobile Access.

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**.

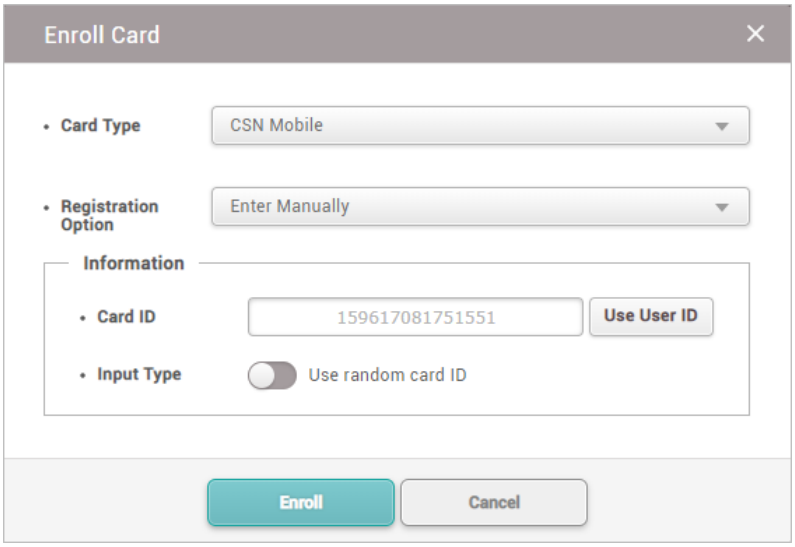



b) Click the card to be assigned from the list or search for the card.

### 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.

**Note**

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

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 **Reissue**. However, Mobile Access Cards activated in the Airfob Portal cannot be reissued.

| Type | Card Data Format | Summary | |
|---|---|---|---|
| CSN Mobile | Mobile Access Card | ID: 159609752740350 | Reissue Block |

**Related Information**

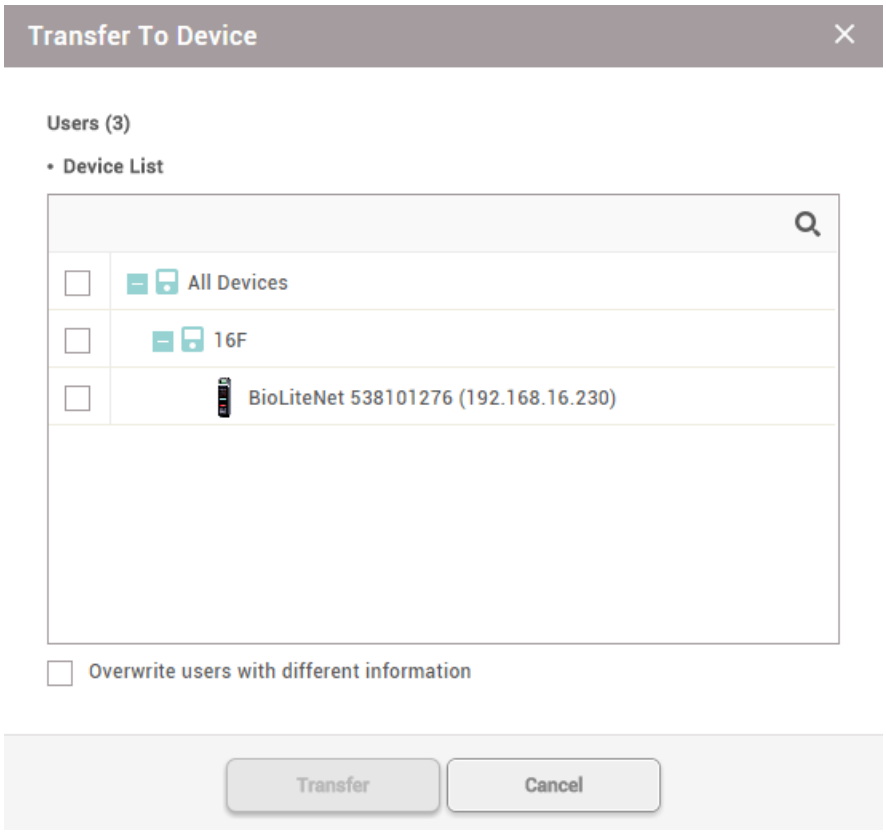
Adding User Information

Mobile Access

## 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.

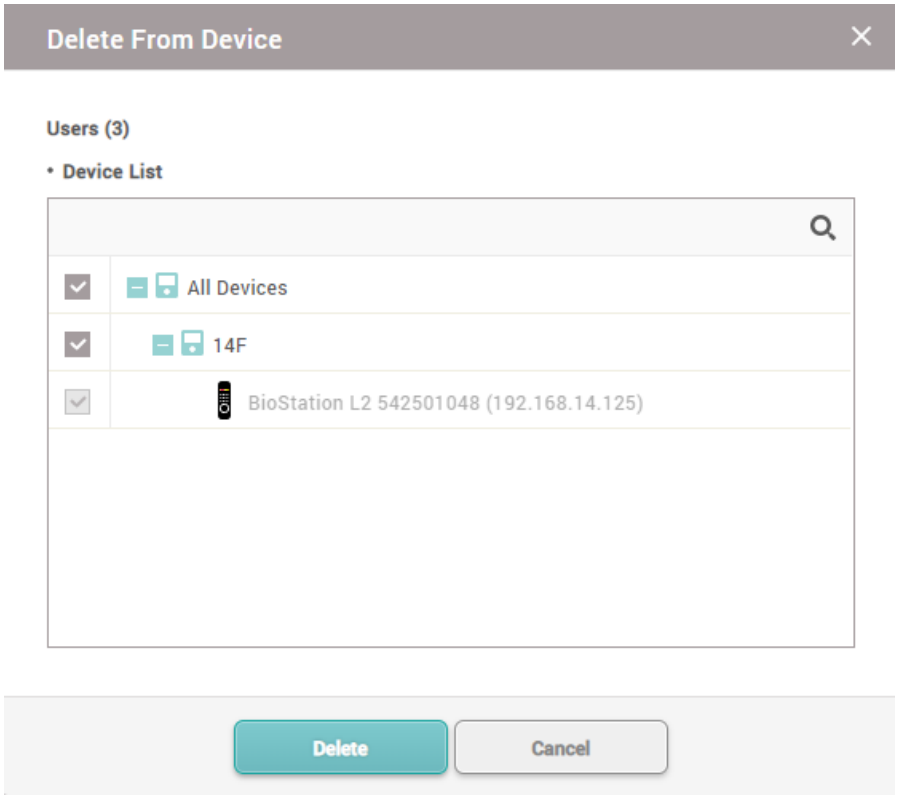
**Related Information**

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.

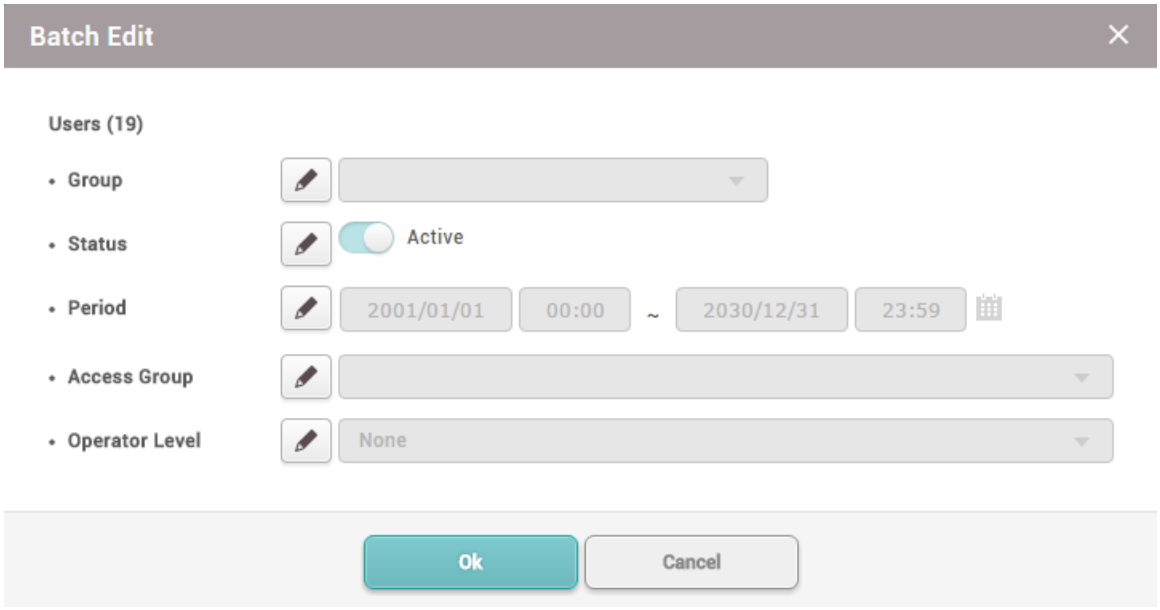
**Note**

- 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.

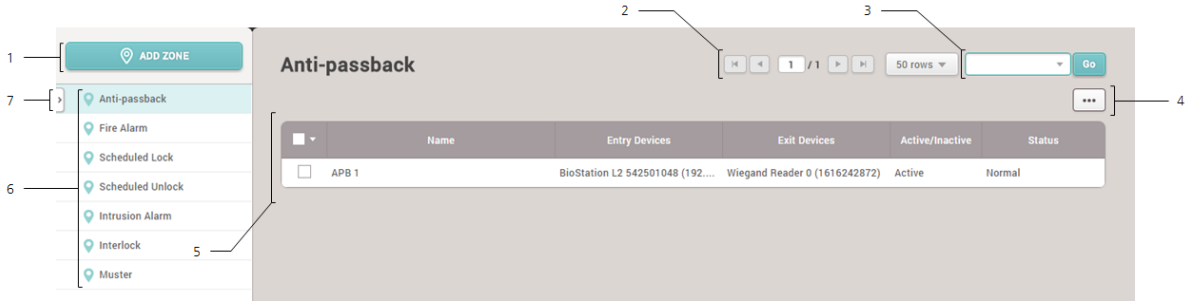
On the **ZONE** page, you can add anti-passback, fire alarm, schedule lock and schedule unlock zones, and configure the settings.

# 11 Zone



**Note**

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



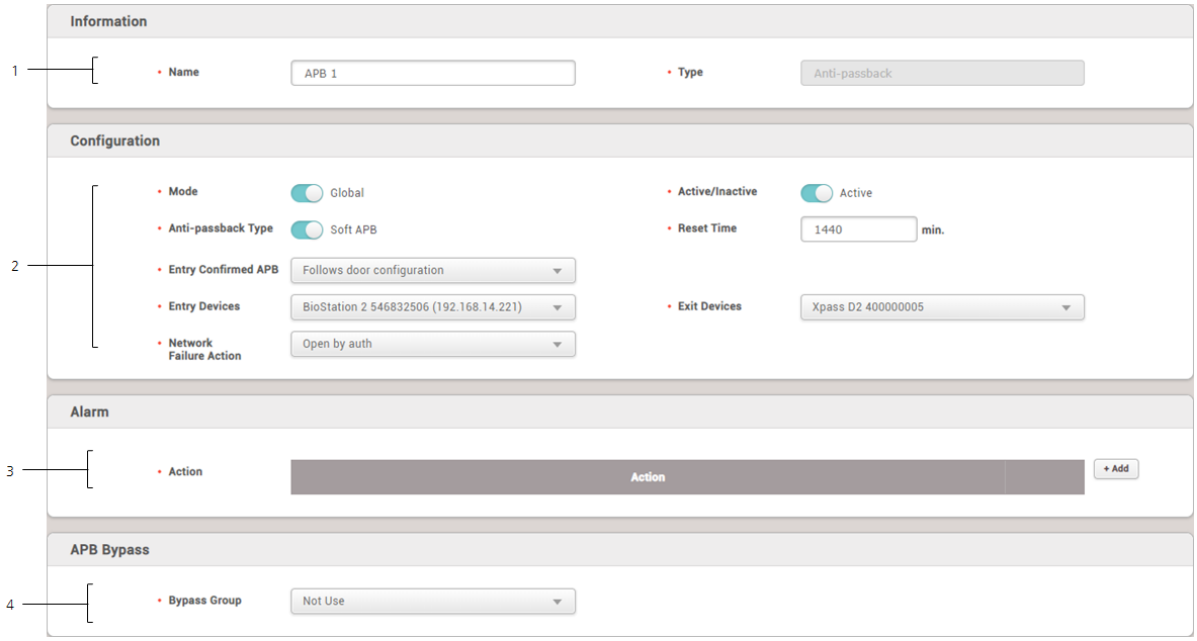

| | |
|---|---|
| 1 Add Zone | 5 Zone List |
| 2 Page Navigation Buttons and Number of List Rows | 6 Zone Type |
| 3 Registered Zone Search | 7 Expand Button |
| 4 Function Button (Column Setting) | |

## 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 settings of the anti-passback zone.<br><br>▪ **Name**: Enter an anti-passback name.<br>▪ **Type**: View the zone type. |
| 2 | Configuration | Modify the zone settings of the anti-passback.<br><br>▪ **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.<br>▪ **Active/Inactive**: You can disable the anti-passback zone. Select Active to enable it.<br>▪ **Anti-passback Type**: Select an Anti-passback type.<br>▪ **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.<br>▪ **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.<br>▪ **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.<br>▪ **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.<br>▪ **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**

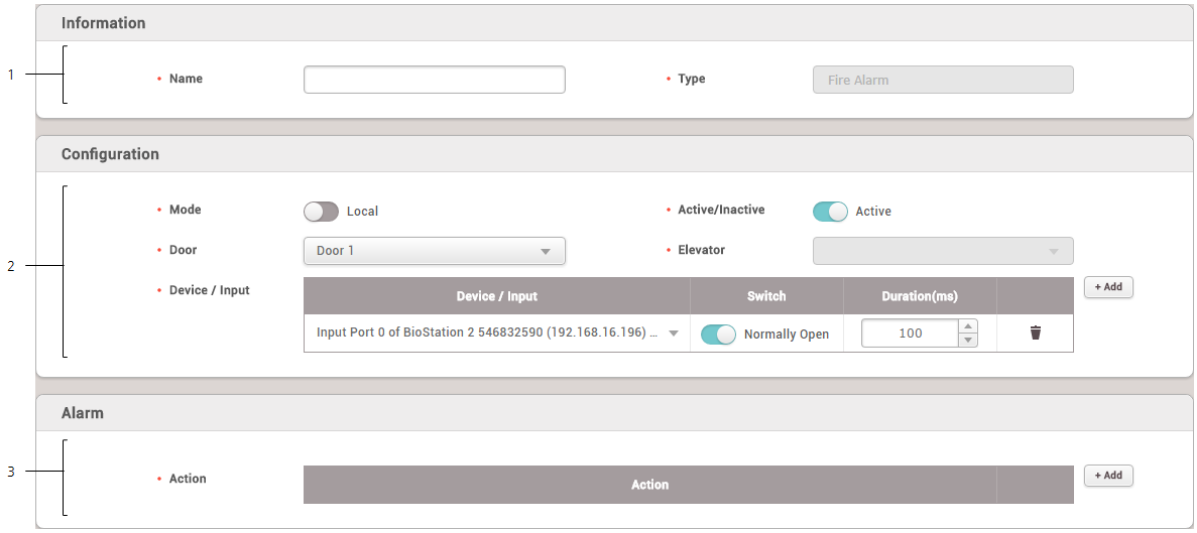
Anti-passback

## 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 settings of the fire alarm zone.<br><br>▪ **Name**: Enter a fire alarm zone name.<br>▪ **Type**: View the zone type. |
| 2 | Configuration | Modify the zone settings of the anti-passback.<br><br>▪ **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.<br>▪ **Active/Inactive**: Disable the fire alarm zone. Select **Active** to enable it.<br>▪ **Door**: Select the door(s) to include in the fire alarm zone.<br>▪ **Elevator**: Select the elevators to include in the fire alarm zone. You can select multiple elevators.<br>▪ **Device/Input**: Click **+ Add** and configure the device to set off the fire alarm signal.<br><br>**Note**<br><br>▪ When **Local** is set for **Mode**, either **Door** or **Elevator** can be set as the fire zone.<br>▪ 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. |

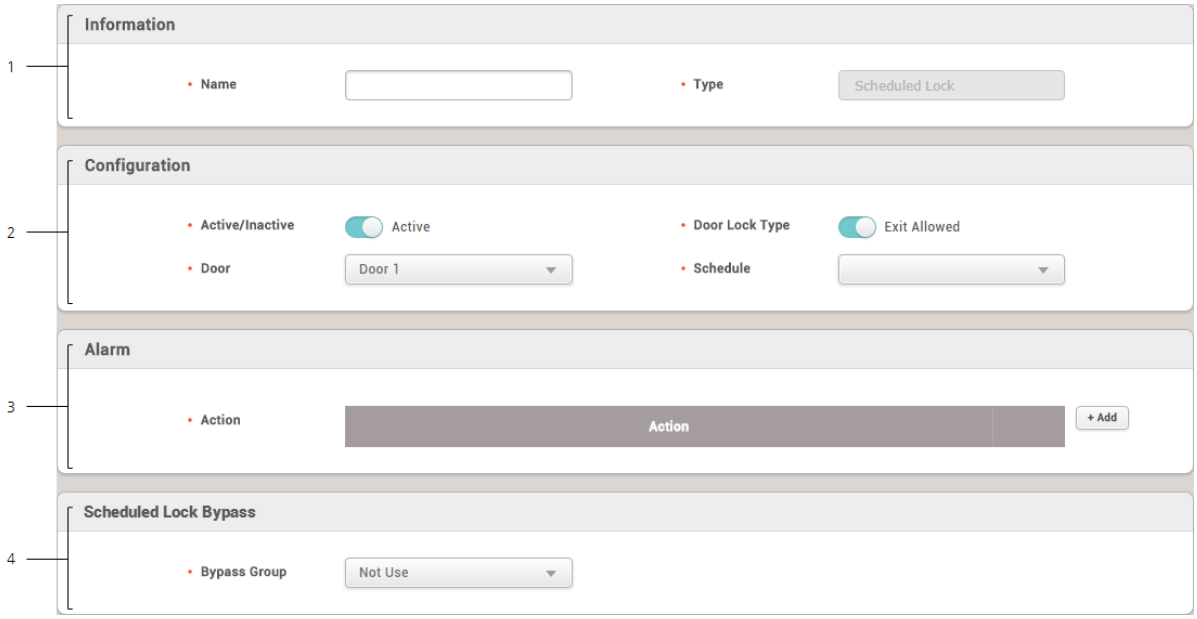
3) Click **Apply** to save the settings.

# 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.

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




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

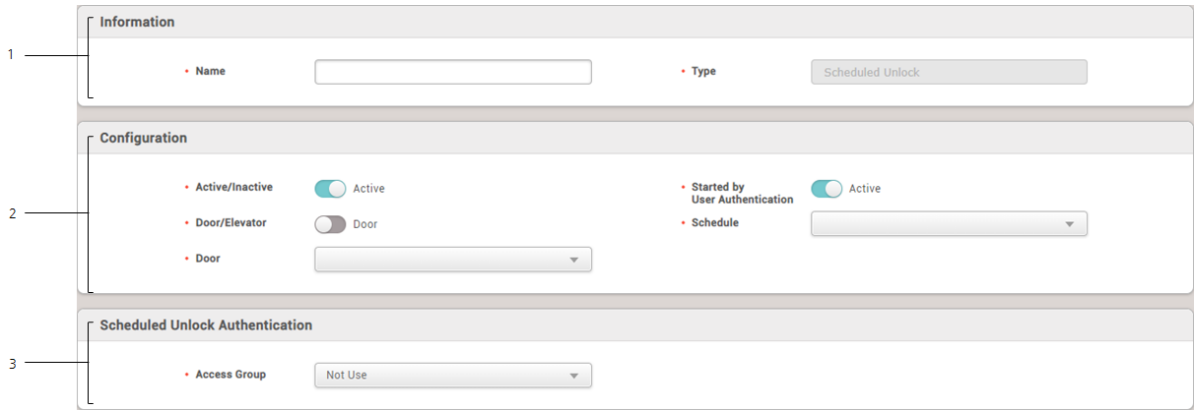
3) Click **Apply** to save the settings.

# 11 Zone

## 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.

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




| No. | Item | Description |
|---|---|---|
| 1 | Information | Modify the settings of the scheduled unlock zone.<br><br>▪ **Name**: Enter a scheduled unlock zone name.<br>▪ **Type**: View the zone type. |
| 2 | Configuration | Modify the zone settings of the scheduled unlock.<br><br>▪ **Active/Inactive**: Disable the scheduled unlock zone. Select **Active** to enable it.<br>▪ **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.<br>▪ **Door/Elevator**: You can set doors or elevators as schedule unlock zones.<br>▪ **Schedule**: Select a schedule. If no desired schedule is available, click **+ Add Schedule** to create it.<br>▪ **Door**: If you select **Door**, the door list is activated. Select the door(s) to include in the scheduled unlock zone.<br>▪ **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.<br>▪ **Floor**: You can select the floor of the selected elevator.<br><br>**Note** |

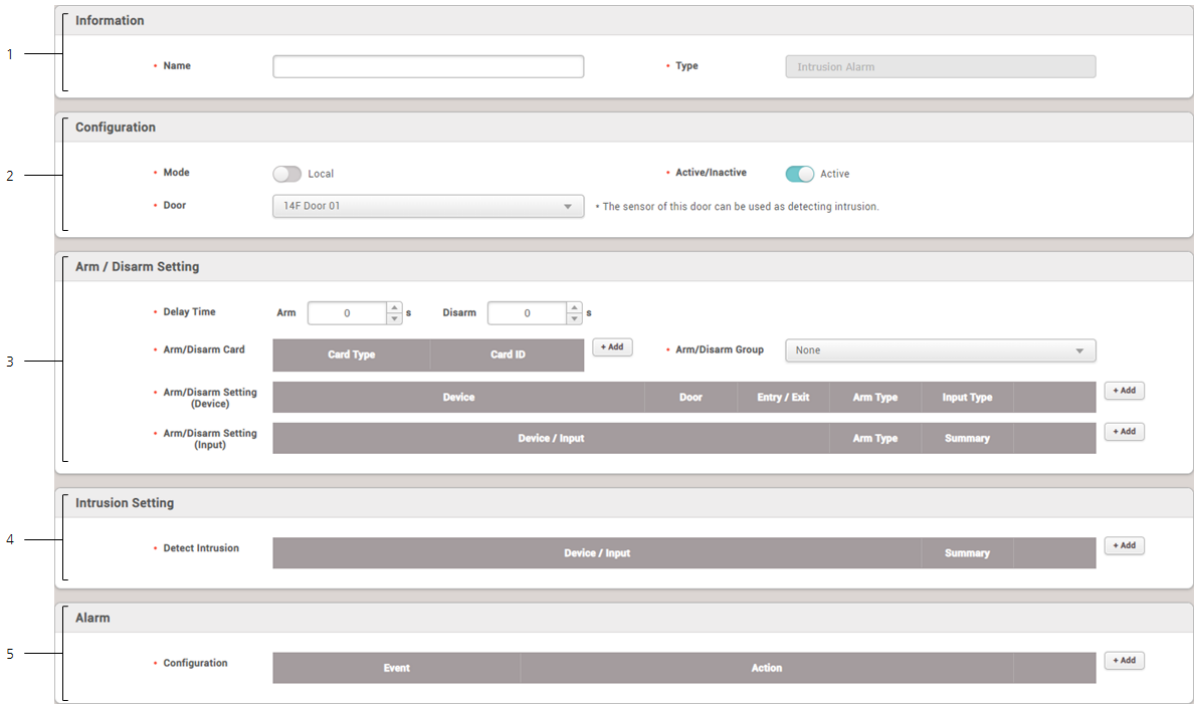
| No. | Item | Description |
|---|---|---|
| | | ▪ If you select an elevator that has already been configured with a different scheduled unlock zone, you cannot set the same floor. |
| 3 | Alarm | Choose the operation to be triggered when a scheduled unlock signal occurs. |
| 4 | Scheduled Unlock Authenticati on | You can select the access group where the user belongs who can start a scheduled unlock. |

3) Click **Apply** to save the settings.

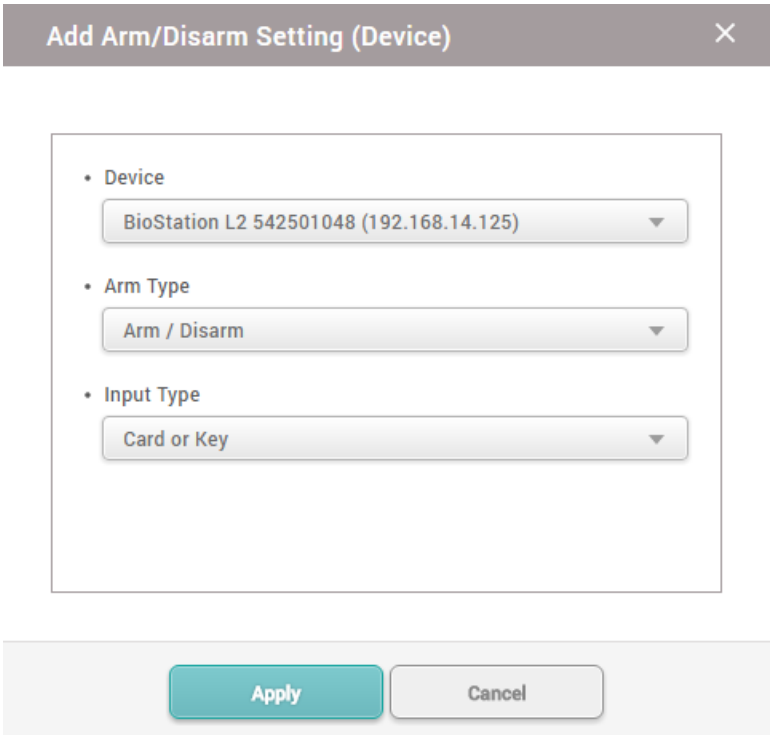
## Intrusion Alarm Zone

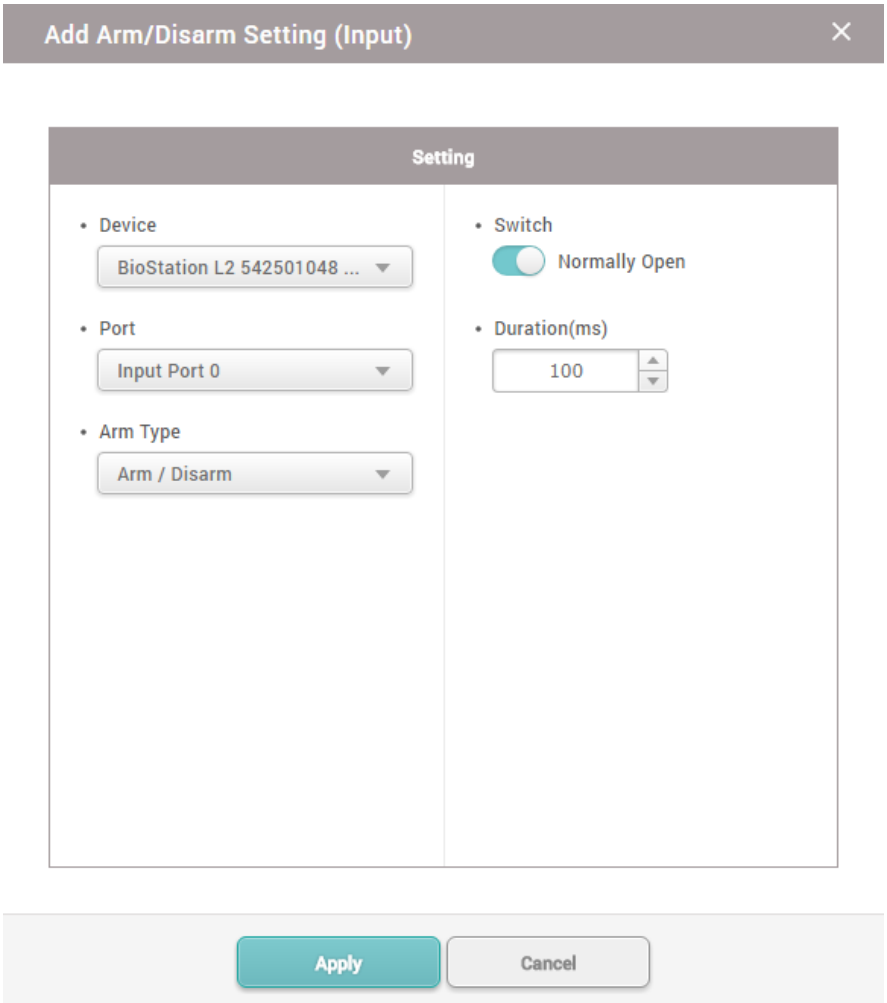
When intrusion alarm zone is used, you can detect trespassing of an unauthorized user to a designated zone without permission.

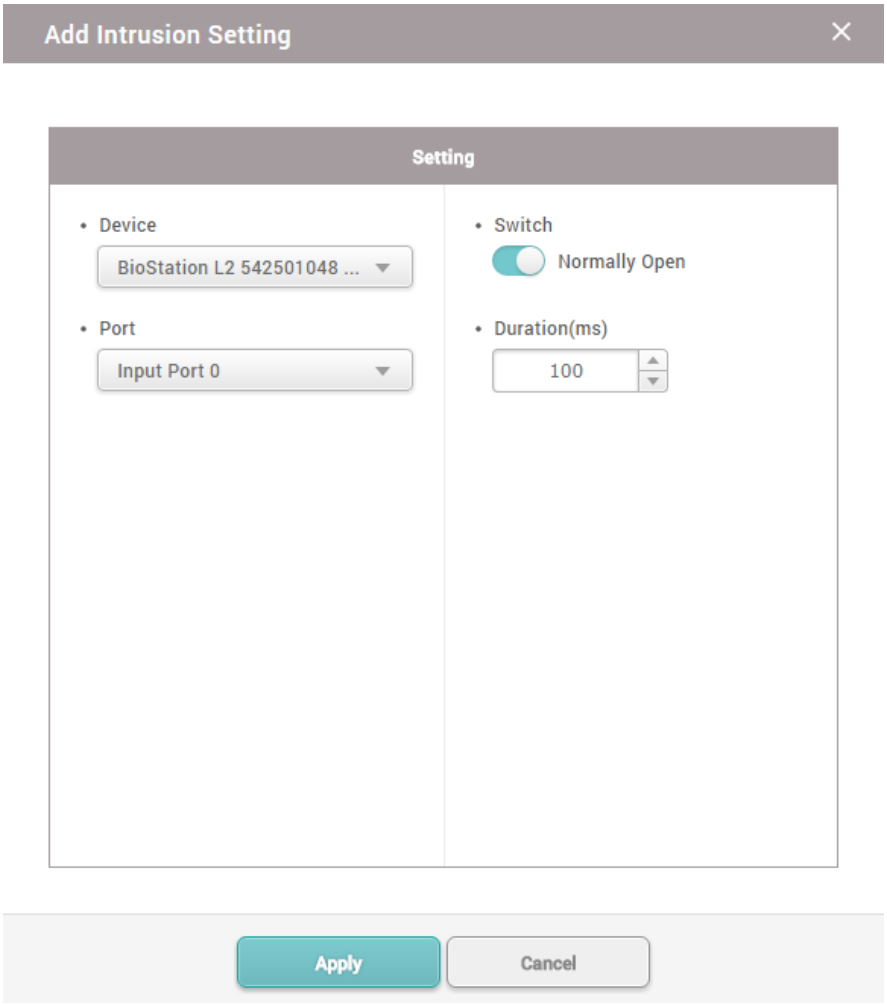
1) Click **ZONE** and click **ADD ZONE**.
2) Click **Intrusion Alarm** and click **Apply**.




| No. | Item | Description |
|---|---|---|
| 1 | Information | Modify the settings of the intrusion alarm zone.<br>▪ **Name**: Enter an intrusion alarm zone name. |

| No. | Item | Description |
|---|---|---|
| | | ▪ **Type**: View the zone type. |
| 2 | Configuration | You can change the general settings of an intrusion alarm zone.<br><br>▪ **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.<br>▪ **Active/Inactive**: You can disable the intrusion alarm zone. Select **Active** to enable it.<br>▪ **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.<br><br>▪ **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.<br>▪ **Access Card**: You can add a card with permission to arm or disarm. You can register up to 128 access cards.<br>▪ **Access Group**: You can add an access group with permission to arm or disarm. You can register up to 128 access groups.<br>▪ **Arm/Disarm Setting**: You can set the arming and disarming by device or input signal. Click **+ Add** and set each item.<br><br>**Add arming and disarming by device**<br>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**.<br>**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.<br>  |

| No. | Item | Description |
|---|---|---|
| | | **Add arming and disarming by input signal**<br>Click **Device** to select the device that controls the intrusion alarm zone.<br>Click **Port** and select an input port of the selected device.<br>Select **Arm Type** and set the switch type and the signal duration.<br>  <br>**Note**<br>▪ 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 |
|---|---|---|
| | |  <br>**Note**<br>▪ 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.<br>**Note**<br>▪ It is activated only when **Door** is set from **Configuration**. |

3) Click **Apply** to save the settings.

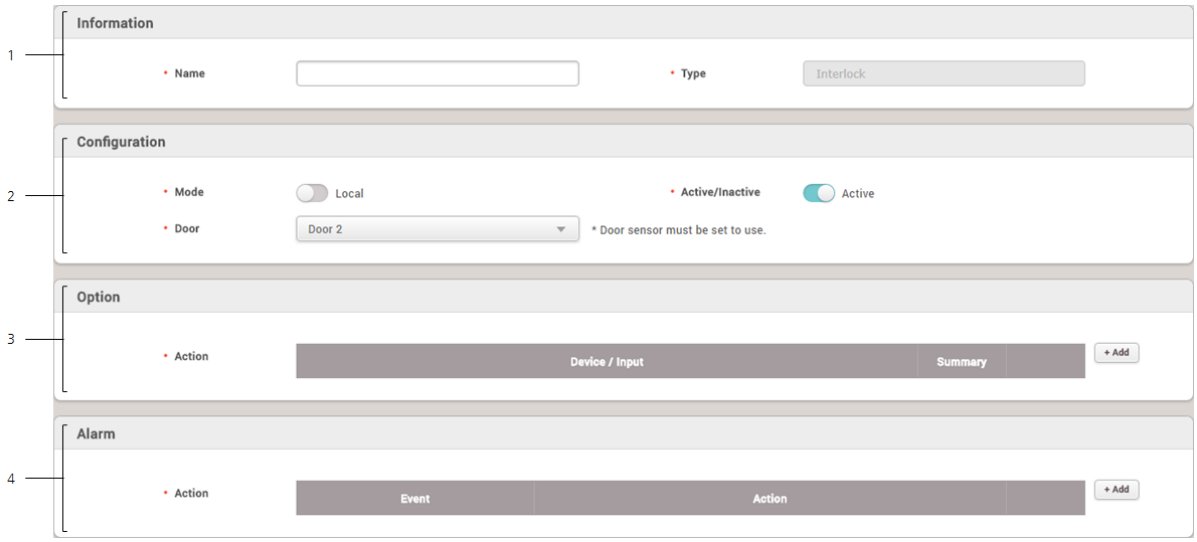
## Interlock Zone

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 settings of the interlock zone.<br><br>▪ **Name**: Enter an interlock zone name.<br>▪ **Type**: View the zone type. |
| 2 | Configuration | You can change the general settings of an interlock zone.<br><br>▪ **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.<br>▪ **Active/Inactive**: You can disable the interlock zone. Select **Active** to enable it.<br>▪ **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.<br><br>**Note** |

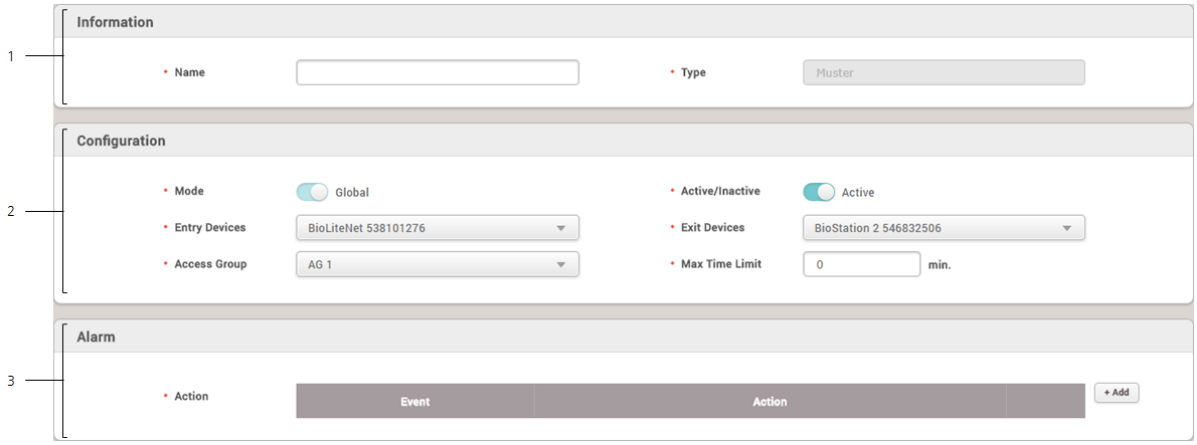
| No. | Item | Description |
|---|---|---|
| | | ▪ It is activated only when **Door** is set from **Configuration**. |
| 4 | Alarm | Set the alarm action to carry out when a specific event occurs at the interlock zone.<br><br>**Note**<br><br>▪ It is activated only when **Door** is set from **Configuration**.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

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 settings of the muster zone.<br><br>▪ **Name**: Enter a muster zone name.<br>▪ **Type**: View the zone type. |
| 2 | Configuration | You can change the general settings of a muster zone.<br><br>▪ **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.<br>▪ **Active/Inactive**: You can disable the muster zone. Select **Active** to |

| No. | Item | Description |
|---|---|---|
| | | enable it.<br>▪ **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.<br>▪ **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.<br>▪ **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.<br>▪ **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.<br><br>**Note**<br>▪ It is activated only when **Entry Devices** and **Exit Devices** is set from **Configuration**. |

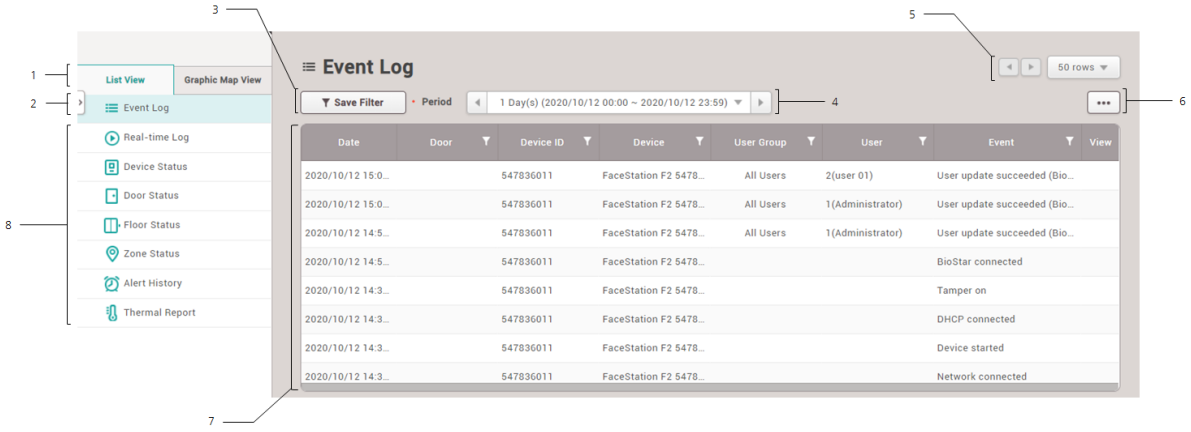
4) Click **Apply** to save the settings.

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

# 12 Monitoring




| | | | |
|---|---|---|---|
| 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.

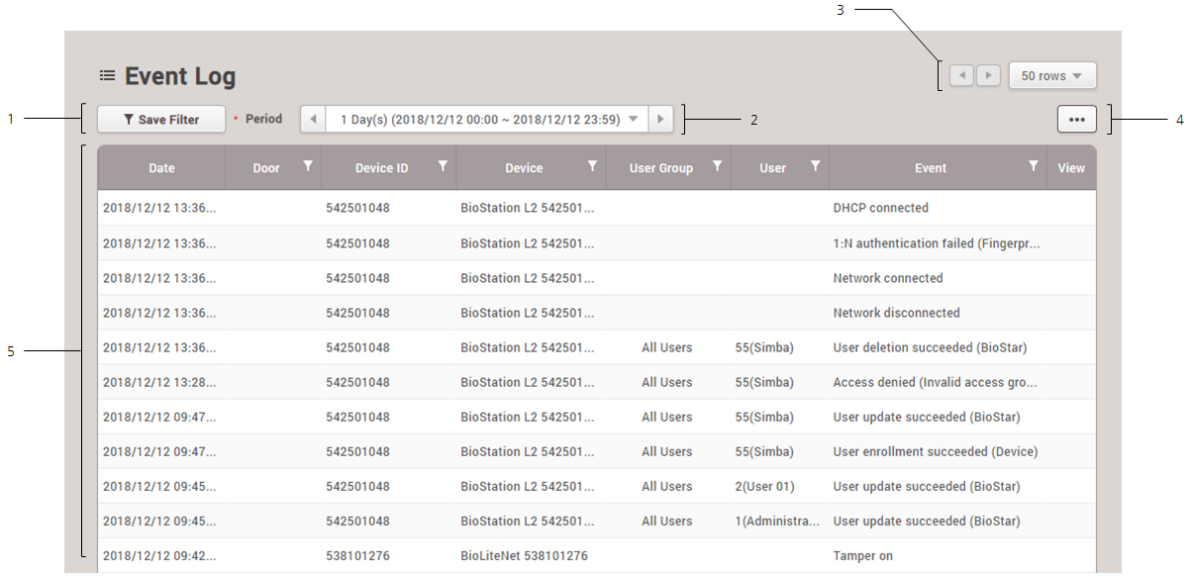
## Event Log

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.




| 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 | You can move a page or set the number of list rows to be displayed on one page. |

| No. | Item | Description |
|---|---|---|
| | Number of List Rows | ▪ : Go to the first page.<br>▪ : Go to the previous page.<br>▪ 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.<br>▪ Print the event log<br>▪ Export to CSV file<br>▪ Import the data file<br>▪ Change the column setting<br>**Note**<br>▪ 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.

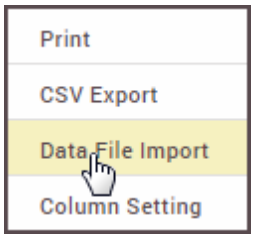
Import Event Logs

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 FaceStation 2, BioStation A2, and BioStation 2 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.

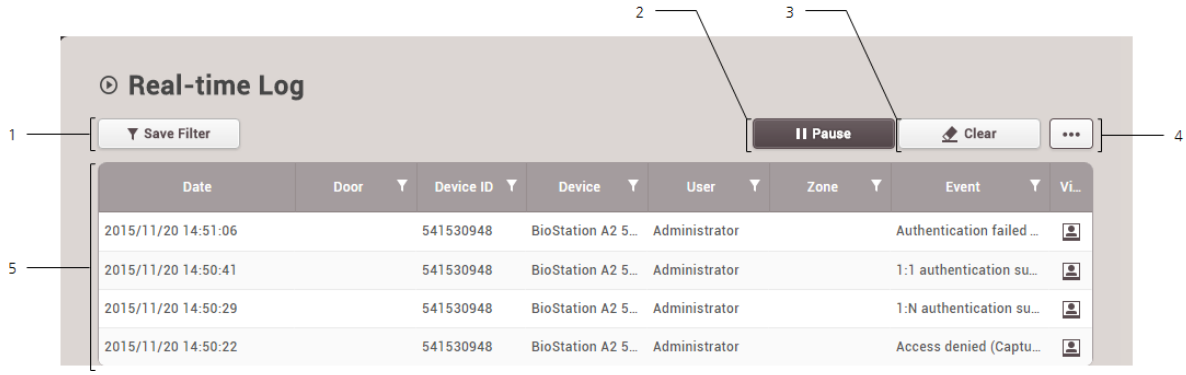
## Real-time Log

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. |

| No. | Item | Description |
|---|---|---|
| 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. |

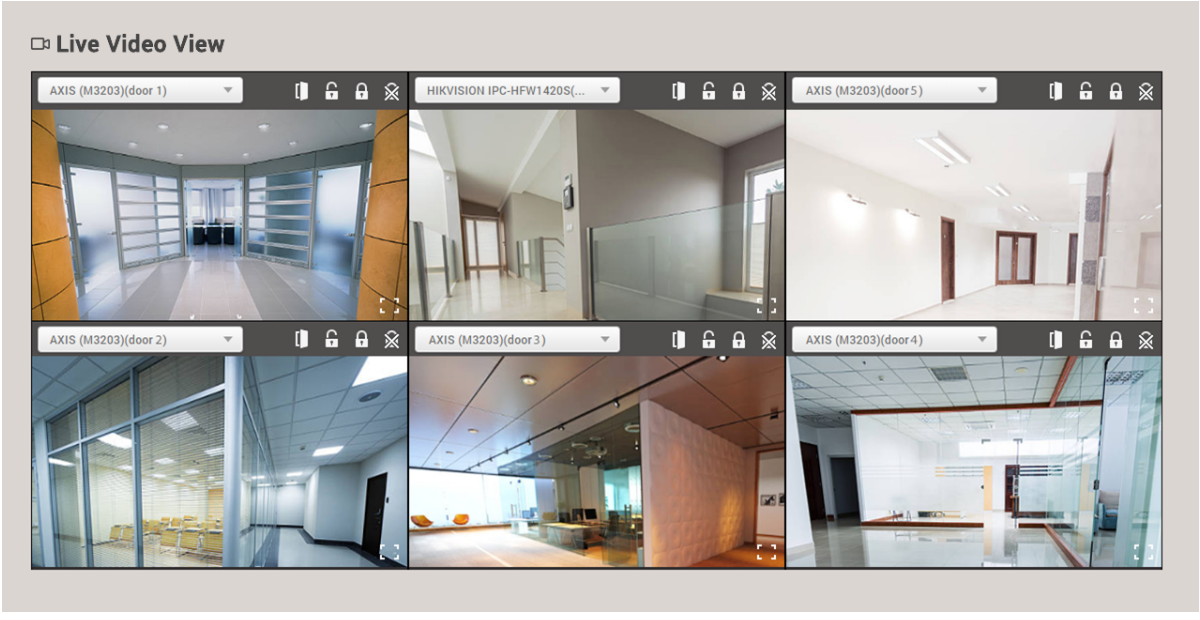
## Live Video View

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.

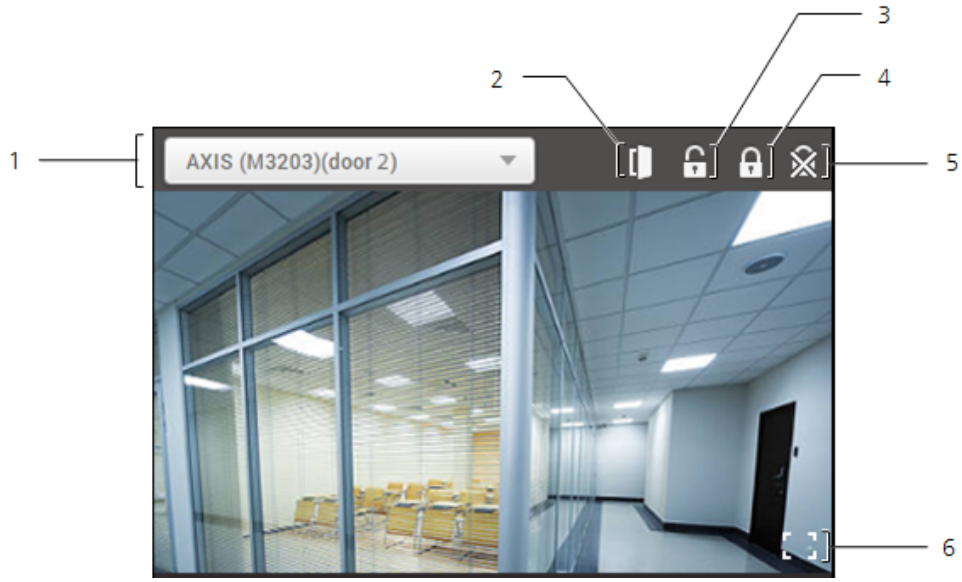
**Note**

- 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. |
| 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.

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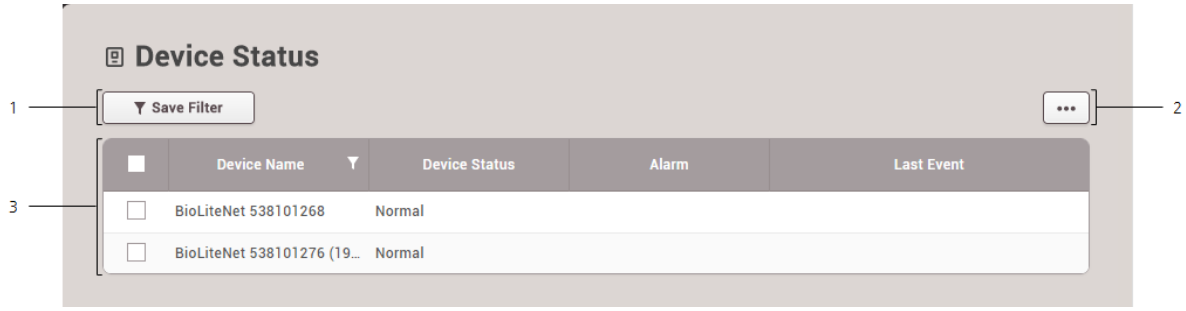
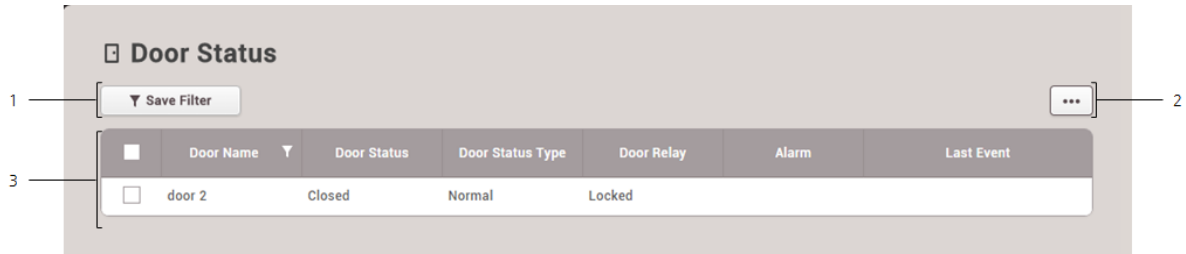



| No. | Item | Description |
|---|---|---|
| 1 | Save Filter Button | Saves the set filter. |
| 2 | Function Buttons (Column Setting) | Changes the column setting of the log. |
| 3 | Status List | Shows the device status list.<br>▪ Select a device and click **Clear Alarm** to clear the alarm. |

## 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.




| No. | Item | Description |
|---|---|---|
| 1 | Save Filter Button | Saves the set filter. |
| 2 | Function Buttons (Column Setting) | Changes the column setting of the log. |

| No. | Item | Description |
|---|---|---|
| 3 | Status List | Shows the door status list.<br>The following operations are available for the selected door:<br><br>▪ **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.<br>▪ **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.<br>▪ **Release**: Release the manual lock or manual unlock set by the administrator.<br>▪ **Open**: Click after selecting a door to open the door temporarily.<br>▪ **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.<br>▪ **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.

## Floor Status

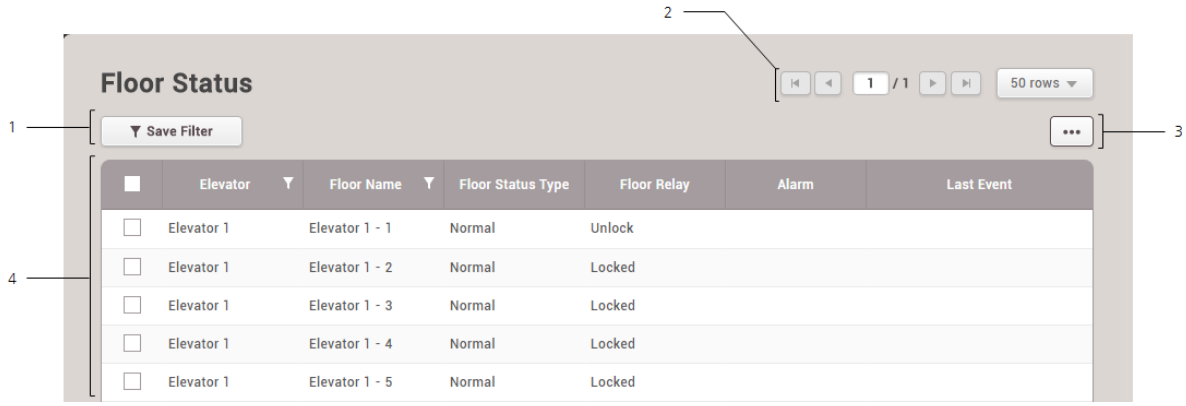
You can view various floor status information such as the floor status, relay status, alarm and last event.

**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.

# 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 floor status list.<br>The following operations are available for the selected floor:<br>▪ **Manual Lock**: Click after selecting a floor to lock the floor manually.<br>▪ **Manual Unlock**: Click after selecting a floor to unlock the floor manually.<br>▪ **Release**: Release the manual lock.<br>▪ **Open**: Click after selecting a floor to open the floor temporarily.<br>▪ **Clear Alarm**: Clears alarms of all floors. |

## Zone Status

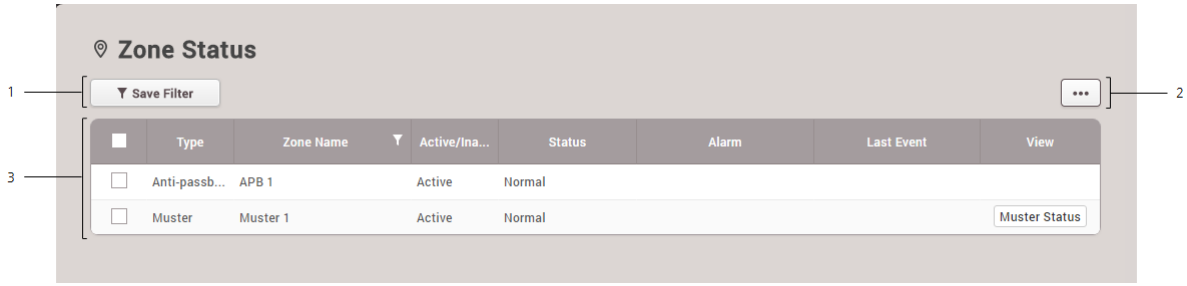
View zone status information such as the zone active status, alarm status, and the last event that has occurred.

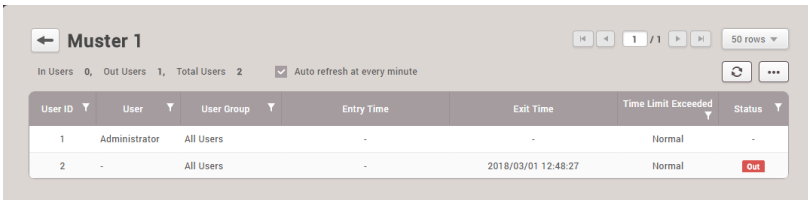
**Note**

- The **Zone Status** menu will appear when the Standard or higher license is activated.

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.

# 12 Monitoring




| 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.<br>The following operations are available for the selected zone:<br><br>▪ **Clear APB**: Reset the anti-passback violation by selecting all or each user. This can be only used when selecting an anti-passback zone.<br>▪ **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.<br><br>**Note**<br><br>▪ If a muster zone is set, you can check the user's status by clicking the **Muster Status**.<br>  |

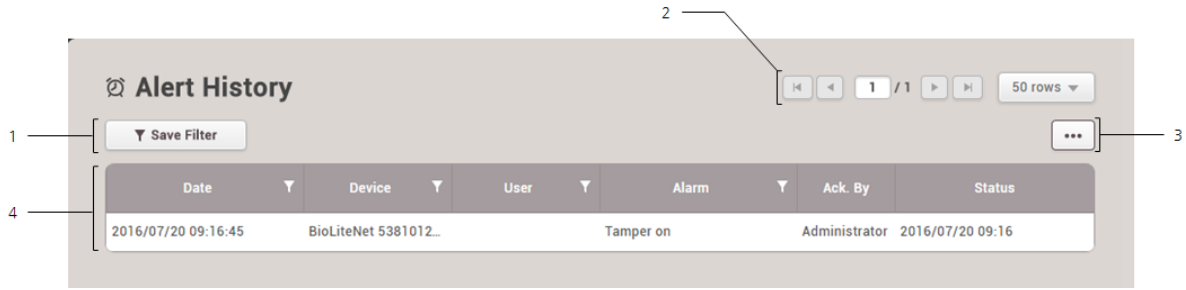


## Alert History

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.

# 12 Monitoring

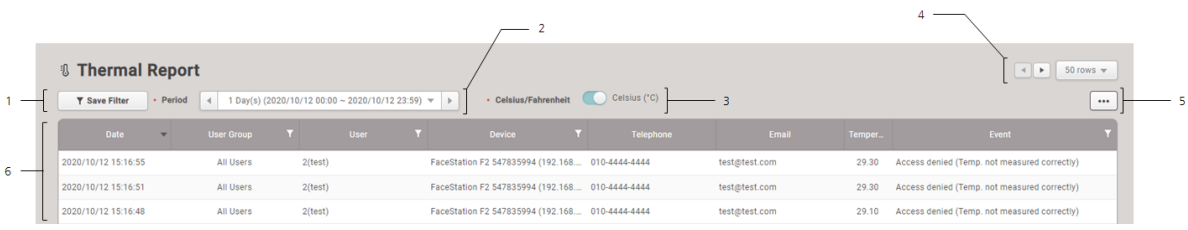



| No. | Item | Description |
|---|---|---|
| 1 | Save Filter Button | Saves the set filter. |
| 2 | Page Indicator and Navigation Buttons | You can move a page or set the number of list rows to be displayed on one page.<br>▪ : Go to the first page.<br>▪ : Go to the previous page.<br>▪ 2 / 2 : Enter the page number to move to.<br>▪ : Go to the next page.<br>▪ : Go to the last page.<br>▪ 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.<br>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.



| 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.<br>▪ : Go to the first page.<br>▪ : Go to the previous page.<br>▪ 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.<br>▪ Print the event log<br>▪ Export to CSV file<br>▪ Change the column setting |
| 6 | Reports | You can view the events including user's temperature information. |

**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.

Adding and Managing Graphic Map Groups

Adding and Managing Graphic Maps

**Note**

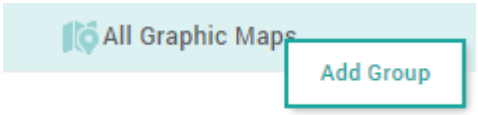
- The **Graphic Map View** will appear when the AC standard license is activated.

### 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**.



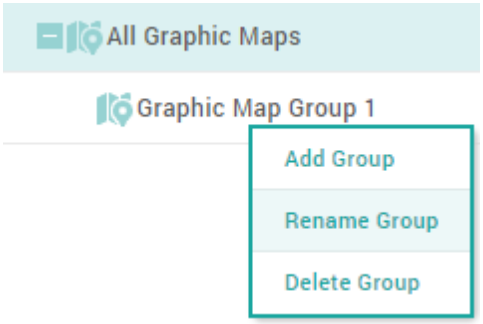

3) Enter a group name.

**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**.



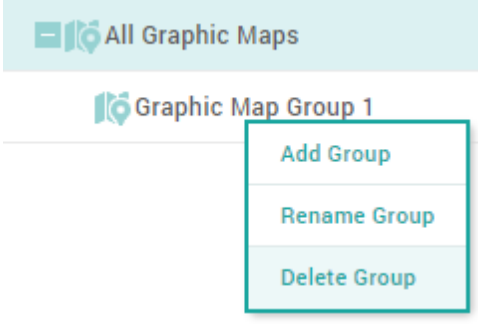

3) Enter a group name.

**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**

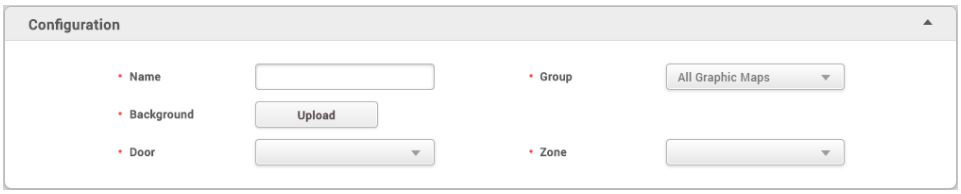
- You cannot delete a group if it contains a graphic map. To delete a group, you must delete all graphic maps belonging to the group.

## 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**.

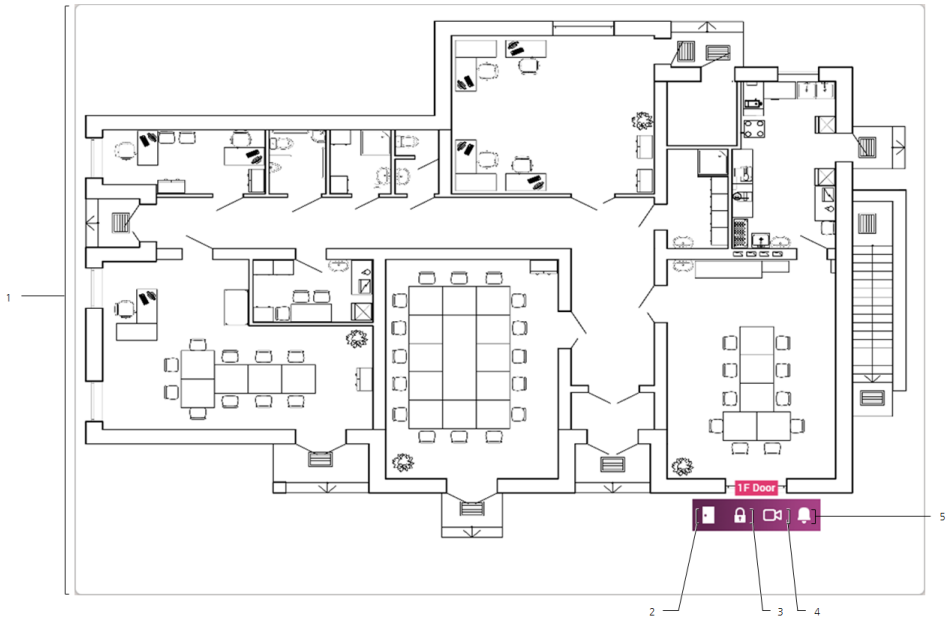



3) Set the name and group of the graphic map.
4) Click **Upload** and select the background you want to use as the graphic map.

**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.<br><br>**Note**<br>▪ 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.

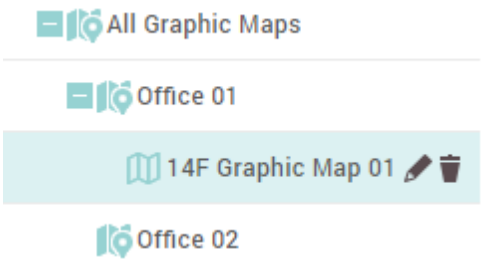
| No. | Item | Description |
|---|---|---|
| 1 | Zone | You can see the type of zone. |

| No. | Item | Description |
|---|---|---|
| | | **Note**<br>▪ 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

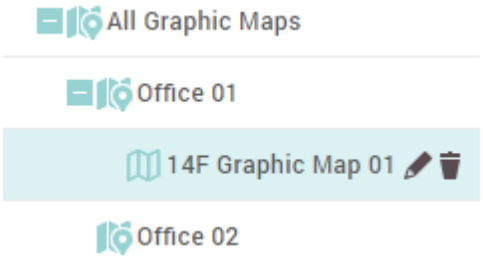
1) Click **MONITORING** > **Graphic Map View**.
2) Click in the graphic map that you want to edit.




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.

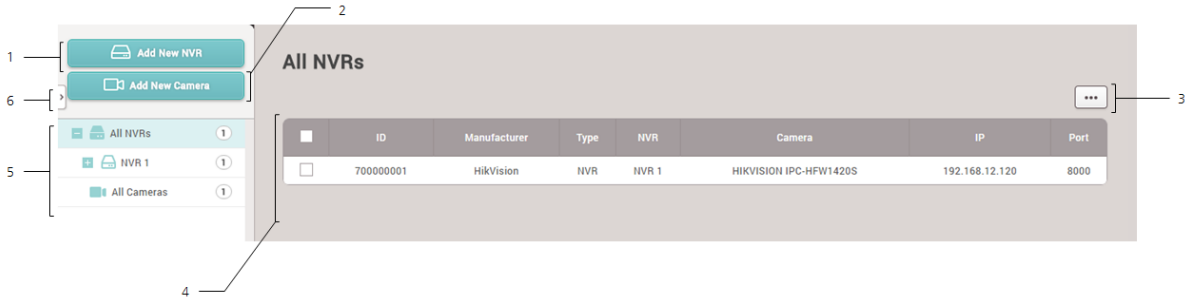
You can use the **VIDEO** menu to interlock an IP camera with an event of the door. You can set the IP camera to record video or image logs when a set event occurs. Saved videos can be viewed in the **MONITORING** menu.

# 13 Video



**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.




| | | | |
|---|---|---|---|
| 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 |

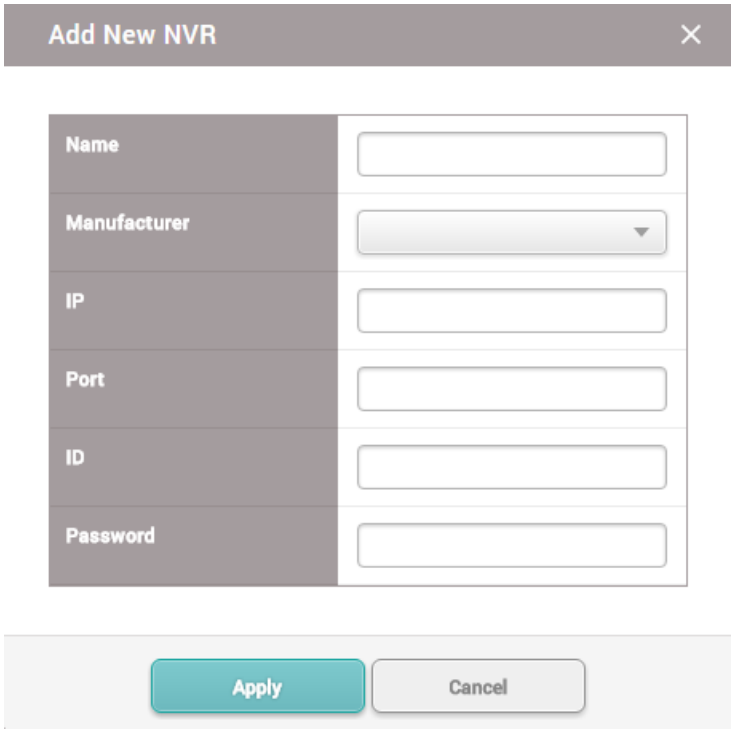
## Adding NVRs

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.<br>**Note**<br>▪ 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**).

# 13 Video

## Adding IP Cameras

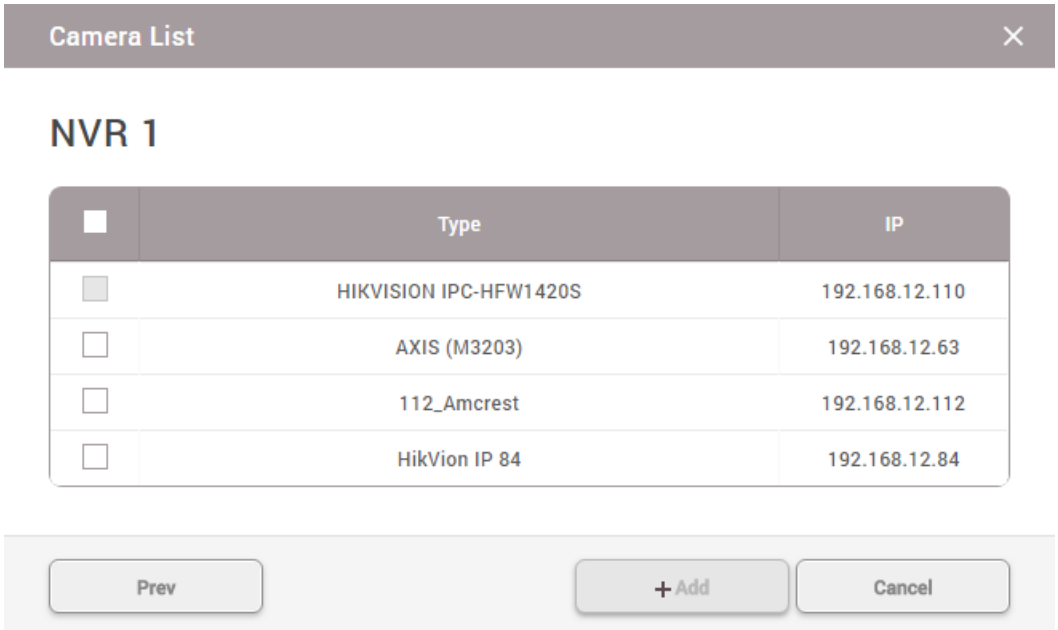
You can add an IP camera connected to NVR.

**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**.

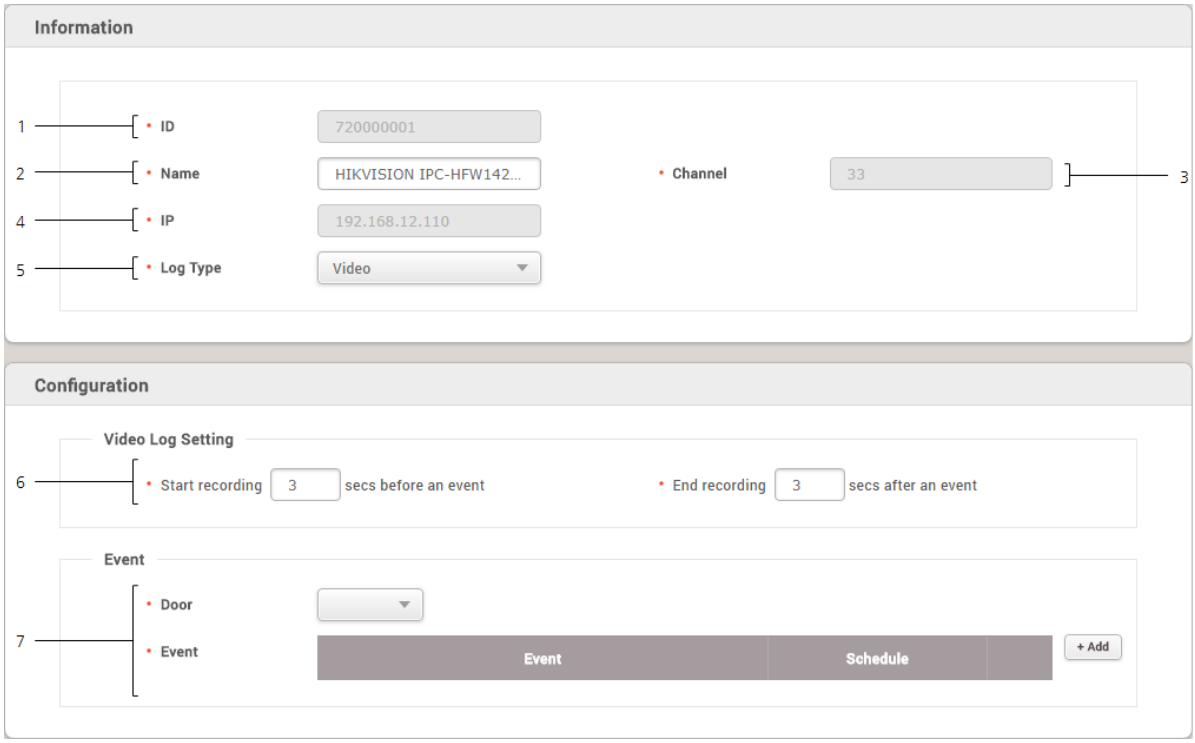



4) After adding the camera, you can set the camera to record a video log according to an event occurring at the door. For more details, refer to Editing IP Camera Settings.

## 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.<br><br>▪ **None**: A video log or an image log is not captured.<br>▪ **Video**: A video log is captured.<br>▪ **Image**: An image log will captured.<br><br>**Note**<br><br>▪ You can set **Video Log Setting** or **Image Log Setting** according to the set Log Type.<br>▪ **None** is set for **Log Type**, you cannot set the **Video Log Setting**, |

| No. | Item | Description |
|---|---|---|
| | | **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.<br><br>**Note**<br>▪ You can set **Video Log Setting** or **Image Log Setting** according to the set Log Type.<br><br>When **Log Type** is set to **Video**<br>  <br>When **Log Type** is set to **Image**<br>  <br><br>**Note**<br>▪ 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.<br><br>**Note**<br>▪ Door should be set.<br>▪ Only one door can be set per camera.<br>▪ If there is no registered entrance door, register one by referring to Adding Doors.<br>▪ If there is no desired schedule, click **Setting** > **Schedule** and register a new schedule. For more details, refer to Schedule.<br>▪ 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

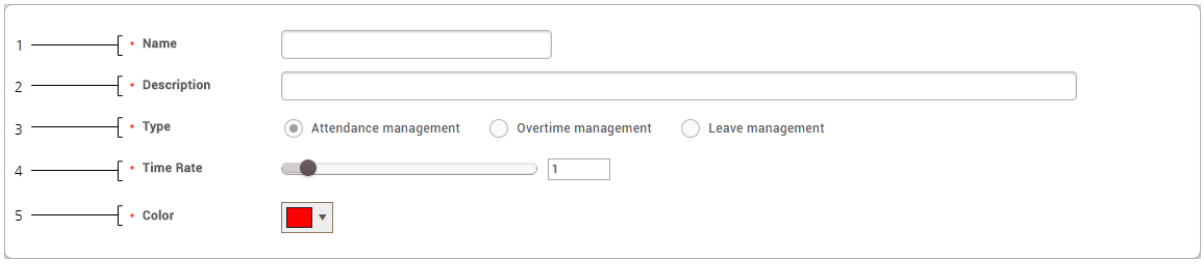
Schedule Template

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.<br><br>▪ **Attendance management**: You can set the time code to be used for the T&A record.<br>▪ **Overtime management**: You can set the time code to be used for overtime.<br>▪ **Leave management**: You can set the time code to be used for go out, outside work, business trip and vacation.<br><br>**Note**<br><br>▪ If the time code currently used by shift, **Type** cannot be changed.<br>▪ 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**

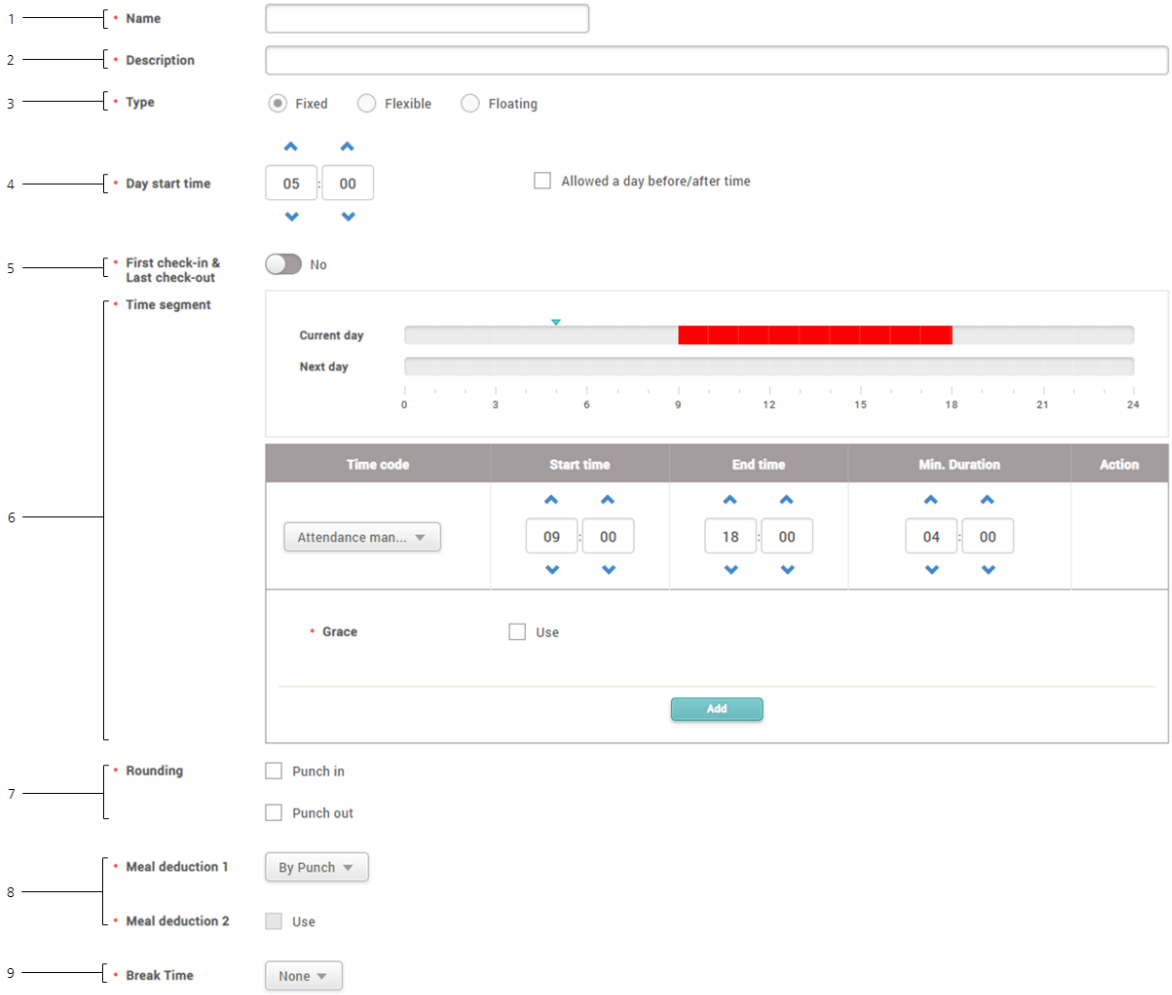
Shift

## Shift

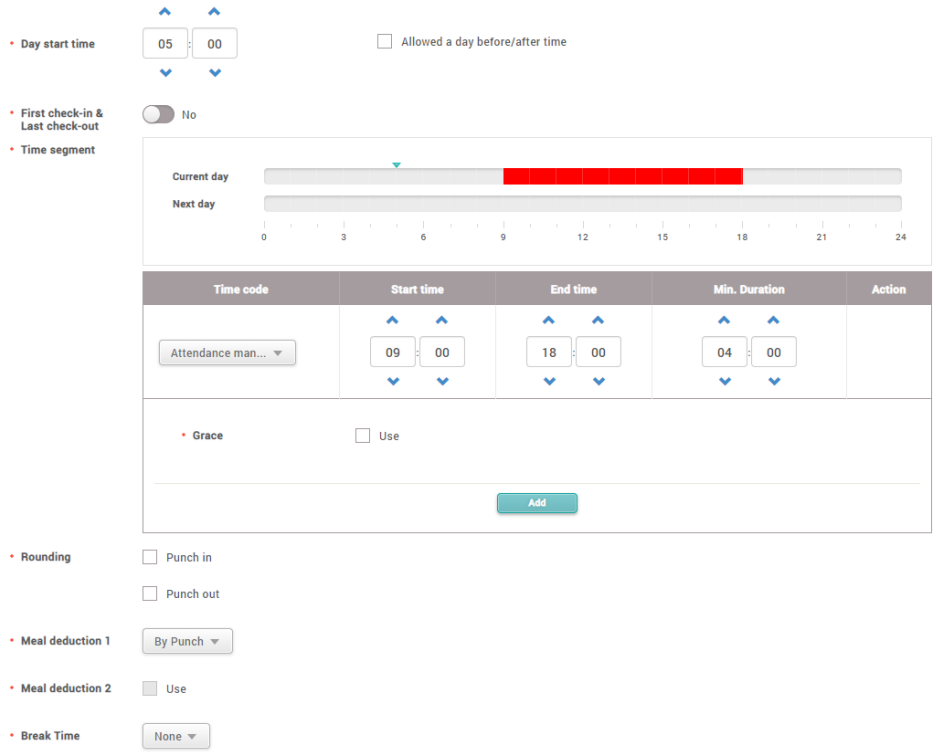
You can create a shift by applying a different time code for each hour based on a 24 hour cycle. You can select either a fixed working shift , flexible working shift or floating working shift and you can set the start time of day and rounding rule.

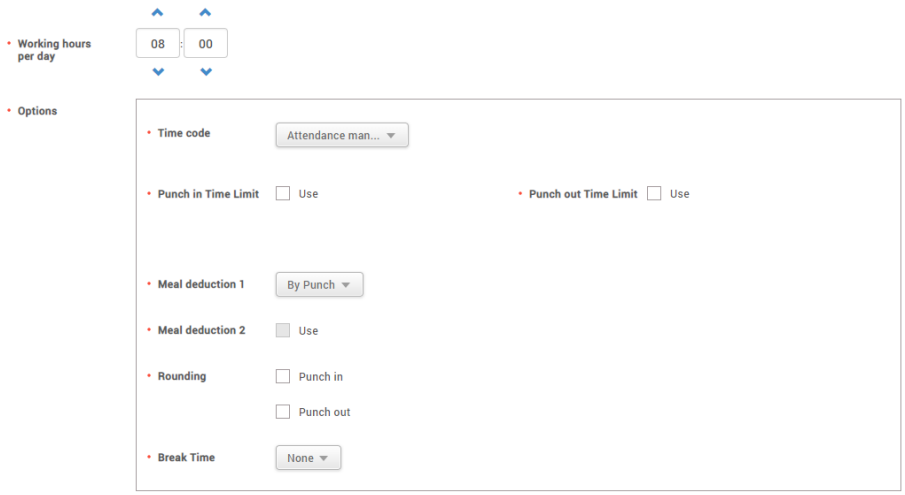
1) Click **TIME ATTENDANCE > Shift > Shift**.
2) Click **ADD SHIFT** and set each item.

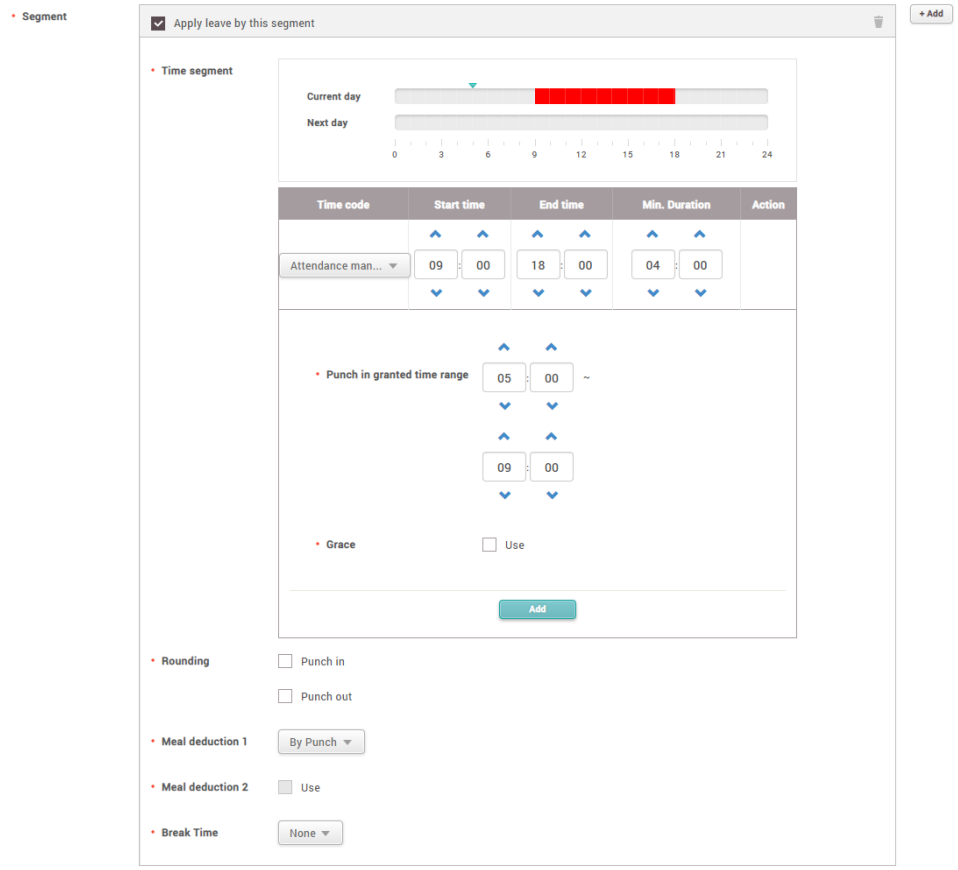
# 14 Time & Attendance




| 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.<br><br>▪ **Fixed**: You can set the fixed service to attend and leave at a fixed time.<br>▪ **Flexible**: You can set the flexible service with no fixed attendance and leave times.<br>▪ **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.<br>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**<br>▪ **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.<br>**Note**<br>▪ 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**,<br>  <br>Select the salary code set as T&A record and then set **Start time**, **End time** and **Min. Duration**.<br>You can also set **Grace**, **Rounding**, **Meal deduction** and **Break Time**. When setting is finished, click **Add**.<br>**Note**<br>▪ The **Allowed a day The before/after time** can be set up to 6 hours.<br>▪ You can only add one time code set as **Attendance management** to the shift.<br>▪ For the time code set as **Overtime management**, you can only set **Start** |

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

| No. | Item | Description |
|---|---|---|
| | |  <br>Select the time code and set **Start time**, **End time**, **Min. Duration**, and **Punch in granted time range**.<br>You can also set **Grace**, **Rounding**, **Meal deduction**, and **Break time**.<br><br>**Note**<br>▪ You can configure the shift by up to 5 time slots.<br>▪ 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.<br>▪ 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.<br>Select the item which you intend to use, and then set **Unit** and **Point**.<br><br>▪ **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.<br>▪ **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.<br><br>**Note**<br>▪ **Rounding** applies in preference to **Grace**. |
| 8 | Meal deduction 1, 2 | You can set to deduct meal time from the shift.<br><br>▪ **By Punch**: You can set it to be deducted according to the record registered in the device, without a fixed meal deduction time.<br>▪ **Auto**: You can set the meal deduction by setting **Deduction time** and **Minimal hours before deduction**.<br>▪ **Fixed**: You can set the fixed meal deduction by setting **Start time** and **End time**.<br><br>**Note**<br>▪ You can deduct two meal times from the shift if you use **Meal deduction 2**.<br>▪ 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.<br><br>▪ **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**.<br>▪ **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**

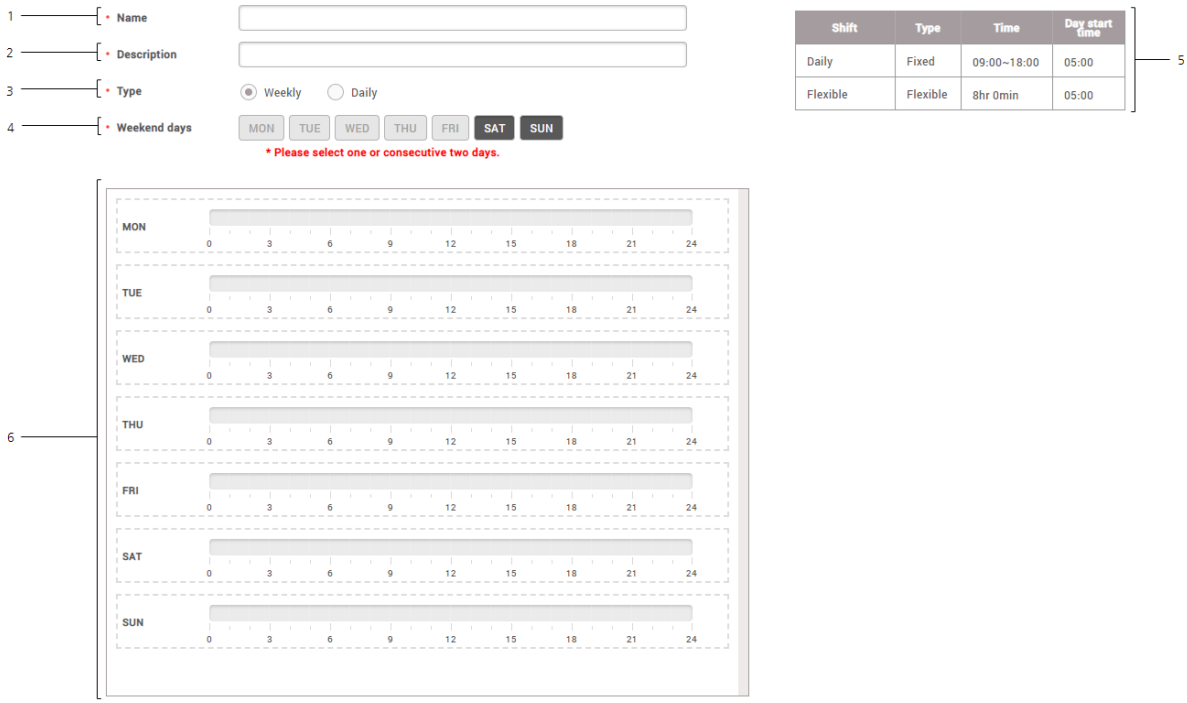
Schedule Template

## 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**.<br><br>**Note**<br>▪ 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**.

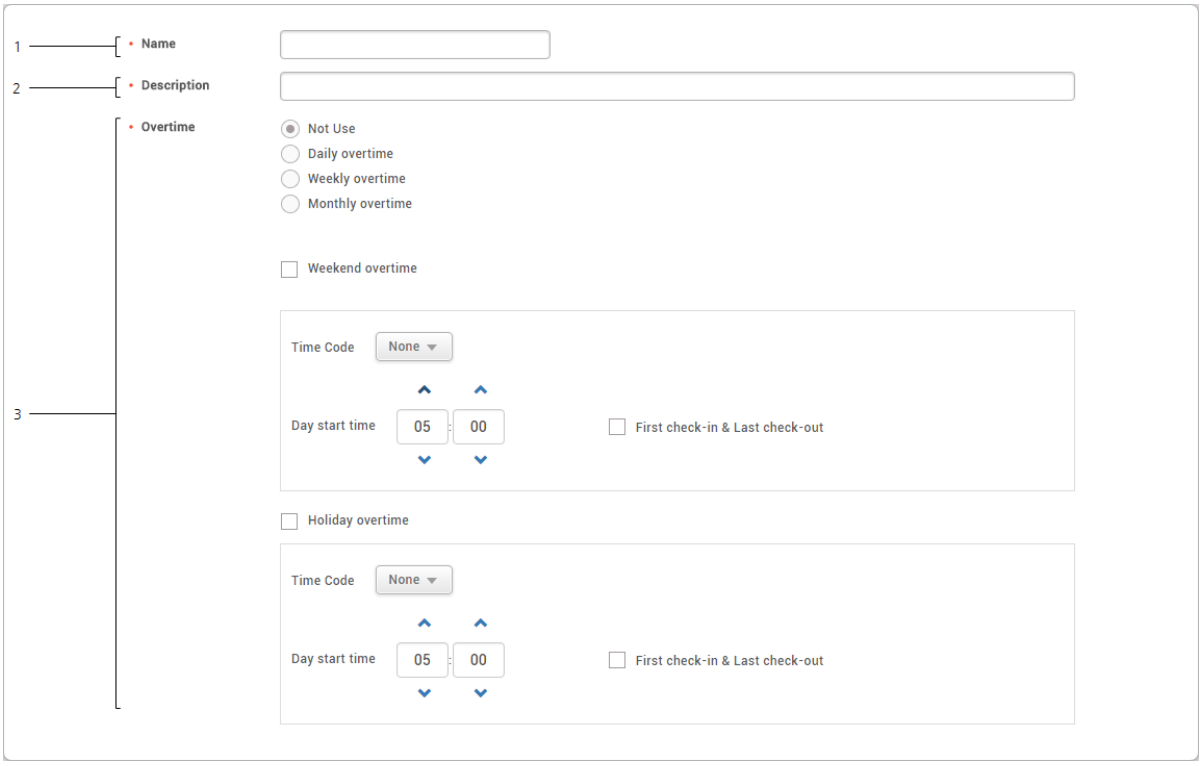
**Related information**

Overtime Rule

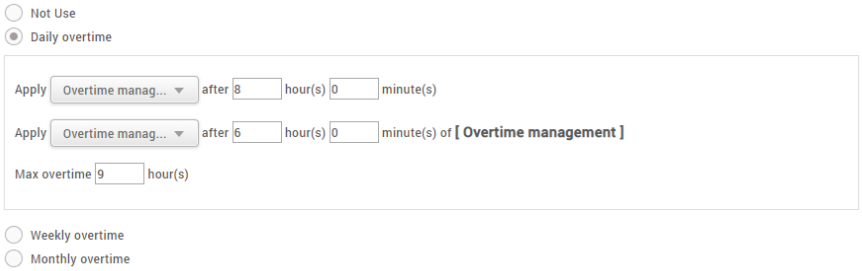
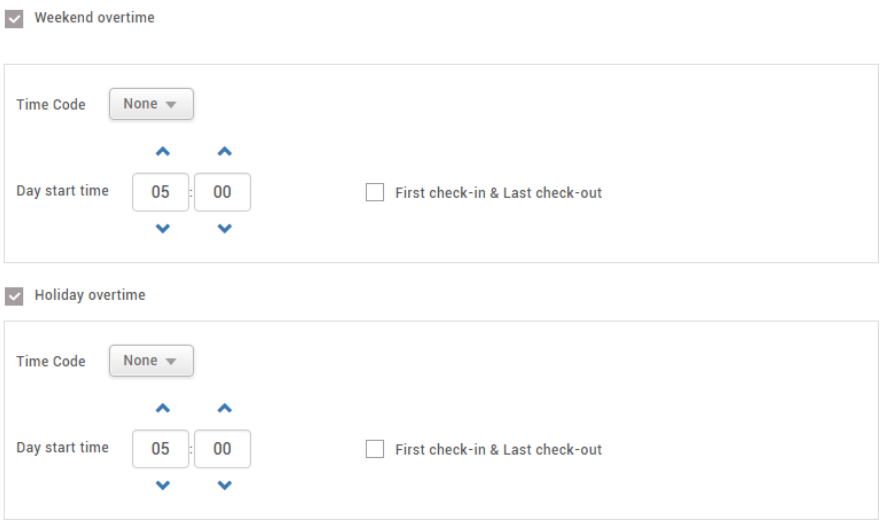
## Rule

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.<br><br>**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.<br><br>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.<br><br>  <br><br>**Note**<br><br>▪ Total working time does not include break time or meal time.<br><br>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.<br><br>  |

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**.

**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.

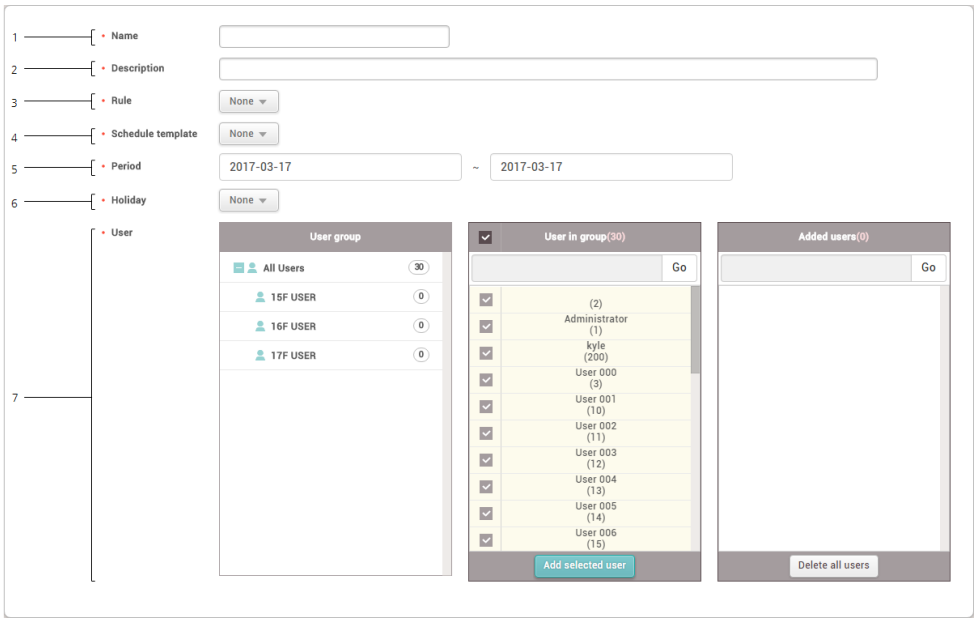
**Note**

- 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.<br>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**.<br>**Note**<br>▪ If there is no desired overtime rule, set one by referring to the Overtime Rule. |
| 4 | Schedule Template | Select the set schedule template.<br>**Note**<br>▪ If there is no desired schedule template, set one by referring to the Schedule Template.<br>▪ Once schedule template is set, it cannot be changed. |
| 5 | Period | Set the period to collect T&A events.<br>**Note**<br>▪ 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**.<br>**Note**<br>▪ 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. |

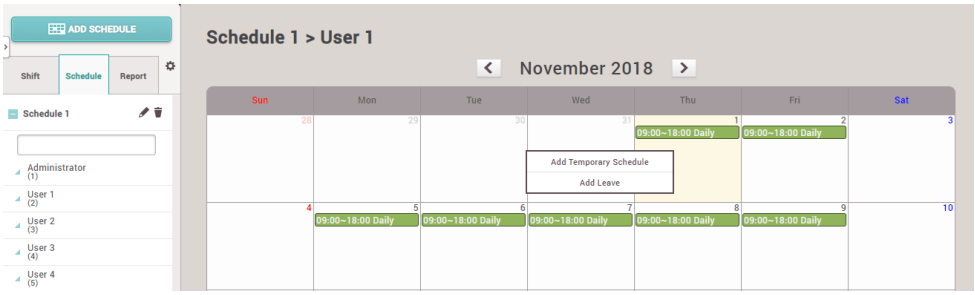
3) To save settings, click **Apply**.
4) To delete a schedule, select the schedule you wish to delete from the list, and then click **Delete schedule**.

### ─ Adding & deleting a temporary schedule

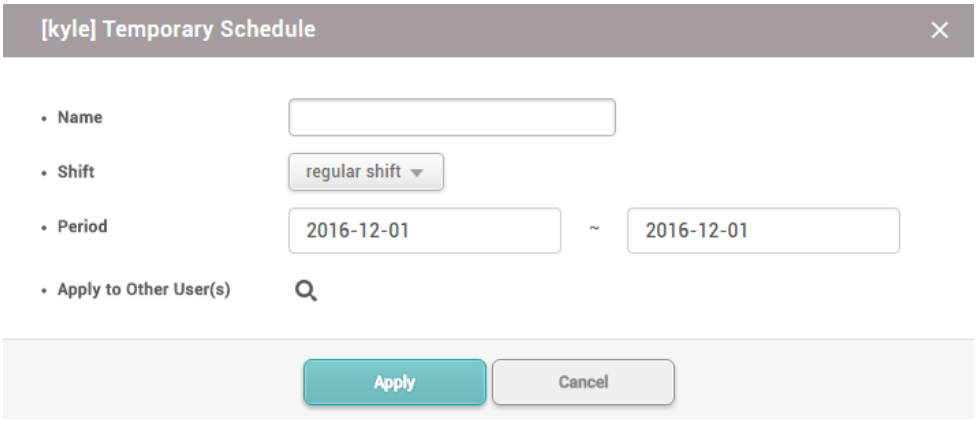
If you have already registered schedule. you can set a different service rule to a user

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 .

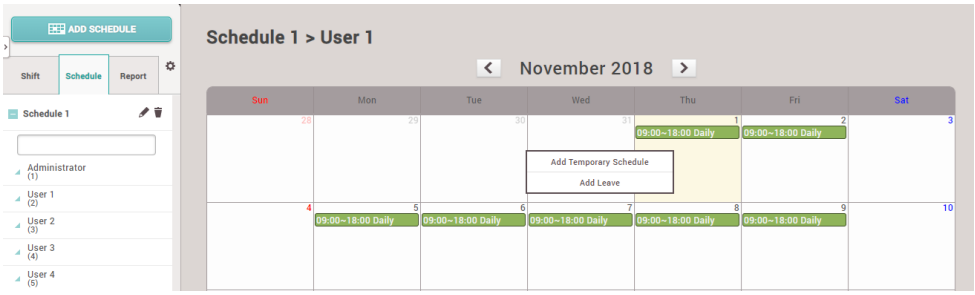



3) When you click **Apply**, the shift for the set period will be changed.
4) To delete a temporary schedule, click the service schedule of the set temporary schedule, and then click **Yes**.

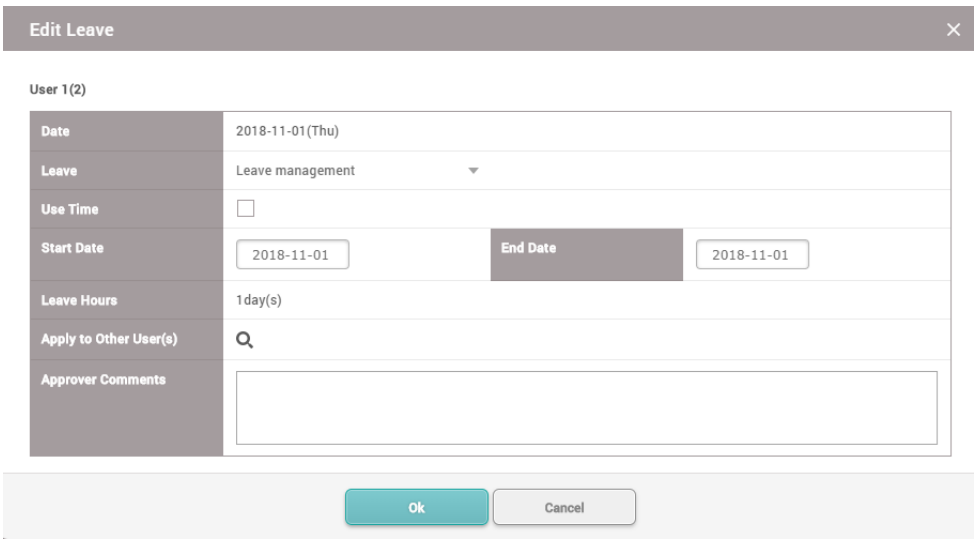
## ─ Adding & deleting a leave

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.

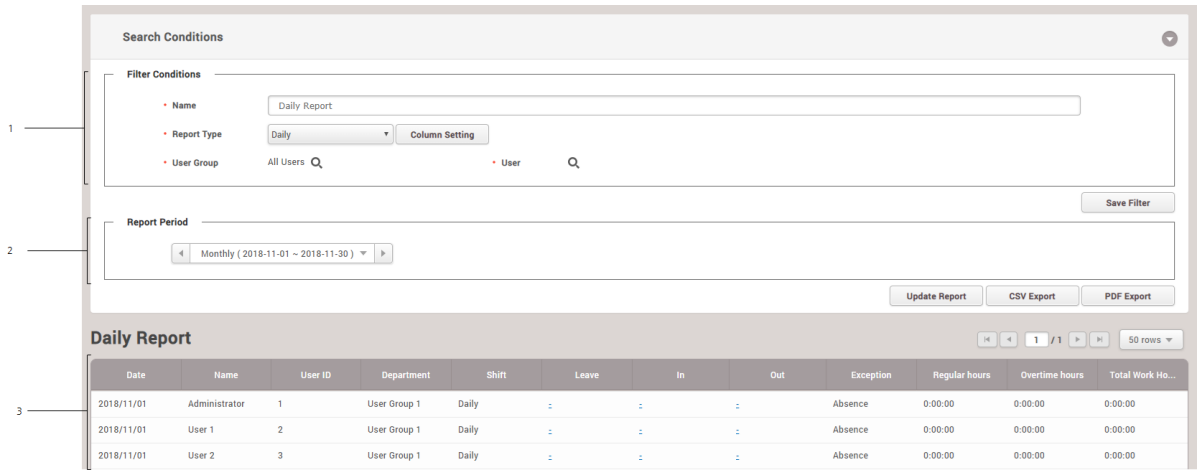
When using BioStar 2 with MS SQL database, your PC's memory usage will accumulate each time you update the report if there are a large number of registered users. Reset Max Server Memory for the MS SQL database.

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.




| No. | Item | Description |
|---|---|---|
| 1 | Filter Conditions | Set a new T&A report. |

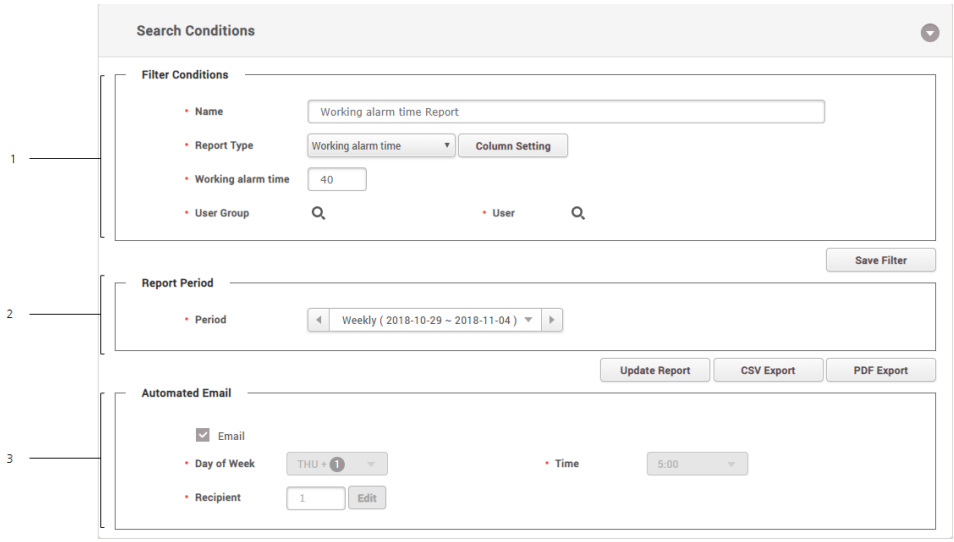
| No. | Item | Description |
|---|---|---|
| | | ▪ **Name**: Enter the desired report name.<br>▪ **Report Type**: Select the desired report type. **Daily**, **Daily Summary**, **Individual**, **Individual Summary**, **Leave**, **Exception**, **Modified Punch Log History**, **Working alarm time** reports are available.<br>▪ **Column Setting**: Change or hide the order of columns in the report table.<br>▪ **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.<br>▪ **User Group** / **User**: Select a user group or a user to create a report.<br>▪ **Save Filter**: Save the set T&A report as the filter. |
| 2 | Report Period | Set the period of report.<br><br>▪ **Period**: Set the period for creating a report to **Daily**, **Weekly**, **Monthly**, or **Custom**.<br>▪ **In/Out Only**: Select to output only the check-in and check-out logs of the user to the report.<br>▪ **All Punches**: Select to output all punches of the user to the report.<br><br>**Note**<br><br>▪ **In/Out Only** and **All Punches** are enabled only in Individual Report.<br><br>▪ **Update Report**: Update the report table to the most recent information.<br>▪ **CSV Export**: Save the created report as a CSV file.<br>▪ **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.

# 14 Time & Attendance




| No. | Item | Description |
|---|---|---|
| 1 | Filter Conditions | Set a new T&A report.<br><br>▪ **Name**: Enter the desired report name.<br>▪ **Report Type**: Select the desired report type.<br>▪ **Column Setting**: Change or hide the order of columns in the report table.<br>▪ **Working alarm time**: Set the time to generate Working alarm time report.<br>▪ **User Group** / **User**: Select a user group or a user to create a report.<br>▪ **Save Filter**: Save the set T&A report as the filter. |
| 2 | Report Period | Set the period of report.<br><br>▪ **Period**: Set the period for creating a report.<br>▪ **Update Report**: Update the report table to the most recent information.<br>▪ **CSV Export**: Save the created report as a CSV file.<br>▪ **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.<br><br>▪ **Email**: Click to send an email to an administrator automatically.<br>▪ **Day of Week**: You can set the days of the week to send an email to administrators.<br>▪ **Time**: You can set the time to send an email to administrators.<br>▪ **Recipient**: You can add an administrator's email address that receives the email. |

| No. | Item | Description |
|---|---|---|
| | | **Note**<br>▪ You need to configure **Filter Conditions** and then save the filter in order to set up **Automated Email**.<br>▪ 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.

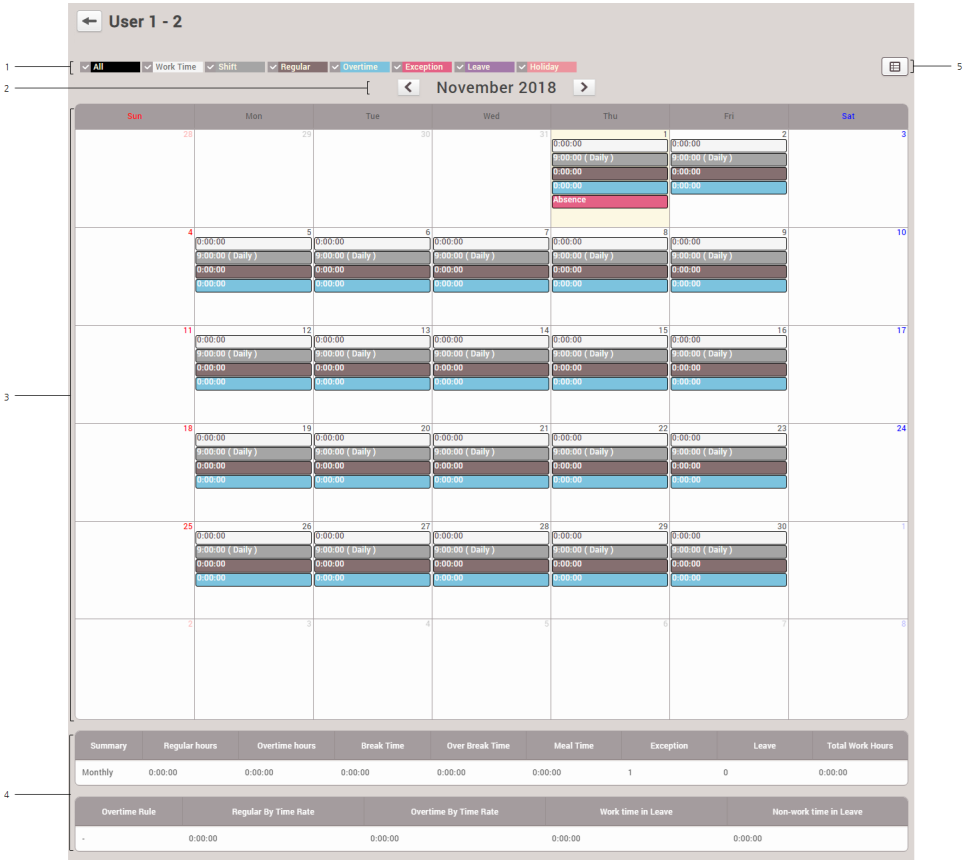
1) Click a row to modify the record from the created report table.
2) Modify a T&A record or add a leave according to the desired method.

### ─ Modifying in the List


| 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. |

| No. | Item | Description |
|---|---|---|
| | | **Note**<br>▪ 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.<br>▪ 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

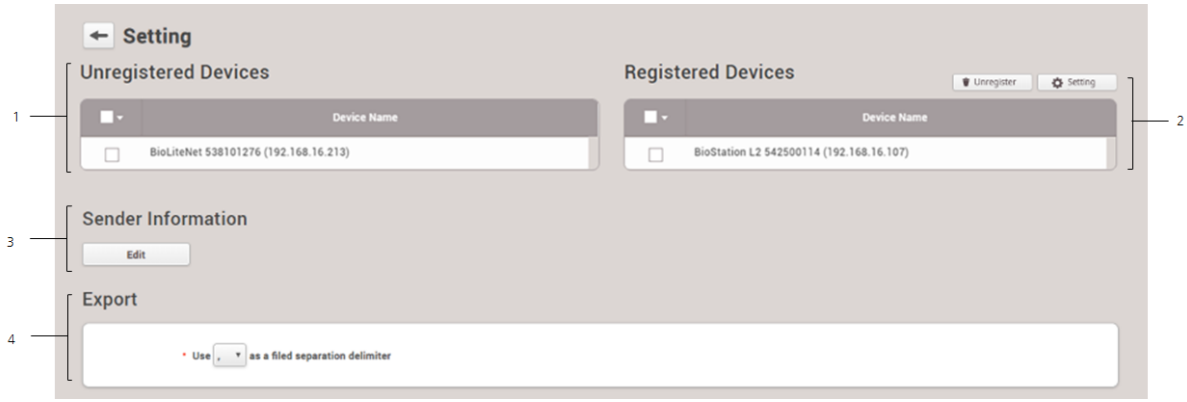


| No. | Item | Description |
|---|---|---|
| 1 | Event Type | You can click each event type to display or hide on the calendar. |
| 2 | Month | You can move to the previous or next month by clicking < or >. |
| 3 | Daily T&A record | You can view the daily T&A record.<br><br>**Note**<br>▪ You can add, 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.<br>▪ 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. |

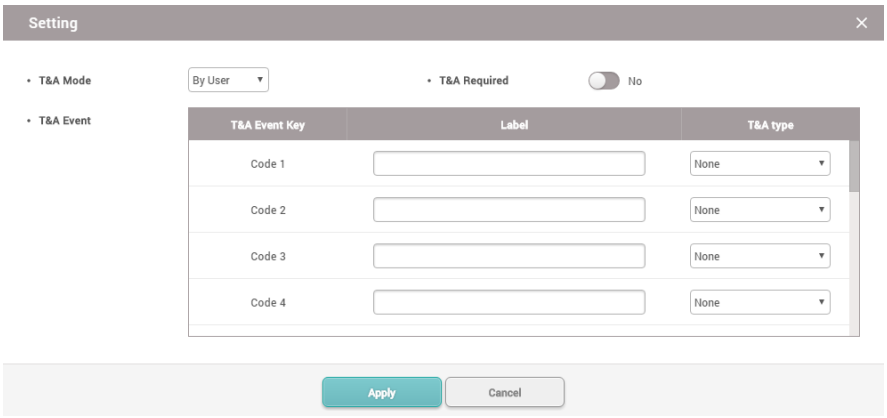
## Setting

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.



# 14 Time & Attendance

| No. | Item | Description |
|---|---|---|
| 1 | Unregistered Devices | This is the list of devices for which T&A management is available.<br>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**.<br><br>You can also change the T&A setting of a registered device by clicking **Setting**. For details, refer to the device's T&A.<br><br>**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**).<br>  |
| 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. |

**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.

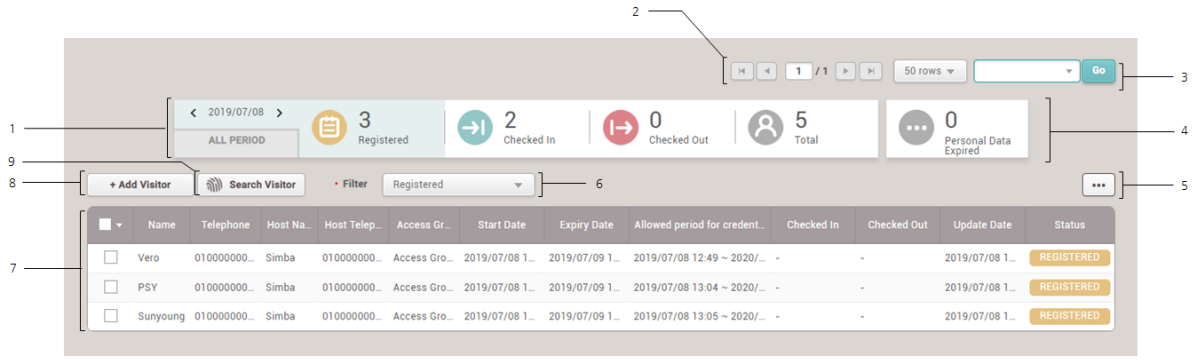
Applying to Visit

Managing Visitors

**Note**

# 15 Visitor

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




| | |
|---|---|
| 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

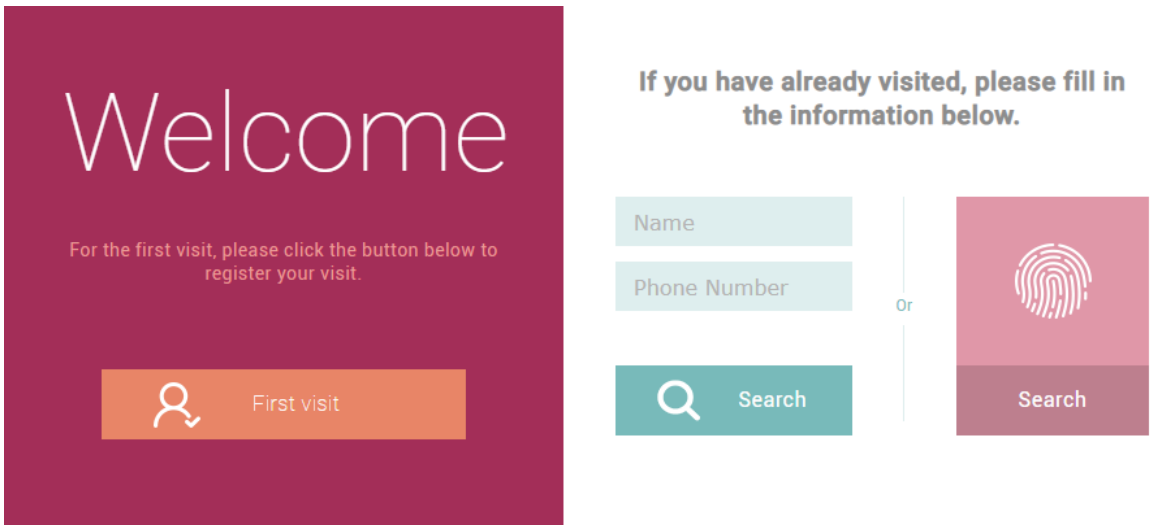
If you are visiting for the first time, apply for a visit on the visit application page.

**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.

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

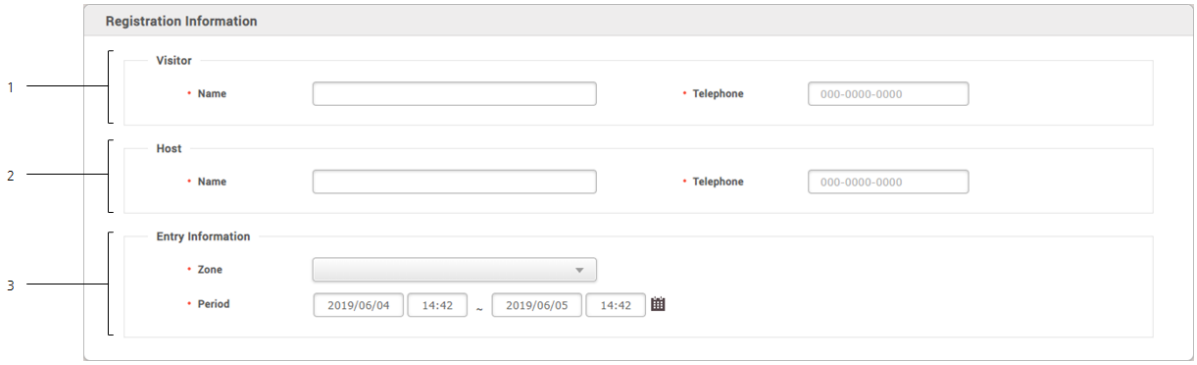
1) Run the visit application page on the visiting PC.




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.<br><br>▪ **Name**: Enter the name.<br>▪ **Telephone**: Enter the telephone number.<br><br>**Note**<br><br>▪ If the Custom Visitor Field is set in the **VISITOR** setting, that fields are activated.<br>▪ Up to 48 characters may be entered for a name. |

| No. | Item | Description |
|---|---|---|
| 2 | Host | Enter the host's information.<br><br>▪ **Name**: Enter the name.<br>▪ **Telephone**: Enter the telephone number.<br><br>**Note**<br><br>▪ Up to 48 characters may be entered for a name. |
| 3 | Entry Information | Set the zone and period to visit.<br><br>▪ **Zone**: Set the access group.<br>▪ **Period**: Set the period for visit.<br><br>**Note**<br><br>▪ 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.<br>And enroll the fingerprint. |
| 2 | Card | Set the card to **Request** to use the card authentication.<br>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

# 15 Visitor

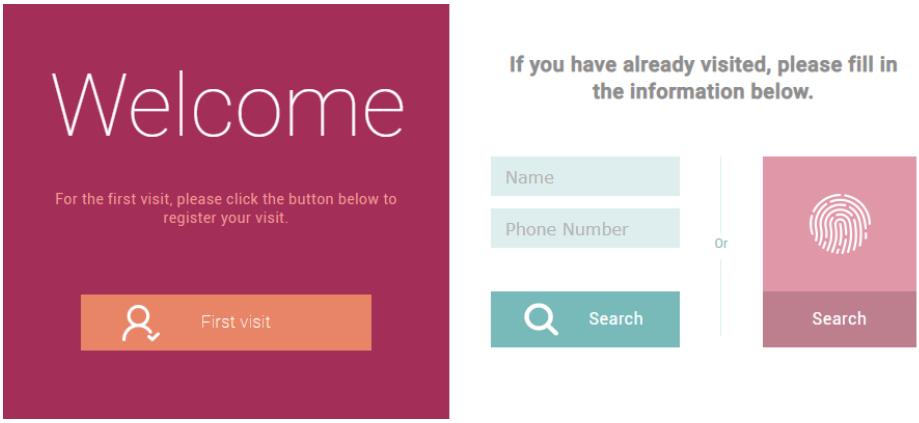
## Applying to Visit Using Existing Info

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

### − 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.



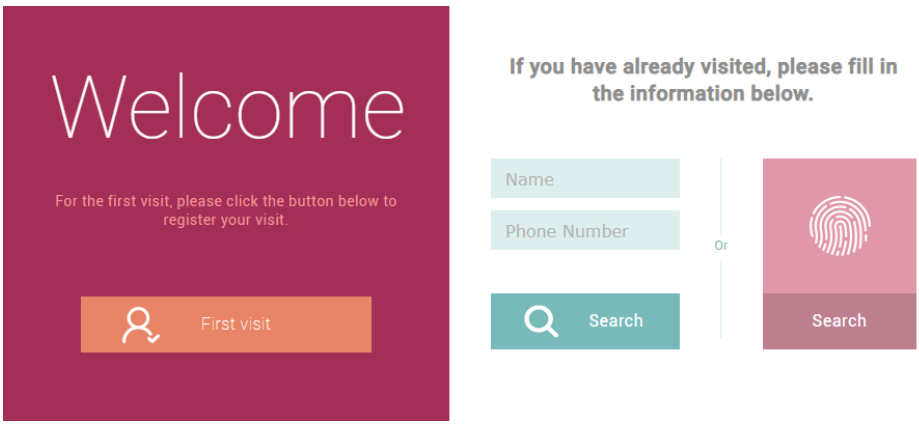

2) Enter the name and telephone number and then click **Search**.
3) Check and accept the terms and conditions or the privacy policy for access and then click **Next**.
4) Check the Registration Information. If there are items that need to be modified, modify each item by referring to Applying to first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

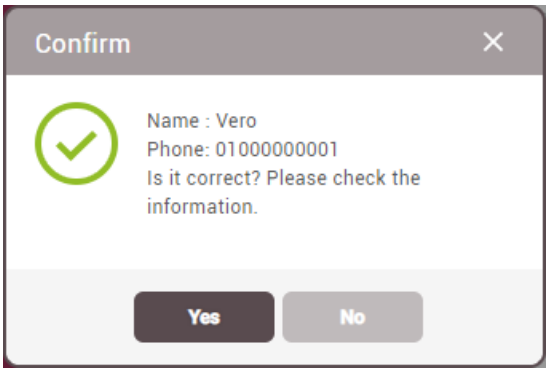
If you have a fingerprint registered in the site of visit, you can search the fingerprint and apply for a visit using the existing visit information.

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

# 15 Visitor




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.

# 15 Visitor



**Note**

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

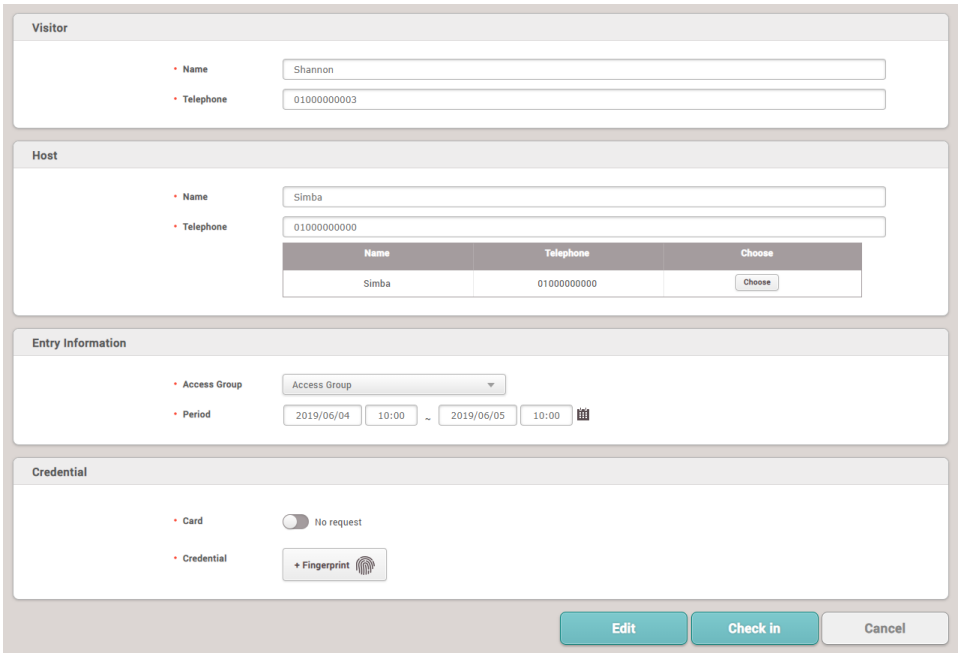
## Managing Registered Visitors

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**.

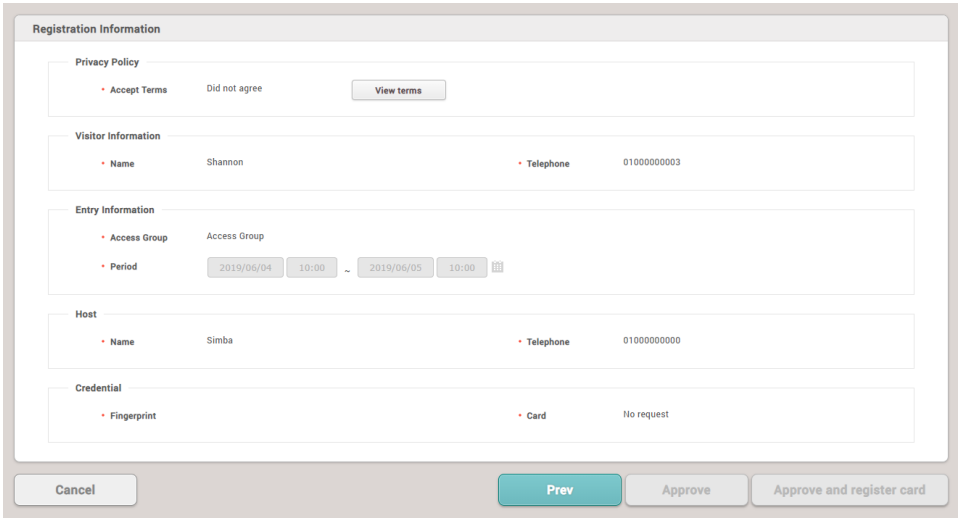



**Note**

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

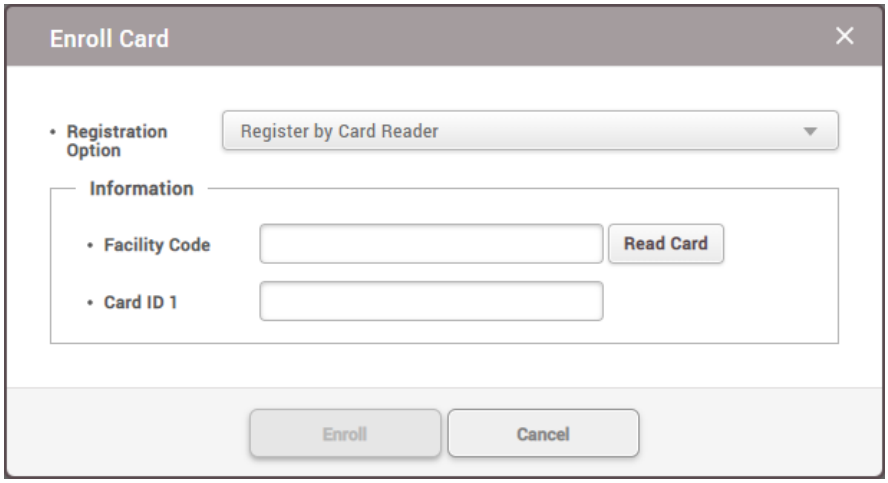
4) Check the **Registration Information** and then click **Approve** to approve the

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**.

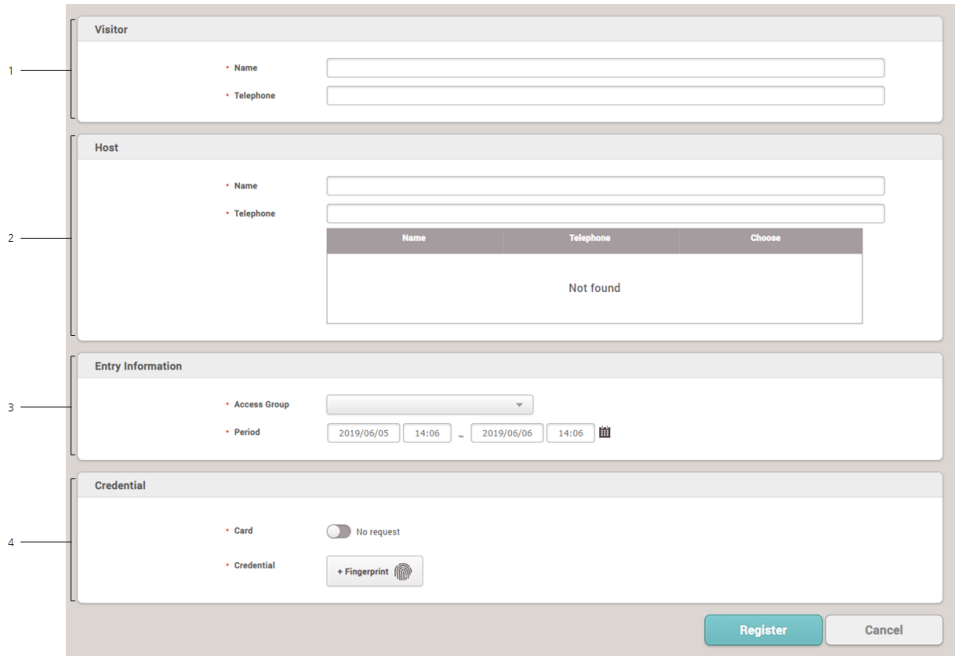
b) Enter the **Facility Code** or **Card ID 1**.

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

### Add Visitors

You can add visitors.

1) Click **VISITOR**.
2) Click **+ Add Visitor**.



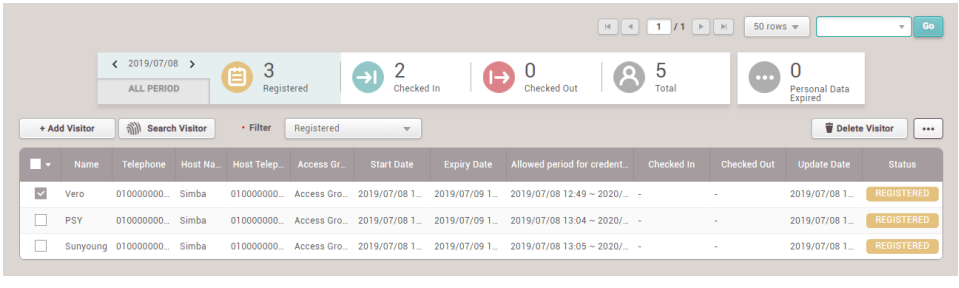

| No. | Item | Description |
|---|---|---|
| 1 | Visitor | Enter the visitor's information.<br><br>▪ **Name**: Enter the name.<br>▪ **Telephone**: Enter the telephone number.<br><br>**Note**<br><br>▪ If the Custom Visitor Field is set in the **VISITOR** setting, that fields are activated. |

| No. | Item | Description |
|---|---|---|
| | | ▪ Up to 48 characters may be entered for a name. |
| 2 | Host | Enter the host's information.<br><br>▪ **Name**: Enter the name.<br>▪ **Telephone**: Enter the telephone number.<br><br>**Note**<br><br>▪ Up to 48 characters may be entered for a name.<br>▪ 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.<br><br>▪ **Zone**: Set the access group.<br>▪ **Period**: Set the period for visit.<br><br>**Note**<br><br>▪ Only access groups of sites assigned to visiting PC in **VISITOR** setting are displayed. |
| 4 | Credential | Set the credentials.<br><br>▪ **Card**: Set the card to **Request** to use the card authentication.<br>▪ **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

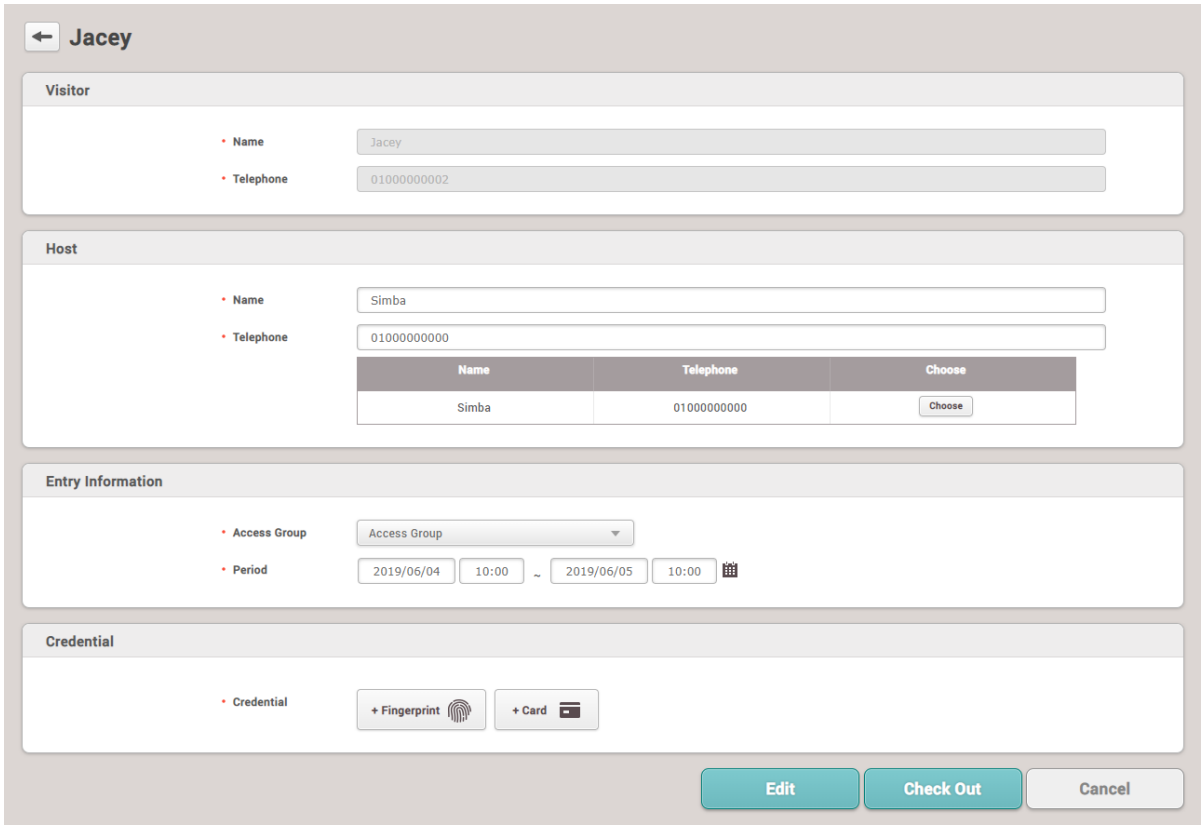
Visitor

## 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.

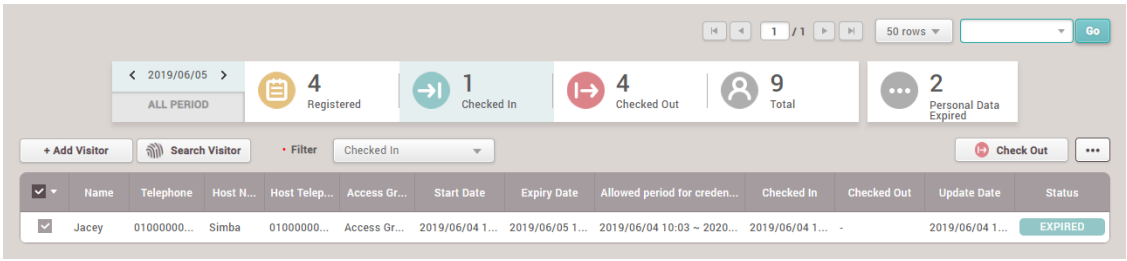
1) Click **VISITOR**.
2) Click a visitor in the **Checked In**.
3) Check the information of the visitor and then click **Check Out**.

# 15 Visitor




**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).

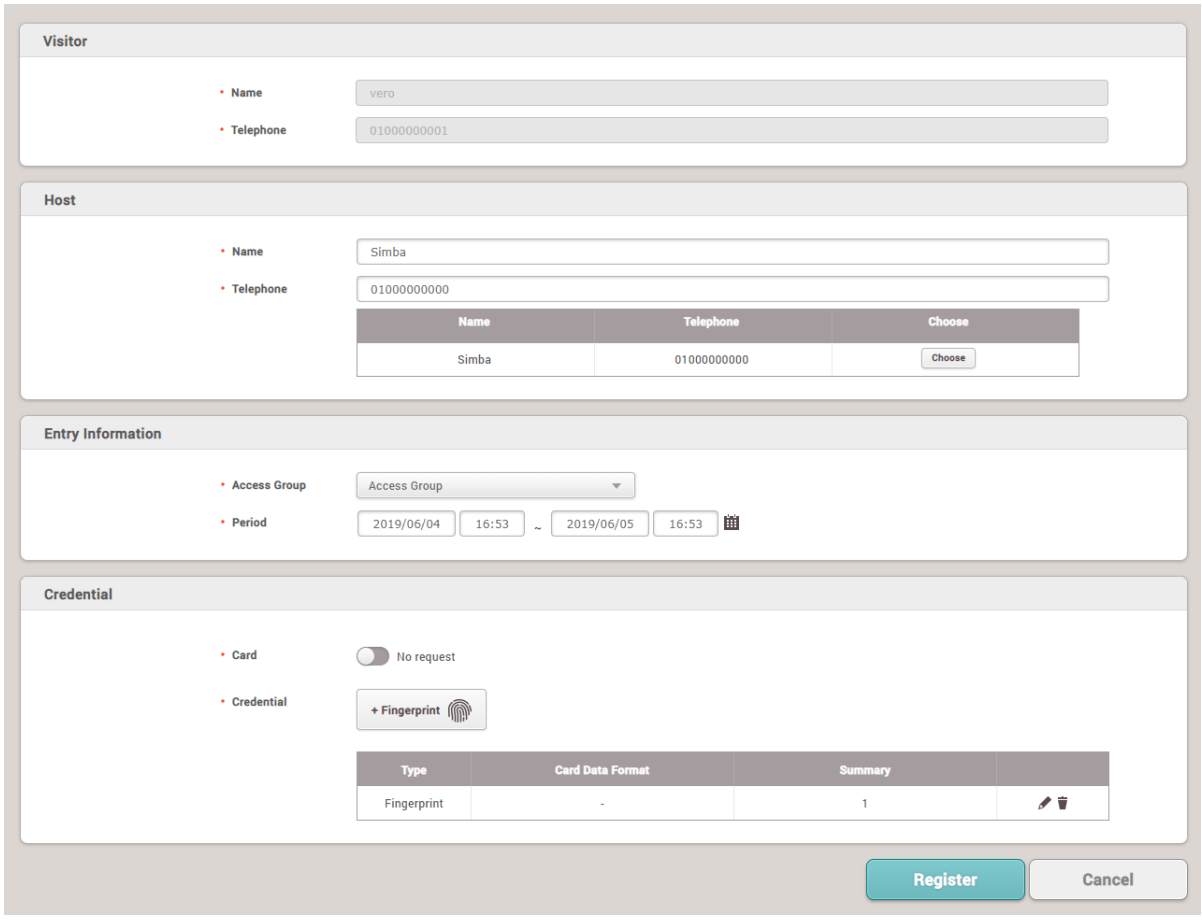



## Managing Check Out Visitors

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



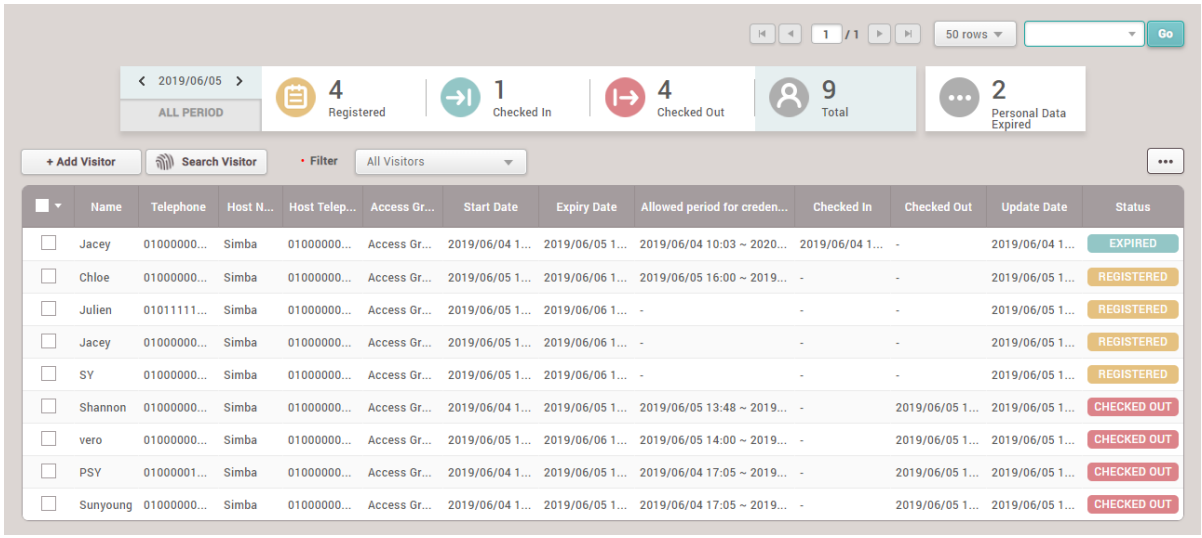

4) If there are items that need to be modified, modify each item and click **Register**.

## 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.

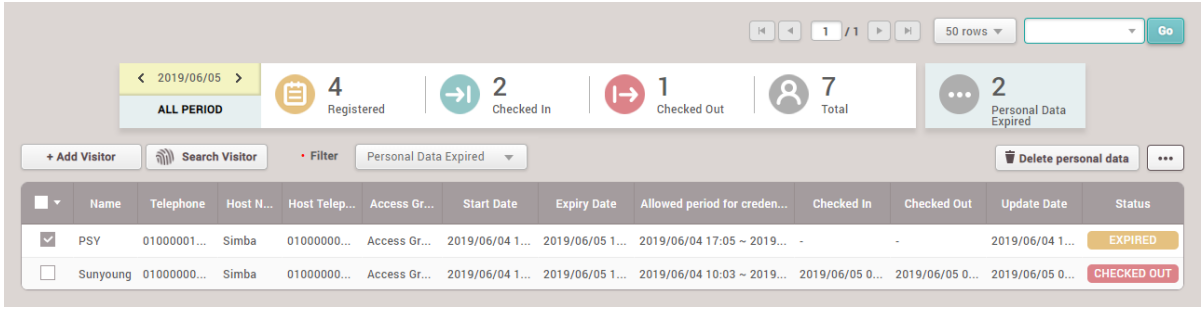
## Deleting Personal Data Expired

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

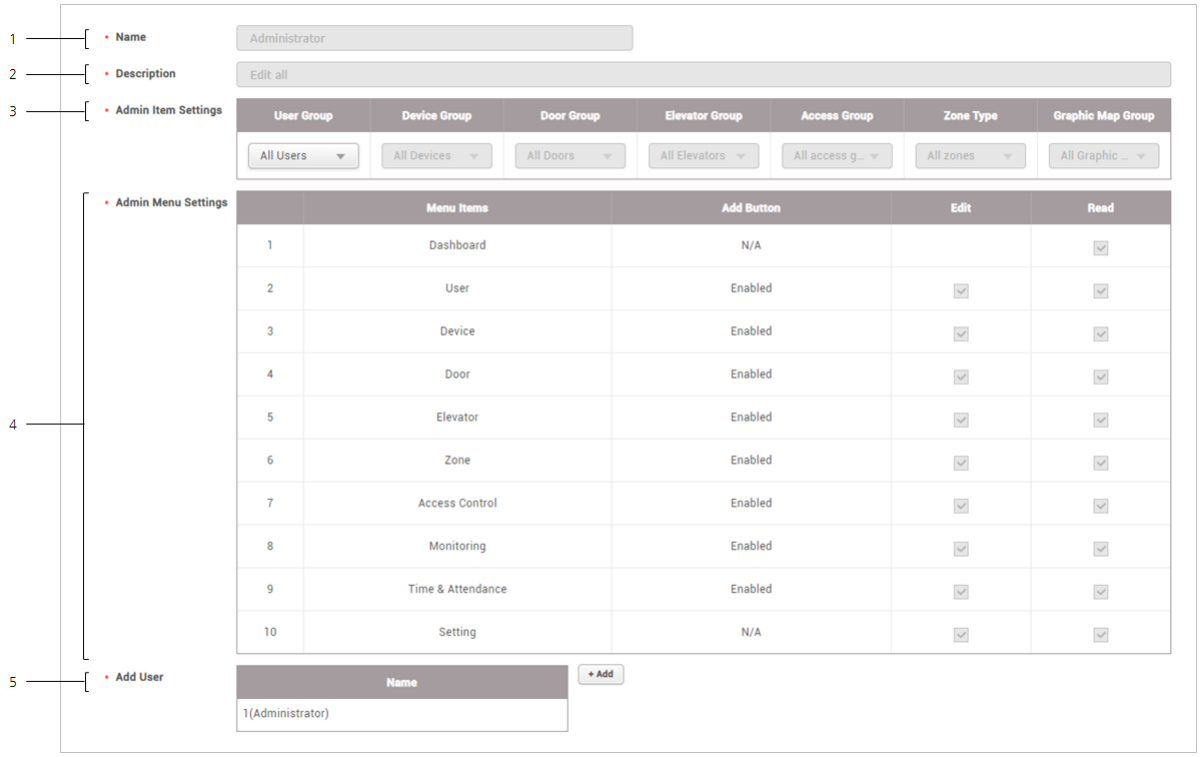
Visitor

Mobile Access

## Account

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. |
| 5 | Add User | Shows the list of users assigned with the privileges. Click **+ Add** to add a user.<br>▪ 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

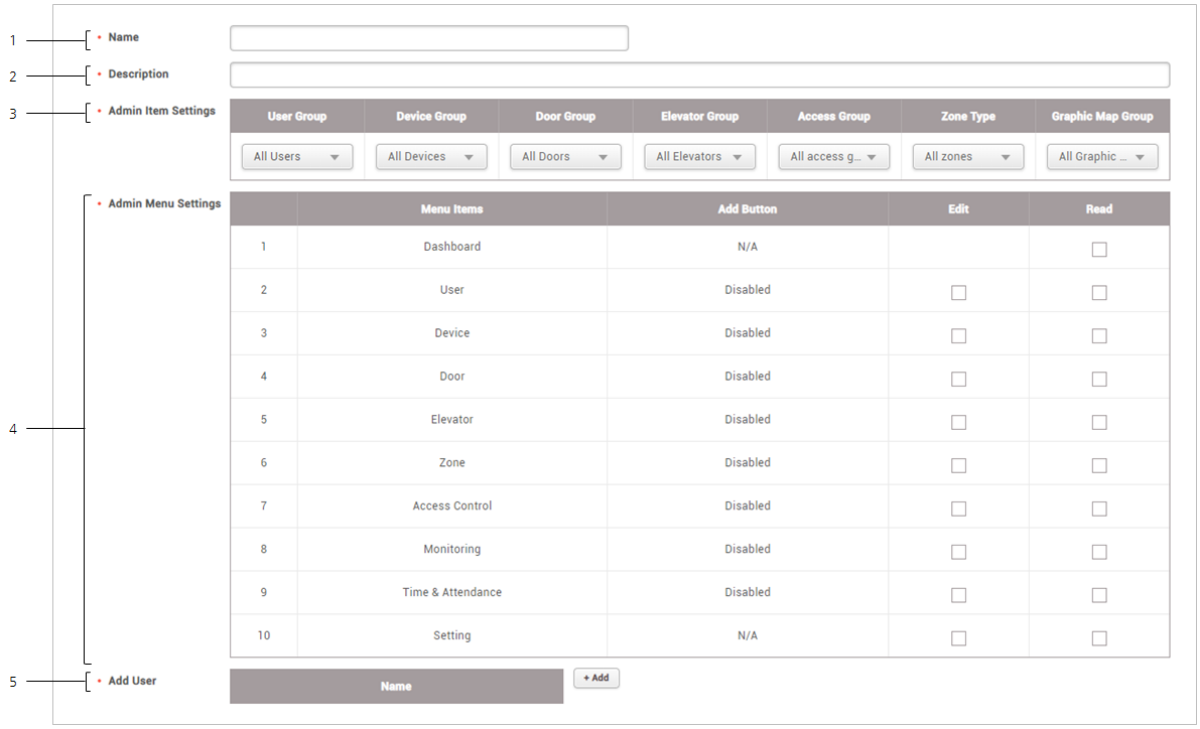
You can assign BioStar 2 operator privilege levels to registered users.

**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.

# 16 BioStar 2 Settings



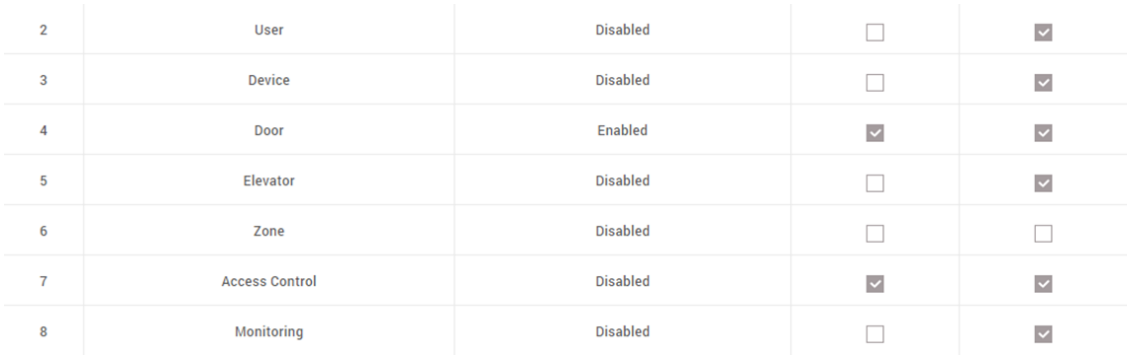

| No. | Item | Description |
|---|---|---|
| 1 | Name | Enter the desired account level name. |
| 2 | Description | Enter a brief description of the account level. |
| 3 | Admin Item Settings | Set the detailed permission for each item. You can select groups to assign the edit and read permissions for each menu.<br>**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.<br>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.<br>▪ **Edit**: The permission to add, edit, and delete the items of the menu.<br>▪ **Read**: The permission to read the items of the menu.<br>**Note**<br>▪ 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.<br>▪ 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.

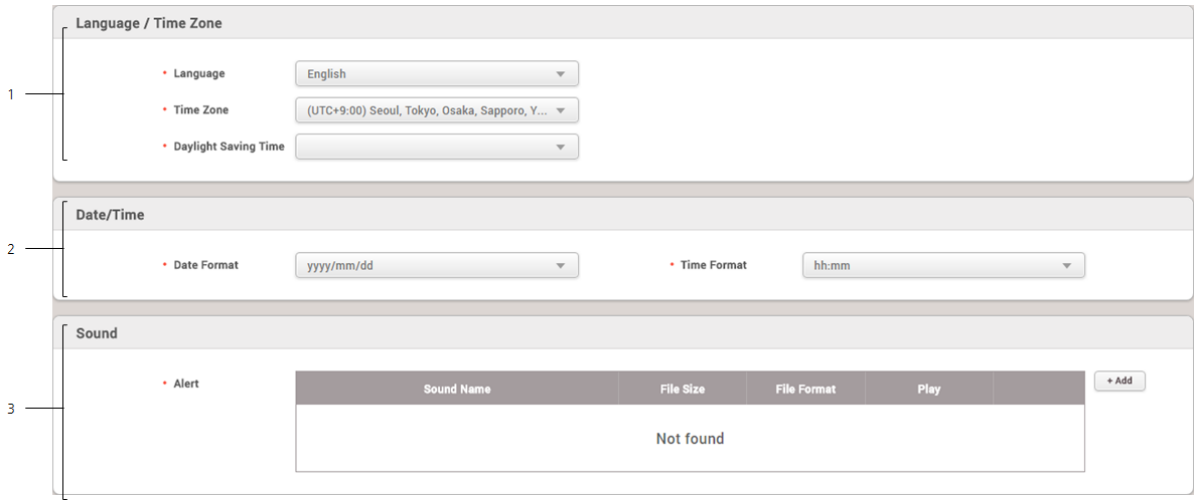
- If the configuring for **Admin Item Settings** and **Admin Menu Settings** do not match, the permission will not be assigned for that item. If you select the item of the menu by the account to which this custom permission was assigned, the **'Permission Denied'** message is displayed.

- You can add an unlimited number of custom account levels.

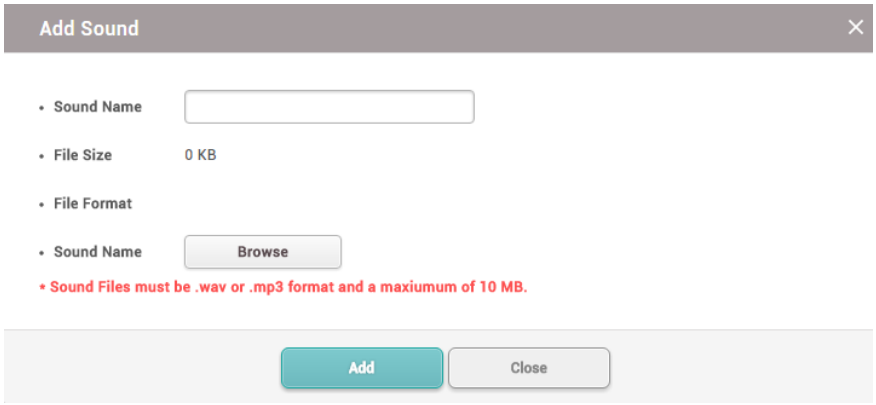
## Preference

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.<br><br>▪ **Language**: Select a language to use.<br>▪ **Time Zone**: Select a time zone to use.<br>▪ **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.<br><br>▪ **Date Format**: Changes the date format.<br>▪ **Time Format**: Changes the time format. |
| 3 | Sound | You can upload a sound file to use in BioStar 2.<br><br>a) Click **+ Add**. |

| No. | Item | Description |
|---|---|---|
| | |  <br>b) Click Browse to select a file.<br>c) Select .wav file or .mp3 file and then click Open.<br>d) Click Add to upload<br><br>**Note**<br>▪ Sound files must be .wav or .mp3 format.<br>▪ 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**.

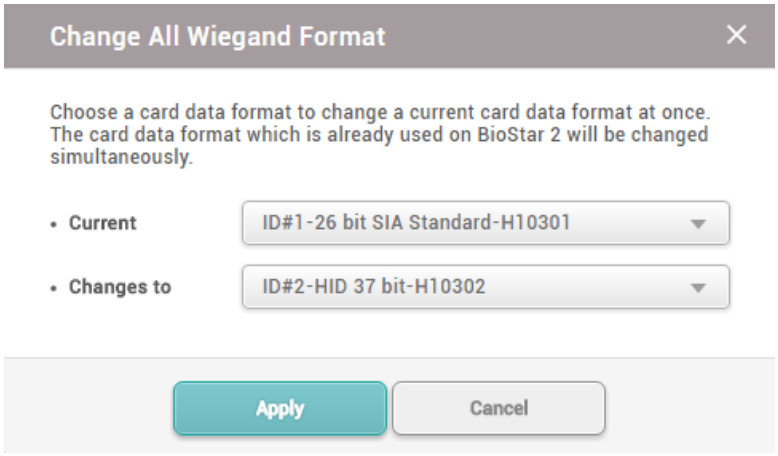
## Changing Wiegand Card Data Format

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.

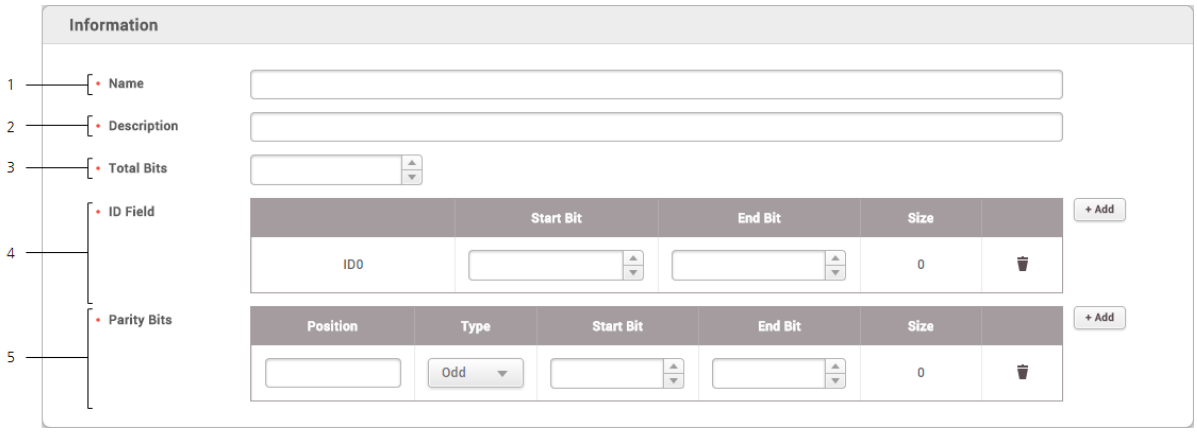
## Wiegand

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.<br>**Note**<br>▪ 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.

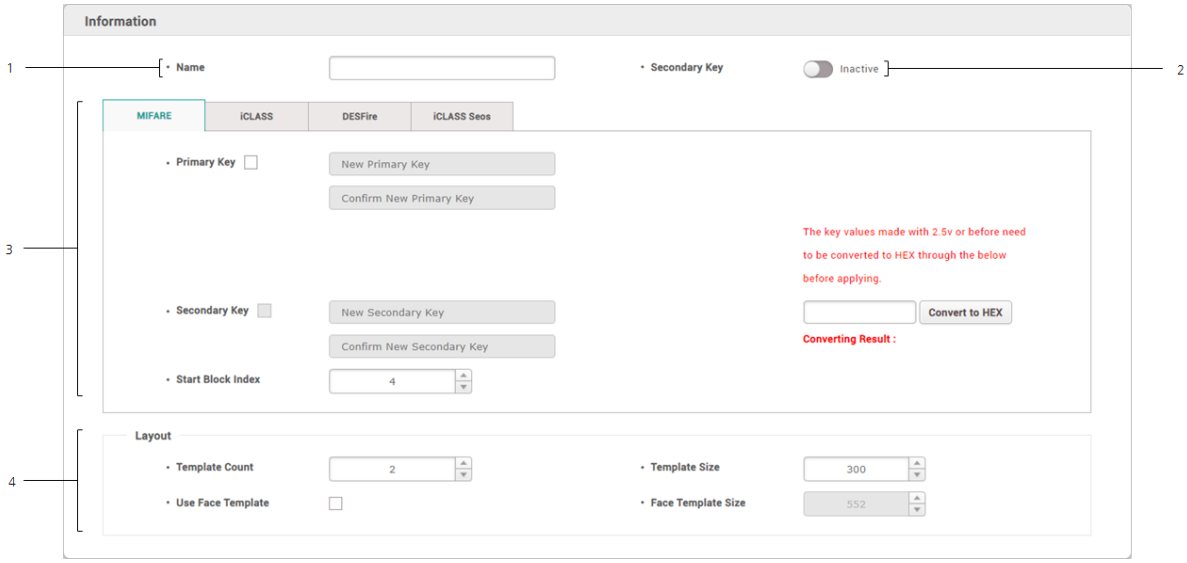
## Smart / Mobile Card

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.<br>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.<br><br>**Note**<br>▪ 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.<br><br>▪ **Primary Key**: Key which encrypts the communication between the smart key and the card reader.<br>▪ **Secondary Key**: It is possible to set secondary website key.<br>▪ **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.<br>▪ **App ID**: Set the application ID. This plays a role of directory which includes file ID. Setting is available only for DESFire.<br>▪ **File ID**: Set the file ID. Setting is available only for DESFire.<br>▪ **Encryption Type**: It is possible to set the encryption type to DES/3DES or AES. Setting is available only for DESFire.<br>▪ **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.<br><br>▪ **Template Count**: Set the number of fingerprint templates to be included in the layout.<br>▪ **Template Size**: Set the number of bytes used by the fingerprint template.<br>▪ **Use Face Template**: Select whether to use the face template.<br>▪ **Face Template Size**: Set the number of bytes used by the face template.<br><br>**Note**<br>▪ Face templates are only available on FaceStation F2. |

3) Click **Apply** to enroll a smart card setting.

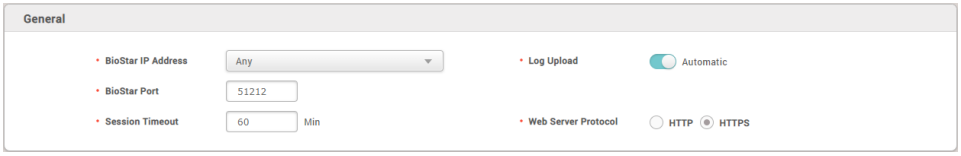
## Server

# 16 BioStar 2 Settings

You can configure the BioStar 2 server information, user management, device management and automatic upgrade settings.

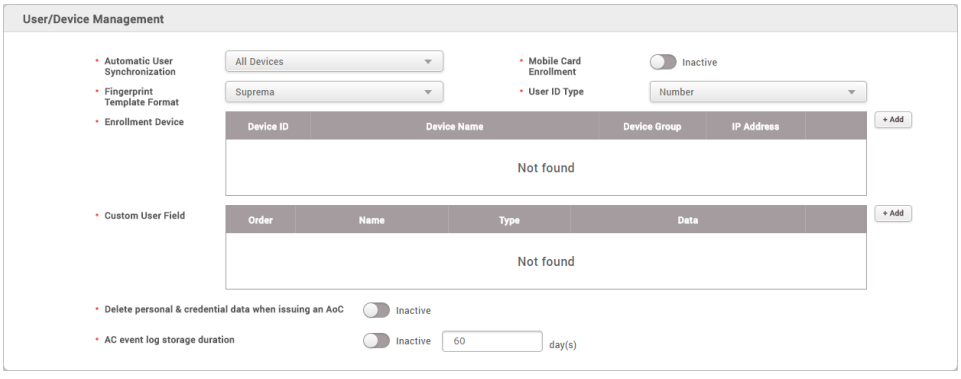
1) Click **Settings** > **SERVER** and configure the settings.

### General




| Item | Description |
|---|---|
| General | You can configure the general information on BioStar 2.<br><br>▪ **BioStar IP Address**: Set the server IP address. Change the setting to use a specific IP address.<br>▪ **BioStar Port**: Set the server port.<br>▪ **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.<br>▪ **Log Upload**: Select an event log upload method. If real-time communication with the server is difficult, set this to **Manual**.<br>▪ **Web Server Protocol**: Set a server communication protocol. |

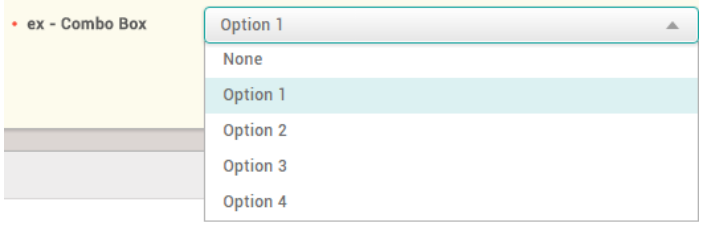
### User/Device Management



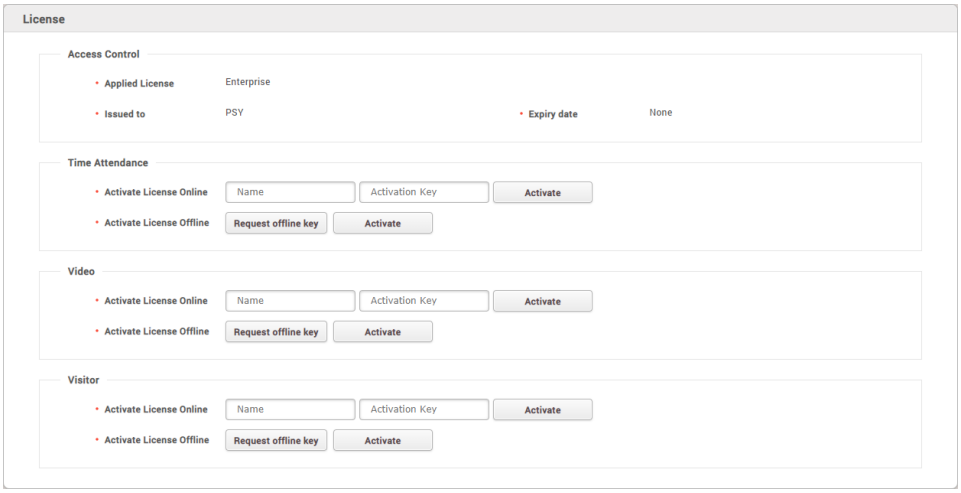

| Item | Description |
|---|---|
| User/ Device Manage | You can configure the user synchronization and fingerprint template format settings. |

| 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.<br>▪ **Mobile Card Enrollment**: Set to **Enabled** to use the mobile card.<br>▪ **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.<br>▪ **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.<br>▪ **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.<br>▪ **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 (;).<br>▪ **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.<br>▪ **AC event log storage duration**: You can set the period for storing the access control event logs.<br><br>**Note**<br><br>▪ If you select **Automatic User Synchronization** as **Specific Devices(Only devices belonging to the 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 |

| Item | Description |
| --- | --- |
| | proceed with the synchronization.<br>▪ 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.<br>- Dual authentication access group set up in the Devices and Elevators<br>- Bypass Group in the Anti-passback Zone<br>- Bypass Group in the Scheduled Lock Zone<br>- Scheduled Unlock Authentication Group in the Scheduled Unlock Zone<br>- Arm/Disarm Group in the Intrusion Alarm Zone<br>▪ 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.<br>▪ NFC card is supported with the below conditions.<br>- Mobile device OS: Android 5.0 Lollipop or later<br>- BioStar 2 Mobile 2.4.1 or later<br>- Xpass S2: XPS2M-V2 FW 2.4 or later<br>- BioStation 2: BS2-OMPW, BS2-OIPW FW 1.4 or later<br>- BioStation A2: BSA2-OMPW, BSA2-OIPW FW 1.3 or later<br>- BioStation L2: BSL2-OM FW 1.2 or later<br>- BioEntry W2: BEW2-OAP, BEW2-ODP FW 1.1 or later<br>- FaceStation 2: FS2-D, FS2-AWB FW 1.0 or later<br>- BioLite N2: BLN2-ODB, BLN2-OAB, BLN2-PAB FW 1.0 or later<br>- XPass D2: XPD2-MDB, XPD2-GDB, XPD2-GKDB FW 1.0 or later<br>- FaceLite: FL-DB FW 1.0 or later<br>- XPass 2: XP2-MDPB, XP2-GDPB, XP2-GKDPB FW 1.0 or later<br>▪ BLE card is supported with the below conditions.<br>- Mobile device OS: Android .0 Lollipop or later / iOS 9.0 or later<br>- BioStar 2 Mobile 2.4.1 or later<br>- FaceStation 2: FS2-AWB FW 1.0 or later<br>- BioLite N2: BLN2-ODB, BLN2-OAB, BLN2-PAB FW 1.0 or later<br>- XPass D2: XPD2-MDB, XPD2-GDB, XPD2-GKDB FW 1.0 or later<br>- FaceLite: FL-DB 1.0 or later<br>- XPass 2: XP2-MDPB, XP2-GDPB, XP2-GKDPB FW 1.0 or later |

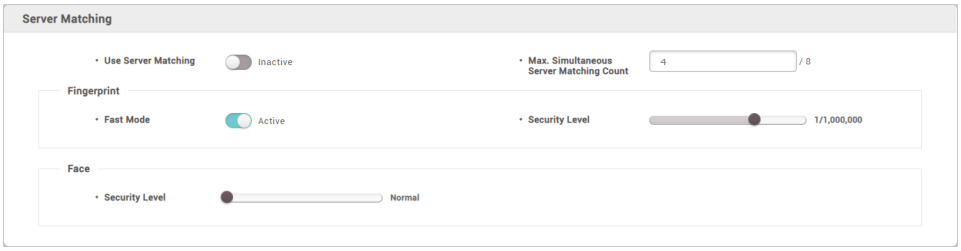
| Item | Description |
|---|---|
| | ▪ When **User ID Type** is changed from **Alphanumeric** to **Number**, all user information registered on BioStar 2 should be deleted.<br>▪ The devices and the firmware versions where the **User ID Type** can be changed are as follows.<br>- CoreStation FW 1.0.0 or later<br>- FaceStaion 2 FW 1.0.0 or later<br>- FaceLite FW 1.0.0 or later<br>- BioEntry W2 FW 1.1.0 or later<br>- BioStation L2 FW 1.2.0 or later<br>- BioStation A2 FW 1.3.0 or later<br>- BioStation 2 FW 1.4.0 or later<br>- BioLite N2 FW 1.0.0 or later<br>- BioEntry P2 FW 1.0.0 or later<br>- BioEntry R2 FW 1.0.0 or later<br>- XPass 2 FW 1.0.0 or later<br>- XPass D2 FW 1.0.0 or later<br>- Xpass FW 2.4.0 or later<br>- Xpass S2 FW 2.4.0 or later<br>▪ If you change the value in the **Order** field, the position of the custom field on the User page changes.<br>▪ For a number input field, a number from 0 to 4294962795 is allowed and characters are not allowed.<br>  <br>▪ For a text input field, up to 32 characters are allowed.<br>  <br>▪ 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 need to enter *Option 1;Option 2;Option 3;Option 4* in the data field.<br>  |

**License**




| Item | Description |
|---|---|
| License | You can activate the purchased license.<br>To activate the license online, click **Activate** after entering your name and the activation key that you've received from Suprema.<br>To activate the license offline, click **Request offline key**, then the **Activate License Offline** dialog will appear. Follow the instructions on the dialog. |

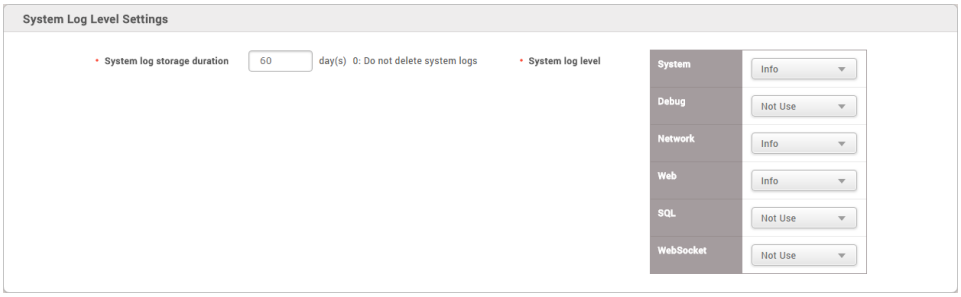
### Server Matching




| 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.<br><br>▪ **Use Server Matching**: Activates/Deactivates server matching.<br>▪ **Max. Simultaneous Server Matching Count**: You can configure how many matchings can be done simultaneously.<br>▪ **Fast Mode**: You can configure the fingerprint matching speed.<br>▪ **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. |

| Item | Description |
|---|---|
| | **Note**<br>▪ **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.<br><br>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**

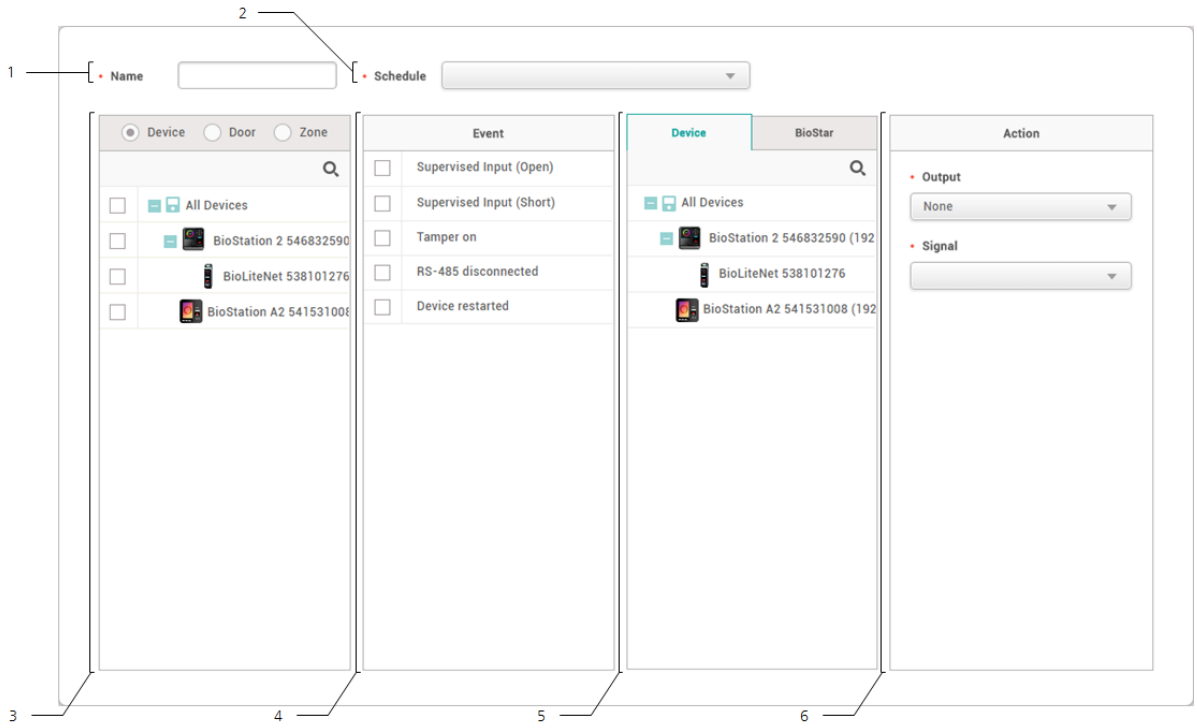
Real-time Log

# 16 BioStar 2 Settings

## 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.




| No. | Item | Description |
|---|---|---|
| 1 | Name | Enter a name of the trigger & action. |
| 2 | Schedule | Select a schedule.<br><br>**Note**<br>▪ When configuring a user defined condition by selecting **Input**, if no desired schedule is available, click **+ Add Schedule** to create it.<br>▪ 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.<br><br>**Note**<br>▪ The **Zone** will appear when the Advance or higher license is |

| No. | Item | Description |
|---|---|---|
| | | activated. |
| 4 | Triggering Event | Set a triggering event. At least one event must be selected. |
| 5 | Device and BioStar 2 | Select a device which performs the action. You can select a device or BioStar 2 to perform an action. |
| 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.<br>• Select **BioStar** and click ⚙ to configure the email server information.<br>• 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**

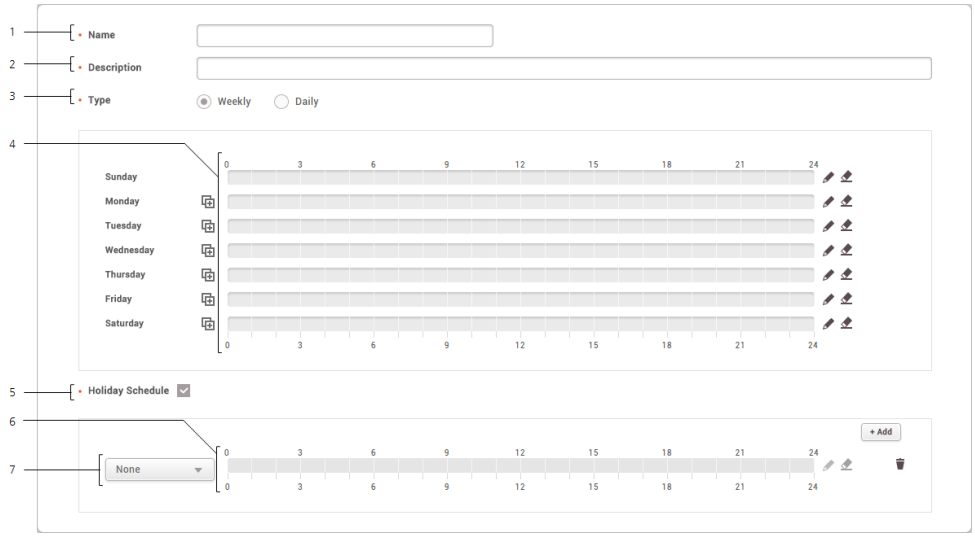
- For more information on email server information, contact your system administrator.

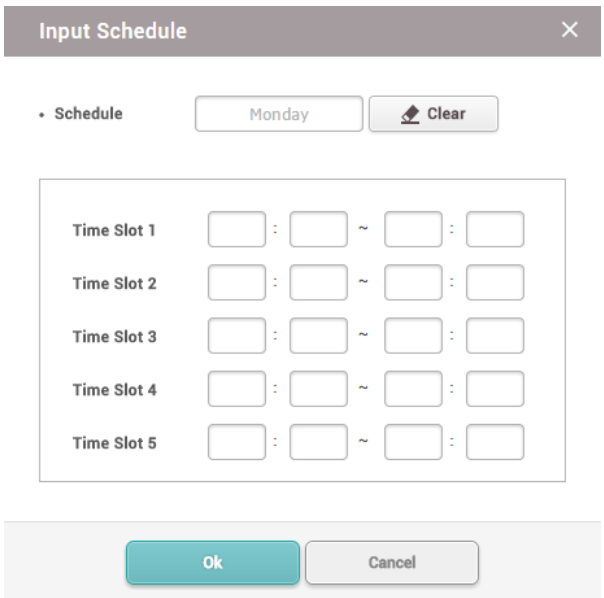
## Schedules

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. |
| 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**.<br>  <br>▪ Up to 5 time slots can be configured for each day of the week or each day.<br>▪ After setting a schedule, click to copy the time slots set immediately above.<br>▪ Click to edit the time slots. Click to delete the set time slots. |

| No. | Item | Description |
|---|---|---|
| 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.<br>▪ Click to edit the time slots. Click to delete the set time slots. |
| 7 | Holiday Selection | Select pre-defined holidays.<br>▪ Click **+ Add** to add a pre-defined holiday.<br>▪ Click to delete a holiday. |

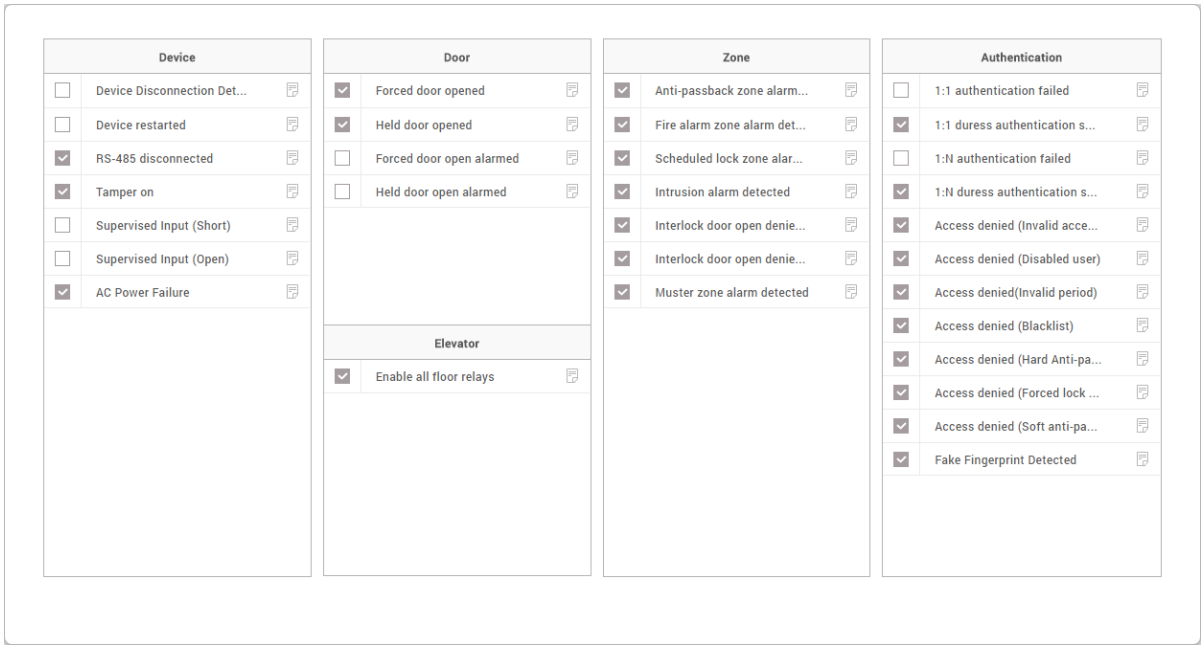
4) Click **Apply** to add the holiday schedule.

### ✚ Adding Holiday Schedule

## 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.

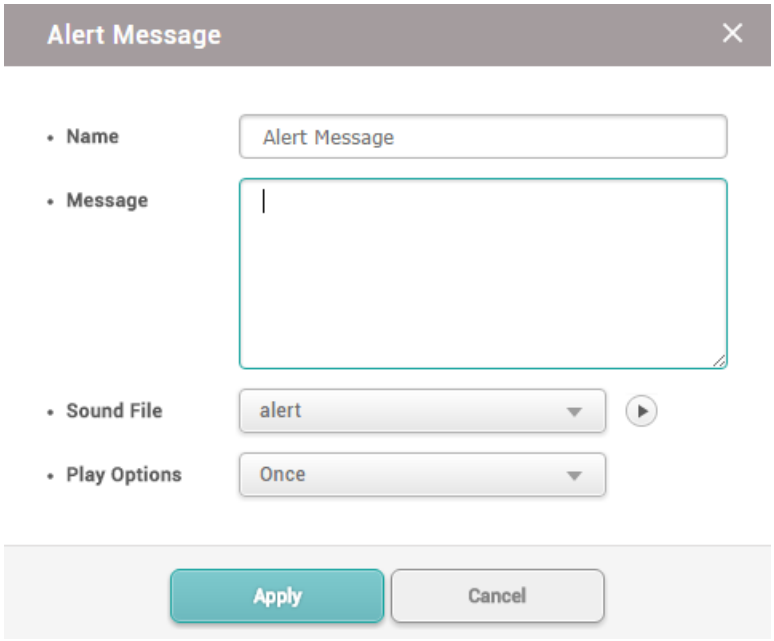
1) Click **Settings** > **ALERT**.




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

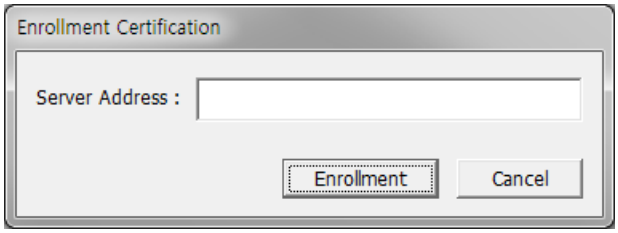
## HTTPS

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.

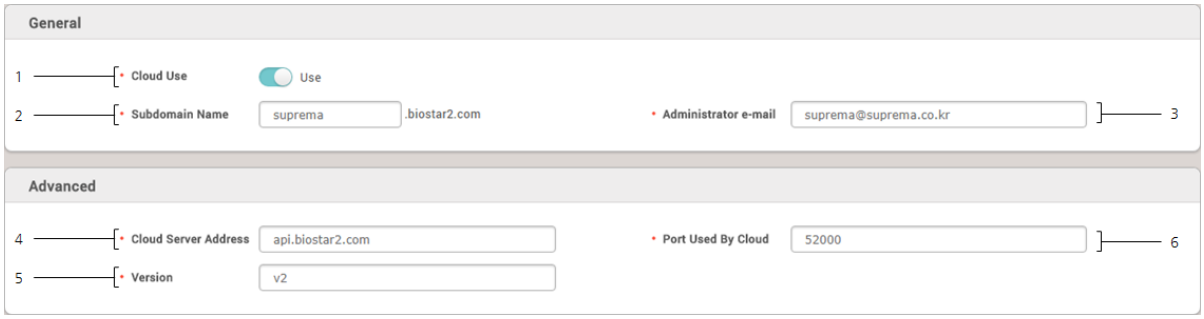
## Cloud

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 as **Not Use**, it will be unable to access BioStar 2 using BioStar 2 Mobile.<br>**Note**<br>▪ If you set **Cloud Use** as **Use**, **Password Level** should be set as **Medium** or **Strong**. For more information, see Server. |

| No. | Item | Description |
|---|---|---|
| 2 | Subdomain Name | Enter the subdomain for usage. You can use the subdomain to access BioStar 2 using BioStar 2 Mobile.<br>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).<br><br>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.<br>▪ 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)<br>▪ Ports to be added to the outbound rule: 4443, all ports used by ngrok |

3) Click **Apply** to save the changes.

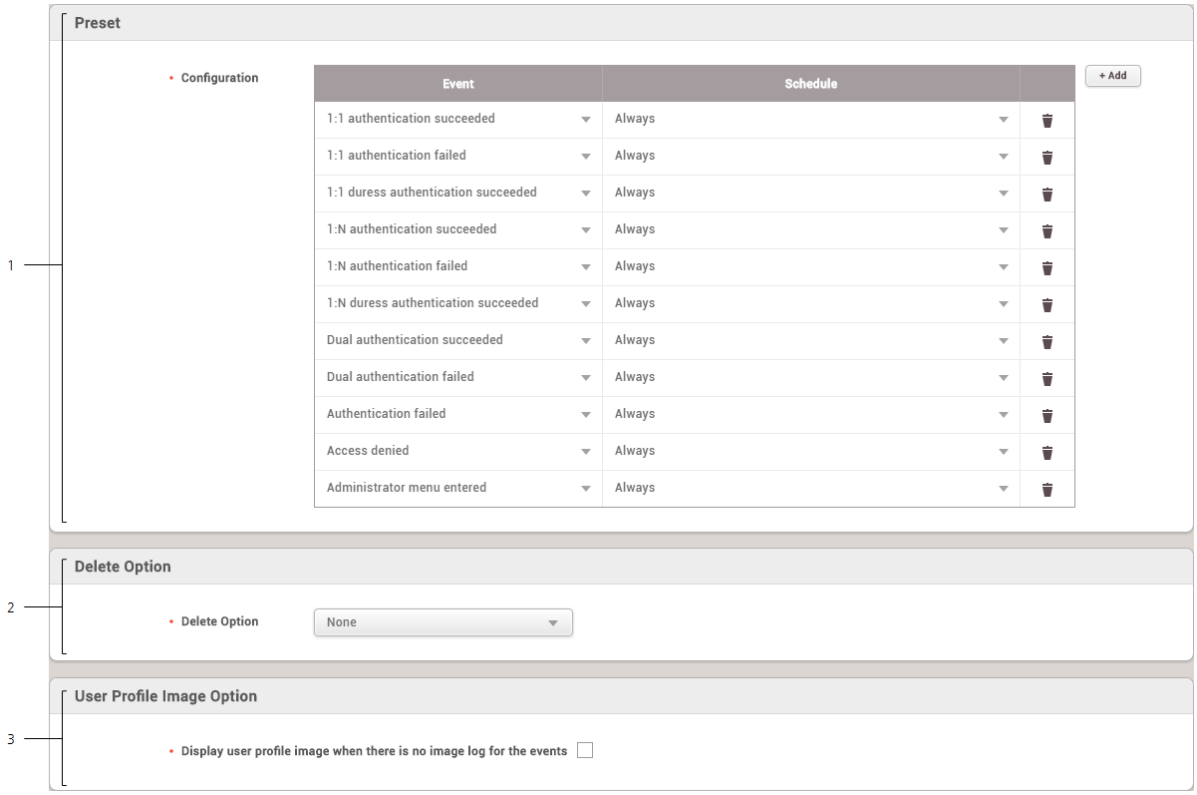
**Note**

- 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.<br>It is possible to add an event and schedule to delete by clicking **+ Add**.<br><br>**Note**<br>▪ 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.<br><br>▪ **Delete Option**: It is possible to set the condition to delete an image log.<br>▪ **Amount of Image Log**: It is possible to set the unit of condition set at **Delete Option**.<br>▪ **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 | 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.<br><br>**Note**<br>▪ Even if the user profile image option is on, the image captured from |

| No. | Item | Description |
|---|---|---|
| | | 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.

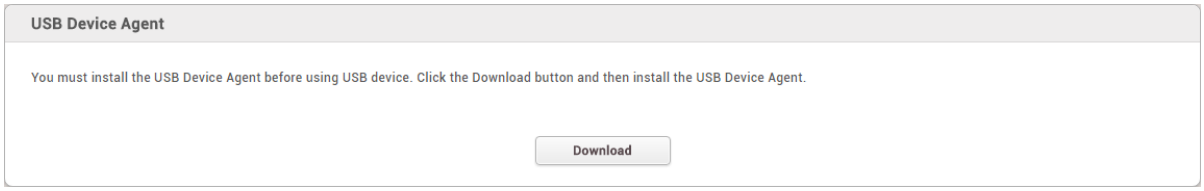
## USB Agent

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**

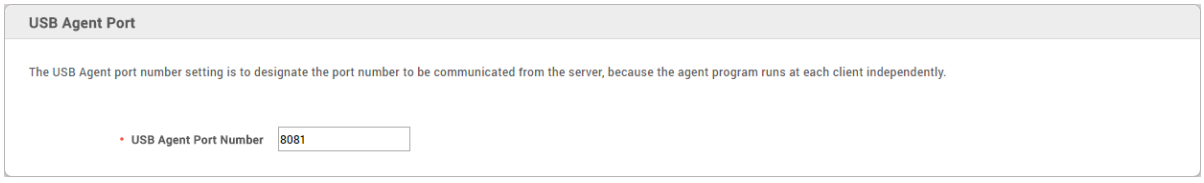
- If **User Account Control** is enabled in Windows, USB Agent cannot be run automatically. Disable the User Account Control or run as administrator.

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.

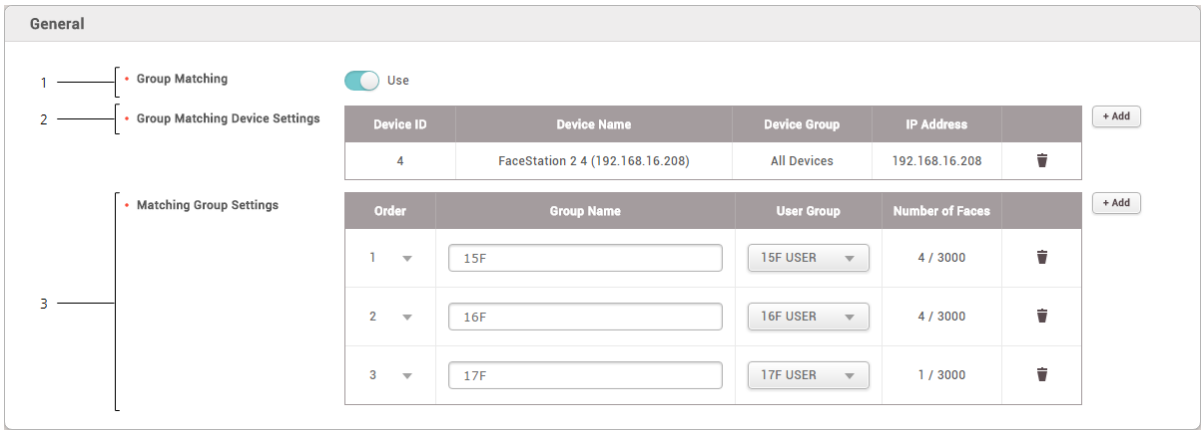
## Face Group Matching

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.<br>**Note**<br>▪ 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**.<br>**Note** |

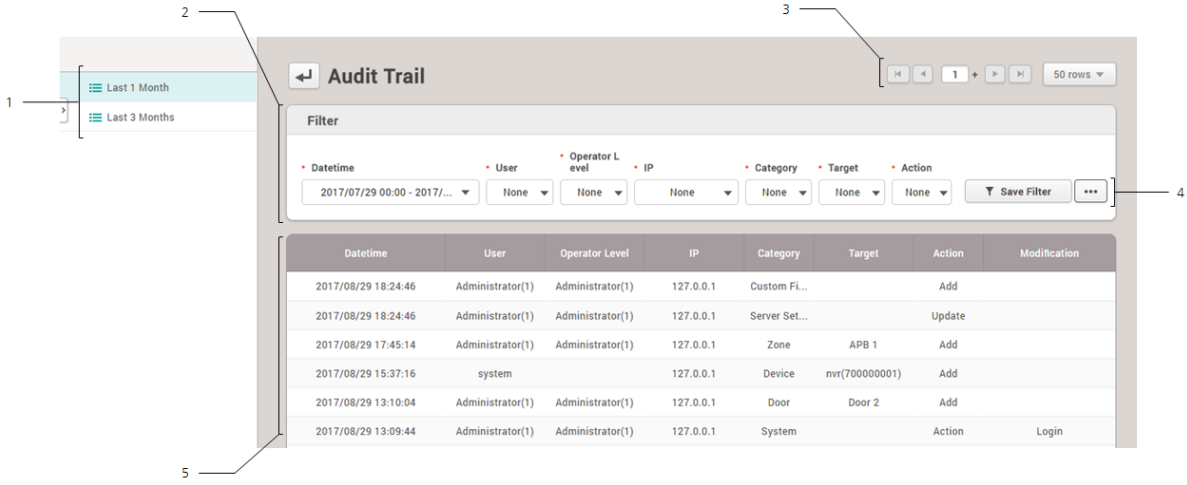
| No. | Item | Description |
|---|---|---|
| | | ▪ Up to 10 matching groups can be created.<br>▪ A number of user groups can be set for one matching group.<br>▪ If the number of face templates included in the user group exceeds 3,000, it cannot be set as a matching group. |

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**.




| 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.<br>▪ : Go to the first page.<br>▪ : Go to the previous page.<br>▪ 2 / 2 : Enter the page number to move to.<br>▪ : Go to the next page.<br>▪ : Go to the last page.<br>▪ 25 rows : Set the number of list rows to be displayed on one page. |

| No. | Item | Description |
|---|---|---|
| 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. |

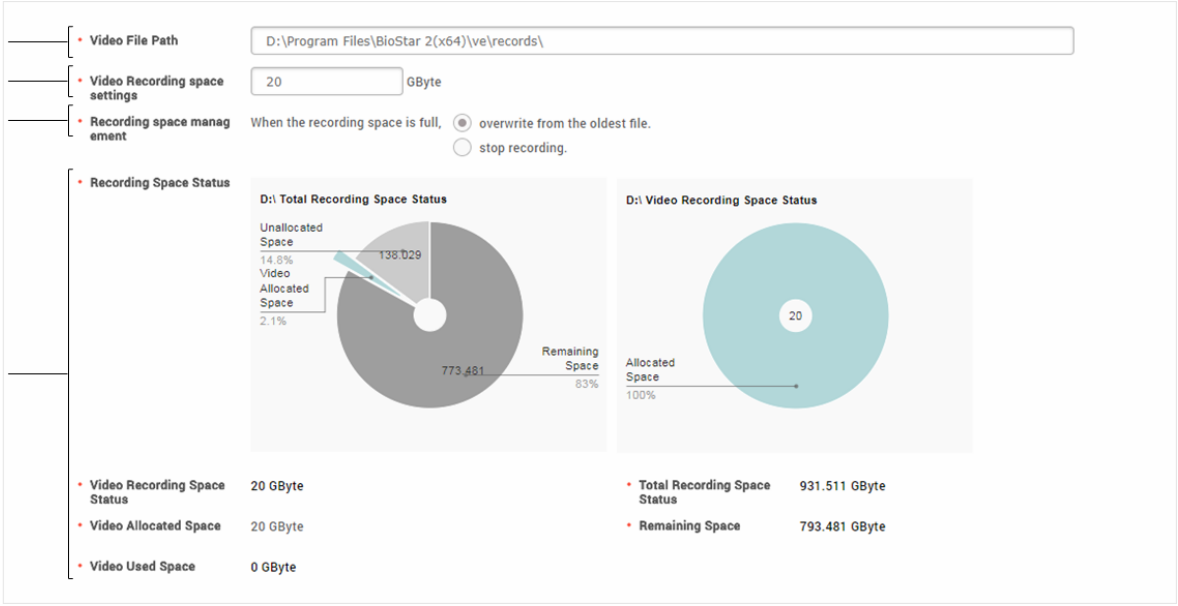
## Video

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.<br>It is recommended to use a separate storage media for saving files securely. |
| 2 | Video Recording | You can set the recording space to store video files. |

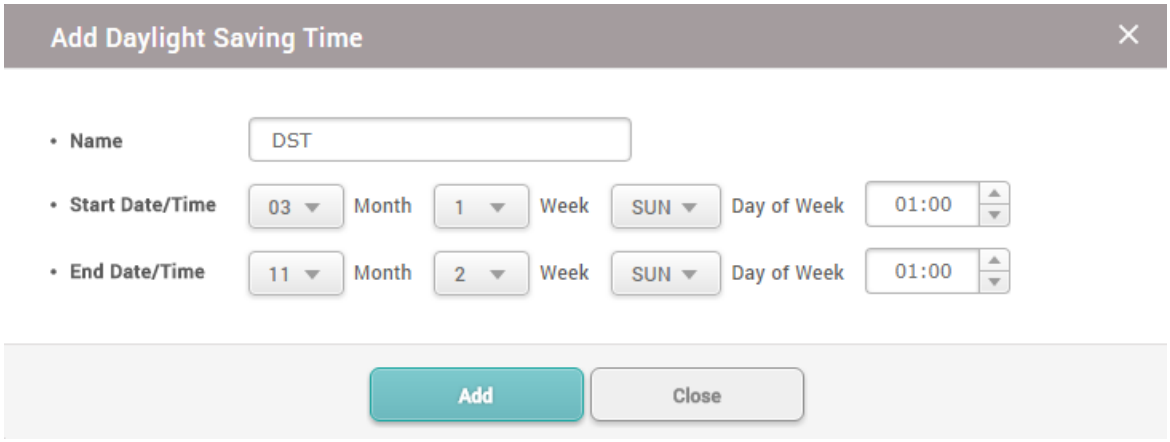
| No. | Item | Description |
|---|---|---|
| | space settings | |
| 3 | Recording space management | If there is insufficient storage space, you can set the file processing method. |
| 4 | Recording Space Status | You can view the video storage space status. |

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.

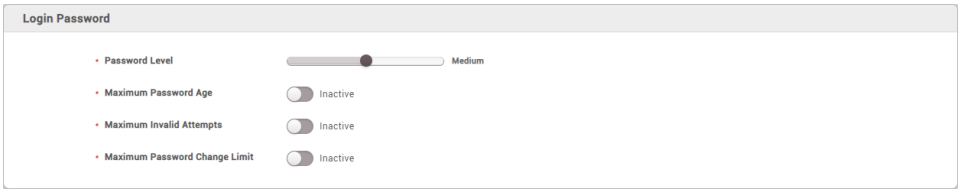
# 16 BioStar 2 Settings

## 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.

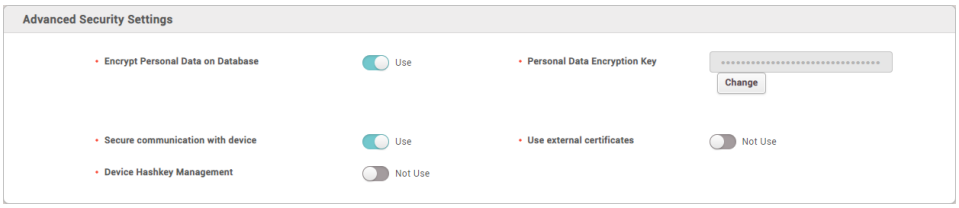
### Login Password




| Item | Description |
|---|---|
| Password Level | Set the policy for the password complexity for BioStar 2 login.<br><br>▪ **Low**: You can enter up to 32 characters.<br>▪ **Medium**: You must combine 8 to 32 alphabetic characters (a to z), numbers, and at least one alphabetic capital (A to Z).<br>▪ **Strong**: You must combine 10 to 32 alphabetic characters (a to z), numbers, at least one alphabetic capital (A to Z), and symbols.<br><br>**Note**<br><br>▪ 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.<br><br>**Note**<br><br>▪ 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 | You can set the Maximum Password Change Limit. |

| Item | Description |
|---|---|
| Limit | **Note**<br>▪ 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.<br><br>**Note**<br>▪ Items to be encrypted when using Encrypt Personal Data on Database are as follows.<br>- Profile image<br>- User ID<br>- Name<br>- Phone number<br>- User IP<br>- Email information for sender ans recipients<br>- Login ID<br>- Login password<br>- Face template<br>- Fingerprint template<br>- Card ID<br>- Smart card layout key<br>- Custom information for user and visitor<br>- Image log files<br>▪ 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** |

| Item | Description |
|---|---|
| | and set a new encryption key. If changing the encryption key, the existing data will be re-encrypted.<br><br>**Note**<br>▪ 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.<br>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.<br>If **Device Hashkey Management** set to **Use**, you can set a new data encryption key and administrator password.<br><br>**Note**<br>▪ The devices and the firmware versions where the secure communication can be set are as follows.<br>- FaceStation 2 FW 1.1.0 or later<br>- BioStation A2 FW 1.5.0 or later<br>- BioStation 2 FW 1.6.0 or later<br>- BioStation L2 FW 1.3.0 or later<br>- BioLite N2 FW 1.0.0 or later<br>- BioEntry P2 FW 1.1.0 or later<br>- BioEntry W2 FW 1.2.0 or later<br>- FaceLite FW 1.0.0 or later<br>- XPass 2 FW 1.0.0 or later<br>- CoreStation FW 1.1.0 or later<br>▪ 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.<br>▪ If the device is disconnected from the network physically while using the secure communication of |

| Item | Description |
|---|---|
| | 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. |

**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

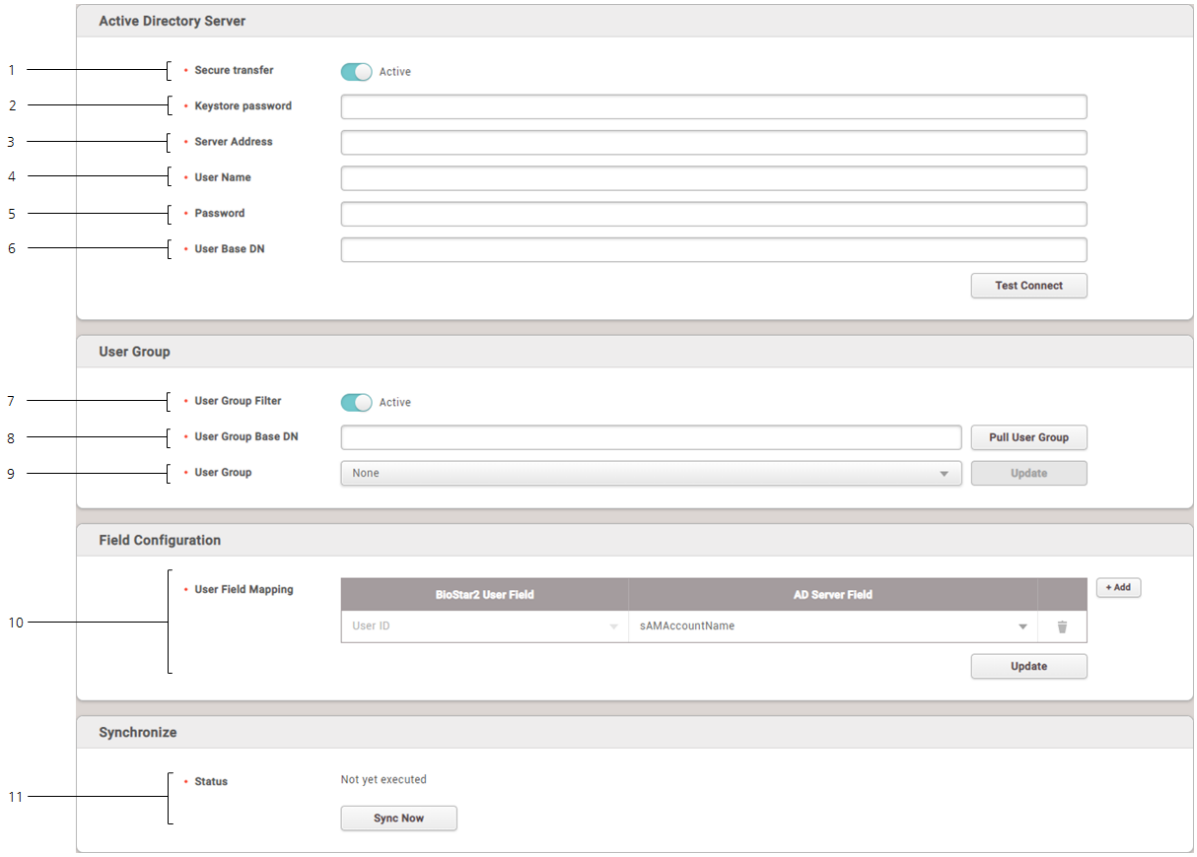
You can synchronize user data stored in Microsoft Windows Active Directory to BioStar 2.

**Note**

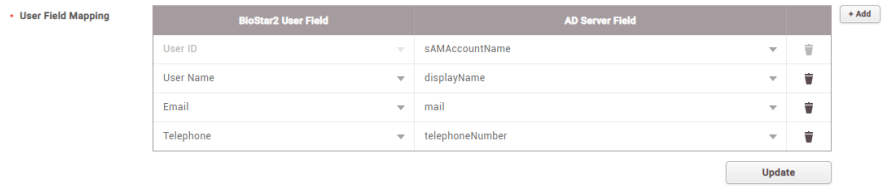
- The Active Directory setting will appear when the AC Advanced license is activated.
- The Active Directory is available for a system environment with Windows Server 2008 R2 or later.
- To use the Active Directory, set the **User ID Type** to **Alphanumeric** by referring to User/ Device Management.

1) Click **Settings** > **ACTIVE DIRECTORY**.
2) Edit the necessary items.

# 16 BioStar 2 Settings




| No. | Item | Description |
|---|---|---|
| 1 | Secure transfer | You can use the encryption when communicating with a Windows Active Directory server.<br>Install Active Directory Certificate Services and set the keystore password by referring to Active Directory Encryption. |
| 2 | Keystore password | Enter the Windows Active Directory server encryption key store password.<br>This can be only used when activating the **Secure transfer**. |
| 3 | Server Address | Enter the server address for Windows Active Directory. |
| 4 | User Name | Enter the user name used by Windows Active Directory. |
| 5 | Password | Enter the password used by Windows Active Directory. |
| 6 | Base DN | Enter the base domain name for Windows Active Directory.<br><br>You can find the base domain name in the following way.<br>a) Run the Active Directory Administrative Center.<br>b) Right-click on the node where user data is stored, and then click **Property**.<br>c) In the property window, click **Expand** and then click **Attribute Editor**.<br>d) View the value of **distributedName**. |
| 7 | User Group Filter | You can enable or disable synchronization by user group. |

| No. | Item | Description |
|---|---|---|
| 8 | 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**. |
| 9 | User Group | Select the user group to synchronize. This can be only used when activating the **User Group Filter**. |
| 10 | User Field Mapping | You can map data fields in Windows Active Directory to user fields in BioStar 2.<br>The user fields to be mapped can be set as shown below.<br>  <br><br>a) Click **+ Add** to add a user field slot.<br>b) Set the BioStar 2 User Field and AD Server Field to map the correct data to the user field in BioStar 2.<br>c) Click **Update to** apply user field mapping settings.<br>**Note**<br>▪ The **User ID** field is a static item and cannot be deleted. |
| 11 | 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

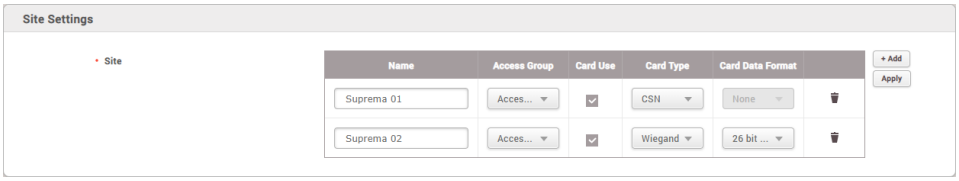
You can configure visiting sites and PCs. You can also set the terms and conditions for visitors.
And You can create the information fields that you want to know from the visitors by using the Custom Visitor Field.

**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**.

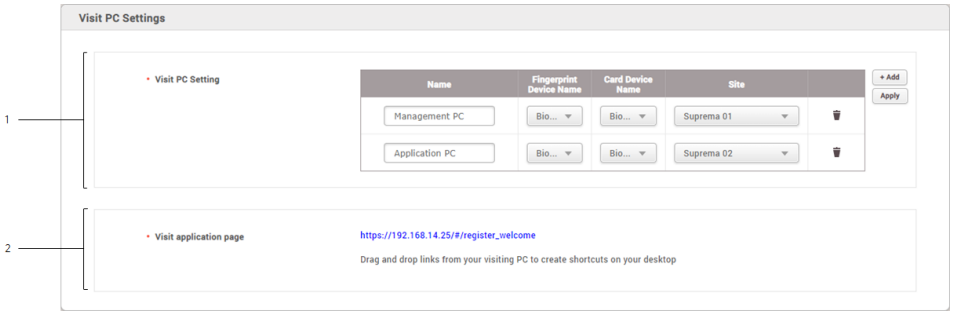
1) Click **Settings** > **VISITOR**.
2) Set the necessary items.

### Site Settings




| Item | Description |
|---|---|
| Site | You can set the access group to use in the visiting PC and managing PC of each site.<br>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.<br><br>▪ **Name**: You can set the name of site.<br>▪ **Access Group**: You can select the access group to assign to the visitor.<br>▪ **Card Use:** You can set whether or not to use a card.<br>▪ **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**.<br>▪ **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**.<br><br>**Note**<br>▪ Up to 48 characters may be entered for a site name.<br><br>Click **Apply** to save the setting of the site. |

### Visit PC Settings

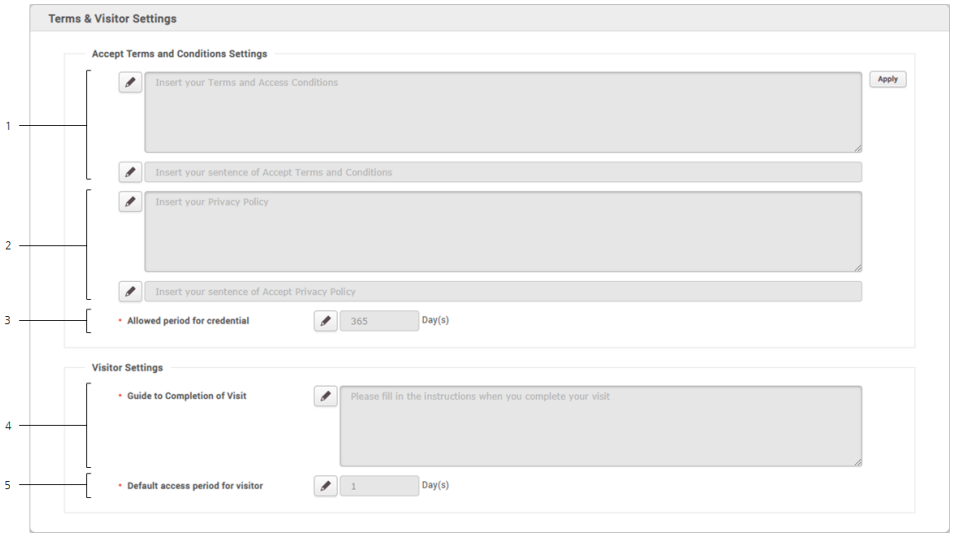



| No. | Item | Description |
|---|---|---|
| 1 | Visit PC Setting | You can set the visiting PC and managing PC.<br><br>▪ **Name**: You can set the name of the visiting PC and managing PC.<br>▪ **Fingerprint Device Name**: Select a device to enroll visitors' fingerprints when visitors access the site using the fingerprint authentication.<br>▪ **Card Device Name**: Select a device to issue the card to visitors when visitors access the site using the card authentication.<br>▪ **Site**: Select a site to manage the visit on the visiting PC.<br><br>**Note**<br><br>▪ Up to 48 characters may be entered for a name of the visiting PC.<br>▪ You can use the fingerprint and card device at the same time. You can select only one for each.<br>▪ You can only select one site per PC.<br><br>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.<br>Click **Apply** to save the setting. |

### Terms & Visitor Settings

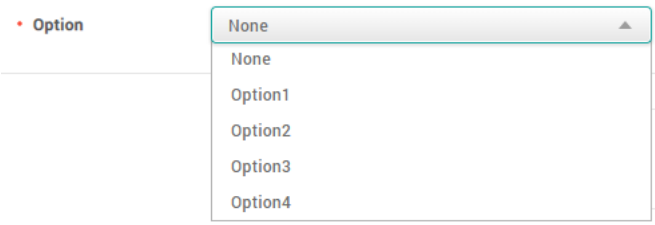



| No. | Item | Description |
|---|---|---|
| 1 | Terms and Conditions | You can set the terms and conditions for visitors.<br>Click to activate the input field and enter the contents of terms and conditions.<br>**Note**<br>▪ Up to 65,535 characters may be entered for the sentence of terms and conditions.<br>▪ 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.<br>Click to activate the input field and enter the privacy policy.<br>**Note**<br>▪ Up to 65,535 characters may be entered for the sentence of privacy policy.<br>▪ 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.<br>Click to activate the input field and enter the number of days to keep personal data. |

| No. | Item | Description |
|---|---|---|
| | | **Note**<br>▪ 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.<br>Click to activate the input field and enter the guide for visitors.<br>**Note**<br>▪ Up to 65,535 characters may be entered for the sentence of guide.<br>▪ If you do not enter the sentence of a guide, nothing will be displayed on the screen when visitors complete their visit application. |
| 5 | Default access period for visitor | You can set the access period for visitors.<br>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.<br>▪ **Order**: You can set the order of the Custom Visitor Field.<br>▪ **Name**: You can set the name of the Custom Visitor Field.<br>▪ **Type**: You can choose the Text Input Box, Number Input Box or Combo Box.<br>▪ **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**. |

| Item | Description |
| --- | --- |
| | **Note**<br>▪ For a **Text Input Box**, characters and numbers are allowed.<br>  <br>▪ For a **Number Input Box**, numbers are allowed and characters are not allowed.<br>  <br>▪ 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.<br>  <br>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

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.

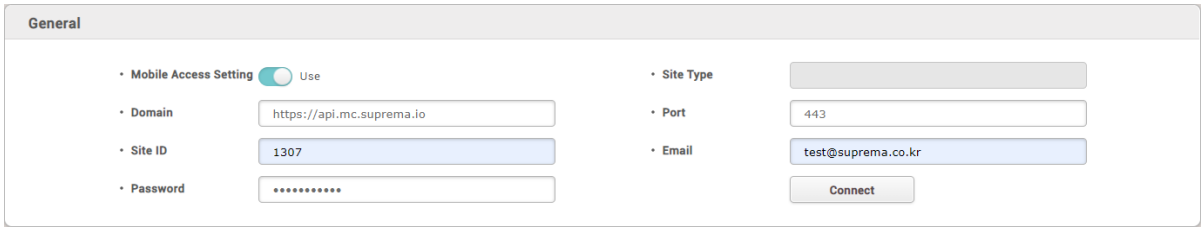
**Note**

- For more information on using the Airfob Portal, see the Airfob Portal(https://mc.suprema.io).

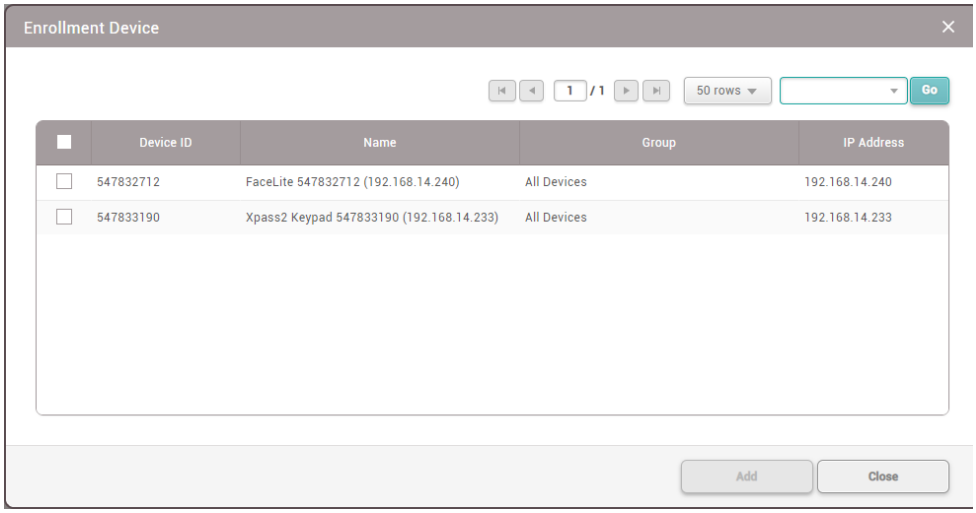
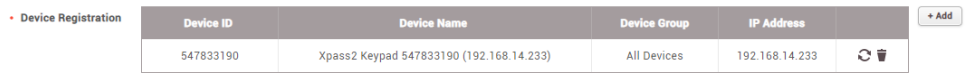
## Configuring Mobile Access

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.<br><br>**Note**<br>▪ To use Mobile Access with BioStar 2, complete the Airfob Portal sign-up and initial setup first.<br><br>▪ **Site Type**: You can see the site type.<br><br>**Note**<br>▪ BioStar 2 only supports regular card sites. Dynamic cards will be supported in the future.<br><br>▪ **Domain**: You can see the domain address of the Airfob Portal.<br>▪ **Port**: You can see the port number of the Airfob Portal.<br>▪ **Site ID**: Enter the site ID that you created in the Airfob Portal. You can find the site ID in the **Site & License** menu of the Airfob Portal.<br>▪ **Email**: Enter the email address of the mobile access administrator.<br>▪ **Password**: Enter the password of the mobile access administrator.<br>▪ **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.<br><br>Device Registration<br>Device ID \| Device Name \| Device Group \| IP Address \| + Add<br>Not found<br><br>Click **+ Add** to add devices to use the mobile access. The list of devices registered in BioStar 2 is displayed. |

| Item | Description |
|---|---|
| |  <br>Select the device and click **Add**.<br>  <br>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.<br>**Note**<br>▪ The devices and the firmware versions that can use the mobile access are as follows.<br>- XPass 2 FW 1.1.0 or later<br>- XPass D2(Rev 2) FW 1.4.0 or later<br>- BioLite N2 FW 1.3.0 or later<br>- BioEntry W2(Rev 2) FW 1.6.0 or later<br>- FaceStation 2 FW 1.4.0 or later<br>▪ You can also register devices using the Airfob Pass application.<br>▪ If you delete the registered device, the mobile access certificate sent to the device will be deleted. |

## Email Contents

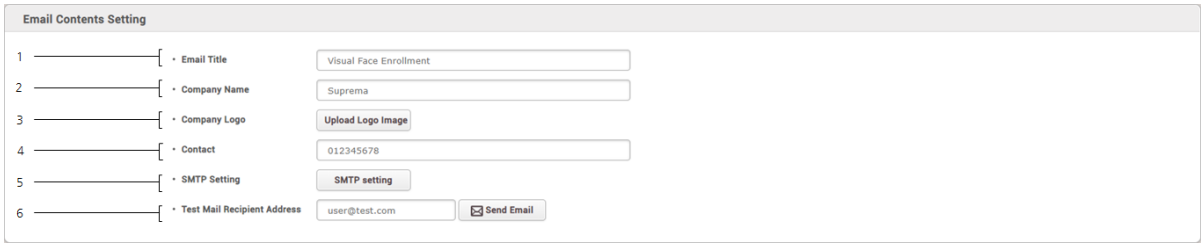
You can set contents such as title, company name, company logo, and contact of email to which the visual face mobile enrollment link will be sent.

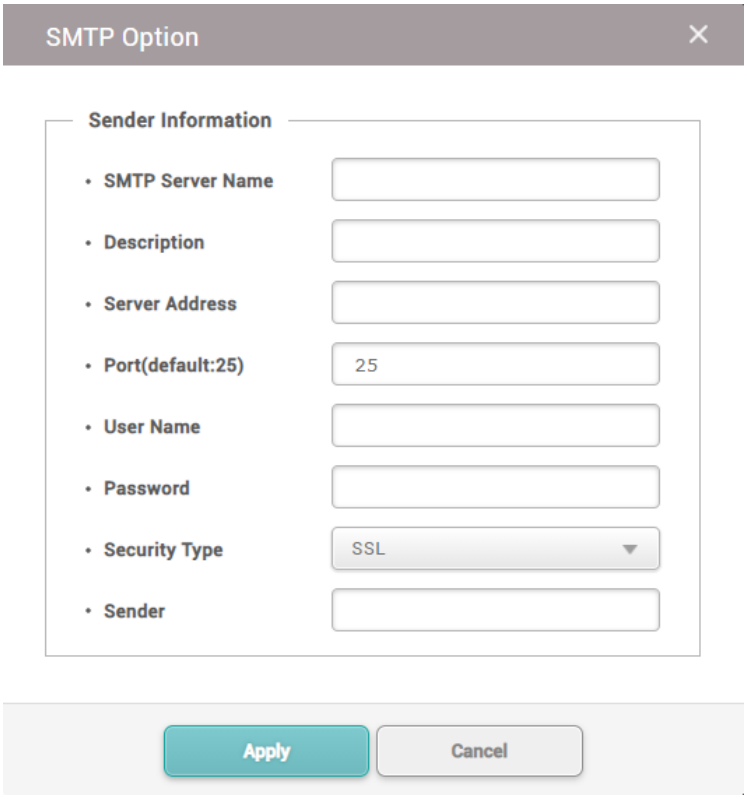
**Note**

- Before setting an email contents, activate the Cloud. The Cloud will available when the Standard or higher license is activated.

- Enter user's email address in the user information to use visual face mobile enrollment.

1) Click **Settings** > **EMAIL CONTENTS**.
2) Edit the necessary items.




| No. | Item | Description |
|---|---|---|
| 1 | Email Title | Enter the title of the email. |
| 2 | Company Name | Enter the company name. |
| 3 | Company Logo | Upload the company logo image.<br>**Note**<br>▪ Supported image file formats are GIF, JPG, JPEG, JPE, JFIF, PNG. |
| 4 | Contact | Enter the contact information of the person in charge. |
| 4 | SMTP Setting | Set the SMTP(Simple Mail Transfer Protocol) for sending emails.<br>  <br>▪ **SMTP Server Name**: Enter the SMTP server name.<br>▪ **Description**: Enter the description. |

| No. | Item | 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 .<br>▪ **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.<br>▪ **User Name**: Enter the account of the SMTP service.<br>▪ **Password**: Enter the password of the SMTP service.<br>▪ **Security Type**: Select security type.<br>▪ **Sender**: Enter the email address of the sender.<br><br>**Note**<br>▪ For more information on SMTP information, contact your system administrator.<br>▪ When using the SMTP server as the administrator's Gmail, note the following when changing the administrator's Gmail account password. When using Google 2-Step Verification, the SMTP password uses that account's app password, not the Gmail account's password. At this time, if the password of the Gmail account is changed, the app password is automatically deleted, and the SMTP password cannot be used. When changing the password for the Gmail account, regenerate the app password and then set the SMTP password again. |
| 5 | Test Mail Recipient Address | Enter an email address to receive the test email and click **Send Email**. |

3) Click **Apply** to save the settings.

For any inquires or technical support concerning BioStar 2, please contact the Suprema Technical Support Team (support.supremainc.com).

For efficient technical support, please provide the following information.

- Company name, your name and job title, country information (regional information), contact information and the best time to reach you
- Current BioStar 2 version and device models (examples: BioStar 2 V1.0.233, BioLite Net)
- Details of the error message
- BioStar 2 system log
- Description of your symptom and problem

# 17 Troubleshooting

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# 18 Appendix

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### MariaDB LGPL client libraries for C and Java

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Version 2.1, February 1999

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# 18 Appendix

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# 18 Appendix

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## MariaDB Server

# 18 Appendix

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# 18 Appendix

## libjpeg

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This package contains C software to implement JPEG image encoding, decoding,and transcoding. JPEG is a standardized compression method for full-color and gray-scale images.

The distributed programs provide conversion between JPEG "JFIF" format and image files in PBMPLUS PPM/PGM, GIF, BMP, and Targa file formats.
The core compression and decompression library can easily be reused in other programs, such as image viewers. The package is highly portable C code;
we have tested it on many machines ranging from PCs to Crays.

We are releasing this software for both noncommercial and commercial use.
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MiniZip - Copyright (c) 1998-2010 - by Gilles Vollant - version 1.1 64 bits from Mathias Svensson

Credits

Gilles Vollant - Original MiniZip author
Even Rouault - ZIP64 unzip Support
Daniel Borca - BZip Compression method support in unzip
Mathias Svensson - ZIP64 zip support
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# 18 Appendix

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THE BASIC LIBRARY FUNCTIONS

---

Written by: Philip Hazel
Email local part: ph10
Email domain: cam.ac.uk

University of Cambridge Computing Service,
Cambridge, England.

# 18 Appendix



PCRE JUST-IN-TIME COMPILATION SUPPORT
---

Written by: Zoltan Herczeg
Email local part: hzmester
Emain domain: freemail.hu



STACK-LESS JUST-IN-TIME COMPILER
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THE C++ WRAPPER FUNCTIONS
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## V



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## Z

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