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# Suprema Webinar

## BioStar 2 New Features

## BioStar 2 API New Features

### Speaker

Laney Lee  
Technical Consulting Engineer | Suprema

Peter Kweon  
Technical Consulting Engineer | Suprema

Date | February 22, 2022

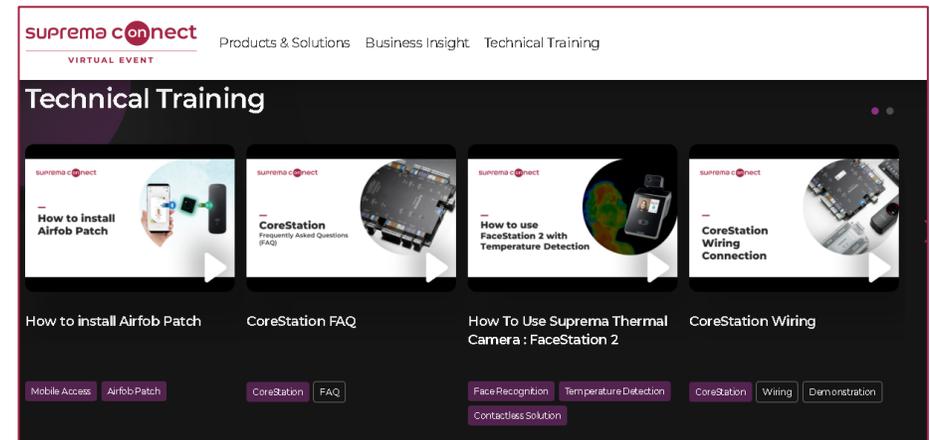
## How can you find Webinar Contents?

### 1) Email

- ✓ Suprema Team will provide the presentation and the recorded video link to the registered emails.
- ✓ It will take about 7 days after reviewing the files with Q&A list.

### 2) Suprema Connect Website

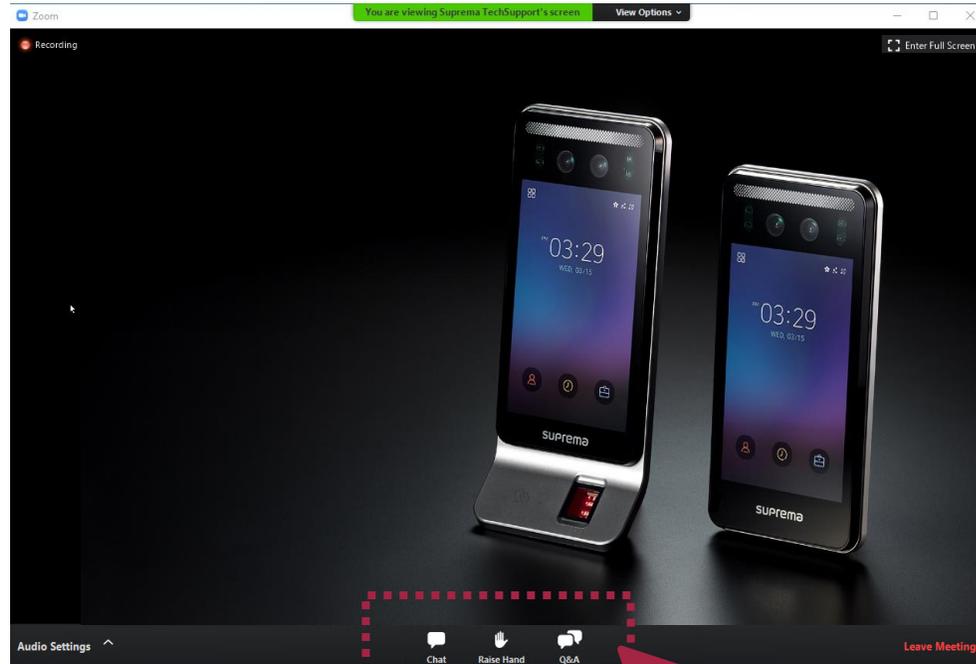
- ✓ We will post the recorded video to the site.
- ✓ <https://www.supremainc.com/connect/index.asp>
- ✓ Please google **Suprema Connect**.



### 3) Suprema Technical Support Site

- ✓ You can find the information with Q&A list on the website below.
- ✓ Please search **Suprema Webinar** in the support page, or simply google it.
- ✓ <https://support.supremainc.com>

# How can you ask questions during a webinar?

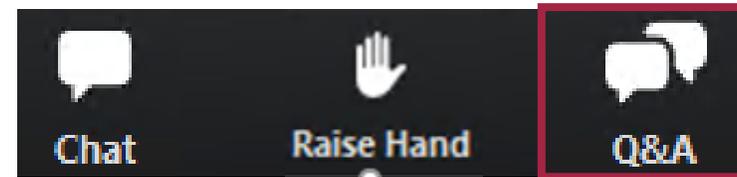


Click!

How to find the necessary icons

- ✓ Please move your mouse to the bottom of your screen, the 3 icons will appear.

## [Q&A] box



- ✓ During the webinar, you can leave your questions in the Q&A box anytime. Suprema Panels will answer in real time.



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# Suprema Webinar

## BioStar 2 New Features

### V2.8.12 to V2.8.14

Speaker

Laney Lee  
Technical Consulting Engineer | Suprema

Date | February 22, 2022

## Contents

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02 | BioStar 2.8.13

03 | BioStar 2.8.14

04 | Major Bug Fixes

05 | Upcoming BioStar 2 Introduction

– BioStar 2.8.15 and Later

01

# BioStar 2.8.12

X-Station 2 Fingerprint model



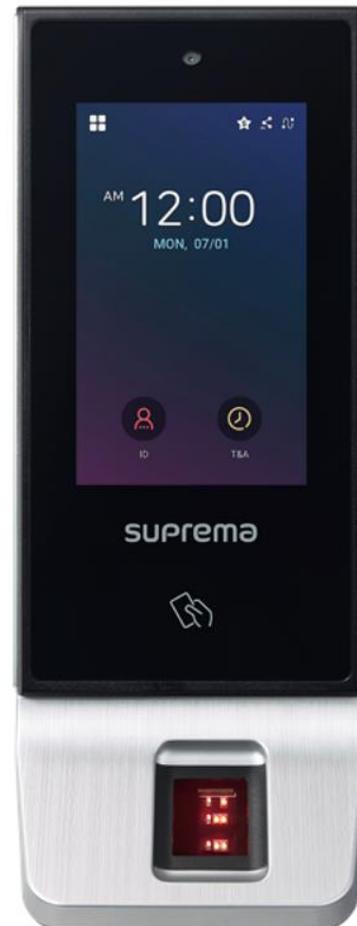
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# BioStar 2.8.12

## Support a New Device

X-Station 2 Fingerprint model (XS2-ODPB, XS2-OAPB)

**XS2-ODPB, XS2-OAPB**



- IP65
- PoE (Power over Ethernet)
- Camera
- 4" IPS Color LCD
- Multi RFID Support
  - EM
  - MFIARE
  - DESFire
  - Felica
  - EM
  - MFIARE
  - DESFire
  - Felica
  - HID Prox
  - HID iClass
- NFC/BLE
- Suprema Mobile Access
- Ethernet
- RS-485(OSDP)
- Wiegand
- 2 TTL Inputs
- 1 Relay
- Fingerprint Sensor

## Support a New Device

X-Station 2 Fingerprint model (XS2-ODPB, XS2-OAPB)



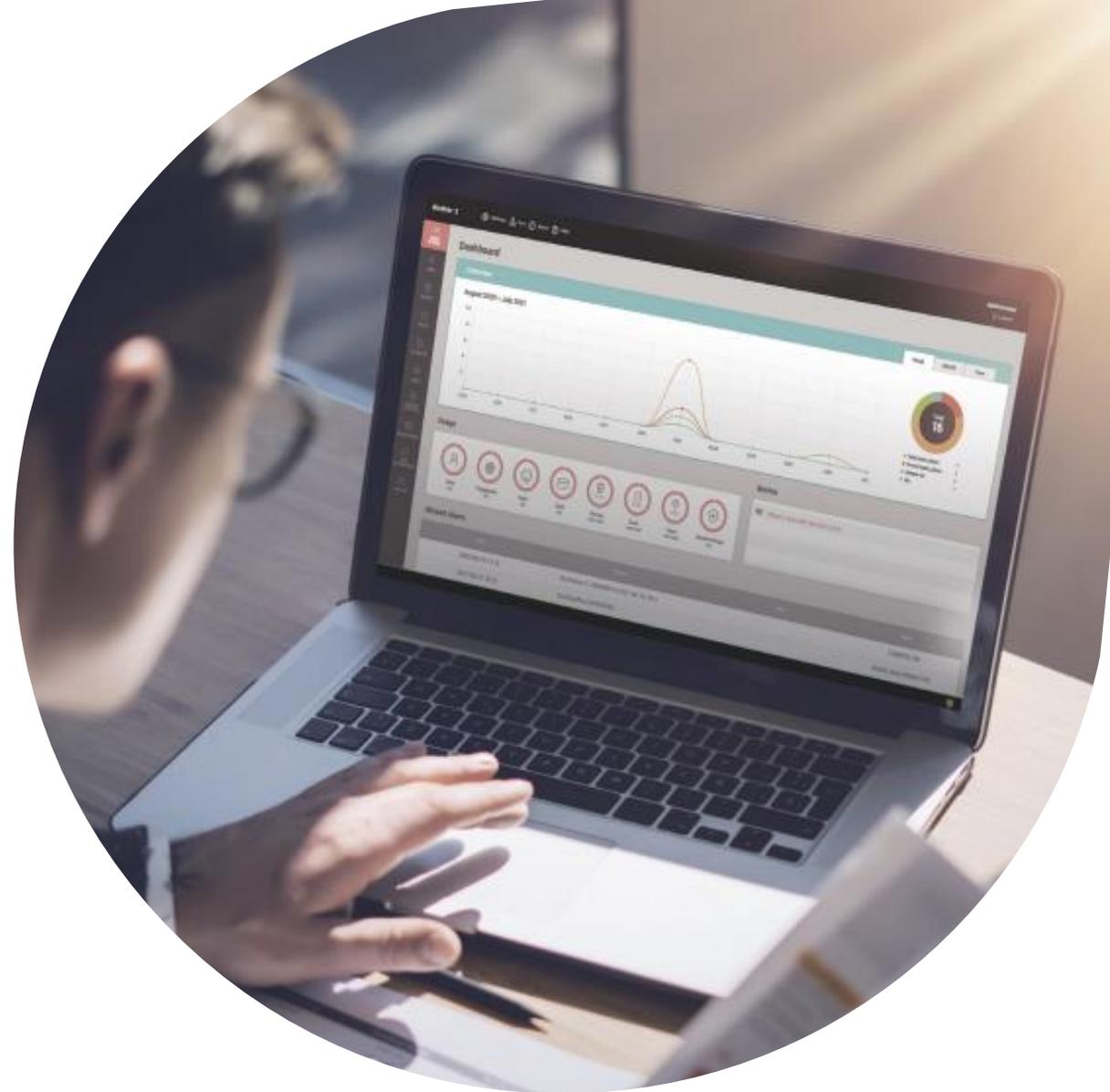
### Suprema Connect Website

- ✓ <https://www.supremainc.com/connect/index.asp>
- ✓ Please google **Suprema Connect**.

02

# BioStar 2.8.13

BioStar 2 Time Attendance Improvements



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## BioStar 2 Time Attendance Improvements and Bug Fixes

### 1. BioStar 2 T&A API Improvements

#### 1) Support T&A Report API

#### Report

POST /report.json

#### Implementation Notes

Get attendance report in json format

- Relevant Article: [\[BioStar 2 TA API\] How to retrieve REPORT in json format via BioStar 2 TA API](#)

#### 2) Update T&A APIs

Public API	
<b>BioStar 2 T&amp;A API</b>	
About	Show/Hide   List Operations   Expand Operations
Auth	Show/Hide   List Operations   Expand Operations
Time Code	Show/Hide   List Operations   Expand Operations
Shift	Show/Hide   List Operations   Expand Operations
Schedule Template	Show/Hide   List Operations   Expand Operations
Rule	Show/Hide   List Operations   Expand Operations
Schedule	Show/Hide   List Operations   Expand Operations
User	Show/Hide   List Operations   Expand Operations
User Group	Show/Hide   List Operations   Expand Operations
Holiday	Show/Hide   List Operations   Expand Operations
Leave	Show/Hide   List Operations   Expand Operations
Punch Log	Show/Hide   List Operations   Expand Operations
Device	Show/Hide   List Operations   Expand Operations
Register	Show/Hide   List Operations   Expand Operations
Setting	Show/Hide   List Operations   Expand Operations
Reference	Show/Hide   List Operations   Expand Operations
Report	Show/Hide   List Operations   Expand Operations

[ Base URL: /tba , API VERSION: 1.0.0 ]

INVALID

# BioStar 2.8.13

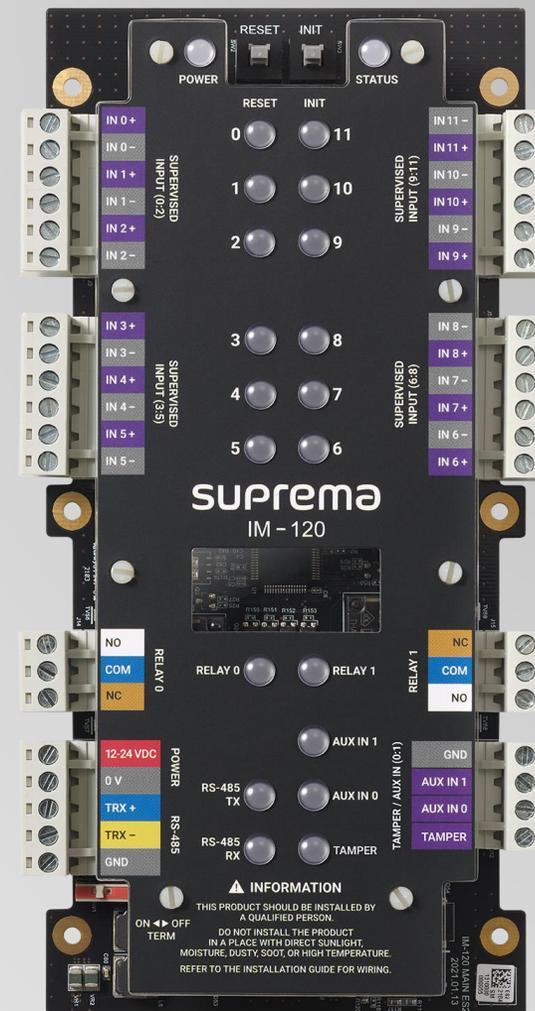
## BioStar 2 Time Attendance Improvements and Bug Fixes

2. Change the TLS version of the T&A Server: V1.2
3. Support Private SSL Certificates with a Specific Passphrase on the T&A Server

03

# BioStar 2.8.14

IM-120  
OpenJDK  
Vulnerability Improvements

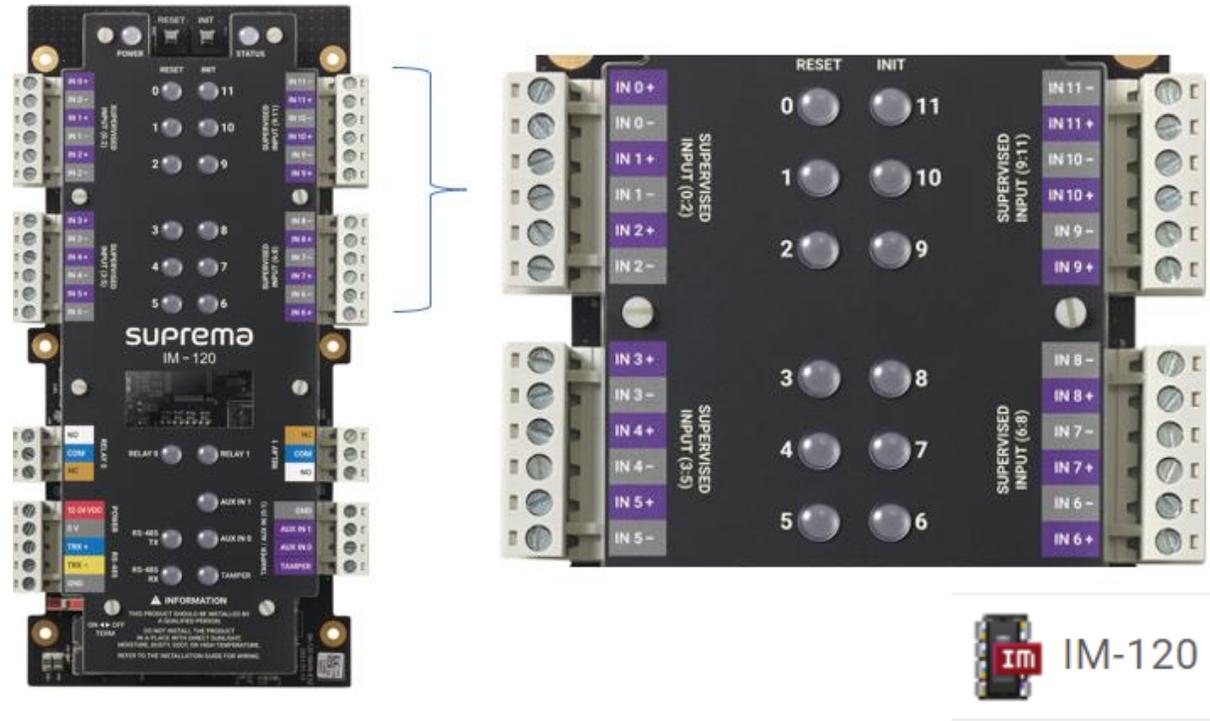


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# BioStar 2.8.14

## Support a New Device

### IM-120 (Input Module)

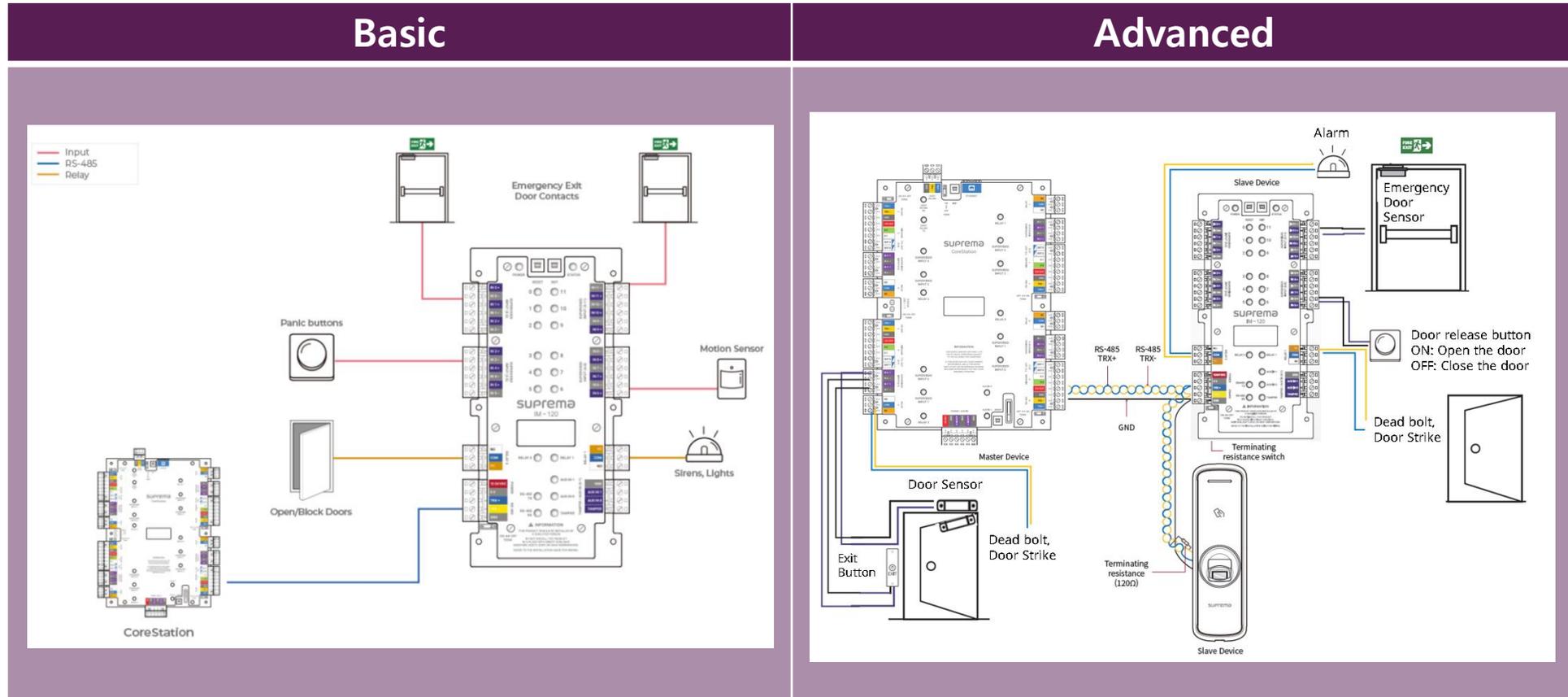


IM-120

- ✓ Can control up to **12** supervised inputs.
- ✓ **2** AUX, **1** tamper switch, **2** relays.
- Relevant Article: [\[BioStar 2\] New Product Launch: IM-120 \(Multiple Input Extension Module\)](#)

## Support a New Device

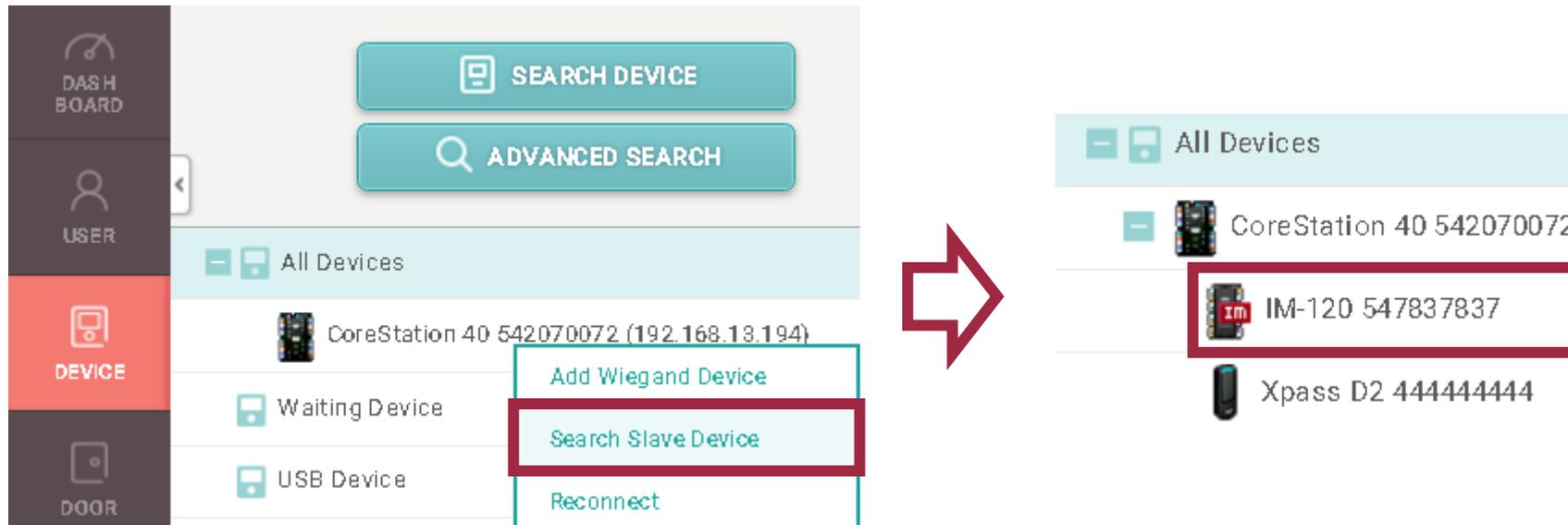
### IM-120 (Input Module)



- Relevant Article: [\[BioStar 2\] New Product Launch: IM-120 \(Multiple Input Extension Module\)](#)

## How to configure Inputs and Linkage

- Prepare a CoreStation (V1.5.2 or above) and IM-120
- Connect via RS-485



- Relevant Article: [\[BioStar 2\] New Product Launch: IM-120 \(Multiple Input Extension Module\)](#)

## How to configure Inputs and Linkage

Click [IM-120] to configure the Input and linkage setting.

Enter the Name of Inputs you want to connect to the physical inputs and select the option from the [Supervised Input Register] list with the switch types.

Input

N/O: Normally Open  
N/C: Normally Closed

Configuration

Index	Name	Supervised Input Register	Switch	Duration(ms)
Tamper	Tamper	Unsupervised	<input checked="" type="radio"/> N/O	50
Aux 0	Aux0	Unsupervised	<input checked="" type="radio"/> N/O	50
Aux 1	Aux1	Unsupervised	<input checked="" type="radio"/> N/O	50
Input 0	11F Door Release Button	Unsupervised	<input checked="" type="radio"/> N/O	50
Input 1	Input1	Unsupervised	<input checked="" type="radio"/> N/O	50
Input 2	Input2	Unsupervised	<input checked="" type="radio"/> N/O	50
Input 3	11F Emergency Door Status	4.7kΩ	<input checked="" type="radio"/> N/C	50

- Relevant Article: [\[BioStar 2\] New Product Launch: IM-120 \(Multiple Input Extension Module\)](#)

## How to configure Inputs and Linkage

Set the linkage for relay 0 or relay 1 when there are input detections.

- **Fault** (cut and short) is only activated when the supervised input is enabled by selecting a resistance value in the [Supervised Input Resister].

Linkage

**Relay 0**

• Common

Name	Alarm
RS-485 disconnected	<input type="checkbox"/> OFF
Tamper	<input type="checkbox"/> OFF

• Aux

Index	Name	Alarm
Aux 0	Aux0	<input type="checkbox"/> OFF
Aux 1	Aux1	<input type="checkbox"/> OFF

• Input

Index	Name	Alarm	Fault
Input 0	11F Door Release Button	<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF
Input 1	Input1	<input type="checkbox"/> OFF	<input type="checkbox"/> OFF
Input 2	Input2	<input type="checkbox"/> OFF	<input type="checkbox"/> OFF
Input 3	11F Emergency Door Status	<input type="checkbox"/> OFF	<input type="checkbox"/> OFF

**Relay 1**

• Common

Name	Alarm
RS-485 disconnected	<input checked="" type="checkbox"/> ON
Tamper	<input checked="" type="checkbox"/> ON

• Aux

Index	Name	Alarm
Aux 0	Aux0	<input checked="" type="checkbox"/> ON
Aux 1	Aux1	<input checked="" type="checkbox"/> ON

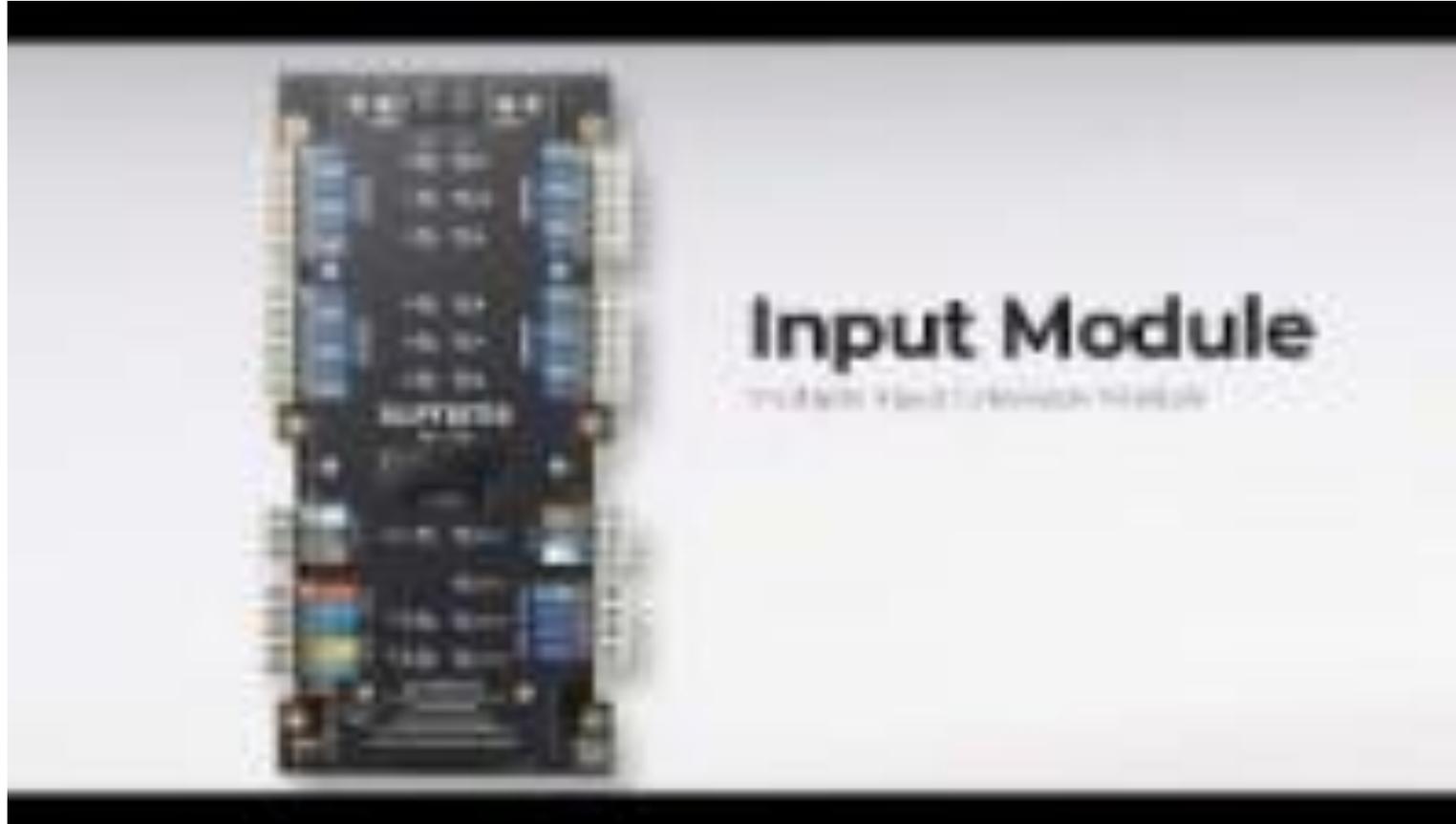
• Input

Index	Name	Alarm	Fault
Input 0	11F Door Release Button	<input type="checkbox"/> OFF	<input type="checkbox"/> OFF
Input 1	Input1	<input type="checkbox"/> OFF	<input type="checkbox"/> OFF
Input 2	Input2	<input type="checkbox"/> OFF	<input type="checkbox"/> OFF
Input 3	11F Emergency Door Status	<input checked="" type="checkbox"/> ON	<input checked="" type="checkbox"/> ON

- R€

## How to configure Inputs and Linkage

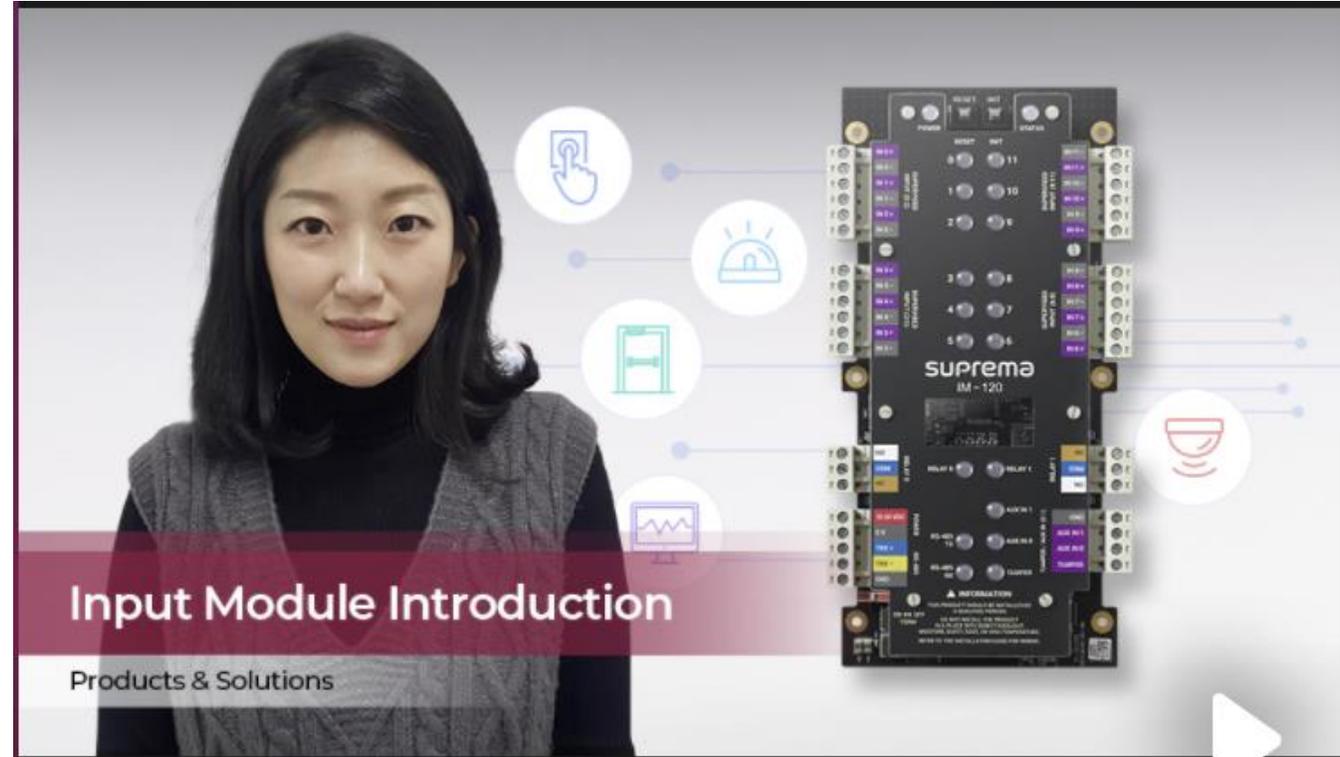
### IM-120 Inputs and Relays Demonstrations



- Relevant Article: [\[BioStar 2\] New Product Launch: IM-120 \(Multiple Input Extension Module\)](#)

## Input Module Introduction

IM-120 (Input Module)



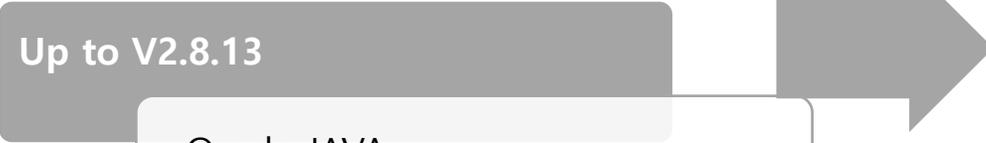
### Suprema Connect Website

- ✓ <https://www.supremainc.com/connect/index.asp>
- ✓ Please google **Suprema Connect**.

## Support OpenJDK

### Minimum System Requirements

Item		Small	Medium	Enterprise
Environment	Total Devices	50	100	1,000
System requirement (Server)	OS	Windows 7(SP1 or higher), Windows 8, Windows 8.1, Windows 10, Windows Server 2008 R2(SP2 or higher), Windows Server 2012, Windows Server 2012 R2, Windows Server 2016, Windows Server 2019 <ul style="list-style-type: none"> <li>Windows virtual environments on Mac Boot Camp are not supported.</li> </ul>		
	Database	MariaDB 10.1.10, MS SQL Server 2012, MS SQL Server 2014 SP2, MS SQL Server 2016 SP1, MS SQL Server 2017, MS SQL Server 2019		
	CPU	2 GHz Dual Core	4 GHz Quad Core	4 GHz 16 Core
	RAM	8 GB	16 GB	32 GB
	SSD	512 GB	1 TB	1 TB
System requirement (Client)	CPU	1 GHz	1 GHz	1 GHz
	RAM	4 GB	4 GB	4 GB
	Web Browser	Google Chrome 75 or later		



**Up to V2.8.13**

- Oracle JAVA

**V2.8.14 and later**

- OpenJDK 15

# BioStar 2.8.14

## Improved security vulnerabilities

- Applied Log4j 2 v2.16.0
- Applied OpenSSL 1.1.1k
- Applied jQuery 3.4.1
- Prevention for SQL Injection attack

## Regarding log4j2 vulnerability on BioStar 2

Q1

We are using Suprema BioStar version 1.93. Could you inform us if affected by our current version?

- BioStar 1.93 and old version of BioStar 1 software are based on C++ programming. There is NO impact of the log4j2 vulnerability.

Q2

Should I delete the existing log4j2.yml in C:\Program Files\BioStar 2(x64) (64-bit) or C:\Program Files\BioStar 2 (32 bit)?

- You can overwrite the “log4j2.yml” patch file or replace it to the patch file from the linked article.
- Relevant Article: [\[Security Notice\] Regarding log4j2 vulnerability on BioStar 2](#)

Q3

I have old BioStar 2 software. Should I use the patch file and follow the guideline?

- BioStar 2.5 or lower version does not use JAVA, so it does NOT fall under the related vulnerability.

Q4

"Suprema Fingerprint Scanner Driver 1" is not impacted?

- Suprema Fingerprint Scanner Driver is NOT impacted.

Q5

I need to update the log4j2 version to 2.17.0 because of the security reason of our security tool.

- We have a patch file of BioStar 2.8.14. Please generate a ticket in the [Suprema Support] website if you need to have the patch file based on v2.8.14.
- We will support log4j2 2.17.1 on BioStar 2.8.15 and later.

# BioStar 2.8.14

## Other Major Improvements

- BioStar 2 server performance improvements
- BioStar 2 New Local API Swagger updates
- Support 26-bit Wiegand card migration through [BioStar 1.x to BioStar 2.x Migration Tool].

04

# Major Bug Fixes

BioStar V2.8.12 – V2.8.14



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# Major Bug Fixes

## BioStar 2.8.12

1. The logo image was not displayed in the email when issuing the visual face enrollment link after setting a company logo in the Visual Face Mobile Enrollment under EMAIL SETTING. (Affects version: v2.8.11)
2. An error message was not displayed when a user tried to upload a company logo image which exceeded a maximum capacity of 5 MB. (Affects version: v2.8.11)
3. The QR Use value was not updated in the database when connecting X-Station 2 to BioStar 2 for the first time. (Affects version: v2.8.11)

## BioStar 2.8.13

1. When returning to the individual summary report and edit history report list after checking details of a selected report, the item selection did not work properly in the list. (Affects version: v2.7.10)
2. Punch out rounding setting was not applied to the individual summary report. (Affects version: v2.8.5)
3. T&A synchronization was abnormally interrupted when BioStar 2 was upgraded to v2.8.9 or later under the following conditions. (Affects version: v2.8.9)
  - BioStar 2 v2.8.5 or later / Use MS SQL Server database / Connect the Wiegand Reader 1 to DM-20
4. When using MS SQL Server database, T&A synchronization was abnormally interrupted if a large number of user data was deleted. (Affects version: v2.8.9)
5. When deleting a user or user group, T&A synchronization was abnormally interrupted because the related data was not completely deleted. (Affects version: v2.8.9)
6. Wiegand devices connected to the DM-20 were not displayed on the Time & Attendance device list. (Affects version: v2.8.9)

# Major Bug Fixes

## BioStar 2.8.14 (1)

1. When using the 'Specific Devices' Automatic User Synchronization option, it did not sync if the user ID contains some symbols (\_) (Affects version: v2.7.11).
2. When using the 'Specific Devices' Automatic User Synchronization option, the synchronization logic operated as 'All Devices' when executing Write Smart Card (Affects version: v2.7.11).
3. Chrome autocomplete function was mapped incorrectly in the information input field on the Add User screen (Affects version: v2.7.8).
4. Some languages were displayed as question marks in Audit Trail when using MS SQL Server database (Affects version: v2.7.0).
5. When using the Visual Face as a user profile image, it exceeded the allowed size of the profile image and did not sync to devices (Affects version: v2.8.6).
6. When setting the logo image as the home screen for FaceStation F2, the image was not applied in the correct resolution for the device (Affects version: v2.8.6).
7. It was not possible to enter uppercase letters in the server address when using 'Device → Server Connection' (Affects version: v2.7.0).
8. Custom user field data was not reflected in the T&A report (Affects version: v2.8.3).
9. Fixed an issue where key values were exposed when fetching smart card layouts using API. (Affects version: v2.0)

## BioStar 2.8.14 (2)

10. The server crashed intermittently.

- C server crash occurred when database inquiry failed while creating user group cache (Affects version: v2.0).
- Lock handling was missing in serviceTask JsonResult (Affects version: v2.0).

11. When running 'Manage Users in Device' by selecting a device that supports only cards, the status of the user with the enrolled fingerprint was displayed as 'Different' (Affects version: v2.0).

12. When generating more than 10 events by selecting 'Input (Event Name Change)' in the Trigger & Action settings of CoreStation, it did not work properly. (Affects version: v2.8.8)

13. When using server matching with FaceStation 2's authentication mode set to Card+Face, the face authentication mode did not work after card authentication (Affects version: v2.8.6).

*\* This modification will be applied to devices with firmware version 1.5.1 or later installed.*

14. During 'All Devices' Automatic User Synchronization, the access group and door synchronization results were not updated intermittently (Affects version: v2.0).

15. Devices were disconnected when the amount of data was large during Automatic User Synchronization (Affects version: v2.0).

16. When adding a user using API, it was possible to create a user ID with a value not supported by BioStar 2 (Affects version: v2.8.1).

17. When importing users with CSV import, 'Upload successful' message was displayed even if there was information that was not updated (Affects version: v2.3.0).

# Major Bug Fixes

## BioStar 2.8.14 (3)

18. When a device that does not support the intelligent slave sent OSDP ID as an invalid value, BioStar 2 initialized the value to 0, updating RS-485 settings and disconnecting the existing RS-485 connection (Affects version: v2.8.10).

19. Even though the server matching is supported, the function was not displayed on the settings of BioStation 2 (Affects version: v2.2.2).

20. When a user has abnormal profile image, the user sync process was not finished properly (Affects version: v2.8.0).

05

# Upcoming BioStar2 Introduction

BioStar V2.8.15 and Later

# Upcoming BioStar2 Introduction

## BioStar 2.8.15

1. Support Log4j 2.17.1
2. Improve the BioStar 2 operation when using the 'Specific Devices' Automatic User Synchronization option

Expected Release Schedule: End of February

\* This version is an urgent release. Bugs which you were informed to be fixed in V2.8.15 before January 15, 2022, will be fixed in V2.8.16 or later.

## BioStar 2.8.16

1. Improve issues which were fixed in V2.8.15
  - Items informed before January 15, 2022
2. Support X-Station 2 as Slave of CoreStation

3. Improve deleting unassigned cards

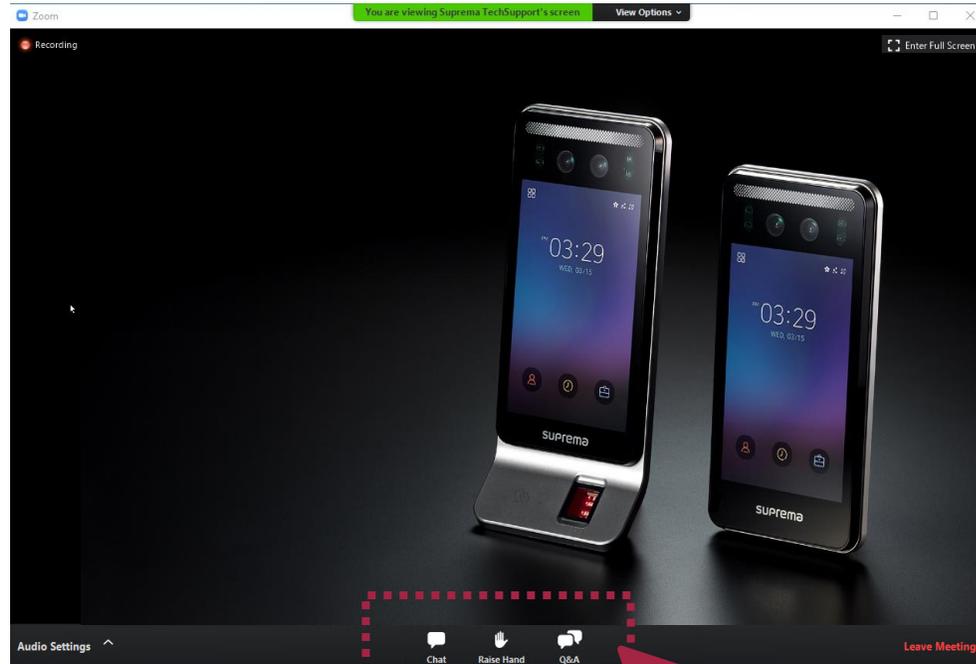
Expected Release Schedule: April

## BioStar 2.8.17

1. Improve BioStar 2 Time Attendance issues which were fixed in V2.8.16
  - Items informed before January 15, 2022

Expected Release Schedule: TBD

# How can you ask questions during a webinar?

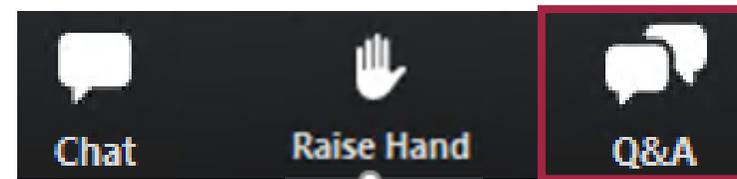


Click!

How to find the necessary icons

- ✓ Please move your mouse to the bottom of your screen, the 3 icons will appear.

## [Q&A] box



- ✓ During the webinar, you can leave your questions in the Q&A box anytime. Suprema Panels will answer in real time.



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# Suprema Webinar

## BioStar 2 API New Features

## TA API with V2.8.13

Speaker

Peter Kweon  
Technical Consulting Engineer | Suprema

Date | February 22, 2022

## Contents

- 01 | TA API Swagger
- 02 | TA API Main Features
- 03 | Report.json
- 04 | BioStar 2 <> Postman DEMO
- 05 | Q&A

01

# TA API Swagger

In addition to BioStar 2 New Local API,  
BioStar 2.8.13 was released with TA API for TA tasks.

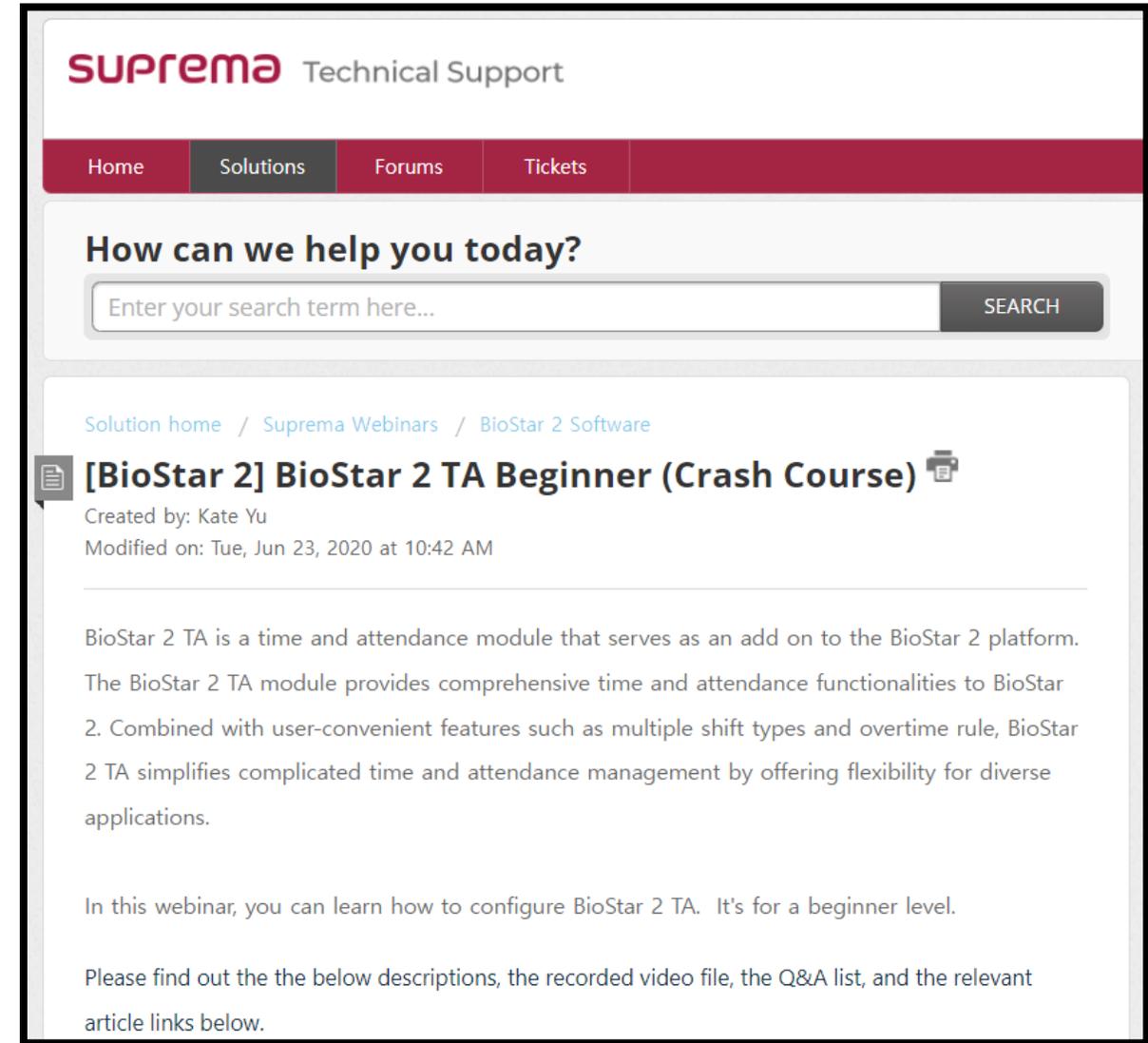


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# TA API Swagger

## What is BioStar 2 TA?

BioStar 2 TA Beginner (Crash Course)  
provided at Suprema Technical Support Portal

A screenshot of the Suprema Technical Support portal. The page title is "suprema Technical Support". The navigation menu includes "Home", "Solutions", "Forums", and "Tickets". The main heading is "How can we help you today?" with a search bar. Below the search bar, the breadcrumb trail is "Solution home / Suprema Webinars / BioStar 2 Software". The article title is "[BioStar 2] BioStar 2 TA Beginner (Crash Course)". The author is "Created by: Kate Yu" and the modification date is "Modified on: Tue, Jun 23, 2020 at 10:42 AM". The article content describes BioStar 2 TA as a time and attendance module and mentions a webinar for beginners. It concludes with a request to find descriptions, video files, Q&A lists, and relevant article links.

## BioStar 2 TA API development background

- Partners had to update TA information in their BioStar 2 in order to create reports that will be used for their integrations.
- By providing API's to update their TA reports, Suprema provides convenient interface for the integration users.
  
- BioStar 2 TA API had been added with BioStar 2.8.13.
- Users can use TA API without any installation.

# TA API Swagger

1. TA API Swagger | 2. TA API Main Features | 3. Report.json | 4. DEMO | 5. Q&A

TA API Swagger : [https://\(BioStar 2 IP\):\(TA Port\)/docs/#](https://(BioStar 2 IP):(TA Port)/docs/#)

<https://localhost:3002/docs/#>

||

[https://\(Your BioStar IP\) :3002/docs/#](https://(Your BioStar IP) :3002/docs/#)

||

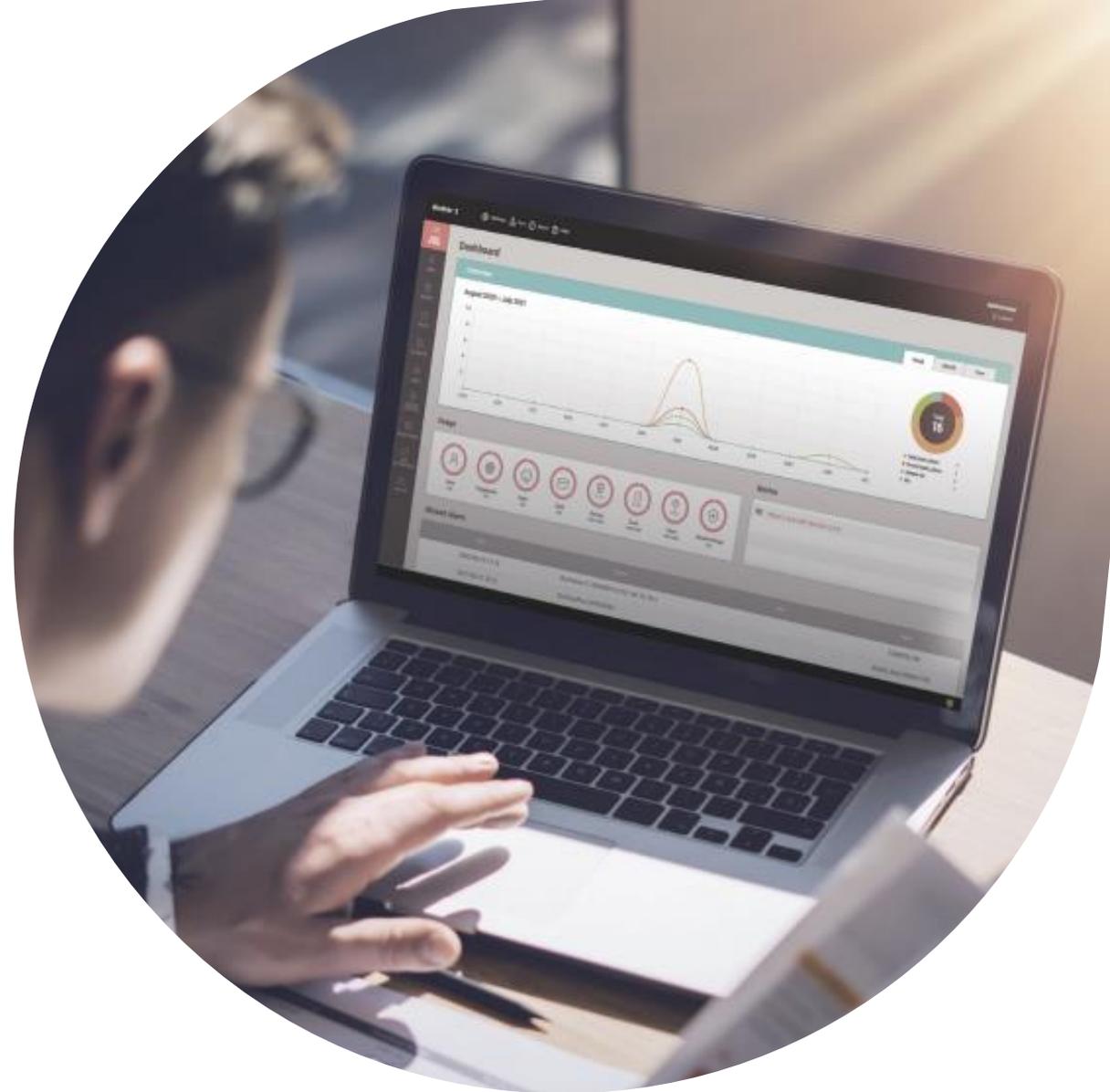
<https://127.0.0.1 :3002/docs/#>

```
setting.conf - Notepad
File Edit Format View Help
{
  "BioStar": {
    "api_port": "9010",
    "webservice_thrift_port": "9310",
    "webservice_fastcgi_port": "9000",
    "https": {
      "use_ssl": "1",
      "port": "443",
      "ssl_addr": "192.168.13.36",
      "server.ssl.key-store-type": "JKS",
      "server.ssl.key-store": "C:\\Program Files\\BioStar 2(x64)\\nginx\\conf\\keystore.jks",
      "server.ssl.key-store-password": "1WccA4HJhsTEfXYXVXQnQ==",
      "server.ssl.key-store-password.use_enc": "1",
      "server.ssl.key-alias": "biostar"
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    "http": {
      "port": "80",
      "root_path": "html"
    },
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      "server_address": "api.biostar2.com",
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      "version": "v2"
    },
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      "https_port": "3002",
      "ngrok_port": "52001"
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      "video": "BioStar 2 Video Web Server(x64)"
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      "http_port": "3010",
      "https_port": "3012",
      "ngrok_port": "52002"
    }
  }
}
```

02

# TA API Main Features

- Login
- Time Code
- Shift
- Schedule Template
- Rule
- Schedule
- Holiday
- Leave
- Punch Log
- Report



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# TA API Main Features

## Login

- 1. /login
- 2. /login/sso -> Login Using Single Sign On

Auth	
POST	/login
POST	/login/sso
GET	/logout

1 /login

Parameter	Value	Description	Parameter Type	Data Type
user	<pre>{   "password": "PASSWORD@",   "user_id": "admin" }</pre>	User	body	Model   Model Schema

Parameter content type: application/json

```
LoginUser {  
  mobile_app_version (string, optional): Mobile App Version,  
  mobile_device_type (string, optional): Mobile Device Type ( 'ANDROID' = Android Device, 'IOS' = Apple Device ) = [ 'ANDROID' or 'IOS' ],  
  mobile_os_version (string, optional): Mobile OS Version,  
  notification_token (string, optional): Notification Token ( Google GCM Registration ID or Apple Push Notification Device Token ),  
  password (string): User Password,  
  user_id (string): User ID / Login ID / Email  
}
```

2 /login/sso

Parameter	Value	Description
sso	<pre>{   "biostar_session_id":   "e315ae94e69b4750806a62f888e539fa",   "user_id": "1" }</pre>	Single Sign On data

Parameter content type: application/json

**'Bs-session-id' from AC API login response**

**You must enter USER ID. Not a login ID**

# TA API Main Features

## Time Code

GET /pay\_codes

Time Code	
GET	/pay_codes
POST	/pay_codes
POST	/pay_codes/delete
GET	/pay_codes/{id}
PUT	/pay_codes/{id}
DELETE	/pay_codes/{id}

# TA API Main Features

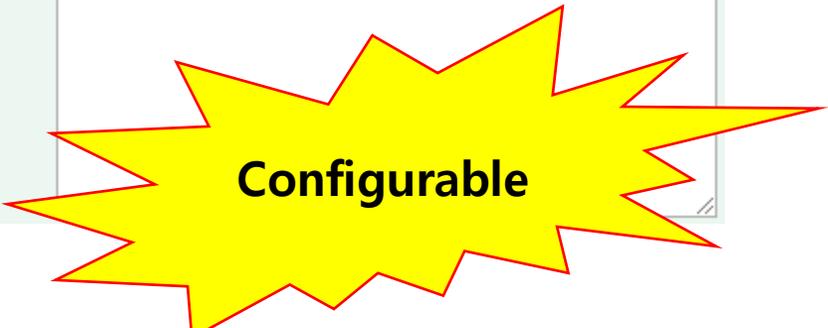
## Time Code

POST /pay\_codes

POST /pay\_codes

Parameters

Parameter	Value
pay_code	<pre>{   "accumulate_toward_overtime": false,   "color": "#f00",   "count_as_attendance": true,   "description": "string",   "name": "Time Code 21",   "time_rate": 1,   "track_on_leave_management": true,   "type": "not_worked" }</pre>



• Name

• Description

• Type  Attendance management  Overtime management  Leave management

• Option  Worked  Not Worked

• Name

• Description

• Type  Attendance management  Overtime management  Leave management

• Time Rate

• Color

# TA API Main Features

## TA API Main Features

They are configurable!!

### BioStar 2 T&A API

About

Auth

Time Code

Shift

Schedule Template

Rule

Schedule

User

User Group

Holiday

Leave

Punch Log

Device

Register

Setting

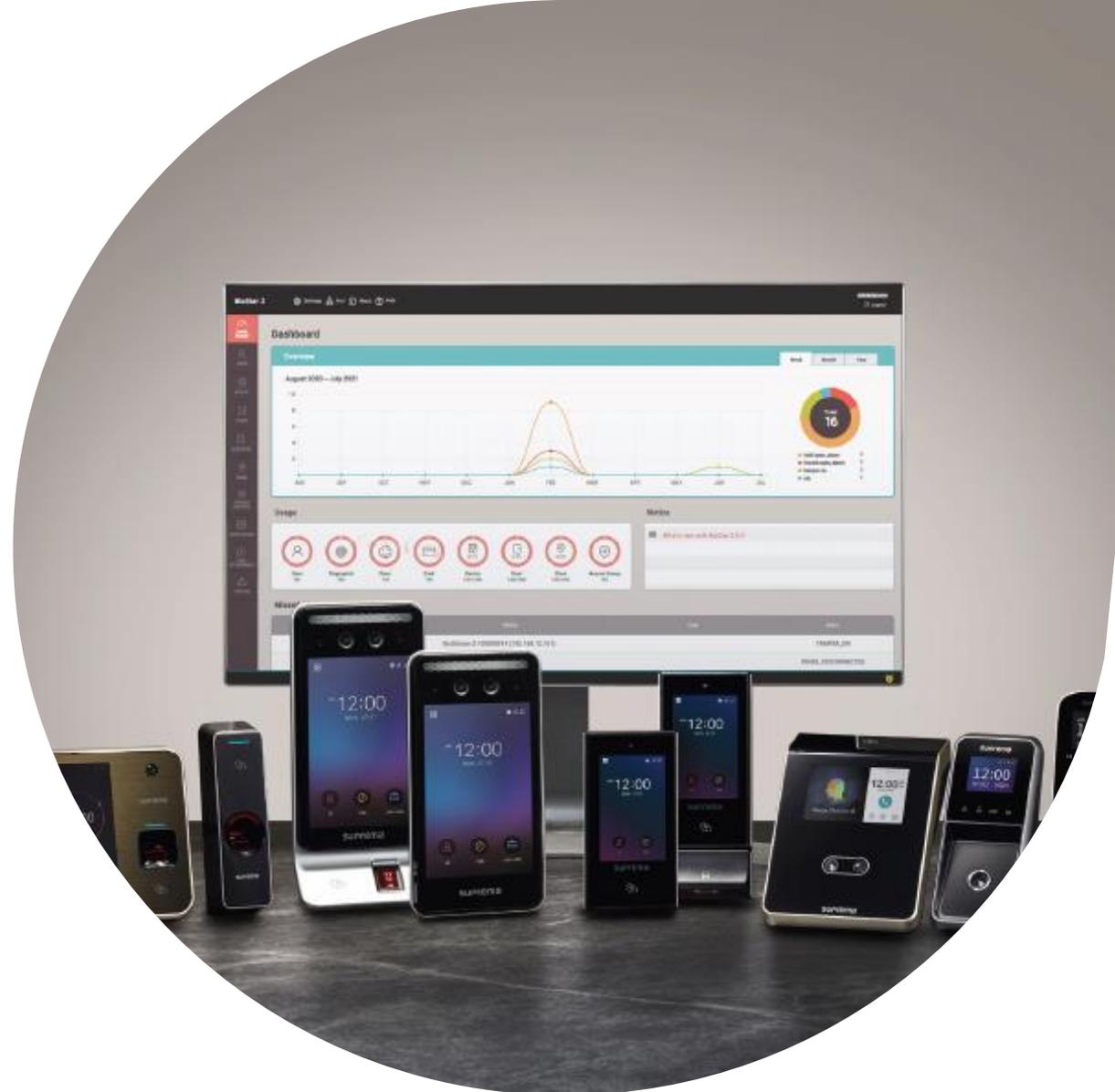
Reference

Report

03

# Report.json

Daily  
Edit History  
Leave  
Exception  
Individual



suprema connect

## Report Types

1. Daily Report
2. Edit History Report
3. Leave Report
4. Exception Report
5. Individual Report

## Possible Report Types via API

1. REPORT\_DAILY
2. REPORT\_DAILY\_SUMMARY
3. REPORT\_INDIVIDUAL
  - Report\_filter\_type: INDIVIDUAL\_FILTER\_SUMMARY
  - Report\_filter\_type: INDIVIDUAL\_FILTER\_DETAIL
4. REPORT\_INDIVIDUAL\_SUMMARY
5. REPORT\_LEAVE
  - Filter: {time\_code\_id}
6. REPORT\_EXCEPTION
7. REPORT\_EDIT\_HISTORY
8. REPORT\_WORKWEEK

The screenshot displays the 'Report.json' interface. At the top, there is a 'Search Conditions' section with a dropdown arrow. Below it, the 'Filter Conditions' section includes a text input for 'Name' (containing 'Daily Report'), a dropdown for 'Report Type' (set to 'Daily') with a 'Column Setting' button, and a 'User Group' dropdown (set to 'Permanent') with a search icon. A 'User' field shows '20130909(TEST 3)' with a search icon. A 'Save Filter' button is located at the bottom right of the filter section. Below the filter section is the 'Report Period' section, which shows a date range 'Daily ( 2022-02-01 ~ 2022-02-01 )' with navigation arrows. At the bottom of the filter section are three buttons: 'Update Report', 'CSV Export', and 'PDF Export'. The main content area is titled 'Daily Report' and features a table with 12 columns: Date, Name, User ID, Department, Shift, Leave, In, Out, Exception, Regular hours, Overtime hours, and Total Work Ho... The table contains three rows of data for the date 2022/02/01.

Date	Name	User ID	Department	Shift	Leave	In	Out	Exception	Regular hours	Overtime hours	Total Work Ho...
2022/02/01	TEST 1	20201201	Permanent	Standard Work h...	-	08:00:00	17:00:00	Early Out	7:15:00	1:00:00	8:15:00
2022/02/01	TEST 2	20201019	Permanent	Standard Work h...	-	-	-	Absence	0:00:00	0:00:00	0:00:00
2022/02/01	TEST 3	20130909	Permanent	Standard Work h...	-	-	-	Absence	0:00:00	0:00:00	0:00:00

# Report.json

## Report Types

- 1. Daily Report
- 2. Edit History Report
- 3. Leave Report
- 4. Exception Report
- 5. Individual Report

### Report

**POST** /report.json

**Implementation Notes**  
Get attendance report in json format

**Response Class (Status 200)**  
Model | Model Schema

```
{
  "json_file_path": "string",
  "message": "string",
  "status_code": "string"
}
```

Response Content Type:

**Parameters**

Parameter	Value
body	(required)

Parameter content type:

### Data Type

Model | Model Schema

```
ReportGetInJSON {
  columns (object),
  end_datetime (date): The end datetime of the report range. And end
  datetime in YYYY-MM-DD format ( ex. 2015-06-10 ),
  group_id (long, optional),
  limit (long): Number of results,
  offset (integer): Results data offset,
  rebuild_time_card (boolean),
  report_type (string): the type of report to be generated individual, daily or
  others,
  start_datetime (date): The start datetime of the report range. And start
  datetime in YYYY-MM-DD format ( ex. 2015-06-10 ),
  user_id_list (long)
}
```

# Report.json

## Report Types

- 1. Daily Report
- 2. Edit History Report
- 3. Leave Report
- 4. Exception Report
- 5. Individual Report

```
POST https://localhost:3002/tna/report.json

Body
  none form-data x-www-form-urlencoded raw binary GraphQL JSON
  {
    "limit": 50,
    "offset": 0,
    "type": "CUSTOM",
    "start_datetime": "2021-01-03",
    "end_datetime": "2022-02-08",
    "user_id_list": [
      "1"
    ],
    "group_id_list": [
    ],
    "report_type": "REPORT_DAILY",
    "report_filter_type": "",
    "language": "en",
    "rebuild_time_card": true,
    "columns": [
      {
        "name": "report.date",
        "field": "datetime"
      }
    ]
  }
```



```
Body Cookies (1) Headers (13) Test Results
  Pretty Raw Preview Visualize JSON
  {
    "message": "Processed Successfully",
    "message_key": "SUCCESSFUL",
    "language": "en",
    "status_code": "SUCCESSFUL",
    "records": [
      {
        "datetime": "03/01/2021",
        "userName": "Javier Montoya Ortega",
        "userId": "1",
        "userGroupName": "All Users",
        "shift": "JORNADA LABORAL COMPLETA",
        "overtimeRuleShift": false,
        "leave": "-",
        "inTime": "-",
        "outTime": "-",
        "isInTimeNextDay": false,
        "isOutTimeNextDay": false,
        "exception": "Absence",
        "exceptionForView": [
          {
            "name": "Absence",
            "code": "2"
          }
        ]
      }
    ],
    "normalRegular": "0:00:00",
    "normalOvertime": "0:00:00",
    "punchBreak": "0:00:00",
    "overBreak": "0:00:00",
    "mealTime": "0:00:00",
    "totalWorkTime": "0:00:00",
  }
```

### Search Conditions

---

Filter Conditions

- Name:
- Report Type:

# Report.json

## Report Types

1. Daily Report
2. **Edit History Report**
3. Leave Report
4. Exception Report
5. Individual Report

```
POST https://localhost:3002/tna/report.json
Body
JSON
{
  "limit": 50,
  "offset": 0,
  "type": "callCreateReport",
  "report_type": "REPORT_EDIT_HISTORY",
  "start_datetime": "2022-01-03",
  "end_datetime": "2022-02-12",
  "user_id_list": [
    "1"
  ],
  "sort_columns": [],
  "filter": [],
  "columns": [
    {
      "name": "report.date",
      "field": "datetime"
    },
    {
      "name": "report.userName",
      "field": "userName"
    }
  ]
}
```



```
Body
JSON
{
  "message": "Processed Successfully",
  "message_key": "SUCCESSFUL",
  "language": "en",
  "status_code": "SUCCESSFUL",
  "records": [
    {
      "modified_datetime": "01/02/2022 08:00:00",
      "original_datetime": "-",
      "updated_datetime": "11/02/2022 12:06:17",
      "modifiedPunchType": "Check In",
      "modifiedUserID": "1",
      "modifiedUserName": "Javier Montoya Ortega",
      "modifiedByUserId": "1",
      "modifiedByUserName": "Javier Montoya Ortega",
      "originalPunchType": "-",
      "deviceId": "-",
      "deviceName": "-"
    },
    {
      "modified_datetime": "01/02/2022 12:00:00",
      "original_datetime": "-",
      "updated_datetime": "11/02/2022 12:06:17",
      "modifiedPunchType": "Meal Time Start",
      "modifiedUserID": "1",
      "modifiedUserName": "Javier Montoya Ortega",
      "modifiedByUserId": "1",
      "modifiedByUserName": "Javier Montoya Ortega",
      "originalPunchType": "-",
      "deviceId": "-",
      "deviceName": "-"
    }
  ]
}
```

Search Conditions	
Filter Conditions	
Name	Daily Report
Report Type	Modified Punch Log History <span>Column Setting</span>

# Report.json

## Report Types

1. Daily Report
2. Edit History Report
3. Leave Report
4. Exception Report
5. Individual Report

Pay Code ID is required

```
POST https://localhost:3002/tna/report.json ...
Body
none form-data x-www-form-urlencoded raw binary GraphQL
1
2   ... "limit": 50,
3   ... "offset": 0,
4   ... "type": "callCreateReport",
5   ... "start_datetime": "2021-01-03",
6   ... "end_datetime": "2022-03-03",
7   ... "report_type": "REPORT_LEAVE",
8   ... "report_filter_type": "INDIVIDUAL_FILTER_SUMMARY",
9   ... "user_id_list": [
10  ...   "1",
11  ...   "2",
12  ...   "3",
13  ...   "12",
14  ...   "20201201"
15  ... ],
16  ... "sort_columns": [],
17  ... "filter": [
18  ...   14
19  ... ],
20  ... "columns": [
21  ...   {
22  ...     "na
23  ...     "fi
```

```
Body Cookies (1) Headers (12) Test Results
Pretty Raw Preview Visualize JSON
1 {
2   "message": "Processed Successfully",
3   "message_key": "SUCCESSFUL",
4   "language": "en",
5   "status_code": "SUCCESSFUL",
6   "records": [
7     {
8       "datetime": "2022/02/10",
9       "userName": "TEST 1",
10      "userId": "20201201",
11      "userGroupName": "Permanent",
12      "shift": "Standard Work hour management",
13      "leave": "Leave",
14      "leavePeriod": "2022/02/10 09:00:00 ~ 2022/02/10 18:00:00",
15      "flexibleLeaveHours": "-",
16      "leaveApprovedComment": "1"
17    }
18  ],
19  "total": 1
20 }
```

Search Conditions

Filter Conditions

- Name: Daily Report
- Report Type: Leave

Column Setting

# Report.json

## Report Types

1. Daily Report
2. Edit History Report
3. Leave Report
4. Exception Report
5. Individual Report

1. TA API Swagger | 2. TA API Main Features | 3. Report.json | 4. DEMO | 5. Q&A

```
POST https://localhost:3002/tna/report.json
Body
none form-data x-www-form-urlencoded raw binary GraphQL JSON
{
  "limit": 50,
  "offset": 0,
  "type": "callCreateReport",
  "report_type": "REPORT_EXCEPTION",
  "start_datetime": "2021-01-03",
  "end_datetime": "2022-03-08",
  "user_id_list": [
    "1",
    "2",
    "3",
    "12",
    "20201201"
  ],
  "sort_columns": [],
  "filter": [],
  "columns": [
    {
      "name": "report.date",
      "field": "datetime"
    },
    {
      "name": "report.userName",
      "fi
  ]
}
```

**Search Conditions**

Filter Conditions

Name: Daily Report

Report Type: Exception

Column Setting



```
Body Cookies (1) Headers (13) Test Results
Pretty Raw Preview Visualize JSON
{
  "message": "Processed Successfully",
  "message_key": "SUCCESSFUL",
  "language": "en",
  "status_code": "SUCCESSFUL",
  "records": [
    {
      "datetime": "2021/09/08",
      "userName": "Andra MITILOAGĂ",
      "userId": "20201201",
      "userGroupName": "Permanent",
      "shift": "Standard Work hour management",
      "overtimeRuleShift": false,
      "inTime": "15:50:21",
      "outTime": "22:08:48",
      "isInTimeNextDay": false,
      "isOutTimeNextDay": false,
      "exception": "Late In",
      "exceptionForView": [
        {
          "name": "Late In",
          "code": "3"
        }
      ]
    },
    {
      "datetime": "2021/09/09",
      "userName": "Andra MITILOAGĂ",
      "userId": "20201201",

```

# Report.json

## Report Types

1. Daily Report
2. Edit History Report
3. Leave Report
4. Exception Report
5. Individual Report

```
POST https://localhost:3002/tna/report.json

Params Authorization Headers (10) Body Pre-request Script Tests Settings
● none ● form-data ● x-www-form-urlencoded ● raw ● binary ● GraphQL JSON

1
2   ...."limit": 50,
3   ...."offset": 0,
4   ...."type": "callCreateReport",
5   ...."start_datetime": "2022-01-03",
6   ...."end_datetime": "2022-01-03",
7   ...."report_type": "REPORT_INDIVIDUAL",
8   ...."report_filter_type": "INDIVIDUAL_FILTER_SUMMARY",
9   ...."user_id_list": [
10  ....  "1",
11  ....  "2",
12  ....  "3",
13  ....  "12",
14  ....  "20201201"
15  ....],
16  ...."language": "en",
17  ...."rebuild_time_card": true,
18  ...."columns": [
19  ....  {
20  ....    "name": "report.userName",
21  ....    "field": "userName",
22  ....  }
23  ....]
24
```

**Search Conditions**

Filter Conditions

- Name:
- Report Type:



```
Body Cookies (1) Headers (13) Test Results
Pretty Raw Preview Visualize JSON

1
2   "message": "Processed Successfully",
3   "message_key": "SUCCESSFUL",
4   "language": "en",
5   "status_code": "SUCCESSFUL",
6   "records": [
7     {
8       "hidden_user_id": "20201201",
9       "userName": "Andra MITILOAGĂ (20201201 : Permanent) ",
10      "$treeLevel": 0,
11      "normalRegular": "0:00:00",
12      "normalOvertime": "0:00:00",
13      "totalWorkTime": "0:00:00",
14      "punchBreak": "0:00:00",
15      "overBreak": "0:00:00",
16      "mealTime": "0:00:00",
17      "regularByTimeRate": "0:00:00",
18      "overtimeByTimeRate": "0:00:00"
19    },
20    {
21      "datetime": "2022/01/03",
22      "userName": "Andra MITILOAGĂ",
23      "userId": "20201201",
24      "userGroupName": "Permanent",
25      "shift": "Standard Work hour management",
26      "overtimeRuleShift": false,
27      "leave": "-",
28      "inTime": "15:55:37",
29      "outTime": "-",
30      "isInTimeNextDay": false,
31      "isOutTimeNextDay": false,
```

## Things to know

- /tna/report.json API does not export any documents(CSV, PDF...etc.)
- /tna/report.json API only returns the appropriate report information in JSON format to the response body.
- /tna/report.json API can return different type of reports according to the input(request body).
- /tna/report.json API for LEAVE REPORT requires PAY\_CODE\_ID in its "filter" parameter.

```
Body Cookies (1) Headers (12) Test Results
Pretty Raw Preview Visualize JSON
1 {
2   "message": "Processed Successfully",
3   "message_key": "SUCCESSFUL",
4   "language": "en",
5   "status_code": "SUCCESSFUL",
6   "records": [
7     [
8       "datetime": "2022/02/10",
9       "userName": "TEST 1",
10      "userId": "20201201",
11      "userGroupName": "Permanent",
12      "shift": "Standard Work hour management",
13      "leave": "Leave",
14      "leavePeriod": "2022/02/10 09:00:00 ~ 2022/02/10 18:00:00",
15      "flexibleLeaveHours": "-",
16      "leaveApprovedComment": "1"
17    ]
18  ],
19  "total": 1
20 }
```

### "Report\_Type" values:

- REPORT\_DAILY
- REPORT\_DAILY\_SUMMARY
- REPORT\_INDIVIDUAL
- REPORT\_INDIVIDUAL\_SUMMARY
- REPORT\_LEAVE
- REPORT\_EXCEPTION
- REPORT\_EDIT\_HISTORY
- REPORT\_WORKWEEK

```
"report_type": "REPORT_LEAVE",
"report_filter_type": "INDIVIDUAL_FILTER_SUMMARY",
"user_id_list": [
  "1",
  "2",
  "3",
  "12",
  "20201201"
],
"sort_columns": [],
"filter": [
  14
],
```

04

# BioStar 2 ↔ Postman DEMO

Let's compare BioStar 2 T&A Report and API Report



suprema connect

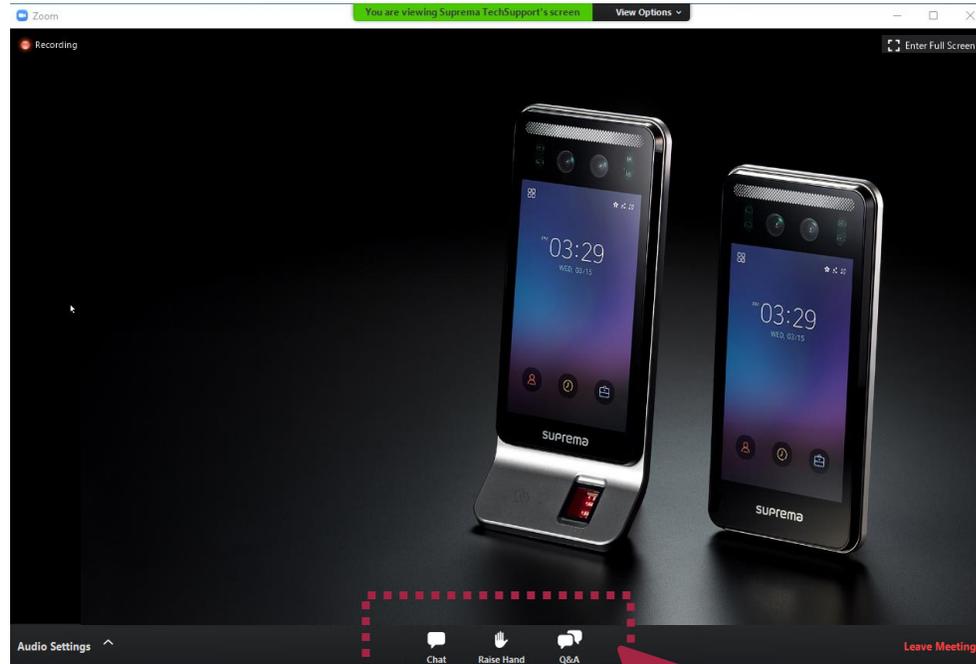
## Things to know

- Daily Report  • "report\_type": "REPORT\_DAILY"
- Individual Report  • "report\_type": "REPORT\_INDIVIDUAL"
- Leave Repot  • "report\_type": "REPORT\_LEAVE"
- Exception Report  • "report\_type": "REPORT\_EXCEPTION"
- Modified Punch Log History  • "report\_type": "REPORT\_EDIT\_HISTORY"

05

# Q&A

# How can you ask questions during a webinar?

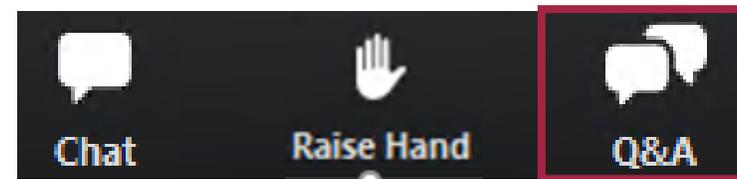


Click!

How to find the necessary icons

- ✓ Please move your mouse to the bottom of your screen, the 3 icons will appear.

## [Q&A] box



- ✓ During the webinar, you can leave your questions in the Q&A box anytime. Suprema Panels will answer in real time.

**Thank you.**