

# Navigator Control Center and View Manager 3.1 User Manual

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#### Introduction

#### Navigator Control Center 3.0

With Navigator Corporate servers, Navigator Control Center can be used as the video management software for Navigator Enterprise servers, NVRs/DVRs, and IP cameras. The differences between Navigator Corporate and Enterprise are: Navigator Enterprise is operated as a standalone recording device, whereas Navigator Corporate can communicate user database, event information, and device database among Navigator Corporate servers. Navigator Control Center can also manage Navigator Corporate servers. Main features of Navigator Control Center include:

- Hierarchical management for Navigator Corporate servers
- Centralized user management database via View Manager at remotes
- Centralized view groups management database via View Manager
- Pre-configured video groupings for user login
- Centralized event management via View Manager
- Centralized alarm management for cameras under Navigator servers
- Remote device management under Navigator servers
- Centralized HDD/device report management for Navigator Corporate servers

For remote live monitoring, a user can customize viewing window. User authentication allows accessing a user's own grouping windows. Remote video playback and backup allows remote access to the video clips in Navigator Software, NVR, DVR, and/or IP camera SD card. Device status report such as video loss information, recording status, and connection status can be provided by the software.



Note: Navigator Enterprise cannot be managed by Navigator Control Center.



#### View Manager 3.1

The View Manager is a 64-bit Windows program that supports up to 65,000 cameras and 128 group views. Each group views can have a maximum of 36 channels. This software is an ideal solution for managing a large amount of installations across the Internet.

The View Manager 3.0 can manage LILIN Navigator Corporate servers, NVRs, and DVRs. The major features of the View Manager include remote live monitoring, remote video playback, remote video backup, remote device status report, PTZ control, and user authentication.



View Manager System Requirements

- Processor: Intel i7 Quad core 3.0 Ghz and above.
- Memory: 8GB DDR3 and above (Recommended: 16GB and above).
- Operating System: Windows 10 64Bit (Recommended: Professional Edition Version 1803 and above).
- Graphics Card: GTX1650 same level and above (Recommended: 4GB and above).
- It is recommended to use dedicated graphic cards.
- It is necessary to connect a physical monitor or install a virtual EDID emulator, otherwise Direct3D will
  not work normally, resulting in black screens in real-time and playback videos.
- Please do not connect Virtual EDID simulator and external output simultaneously.





### Acronym

NCC: Navigator Control Center NAV: Navigator server or Navigator software PTZ: Pan, tilt, and zoom camera DVR: Digital video recorder NVR: Network video recorder HDD: Hard disk drive FPS: Frame rate per second OSD: On-screen display ANPR: PC based number plate recognition system LPR: Edge license plate recognition camera

### Function Keys of View Manager

Press F1 to expand the screen to the full screen. Press F1 again to return to the normal mode.

Press **F2** to see the bitrate and frame rate (FPS) information, which can be used to determine the smoothness of the video. When the bandwidth is very low, a user chooses a proper stream according to the bandwidth information.



Press F2 to see the device name and time combination display mode. There are 6 display modes as follows:





### The device streaming has 2 display modes available.

The following information can be displayed:

- 1. Resolution, Number of Frames (FPS), Streaming Size (bitrate), channel number
- 2. Resolution, Number of Frames (FPS), Streaming Size (bitrate), channel number [QXX,CXX,4p/5p]



The Q, C, P, i, j numerical description is as follows:

Q (Queue Value)	<ul> <li>Image processing buffer reference value, theoretically Q10 is the best.</li> <li>The lower queue reduces the delay, but it will be affected by network packets and the video data will not be received completely.</li> <li>The higher queue will lead to the delay that will cause uneven picture.</li> </ul>
C1	CPU processing thread "C1~C4". If the image needs higher CPU processing, for example: 60/120/4K fisheye camera.
1	Intel GPU Decode
Ν	Nvidia GPU Decode
4P	H.264 P-frame
5P	H.265 P-frame
4i	H.264 i-frame
5i	H.265 i-frame
j	JPEG

GPU Decode is described as follows:

- CPU Decode(C) : The Intel CPU system automatically determines how many threads the device requires (C1~C4)
- Intel GPU Decode(I) : Supports Intel HD530 series and above.
- Nvidia GPU Decode(N) : Supports Nvidia GTX 1030 series and above.

In the early days when monitoring computers have to display multiple channels, but the CPU performance is insufficient, GPU decoding functions are used to greatly reduce the burden on the CPU and provide more analytic video monitoring through the graphics card. But now, the CPU performance is sufficient to cope with it and additional graphics card GPU is no longer required to aid the CPU.

List of Display Resolution is as follows:

CIF	320x240
VGA	640x480
480p	720x480
720p	1280x720
FHD	1920x1080
WFHD	2560x1440
QFHD	3840x2160



#### How to Login View Manager

Due to security reason, for the first time View Manager installation, a warning dialog box will appear to remind user to reset the password to log in. Please create the username and password on the User Manager page.



### How to Login Navigator Control Center

Once Navigator Control Center gets launched, enter "admin" and empty as username and password to login the system by default.



### Chapter 1 How to Add a Device

The LILIN Navigator Control Center supports IPScan protocol. IPScan protocol is quite easy for adding LILIN NAV, NVR/DVR, and IP cameras.

Login Name	1: admin	~
Login Type	Normal Mode	×
Username	admin	_
Password		_
Host Name	: 389	
LDAP Base Distinguished Name		
Username Path		
	OK Cancel	

註: 登入預設為「Normal Mode」, AD/LDAP 伺服器相關資訊,請參考 第七章節

### Chapter 1.1 IPScan

Mouse right click on **IP Scan Collection**, select **Refresh** and search for the supported DVR/NVR or IP camera within the LAN. The devices will be automatically scanned and archived to the IP Scan Collection.

Ξ ‡ ₽ ≱ ◊ ▷ 🖓 ฿ ©	≡ © ₽ ≛ ¢ ▷ & 8 ©					
× va	X     Viewer Manager     B    S☆ Local Host Viewer Collections     B    B☆ Local Host Viewer Collections     B    B    Scan Collections     B    B    Navigator Stations	6LILIN	6LILINI	<u> 6LILINI</u>	6LILIN	
E □ ☆ Viewer Manager      A □ ☆ Local Host Viewer Collections      D □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	■ egy manipation stations ■ egy Offline Map ■ C Online Map ■ Private Collections ■ A Vilk Collections	<u> GLILINI</u>	<u> 6LILIN</u>	<u> ¢LILINI</u>	<u> ¢LILIN</u>	
<ul> <li>■</li></ul>		Search	Settings	Please select the ty	/pe of device to sca	in
				UDP Device		
— — — — — — — — — — — — — — — — — — —				DHD		
– <b>□</b> 🛱 ASUS-I7-NB-APO,						EL



For IP Scan feature, there are menu systems when mouse right click on the device. The features are described below:

- Delete: Delete all devices from IP Scan.
- IP Scan: The IPScan scan the devices on a local area network (LAN).
- Device Information: The total number of network devices scanned



For the device feature on IPScan tree diagram, there are menu systems when mouse right click on the device. The features are described below:

- Delete: Delete a device from IP Scan.
- Add Device to NAV Station: Add a device to the NAV Station.
- Add Device to Private: Add a device to a specified group.
- Property: The property of a device.
- Launch Browser: Open the device with a browser via port 80.
- Reboot Device: Remotely reboot a device
- Device Information: Display the detailed device information including device name, firmware, IP address, MAC, model, and etc.



The device information is described as follows:

- Device: The device name.
- Version : The device firmware version.
- IP Address: The device IP.
- Model: The device type.
- Feature: The device model.

The status is described as follows:

- Last scanned time: The last scan time of the device.
- Check connection: The device has not been detected on the Internet for more than a day (ex:Device lost).



- Check Recording: The device has not been added to any NAV host for recording.
- View setup: The device has not been added to any view group.
- Setup Device: The device (has an account and password set) but has not been connected to obtain information (ex: IP Cam profile, DVR/NVR max channel...).
- Setup password: The connection account password of the device has not been set.

### Chapter 1.2 Device Status Icon

Navigator Control Center can display the device connection status. Device status icons are useful for system installers to identify and to diagnose the issues of remote devices.

	1111300 11,11132110020.00
	NAVFAE, IP:192.168.3.178
	NB19001, IP:192.168.150.77
- 44	NVR_201 IPR7424(Y.P), IP:192.168.5.201
- 4	NVR_202 IPR7424/8E, IP:192.168.5.202
100	NVR_203 IPR722test, IP:192.168.5.203
	NVR_205 IPR7334/8, IP:192.168.5.205
	NVR_206 IPR7424, IP:192.168.5.206
	NVR_206_IPR7424-22 dd, IP:192.168.3.218
6	NVR_208 IPR7424/8E, IP:192.168.5.208
	NVR_210 IPR7424/8F, IP:192.168.5.210
- 10	NVR_211 IPR7424/8E, IP:192.168.5.211
	NVR_212 IPR7424/8E, IP:192.168.5.212
	NVR_213 IPR7424/8-IVS, IP:192.168.5.213

The statuses of devices are described below. These can help installers to troubleshoot the settings of an installation site.

lcon	Device status	lcon	Device status
	NAV: IPScan OK		Camera: IPScan OK
	NAV: IPScan NG, connection: NG	X	Camera: IPScan NG, connection: NG
	NAV: IPScan OK, connection OK, authentication: OK		Camera: IPScan OK, connection OK, authentication: OK
	NAV: IPScan OK, NCC OK		Camera: IPScan OK, NCC OK
	NAV: IPScan OK, View Manager OK		Camera: IPScan OK, View Manager OK
	NAV: IPScan OK, NCC OK, View Manager OK		Camera: IPScan OK, NCC OK, View Manager OK
lcon	Device status	lcon	Device status
	NVR/ DVR: IPScan OK	0	PTZ: IPScan OK
	NVR/ DVR: IPScan NG, connection: NG	K	PTZ: IPScan NG, connection: NG
	NVR/ DVR: IPScan OK, connection OK, authentication: OK		
	NVR/ DVR: IPScan OK, NCC OK		
	NVR/ DVR: IPScan OK, View Manager OK		
	NVR/ DVR: IPScan OK, NCC OK, View Manager OK		



### Chapter 1.3 Device Filter & Quick Camera Browsing

To create a camera display screen, drag the camera and DVR/NVR to the **camera view**. If you want to quickly browse the camera screen, move the mouse to the scanned IP camera and the camera information along with the snapshot will be displayed.



To manage hundreds or thousands of cameras, you can use the device filter to quickly search for the device. Enter the keyword of the device to be searched, and click  $\blacksquare$  to select the searched camera in the quick box. Then, drag the camera to **camera view** to quickly create and manage the camera.

Click on  $\blacksquare$  to search for the device. To end search, click on  $\blacksquare$  to clear the search keyword.

Chapter 1.3.1 Batch IP Cameras Settings for Username and Password

For quick set up of cameras all at once, enter the device name in the Device Filter. Click I icon for selecting the cameras for setting username and password.

- ☆ My Machine			A Director and a second second	and the second so the	discribe as calculate 175	and an Alexand 7, 71 Income	ne", "Password", Before pre	- Thisish? starss seens
12 My View							eck the user account and i	
- Sz My View	After finished all set	ttings, press "Finish.						
☆ My View								
D IP Scan Collections	Test Connection	Name	IP Address	Port	Username	Password	Connection state	Options
🚙 , IP:192.168.0.200, ti	1	AE-IPC1322SA	192,168,99,67	80	admin	****		options
🖼 ////, IP:192.168.3.2	1	AE-IPC1322SA	192,168,99,67	80	admin	****		
4 00VV00_CK-CAM-I	~	AE-IPC1322SA	192,168,99,64	80	admin	****		
00VV00_CK-CAM-I	1	AE-IPC1322SA	192,168,99,165	80	admin	****		
圮 192.168.26.205, IP:1	~	AE-IPC1322SB	192,168,99,168	80	admin	****		
🖼 192.168.26.212 SD	~	AE-IPC1322SA	192.168.99.177	80	admin	****		
😼 3U-16108B, IP:192.1		The In Crocebort						
🕶 <u>6.203 IPR7424/8, IP</u>								
AE-IPC1322SA, IP:11								
AE-IPC1322SA, IP:11								
AE-IPC1322SA, IP:1 AE-IPC1322SA, IP:1 AE-IPC1322SA, IP:1								
AE-IPC1322SA, IP:11 AE-IPC1322SA, IP:11 AE-IPC1322SA, IP:11								
AE-IPC1322SB, IP:15								
AP-053, IP:192.168								
G AiP-U53, IP:192.168								
AWL8822E2. IP:192								
cam-OEC016. IP:19.								
🖙 cmx 1.3m test7. IP:1								
🕶 cmx 26.189-(改名测								
🖙 cmx 26.209 IPR7424			Connect All					
<ul> <li>cmx 26.209 IPR7424</li> <li>CMX 26.216, IP:192.</li> <li>CMX 26.216, IP:192.</li> </ul>	Connect	t	Connect All					
🖙 CMX 26.216, IP:192.	Connect	t	Connect All					

Click the menu 🗏 icon in the upper left corner. Then, click on 🔟 IP Scan Batch Setting





Please confirm the connection status of the device, and then enter a valid account and password. Then, click OK.

				Port	IP Address	Name	est Connection
cmx 26.209 IPR7         192.168.26.209         80         admin         ****         The network connection is failed.           CMX 26.236         192.168.26.236         80         admin         *****         Connected successfully.         Advances		****	admin	80	192.168.28.96	D1 IPS2128 早期	
CMX 26.236 192.168.26.236 80 admin +++++ Connected successfully. Advanced		****		80			
AIP-O53 192.168.28.66 80 admin ++++ Connected successfully. Advancer							
	Connected successfully. Advanced	****	admin	80	192.168.28.66	AiP-O53	
							_

Chapter 1.4 How to Add a Navigator Corporate to Navigator Control Center

To add a Navigator, click on **Main Menu** and select **Add a new NAV station**. Then, the online NAV station can be added.



On the Station Setting page, click on the scanned NAV station, and click OK. The NAV station will be added in the Navigator Control Center. If the camera has been assigned to the NAV station, the camera will be added only once for its recording.

() [ 고 쇼 이 ) 192.165.26 국가 Viewer Manager 국가 Viewer Manager 국가 Viewer Manager 국가 Viewer Manager 이 IP Scan Collections Novigator Stations 비해 NGC Counter Collections	Q								? 🗆 – A
이에 Nap 이 아이에 Nap 이 안 Private Collections 아이 URL Collections	Station Setting	This is the wizar	d for adding a N	AV recorder.					
		Station Name	IP	Tree structure mode	Redundant mode	Version	Port	Easy Mode ^	
	Property	Net YES 1 Net YES 19 Net YES 19 Net YES Net YE	192,143,361 192,143,36 192,143,36 192,143,36 192,143,36 192,143,36 192,143,36 192,143,36 192,143,36 192,143,36 192,143,31 192,143,36 192,143,36 192,143,36 192,143,36 192,143,36 192,144,36 192,145,36 192,145,36 192,145,36 192,145,36 192,145,36 192,145,36 192,145,36 192,145,36 192,145,36 192,1	Enable Enable Tender Met suspont Met suspont Met suspont Sear scoogaancyct92 Uars scoogaancyc192 Var scoogaancyc192 Met suspont Met suspont Met suspont Met suspont Net suspont Net suspont Net suspont Net suspont Net suspont Net suspont Net suspont Net suspont	Erable Drable Drable Drable Drable Drable Drable Erable Drable Drable Alis support Net support Net support Net support Net support Net support Net support Net support Net support Net support	030000.17294 030000.17294 03000.17294 03001.629 03001.629 03001.07296 03001.0729 03001.0729 03001.0729 03001.720 03001.720 03001.720 03000.74 03000.74 03000.74 03000.720000.720000000000000000000000000	0 8092 8023 8021 8021 8021 8021 8021 8021 8021 8021	1962 1962	
						۲	) (ок		
	0,								



For adding NAV station manually, click on **Property** and fill in the related information on the fields below to connect to remote Internet devices. For information security, below data must be set to connect to the remote NAV station:

- IP: IP address of NAV station.
- Port: Port number of the NAV station. The default port is 8021.
- Username: The username of the NAV station.
- Password: The password of the NAV station.
- Service Type: The service type of the NAV station. The service type is described below:

Station Setting	Check the prop	erty and confirm it.		
Station Setting Property	Remote Host Name Remote CUD Verification Code Server Code P Port Utername Rassword Server Type	NAV 1234567999 arritocod001 1932.168.26.85 8021 ddmin Redundant mode v		
			۲	

The service types include redundant mode and tree structure mode. Below left diagram is the NAV station redundant mode, and below right diagram is the NAV station tree structure mode.

NAV Redundant Mode: suitable for single point multiple camera installation. NAV Tree Structure Mode: suitable for multiple points, multiple layers camera installation.



Chapter 1.5 Add a DVR/NVR to the View Manager

Add the DVR/NVR to IP Scan Collection, and the scanned devices can be quickly added.





Mouse right click on the menu **Property** to set the NVR/DVR related settings including IP address, username and password.



- Name : Camera name
- Device Type : Camera location
- IP/DNS (Required Field) : IP address of the camera
- HTTP Port (Required Field) : The HTTP port number of the camera, DVR or NVR.
- Onvif Port (Optional Field): Standard ONVIF protocol third-party device.
- Camera Video Port : RTSP URL for a camera if you want to use RTSP URL for video connection.
- Subnet Mask: Device's subnet mask.
- Gateway: Gateway address of the device.
- Username : The username for the camera.
- Password (Required Field) : The password for the camera.
- Main Stream: Main stream resolution.
- Sub Stream: Sub stream resolution.
- Synchronize Time with PC: Time and date can be synchronized to NVR/DVR through the View Manager server. (Excluding time zone and other settings.)

Property	Please input the co	orrect user name and password then press "Live" to check connection	
#Cam 002 V V Live	Name Device Type IP/DNS HTTP Port (ex: 80) Orwf Port (Optional) Camera Video Port Subnet Mask Cateway Username Password Password	• •	
		ОК	



### Chapter 1.5.1 Video Settings of Device IPCAM Property

This page describes how to set the video parameters.

- Profile: Main Stream, Sub Stream, JPEG compression codec settings.
- Codec: H.265, H.264, JPEG compression mode.
- Resolution: Screen resolution switch.
- Video Source: IPCAM image source.
- Protocol: RTP/UDP/TCP/HTTP Network protocol settings.
- Frame Rate: Frame rate of the device image.
- Bit Rate: Device bit rate.
- Quality: Device video quality.
- GOP Length: Video stream is the arranged succession of pictures between I frame and I frame.

Property	Press "Apply" to	o change video settings
Property	Profile	profile:1
Video Settings	Codec Resolution	H264 ~ 1920X1080 ~
Image Settings	Video Source Protocol	0 V RTPITCP 554 Port (default V
	Frame Rate = 15 (1 ~ 60) Bit Rate = 2048 (0 ~ 0) Quality = 20 (20 ~ 80)	
profie1 v	GOP Length = 15(1~60)	
Connect	🔽 RTSP Keep Alive	Арріу

Chapter 1.5.2 Image Settings of Device IPCAM Property

This page describes how to set the image parameters.

- Brightness: Camera image brightness.
- Contrast: Camera image contrast.
- Saturation: Camera image saturation.
- Sharpness: Camera image sharpness.
- White Balance Mode : Camera color temperature and white balance (Cb: Chromacity of blue and green, Cr: Chromacity of red and green).
- BLC Mode: Increase light exposure for low bright area.
- WDR Mode: When exposed to strong light sources and low-brightness areas simultaneously.
- IR Cut: When there is sufficient visible light (for example: daytime), the infrared filter will block infrared rays from entering the image sensor, and the camera will only receive visible light, and its image will show true colors. When the visible light is insufficient (for example: at night), the infrared filter will be disabled, allowing infrared rays to enter the image sensor, so that the camera can make full use of all the light and improve the low-light performance. In practical applications, when the infrared filter is disabled, the camera will automatically switch to black and white mode.



Property	Press "Apply" to change image settings
Property	Brightness = 55.00 (0.00 ~ 100.00)
Video Settings	Saturation = 50.00 (0.00 ~ 100.00)
Image Settings	White Balance Mode Auto 🗸
	White Balance Cr BLC Mode Off V BLC Level
profile1	aLLere WORMode Off ✓ WORLere!
	RCot Auto ✓
Connect	

Chapter 1.6 Quick Add a Device Group IP Camera / NVR / DVR

You can customize and select a different IP camera, NVR and DVR. And quickly set the connection account password at the same time.

= ♀ ፨ ₽ ≛ ♥ ▷ ♥	
X	a
∎ ■☆ Viewer Manager	ſ.
■ 🗹 🔁 IP Scan Collections	
- 🗖 🎞 , IP:192.168.0.200, timeout	
- 🗖 🗖 , IP:192.168.99.210, need setup	
- 🗖 🖬 00VV00_CK-CAM-IN302, IP:192.168.137.252, need s	
- 🗖 🗔 192.168.26.205, IP:192.168.28.115, need setup	
- 🗖 🗖 🗖 🗖 🗠 🖂 🗠 🗠 🗠 🗠 🗠 🗠 – – – – – – – – – – –	
📲 🚟 3U-16108B, IP:192.168.26.88 need check profile/vide	
6.203 IPR7424/8, IP:192.168.26.203 need check profi	
- 🗖 🔤 AE-IPC1322SA, IP:192.168.99.165, timeout	
- 🗖 🕰 AE-IPC1322SA, IP:192.168.99.177, need setup	
🗹 📧 AE-IPC1322SB, IP:192.168.99.168, need setup	
- 🗹 📼 AiP-O53, IP:192.168.28.66, need setup	
- 🗖 🔤 AiP-U53, IP:192.168.28.71, need setup	
- 🗖 🕰 AWL8822E2, IP:192.168.99.244, need setup	
- 🗹 🖾 cam-OEC016, IP:192.168.100.100, need setup	
🚽 🗖 🖬 cmx 1.3m test7, IP:192.168.26.49, need setup	
🚽 🗹 🏧 cmx 26.209 IPR7424/8, IP:192.168.26.209, need setu	
- <mark>⊠≋</mark> CMX 26.216, IP:192.168.26.216, need setup	
- 🗹 🚾 CMX 26.236, IP:192.168.26.236	
🛛 🖛 cmx 26.237, IP:192.168.26.237 need check profile/vic	
- 🗖 🗔 cmx 6.221 5F(測試中,勿用物�, IP:192.168.28.117, need	
<mark>⊠氧</mark> D1 IPS2128 早期, IP:192.168.28.96, timeout	
DANIELAPO5F, IP:192,168,3,20, need setup	

**Note:** The View Manager supports connecting multiple DVRs. If the connected 16-ch DVR reached 3 units and above, the View Manager will display I frame.

Click the 🗏 Menu in the upper left corner, click on 🖾 Device Connection Setting

$\equiv$	Ţ	ŝ	Þ	<u>به</u> ر	Ф	$\triangleright$	٩
X	Ŕ	Global A	larm S	etting		•	
	ŝ	Device (	Connec	tion Se	tting		
∎⊸⊽		Exit					+



Please confirm the device's connection state and enter a valid username and password. Then, click on **OK**.

Test Connection	Name	IP Address	Port	Username	Password	Connection state	Options
2	D1 IPS2128 早期	192.168.28.96	80	admin	****	The network connection is failed.	
3	cmx 1.3m test7	192.168.26.49	80	admin	****	Connected successfully.	Advanced
2	cmx 26.209 IPR7	192.168.26.209	80	admin	****	The network connection is failed.	
3	CMX 26.236	192.168.26.236	80	admin	*****	Connected successfully.	Advanced
3	AiP-O53	192.168.28.66	80	admin	****	Connected successfully.	Advanced
~							

### Chapter 1.6.1 Add a Remote DVR/NVR to View Manager

For adding a remote DVR/NVR via Internet, right-mouse-click on Private Collection for select Add Group for a DVR/NVR.



Select the added group, right-click on "Add Channel".





Or search IPCAM/DVR/NVR from IPScan and add to the Private group.



Select DVR/NVR-H264 or AHD/DHD series driver. Click "Detect" for auto detection.

Device Type	LILIN IP Camera	✓ Detect	
IP/DNS	LILIN IP Camera DVR/NVR-JPEG		
HTTP Port (ex. 80)	DVR/NVR-H264 AHD/DHD Series NAV Live Streaming		
Onvif Port (Optional)	0		
Camera Video Port	554		

Enter IP/DNS address, HTTP port, ONVIF port, video port, username, and password.

Private Device	Please input the co	prrect user name and p	bassword then press "Connect" t
	Name Device Type IP/DNS HTTP Port (ex. 80) Onvif Port (Optional) Camera Video Port	NVR AHD/DHD Series VDVR,NVR-H264 AHD/DHD Series Third-party AHD/DHD series NAV Live Streaming 0 554	
CAM05-SECOM	Username Password	lin •••••	



Click on Connect button for testing the video. Once this setup is finished, you can start to setup the view, playback the video, or perform remote video backup.

Private Device	Please input the c	orrect user name and p	bassword then press "Connect" t
	Name Device Type IP/DNS HTTP Port (ex. 80) Onvif Port (Optional) Camera Video Port	NVR5832 DVR,NVR+H264 ~ 192.168.3.169 80 0 554	
CAMOS-	Username Password	lin 	

After completing the setting, drag the mouse to add it to the screen group, and you can start to watch real-time images, remote playback, and backup and other functions.



Chapter 1.6.2 Modify custom groups connection information IPCAM/NVR/DVR Select the group, right-click on "Modify".





Modify the IP/DNS address, HTTP port, ONVIF port, video port, username and password. Then click the Connect button to connect to the IPCAM/DVR/NVR video screen. When the settings are completed, you can start to use the functions including live view, remote playback, and backup.

Modify	Please input the o to check connecti	orrect user name and j on	password then press "Connect"
		IPCAM-LPR	
		AHD/DHD Series	Detect
		192.168.26.211	
		80	
		80	
		554	
IPCAM-LPR V			
		admin	
		•••••	
		profile1	2
	Substream	profile2	
Connect			

### Chapter 1.7 Window View

Under View Manager, mouse right click and select Add View, then fill in the following fields:

- View Name : Enter the view name.
- Windows : Select the camera split screen view.

To flexibly set the camera group, please use the mouse cursor to drag the grid for defining the split screen.



Chapter 1.7.1 Local Host Viewer Collections Right-Click Menu

- Add View: Add group view on split screen.
- Connection: All devices are connected, all devices are disconnected, and delete all channels of the group.
- Device Information: The Local Host connected IP address and connected group.





Chapter 1.7.2 View Group Right-Click Menu

- Modify: Modify group name and split screen.
- Delete: Delete a group.
- Channel Highlight: Quickly fine new devices in the group.
- Device Information: Group name, group number, number of divisions, number of connections.



# Chapter 1.7.3 Select On Screen Camera

Quickly find the added devices in the group and highlight them to get attention and serves as a reminder.



# Chapter 2 Live Monitoring of View Manager

First, please log in to View Manager. The default username is "admin", and leave the password blank.

To change user, please click "Change User" A and enter your username and password.

Navigator Client 64 bits User Login	
Login Name	1: admin v
Login Type	Normal Mode 🗸
Username	admin
Password	
Host Name	: 389
LDAP Base Distinguished Name	
Username Path	
Save	OK Cancel



Supports group settings for storing multiple accounts and passwords, may set up to 128 groups.

Navigator Client 64 bits Change User		
Login Name	1: admin	~
Login Type	1: admin 2: 5566 3: Guest01	^
Username	4: VIP 5: Manager	
Password	6: 7: 8:	
Host Name	9: 10:	
LDAP Base Distinguished Name	11: 12: 13:	
Username Path	14: 15:	
Save	16: 17: 18: 19:	

**Note:** If the existing user password is blank, please change it to comply with the information security policy.



# Chapter 2.1 Configure Live View Group

Click **Private Collections** to drag a device from the left pane to the right pane. You can also check multiple devices and drag them to the right.





Chapter 2.2 View Manager System Settings Advanced parameter setting

三口۞₽ 🚣 🗘 🖂	SEQ 🕲 ්ට්		View #01	
System				
	I frame Only Al channels are use to infernee Original video resolution in 1 Auto run spot monitor Double the size of image to	full screen mode		
	Anti-aliasing(High CPU Load) GPU Mode	Smart anti-aliasing Display hardware graphics		
	Connection Type Streaming Mode	Direct NVR/camera stream Dual Streaming Mode for t		
	Language Snapshot Path	English C:\navusers\Capture\SNAi	P\	

- 1. Iframe Only: When system resources are insufficient, the live view channel will display one frame per second to reduce CPU load.
  - All channels are set to iframe: All channels display one frame per second to reduce CPU load.
  - Channels not selected are set to iframe: The selected channel displays normally, and the remaining channels displays one frame per second.
- 2. Original video resolution in full screen mode: The size of the device original image (if not checked, the system will automatically adjust the image to the best suitable display area).
- 3. Auto run spot monitor: Automatically activate the spot monitor every time the View Manager is launched.
- 4. Double the size of image tooltips: The size of the tree diagram detailed device information is doubled.
- 5. Smart Anti-aliasing: Smart channel image edge smoothing.
  - Anti-aliasing mode (High CPU Load): Utilize CPU resources to soften image edges.
  - Disable anti-aliasing: Disable image edge smoothing.
- 6. GPU Mode: CPU hardware accelerated video decoding (Default)

• GPU decode and display, display high priority: Intel or NVIDIA graphics card GPU hardware accelerated display and decoding. Image displays first priority, image quality and bandwidth second priority.

- GPU decode and display, decode high priority: Intel or NVIDIA graphics card GPU hardware accelerated display and decoding. The video channel will be displayed after decoding.
- 7. Connection Type: IPCAM/NVR/DVR device connection mode and NAV server image relay mode. (Note: NAV recorder only)
- 8. Streaming Mode: The default streaming mode of the device, when the device is dragged to the View Manager, this streaming mode will be used to create the camera canvas. If the network bandwidth is very low or the CPU computing power is limited, the SD Streaming (720 x 480) standard can be used. if the network bandwidth is good, please use Dual Streaming mode. If Streaming Mode is set at "Low Bitrate Mode", it will display one frame per second, which can be used to decode more than 144 frames to reduce CPU computing requirements and use lower bandwidth.
  - Dual Streaming Mode: Dual Streaming Mode (Multiple split screen SD, Full screen HD) 。
  - HD Streaming: Main stream HD mode.
  - SD Streaming: Sub stream SD mode.
  - SD Streaming at Low Bitrate Mode: Substreaming low bandwidth mode.
  - HD Streaming at Low Bitrate Mode: Mainstreaming low bandwidth mode.
  - Dual Streaming at Low Bitrate Mode: Dual-streaming low bandwidth mode .

Note: Streaming at Low Bitrate Mode supports connected to NAV recorder only.

- 9. Language: View Manager display language.
- 10. Snapshot Path: Snapshot storage path.



# Chapter 2.3 PTZ Control & Setting

Select a PTZ camera and click **PTZ Control** . Features include preset positions, PTZ controls, auto focus, and zoom in and out among others. These features can be operated via the network.

Click on **PTZ Setting** button. You are able to set up the PTZ position and save the preset positions.



#### PTZ Control Panel Description:

lcon	Function	Description
┍^┑ < ஊゝ └╷┙	Direction Button	Rotate the PTZ to 8 different directions including up and down, left and right, upper right and lower right, upper left and lower left.
r ^ J	Moving Speed	Select to adjust the speed of PTZ rotation (up to 7x).
Device Type: PTZ ~	Device Type	Select supported camera device type, ePTZ, PTZ, auto focus, Fish Eye.
1 2 3 4	Preset Recall	Up to 4 preset points can be recall instantly.
Preset Point:	PTZ Preset Point	Up to 128 preset points can be programmed.
	Zoom+/-	Adjust digital zoom in/out.
$\triangleright$	PTZ Auto Pan	Enable Auto Pan, Disable Auto Pan
	Auto Focus	Manual Focus +/- , Auto Focus AF
$\bigcirc \bigcirc \bigcirc \bigcirc$	Auto Iris	Manual Iris Far/Near, Auto Iris
۲	Preset Point Setting	Set auto pan preset positions.



# Chapter 2.3.1 On-screen PTZ Control

In full screen mode, click on on-screen control icon that can enable PTZ control by using a mouse. Use mouse scroll wheel for PTZ zoom in and zoom out.



# Chapter 2.3.2 On-screen Panoramic Camera Control

In full screen mode, click on on-screen control icon to enable panoramic camera control by using a mouse. Use mouse scroll wheel for camera zoom in and zoom out.





Drag the window at the panoramic view to adjust the ROI window. There are three mount types available - ceiling mount, desk mount, and wall mount.



#### Panoramic Control Panel Description:

lcon	Function	Description
Location: Ceiling Mount Ceiling Mount Table Mount Wall Mount	Location	Location: Ceiling Mount, Table Mount, Wall Mount
	R Mode	Full-screen panoramic view
	3R1O Mode	Three ROI views and one panoramic view
	4R Mode	Four ROI views
Η	2R1P Mode	One panoramic view and two ROI views
	2P mode	Two 180 degree views
	8R1O Mode	One panoramic view and eight ROI views
- B	Preset Point Setting	Provide up to 128 preset points storage.

### Chapter 2.3.2.1 Wall Mount Installation

The wall mount mode is different in some split screens and angles, please refer to the following.

lcon	Function	Description					
Η	2R1P Mode One180 degree view and two ROI views						
	1WP Mode	One wall mount 180 degree view					

### Chapter 2.4 Camera Shortcut Keys

- Live: Discontinue an image or remove a channel.
- Instant Playback (5mins): Playback the video archive 5 minutes ago.
- Backup: Single channel backup image data.
- PTZ Panel: PTZ camera mode.
- Streaming Mode: Streaming switch.



Streaming Mode				
	「PPドレスCMS名 HTTPボート Videoホート チャンネルNo. デバイスのライフ	192.168.30.211 8811 554 б рук,мук.+t264	Station Name Station IP Channel number of station Current view position Index of view	IP Scan Collections           192-168.100.100           11           2           5
	Connection Type Streaming Mode	Direct NVR/camera streamin		) CANCEL

- Station Name: Remote device host name.
- Station IP: Remote device IP.
- Channel number of station: Which device is the connected device in the Station list.
- Current view position: The current selected screen number
- Index of view: The screen group number currently being viewed
- Full Screen Mode: View Manager channel full screen mode.
- Reconnect: Reconnect the device.
- Speaker: If the device supports audio, select the channel and right-click on the screen. When the speaker is turned on, you can listen to the audio. To change the channel volume, click the volume control.



### Chapter 2.5 Short-cut for Audio Monitoring

If a device supports audio monitoring, select the channel and right-click on the screen. When the speaker turned **On**, you will be able to listen to the audio. To change the volume of the channel, click the **volume control**.

→ Backu る Strear	t Playback (5 mins) p ning Mode reen Mode nect	Cam 002 zzzz =	Count (1 Hour)	100	Date/Time (Last 60 days)	Violation Re	eport of NY Cit	y D X
Time 2020-09-26 12:03 2020-09-26 12:03	Device Name :38 EZR-245X	Local Host	Channe #016 #017	IP 192.168.3.154:80 192.168.3.225:80	Event The video loss detection is on The video loss detection is on			^



## Chapter 2.6 Dynamic Channel Editing

If you want to change the layout of the camera channels, you can drag a camera and drop it to another video channel. This operation swaps the position of the two cameras dynamically in the software. If you need to change the position of a specific camera after the installation is completed, you will not need to re-assign all the IP settings.



# Chapter 2.7 Alarm Event List

Click on the **alarm event list** to display the alarm event list. The alarm list includes: connection details, alarm events, POS event table, license plate recognition, counter, GPS satellite data, and station status and other data.

	2002 Cent 6		Count (1 Hour)	50 50 50	Violation Report of NY City	IX
Time	Device Name	Remote host	Channe	. IP	Event	
2020-09-26 11:38:14	Cam 002 zzzz	Local Host	#002	127.0.0.1:80	ANPR: [8768YL], Guest	
2020-09-26 11:38:14	Cam mask eee	PHILWORK_5	#002	192.168.3.12:80	Normal Temperature	
2020-09-26 11:38:15	Cam 002 zzzz	Local Host	#002	127.0.0.1:80	ANPR: [018JZK], Guest	
2020-09-26 11:38:16	Cam 002 zzzz	Local Host	#002	127.0.0.1:80	ANPR: [918JZK], Guest	
2020-09-26 11:38:16	Cam 002 zzzz	Local Host	#002	127.0.0.1:80	ANPR: [987HLF], Guest	
2020-09-26 11:38:16	Cam 002 zzzz	Local Host	#002	127.0.0.1:80	ANPR: [YL8768], Guest	
2020-09-26 11:38:19	Cam 002 zzzz	Local Host	#002		ANPR: [0431UW], Guest	
2020-09-26 11:38:21	Cam 002 zzzz	Local Host	#002	127.0.0.1:80	ANPR: [0431],Guest	
2020-09-26 11:38:22	Cam 002 zzzz	Local Host	#002		ANPR: [RCL3720],Guest	
2020-09-26 11:38:23	Cam 002 zzzz	Local Host	#002	127.0.0.1:80	ANPR: [AGQ0371],Guest	
2020-09-26 11:38:26	Cam 002 zzzz	Local Host	#002		ANPR: [ANM0392],Guest	
2020-09-26 11:38:26		DESKTOP-01260	KI		Station Disconnection	
2020-09-26 11:38:28	Cam 002 zzzz	Local Host	#002		ANPR: [688EGF],Guest	
2020-09-26 11:38:28	Cam 002 zzzz	Local Host	#002		ANPR: [3935ET],Guest	
2020-09-26 11:38:30	Cam 001 dsfdsf	DESKTOP-U8BI2F	B#001	192.168.3.12:80	Normal Temperature	
2020-09-26 11:38:37	Cam 002 zzzz	Local Host	#002		ANPR: [CQ946],Guest 🗸 🗸	

To filter the alarm events list, click the  $\square$  filter icon.





### Chapter 2.8 Manual Alarm and Digital Control Shortcut Keys

When an event occurs, the user can use the alarm and the shortcut keys of digital control to manually control the alarm and digital control.



### Chapter 2.8.1 Global Alarm Setting

The Global Alarm Setting is to program shortcut menu on the menu bar for triggering digital output devices. This could be IP camera's digital output, Navigator's virtual output, or PTZ presets. Click on Global Alarm Setting for setting up the alarm outputs.



There are total 64 global alarm settings. Click on the Setting icon to access Advance Alarm Setting Dialogue box. Select on DO device for the output device of the alarm.







Chapter 2.9 Sequence Display

SEQ Click on SEQ button. The SEQ button allows to sequentially display for the setup views.



The Sequence dialogue box can add a view into the sequence table. Click the up and down arrow for switching the sequence. Set the sequence time in seconds for the dwell.

	Sequence
	Channel group name
Add group	✓ View #01
Channel Group View #01 V	Sequence Time 120 Seconds + -
OK CANCEL	OK CANCEL

### Chapter 2.10 Spot Monitor

Many PCs have a secondary monitor output. Click on the 🔲 icon and create another View Manager view. A user is able to set up the second monitor for monitoring purpose.



**Note:** System settings and channel group configuration can only be set on the main monitor. ( Main Monitor, Spot Monitor).



### Chapter 2.11 Instant Snapshot

On System settings, set the snapshot directory. And then, click the "snapshot" icon, to capture the group's full image and each channel image on the live screen.

三 🖵 😳 📭 🚢 🗘 ▷	SEQ 🕲 🔞	M	y View	
System				
	If frame Only     Al channels are set to iframe     Orignal video resolution in     Outpal video resolution in     Auto run spot monitor     Double the size of image to	full screen mode		
	Anti-aliasing(High CPU Load) GPU Mode	Smart anti-aliasing Display hardware graphics acce	∼ eleration (default) ∽	
	Connection Type Streaming Mode	Direct NVR/camera streaming m Dual Streaming Mode for the Cl		
	Language Snapshot Path	English V C: \navusers \Capture \SNAP \		

**Note:** After setting the destination directory, a SNAP folder will be automatically generated, and all subsequent screenshots will be displayed there.

### Chapter 3 Assign Cameras for Recording on a Remote Navigator

Once all cameras are configured for views, click on "Add to NAV Recorder" menu. This can assign the cameras for recording on a remote Navigator. This feature makes adding cameras to a remote Navigator quite easy.





"Set Recorder" dialogue box can assign which Navigator for recording. Select a Navigator and click the OK button.

Set Recorder	Add cameras of view	v to NAV Recorder		
	Device Selection     O Auto     Manual		O Append Mode	
	Record Device	Max Limit	Recording Chs	-
	DANIELAP05F	0	0	
	DESKTOP-01260KF	0	0	
	Local Host NAV1108B			
	PHILWORK_5			

# Chapter 4 Playback and Backup

The Navigator Control Center provides integrated playback and backup features within the View Manager. The camera recordings of Navigator recorders and LILIN DVRs/NVRs can be set up in a View based on the function of the view. A user is able to perform camera view playback and backup. The speed bar also supports fast forward and rewind functions.

# Chapter 4.1 Playback

Chapter 4.1.1 Synchronous Playback

Click **Playback** b to play synchronous videos in a group. Supported camera recordings include different NVR, AHD camera, DVR, and Navigator. Click the date and drag the time bar for video playback.



Note: The NVR/DVR supports up to 8 connected video playback.



Chapter 4.1.1.1 Multi-channel Synchronous Playback Interface Description Multi-channel synchronous playback UI



### Chapter 4.1.2 Asynchronous Playback

For asynchronous playback, select a camera from left device tree and drag it to the playback view group. Click **Single Playback** icon and select date and time. Select cameras and drag their individual time bar to play videos at different time.

lcon	Function
ŢŢ	Multi-channel synchronous playback
Ť∰	Single-channel asynchronous playback

							<b>N</b>		1	$\triangleright$	/		4		Sind	JE .			there	-	11-1-	-	111		>	A 4	1
Month Day	Day					2021 🖸 Day					50				1		1			ľ	-			No. 1			
7	1	2	10	4	5	6		/10/		< nn i		~~	TX.	~	Ā	{ <b>*</b> 06 :	05 - 00		<b>ā</b> 1	10 - 20 -			.↓. (	-/\s			
14 21	15 22	16 23	17 24	18 25	19 26	20 27						05	07		ے ۱0 ا	11	12	13		19:50	17	18	· بلان ۱۹	20 20			23 24
28	29	30	31					02						<u> </u>	-		7			- 19			-7		<u> </u>		

In the playback screen, live image mode can be enabled. This will enable user to immediately switch to live view when there is a live event.



During playback, mouse right click on **Live** to refresh a specific camera. Click on **Refresh** at the window top to refresh all camera images.

- Instant Playback (5mins): Playback the video archive 5 minutes ago.
- Backup: Single channel backup image data.
- PTZ Panel: PTZ camera mode.
- Streaming Mode: Streaming switch.
- Full Screen Mode: View Manager channel full screen mode.
- Reconnect: Reconnect the device.
- Speaker: Device speaker switch.



### Chapter 4.2 Remote NAV Recording Backup

On the playback page, click the backup icon 🔛 to download recorded video and perform recording backup.



The selected month, date and time.

Backup Wizard	Change the d	ate if need	ed. Click Ok	( button to	o proceed.			
Channel								
	🖾 Month 🖸						2021 🖂	
Time								
Туре			2	3	4	5	6	
Type	7	8	9	10	11	12	13	
File Setting	14	15	16 23	17	18	19 26	20	
File Setting	28	29	30	31			0	
	Start Time	10:10:0	10 ×				_	
		10:15:5	i9 🗜					
								_
					(	<b>》</b> )(ок		EL)

Confirm the time of backup.



- Destination Directory: Set the backup destination folder.
- Mode: Multi-channel Mplayer NAV file format, Single channel AVI or MPG file format.
- High Quality Mode: NVR/AHD back up main stream or sub stream.



Backup Wizard	Specify the output path o	f the backup file(s).	
Channel	Destination Directory		
Time	C/		
Туре	Mode	Multi-channel MPlayer with NAV file form	nat v
File Setting	Moue	Multi-charmer mewyer with way the form	at. ~
	🔲 High Quality Mode		
		<b>(</b>	

# Chapter 4.2.1 Remote NAV/NVR/DVR Event Backup

To perform remote playback on the screen, click **Remote Playback** icon **D** and log in automatically to the remote device. You can remotely playback and backup at any time.



To manually log in to the remote device, please click on **Server Login** icon and fill up the fields. Press **Save** and **Connect** to remotely playback and backup.

/ Streaming Server / Streaming Server 28/2C Series /DVR JVR File amera SD Card File amera SD Card File /DHD Series
2B/2C Series X/DVR al NVR File Camera SD Card File
Camera SD Card File
or

- Bookmark: The bookmark of the server.
- Server Type: Select a server type.
- Server Name: Name of the server.



- Server IP/DNS: The IP address of the server.
- Server Port: The port number of the server.
- Username: The username of the server.
- Password: The password of the server.
- High Quality Type:

The following image indicates the taskbar of Remote Playback and Backup.

lcon	Function	Description
	Split Screen	■■■■■1、4、9、16、25、36 Split screen selection
$\bigcirc$	Stop	Stop playback
$\bigcirc$	Play	Start playback
$\bigcirc$	Pause	Pause playback
	Slow Rewind	Slow rewind speed: -(1/2X) 、 -(1/4X) 、 -(1/8X)
	Fast Rewind	Fast rewind: -1X 、 -2X 、 -4X 、 -8X 、 -16X 、 -32X
	Fast Forward	Fast forward: 1X \ 2X \ 4X \ 8X \ 16X \ 32X
	Slow Forward	Slow forward: (1/2X) 、 (1/4X) 、 (1/8X)
$\bigcirc$	Playback System	Playback System Setting
	Setting	
$\odot$	Backup	Backup channel or download AVI, MPG file.
	Download	
	Snapshot	Channel image snapshot (1 group full screen, 1 channel screen)
$\bigcirc$	Snapshot Path	Set snapshot storage path
	Event Log	Record of various alarm events, (motion detection, POS detection, face detection,
		license plate detection, etc)

### Chapter 4.2.2 Remote Device Download and Backup

- Step 1. Click on the date on the calendar.
- Step 2. Specify starting time and ending time.
- Step 3. Click **Search** button to search the video clips.

To perform remote video backup, click **Backup** and select specific channels. Specify date, time, and destination directory. Finally, select Start Backup or Convert AVI for multiple channel video backup.

	Main (	Groupi	ing				~	
	_ `	2021 Ma	/05/ v	11 >	<		enda 21 🖻	_
	Sun	Mon	Tue	Wen	Thu	Fri	Sat	
	2	3	4	5	6	7	8	
	9	10	11	12	13	14	15	
	16	17	18	19	20	21	22	
Γ	23	24	25	26	27	28	29	
	30	31						



### Chapter 4.2.3 Remote Playback Settings

Playback setting will display the following:

(1) NAV Iframe Only: When performing remote playback, this setting force NAV to show one frame per second for reducing CPU load.

(2) Iframe Only: When foreground remote playback, whether to set the channel to display one frame per second, to reduce CPU loading.

- All channels set iframe: When foreground remote playback, all channels in the foreground play back one frame per second.
- Channels not selected are set to iframe: When foreground remote playback, the selected channel in the foreground play back normally, and the remaining channels play back one frame per second.
- (3) Default Windows Division: Remember the preset main group split screen when remote playback.
- (4) Language: Remote playback display language.
- (5) POS Character Setting: Remote playback POS character display settings.
- (6) Smart anti-aliasing: Smart channel image edge smoothing.
  - Anti-aliasing mode (High CPU Load): Utilize CPU resources to soften image edges.
    - Disable anti-aliasing: Disable image edge smoothing.
- (7) Display hardware graphics acceleration (default): CPU hardware accelerated video decoding (Default)
  - GPU decode and display, display high priority: Intel or NVIDIA graphics card GPU hardware accelerated display and decoding. Image displays first priority, image quality and bandwidth second priority.
  - GPU decode and display, decode high priority: Intel or NVIDIA graphics card GPU hardware accelerated display and decoding. The video channel will be displayed after decoding.

(8) User defined POS setting: Customize image POS font or color settings -

- Line Size: Maximum number of POS line.
- Keep Time: Maximum duration of POS keeps time.

etting		>
NAV Iframe Only		
Iframe only		
All channels set iframe		$\sim$
Original video resolution	n in full screen mode	
Default Windows Division	16	$\sim$
Language	English	$\sim$
POS Text	Font Settings	
Smart anti-aliasing		$\sim$
Smart anti-aliasing Display hardware graphics	s acceleration (default)	~
		~
Display hardware graphics		~

**Note:**-For reducing the CPU load during playback, it is recommended to tick on "NAV Iframe Only" box. For Video compression picture types, please refer to <u>Wikipedia</u>.


# Chapter 4.2.4 Remote Multiple Channel Backup

The software supports multi-channel playback, backup download, and AVI format conversion. To perform remote video backup, click **Backup** and select channels. Specify date, time, and destination directory. Finally, select Start Backup or Convert AVI for multiple channel video backup. You can also backup the image to a USB flash drive for multi-channel image backup.

Ba	dkup		_	_	-	-	-	-	-	-	_	_		×
	Check	Channel	$\left  \right $		2017	//11/0	)9		Cal	ndar		Destination Directo	ry	
	Г	Select All / No Select		< No	vemb	er 🖻			<b>2</b> 2	017 🗈	3			
	<b>v</b>	CAM01				Tuc	Wcn	Thu	Fri	Sat	- 11'	·		
		CAM02					1	2	3	4				
		CAM03		5	6	7	8	9	10	11		High	Priority Setup	Low
		CAM04		12	13	14	15			18				
	<b>v</b>	CAM05		- H	<u> </u>		L							
	<b>v</b>	CAM06		19	20	21	22	23	24	25	l Ir		<u> </u>	
	Г	CAM07		26	27	28	29	30				Copy MPlayer	64-bit	t 👻
		CAM08											i.	
		CAM09			L	L	<u> </u>	<u> </u>	<u> </u>			Start Backup		
		CAM10									L_			J
		CAM11									١٢	AVI File Size	250M	18 -
		CAM12	1	Start Tir	ne:			00	) : 0	)	<b>-</b>	TTTT I COLC	2001	
		CAM13		End Tim					: 59		<b>-</b>	Convert AVI		
			<sup>•</sup>		е.			2:	5 : 55	, 		Convertation		
												USB backup		EXIT

Note: USB backup feature is only limited to NVR/DVR.

# Chapter 4.2.4.1 Copy MPlayer Copy MPlayer program.



Chapter 4.2.4.2 Backup Image Conversion Format Backup Image Conversion Format: AVI, MP4. Image conversion split size: 250MB, 500MB, 1GB.

_				
	AVI	$\sim$	250MB	$\sim$
	開始轉檔			

# Chapter 4.2.5 Backup and Snapshot

For IP-based devices, you may want to capture still images in videos. Press **Snapshot** , and the image will be exported to a JPEG file format.



# Chapter 4.2.6 Remote NAV/NVR/DVR Event Search and Backup

To view remote NAV/NVR/DVR alarm events and perform video playback and file download, click "Remote Playback" icon and click "Select Mode" in the backup manager to view a recording of events, POS cash register information, license plate recognition, and face recognition.



# Chapter 4.2.6.1 Event Playback

When Smart Event is checked, all alarm (digital input) events will be automatically played until the end of the alarm events.

Playback Time	:			
Time Zone:				
Start Time:	00	: 00		
End Time:	23	: 59		÷
Select Mode:	Alan	n		$\sim$
📒 Smart E	vent		Search	
Previous	Page 1	~	Next	
Time	Channel	Ever	ıt	^
15:25:56	CAM03	*	Remote	
15:27:53	CAM03	Ň	Remote	
15:28:39	CAM03	*	Remote	
15:31:03	CAM03	*	Remote	
15:32:10	CAM03	*	Remote	
15:33:41	CAM03	<u>*</u>	Remote	
15:35:13	CAM03	<u>*</u>	Remote	
15:36:25	CAM03	<u>*</u>	Remote	
15:38:17	CAM03	~	Remote	
15:41:54	CAM03	~	Remote	
15:50:40 15:53:14	CAM03	~	Remote	
	CAM03	~	Remote	
16:06:13 16:07:36	CAM03 CAM03		Remote Remote	
16:07:36	CAM03	~	Remote	
16:09:16	CAM03		Remote	
16:12:20	CAM03		Remote	
16:14:02	CAM03		Remote	
16:22:18	CAM03		Remote	
	CAIVIUS	~	Kemote	Y
<			>	

Recording Time Bar Color Coding:



- White: No recording
- Purple: Continuous recording
- Yellow to Green: Event recording. The color depends on the frequency of event. The frequency range is from 1~10. The color changed to green as the event became more frequent.



#### Chapter 4.2.6.2 Event Backup

To back up an alarm recording, check the **Smart Event** box **Smart Event** and press the **Event List** icon **(**.). This list all events for backup purpose.

Previous	ļ	Page 1 🗸 🗸	Next	
No.] Time	Channel	Event		Backu
001] 08:50:27	#002 Z3	📢 Traffic	flow	
(002) 08:50:29	#002 Z3	📢 Traffic	flow	
(003) 08:50:30	#002 Z3	📢 Traffic	flow	
[004] 08:50:32	#002 Z3	🍕 Wrong	g way	
005] 08:50:35	#002 Z3	🐴 Traffic	flow	
[006] 08:50:37	#002 Z3	< Traffic	flow	
[007] 08:50:38	#002 Z3	< Traffic	flow	
٢		_		

Select the file to backup and click on **Event Backup**.

Destination Directory		
Preview Seconds	[	1 📮 Second:
Post-event Review Seconds	0 📮 Minutes [	1 🗘 Second:
File Size	250MB	~
File Format	AVI	~
Image Size	1920*1080	~
ackup Status	0 %	
elect playback version 64-bit	~	
art Convert Start Backup !	Stop	EXIT

- Destination Directory: Set the backup destination folder.
- Preview Seconds: The event recording of pre-alarm.
- Post-event Review Seconds: The event recording of post-alarm.
- File Size: 250MB, 500MB, 750MB, 1GB for each video backup. Note: NAV recorder only.
- File Format: AVI or MP4 file conversion. Note: NAV recorder only.
- Image Size: The size of the recording resolution, 320\*240, 640\*480, 704\*480, 1920\*1080 Note: NAV recorder only.
- Backup Status: The progress percentage for backup.
- Select playback version: MPlayer application in Windows 64-bit or 32-bit.
- Start Convert: The button is for starting the process of AVI or MP4 backup conversion. Note: NAV recorder only.
- Start Backup: The button is for starting the process of proprietary recording backup.
- Stop: Stop the backup process.
- Exit: Exit the program.



Chapter 4.2.7 Alarm Search for Remote NAV/NVR/DVR

Select "Alarm" in "Select Mode", select "Search all events" or "Search for specific events" in the search dialogue box, the event will be listed. Click the event and the image will be displayed and perform video playback or download backup.

<ul> <li>Search for specific events</li> </ul>			
Event			^
Remote Motion Detection			
Remote Audio Detection			
The remote alarm input was	s triggered		
Remote Face Detection			
Alarm DO			
Local motion is detected.			
Remote Tamper Detection			
External IO Device			
Remote tripwire			
Remote object left detectio			
Remote missing object dete	ction		
Density detection			
Failover			
	on		
POS start recording			
<			>
Preview Seconds		1 Seconds	
Post-event Review Seconds	0 Minutes	5 Seconds	

**Note:** When "**Play single events**" is ticked, only one alarm event will be played back at a time. **Note:** "Search for specific events" feature is for NAV recorder only.

Chapter 4.2.8 Remote ANPR Event Search and Backup





# Chapter 4.2.8.1 Remote Face Recognition Event Search



# Chapter 4.2.8.2 Remote POS/ATM Transaction Report from NVR

If a POS/ATM is connected to an NVR, View Manager can perform remote POS/ATM transaction query. To do so, click Playback and specify the date and time to search for the POS/ATM transaction.



Select the POS/ATM option and press **Search** button, next, **POS Search Condition** will be displayed, enter the keyword in the field and press **OK**.

			Prov Page 4 v Next
			Time Channel Event
		Search	09:24:53 CAM01 de Terminal:25020008 Card:9558822502000186592 TYPE:INQ Swift Number:002161
			09:25:23 CAM01 🖉 Terminal:25020008 Card:9558812502110322634 TYPE:INS Swift Number:000000
		Condition	09:25:23 CAM01 🤞 Terminal:25020008 Card:9558812502110358331 TYPE:CWD Swift Number:002154 Amount:1000.00
			09:25:23 CAM01 de Terminal:25020008 Card:9558812502110534923 TYPE:CWD Swift Number:002181 Amount:300.00
			09:25:23 CAM01 🗳 Terminal:25020008 Card:9558822502000186592 TYPEINQ Swift Number:002161
			09:25:53 CAM01 🤞 Terminal:25020008 Card:9558812502110322634 TVPEINS Swift Number:000000
			09:25:53 CAM01 🤞 Terminal:25020008 Card:9558812502110358331 TYPE:CWD Swift Number:002154 Amount:1000.00
Playback Time:	2017/07/03 07:32:00		09:25:53 CAM01 de Terminal:25020008 Card:9558812502110534923 TYPE:CWD Swift Number:002181 Amount:300.00
			09:25:53 CAM01 🧳 Terminal:25020008 Card:9558822502000186592 TYPE:INQ Swift Number:002161
Time Zone:	GMT 00:00		09:26:23 CAM01 🔮 Terminal:25020008 Card:9558812502110322634 TYPE:INS Swift Number:000000
			09:26:23 CAM01 de Terminal:25020008 Card:9558812502110358331 TYPE:CWD Swift Number:002154 Amount:1000.00
			09:26:23 CAM01 de Terminal:25020008 Card:9558812502110534923 TYPE:CWD Swift Number:002181 Amount:300.00
Start Time:	00:00		09:26:23 CAM01 degree Terminal:25020008 Card:9558822502000186592 TYPE:INQ Swift Number:002161
			09:26:53 CAM01 🔮 Terminal:25020008 Card:9558812502110322634 TYPEINS Swift Number:000000
			09:26:53 CAM01 de Terminal:25020008 Card:9558812502110358331 TYPE:CWD Swift Number:002154 Amount:1000.00
End Time:	23 : 59 🔶		09:26:53 CAM01 Terminal:25020008 Card:9558812502110534923 TYPE:CWD Swift Number:002181 Amount:300.00
	20 1 05		09:26:53 CAM01 grminal:25020008 Card:9558822502000186592 TYPE:INQ Swift Number:002161
			09:27:23 CAM01 de Terminal:25020008 Card:9558812502110322634 TYPE:INS Swift Number:000000
Select Mode:	Recorder 🗸 🗸	Preview Seconds	09:27:23 CAM01 🔮 Terminal:25020008 Card:9558812502110358331 TVPE:CWD Swift Number:002154 Amount:1000.00
beleeeningden	recorder -	· v Secon	09:27:23 CAM01 🔮 Terminal:25020008 Card:9558812502110534923 TYPE:CWD Swift Number:002181 Amount:300.00
	Recorder	Post-event Review Seconds 0 Minutes 5 Second	00.27.23. CAM01 STraminal 25020008. Card 0558822502000186592. TVRFINO. Swift Number 002161
	POS/ATM	Single play event	
	Search	C single pay event	Play
	Search	0	

66-UM-NCC-CSE-9`



#### Chapter 4.2.9 Digital Water Mark

Water Mark Checker is used to verify whether the AVI or MP4 files are backed up from our company's NVR/DVR or NAV series. The video recordings backed up from our product are encrypted with the company's digital watermark, which can be used to check whether the video recordings have been tampered with or not.

To use this application, Water Mark Checker, please click the "Select File to Verify" button and select the backup file. This program will automatically check whether the file has been altered or is a file produced by the products of our company.

Select File to Verify	
Unknown: The backup file does not contains water mark.	

Chapter 5 Third-party Applications & Device Integration

Chapter 5.1 Add Third-party Web Based Application via URL Collection

For the integration of third-party web application, click on **URL Collection** and enter the "Full URL" to embed the web application into the Navigator Control Center.

≡ □ @ ₽ ≛ ≎ ▷ ∅ @		? 🗆 – A X
×		URL 003: 🗗 🗙
■ ■☆ Viewer Manager ■ ■☆ Local Host Viewer Collections	9LILIN	Search Q
	Pandemic Products Solutions News Support Partners URL Link	Where to buy
<ul> <li>* NCC Chart Collections</li> <li>* BN NCC Counter Collections</li> <li>* Offline Map</li> <li>* Collections</li> <li>* Collections</li> <li>* Collections</li> <li>* Collections</li> <li>* VIRL Collections</li> <li>* VIRL Collections</li> <li>* VIRL COLLECTIONS</li> </ul>	Name Par UDB: Par UDB: Parsenerd Coc CANCEL The Device Name Remote host Chance IP Event	
	2020-08-14 16:13:35         Cam 003         Local Host         #003         192.168.3.227:80         Event025704: ainame=1_2_7_54:aicolor=           2020-08-14 16:13:35         Cam 003         Local Host         #003         192.168.3.227:80         Event025703: ainame=1_2_7_54:aicolor=	~ 7



#### Chapter 5.2 Aida Integration

Please install Aida software on NAV Corporate server. Aida software is a plug-in for Navigator software and installed to become edge computing server.



See diagram below. The channel of Aida software and Navigator software is one-to-one mapped. For example, if camera #1 is set up in Aida software, Navigator software should also set up channel #1 for the camera.





# Al Smart Traffic Management



#### Chapter 5.2.1 Chart

Traffic management reports and other statistic reports are in the NCC Chart Collections. Chart Collection contains HTML5 based reporting system.

The HTML5 chart templates can be found at "C:\Program Files\Merit LILIN\View Manager\defaultChart." For advanced users, a user is able to modify the template for customization purpose.

🕑 📜 🗢 🛛 defaultChart						- 0	× ^
Y 📜 > 本機 > Window	s (C:) > Program Files > Merit LILIN > Nav	rigator Client > defaultChart	1		v U	搜尋 defaultC.	, p
👌 ruoshin 🔷	名稱	修改日期	類型	大小			1
👌 Steven	SarChart.htm	2020/5/28 上午 11:58	Chrome HTML Doc	1 KB			
🜏 Video	BarChart.js	2020/5/28 上午 11:58	JavaScript 指令檔	2 KB			
🜏 ZCloudBandwidthTester (Dc	📓 BarChart_Data.js	2020/5/28 上午 11:58	JavaScript 指令檔	1 KB			
■ 本機	BarChart_Options.js	2020/5/28 上午 11:58	JavaScript 指令檔	1 KB			
	CandlestickChart.htm	2020/5/28 上午 11:58	Chrome HTML Doc	1 KB			
🧊 3D 物件	S CandlestickChart.js	2020/5/28 上午 11:58	JavaScript 指令檔	2 KB			
Apple iPhone	CandlestickChart_Data.js	2020/5/28 上午 11:58	JavaScript 指令檔	1 KB			
🕹 下載	CandlestickChart_Options.js	2020/5/28 上午 11:58	JavaScript 指令檔	1 KB			
1 文件	GaugeChart.htm	2020/5/28 上午 11:58	Chrome HTML Doc	1 KB			
▶ 音樂	GaugeChart.js	2020/5/28 上午 11:58	JavaScript 指令檔	1 KB			

To set up a chart, mouse right click on NCC Chart Collections for adding, modifying, or deleting a chart.



Please enter the following information:

- Chart Name: The Chart Name shown on the chart
- Chart Type: There are bar, line, pie, and stepped charts.
- Time Format: The time display format
- Period: Calculation period for the chart

The chart can be set up based on the comparisons of behavior, vehicle type, and camera.

			🖌 All	ali	V All	
Chart Name	Report		Behavior Zone Violation	Vehicle Type	Camera	Remote host MSI
	Line chart	~	Parking Spot     Parking Violation     Traffic Flow	Car Motorbike	Cam 002 Cam 001 Cam 002	Local Host LAPTOP-2GMJ3 LAPTOP-2GMJ3
	Last 60 days	Ŷ	Turn Left Turn Right Wrong Way	Aeroplane Bus Train		
	HH:MM MM/DD	~	Turn Left Violation Turn Right Violation Oueuing	Truck Boat TUK TUK		
	4 Hours	Ŷ	U-turn Violation Run the red light (Straight)	✓ Truck trailer ✓ Pickup truck		
	Behavior Behavior	Ŷ	Run the red light (Left) Run the red light (Right)	Fire engine		
	Vehide Type Camera			Van		





The following graph shows the comparisons of various statistics.





#### Chapter 5.2.2 Counter

Once LILIN Aida software is installed with Navigator software, please set up the Counters in Navigator software. In Navigator Software, click on Camera Properties and select Aida Behavior Detection setting. Click on NCC Counter button for setting the counters. There are 64 counters in total per Navigator software for communicating Navigator Control Center.

Alarm Management Cam#002	Aida Behavior Detection	Rules to push to NCC Global Counters				
Condition#1 Condition#2 Con	AI Engine Recognition FPS	Rule #1 Rule #2 Rule #3 Rule #4 Rule #5 Rule #6 Rule #7 Rule #8				
Alarm Input Management           NAV CGI Triggering           Video Loss Detection           Speed Measurement Detection	Speed Confidence		Counter object index 1. Value			
ANPR Detection     Facial Recognition     QRCode detection     Aida Behavior Detection	Display Person ID Minimum Face Pixels OSD Position		Operation [+] Addition  v			
Coptions	Traffic Event       Zone Violation       Parking Spot		OK Cancel			
Enable Alarm Input (DI)  AND Logic Alarm Notification  Detection Dwell (Sec)  1	Parking Violation Traffic Flow Turn Left V Turn Right Wrong Way	✓ Mask wearing alarm ✓ Mask wearing error alarm	SD			
Use Not Logic Apply Camera	Turn Left Violation Turn Right Violation U-turn Violation Run the red light	K Car	unting Ignition			
	NCC Counter	OK Cancel	Privacy mask Setting			

- NCC station: The Navigator Control Center stations.
- Main type: The Aida engines.
- Subtype: Behaviors.
- Counter object index: Reserved for future use.
- Operation: Calculation

Once the Counters of Navigator software are set, a user can go to Navigator Control Center side for using the Counter. Mouse right click on the item of NCC Counter Collection for the Counter Dialogue. Enter the settings below:

- Name: The device title of the Counter.
- Appearance: Select the icon for the Counter.
- Title: The counter title.
- Prefix: The prefix text of the Counter.
- Surfix: The surfix text of the Counter.

Once the Counter is set up, drag the item into the View.

≡ ♀ ◊ ₽ ≛ ≎ ▷ ▫	ieo 🔏 🗃 😂 🖉	My Machine				? 🗆 – A X
× ∎ ■☆ Viewer Manager	<b>∨ </b>			Tra	ffic Report of NY City	#001 Cam 001
P Scan Collections	C					
Navigator Stations DANIELAPOSE Lost.	Counter					-
DANIELAPOSE Lost.						
Local Host						
NAV1108B	Number 01		CNT 01: Turns Vic			
PHILWORK_5 Lost						
NCC Chart Collections	Resetting counter value					#002 Cam 002
■ ↓ Violation Report of	1. Turn Right		esetting time interval	Enable 1		the second a stand of the
→ Traffic Report of NY     NCC Counter Collectic			esetting time interval	Enable	ime range	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
E MB NCC Counter Collectic		rson Reset e	ery 1 Day	Y From	2020/08/21 11:57:33	Trafid South
BE CNT 02: Car Counti						THINGS OW, I
E CNT 03: Parket Space			11:57:33	То	2020/08/21 11:57:33	Traffic Flow, Turn
Eller CNT 05: Run a Red						100 ~
E CNT 06: Counter	6. Value					: Flow, Turn Left, Turn Right
HE CNT 07: Counter						#003 Cam 003
EIII CNT 08: Camera #8 IIIII CNT 09: Counter				Reset now )		
INT 09: Counter						
B CNT 11: Counter						
- I BER CNT 12: Counter						
E CNT 13: Counter						
题 CNT 14: Counter			<b>—</b> –			
IIII CNT 15: Counter		⋑) ■		fix Counter Value 1 right 1. Turn Right	Suffix	- D
- 16: Counter - 前間 CNT 16: Counter	Car.ico CarWith	Rim.ico GetIn.ico Ge	tOut.ico Gos	1. Turn Right	·	CNT 02: Camera #2 🗆 🗙
BE CNT 17: Counter			Time	2. Vehide Type	× .	
INT IN: Counter	<		>	None	÷ .	
EXT 20: Counter				- None		Flow 401
E CNT 21: Counter						
E CNT 22: Counter						ြားရွိ Color Black
BER CNT 23: Counter		(Clear All			OK CANCEL	
EXECUT 25: Counter	Time		ote host Channe I			<u>^ E</u>
COUNCIL STREET	✓ 2020-08-21 11:57:4 2020-08-21 11:57:4				3: ainame=1_2_2_54:aicolor=aii 3: ainame=1_2_2_54:aicolor=aii	



#### Chapter 5.2.3 Edge LPR Camera Import & Export

For edge LPR camera, NAV Control Center provides the feature for importing and exporting for the allowed & denial lists.

To use this function, please click the "LPR Camera CSV List to PC" menu for the exporting of the allowed & denial lists.



To export, please click the "LPR Camera CSV List to PC" menu, select a LPR edge LPR camera, and export the allowed and denial lists.



If you need to import the allowed and denial lists for edge LPR cameras, click on the "PC CSV List to LPR camera" menu.

LPR Camera	Choose the LPR action and confirm it.	
LPR Camera Action		
	Temperature CSV storage	
	Directory	



#### Chapter 6.0 eMap Manager

Navigator Control Center window can integrate eMap, as figure below. For example, after the alarm, the eMap live image will be displayed, GPS fleet management tracker, and find reported road name on search button can all be integrated. Related functions are described as follows:



Chapter 6.1 Create an eMap Manager to the Group View Window

You can drag the eMap created by the eMap Manager including: (1) Online Map, (2) Offline Map. Please use your mouse to drag and drop the node from the left control bar to the right screen.





# Chapter 6.2 eMap on the Group View Window

Please double-click on the camera icon to monitor the live image of the eMap. The road or place name can also be input to quickly access to live image. GPS fleet management tracker and other functions are also supported.



Chapter 6.3 How to Set up an Map via eMap Center

Please click on **eMap Center** icon ico open the eMap Center and create (1) Online Map, (2) Offline Map. To set up camera on eMap Center, just drag-n-drop cameras into the eMap Center.



eMap icon functions are described below:

\$+ \$× \$©	Add Map, Delete Map, Set Map Property.							
st	Remove the camera icon from the eMap							
<u>و</u>	Print eMap							
<b>°</b>	Create eMap geographic location window.							
ş	Restore eMap geographic location window.							
<b>9</b> 00	Refresh eMap geographic location window.							
, <sup>⊬</sup> Xa	Confirm and delete alarm events.							
ON B	Enable eMap alarm event notification.							
OFF A	Disable eMap alarm event notification.							



# Chapter 6.3.1 eMap Property

To edit map properties, please click on 🖉 icon and make detailed adjustments.

ap Properties		
Serial No.	101 UID:28AB73F8	OK
Map name	My Map 0101	Exit
Description	Place 0101	
Center of Map		
Latitude	25.064998	
Longitude	121.443582	
Map Scale		
100 meter		
	• • • • • • • • • • • • • • • • • • • •	
Map Service Provider		
Google Map	O Baidu Map	

# Chapter 6.3.2 Modify Camera on eMap

Below are icon descriptions to add, delete or edit the camera on eMap:

×	Remove a camera from eMap
	Edit the camera properties on eMap
	Enable/Disable camera image on eMap.
×	Close the camera image on eMap.
	Playback the camera recording on eMap.
	Control the PTZ camera on eMap.
-	Enable eMap Car Tracker.
	Enable eMap car follow DVR/NVR GPS mode.
\$	Turn on the real time traffic flow mode on the eMap.

# Chapter 6.3.3 Modify Offline eMap

To edit the offline map, click on **offline mode** icon.





# Chapter 6.3.4 NVR/DVR with GPS Integration for eMap

LILIN NVR/DVR support USB GPS integration and the video can be streamed via 5G for remote access. The GPS signal is streamed via Navigator Corporate and then to Navigator Control Center for fleet management.



Once the NAV Corporate is set up for video recording and the GPS streaming to a remote DVR/NVR, drag the cameras of the NAV connecting to a GPS NVR via 5G into View Manager.

Make sure that the GPS signal gets transmitted to the NAV and is seen in View Manager.

For creating a map, click the eMap Manager button. Drag the camera of NAV connecting to a GPS NVR via 5G into eMap.



Click on "Lock focus on car" button for tracking the vehicle. Double click on the icon of the car for live video in eMap. Switch to View Manager, and drag the eMap just created into View Manager. Select the icon of the car for tracking the vehicle.

**Note:** Please make sure supported GPS integration DVR/NVR models.



#### Chapter 7 Alarm Management

Navigator Control Center provides an easy way for configuring the alarm of a camera for a remote Navigator station.

$\equiv \Box$	) 🕸 📭 🚣 🗘 ▷	SEQ 🔏 🖪	۵ /	My Machine					? 🗆	– A X
×		VQ	=		Traf	fic Report of NY	City□×≡	#0101 My Map 0101		#003 Cam 003
	Viewer Manager	^					the SW	Lea In Search Roy		
	IP Scan Collections									
	DANIELAPOSF Lost	Alarm	setting	This is the wizard	d for add stat	tion!				
	DESKTOP-01260KF L			,						No. of Concession, Name
	🕾 Local Host				_					- 78
	日 #001 Main Groupi			Condition 1	~		Remote Setting			100
	= = #001 Cam 001 = #002 Cam 002	Schedule	<b>`</b>	Alarm Input Management						1004 C 004
		Serreduit					Alarm Output (DO)			1004 Cam 004
	□ #004 Cam 004			External IO Device Motion Detection			Play Sound Send E-mail	^		223],Guest
				NAV CGI Triggering			PTZ Preset Recall			58YL],Guest
				Video Loss Detection			Signal Digital Output			CLV],Guest
	= #007 Cam 002 ⊑ #008 Cam 001			Speed Measurement D	letection		Alarm Full Screen Post-alarm Record			UW],Guest
	=====================================			Facial Recognition			Pre-alarm Recording			720],Guest
	======================================			QRCode detection			Advanced Alarm DO			371],Guest
				-			Global Alarm Setting	×		ounting DX
					Options	_		Options		
	- 33 #015 FACE 中控 第 #016 EZR-245x									
	#010 L2R-243			Enable Alarm Input (			Pre-alarm Dwell (Sec)	1 ~		1056
	- #018 DVR816(/			AND Logic Alarm Not	ification		Alarm Output Dwell (Sec)	5 ~		a la company a company
	- 4019 P3R65221			Detection Dwell (Sec)	1 ~		The Next Alarm Output			White
							Dwell (Min)	Disable 🗸		
	- #021 Z2R6452/			Use Not Logic						ddd □×
	- 4023 H.264 4K									
	- <b>14</b> #024 P3T6522E									
	- 🗟 #025 NAV1 Lo:									
	- 43 #026 Z2R80521									
	#028 DHD5108									
								$(\mathbf{b})$	OK CANCEL	
	- 🔤 #003 My View							Ŵ		
	Image: Contract of the server extended in	1DO	Time	Device Name	Remote host	Channe IP				~ 🗏
	C RAVIIOS	~	2020-08-21 20:16:25 2020-08-21 20:16:25		Local Host Local Host			04: ainame=1_2_2_54:aicolor=aii		
<		>	2020-08-21 20:16:25	Calli 005	Local Host	#003 61.	.210.97.157.10887 Event0257	03: ainame=1_2_2_54:aicolor=ail		× 87

Chapter 7.1 System Alarm Management for Navigator Stations

To monitor IP cameras, DVR, and NVR on the Navigator Corporate stations, see if any Navigator Corporate station is in the list. Once checked, the station will be documented in Database Manager.

Click **Alarm Setting** for remote monitoring: (1) File Write Error, (2) Network Error, and (3) Database Error detections. Specify alarm outputs for Play Sound and/or Send Email, when a station alarm is detected.

n Management								- 0
	Q. 4-	Time D	evice Name	Remote host	Cha	IP	Event	
Navigator Stations		請在此輸入 7 請	在此輸入文字	☞ 請在此輸入文字	7請	对請在此輸	☞ 請在此輸入文字	7
B DanielAPO		2020-09-26 14::Ca	ım mask eee	PHILWORK_5	#002	192.168.3.1	2:8(Normal Temperature	
■ ■	Remote host							× or IO control error
#003 25-NVR	Condition#1 Syste	m						
	Alarm Input Management	Alarm	Dutput (DO)	Alarm Notification	Schedule			or IO control error
NAV Server Extension     NAV1108B-4U     DANIELAPOSE	Error in Writing t Network Error Database error	Ser	y Sound Id E-mail vanced Alarm DO	00 01 0 Sunday	2 03 04 05 06	07 08 09 10 11	12 13 14 15 16 17 18 19 20 21 22	23
■ ● #001 主群組 ■ ● NAV Server Exte				Monday Tuesday				or IO control error
DESKTOP-01260K				Wednesday Thursday				
DESKTOP-U8BI2PE B Local Host				Friday				
NAV1108B				Saturday				
PHILWORK_5	Detection Dwell (Sec)		Options	Enable			Apply All Schedule	
	Over 2 Sec. 🗸			Close				
						0	K Cancel	
								_



### Chapter 7.2 Alarm Management for Cameras

Check a camera and press **Alarm Setting** to specify alarm inputs and alarm outputs. Once checked, the camera alarm status will be captured in Database Manager.

Features such as tripwire, motion detection, alarm digital input, tampering detection, audio detection, and ANPR/LPR detection can be activated individually.

Ravigator Stations	小子	Time 請在此輸入文	Device name 7 請在此輸入文字		note host 此軸入文字	IP 7 請在此I	Event 自入 7 請在此輸入文	Chan 字 7 請 7
■ ■ ■ Local Host ■ ■ 中 #001 主報組		Cam 001						×
= #001 Cam 001 = #002 #002 ZMR6422AX	.Р	Condition#1	System	Alarm Output (DO)		Alarm Notification S	chedule	
☐ ■ 대 #035 Cam 035 ■ ■ 급 NAV Server Extend DO		Remote Digli Remote IvS Remote Facu Remote Taru Remote Taru External Io I Motion Deter NAV CGI Tri Video Loss D	(Motion) e Detection per Detect io Detection Device ction ggering	Play Sound Send E-mail PTZ Preset Recall Signal Digital Output Alarm Full Screen Advanced Alarm DO Alarm ACK		00     01     02     03       Sunday	04 05 06 07 08 09 10 11 12	13 14 15 16 17 18 19 20 21 22 23
		Detection Dwell	I (Sec)	Options		Enable		Apply All Schedule
		Enable Alarr	Narm Notification	Pre-alarm Dwell (Sec) Alarm Output Dwell (Sec	1 ~ ) 5 ~	() Close		
			-			Арріу	Cameras 0	K Cancel

#### Chapter 7.3 Existing Alarm Output for Cameras

If an alarm has been created via Navigator Corporate, you can trigger the alarm in **Alarm Management** of Navigator Control Center.

	~	Remote host	IP	Event
		7	7	7
	-	CMXRD-PC	192,168,3,5:8080	Disconnection
			192.168.3.3:8080	Disconnection
		WIN8-miffiy		
🕂 🔽 🤿 3-19yihhann		3-19yihhann	192.168.3.19:8080	Disconnection
🔃 🔽 🤿 3-18yihhann		3-18yihhann	192.168.3.18:8080	Disconnection
🔃 📝 T🥪 Group01: Main Grouping		Local Host	192.168.3.198:83	Disconnection
-VII Group02: myGroup2		3-19yihhann	192.168.3.19:8080	Disconnection
-ET Group03: myGroup3		CMXRD-PC	192.168.3.5:8080	Disconnection
		WIN8-miffiy	192.168.3.3:8080	Disconnection
🗎 🔽 🌉 Local Host		3-19yihhann	192.168.3.19:8080	Disconnection
😥 📝 T🤯 Group01: Main Grouping		3-18yihhann	192.168.3.18:8080	Disconnection
-ETA Group02: Steve NAV 4-Division IP Cam/DVR Grouping		Local Host	192,168.3,198:83	Disconnection
- Group03: 25-Division IP Cam/DVR Grouping		3-19vihhann	192,168,3,19:8080	Disconnection
😑 🐨 📴 [Navigator Server Extend DO]		0 1991010101	19211001011910000	DISCONNECTION
	=			
DIOOut04: RAID failure				
🛛 🛲 3-19yihhann	*	4		



# Chapter 8 Database Manager

Database Manager can generate user access log, AI metadata, events, GPS log, POS log, and system log. In addition, this built-in feature allows database import, export, and repair. Database Manager is a good tool for troubleshoot.

Ð	à 🖻 a 🟥	AD12	🗟 🔓	r 🔊 🔊	) 🖻   💕	er f	<u> </u>	¢   €	Page 1	→	D Today	~				? •	- 0	х
#	Date/Time	Device Name	Zone Viol	Parking S Parking	V Traffic Flow Turn	Left Turn Rig	ht Wrong Wa	y Turn Left	. Turn Right	U-turn Vio	Run the r	Run the r	Run the r	Queuing	Main Color	Vehicle T	Count	^
1	2020/08/21 19:59	Cam 001 ccc													Silver	Bus		
2		Cam 002 ddd																
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
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24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
32																		
33																		
34					Traffic Flow													
35																		
36																		
37																		
38																		
39																		
40																		
41																		
42	2020/08/21 19:58	Cam 001 ccc													Green	TUK TUK		Ľ
171	134														020/08/21 00:	00:00 ~ 2020/	08/21 20:	02:08

User Log Report	E.	Click User Log Report icon to show a complete user log. Press
		File $\rightarrow$ Export Log to export a CSV log file.
Event Report	Ec	Click Event Report icon to show a complete event report. Press
	-0	File $\rightarrow$ Export Log to export a CSV log file.
POS Event Report		Click POS Event Report icon to show the full POS record. Press
		"Export Log" to export the CSV log file.
ANPR Event Report	AB-12	Click ANPR Event Report icon to show the complete license
		plate record. Press Export Log to export the CSV log file.
Object Counting Report		Click Object Counting Report icon to show the full object counting
	<u> n</u>	record. Press Export Log to export the CSV log file.
AI Report		Click AI Report icon to show the full AI record. Press Export Log
·		to export the CSV log file.
TAG Report		Click on Tag Report icon to show full tag record. Press Export
	<b>_</b> @	Log to export the CSV log file.
NAV Status	Ê®	Click NAV Status icon to show the complete NAV host status
	1 <u></u>	record. Press Export Log to export the CSV log file.
GPS Report	****	Click GPS Report icon to show the complete satellite positioning
	<u> </u>	record. Press Export Log to export the CSV log file.
Face Report	0	Click Face Report icon to show the full face recognition record.
	X	Press Export Log to export the CSV log file.
Server Report		Click on Server Report icon to show the full server log record.
		Press Export Log to export the CSV log file.
Import Database		XML format database can be imported into Database Manager.
	St.	Click Import Database icon and choose the database you want to
		import.
Export Database		Database Manager supports database export to XML format
-	<b>S</b> *	files. Click Export DB icon and choose the database you want to
		import.
Export Log		Various event transfer report.



Statistics	×**	Click on Statistics Chart icon and the object counting record will be converted to chart mode.
Refresh Database	¢	Click Refresh Database icon to refresh the new event message.
Search Settings		Customizable search events

# Chapter 9 User Management

To add users, click **User Manager** icon **M** which supports up to 64 user groups. Each group can assign individual accounts for operations and camera access privilege. Choose one of the user types and click **Add** to create an account.

≡ <sub>N</sub>	Navigator User Manager 64 bits User Login	
Navigator Client HD 3.1 へ新増	Login Name 1: admin	~
Q <sup>IPScan</sup> 新増	Login Type Normal Mode	~
くの Local Device Manager 新増	Username admin	
Navigator Client 3.1	Password	
D Remote Playback Manager 新増	Host Name	: 389
Uninstall Navigator Client 3.1	LDAP Base Distinguished Name	
X User Manager	Username Path	
E User Manual Japanese		
E UserManual_EH3.0	Save	Cancel

#### Chapter 9.1 Add a User

Please select access permission for the user, then, click on **Add** and enter the necessary information in the **Add User** dialogue box. Click on **OK** to save the settings.

Add User	×							
1:admin	$\sim$							
New username :								
Password :								
Verify password :								
The password must include 3 criteria out of the followings (1)at least 8 characters(must), (2)letters and digits, (3)upper and lower cases, and (4)special character (1, \$, #, %).								
I	OK Cancel							

Chapter 9.2 Edit an Existing User:

Please select user type and a user, and click **Password** to change the password of the user.

#### Chapter 9.3 Delete a User:

To delete a user, select user type and a user. Then, click **Delete** and **OK**.

#### Chapter 9.4 User Authorization

You can specify each user access privileges to Navigator function. To authorize a user to have access in the function, click **Operation**. Then, check on the functions to grant the user the access rights.

**Note:** Please close all the View Manager software and restart the application settings.



Chapter 9.5 Operation Access Management Select user type and click on user. Then, click on **Operation** option, please check the required permissions. Then click on Save and Exit to save the settings.

Option	Option	
✓ Navigator eMap	Control Center Login	
V Navigator eMap PTZ Control	Control Center Alarm Management	
✓ Navigator Database Manager	Control Center MosicTVWall	
Navigator Local and Remote Playback	Control Center eMap	
Navigator Advanced Alarm Management	Control Center IPScan	
Navigator Camera Setting	Control Center Local Device Setup	
✓ Navigator Snapshot	Control Center Device Management Report	
✓ Navigator PTZ Setting Control	Control Center Control Station Setting	
✓ Navigator PTZ Setting Setting	View Manager Login	
✓ Navigator System Setting	View Manager System Setting	
✓ Navigator Monitor Matrix Setting	View Manager Remote Playback	
✓ Navigator Sequence	View Manager Synchronous Playback	
Navigator Right-click Menu Function	View Manager PTZ Control	
✓ Navigator TV Wall Setting	View Manager Sequence	
✓ Navigator TV Wall Logout	View Manager eMap	
✓ Navigator Web Manager	View Manager Device Settings	
Navigator Quit Navigator	View Manager Modify Permissions	
Control Center Login	import Views for MosicTVWall Feature	
Control Center Alarm Management	View Manager Alarm Ouput	

	Function	Permission Icons	
🕑 eMap Manager	Navigator eMap	LILIN Control Center 3.0	Control Center Login
	Navigator eMap PTZ Control		Control Center Alarm Management
🛃 Database Manager	Navigator Database Manager	Hosaic TVWall	Control Center MosaicTVWall
Playback	Navigator Local and Remote Playback	~	Control Center eMap
	Navigator Advanced alarm Management	<u>C</u>	Control Center IPSan
<b>*</b> @	Navigator Camera Setting	<b>N</b>	Control Center Local Device Setup
0	Navigator Snapshot		Control Center Device Management Report
ŧ.	Navigator PTZ Setting Control	<b>O</b>	Control Station Settings
PTZ Setting	Navigator PTZ Setting Setting	X	View Manager Login
ø	Navigator System Setting	ŝ	View Manager System Setting
Ş	Navigator Monitor Matrix Setting	<b>P</b>	View Manager Remote Playback
SEQ	Navigator Sequence	$\triangleright$	View Manager Synchronous Playback
Add Joann Cance Register Placks Market Advanced Refer Scott Advanced Refer Scott Scott Scott Scott Name Scott Refer Scott Res	Navigator Right-click Menu Function	<b></b>	View Manager PTZ Control
	Navigator TV Wall Setting	SEQ	View Manager Sequence
	Navigator TV Wall Logout		View Manager eMap
6	Navigator Web Manager	Alarm Setting       Image: Se	View Manager Device Settings
×	Navigator The sofware Power Down	■ <b>Z</b> Navigator Stations	View Manager Modify Permissions
	-	BB	import Views for MosaicTVWall Feature
	-	9	View Manager Alarm Ouput



# Additional Description:

View Manager Device Settings	□         ○         □         ▲         ○         > SEO         Ø         B         ○           ■         ↓ User Manager         ●         ↓         ●         ↓	For any device in the NAV server group, right-click the menu to configure permissions.
View Manager Modify Permissions	■ S Navigator Stations ■ E 26.54-7F ■ S Local Host ■ S + 001 Main Grouping S + # #001 Cam 001 ■ # #001 Cam 001 ■ # #003 Cam 003 194 PTZ	Tick or drag the mouse to the screen group to restrict permissions.

# Chapter 10 Device Management

Click one of the users in User Management, and the Device tab will be shown on the right side. Check the devices you need for the said permissions to be accessed. After setting is finished, click the **Save** and **Exit** buttons.

ser type :	1:admin	✓ Modify	Delete	
	Jsername Indmin		Operation Device	

Note: Please close all the View Manager software and restart the application settings.

#### Chapter 11 Local Device Manager

The Local Device Manager is the tool that shows the status of the devices that are currently connected to the system.





#### Chapter 11.1 Local Device Status Report

To query Local device status, please click **Local Device Manager** icon. Enter the username and password. And then, press **Local device** in the Device Manager tab. Check the DHD/NVR in the device tree and press **Reload** button. This can scan the DHD/NVR and provide a Local device S.M.A.R.T report, which shows all the DHD/NVR information including device name, location, IP address, device type, firmware version, channel no., current record time, connection status, device reboot time and access time.



#### Chapter 11.2 HDD Status Report

Press **HDD** in the Device Manager tab and check the NVR in the device tree. This can scan the NVR and provide a HDD S.M.A.R.T report, which shows all the HDDs installed for all NVRs.

device	HDD										
{	- <b>-</b>	#005 PSD4624_30X	^	No	Device Name	Loc	ation	IP	Access	time	
		#006 IPS420旭捷滑環0318		1	NVR400L			192.168.3.160:80	2017/07	/06 17:20:07	
		#007 NVR400L		2	CAM 02			192.168.3.160:80		/06 17:20:10	
				3	CAM 03			192.168.3.160:80		/06 17:20:12	
	~~	#008 CAM 02		4	CAM 04 CAM 05			192.168.3.160:80 192.168.3.160:80		/06 17:20:14	
	⊴⇒	#009 CAM 03		6	CAM 05 CAM 06			192.168.3.160:80		/06 17:20:17 /06 17:20:20	
		#010 CAM 04		7	CAM 07			192.168.3.160:80		/06 17:19:42	
[	Z,	#011 CAM 05		8	CAM 08			192.168.3.160:80		/06 17:19:44	
{	⊿⇒́	#012 CAM 06									
{	⊴⇒	#013 CAM 07									
{	z⇒	#014 CAM 08		-		1					
		#015 CAM 09		No 1	Firmware 01.01A01	Temperature 35	Power On Hours 22423	Model Family Western Digital AV-G	D (AC)	Device Model WDC WD10EURX-6	Se
						22	22423	Western Digital AV-G			
		#016 CAM 10		1	01.01001						
{		#016 CAM 10 #017 CAM 11		1	01.01.01						
[	Þ				01.00001						
[		#017 CAM 11		1	01.02.001						
[		#017 CAM 11 #018 CAM 12		1	0102001						
[		#017 CAM 11 #018 CAM 12 #019 CAM 13			0102001						
		#017 CAM 11 #018 CAM 12 #019 CAM 13 #020 CAM 14		L							
		#017 CAM 11 #018 CAM 12 #019 CAM 13 #020 CAM 14 #021 CAM 15	*	۲ ۲							

- **Firmware**: Firmware of the HDD
- **Temperature**: Temperature of the HDD
- **Power on Hours**: The length of time between failures of the HDD
- Model Family: Manufacturer of the HDD
- Device Model: Model of the HDD
- Device ID: ID of the HDD
- Capacity: Maximum capacity of the HDD
- S.M.A.R.T.:S.M.A.R.T. status of the HDD

S.M.A.R.T. report is the potential indicators of imminent electromechanical failure. It does not mean that the HDD is broken. See appendix for detail.



#### Chapter 12 How to Connect via the AD/LDAP Server

The View Manager can support Active Directory (AD)/LDAP for user login management.

The View Manager is able to login via AD/LDAP for user accounts and to use the "user type" of Navigator Corporate with cameras and features available for the user group.

- Normal Mode: Use the user database of the View Manager's or NAV Recorder for login.
- AD Server Login: Use the user database of an AD Server. Import these users of an AD Server into NAV's user group.
- LDAP Login: Use the user database of an LDAP Server. Import these users of an AD Server into NAV's user group.

The AD/LDAP server specifies as follows:

- Host Name: The AD/LDAP server host name.
- Basic Distinguished Name: The AD/LDAP server distinguished name.
- DN Path: The AD/LDAP server distinguished name file path.

For example the LDAP server has created a new project.



And LDAP server has created a new group.





The following is an example, create a name with cn=RD.



Ensure that the CN account has established an RD name.

Construction     Construction       Construction			XPGDG	-	_				_														
> Ornej     Set Password     Ctrl+P       > Ornej     New     C     Entry       > Ornej     Edit Entry     Sec     Ctrl+U       20     Bookmarks     Ctrl+B     Computer       21     Bookmarks     Ctrl+B     Computer       22     Copy     S     Group       23     Croup.ter     Ctrl+S       24     Maiing lat     Transport table       25     Create allat     S       26     Organizational unit     Ctrl+Cl       27     Moling lat     Host       28     Moling lat     S       29     Host     S       20     Copy of tho clipboard Ctrl+N     S	> - C or-p	-propolicies cn -groups obj		cn	RD			Text	Size 2 18														
New     Entry       2     Edit Entry       2     Bookmarks       Copy       Move       Craste allas       Craste allas       Paires	> - Co - s		Set Password	Ctrl+P																			
Edit Entry     Edit Entry     Bookmarka     Chrl+B     Computer     Chrl+W     Copy     Move     Consumation of the second s			New		0	Entry																	
Copy     Mailing lat       Move     Mailing lat       Create alias     Transport table       Rename     F2       Delate     Del       Refresh     F3       Copy dn to clipboard Ctrl+N     Alias		🖌 Edit Ent		Ctrl+B	3																		
Rename     F2       Delete     Del       Refresh     F5       Copy dn to clipboard Ctrl+N       Alian		9	Move		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Mailing list Transport table Organizational unit Host																	
Refresh P5 A Group of unique names     Copy dn to clipboard Ctrl+N G Alias		×					1000	1.000	1000	10	8	1.00	1000	1000	1000	80	80	80	80	100 H	Host	Host	Chi+O
© Search Chila					1	Group of unique na	26																
		P	Search	Ctrl+F	-																		

Ensure these accounts have established passwords.

	( p @   10 (				
project, dc=mei au=pwpolicies	itilin,dc=com [project.n	Attribute	Value	Type	Size
cn=groups		objectClass posixAccount		Text	12
cn=NAV_Admi	n	objectClass	top	Text	3
cn=RD		objectClass inetOrgPerson		Text	13
al uld=Marr	Set Password	Ctrl+P	0 MIKE	Text	1 4
ch=synocc	Sec Password	CIN+P	LU	Text	2
sambaDom	New		ju	Text	2
1	Edit Entry	v	X00000X	Text	6
	Bookmarks	Ctrl+8	h	Text	2
			64291	Text	5
	Copy				
	Move				
6	Create alias				
	Rename	F2			
>	and the second second second	Del			
	Refresh	F5			
	Copy dn to clipbo	ard Ctrl+N			
19	Search .	Ctrl+F			
	Search	C01+F			



#### Create user type:

After creating an account on the LDAP server, please create an RD to enable the user type. Please enable the account permission setting and camera viewing permission.

laviga	tor User Manager 64 bits	-	×		ator User Manager 64 bits			- 0
				File				
r type	: 2:manager ~ Mod	fy Delete		User typ	e : 2:manager	✓ Modify Delete		
	Username	Operation Device		No.	Username		Operation Device	
	RD_01			1	RD_01			
	RD			2	RD			
	Daniel	Option	^	3	Daniel		B-WEB NVR	
	Aloun	Navigator eMap		4	Aloun		#001 CAM01	
	JasonLin	Navigator eMap PTZ Control	_	5	JasonLin			
		Nevigator Database Manager	_				#002 CAM02	
		Navigator Local and Remote Playback					#003 CAM03	
		Navigator Advanced Alarm Management					#004 CAM04	
		Navigator Camera Setting						
		Navigator Snapshot	_					
		Navigator PTZ Setting Control	_					
		Navigator PTZ Setting Setting					=007 CAM07	
		Navigator System Setting						
		Navigator Monitor Matrix Setting     Navigator Sequence						
		Navigator Sequence						
		Navigator TV Wall Setting					#010 CAM10	
		Navigator TV Wall Logout					=011 CAM11	
		Nevigetor Web Manager						
		Nevigator Ouit Navigator					#012 CAM12	
		Control Center Login						
		Control Center Alarm Management	~				#014 CAM14	
		Electre in second	•					
		Default Select All Clear Cl						
Add	Delete	Password Save	Exit	Add	Delete	Password		Save E

Login: Please select the AD/LDAP server to log in.

Navigator Client 64 bits User Login	
Login Name	1: admin 🗸
Login Type	LDAP Login 🗸
Username	Normal Mode AD Server Login LDAP Login
Password	
Host Name	: 389
LDAP Base Distinguished Name	
Username Path	
Save	OK Cancel

#### Chapter 13 Mosaic TVWall

The View Manager can manage to configure and to display the existing camera views to Mosaic TV Wall for controlling and streaming the views to the HDMI/VGA outputs of Mosaic TVWall. LILIN provides TV wall products NTS1004 (4-display) and NTS1006 (6-display). To wire the TV walls in a control room, the system is described below. Each monitor is connected to a TV wall station. Mosaic TV Wall application of Navigator Control Center can virtually direct video streams to TV wall station. The system diagram is as below:





Major features are described below:

- Monitor Template: Monitor set up for Mosaic TVWall.
- **Run**: Display assigned monitor template for monitors.
- Sequence: Display all the monitor templates.
- Channel setting: Drag and drop cameras on monitors.
- **Monitor setting**: Add monitors to a Mosaic TVWall.



The TVWall can display one camera's full screen video across multiple TVWall monitors for bigger display.

# Chapter 13.1 Mosaic TVWall Setup

To set up Mosaic TVWall, click the 📴 icon for opening Mosaic TVWall application via View Manager.



A dialogue box will pop up, "Do you want to import the camera view to Mosaic TV wall". Please click OK.

#### Chapter 13.2 How to Set up Camera View for Mosaic TVWall

Click on B Mosaic TVWall icon that can import the existing View for TV wall display. Navigator Control Center will pop up a dialogue box for importing the existing camera view to the Mosaic TVWall application. This feature is important and easy-to-use. Once a camera view is set up, the view is then used for the TV wall display. There is no need to configure the camera view again.





## Chapter 13.2.1 Manually Add Camera to Mosaic TVWall

To add the camera configuration manually into the TVWall, drag the mouse cursor on the camera to camera view for the TVWall display.



# Chapter 13.3 Mosaic TVWall Monitor Layout Setting

To set up Mosaic TVWall, open **Mosaic TVWall**, and select **Set monitor template** and specify Room # to create M x N TVWall for a room.



The example below shows Room #1, and there are four monitors.





### Chapter 13.4 Mosaic TV Wall Monitor Output Assignment

To add TV Wall monitors, click Add icon at the bottom right. Click **Search** to discover available TV Wall stations. Next, click **OK** and enter required information. Click **Verify** to test if the TV Wall station is working properly. If two monitors are connected to the station, the outputs (HDMI, VGA, or display port) will be shown on the TV Wall window.

After the outputs of the TV Wall stations are configured, follow the steps below to finish set up:

- Drag and drop monitor outputs to the left pane to assign a monitor.
- Drag cameras into the position of a monitor.

#### Chapter 13.5 How to Set up Communication for Mosaic TVWall Stations

To add Mosaic TVWall to Navigator Corporate, please click on Windows->Start->LILIN Navigator->Streaming Station-> Setup-> Service Configuration.

Navigator MStreaming Server 64 Bits	□ ×	Navigator MStreaming Server 64 Bits	×
Log Setup Log 2017/08/11 13:45:19 [Streaming Server Start.] 2017/08/11 13:52:30 [Reponse IPScan Message To [192.168.3.91]] 2017/08/11 13:52:30 [Reponse IPScan Message To [192.168.8.91]] 2017/08/11 13:52:31 [Reponse IPScan Message To [192.168.8.91]] 2017/08/11 13:52:31 [Reponse IPScan Message To [192.168.8.91]] 2017/08/11 13:52:31 [Reponse IPScan Message To [192.168.10.91]] 2017/08/11 13:52:31 [Reponse IPScan Message To [192.168.13.91]] 2017/08/11 13:52:33 [Reponse IPScan Message To [192.168.8.91]] 2017/08/11 13:52:35 [Reponse IPScan Message To [192.168.8.91]] 2017/08/11 13:52:35 [Reponse IPScan Message To [192.168.10.91]] 2017/08/11 13:52:35 [Reponse IPScan Message To [192.168.19.91]] 2017/08/11 13:52:33 [Reponse IPScan Message To [192.168.8.91]] 2017/08/11 13:52:33 [Repo	~	Log Setup Net Streaming Server Listen Port 8021 IPScan Discovery Support Service Configuration Setup Screen Capture Server Start Server Start	
	Exit	OK	3

Make sure that the Service Configuration is set to Easy Mode. Easy Mode can simplify the system setting. Click **Auto Check** button to fetch the configuration automatically.

Service Configurat	ion				×
Enable Navigator Co Local Host	ntrol Center Easy Mode	Parents			
Local Host Name	LAPTOP-2GMJ3GR9	01			×*.
GUID	B723DE7D-2330-4045-8312-00A0A8AFFC0A	Service Name			
Verification Code					
IP	192.168.0.68	Service Type	None Service		~
Auto Scan Code	0				
		Auto Check		Setting	Delete
				OK	Cancel



Enable Auto Set TV Wall. This can invoke the TV Wall and display the TV Wall when the system reboots.

Service Configur	ration		>
✓ Enable Navigator Local Host	Control Center Casy Mode	Parents	
Local Host Name	LAPTOP-2GMJ3GR9	02: NAV TVWall se	rvice #2
GUID	B723DE7D-2330-4045-8312-00A0A8AFFC0A	Service Name	NAV TVWall service #2
Verification Code	#		
IP	192.168.0.68	Service Type	NAV TVWall service ~
Auto Scan Code	0	Auto set TV v	#2: Position(0, 0), 1920*1080 ~ iewer Identify Monitor
		Auto Check	Setting Delete

For example, one company, the headquarter, wants to display their branch office NAV device camera all in a customized Mosaic TVWall.

Assume the Navigator at each branch supports 4 monitors. Each branch office has one or several NAV recorders.

Please make sure that every branch office NAV Corporate recorder has LILIN Navigator Corporate and LILIN Control Center launched.



Chapter 13.6 Automatic Invoke Remote Mosaic TVWall Setting

To enable automatic invoke remote mosaic TVWall function, tick in "Auto set TV viewer" box.

服務設置			×
☑ 啟用Navigator 主拍 一本機端	空端 团 簡易連線模式	伺服器	
設備名稱	DanielAPO		03: NAV TVWall service #1
電腦識別碼	69D852E6-80C1-4FBE-B48C-2F2F95C895C6	服務名稱 NAV 0	11: NAV Control Center Service 12: NAV Management Service 13: NAV TAWAII service #1
驗證碼 網路位址 Auto Scan Code	192. 168. 26. 20           0	服務類型 NAV T #1: P ✓ Auto set TV viewer	6 17 18
		Auto Check	設定
			確定取消



To set up LILIN NAV Control Center Configuration remote TVWall, please tick in the Auto Start and Auto Login boxes. When the computer or Control Center restarts, the automatic enable Mosaic TVWall will be determined according to streaming server setting, whether the "Auto set TV viewer" is set or not.

🔯 Control Center 64 Bits		-	$\Box \rightarrow$
File			
NAV Control Center Configurat	2020/10/20 10:38:30 [ IP Address: 192.168.26 2020/10/20 10:38:30 [ IP Address: 192.168.26	93 Monitor St 54 Monitor St	art] art1 X
Enable Navigator Control Cer			Â
Remote Services	System		
Remote Host	1: NAV5004F:8021 V Auto Start		
Remote Host Name	NAV5004F Auto Login		
Remote GUID	C9579C53-SB05-4E65-9C14-2848CA96E246 Auto run Navigator Client when system starts		
Verification Code	1234567890 Auto run Alarm Manager when system starts		
Service Code	servicecode001 Auto run TVwall manager when system starts		
IP	192.168.26.93		
Port	8021		
Username	admin		
Password			
Service Type	NAV Management service  V Resource Management		
Search Delete	Verify Apply Language English		$\sim$
		ОК	Cancel
i ci			
- <del>~</del>			
C			
· 🖌	<		
Add Mo	ify Delete Property Clear		Exit

Chapter 13.7 Sequence Display for Mosaic TVWall

Press **Run** on the top of the window to start using the TVWall. Press **Sequence** to change the view according to the preconfigured time slot.

The screen setting **space** supports the same screen position. And in the **group** setting, the various display template can be changed to achieve real-time monitoring of the group.

📸 🔛 🎼 #1: My Room 🗸 🔍 🗖	SEQ 🗘 🎦 #5: TV Wall 🗸	⊙X		⊙ – □ X
	-		× 1111	
	Room name ↓ # 1: My Room ↓ # 1: My Room ↓ # 1: My Room	Channel group name #2: My View #5: TV Wall #3: My Machine		
	ARS 5 1 5 1			© NAV Server E ■ ⊕ NAV1088 ■ ⊕ PHILMORC, 5 Los ■ © Private Collection Col
		Add Delete		
AAS 5 1 5 0 case in or	Sequence Time	150 Sec OK Cancel		∎ ම ව ඒ ቻ

Chapter 13.8 Mosaic TVWall Camera Groups

Once the monitors are set, press the **Group** drop-down menu

Click **all channels I** to delete all channel settings.



#### Chapter 13.9 How to Set up TV Wall Application The Mosaic TV Wall consists of the following:

- 1. Monitor setting.
- 2. Camera setting
- 3. Mosaic TVWall service
- 4. Main screen.



On the top left, click on Layout Monitor icon.



**Note:** The "Setup remote Mosaic TVWall Services automatically" is ticked as default. If LILIN Navigator and LILIN Control Center is open at the other party, the remote TVWall service is automatically invoked.

Set Monitor		×
IP		
Port		
Username		
Password		
Verification Code		
Setup remote Mosaic TV W	all Services automatically	
Search Verify	Identify OK Cancel	

Select the computer that is being used as station. Click on **OK** button.

PC Name	IP	Port	Version	Service Status	Easy Mode /
YIHHANN-19	192.168.3.19	8021	030052.P	Disable	TRUE
3U-16108B	192.168.3.239	8021	030072.P	Disable	TRUE
DESKTOP-U8BI2PB	192.168.26.4	8021	030082.T2PM	#3:Enable,	TRUE
MSI	192.168.3.14	8021	030082_F.P	Disable	TRUE
ASUS	192.168.189.73	8021	030054.T2PM	#2:Enable,	TRUE
DESKTOP-E4446EO	192.168.137.234	8021	030082.P	Disable	TRUE
DESKTOP-96PAV8S	192.168.26.97	8021	030072.P	Disable	TRUE
DESKTOP-OS724BO	192.168.26.242	8021	030076.P	Disable	TRUE
DESKTOP-UHKD906	192.168.112.170	8021	030082.P	Disable	TRUE
NAV1108B-4U	192.168.26.7	8021	030072.P	Disable	TRUE
YIHHANN-18	192.168.26.18	8021	030052.T6PM	#3:Enable, #4:Enable,	TRUE
26.54	192.168.26.54	8021	030082.P	Disable	TRUE
NAV5004F	61.216.97.159	8096	030080_F.T2PM	#3:Enable,	TRUE
MSI	192.168.26.20	8021	030080_F.T4	#4:Enable,	TRUE



Click on **Verify** button. It will pop up **Verify OK** if the station is working properly. If not, please check your Navigator Control Center

Set Monitor		×
IP	192.168.26.20	)
Port	8021	tvwallplus X
Username	admin	
Password		Verify OK!
Verification Code	1234567890	確定
Setup remote Mosaic T	TV Wall Services auto	matically
Search Verify	Identify	OK Cancel

Pull the first Mosaic TVWall service icon by maintaining mouse left click.



An adjustable purple window will appear.





Please follow the same step for the second Mosaic TVWall service. Readjust the size of each TVWall.



Click on the **run** icon Click on the top bar. For example, when a 12x12 channel display split into two screen is selected, the monitors will show below images. These images represent Mosaic TVWall is correctly set up.



By clicking **layout channels** icon **w**, it will also customize how the channel are displayed.

Click on the **set channel template** button to define a multiple window. Any template combination can be set up. However, be aware that some combination may result to distorted picture.

Set channel template				×
Name				
Change the division	on			
Row 12	$\sim$	Column	12 ~	
		ОК	Cancel	

As example, we will select 5x5 display mode, select row 5, and column 5. Click on OK button.

Set channel template				×
Name				
Change the division	on			
Row 5	~	Column	5 ~	
		ОК	Cancel	



After adjusting some channels size, it will show below image:



Click on the layout monitor icon IB to display the two TVWall preview.



Click on the **run** icon **I** to see the results.



Chapter 13.10 Alarm Acknowledge Feature of TV Wall

Open Alarm ACK and specify the screen location to show the alarm confirmation in the display mode.





# Chapter 13.10.1 Alarm Center Setting for TV Wall

Click on View Manager, mouse right click on selected channel, enter alarm setting and tick in NCC TVWall ACK box.



After Alarm Center received alarm notifications, the ACK will be imported to the following screen. Click "ACK OFF" for acknowledging the alarms.



Chapter 14 Maintenance

#### Chapter 14.1 Recording Health Checker

For the following circumstances, a user might use the Recording Health Check App for checking if the recordings are well for playback purpose.

- 1. Rebuild a RAID after HDDs failure.
- 2. Move HDDs from one NAV machine to another.
- 3. Re-install Windows on NAV machine,

For above circumstances, please perform Recording Health Checker to scan through all the recordings. Go to Windows->LILIN Navigator 3.0->Recording Health Checker.





Enter start time and end time and click OK for scanning recordings for all HDDs. Select "Low CPU Usage Mode" for background scanning.

art Year	2020	Month	8	Day	23	
nd Year	2020	Month	9	Day	24	
:\Video\B723						
: (video (B72)						
			UUAUA8	AFFCUAJZUZ	0/09/10/	

# Chapter 15 System

Chapter 15.1 Import and Export for System Configurations

Select the "System Settings" icon and click "Local Server Backup" button to import and to export the local configuration file for future use.

三口 ۞ 🕒 🚢 🗘 🗅	seq 🔏 🔠	9	My Machine				?	– А Х
¥ ■☆ Viewer Manager ■ ゆ IP Scan Collections ■ 圖 Navigator Stations	<b>√</b> Q				Cam 001 zzz =			紐約交過流量表 🗆 🗙
Navigator Stations     Avigator Station	System							
■ Private Collections ■ Ø URL Collections			<ul> <li>Iframe Only</li> <li>All channels are set to ifram</li> <li>Original video resolution in</li> </ul>				Æ	
			NAV Iframe Only Anti-aliasing(High CPU Load)	Smart anti-aliasing		<u> </u>	~ 天)	
			GPU Mode Connection Type	Display hardware graphics acc	eleration (default)	<ul> <li>✓</li> </ul>		URL 002: □×
				Dual Streaming Mode for the o	Channel	~	nd	emic on
			Local Server Backup					nperature asurement
							te for visiting of Mail about usin	ur web. By using this g cookies, visit
			and the stars	and the second			Ries	
		Time	Device Name	Remote host Channe		vent		
		2020-09-25 12:59:15 2020-09-25 12:59:15		MSI DESKTOP-3TM9LKT	192.168.3.14:8080 Sta 192.168.26.54:8080 Sta	tion Disconnection tion Disconnection		

As shown in the figure below, you can export databases such as electronic maps, user accounts, license plate recognition, and face recognition. Sensitive information such as user passwords has been encrypted with AES256 to ensure network information security protection.

System		
-,	Local Server Backup	
	Eocal Server Backup	
	Data Type	
	o eMaps    User Accounts    ANPR	i i i i i i i i i i i i i i i i i i i
	● Facial ● NAV ● NCC	
	Ľ .	
	Action	
	Import Export	
	Close 🗸	
	Language English	
	Local Server Backup	
		OK CANCEL

Note: The View Manager free version software only supports local backup NCC and user account import and export.



Chapter 15.1.1 Back up Import Location

The local host back up import location is as follows:

• eMap: NCC Navigator Control Center online eMap and offline eMap backup.



• User Account: NAV, NCC & View Manager user accounts authorization manager backup.

用者群組: 2:manager	▶ 修改 冊『		
· 使用者名稱 AAA		作用設備	作用)读佛
			P → P → P → P → P → P → P → P → P →

• License Plate Recognition: NAV license plate list back up.

顧示/記録 ☑ 取用此装置			预党										
攝影總名稱	Cam 073												
摄影穩地點													
統置型號		围											
頻道 #	Cam 001 🗸 😵	定				# (2)	鮮組設定						
	自動轉入DVR	込					PT NELKOL AL			AI引擎			
選擇串流模式 教育	唐清樸式	~				東陸	戰種	VBHY218	詳細	☑闡散服務			
	■波錄影 ~ 1 FPS					215	148.00	002.允许名單		開設者			
	₽XLERE V TFPS	V				DATE	11 1005	002.元計名草	~	PURK BELLEVEL			0.0.
開始 IP/DNS										通訊埠號		8592	
IP/DNS 網頁埠(ex. 80)	80	×	母找装置		影像		新増 修改	用的	匯入 匯出	群組名稱			
Onvif埠(斑垴)	80	$\sim$								VIP			修改
HTTPS Port (ex. 443)	443	1	指定硬碟錄影			F	車牌號碼	群組代號	群組名稱	_			
影像诵訳坦	554		自動語音切換		醫報管理		0857KM	1	拒絕名單	#	群組名稱 時外列表		
使用者名稱	admin	-1	ONVIE		ePOS/OSD		ABC1234 VBHY218	3	VIP 允許名單	1	拒絕名單		
空碼		-1	装置接到:	IP Cam			1011210		264119246	2	允許名單		
攝影機缆485 ID	1	~	管报输入(DI):	0	車牌群組設定					3	VIP		
			警報輸出(DO):	0	物件計數					5			
□時間校正				0	人脑颈龈					6			
<ul> <li>時間ACE</li> <li>低頻度主動NAV連続模3</li> </ul>										8			
	0.05FF6				設定総私權返軍					9			
織印度語	· ·									10			
										-			· · ·



• Face Recognition: NAV Face list back up.



• NAV: NAV IP, groups, alarm setting back up.



 NCC: The content of the NCC data backup is the View group and the connection information of the IP Cam/NVR/DVR/NAV.





# Chapter 15.1.2 Find Device

IPScan utility can scan through all IP address in the LAN to locate devices.

N	Navigator IPScan 64 bits Help	- 🗆 X
Navigator Client HD 3.1 へ 新増	The second	Mode Name Z7R8182X3-P
Q IPScan 新増	105         2H         192.168.150.39         255.255.255.0         192.168.150.254         80         Static IP         000Hr           106         2H         192.168.150.40         255.255.55.0         192.168.150.254         80         Static IP         000Hr           107         SG         192.168.150.41         255.255.55.0         192.168.150.40         Sole Static IP         000Hr           107         SG         192.168.150.41         255.255.55.0         192.168.150.40         Sole Static IP         000Hr	416 416 Subnet Mask 255.255.255.0 9995 Colouration 102.168.150.354
	109         ZH         192.168.150.45         255.255.255.0         192.168.150.254         80         Static IP         000ffc           110         SG         192.168.150.46         255.255.255.0         192.168.150.254         80         Static IP         000ffc	644 Galeway 152,100,130,234 46 HTTP Port No. 80 564
Navigator Client 3.1		Static OHCP OPPOE ONVIF     PPPOE Account
Dep Remote Playback Manager 新聞		PPPoE Password
Uninstall Navigator Client 3.1		Username Password
A User Manager	<	Refresh Apply
🖹 User Manual Japanese	Status: IP Assignment: Static Version: 10.1.001.2678 122 / OK	Firmware Update. Batch IP Setting Set as Default Time Adjust
E UserManual_EH3.0		Other OK

Press IPScan and select a device in IPScan to manually add devices of IP Fast Dome, IP camera, video server, or DVR.

Note: IPScan can only work under a LAN environment and does not support an Internet environment.

#### Chapter 15.1.3 Device Status Message

#### • Check connection:

If the device is not scanned by NAV Control Center or NAV View Manager, the message, device lost, gets shown after the device name for showing to the operator for troubleshooting.

#### • Check Recording:

The device has not been assigned to any NAV recorder, if you need the device for recording. Please assign the device to an NAV recorder.

#### • View setup:

The device has not been assigned to any View Manager. If you want live monitoring, please assign the camera to a View.

#### • Setup Video:

The device has passed the authentication, but the camera's video profile or DVR/NVR's streaming information can not be acquired. Make sure that the camera or the DVR/NVR is supported by NAV Control Center or NAV Recorder.

#### • Setup password:

The device has not been setup for it username and password. Please enter the username and password for this device.



# Chapter 16 Troubleshooting

# Chapter 16.1 Hard Disk Supported

#### Chapter 16.2 Choosing between SMR and CMR in Hard Drives

Many people ask what is the right hard drive for the intended use. Because different recording methods have different performance. SMR is used for cold data storage and CMR is used for repeated reading and writing data. Both technologies have their own characteristics for reasonable and right application.

In our guide, it is usually recommended to use CMR hard disks. When the recording host often reads and writes or important data transmission is important, CMR hard disks are a good choice. It is recommended to choose the Pro series of the same model, which can read and write for a long time. To maintain life and warranty, the following are WD and Seagate series hard drives.

For more detailed hard drive model brands, please consult the original manufacturer's technology.

Brand	Model #	Format
WD	Purple Surveillance Al	CMR
WD	Red Pro NAS	CMR
WD	Gold Enterprise	CMR
Seagate	SkyHawk Al	CMR
Seagate	IronWolf Pro NAS	CMR
Seagate	Enteprise Exos 7E8	PMR
Seagate	Enteprise Exos X16	PMR

**Note:** Technically speaking, SMR also uses a vertical magnetization method, so in order to segregate, the original PMR is renamed CMR.