



# BioAX<sup>®</sup>

## Bio-AX<sup>®</sup> DEMS Installation and Operation Manual

<b>Document Version:</b>	<b>1.1</b>
<b>Document Security:</b>	<b>OFFICIAL: COMMERCIAL</b>

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Date of Approval:	24/09/2020	Next Review Date:	24/09/2021

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Date of Approval:	24/09/2020	Next Review Date:	24/09/2021

<b>Version Control</b>	<b>Document Location</b> If using a printed version of this document, ensure it is the latest published version.
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Version	Date Approved	Publication Date	Approved By	Summary of Changes
1.0	20/09/2020	24/09/2020	Audax	New Document
2.0				

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**1. Statement**

- a. The content described in the manual may be different from the version you use now, owing to our commitment to progressive development.
- b. If you encounter the problem which is unable to be solved at the time of using this manual, please contact us directly. The content of the manual will be updated irregularly, and the updated content detailed on within the version control.

**2. Introduction**

- a. The DEMS will allow a user interface in the compilation of evidential material, this will allow secure storage, permissible viewing, restricted user access, and case IDs to be created and updated within one single interface.

**3. Platform Introduction**

- a. The Docking Station comes with 6 ports that will allow a BioAX camera to be charged whilst simultaneously uploading data, and will on completion wipe the device ready for redeployment.
- b. It has a QR reader capability, that will allow users to assign a camera to an officer by simply scanning their QR code.

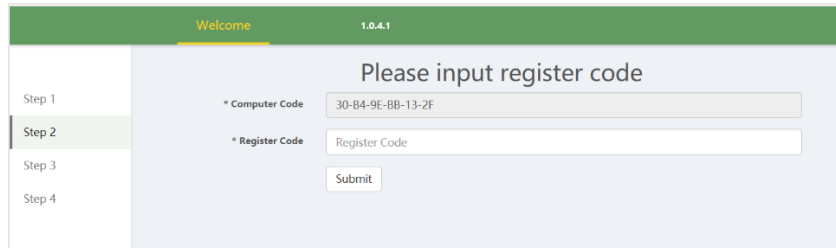
**4. Deployment and management**

- a. **Basic requirements of the server.**

<b>Operation System</b>	Microsoft Windows Server 2003 or higher
<b>CPU</b>	Intel quad-core and CPU frequency of not less than Xeon 5410(2.33GHz)
<b>Network card</b>	Two Gigabit Ethernet
<b>Memory</b>	4G (or higher)
<b>Hard disk</b>	1TB
<b>CD-ROM</b>	DVR-ROM
<b>Others</b>	Supporting VGA display Supporting ordinary keyboard port and recommending usage of USB keyboard port Needing computer, operation and hard disk status indicator lamps

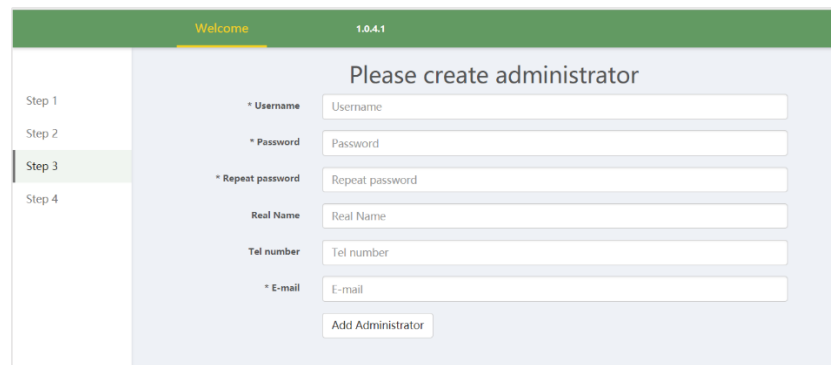
## 5. Web Configuration

- a. On initial setup please navigate to <your server ip>;port number. On access to this page step one of the initial setup will ask to confirm your language.
- b. Step 2. On initial installation you be issued a product registration code this will be added in this step.



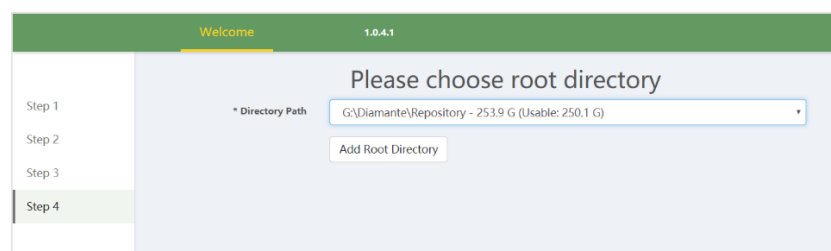
The screenshot shows a web interface with a green header containing 'Welcome' and '1.0.4.1'. On the left, a vertical sidebar lists 'Step 1' through 'Step 4', with 'Step 2' highlighted. The main content area is titled 'Please input register code'. It contains two input fields: '\* Computer Code' with the value '30-B4-9E-BB-13-2F' and '\* Register Code' which is empty. Below these fields is a 'Submit' button.

- c. Step 3. Taking note of your new login and password credentials please create them in this page.



The screenshot shows a web interface with a green header containing 'Welcome' and '1.0.4.1'. On the left, a vertical sidebar lists 'Step 1' through 'Step 4', with 'Step 3' highlighted. The main content area is titled 'Please create administrator'. It contains several input fields: '\* Username', '\* Password', '\* Repeat password', 'Real Name', 'Tel number', and '\* E-mail'. Below these fields is an 'Add Administrator' button.

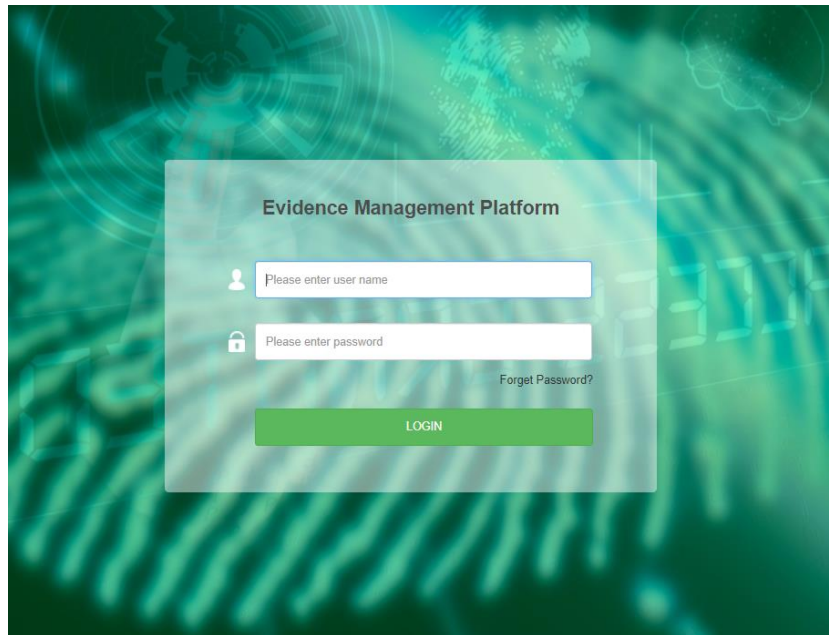
- d. Step 4. This will be the location where all of your data is stored within the server. This is a default path and can be amended to reflect your requirements



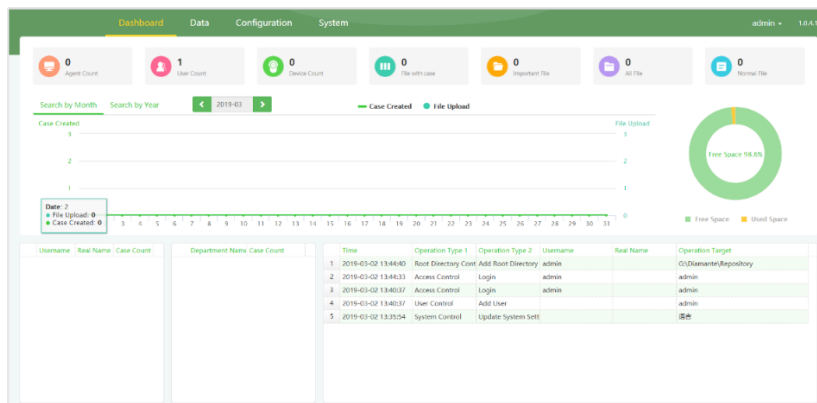
The screenshot shows a web interface with a green header containing 'Welcome' and '1.0.4.1'. On the left, a vertical sidebar lists 'Step 1' through 'Step 4', with 'Step 4' highlighted. The main content area is titled 'Please choose root directory'. It contains a dropdown menu for '\* Directory Path' with the selected value 'G:\Diamante\Repository - 253.9 G (Usable: 250.1 G)'. Below the dropdown is an 'Add Root Directory' button.

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- e. Once you have completed steps a – d you will be redirected to a login page as seen below:



- f. Once you have successfully logged in you will be taken to this landing page. We will go into further depth on this page later in the document.



## 6. Docking Station Configuration

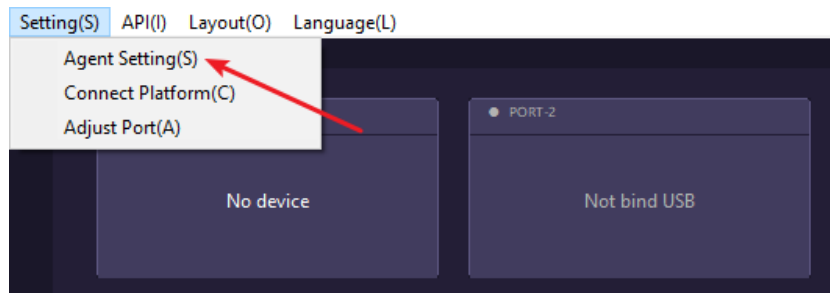
- a. On initial setup of the docking station to the monitor select the DEMSAGENT icon:



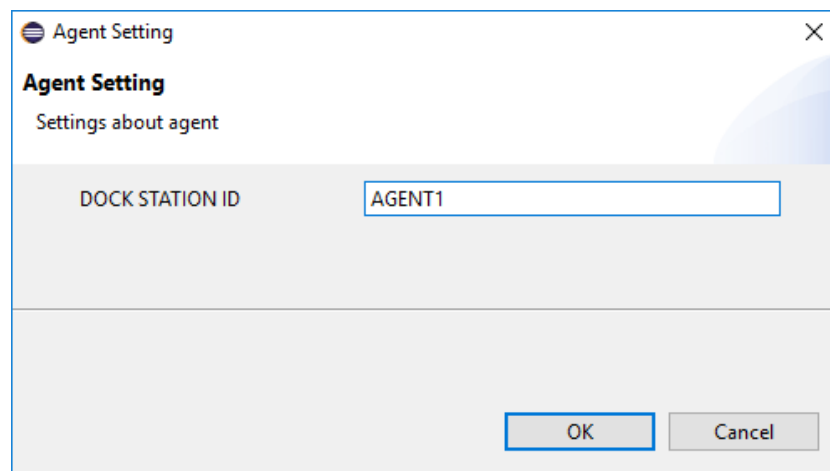
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- b. Navigate to setting(S)



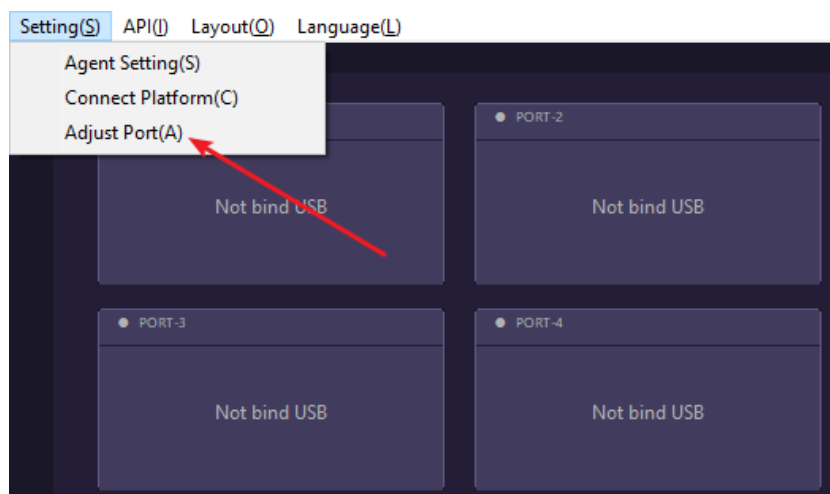
- c. Set the Docking Station ID to reflect your ID, in this example we use Agent.



- d. Select OK

7. To allow the port number on the Docking Station to reflect the port number on the AgentDEMS you will need to manually assign each port in these next few steps.

- a. Navigate to Setting(S), and select Adjust Port(A) from the drop down menu

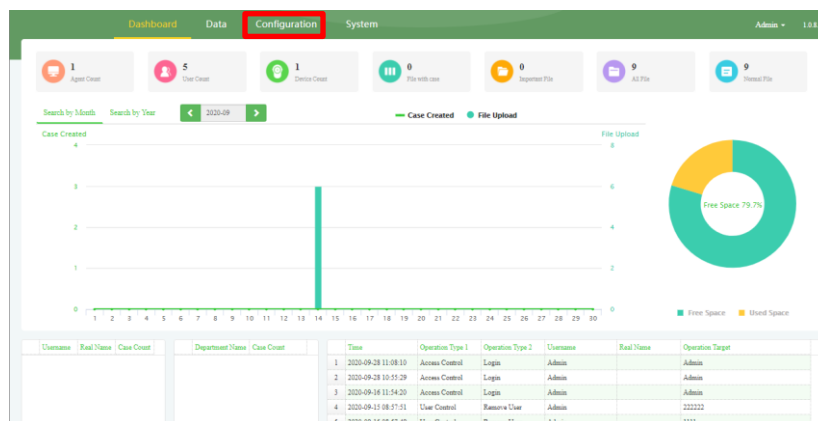


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- b. The ports on the DEMS will now turn orange and ask that you “put camera” in to the dock, select port one on DEMS then **with your BioAX camera turned on** place it into port one. Once the DS recognises your camera, the DS port will turn green and say success.
- c. Bind the ports one by one, ensuring that the camera is turned on prior to putting it into the DS. If you do not want to use a port you can select “skip this port”.
- d. On completion select “Finish Port Adjust”, and you will return to a screen that only shows the ports that have been bounded to that Docking Station.
- e. On initial setup of the DS you will need to connect to WiFi, do this as you would normally with a PC.

## 8. Using DEMS

- a. In order to use the DEMS platform with the docking station you will need to affiliate the docking station to the DEMS Agent that has just been created.
- b. Navigate to your <server ip:and port number> for example <http://20.50.114.197:8081/DEMS/web>
- c. In the top tabs select configuration

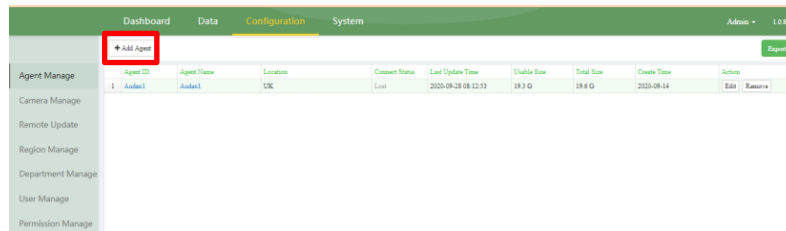


- d. Select Agent Manager

The screenshot shows the DEMS Agent Manager page. At the top, there are tabs for Dashboard, Data, Configuration (selected), and System. Below the tabs, there is an 'Add Agent' button and a 'Report' button. A table lists agents with columns: Agent ID, Agent Name, Location, Consent Status, Last Update Time, Usable Size, Total Size, Create Time, and Action.

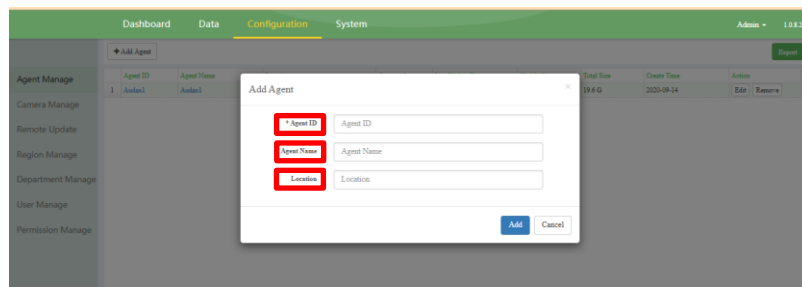
Agent ID	Agent Name	Location	Consent Status	Last Update Time	Usable Size	Total Size	Create Time	Action	
1	Audax1	Audax1	UK	Lost	2020-09-28 08:12:53	19.3 G	19.8 G	2020-09-24	Edit   Remove

e. Then Add Agent

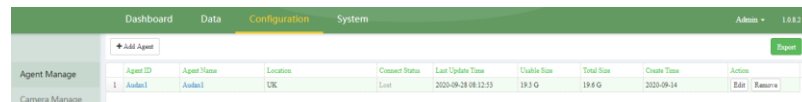


f. The Agent ID is the ID that you setup in step 5C earlier (this needs to match exactly and is case sensitive otherwise it will not be recognised).

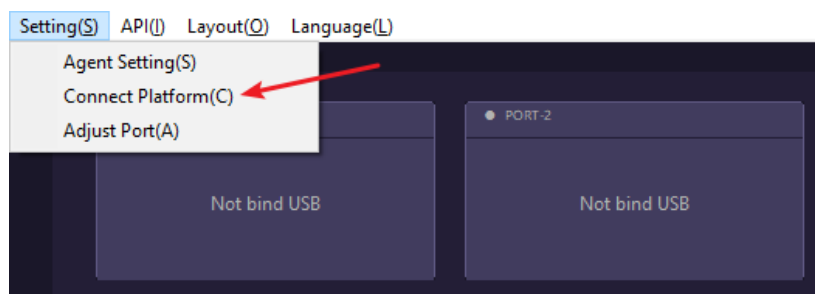
g. The Agent name can be amended to reflect the user, and the location box is optional.



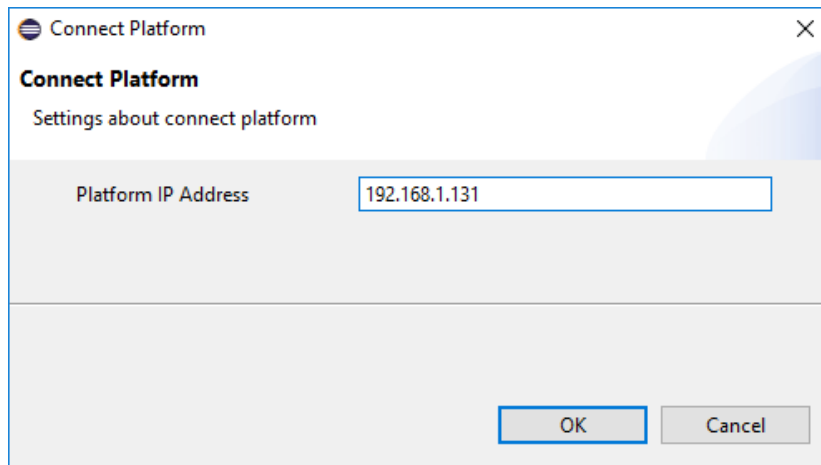
h. Once you have added your details, they will be visible as shown below



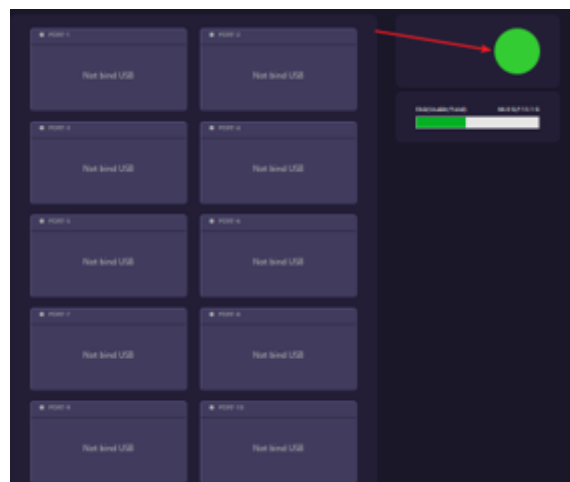
i. Move back onto the DEMS Agent application and select Setting(S), then Connect Platform(C) from the drop down



- j. The IP address needed to Connect platform is your servers IP



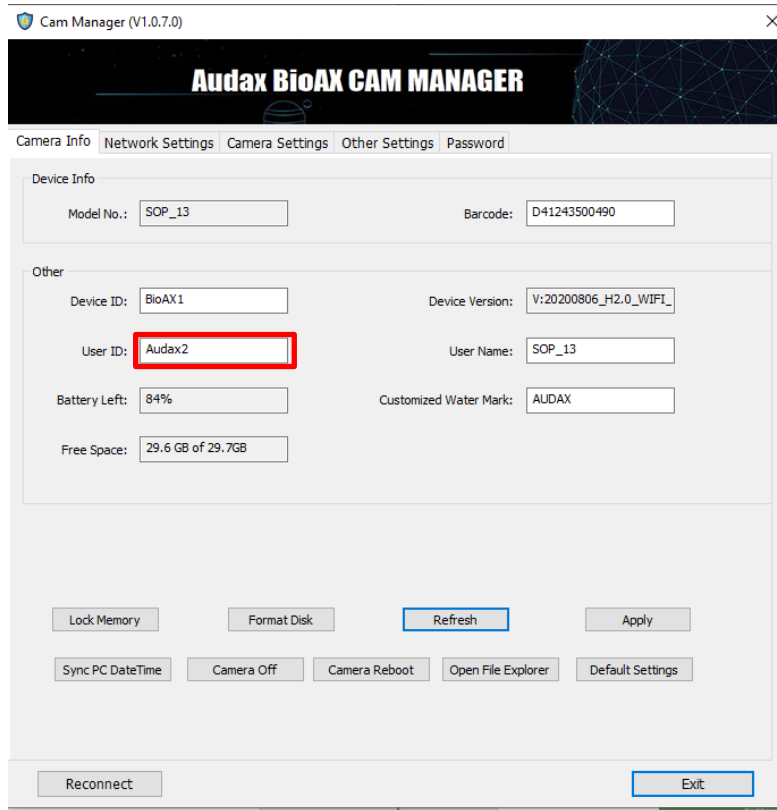
- k. Select OK, and restart the DEMSAgent to activate the connection to the server.
- l. A green symbol means you are connected to the server



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9. **Addition of Users to the DEMS**

- a. With the same UserID that has been allocated to the camera within the BioAX Cam Manager as seen below.



- b. To add a user navigate to Configuration, then User Manager, and Add User



- c. The top user will always be the Admin, additional users will be listed below. Select Add:

- d. All areas marked with an asterisk need to be populated, but the area highlighted needs to match the step mentioned earlier in paragraph 9a, then select Add.

## 10. Department Addition

- a. Within Configuration, select Department Manage in the left tab then Add.
- b. When you first add a Department this will be the HQ of all other departments for example Met Police, then with further addition of departments they can be broken down into boroughs or districts. An example can be seen below where Audax is the HQ and London is a sub unit.

Department Name	Create Time	Action
Audax	2020-09-14 12:47:15	Add Sub-Department Edit Remove
London	2020-09-14 12:47:25	Add Sub-Department Edit Remove

## 11. Permission Manage

- a. This page will allow addition or restriction of users and administrators as can be seen below.

Username	Real Name	Role	Menu	Readonly	Full Control
1 Admin		Admin	1 Case Manage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2 Audax2	Paul	User	2 File Manage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			3 Agent Manage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			4 Camera Manage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			5 Remote Update	<input type="checkbox"/>	<input type="checkbox"/>
			6 Region Manage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			7 Department Manage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			8 User Manage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			9 Permission Manage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			10 Root Directory	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			11 Operation Record	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			12 Repair Report	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			13 System Setting	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			14 Upload Time	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			15 Mail Sender	<input type="checkbox"/>	<input type="checkbox"/>

*A typical administrator will have all rights assigned*

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Username	Real Name	Role	Menu	Readonly	Full Control
1 Admin		Admin	1 Case Manage	<input type="checkbox"/>	<input type="checkbox"/>
2 Audax2	Paul	User	2 File Manage	<input type="checkbox"/>	<input type="checkbox"/>
			3 Agent Manage	<input type="checkbox"/>	<input type="checkbox"/>
			4 Camera Manage	<input type="checkbox"/>	<input type="checkbox"/>
			5 Remote Update	<input type="checkbox"/>	<input type="checkbox"/>
			6 Region Manage	<input type="checkbox"/>	<input type="checkbox"/>
			7 Department Manage	<input type="checkbox"/>	<input type="checkbox"/>
			8 User Manage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			9 Permission Manage	<input type="checkbox"/>	<input type="checkbox"/>
			10 Root Directory	<input type="checkbox"/>	<input type="checkbox"/>
			11 Operation Record	<input type="checkbox"/>	<input type="checkbox"/>
			12 Repair Report	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			13 System Setting	<input type="checkbox"/>	<input type="checkbox"/>
			14 Upload Time	<input type="checkbox"/>	<input type="checkbox"/>
			15 Mail Sender	<input type="checkbox"/>	<input type="checkbox"/>

A typical user will have only a number of rights assigned

## 12. Region Manage

- If you are a multi-national organisation you can assign regions within the region tab giving more autonomy to various sub units.

## 13. Remote Update

- Will allow an administrator to remotely upgrade the camera whilst deployed, **note only to be used in a maintenance period and not during operations.**
- To do a remote upgrade select the designated tab in the left of the screen

File Name	File Size	File Verify Code	Create Time	Action
AmbaSysFW.bin	50.2 M	3361344054	2020-09-07	Remove

MAC Address	File Name	File Verify Code	Status	Result	Fail Reason	Create Time	Close Time	Action
D4124500520	AmbaSysFW.bin	3361344054	Closed	Cancel		09-07 14:26	09-07 14:43	
D4124500520	AmbaSysFW.bin	3361344054	Closed	Failure	Replaced by new u	09-07 14:27	09-07 14:28	
D4124500520	AmbaSysFW.bin	3361344054	Closed	Cancel		09-07 14:26	09-07 14:27	

- Choose the firmware to import

File Name	File Size	File Verify Code	Create Time	Action
<input checked="" type="checkbox"/> AmbaSysFW.bin	50.2 M	3361344054	2020-09-07	Remove

- d. Select the camera, then select update firmware

	MAC Address	Username	Real Name	Device ID	User ID	Connect St	Action
1	D41243500490	Audax2	Paul	BioAX1	Audax2	Lost	Update Fir

## 14. System

- a. **Root Directory.** This directory is the directory where files are uploaded to the server and stored.

Platform Root Directory	Status	Used Size	Usable Size	Total Size	Load Ratio	Action
D:\DEMS\Repository	Enabled	3.3 G	94.4 G	67.7 G	4.8%	Disable

- b. **Operation Record.** The user's operation record can be queried according to the operation type, and the operation record can be exported to an Excel table.

Time	Operation Type 1	Operation Type 2	Username	Real Name	Operation Target	Description
2020-09-22 11:42:44	System Control	Update System Setting	admin			
2020-09-22 11:42:36	File Control	Confirm Remove File	admin		NOR_00000_00000_20200916111021_AA_N0001.MP4	
2020-09-22 11:42:33	File Control	Apply Remove File	admin		NOR_00000_00000_20200916111021_AA_N0001.MP4	
2020-09-22 11:42:32	File Control	Confirm Remove File	admin		NOR_00000_00000_20200916111021_AA_N0001.MP4	
2020-09-22 11:42:29	File Control	Apply Remove File	admin		NOR_00000_00000_20200916111021_AA_N0001.MP4	
2020-09-22 11:39:47	File Control	View File	admin		NOR_00000_00000_20200917101306_AA_N0001.AAC	
2020-09-22 11:39:37	File Control	File Edit	admin		NOR_00000_00000_20200917101306_AA_N0001.AAC	View Details
2020-09-22 11:39:23	File Control	File Edit	admin		NOR_00000_00000_20200917101306_AA_N0001.AAC	View Details
2020-09-22 11:39:12	File Control	File Edit	admin		NOR_00000_00000_20200917101306_AA_N0001.AAC	View Details
2020-09-22 11:39:04	System Control	Update System Setting	admin		Language	View Details
2020-09-22 11:23:31	Access Control	Login	admin			
2020-09-22 11:00:33	Camera Control	Bind Camera	admin	000003		View Details
2020-09-22 10:57:50	Camera Control	Unbind Camera	admin	000003		View Details
2020-09-21 17:48:33	System Control	Update System Setting	admin		Language	View Details
2020-09-21 17:40:15	System Control	Update System Setting	admin		Language	View Details
2020-09-21 17:38:54	Access Control	Login	admin			
2020-09-21 14:52:16	Access Control	Logout	admin			
2020-09-21 14:41:53	Access Control	Login	admin			
2020-09-21 10:58:44	Camera Control	Bind Camera	admin	000003		View Details
2020-09-21 10:58:44	Camera Control	Unbind Camera	admin	000002		View Details
2020-09-21 10:58:40	Camera Control	Bind Camera	admin	000002		View Details
2020-09-21 10:58:40	Camera Control	Unbind Camera	admin	000003		View Details
2020-09-21 10:58:09	Camera Control	Bind Camera	admin	000003		View Details
2020-09-21 10:58:09	Camera Control	Unbind Camera	admin	000003		View Details
2020-09-21 09:45:01	Access Control	Login	admin			
2020-09-21 09:45:01	Access Control	Logout	admin			

- c. **Repair Report.** Record camera repair records submitted by users. The administrator can perform targeted repairs based on the repair records submitted by users.

MAC Address	Time	Device ID	User ID	Username	Real Name	Title	Description
D41243500490	2020-09-11 10:23:33	000000	000002			test	test



## d. System Setting

- 1) The number of files uploaded by a single agent at the same time. The number range is 3-20.

Max Agent File Transfer Limit(3-20)

- 2) The total number of files allowed to be uploaded at the same time. The range is 5-100.

Max Total File Transfer Limit(5-100)

- 3) Set the retention time of files of various levels. The number of days that can be retained can be 30 days, 60 days, 90 days, or 120 days. Level 1 files can be retained forever.

Level 1 File Retention

Level 2 File Retention

Level 3 File Retention

Level 4 File Retention

Level 5 File Retention

- 4) Disk space capacity alarm percentage. If it is set to 80, when the disk capacity of the file station is 80%, a warning will be issued.

Disk Space Warning Percent(50-95)

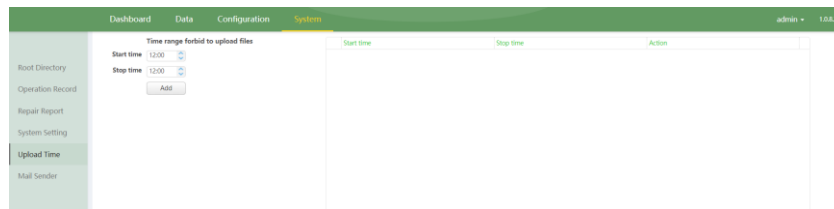
- 5) You can apply the settings of a certain camera to other machines, and fill in the MAC address to specify a certain camera.

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- 6) Set the default AES KEY, but when the machine does not set AES KEY separately, use this AES KEY to decrypt files.

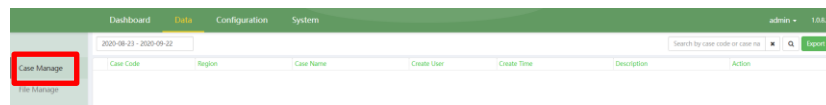
AES key

- e. **Upload Time.** You can set the time period when uploading files is prohibited. During this time period, the file will not be uploaded.

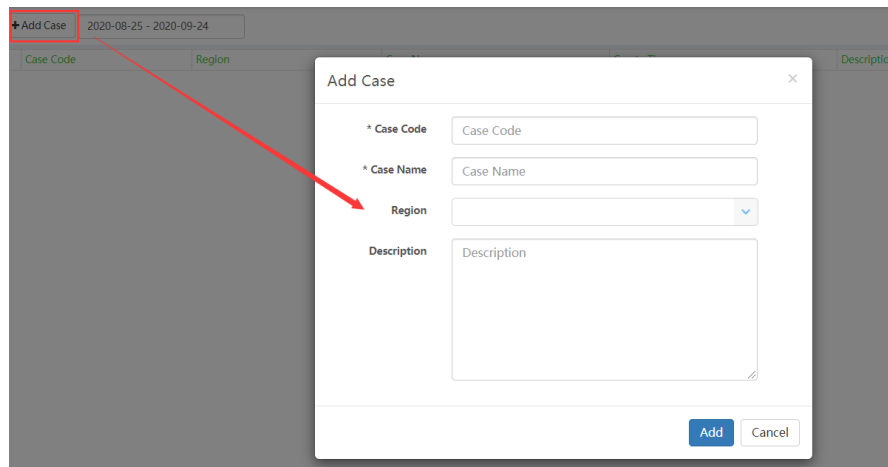


## 15. Case Manage

- a. Login with a non-admin user, and you will be able to add cases and assign files to different cases IDs.

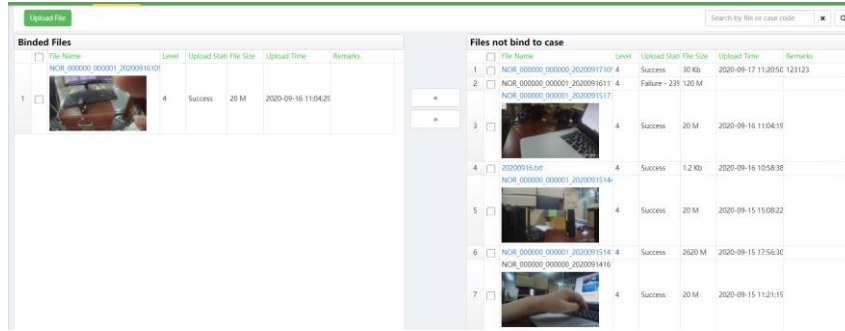


- b. Select Add Case. Input all the corresponding details to this particular incident



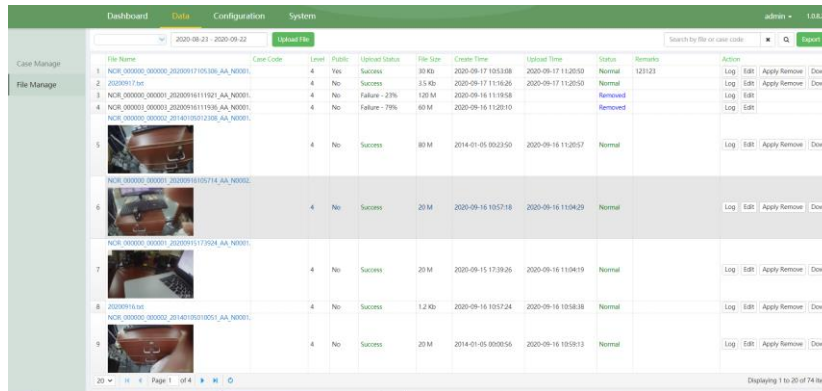
- c. In order to assign files to different cases, select *file manage*.

Case Code	Region	Case Name	Create Time	Description	Action
1 001	South	001	2020-09-24		File Manage   Edit   Remove

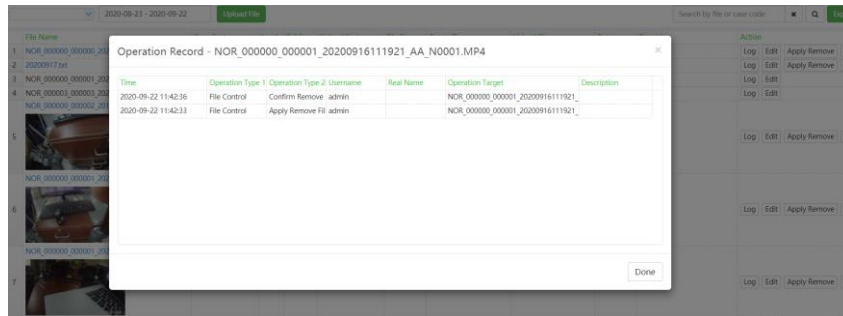


- d. The files in the left of the window are assigned to that case already, but anything in the right pane can be assigned also added to the case.

## 16. File Manage

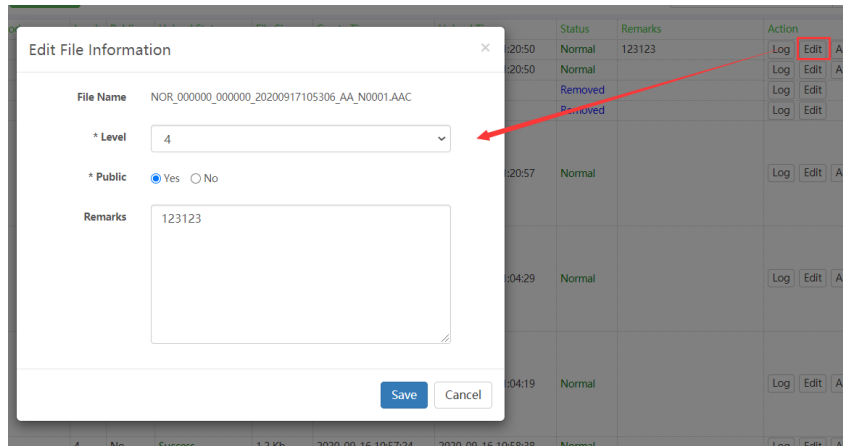


- a. You can view the operational records of the selected file.

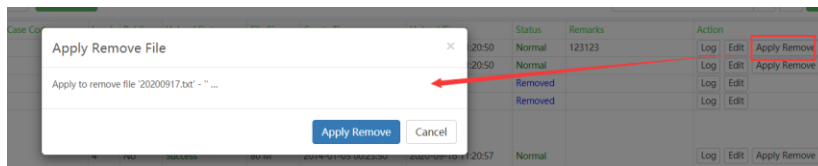


- b. **File information.** You can adjust the settings to make the file public/private and make additional remarks. The files are divided into 5 levels, and the retention time of each level file can be set in the system settings. If you set the file as a public file, all users can see the file.

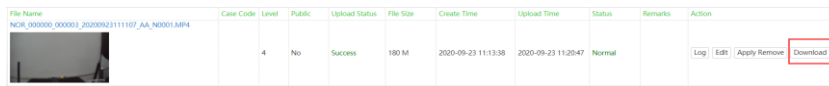
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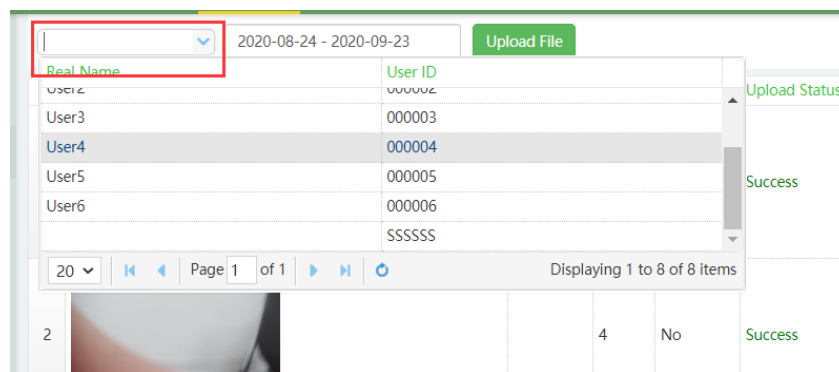
- c. **Remove files.** Note: After removing the file, there is still a record of the file in the list, but it cannot be viewed.



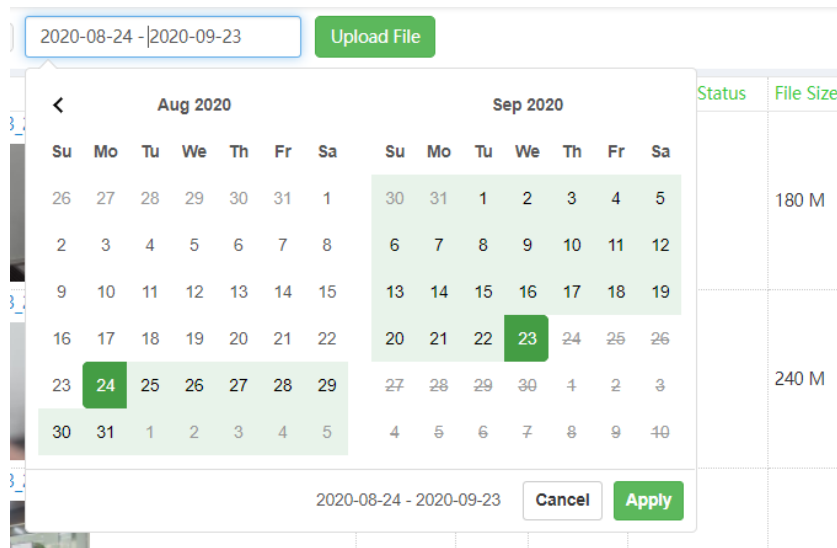
- d. **Download file.** File downloads are available and can be exported to other users.



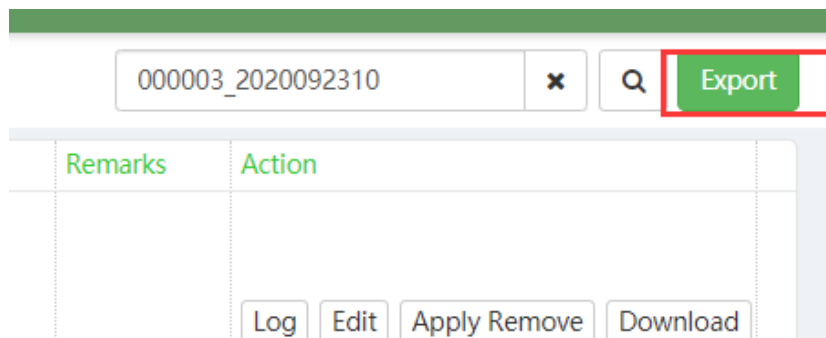
- e. **File Search.** Enhanced search feature will allow users to query the pictures uploaded by the corresponding user.



- a. **Date Search.** According to the date, you can bracket the corresponding files.



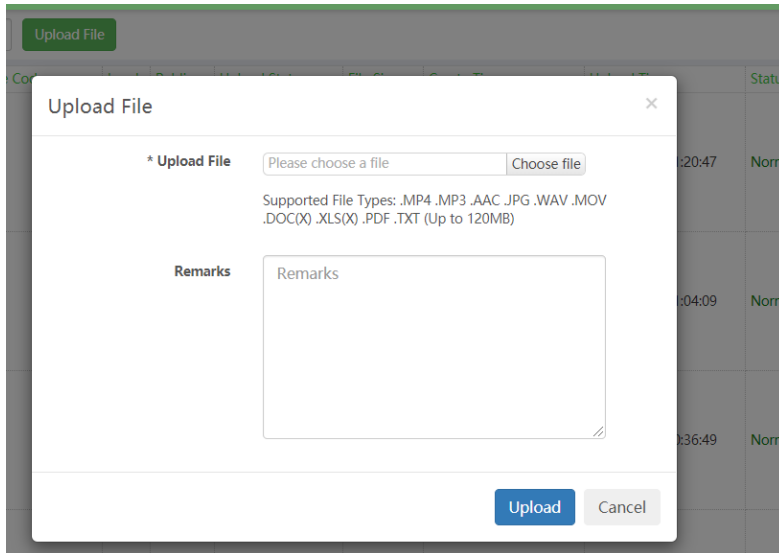
- b. **Export file information to Excel table.**



- c. **Exported as seen below**

	A	B	C	D	E	F	G	H	I	J
1	File Name	Case Code	Level	Upload Status	File Size	Create Time	Upload Time	Status	Backup	Remarks
2	NOR_000000_000003_20200923111107_AA_N0001.MP4		4	Success	180 M	2020-09-23 11:13:38	2020-09-23 11:20:47	Normal	No Backup	
3	NOR_000000_000003_20200923104824_AA_N0001.MP4		4	Success	240 M	2020-09-23 10:51:36	2020-09-23 11:04:09	Normal	No Backup	
4	NOR_000000_000003_20200923102311_AA_N0002.MP4		4	Success	100 M	2020-09-23 10:24:16	2020-09-23 10:36:49	Normal	No Backup	
5	NOR_000000_000003_20200923101810_AA_N0001.MP4		4	Success	440 M	2020-09-23 10:23:10	2020-09-23 10:38:30	Normal	No Backup	
6	NOR_000000_000003_20200923095300_AA_N0001.MP4		4	Success	220 M	2020-09-23 09:55:26	2020-09-23 10:16:36	Normal	No Backup	
7	NOR_000000_000003_20200923093739_AA_N0001.MP4		4	Success	200 M	2020-09-23 09:39:48	2020-09-23 10:12:40	Normal	No Backup	
8	20200923.tl		4	Success	1.4 Kb	2020-09-23 09:39:48	2020-09-23 09:41:39	Normal	No Backup	
9	NOR_000000_000003_20200922172829_AA_N0001.MP4		4	Success	40 M	2020-09-22 17:28:44	2020-09-22 17:35:16	Normal	No Backup	
10	NOR_000000_000000_20200922164032_AA_N0001.MP4		4	Failure - 11%	80 M	2020-09-22 16:41:12		Removed	No Backup	
11	20200922.tl		4	Success	2.1 Kb	2020-09-22 16:41:12	2020-09-22 16:42:06	Normal	No Backup	

17. **Upload File.** Supported File Types are:  
 .MP4 .MP3 .AAC .JPG .WAV .MOV .DOC(X) .XLS(X) .PDF .TXT (Up to 120MB).
- a. To upload select the file from the file path and select upload.



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Document ID:	Bio-AX® DEMS Manual	Version:	1.0
Date of Approval:	24/09/2020	Next Review Date:	24/09/2021