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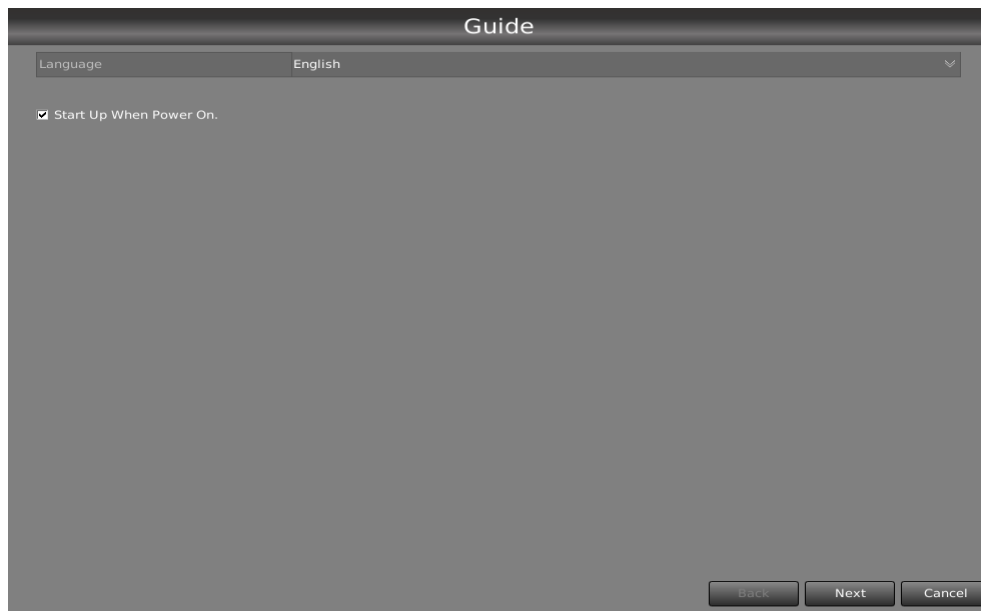
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Chapter 1 Guide

By default, the Guide Interface will show up automatically when the System boots up by pressing the Power ON button. In the Guide, you can setup system language, modify super user's password, adjust system date and time, add three specific device types automatically to the system and input network IP address according to your local network configuration.

Setup 1:

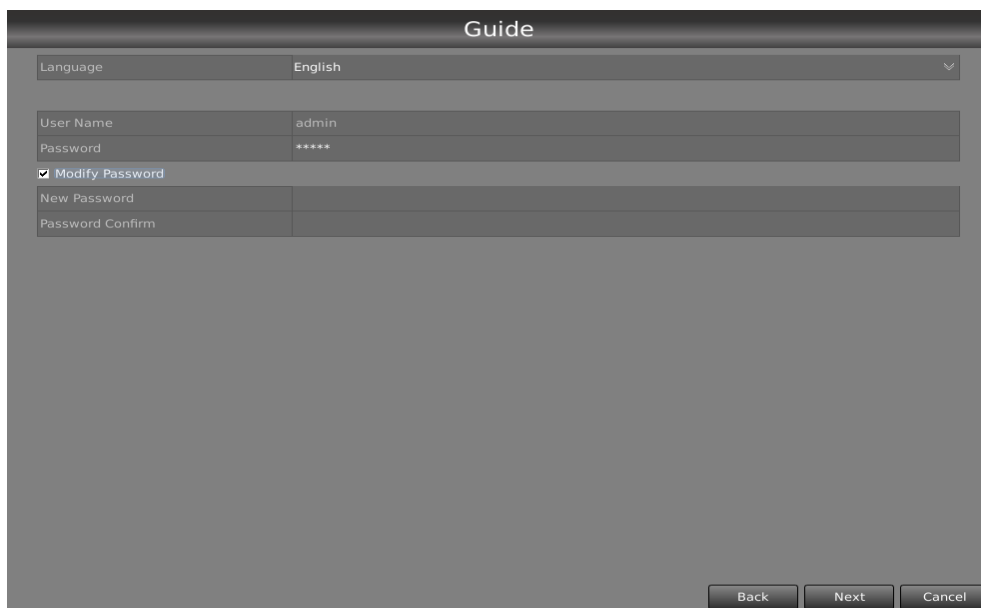
In the picture, you can set up system language. Click the "Cancel" button can exit the Guide. But for your first time to enter the System, you should finish network settings in the Guide and then register your System after Guide.



The screenshot shows a window titled "Guide". At the top, there is a dropdown menu for "Language" with "English" selected. Below this, there is a checkbox labeled "Start Up When Power On." which is checked. At the bottom right, there are three buttons: "Back", "Next", and "Cancel".

Setup 2:

Click "Next" button to continue the Guide settings, you will enter the Login window.



The screenshot shows a window titled "Guide". At the top, there is a dropdown menu for "Language" with "English" selected. Below this, there are two input fields: "User Name" with the value "admin" and "Password" with the value "*****". Below these fields, there is a checkbox labeled "Modify Password" which is checked. Below the checkbox, there are two more input fields: "New Password" and "Password Confirm". At the bottom right, there are three buttons: "Back", "Next", and "Cancel".

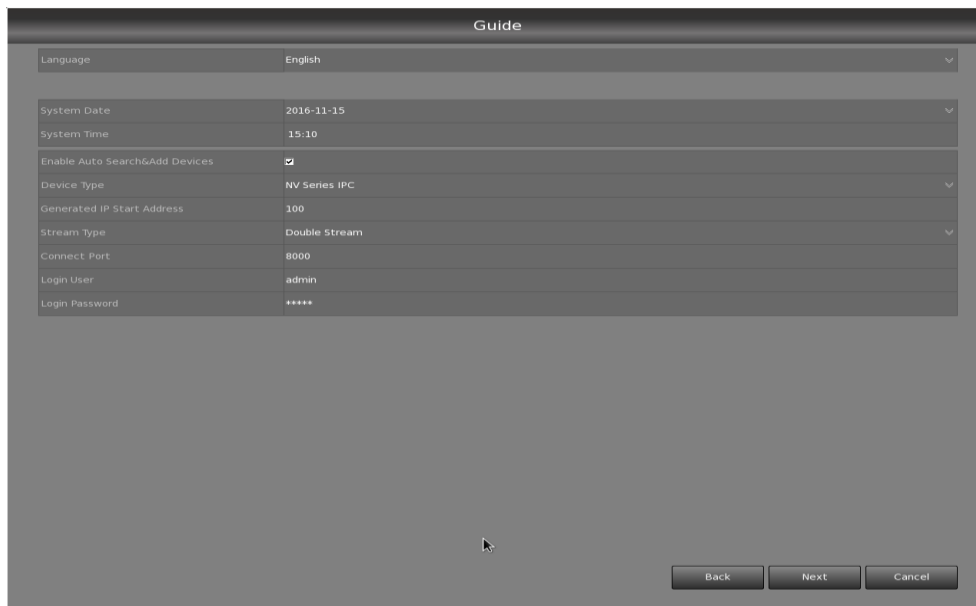
The default user ID and password are both **admin**, you have to input them to log in System. You can also change the password by checking the "Modify Password" box.

Tips:

1. For security, please modify password after your first login.
2. You should input the same new password for twice, and the new password will take effect.
3. Double click the input area will bring up a software-keyboard interface whenever you need to input anything. It doesn't support software-keyboard when system language is Chinese.

Setup 3:

Click "Next" button to continue. You can modify system date and time in this Interface. Enable Auto Search&Add Devices, System can add IP cameras automatically according to your configuration, shown in picture blow.



The screenshot shows a 'Guide' window with a list of configuration options. The options are as follows:

Option	Value
Language	English
System Date	2016-11-15
System Time	15:10
Enable Auto Search&Add Devices	<input checked="" type="checkbox"/>
Device Type	NV Series IPC
Generated IP Start Address	100
Stream Type	Double Stream
Connect Port	8000
Login User	admin
Login Password	*****

At the bottom right of the window are three buttons: 'Back', 'Next', and 'Cancel'.


Tips:

In general, please do not modify the system date. The system may not boot up successfully next time with wrong date, and you must restart system and enter the Motherboard BIOS to modify the system date when it happens. About specific steps, please refer to the **Appendix A** for details.

Setup 4:

Click "Next" to continue, you will enter network settings. Please input correct IP Address, Mask Address, Gateway Address, and DNS Server IP.

Tips:

There will be a button  showing up in the blow interface and the interface of **Network Setting** in **System Setting** after you changed the motherboard of the SSD. Before configuring network information, please click it to clear the old network information. It won't show up unless you change another motherboard for the same SSD.

Guide	
Language	English
Network Adapter 1	
DHCP	<input checked="" type="checkbox"/>
IP Address	192 . 168 . 0 . 248
Mask Address	255 . 255 . 255 . 0
Gateway Address	192 . 168 . 0 . 1
MAC Address	70 8b cd 54 79 3b
Preferred DNS Server	61.128.128.68
Alternate DNS Server	

Clear

Back OK Cancel

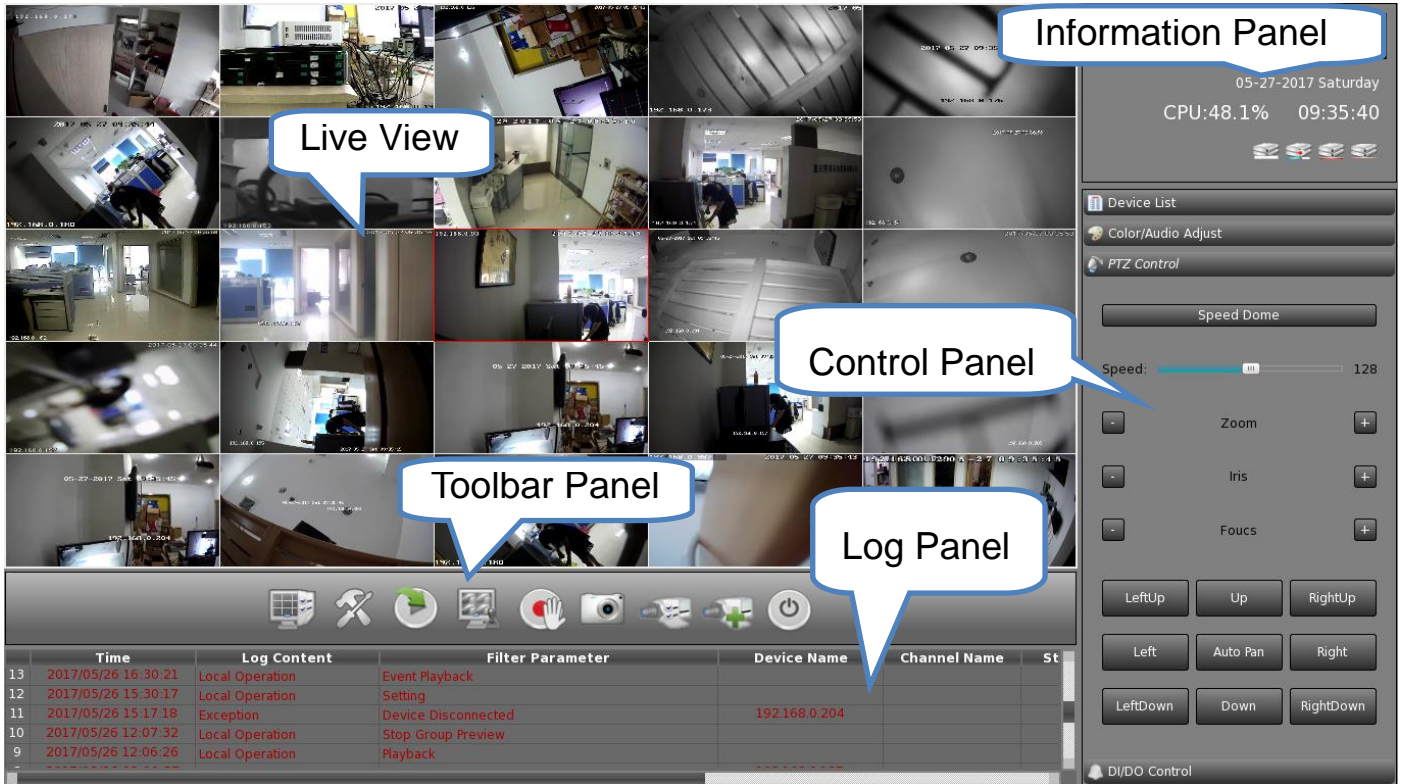
Click “OK” to complete the Guide setup.

Notice:

1. If user wants to use DHCP, need to enable DHCP on router.
2. You can check the DHCP IP address in System setting >> Network Setting
3. If you have set static IP for NVSS, but you want to change to be DHCP, then clear the network configuration, then enable DHCP to save, it will get IP automatically.

Chapter 2 Main Interface

The main interface contains five parts: Information Panel, Live View, Toolbar Panel, Log Panel, and Control Panel.



2.1 Device Management

Before you get any camera live view or recording, you should add it to the connection list of Device Management first, shown in picture blow. All these cameras will be added to group 1 automatically.

Device Management							
	IP Device Name	IP Address	Port	Device Type	Channel Num	Connect Status	Stream Type
1	192.168.0.149	192.168.0.149	37777	DH Series IPC	1	Success	Double Stream
2	192.168.0.156	192.168.0.156	37777	DH Series IPC	1	Success	Double Stream
3	192.168.0.160	192.168.0.160	37777	DH Series IPC	1	Success	Double Stream
4	192.168.0.162	192.168.0.162	37777	DH Series IPC	1	Success	Double Stream
5	192.168.0.157	192.168.0.157	37777	DH Series IPC	1	Success	Double Stream
6	192.168.0.151	192.168.0.151	37777	DH Series IPC	1	Success	Double Stream
7	192.168.0.147	192.168.0.147	37777	DH Series IPC	1	Success	Double Stream
8	192.168.0.159	192.168.0.159	37777	DH Series IPC	1	Success	Double Stream
9	192.168.0.97	192.168.0.97	6060	NT Series IPC	1	Success	Double Stream
10	192.168.0.119	192.168.0.119	6060	NT Series IPC	1	Success	Double Stream
11	192.168.0.112	192.168.0.112	6060	NT Series IPC	1	Success	Double Stream
12	192.168.0.111	192.168.0.111	6060	NT Series IPC	1	Success	Double Stream
13	192.168.0.96	192.168.0.96	6060	NT Series IPC	1	Success	Double Stream
14	192.168.0.94	192.168.0.94	6060	NT Series IPC	1	Success	Double Stream
15	192.168.0.116	192.168.0.116	6060	NT Series IPC	1	Success	Double Stream
16	192.168.0.92	192.168.0.92	6060	NT Series IPC	1	Success	Double Stream
17	192.168.0.91	192.168.0.91	6060	NT Series IPC	1	Success	Double Stream
18	192.168.0.95	192.168.0.95	6060	NT Series IPC	1	Success	Double Stream
19	192.168.0.110	192.168.0.110	6060	NT Series IPC	1	Success	Double Stream
20	192.168.0.93	192.168.0.93	6060	NT Series IPC	1	Success	Double Stream
21	192.168.0.90	192.168.0.90	6060	NT Series IPC	1	Success	Double Stream
22	192.168.0.88	192.168.0.88	6060	NT Series IPC	1	Success	Double Stream
23	192.168.0.118	192.168.0.118	6060	NT Series IPC	1	Success	Double Stream
24	192.168.0.193	192.168.0.193	8000	NV Series IPC	1	Success	Double Stream
25	192.168.0.187	192.168.0.187	8000	NV Series IPC	1	Success	Double Stream

Add Device


Modify Device

Delete Device

Auto Search&Add Device

IPC Search

Exit

There are three ways to get into the **Device Management** interface: ①select **Add Device** option in right-click context menu;② select **Device** option in system **Main menu** of context menu;
③click on  icon in toolbar panel.

2.1.1 Add IP Device

1. Add IP Device manually

Click on **Add Device** button to bring up a sub window shown blow, you can add an IP Camera, HD Analog DVR or NVR manually.



The 'Add Device' dialog box is a dark-themed window with a title bar. It contains several input fields and dropdown menus arranged in two columns. The left column includes fields for 'Device Name', 'IP Address', 'Connect Port' (with '8000' entered), 'Login User' (with 'admin' entered), and 'Login Password' (with '*****' entered). The right column includes dropdown menus for 'Device Type' (set to 'NV Series IPC'), 'Stream Type' (set to 'Sub Stream'), and 'Max. Channel Num' (set to 'Unlimited'). At the bottom right, there are two buttons: 'Add' and 'Exit'.

【Device Name】 Set an alias for the new IPC/IP device, the device name you set will be shown as IPC/IP device name in the preview channel and Device List.

【IP Address】 Input the IP address of the IPC/IP device, it is an IP address or IP alias of an IPC/IP device which is connected through DNS Server.

【Connect Port】 Set the port through which connects to IPC/IP device.

【User's ID/ Password】 If the user has no right to visit this IPC/IP device or password mismatch, the connection will be cut down.

【Device's Type】 Select the corresponding type for the IPC/IP device. Now our System supports the following types of IP products: NV Series IPC, DH Series IPC, NT Series, NVJ Series, DX Series IPC, and ONVIF protocol IPC. When you add a face detection camera, please use NVJ series.

【Stream Type】 Select main stream, sub stream or double stream for device. If you want to use the record sub stream function in the IP device, you should select the data stream type as Double Stream.

【Max. Channel Num.】 Select the number of channels you want to get from the IP device(1 by default, and it is used when add standalone DVR / NVR). The maximum is 256 channels.

2. Auto Search and Add Device

Click on **Auto Search&Add Device** button to bring up the following "Auto Search&Add Device"

interface. IPC can be added in batches here.

The screenshot shows a software window titled "Auto Search&Add Device". It contains several configuration fields and two main action buttons. The fields are arranged in two columns. The left column includes "Adapter IP Address" (set to 192.168.0.114), "Device Named Type" (set to Name as IP Address), "Generated IP Start Address" (empty), "Stream Type" (set to Double Stream), "Login User" (set to admin), and a "Start Auto Search&Add" button. The right column includes "Device Type" (set to NV Series IPC), "Device Custom Name" (empty), "Generated IP End Address" (empty), "Connect Port" (set to 8000), "Login Password" (set to 12345), and a "Stop Auto Search&Add" button. At the bottom right, there is an "Exit" button. The window has a standard OS-style title bar and a large empty area below the configuration fields.

【**Adapter IP Address**】 some motherboards support two network adapters, please select one through which you want to search IPC firstly. The adapter's IP address has been set in the guide.

【**Device Type**】 Select the corresponding device type for the IPC.

【**Device Named Type**】 It has two kinds of naming patterns: **Name as IP address** and **User Defined**.

①**Name as IP address**: Software will take the IP address of the camera as its device name;

②**User Defined**: In this mode, please input the name which you want to set for cameras into Custom Name blank.

【**Device Custom Name**】 In **User Defined** mode, input custom name for a series of IP cameras. Then the system will assign this name as a prefix for each IPC of this series. E.g. input NT Series IPC, then the cameras will be named as:

NT Series IPC_1

NT Series IPC_2

NT Series IPC_3 etc.

【**Generated IP Start Address**】 【**Generated IP End Address**】 Before searching, please set a range of IP address for IPC to be generated, the starting IP address and the end IP address should be filled into these two bars.

【**Stream Type**】 By default, IPC connection should be double stream.

【**Connect Port**】 Set the port through which connects to IPC.

【**Login User/Login Password**】 It is similar to a passport to connect IPC with System.

After configurations are finished, click on **Start Auto Search&Add** button to start auto search & add devices, and press this button **Stop Auto Search&Add** to stop, shown in picture blow.

Auto Search&Add Device

Adapter IP Address: Device Type:

Device Named Type: Device Custom Name:

Generated IP Start Address: Generated IP End Address:

Stream Type: Connect Port:

Login User: Login Password:

- 1 Auto search starting, wait for 5 seconds to see search results.
- 2 Find a device IP address:192.168.0.175 Connect Port:8000 Mac address : 44-19-b7-02-90-7e
- 3 Analyse and processing the searched devices.
- 4 IP address:192.168.0.175 Connect Port:8000 Mac address : 44-19-b7-02-90-7e is in the given IP address range
- 5 Added Device's name NV Series IPC_IP address:192.168.0.175
- 6 Search the devices in LAN again.
- 7 Find a device IP address:192.168.0.171 Connect Port:8000 Mac address : 8c-e7-48-15-ad-ce
- 8 Find a device IP address:192.168.0.172 Connect Port:8000 Mac address : 8c-e7-48-e1-27-aa
- 9 Find a device IP address:192.168.0.173 Connect Port:8000 Mac address : 8c-e7-48-dd-f0-8c
- 10 Find a device IP address:192.168.0.170 Connect Port:8000 Mac address : 00-40-48-2a-94-bb
- 11 Find a device IP address:192.168.0.222 Connect Port:8000 Mac address : 44-19-b6-11-74-41
- 12 Find a device IP address:192.168.0.179 Connect Port:8000 Mac address : 8c-e7-48-bd-20-79
- 13 Find a device IP address:192.168.0.178 Connect Port:8000 Mac address : 00-40-48-b0-40-a4

Tips:

It will keep searching till the given range of IP address is finished.

3. IPC Search

Click on button to bring up “Devices List” interface.Users can add cameras in batches here.

Devices List

	Device Name	IP Address	Port	MAC Address	Add Device	Device Type	
1	1	192.168.0.170	192.168.0.170	8000	00-40-48-2a-94-bb	No	IPC
2	2	192.168.0.204	192.168.0.204	8000	54-c4-15-6c-17-3f	No	0x22a15
3	3	192.168.0.195	192.168.0.195	8000	54-c4-15-7f-52-d0	No	0x22a05
4	4	192.168.0.198	192.168.0.198	8000	54-c4-15-7f-52-d1	No	0x22a1d
5	5	192.168.0.194	192.168.0.194	8000	54-c4-15-81-6a-ae	No	0x22a0d
6	6	192.168.0.205	192.168.0.205	8000	18-68-cb-05-15-ec	No	0x22a01
7	7	192.168.0.203	192.168.0.203	8000	18-68-cb-06-c6-7d	No	0x22a0d
8	8	192.168.0.178	192.168.0.178	8000	00-40-48-b0-40-a4	No	IPC
9	9	192.168.0.173	192.168.0.173	8000	bc-ad-28-1e-4c-24	No	0x2251b
10	10	192.168.0.201	192.168.0.201	8000	54-c4-15-86-e9-a1	No	0x2225d
11	11	192.168.0.196	192.168.0.196	8000	54-c4-15-80-5e-3e	No	0x22263
12	12	192.168.0.176	192.168.0.176	8000	bc-ad-28-37-af-b3	No	0x2251f
13	13	192.168.0.200	192.168.0.200	8000	54-c4-15-82-54-68	No	0x2208f
14	14	192.168.0.180	192.168.0.180	8000	bc-ad-28-35-22-b9	No	0x2252d
15	15	192.168.0.172	192.168.0.172	8000	bc-ad-28-3b-2e-74	No	0x2251e
16	16	192.168.0.202	192.168.0.202	8000	54-c4-15-84-38-52	No	0x22811
17	17	192.168.0.193	192.168.0.193	8000	bc-ad-28-03-00-dd	No	0x22016

Adapter IP Address:

Device Type:

Device Name:

Stream Type:

Login User:

Login Password:

Max. Channel Num:

IP Address: Mask Address:

Gateway Address: Connect Port:

The System will display all the IP cameras that are found and can be connected.You can also sequence the searched IPC by clicking the head of any column.

Press **Update Device List** button to refresh device list when there is a new connecting IPC that can't be found.

Press **Clear Device List** to clear IP cameras from the list.

Press **Hide added device** to filter added cameras.

You can modify IPC's network information in this interface.Click “Update Device List” to find it again after you modify it,and it takes time to find it sometimes.

Tips:


1. For the same type of cameras, the **Login Password** will be consistent with the last time by default when you add cameras here. This avoids the trouble that the user has to enter a password every time a camera is added when the real password doesn't match the default password.

2. For searching DH Series IP cameras, users have to connect them with a switch under the router, and connect the router to one network port of the system. You can only search the IPC which connected to the one as **Network listen adapter**. You can't search the ones which have the same network segment of the unchecked router.


3. Please select different **Adapter IP Address** to search cameras under different routers connected in different network port of the System.

4. The whole NV Series IPC can be searched whichever **Adapter IP Address** you selected, no matter the cameras are connected under which network port of the System.

2.1.2 Modify IP camera

Press  button to modify IP camera information, the interface is the same with **Add IP Camera**.

2.1.3 Delete IP camera device

Press  button to delete a connected device.

2.2 Live View and Screen Menu

2.2.1 Live View

Live view displays camera's real-time video. You can drag&drop any camera from Device List to any live view sub-window. You also can scroll the wheel of mouse to magnify the selected image, eight times largest. In the magnified screen, you can click and hold down the left mouse button to move to convert the perspective. Right-click to restore the enlarged image.

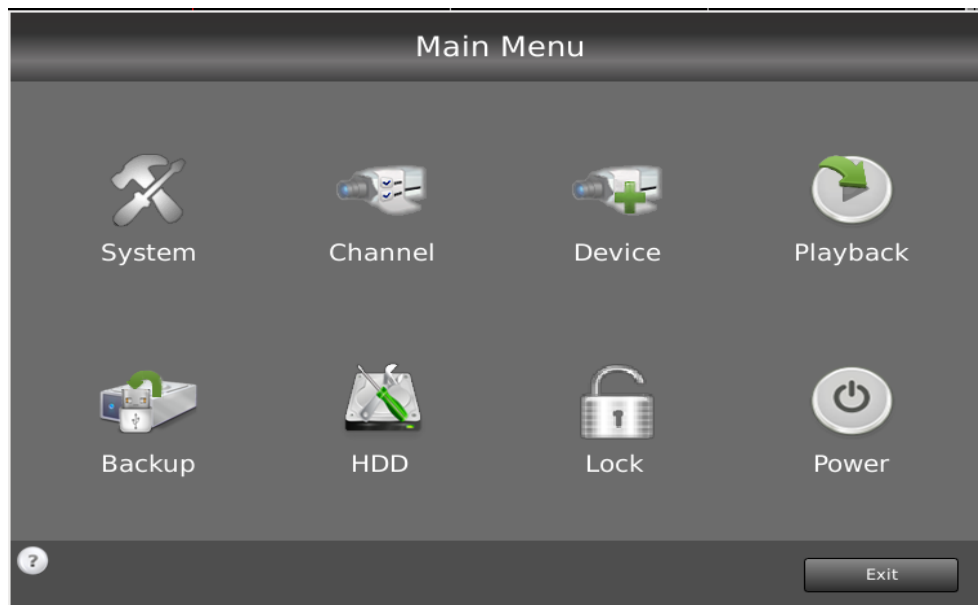
2.2.2 Screen Menu

Users can single-right-click image area to pop up screen menu, shown in picture blow:




1.Main Menu

To bring up the right-click context menu, right-click once at any live view area. Choose "Main Menu" to enter system main menu interface. There are 8 options: **System Setting**, **Channel Setting**, **Device Management**, **Playback**, **Backup**, **HDD Management**, **Lock Screen (ON/OFF)** and **Power Management**. You can move the mouse to highlight one icon, and then left-click on it to enter sub-menu.



Note:

If you disabled the "Local Login" in "System Setting-->User Management", the icon  would be hidden in both areas of Main Menu and toolbar panel.

2.Split View

Move the mouse to highlight Split View in the right-click context menu to bring up the sub menu for more option. The split view supports up to 144.

Main Menu	
Split View	> 1 View
Group View&Setting	> 4 View
Preview Channel Management	> 6 View
Start Alarm Popup	9 View
Layout Management	> 13 View
Other Function	> 16 View
Add Device	20 View
Manual Record	25 View
POS Function	> 28 View
Face Recognition	> ✓ 33 View
Virtual Matrix Function	> 36 View
Lock Screen	40 View
Minimize Window	49 View
	64 View
	81 View
	100 View
	121 View
	144 View

3.Group View & Setting

Move the mouse to highlight Group View&Setting in the right-click context menu to bring up the sub menu for more options. It includes:①select a pre-defined group to display.②enter “Preview Group Setting” to configure viewing group.③save the current live view to any group by clicking”Save the Current View as”.shown in the picture blow.

Main Menu		Main Menu		
Split View	>	Split View	>	
Group View&Setting	> NV	Group View&Setting	> NV	
Preview Channel Management	> Group 2	Preview Channel Management	> Group 2	
Start Alarm Popup	Preview Group Setting	Start Alarm Popup	Preview Group Setting	
Layout Management	> Save the Current View as >	Layout Management	> Save the Current View as >	NV
Other Function	>	Other Function	>	Group 2
Add Device		Add Device		Group 3
Manual Record		Manual Record		Group 4
POS Function	>	POS Function	>	Group 5
Face Recognition	>	Face Recognition	>	Group 6
Virtual Matrix Function	>	Virtual Matrix Function	>	Group 7
Lock Screen		Lock Screen		Group 8
Minimize Window		Minimize Window		Group 9
				Group 10
				Group 11
				Group 12
				Group 13
				Group 14
				Group 15
				Group 16

You can step in the **Preview Group Setting** sub window shown blow.

Device List --It lists all the devices & cameras connected to the system.To see detailed

information of the camera, stop your mouse above the camera name.

You can drag&drop any camera in device list to any display window, and double-click it to cancel the display of one camera in one window.



Default Stream Type --When you drag&drop one camera,system will use default stream type for this camera if you don't change Stream Type in the sub-window.

Note:

You can manually change the stream type of each camera by modifying the “stream type” in each window.This setting will overwrite the “Default Stream Type”.

Group **Group 1** --Pick one group from the drop-down list to set, system supports maximum of 16 groups.

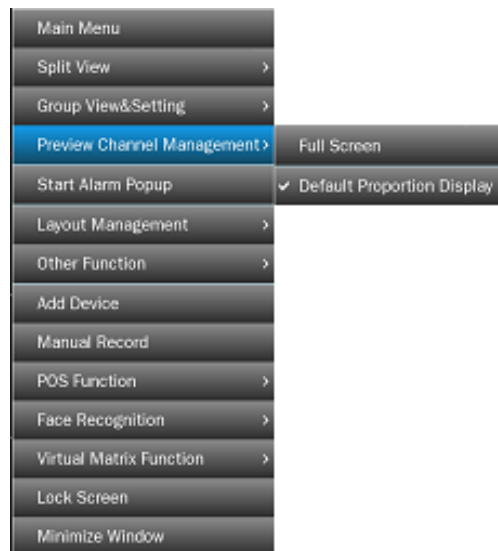
Group Name **Group 1** **Window View** **4 View** --Set group alias and split mode.

☒ **System Start Display Group** --Check this box of any group to display it automatically when system starts up next time.

Interval **Disable** --You can drag&drop multiple cameras into any sub-window for switch viewing, and the display interval are disable/ 5/10/15/ 20 seconds etc.

4. Preview Channel Management

Move the mouse to highlight Preview Channel Management in the right-click context menu to bring up the sub menu for more options.



Full Screen: make the live view area full screen;


Default Proportion Display:screen displays by default;


5. Instant Playback


Right click on an image area to pop up the context menu, select Instant Playback to bring up sub-menu. There are 6 options: 10sec/30sec/1min/3min/5min/8min. Select one option to begin instant playback.






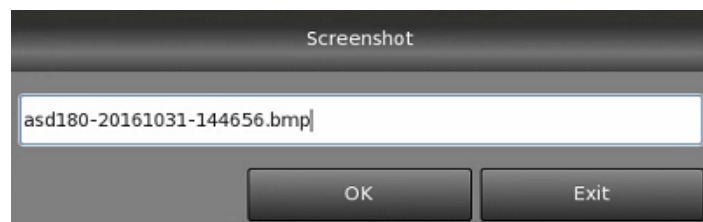
 --press this button to select the channel which you want to check its instantly recording, it will show all connected cameras;



 -- press this button to play;



 -- press this button to pause;


 -- press this button to play next frame;

 --press this button to grab a picture, when a picture is grabbed, there will be a dialog pop up to ask for a file name. The size of the image is resolution of the video be played;



 --press this button to do reverse playback, and system will only play the I frame of the video, click  button to back to normal mode;

 --press this button to speed up the video play, the system will only play the I frame when you adjust to the highest speed, click  button to back to normal mode;

 --press this button to exit the instant playback.

6. Layout Management

Main Menu	
Split View	>
Group View&Setting	>
Preview Channel Management>	
Instant Playback	>
Start Alarm Popup	
Layout Management	> ✓ Load the Default Interface
Other Function	> Load the Classical Interface
Add Device	✓ Show Control Panel
Manual Record	✓ Show Toolbar Panel
POS Function	> Show Log Panel
Face Recognition	> ✓ Show Face Pannel
Virtual Matrix Function	> ✓ Show Blacklist Alarm
Lock Screen	✓ Show Whitelist Alarm
Minimize Window	

You can manage the layout in **Layout Management** setting.

Load the Default Interface: Display live view,information panel,control panel,toolbar panel and log panel.

Load the Classical Interface: Hide all panels,display video only.

Show Control Panel: Check (uncheck) to display (hide) the control panel;

Show Toolbar Panel: Check (uncheck) to display (hide) the toolbar panel;

Show Log Panel: You can check (uncheck) to display (hide) the log panel.

7. Other Function

Main Menu	
Split View	>
Group View&Setting	>
Preview Channel Management>	
Instant Playback	>
Start Alarm Popup	
Layout Management	>
Other Function	> Camera Data Stream Statistics
Add Device	Log Search
Manual Record	Audio Chat
POS Function	> Export System Parameters
Face Recognition	> Import System Parameters
Virtual Matrix Function	> Synergy Configuration
Lock Screen	Restart the Synergy
Minimize Window	About Registration
	User Guide

Camera Data Stream Statistics: Bring up this interface to track video stream status. There are 4 columns: Channel Name, Instant Value, Record Average Value and Record Loss. Record Loss will cause video skipping/jumping when playback.

Tips:

when you find all video channels have skip frame issue, you can check this page to confirm if you have a network issue in switch.

Firstly, check the switch which connect with the system and make sure that it is a 1000M

switch.

Secondly, we need to think about the processing capacity of the switch. For example, you have 128 cameras which connect with NVSS, each of them sets the main stream is 3Mbps, then you can figure out the total instant value should be 384Mbps, but it is far from 384Mbps when you check 'Camera Data Stream Statistics', it may be 100Mbps. then we have reasons to doubt processing capacity of the switch, it caused dropped data packet seriously. you should change a switch to have a test. Maybe network cable only can work in 100Mbps.

Camera Data Stream Statistics

	Channel Name	Instant Value	Record Average Value	Record Loss
1	192.168.0.149	489Kbyte/s	298Kbyte/s	0
2	192.168.0.156	417Kbyte/s	384Kbyte/s	0
3	192.168.0.160	293Kbyte/s	259Kbyte/s	0
4	192.168.0.162	290Kbyte/s	259Kbyte/s	0
5	192.168.0.157	294Kbyte/s	260Kbyte/s	0
6	192.168.0.151	298Kbyte/s	251Kbyte/s	0
7	192.168.0.147	499Kbyte/s	500Kbyte/s	0
8	192.168.0.159	416Kbyte/s	385Kbyte/s	0
9	192.168.0.97	660Kbyte/s	742Kbyte/s	0
10	192.168.0.119	893Kbyte/s	856Kbyte/s	0
11	192.168.0.112	162Kbyte/s	147Kbyte/s	0
12	192.168.0.111	322Kbyte/s	279Kbyte/s	0
13	192.168.0.96	610Kbyte/s	508Kbyte/s	0
14	192.168.0.94	505Kbyte/s	420Kbyte/s	0
15	192.168.0.116	362Kbyte/s	313Kbyte/s	0
16	192.168.0.92	415Kbyte/s	384Kbyte/s	0
17	192.168.0.91	89Kbyte/s	68Kbyte/s	0
18	192.168.0.95	113Kbyte/s	66Kbyte/s	0
19	192.168.0.110	514Kbyte/s	479Kbyte/s	0
20	192.168.0.93	598Kbyte/s	509Kbyte/s	0
21	192.168.0.90	832Kbyte/s	764Kbyte/s	0
22	192.168.0.88	142Kbyte/s	80Kbyte/s	0
23	192.168.0.118	585Kbyte/s	510Kbyte/s	0
24	192.168.0.193	499Kbyte/s	444Kbyte/s	0
25	192.168.0.187	545Kbyte/s	491Kbyte/s	0

Total Instant Value: 10.588Mbyte/s

Total Record Value: 9.430Mbyte/s

Exit

Log Search: It will pop up the Log Search sub menu, shown in picture blow. There are three log contents: Device Alarm, Local Operation and Exception. You can filter the log by these three contents and its filter parameter.

Log Search

	Time	Log Content	Filter Parameter	Device Name	Channel
63	2016-10-31 11:18:14	Local Operation	Channel Setting		
64	2016-10-31 11:19:19	Local Operation	Setting		
65	2016-10-31 11:19:26	Local Operation	Channel Setting		
66	2016-10-31 11:23:18	Local Operation	Control PTZ	192.168.0.110	192.168.
67	2016-10-31 11:23:18	Local Operation	Control PTZ	192.168.0.110	192.168.
68	2016-10-31 11:23:18	Local Operation	Control PTZ	192.168.0.110	192.168.
69	2016-10-31 11:23:19	Local Operation	Control PTZ	192.168.0.110	192.168.
70	2016-10-31 11:23:20	Local Operation	Control PTZ	192.168.0.110	192.168.
71	2016-10-31 11:23:20	Local Operation	Control PTZ	192.168.0.110	192.168.
72	2016-10-31 11:25:04	Local Operation	Channel Setting		
73	2016-10-31 11:28:18	Local Operation	POS Setting		
74	2016-10-31 11:28:36	Local Operation	POS Setting		
75	2016-10-31 11:28:45	Local Operation	POS Setting		
76	2016-10-31 11:28:57	Local Operation	POS Setting		
77	2016-10-31 11:29:08	Local Operation	POS Setting		
78	2016-10-31 11:31:41	Local Operation	Event Playback		
79	2016-10-31 11:32:18	Local Operation	Event Playback		
80	2016-10-31 11:33:02	Local Operation	Event Playback		
81	2016-10-31 11:34:24	Local Operation	Virtual Matrix Setting		
82	2016-10-31 11:36:00	Local Operation	Control PTZ	192.168.0.116	192.168.
83	2016-10-31 11:36:00	Local Operation	Control PTZ	192.168.0.116	192.168.
84	2016-10-31 11:36:01	Local Operation	Control PTZ	192.168.0.116	192.168.
85	2016-10-31 11:36:01	Local Operation	Control PTZ	192.168.0.116	192.168.
86	2016-10-31 11:36:02	Local Operation	Control PTZ	192.168.0.116	192.168.
87	2016-10-31 11:36:02	Local Operation	Control PTZ	192.168.0.116	192.168.
88	2016-10-31 11:36:05	Local Operation	Video Analysis Setup		
89	2016-10-31 11:37:23	Local Operation	Start Group Preview		
90	2016-10-31 11:37:26	Local Operation	Start Group Preview		
91	2016-10-31 11:37:29	Local Operation	Start Group Preview		
92	2016-10-31 11:44:07	Local Operation	Control PTZ	192.168.0.119	192.168.
93	2016-10-31 11:47:20	Local Operation	Preview Group Setting		
94	2016-10-31 11:49:28	Local Operation	Instant Playback		
95	2016-10-31 13:01:43	Local Operation	Playback		
96	2016-10-31 13:01:53	Local Operation	Setting		
97	2016-10-31 13:01:59	Local Operation	Playback		
98	2016-10-31 13:13:31	Local Operation	Setting		
99	2016-10-31 13:13:43	Local Operation	Setting		
...	2016-10-31 13:26:42	Local Operation	Stop Group Preview		

Select Log Content

All Type

Select Filter Parameter

All Type

Begin Time

2016-10-31 00:00:00

End Time

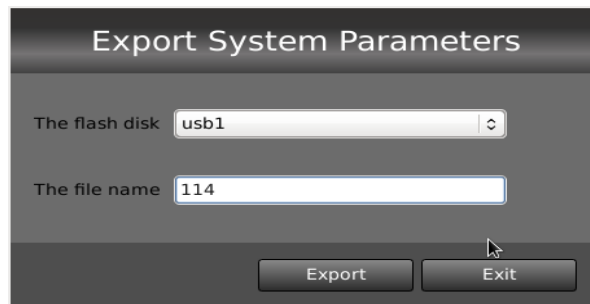
2016-10-31 15:00:24

Search

Total 468 ItemsPrevious PageNext PageGo to2/10

Exit

Export system parameters: Backup the system settings according to your need, You need a USB stick to save the system file.

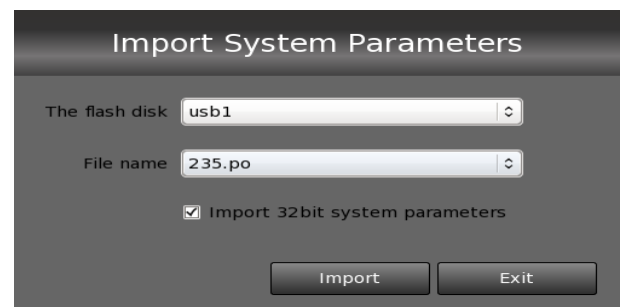
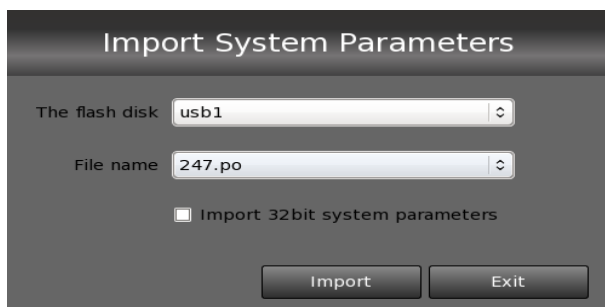


Import system parameters: Restore the system settings from backup file.

Tips:

If you want to import 32bit system parameters file to 64bit system, please check

☒ **Import 32bit system parameters** and the system will find 32bit system file from the USB stick you insert.

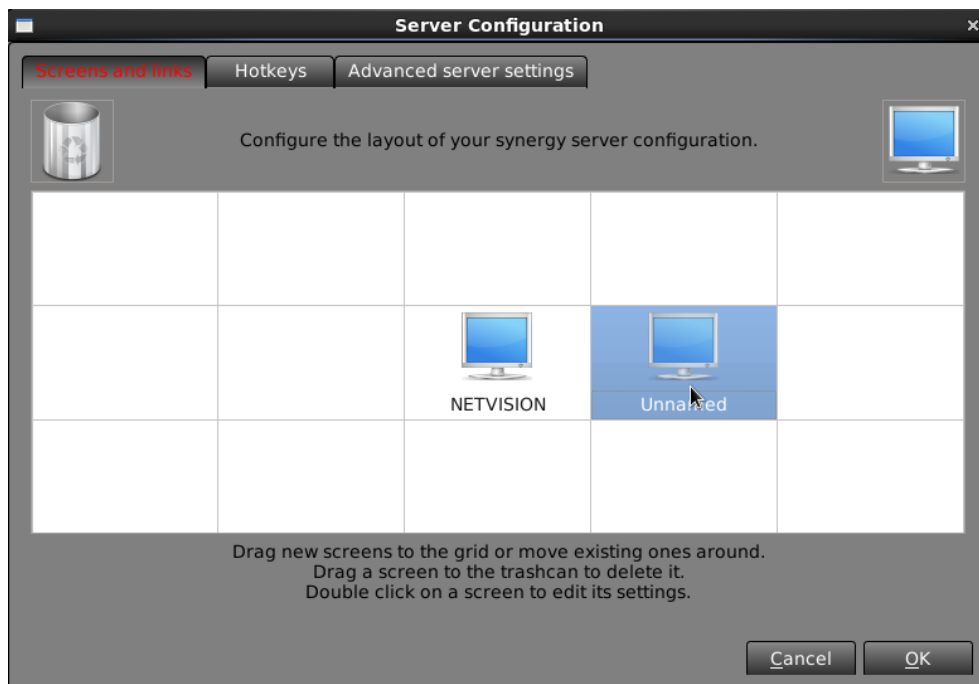


Synergy configuration: Share multiple systems on the server's desktop just by moving your mouse off the edge of one System screen on to another.

Configure a server

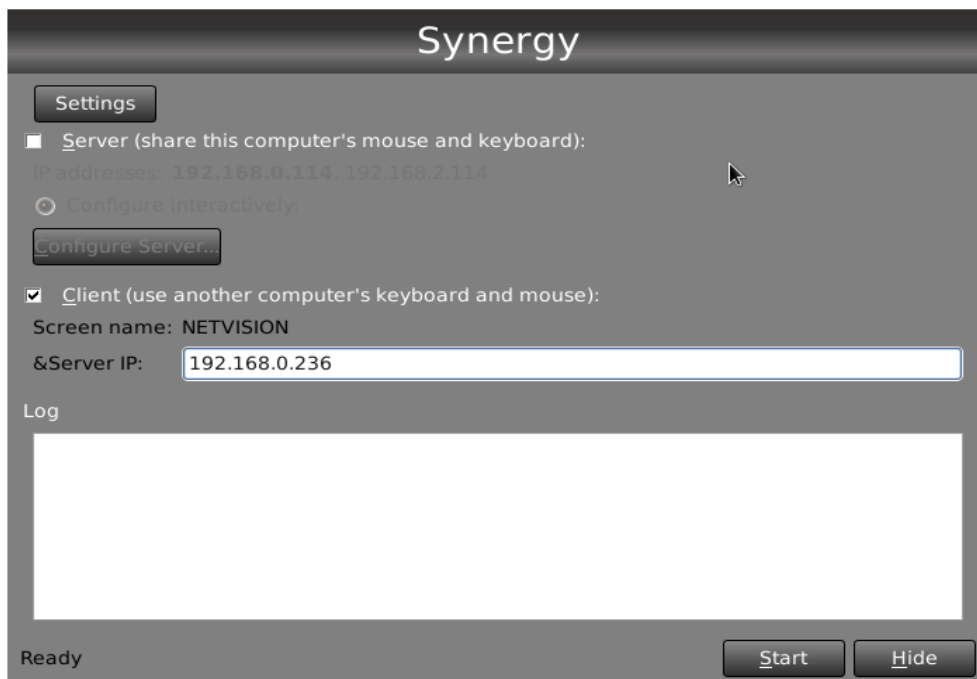


The server will share its keyboard and mouse with clients. It needs to know about all clients that will connect to it. To tell server about these clients, click "Configure Server".



- 1.To add a new client, drag a screen (top right) on the grid;
- 2.To remove a client, drag the screen to the trash can (top left);
- 3.To move a client, drag the existing screen to another cell.

Once you added a client to your grid, it names as "Unnamed". You can double click on the icon to modify its name and do some settings.

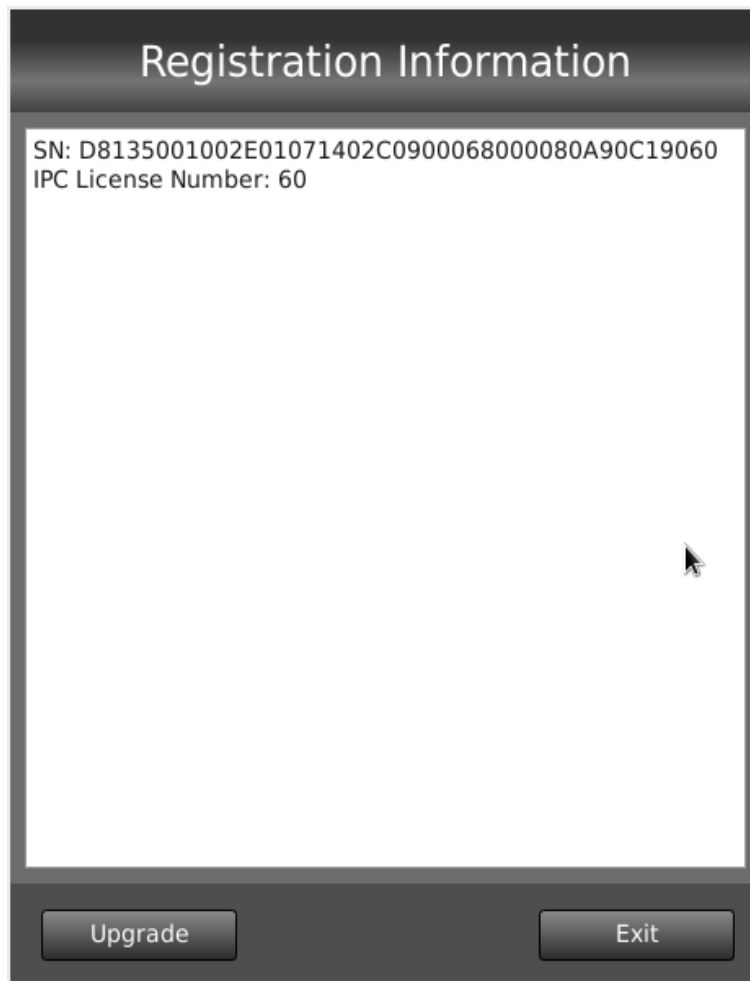


Configure a client

After configuring your server, in the client's "Server IP" text box, input server IP to connect corresponding client to the server, shown in the picture blow.

Restart the Synergy: Click here to restart synergy after system reboots.

About Registration: Click here to get system's S/N and registered license number. Click "Upgrade" to expand license number of the system.



User Guide: Click here to open user's manual to help users understand software's functions faster and more accurately.

8.Add Device

Click "Add Device" in context menu, it will pop up the **Device Management** interface. You can add, modify, delete or search IPC in the sub-window.

9.Manual Record

You can start or stop the manual record function by clicking **Manual Record**.

10.POS Function

Please refer to [Chapter 2.3](#).

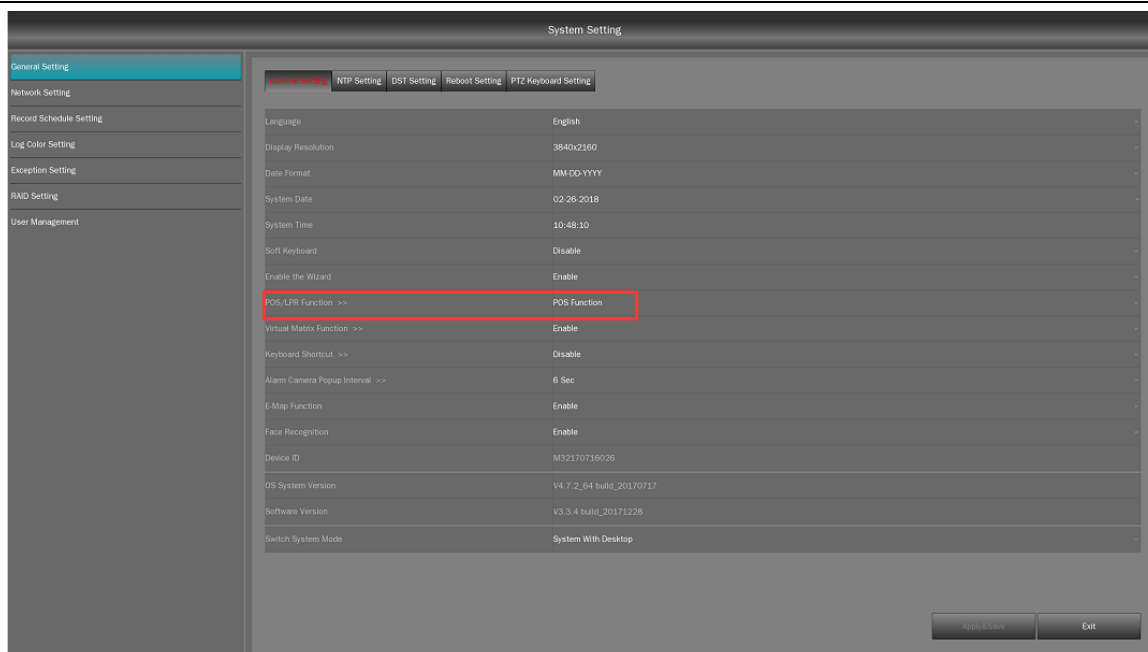
11.Video Matrix Function

Please refer to [Chapter 2.5](#).

2.3 POS / LPR Function

2.3.1 POS Function

Firstly, You should enable "POS Function" in system setting.



Move the mouse to highlight POS Function in the right-click context menu to bring up the sub menu for more options. It includes:①POS Setup;②POS Monitor;③POS Playback.



2.3.1.1 POS Setup

Click on the button  to bring up the interface of POS Function Setup.

1. Connect Setup

There are two kinds of connection methods: COM and LAN.

COM: Select COM port connection method and set parameters;

LAN: Select network connection and set parameters.

a. COM Setup

All available Com ports are listed in the drop-down list. Select one COM Port that you'd like.



Device: Select a pos device to connect to this COM Port.

Name: Set a name for current connection.

Baud: Set the baud rate for this COM Port.

Stop: Set the stop bit. It includes two: 0, 1.

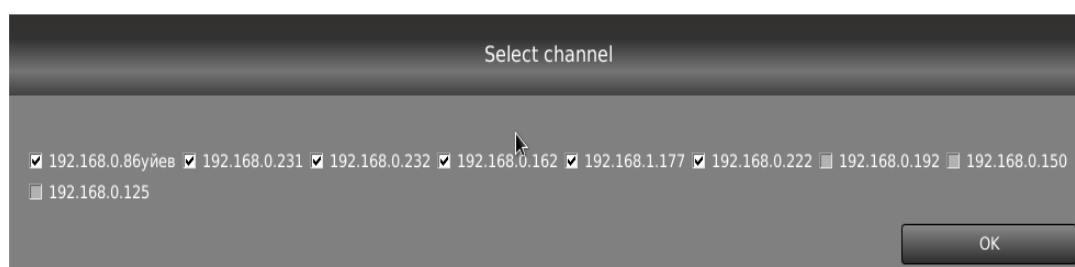
Data: Set the data bit. It includes four: 5,6,7,8.

Parity: Set the parity. It includes none, odd or event.

Associated cameras: Choose associated camera(s) to display pos data by pressing



button.



192.168.0.192

--This status of channel means it has been selected by other COM or LAN.



192.168.0.231

-- This status of channel means it has been selected by current COM.

b. LAN Setup

There are maximum of 64 LANs for you to choose to connect to pos device, you can set a number of LANs at the same time if necessary.


Device: Select a pos device to connect to this LAN.

Name: Set a name for current connection.

Protocol: Select a protocol from TCP, UDP.

Port: Set a port to connect.

Buffering Time: Set the buffering time as you want.


Associated Cameras: Choose associated camera(s) by pressing  button.


 192.168.0.192

--This status of channel means it has been selected by other LAN or COM.

 192.168.0.231

-- This status of channel means it has been selected by current LAN.

Press  button to test connection status, if pops up a window, that is to say, the connection is OK.

The pos data will be shown on the window when text data is sent from pos, shown in picture blow, you can press  button to begin saving pos data and press it again to end saving.

LAN1

TO MAKE ALL OF YOUR PURCHASE!

1	TylenolPMXSGelcp24ct	5.69\$
2	TylenolPMXSGelcp24ct	5.69\$
3	TylenolPMXSGelcp24ct	5.69\$
4	TylenolPMXSGelcp24ct	5.69\$
5	TylenolPMXSGelcp24ct	5.69\$
6	TylenolPMXSGelcp24ct	5.69\$

Save
Clear
Exit

c. Camera Setup

First, choose a camera to have a setup.

Text Position:By default,text is set to upper left of the video view window. As text contents increasing, it will be displayed farther from the top.

Text delay time: Set time for text to stay on the screen.

Lines number per screen: Set the desired lines (1-8) to display text. Disabled if “by transaction” is displayed.

Font Color: Set different values of RGB for font color.

Copy to:Click it to copy current setup to someone or all.

POS function setup

Connect setup

Data filter setup

Device setup

Com setup
Lan setup
Camera setup

Select device
192.168.0.86уїев

Text position X:(0-32)

Y:(0-288)

Text delay time:

Sec(3-8)

Lines number per screen(1-8)

Font color

R
G
B

Copy to
All
Copy

Save
Exit

2.Data Filter Setup

Press  button to set pos-text filter rules for pos device

a. Line Break

Set a rule to separate each line.

Priority: Default priority 1, and you can't modify it.

Type: Choose a type for data. Data types must be either 'Hex' or 'ASCII'.

Position/Offset: Select a position to search the data string (e.g. start to search from begging
---- not useful right now)

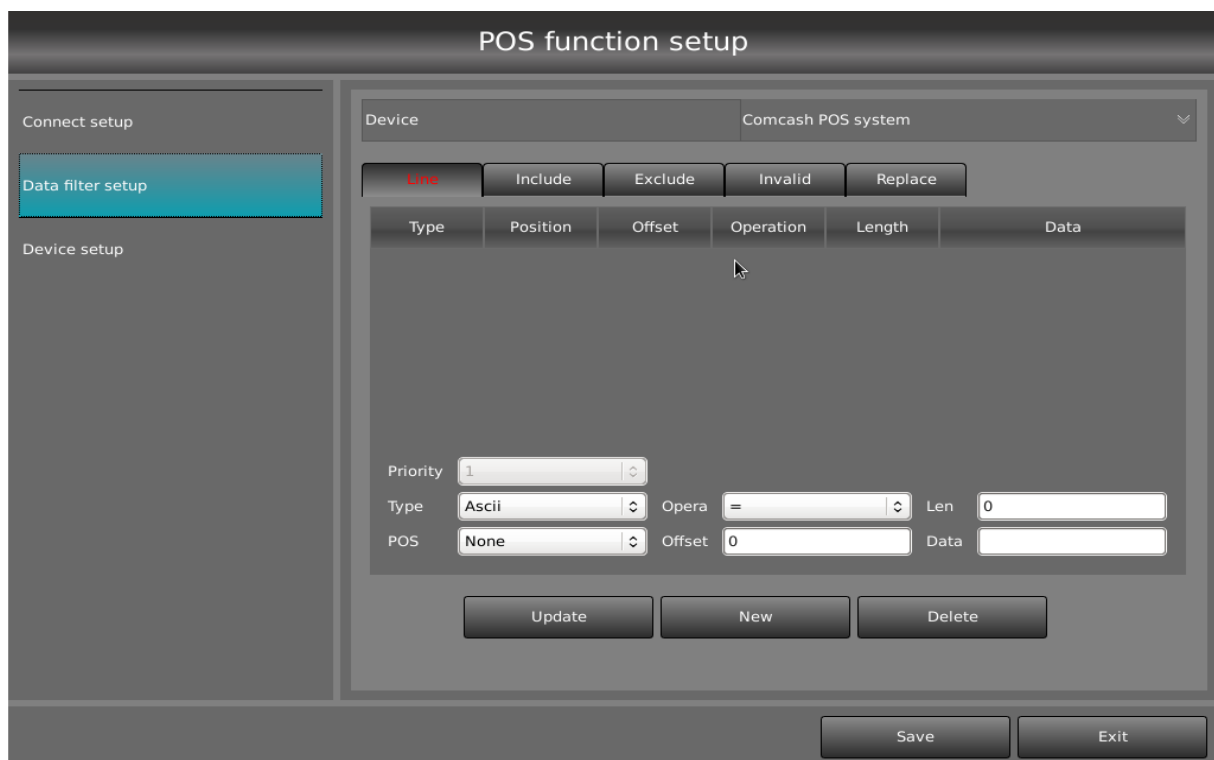
Operation: Select an operator to be used when comparing 'Data' with data from POS.

Data: Set Data that will trigger the operation.

When system receives the character or string, which is equal to the setting here, system will process these characters as below:

Only line break character or string set here – discard;

Any other characters and string before line break character or string set here – discard line break character or string and display the other characters or strings and change to new line.



b. Include

Set a rule for a line with a string or character to be displayed.

Priority: Set the priority of this rule.

Type: Choose a type of data. Data types must be either 'Hex' or 'ASCII'.

Position/Offset: Select a position to search the data string (e.g. start to search from begging
---- not useful right now)

Operation: Select an operator to be used when comparing 'Data' with data from POS.

Data: Set Data that will trigger the operation.

The screenshot shows the 'POS function setup' window. On the left sidebar, 'Data filter setup' is highlighted. The main area shows 'Device' set to 'Comcash POS system'. A row of buttons includes 'Line', 'Include' (highlighted in red), 'Exclude', 'Invalid', and 'Replace'. Below these is a table with headers: Type, Position, Offset, Operation, Length, and Data. The table is currently empty. At the bottom of the main area, there are input fields for 'Priority' (set to 1), 'Type' (set to 'Ascii'), 'POS' (set to 'None'), 'Opera' (set to '='), 'Len' (set to '0'), and 'Offset' (set to '0'). There is also a 'Data' input field. At the very bottom are 'Update', 'New', and 'Delete' buttons. At the bottom right are 'Save' and 'Exit' buttons.

c. Exclude

Set a rule for a line with a string or character to be not displayed.

Priority: Set the priority of this rule.

Type: Choose a type of data. Data types must be either 'Hex' or 'ASCII'.

Position/Offset: Select a position to search the data string (e.g.. start to search from begging
---- not useful right now)

Operation: Select an operator to be used when comparing 'Data' with data from POS.

Data: Set Data that will trigger the operation.

This screenshot is identical to the one above, but the 'Exclude' button is highlighted in red instead of 'Include'. The 'Priority' field is now set to '5'.

d. Invalid

Set a rule to discard a string or character.

Priority: Set the priority of this rule.

Type: Choose a type of data. Data types must be either 'Hex' or 'ASCII'.

Position/Offset: Select a position to search the data string (ex. Start to search from begging
---- not useful right now)

Operation: Select an operator to be used when comparing 'Data' with data from POS.

Data: Set Data that will trigger the operation.

POS function setup

Connect setup

Data filter setup

Device setup

Device: Comcash POS system

Line Include Exclude **Insert** Replace

Type	Position	Offset	Operation	Length	Data
------	----------	--------	-----------	--------	------

Priority: [dropdown]
Type: Ascii [dropdown] Opera: [=] [dropdown] Len: 0 [input]
POS: None [dropdown] Offset: 0 [input] Data: [input]

Update New Delete

Save Exit

e. Replace

Set a rule to make the character or string to be replaced.

Priority: Set the priority of this rule.

Type: Choose a type of data. Data types must be 'Hex' or 'ASCII'.

Old: Enter data string that needs to be replaced.

Data: Enter a new data string that will take a place of the Old Data.




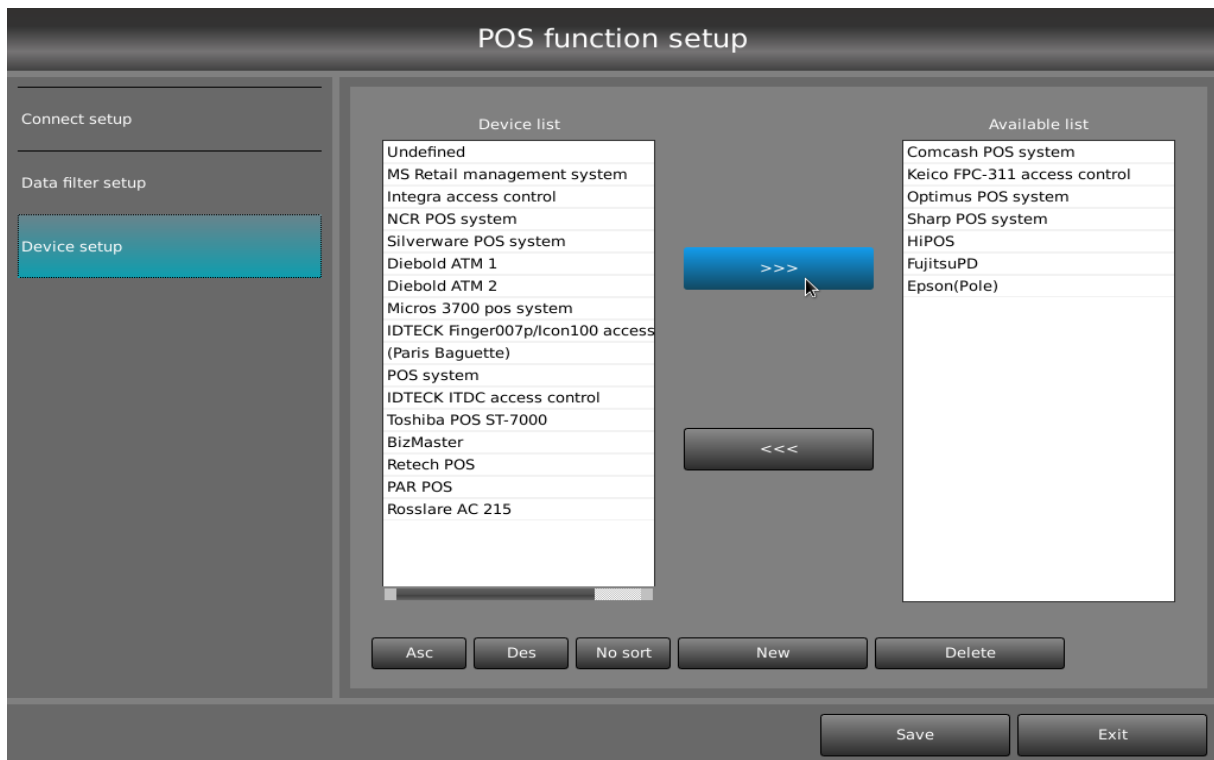
3. Device Setup

Click on the button  to open “Device Setup” interface, shown in picture blow.

Device list: Spare devices for selection

Available list: Click on the icon  to add device(s) from **Device list** to **Available list** which can be used to connect to LAN/COM port

Press  button to add a device named “**New Device**”, and you can double-click it to edit its name.



2.3.1.2 POS Monitor

Select a channel in the live view window that POS device sends POS data to and click on **POS Monitor** button from the context menu to enter **POS Monitor** interface, it shows the details about pos information and the corresponding LAN on the left side. It shows up to 100 items of pos data every time you just entered **POS Monitor** interface.

POS device(12)		ID	Time	Alarm	Content
LAN1		91	2017/4/27 9:24:46		7-ELEVEN
LAN2		92	2017/4/27 9:24:47		1339 N VASCO RD
LAN3		93	2017/4/27 9:24:48		LIVERMORE CA 945509287
LAN4		94	2017/4/27 9:24:49		9256067751
LAN5		95	2017/4/27 9:24:50		STORE#: 32266
LAN6		96	2017/4/27 9:24:51		USE YOUR 7-ELEVEN CONVENIENCE CARD
LAN7		97	2017/4/27 9:24:52		TO MAKE ALL OF YOUR PURCHASES!
LAN8		98	2017/4/27 9:24:53		
LAN9		99	2017/4/27 9:24:54		1 Nwprt Bx 100 3.94T
LAN10		100	2017/4/27 9:24:55		1 Nwprt Bx 100 -3.94TV
LAN11		101	2017/4/27 9:24:56		
LAN12		102	2017/4/27 9:24:57		SUBTOTAL 0.00
		103	2017/4/27 9:24:58		TOTAL DUE 0.00
		104	2017/4/27 9:24:59		CASH 0.00
		105	2017/4/27 9:25:0		
		106	2017/4/27 9:25:1		THANK YOU FOR SHOPPING AT
		107	2017/4/27 9:25:2		YOUR LOCAL 7-ELEVEN
		108	2017/4/27 9:25:3		T#02 OP25 TRN4993 04/04/06 02:17 pm
		109	2017/4/27 9:25:4		7-ELEVEN
		110	2017/4/27 9:25:5		1339 N VASCO RD
		111	2017/4/27 9:25:6		LIVERMORE CA 945509287
		112	2017/4/27 9:25:7		9256067751
		113	2017/4/27 9:25:8		STORE#: 32266
		114	2017/4/27 9:25:9		USE YOUR 7-ELEVEN CONVENIENCE CARD
		115	2017/4/27 9:25:10		TO MAKE ALL OF YOUR PURCHASES!

1. Parameter Setup

Click on **POS setup** button. The interface is shown blow.

Max show record count: Set the POS Record Count to be displayed after entering **POS Monitor**. The max count is 500.

Playback setup: Set forward time and back time for playback of POS monitor.

The screenshot shows the 'POS setup' window with the 'Parameter setup' tab selected. It features a 'Max show record count' spinner set to 500, and a 'Playback setup' section with 'Forward time' and 'Back time' spinners both set to 5 seconds. 'Save' and 'Exit' buttons are at the bottom right.

2. Filter Setup

The screenshot shows the 'POS setup' window with the 'Filter setup' tab selected. On the left is a table with 14 rows. The first row is highlighted with a blue header and contains '1' and 'CASH'. The other rows contain '2 7-ELEVEN', '3 SHOPPING', and rows 4-14 are empty. On the right, the 'Keyword' field contains 'CASH', the 'Color' dropdown is set to 'hotpink', and the 'Only work between' section has time pickers set to '00:00:00' and '14:00:00'. Below this, 'Enable alarm' and 'Alarm output' are checked, with 'Alarm output' set to '\$host' and 'localhost_GPO_35'. The 'Alert message' field contains 'cash_pos alarm', and 'Enable email' is unchecked. 'Save' and 'Exit' buttons are at the bottom right.

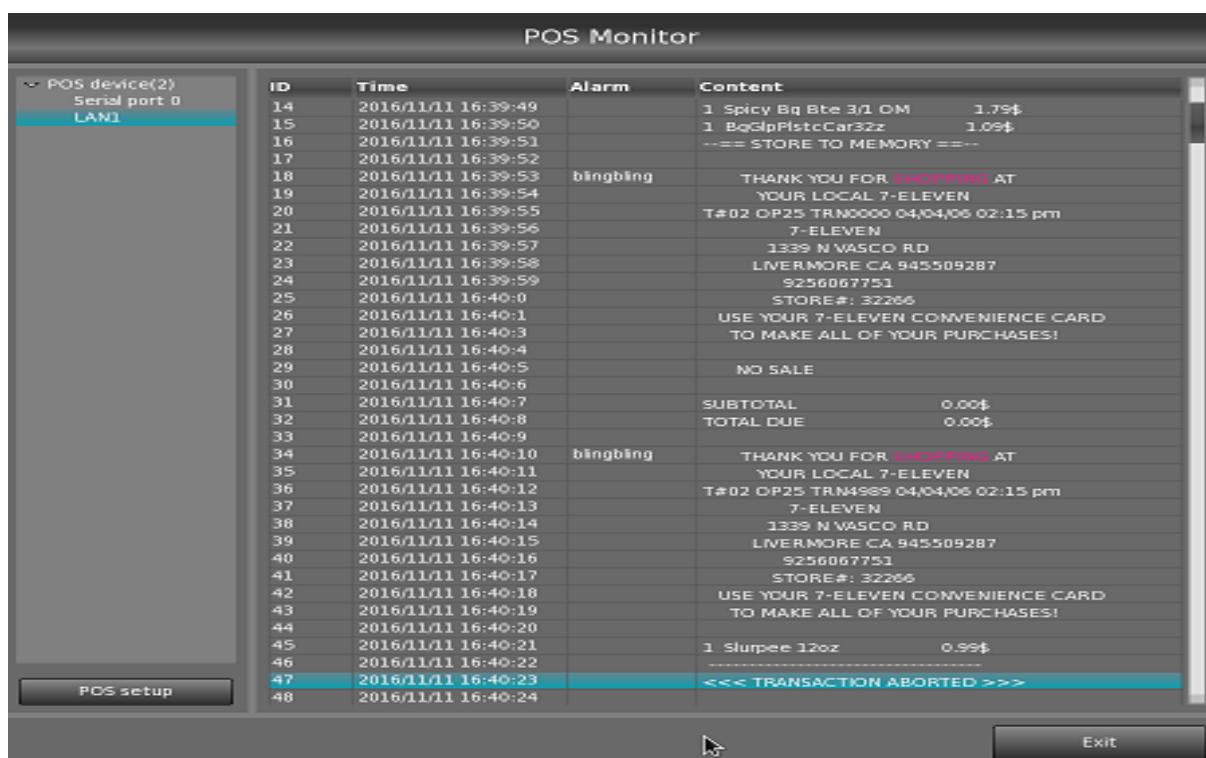
ID	Keyword
1	CASH
2	7-ELEVEN
3	SHOPPING
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	

Keyword: Set keyword as a identifier to catch user's attention.

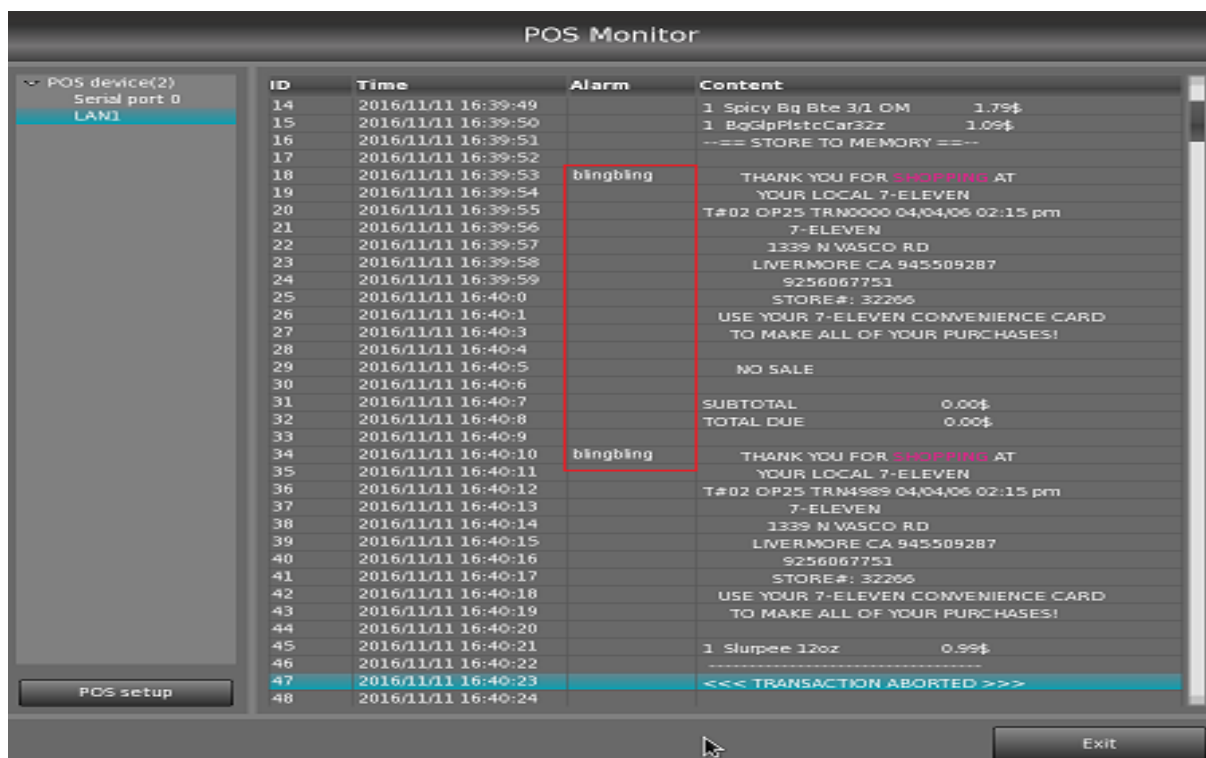
Color: Set the color for the keyword.

Only work between: Set the working time, such as: if set the color of SHOPPING to be green

and the work time between 00:00:00 and 23:59:59, when the SHOPPING appears in this period, it will be displayed in green on the screen, shown in the picture blow.

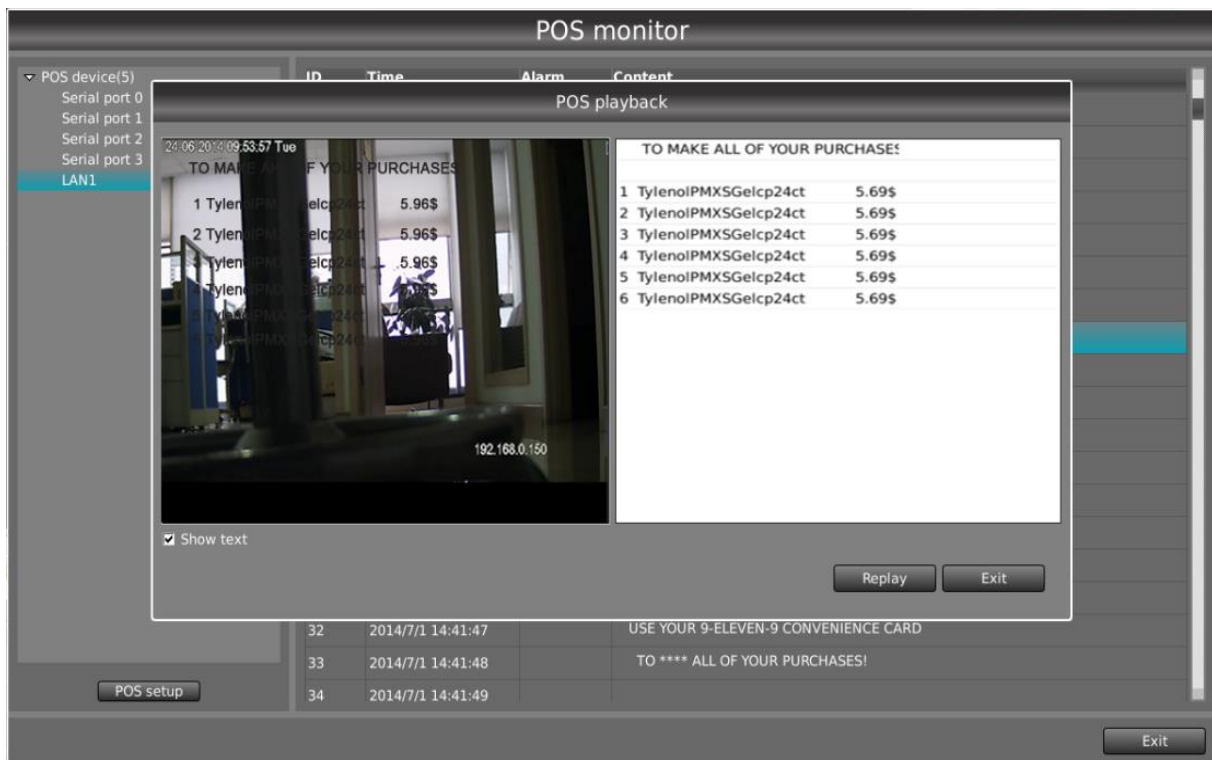


Enable alarm: After enable it and set the alert message what you want to display , when the keyword appear, it will trigger the alarm out, and display the alarm message shown blow.



Enable email: Click the check box to enable it, when the keyword appears, it will send email automatically.

Select a piece of content and double-click it to play back video. The window is shown below:



On the left side of window displays the image of camera, and on the right side of window displays the text, you can also show the text on the image by checking ☒ Show text.

The video playing time is based on the Forward time and Back time which was set in parameter setup.

2.3.1.3 POS Playback

Click **POS Playback** in right-click context menu to enter multi-channels POS playback interface.

There are two ways to have POS playback: normal POS playback and POS Extended Search.

Normal POS playback: Users can only search pos data in a day to playback.

POS Extended Search: Users can search pos data in a few days to playback.

Steps of normal POS playback:

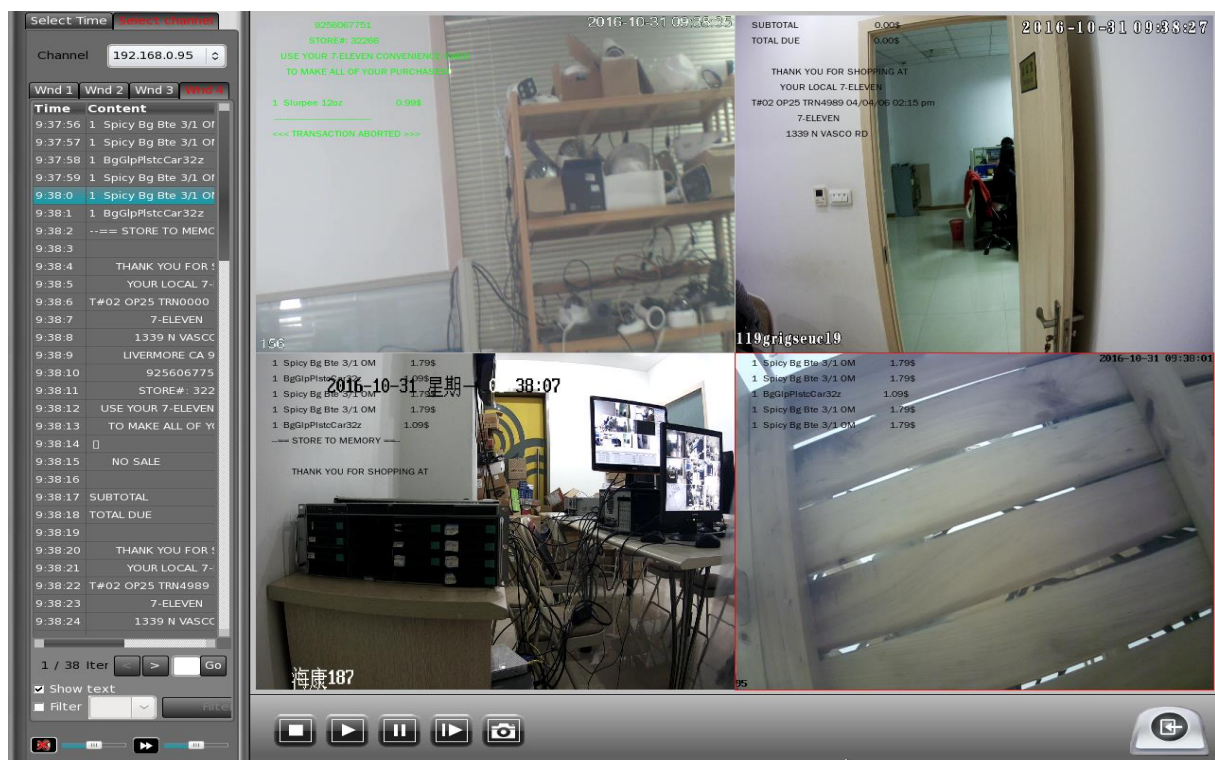
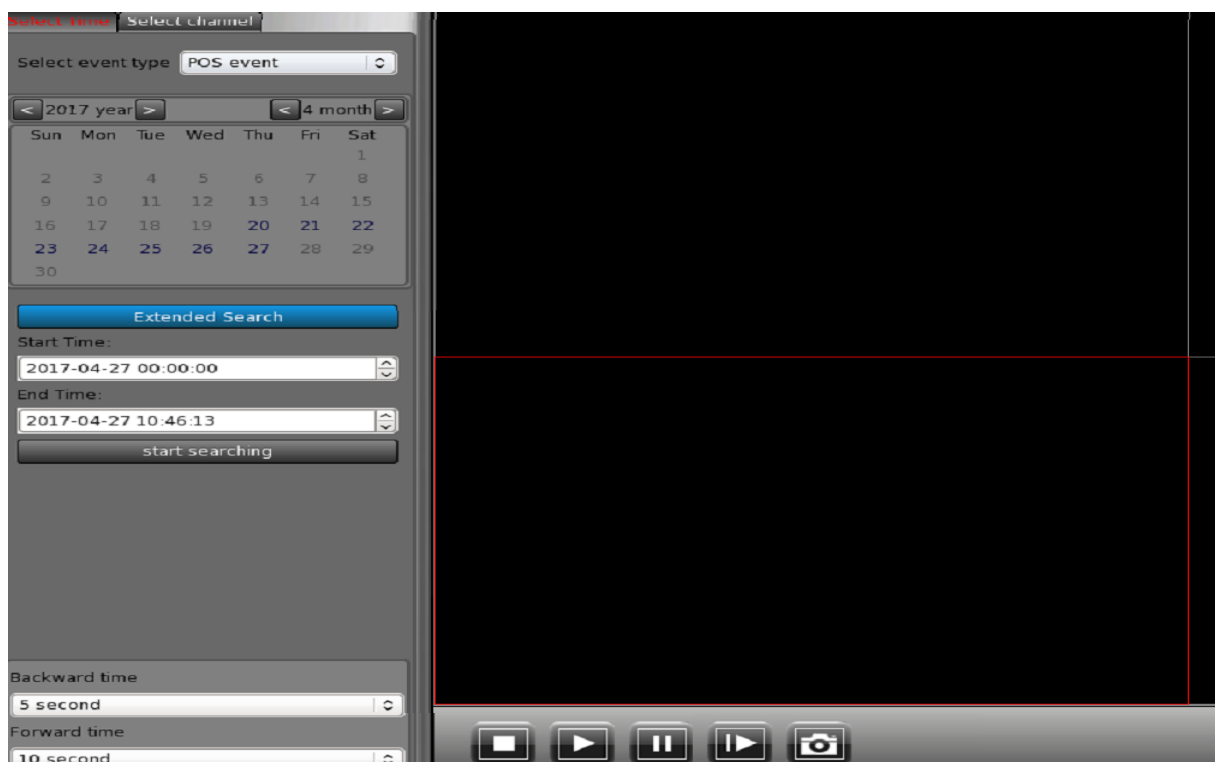
- ① You can select any kind of event type to search. Here is POS event by default.
- ② Select the date and time to playback. The blue date indicates the record data but not always pos data. The yellow date means current day you select, you can click the yellow date to select a period of time.

③ Select channel to playback video. After one window is selected via clicking the black window on the right, you can choose one channel and double click its pos text in the frame to display its image and text.

Steps of POS Extended Search:

- ① Click the button **Extended Search**, input start time and end time by keyboard (or select start/end time box then click a date from calendar and input the time);

- ② After selecting time, click **start searching** to search pos data to playback.



Forward Time: set the forward time of the video.

Backward Time: set the backward time of the video.

Channel: Select one channel which has POS data to playback ;

Show Text: Check the box and show POS text on the image window;

Filter: Filter the content including the keyword. Double-click one filtered item can playback.



-- Adjust the audio;



-- Adjust the playing speed;



-- Press this button to close all cameras;



-- Press this button to play;



-- Press this button to pause;



-- Press this button to play next frame;



-- Press this button to grab a picture. You can check the picture in the local playback.

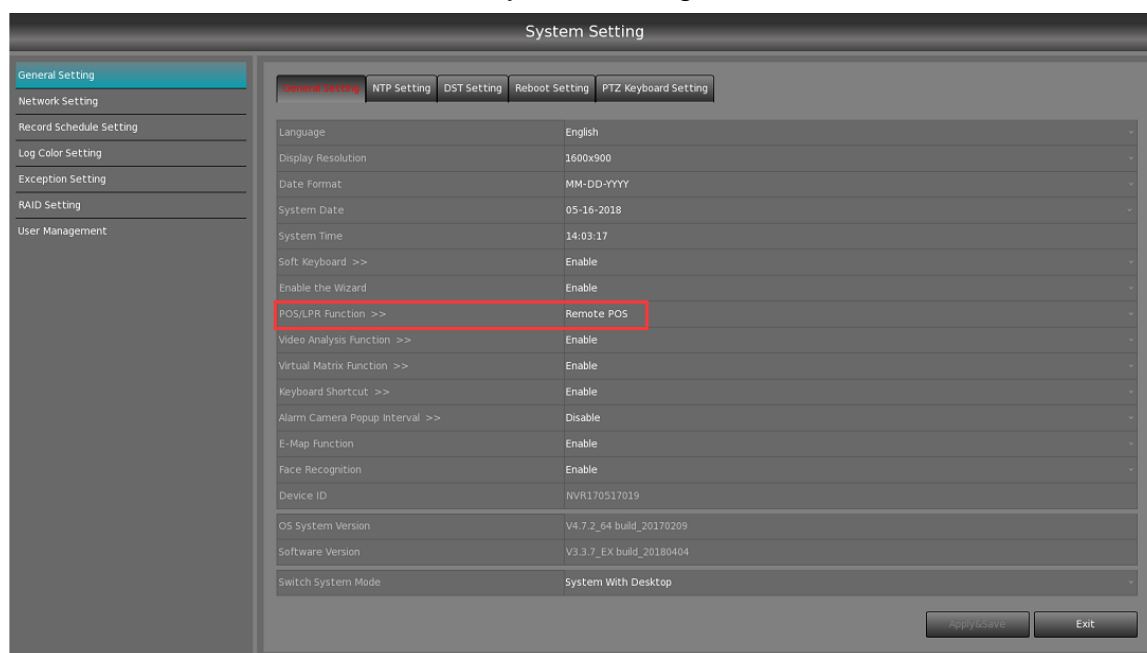
Note:

The pos text can be exported to USB flash disk by right-clicking mouse on the left contents after plugging in USB stick.

2.3.2 Remote POS Function

Remote POS function is used to backup POS data. Local NVSS enabled remote POS function can connect with another NVSS which is enabled POS function to get all POS data directly. Then user can preview and playback same POS data on local NVSS and another NVSS at the same time.

Enable “Remote POS function” in system setting here



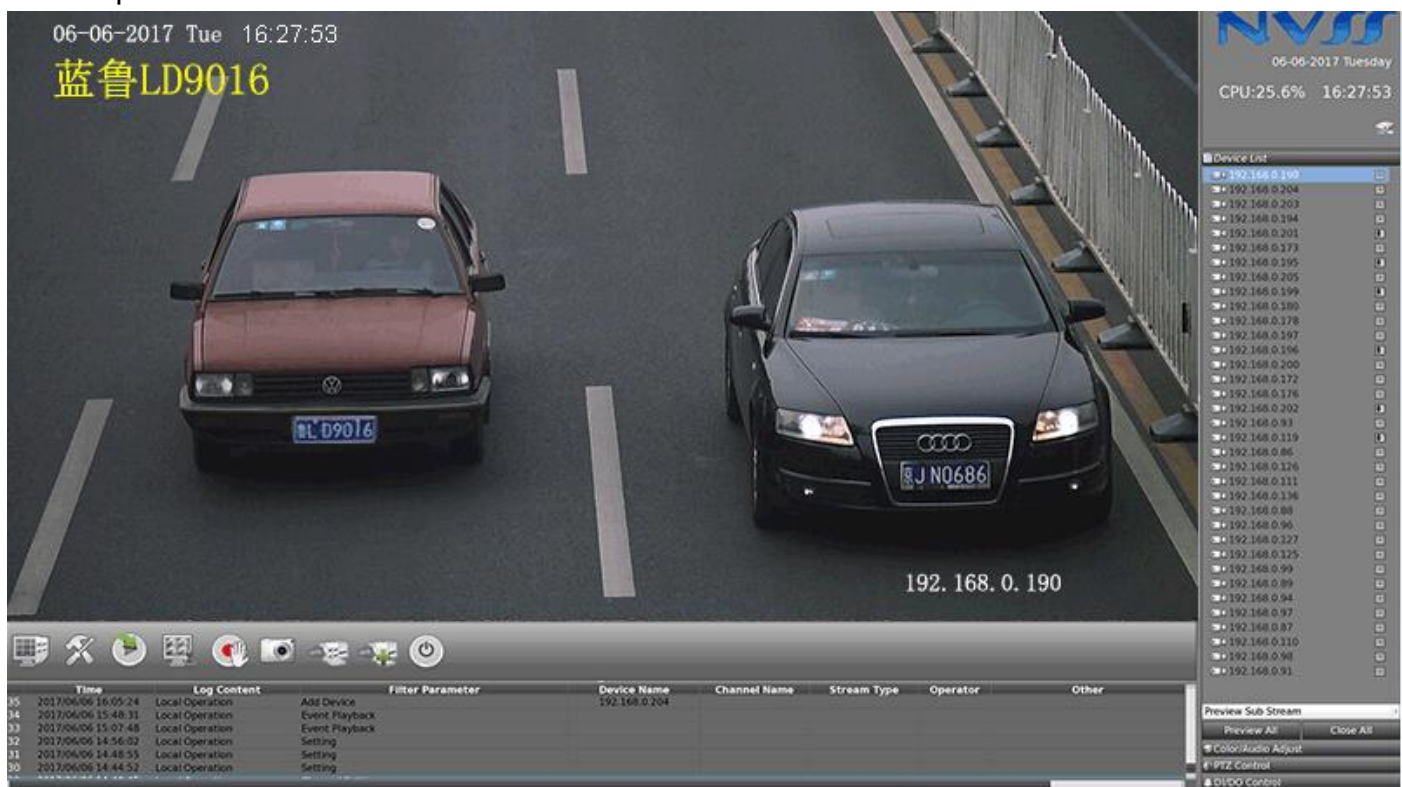
2.3.3 LPR Function

LPR is the abbreviation of License Plate Recognition. If you add road traffic monitoring device, the captured license plate can be checked and displayed in the preview window of the software, and you can also play back the record in the LPR Playback.

2.3.3.1 LPR Playback

Please follow the steps blow to do settings:

1. please make sure that you have configured the corresponding area and other related settings for the camera by logging in its browser, for details, please refer to the user manual of the device.
2. Add a road traffic monitoring device to the software.
3. The default color of license plate showed in the preview window is red, and you can Enable POS function and find the path “POS Function-->POS Setup-->Connect setup -->Camera setup”, to configure the font color you prefer to.
4. Enable LPR function in System Setting.
5. Back to the main interface, click-and-drag the device to a preview window, the recognized license plate will be shown on the window.



2.3.3.2 LPR Playback

Click **LPR Playback** in right-click context menu to enter multi-channels LPR playback interface.

The operations are similar to POS Playback, please refer to **section 2.3.1.3**



2.4 Video Analysis Function

There are 7 intelligent video analysis functions: Unattended Object Detection, Missing Object Detection, Movement Direction Detection, Intrusion Detection, Tripwire Detection, Face Detection, Object Counting.

Before using this feature, please enter the System Setting to enable video analysis function as shown below.

To enter "Video Analysis Setting" interface, please select one camera in live view window and right click the image, choose "Video Analysis Setup" from right-click context menu.

System Setting

General Setting

Network Setting

Record Schedule Setting

Log Color Setting

Exception Setting

RAID Setting

User Management

General Setting
NTP Setting
DST Setting
Reboot Setting
PTZ Keyboard Setting

Language	English	▼
Display Resolution	1280x1024	▼
Date Format	MM-DD-YYYY	▼
System Date	10-31-2016	▼
System Time	10:50:05	▼
Enable the Wizard	Enable	▼
POS Function >>	Enable	▼
Video Analysis Function >>	Enable	▼
Virtual Matrix Function >>	Enable	▼
Keyboard Shortcut >>	Enable	▼
Alarm Camera Popup Interval >>	10 Sec	▼
Device ID	VMS160620011	
OS System Version	V4.4_64 build_20161011	
Software Version	V3.1.3 build_20161014	
Switch System Mode	System With Desktop	▼


Apply&Save
Exit

Video Analysis Setting

Device name asd180

Channel name asd180

Video analysis
Motion detection



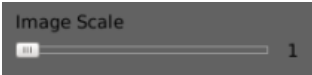

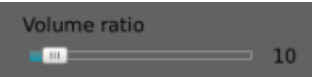










Start
Apply

Choose analysis function







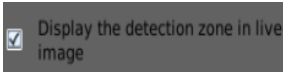

Choose analysis function

Save
Exit

Parameters Introduction

1		To adjust the resolution of the image for video analysis. The lower the value, the more close to the original image resolution. For example: the resolution of the source video is 1024*768 , you set the image scale as 2, then the length and width will be shrunk to 1/2 of original resolution, about 512*384 for detection. It is 1 by default.
2		To adjust the sensitivity of the area you selected. The lower the value, the more sensitive the system. It is 10 by default.
3		To set the minimum acreage of detection zone to trigger alarm. Its unit is percent, if the acreage of missing or unattended area exceeds the setting value of the areas you selected, system will trigger alarm. The default value is 2%
4		To set the minimum acreage of each 32*32 pixel. Its unit is percent, if the acreage of motion object exceeds the setting value of a 32*32 unit. The unit will be active. The default value is 10%.
5		This option allows you to specify the duration time of an missing or unattended object to invoke the detection
6		<p>The minimum area can be detected. You can click the  button, then use the mouse to outline the minimum detection region on the screen.</p> <p>Click the  button again to get the minimum detection region.</p>
7		The maximum area can be detected. The opposite settings to above minimum size setting.
8		<p>The direction you have set. Click the  button, then use the mouse to outline the arrow on the screen, the arrow indicates direction. Click the  button again to get the direction value.</p> <p><u>Tips: Only the last draw direction is available.</u></p>
9		Set an offset value in pixels to allow certain of movement offset. For example you set the value 3, if one object moves in a range of 3 pixels,system will ignore this movement.









9		Set the scene of camera view
10		To adjust the objects' movement speed. If the detected objects move fast, please set the value faster. On the opposite please set the value slower.
11		Enable the software to start Intelligent Video Analysis function. Click the  button to set the time schedule for intelligent video analysis function.
12		Enable the software to trigger an alarm output. Click the  button to assign output device.
13		You can display the detection zone in live image by checking “√” in  .

2.4.1 Unattended Object Detection



pic Unattended object detection

To detect any unattended objects within the camera view, please follow the steps below:

1. Click  to select Unattended Object Detection from the drop-down list.
2. Click the  button then left-click on the video to start drawing the detection area, you should left-click mouse at each corner and right-click to stop drawing, you can draw any irregular zone and multiple zones to meet your requirements
3. If you want to modify detection zone, please delete it by clicking button  and draw again.
4. Set proper Image Scale, Sensitivity, Volume Ratio, Duration Time according to your camera scene or just keep default. (Reference: Parameters Introduction)
5. Check on Trigger Alarm output and set alarm out port if you have alarm device hardware connection
6. Click  button to start the function.
7. If you have modified the parameters, please click the  button to save them.
8. While you click the Start or Apply button, the system will automatically capture the image for reference, you can see the image by clicking  button.

When any unattended object appears and remains stationary for the duration time, a warning message will appear and its location will be highlighted with red box in live video, the selected alarm audio and output will be activated, and the event will be recorded as unattended object in system Log for later retrieval.


Application: Applied in airport, oil field and other high-risk fields.


Tips:

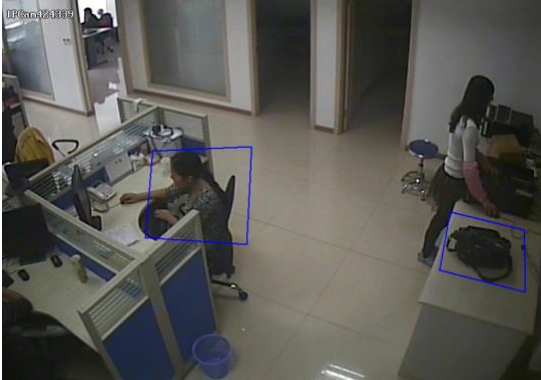
You can also stop the alarm manually by single-right-click its preview screen and click the "Clear Alarm" option.

2.4.2 Missing Object Detection

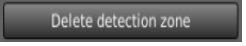
To detect any missing objects within the view, please follow the steps below:

1. Click  and select Missing Object Detection from the drop-down list

2. Click the  button then left-click on the video to start drawing the




detection area, you should left-click mouse at each corner and right-click to stop drawing, you can draw any irregular zone and multiple zones to meet your requirements


3. If you want to modify detection zone, please delete it by clicking button  and draw again.

4. Set proper Image Scale, Sensitivity, Volume Ratio, Duration Time according to your camera scene or just keep default. (Reference: Parameters Introduction)

5. Check on Trigger Alarm output and set alarm out port if you have alarm device hardware connection

6. Click  button to start the function.

7. If you have modified the parameters, please click the  button to save them.

8. While you click the Start or Apply button, the system will automatically capture the image for reference, you can see the image by clicking button .

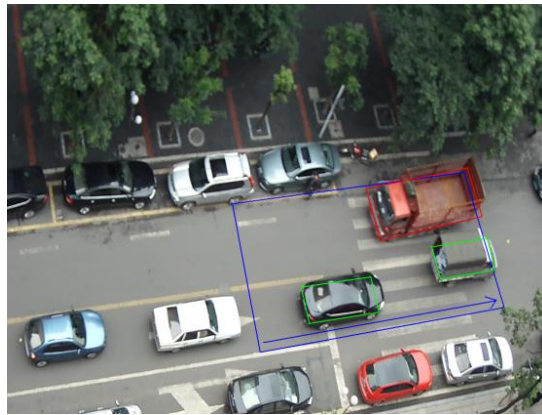
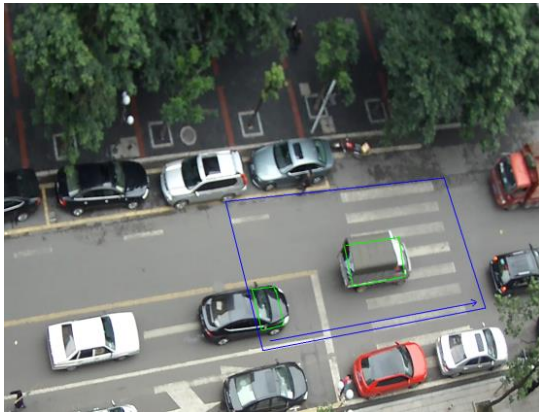
When any object, which you have outlined the regions for, disappears from the camera view for 3 seconds, a warning message will appear and its location will be highlighted with red box in the live video, the selected alarm and output will be activated, and the event will be recorded as missing object in system Log for later retrieval

Application: Applied in the museum, the exhibition and other places which have the valuable things.

2.4.3 Movement Direction Detection

To detect movement direction within the

camera



view, please follow the steps below:

1. Click and select Movement Direction Detection from the drop-down list.
2. Click the button then left-click on the video to start drawing the detection area, you should left-click mouse at each corner and right-click to stop drawing, you can draw any irregular zone and multiple zones to meet your requirements.
3. Click button on the right of Angle then use the mouse to draw an row on the image. Click the button again to get direction angel value.
4. If you want to modify detection zone, please delete it by clicking button and draw again.
5. Set proper Image Scale, Sensitivity, Volume Ratio, Duration Time according to your camera scene or just keep default. (Reference: Parameters Introduction)
6. Check on Trigger Alarm output and set alarm out port if you have alarm device hardware connection.
7. Click the button to start the function.
8. If you have modified the parameters, please click the button to save them.

when a moving object appears in the detection zone, the reverse arrow direction object will be highlighted with red box, the selected alarm audio and output will be activated, and the event will be recorded as movement direction alarm in system Log for later retrieval. At the same time the object along with the arrow direction will be highlighted with green box.

Application: Applied in road and other places which allow one-way movement.

2.4.4 Intrusion Detection



To detect intrusion within the camera view, please follow the steps below:

1. Click and select Intrusion Detection from the drop-down list
2. Click the button then left-click on the video to start drawing the detection area, you should left-click mouse at each corner and right-click to stop drawing, you can draw any irregular zone and multiple zones to meet your requirements
3. If you want to modify detection zone, please delete it by clicking button and draw again.
4. Set proper Image Scale, Sensitivity, Volume Ratio, Duration Time according to your camera scene or just keep default. (Reference: Parameters Introduction)
5. Check on Trigger Alarm output and set alarm out port if you have alarm device hardware connection
6. Click the button to start the function.
7. If you have modified the parameters, please click the button to save them.

When any object intrudes the detection zone you have draw, its location will be highlighted with red box in the live video, the selected alarm audio and output will be activated, and the event will be recorded as Intrusion detection alarm in system Log for later retrieval.

Application: Applied in the heavily guarded military centers or bank, the museum and other places which need prevention appear suspicious characters.

2.4.5 Tripwire Detection



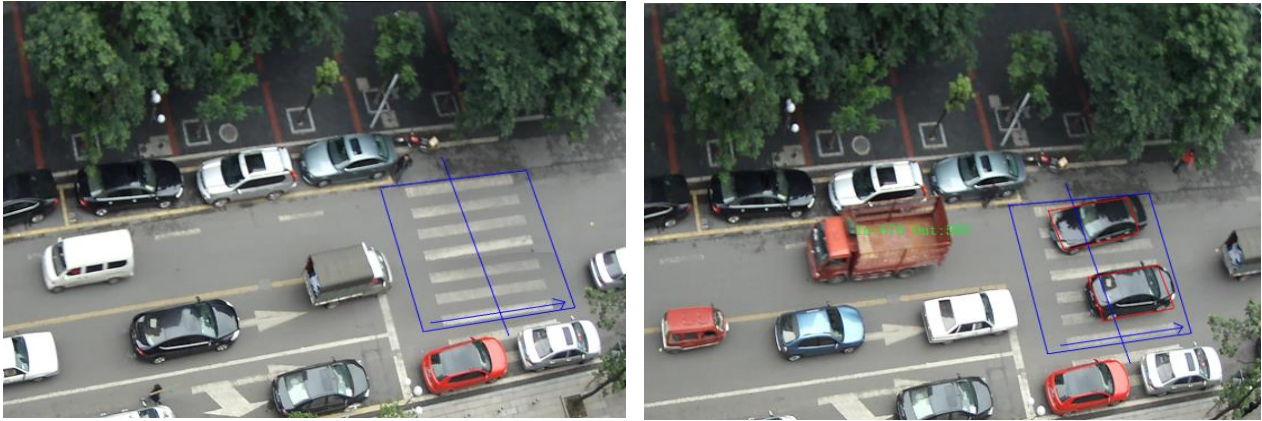
To detect tripwire within the camera view, please follow the steps below:

1. Click and select Intrusion Detection from the drop-down list
2. Click the button then single-left-click on the video to start drawing the detection area, you should left-click mouse at each corner, and single-right-click to stop drawing, you can draw any irregular zone and multiple zones to meet your requirements.
3. If you want to modify detection zone, please delete it by clicking button and draw again.
4. Click the button to draw tripwire, only the last drawing is available.
5. Click button on the right of Angle then use the mouse to draw an row on the image. Click the button again to get direction angel value.
6. Set proper image scale, sensitivity, minimum size, maximum size, angle, minimum offset according to your camera scene or just keep default.(Reference: Parameters Introduction)
7. Check on Trigger Alarm output and set alarm out port if you have alarm device hardware connection.
8. Click the button to start the function.
9. If you have modified the parameters, please click the button to save them.

When any object steps on the tripwire and moves reverse direction of the arrow you have draw, its location will be highlighted with red box in the live video, the selected alarm audio and output will be activated, and the event will be recorded as tripwire detection alarm in system Log for later retrieval.

Application: Applied in prevention through border, fence, through the subway route and other places.

2.4.6 Object Counting



To count object within the camera view, please follow the steps below:

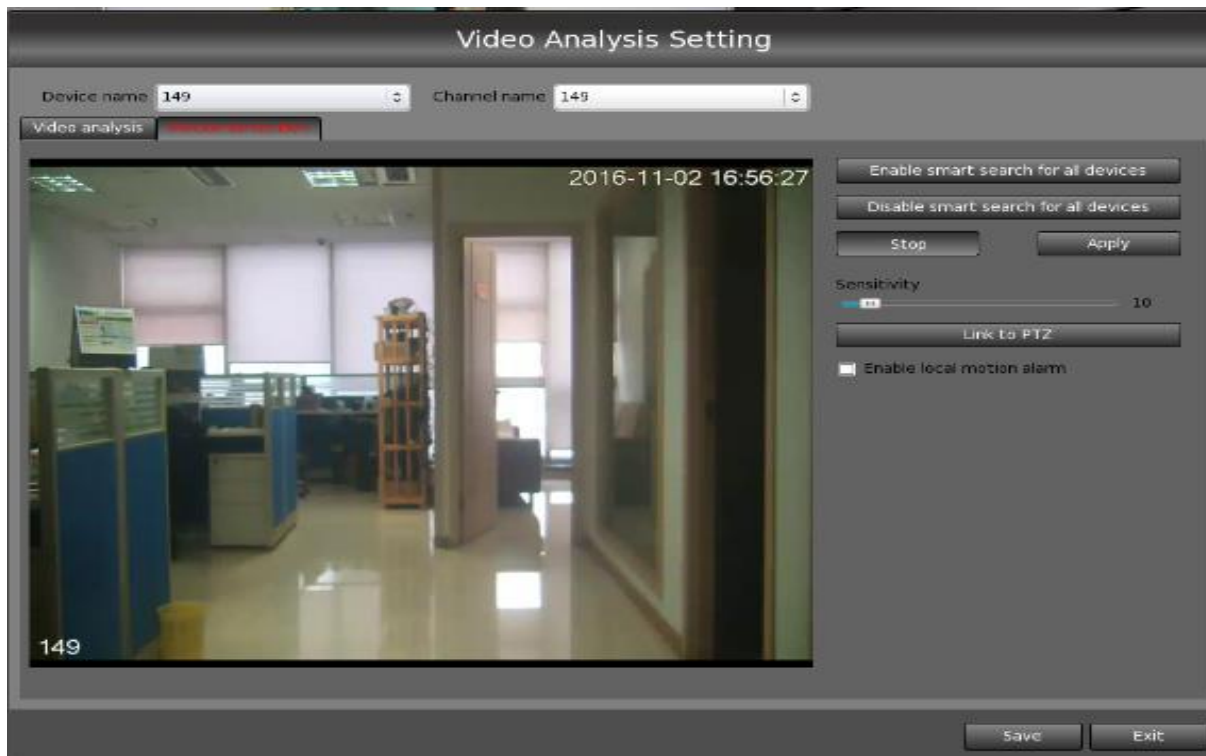
1. Click and select Object Counting from the drop-down list
2. Click the button then single-left-click on the video to start drawing the detection area, you should left-click mouse at each corner, and single-right-click to stop drawing, you can draw any irregular zone and multiple zones to meet your requirements
3. If you want to modify detection zone, please delete it by clicking button and draw again.
4. Click the button to draw tripwire, only the last drawing is available.
5. Click button on the right of Angle then use the mouse to draw an row on the image. Click the button again to get direction angel value.
6. Setup proper image scale, sensitivity, minimum size, maximum size, angle, minimum offset. It is suggested to keep default. (Reference: Parameters Introduction)
7. Check on Trigger Alarm output and set alarm out port if you have alarm device hardware connection. (Reference: Parameters Introduction)
8. Click the button to start the function.
9. If you have modified the parameters, please click the button to save them.

The object counting provides bi-directional counting of objects under the surveillance area. The arrow indicates direction, when an object appearing in the detection zone steps on the tripwire and moves along the direction of the arrow, it would be counted as 1 out, otherwise when an object steps on the tripwire and moves reverse direction of the arrow, it would be counted as 1 in.

Application: Applied in the market, the highway and other places which need monitoring

flows.

2.4.7 Motion Detection



Enable smart search for all devices

--start all devices' motion detection for smart search.

Note: This function will cost software CPU to decode all channel videos and do Motion detection, it will take a lot of CPU resource, if it is not Intel core i7 CPU, please not open all channels motion detection;

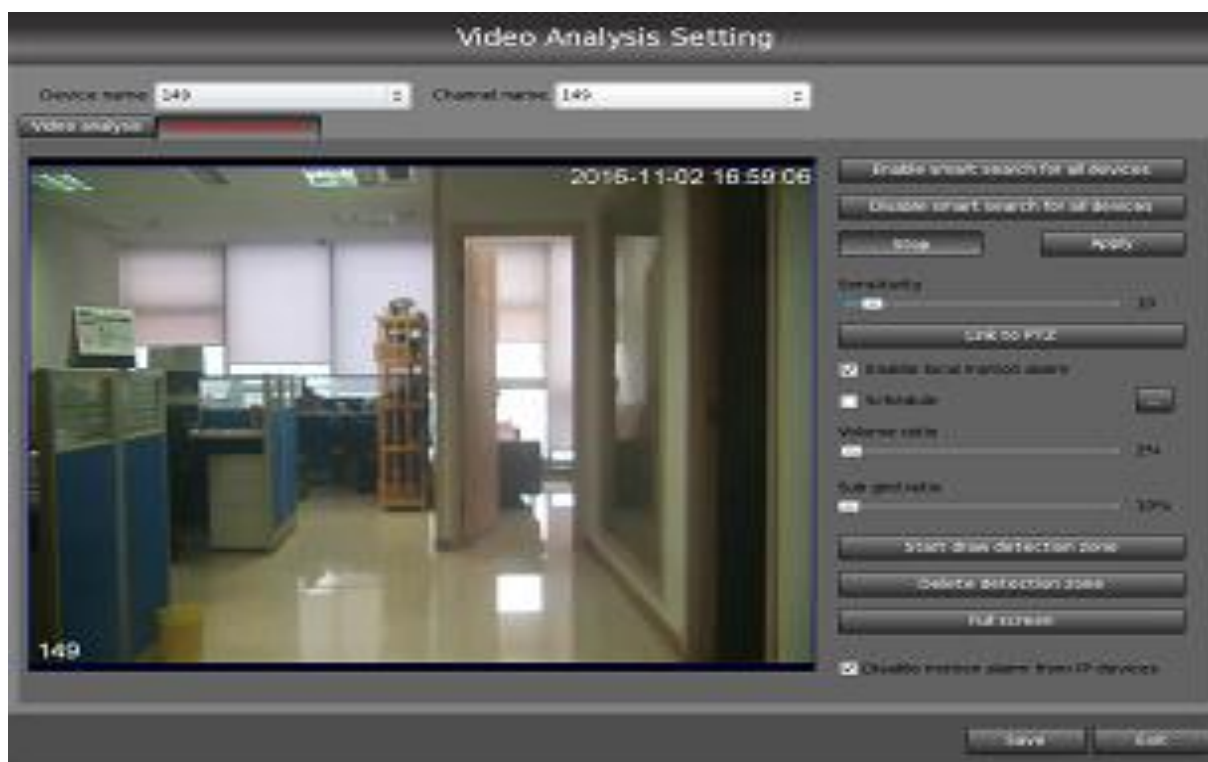
Disable smart search for all devices

--stop all devices' motion detection for smart search.

You can enter the motion detection parameter setting interface by pressing "Start" button first and then checking the ☒ Enable local motion alarm, the specific interface is shown blow.

Link to PTZ

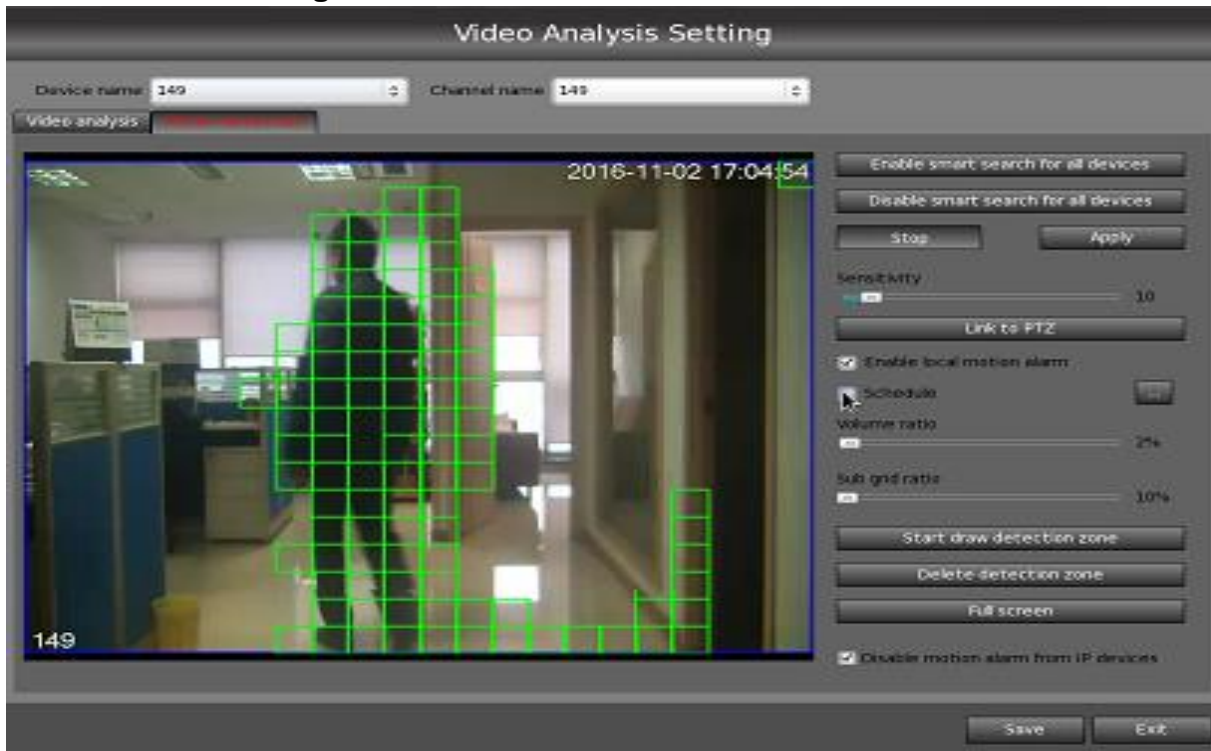
--After you enabled local motion alarm, system will then link to a PTZ preset of a camera according to your setup when a motion alarm detected in this camera.



Parameters Introduction

1		To set the minimum acreage of detection zone to trigger alarm. Its unit is percent, if the acreage of motion area exceeds the setting value of the areas you selected, system will trigger alarm. The default value is 2%.
2		To adjust the sensitivity of the area you selected. The lower the value the more sensitive the system. The default value is 10.
3		it will divide the detection zone you drew into several 32*32pix pieces, if you set sub grid ratio to be 10%, then a object come in, each piece will detect whether there is more than 10% in 32*32pix piece changed, if yes, this piece will alarm with green box

Motion Detection Setting



To detect any motion detection within the camera view, please follow the steps below:

1. Click the **Start draw detection zone** button then single-left-click on the video to start drawing the detection area, you should left-click mouse at each corner, and single-right-click to stop drawing, you can draw any irregular zone and multiple zones to meet your requirements
2. If you want to modify detection zone, please delete it by clicking button **Delete detection zone** and draw again.
3. You can click the **Full screen** button to choose full screen as detection zone.
4. Set the proper sensitivity, volume ratio, it is suggested to keep default. (Reference: Parameters Introduction)
5. Click the **Start** button to start monitoring for the application.
6. If you have modified the parameters, you shall click the **Apply** button to save them.
7. Check ☐ **Disable motion alarm from IP devices** to disable motion alarm signal from IP devices.

Enable local motion detection can trigger the corresponding motion alarm records.

Link to PTZ

Click the button **Link to PTZ**, the Link to PTZ sub-window will pop up:

1. Linkage Zone: Users can set max.16 Detection zones, and each zone link to a PTZ preset of a special channel of a device.
2. Schedule: Users can set time schedule for Linkage Action.
3. Select Device: Select the device with PTZ channel which you want to use.
4. Select Channel: Select the channel with PTZ which you want to turn to a preset.

5. Preset NO.: Select the preset NO. which you want to ask the PTZ channel to turn to when the alarm happened in the Zone.

2.4.8 Video Analysis Playback

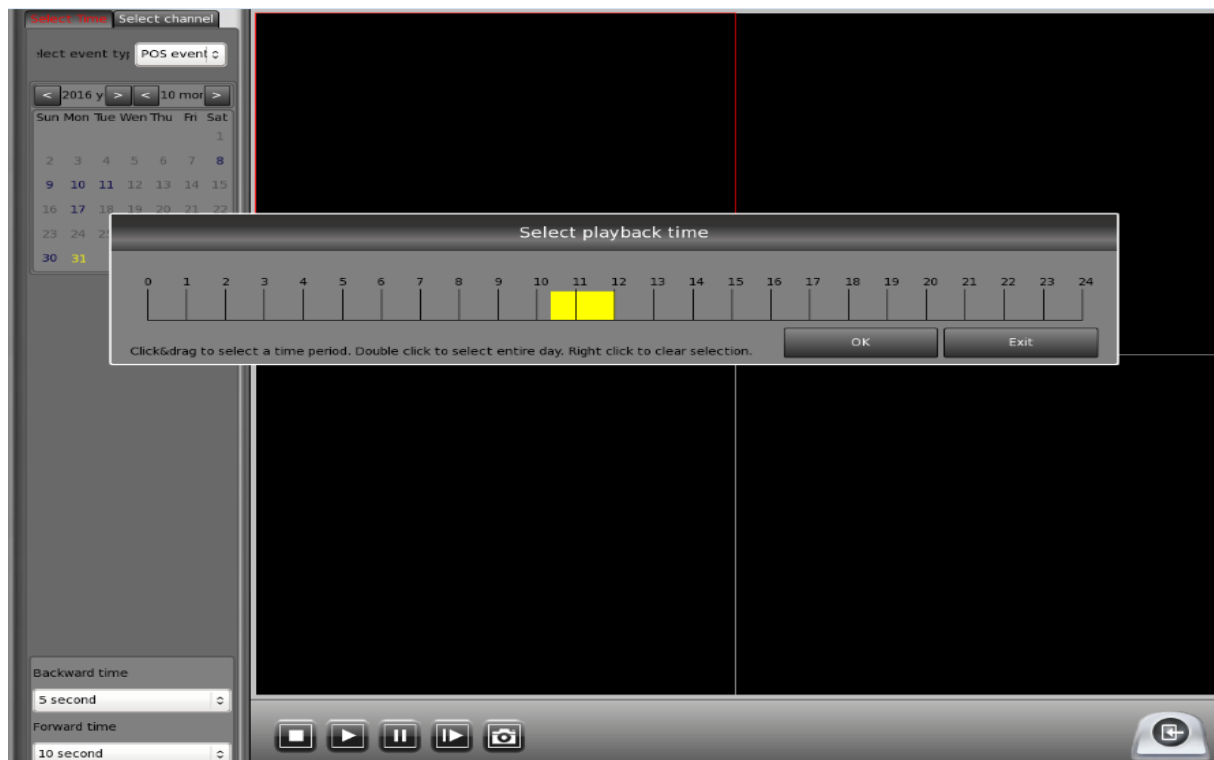
Click “Video Analysis Playback” option in context menu to enter multi-channels video analysis playback interface。

Steps:

- ①. select one event type to search.
- ②. select the date and time. Blue date indicates the record data but not always pos data. The yellow date means current day you select, you can click the yellow date to select a period of time .
- ③. Double-click a message displayed in the left information box to playback the recorded video.

Forward Time: set playback forward time of the video.

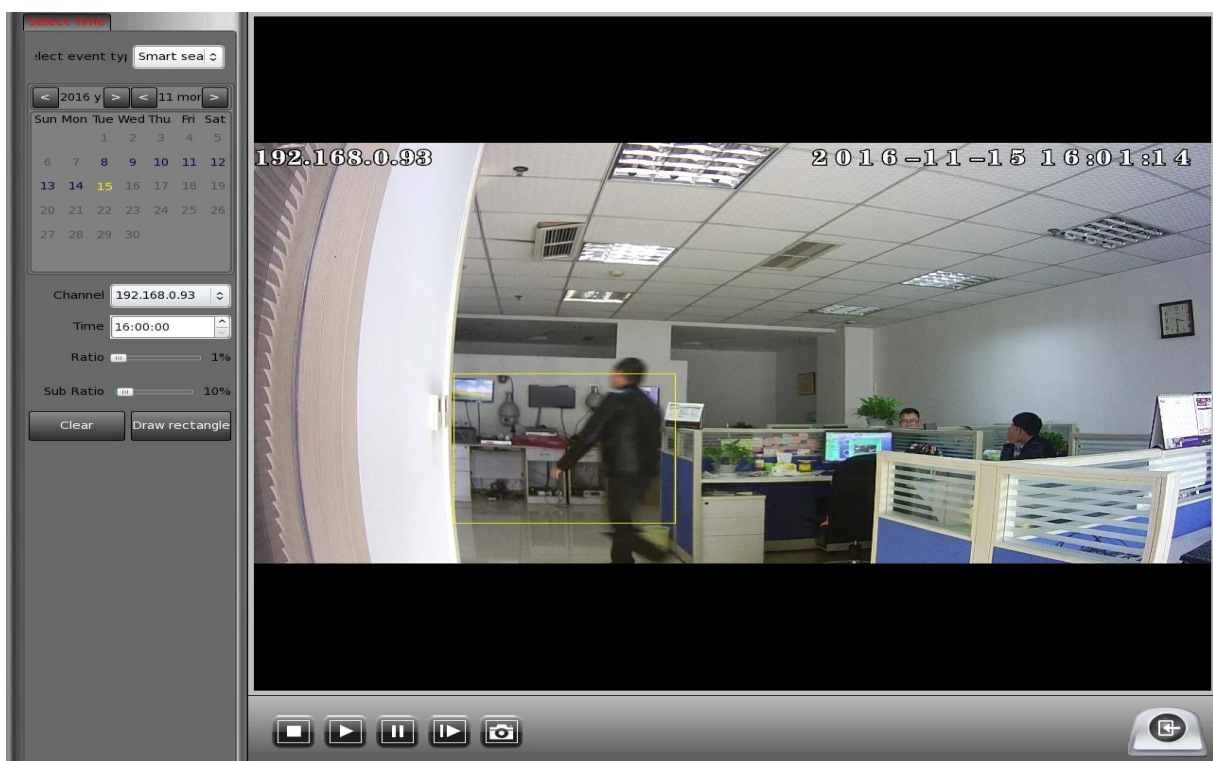
Backward Time: set playback backward time of the video.



For example, if you select “Face detection alarm” as event type, and select the yellow date to search an assigned period. We can see the search result shown blow. You can double click the face photo to playback.



If you select “Smart search” as event type, you can see the interface shown blow. You need to set Ratio and Sub Ratio firstly, then press play button and draw a rectangle on the playback window. Then you can get the video data when there are motion in the rectangle.



Channel: Select one channel to playback its data;



-- Adjust the audio;



-- Adjust the playing speed;



-- Press this button to close all cameras;



-- Press this button to play;



-- Press this button to pause;



-- Press this button to play next frame;



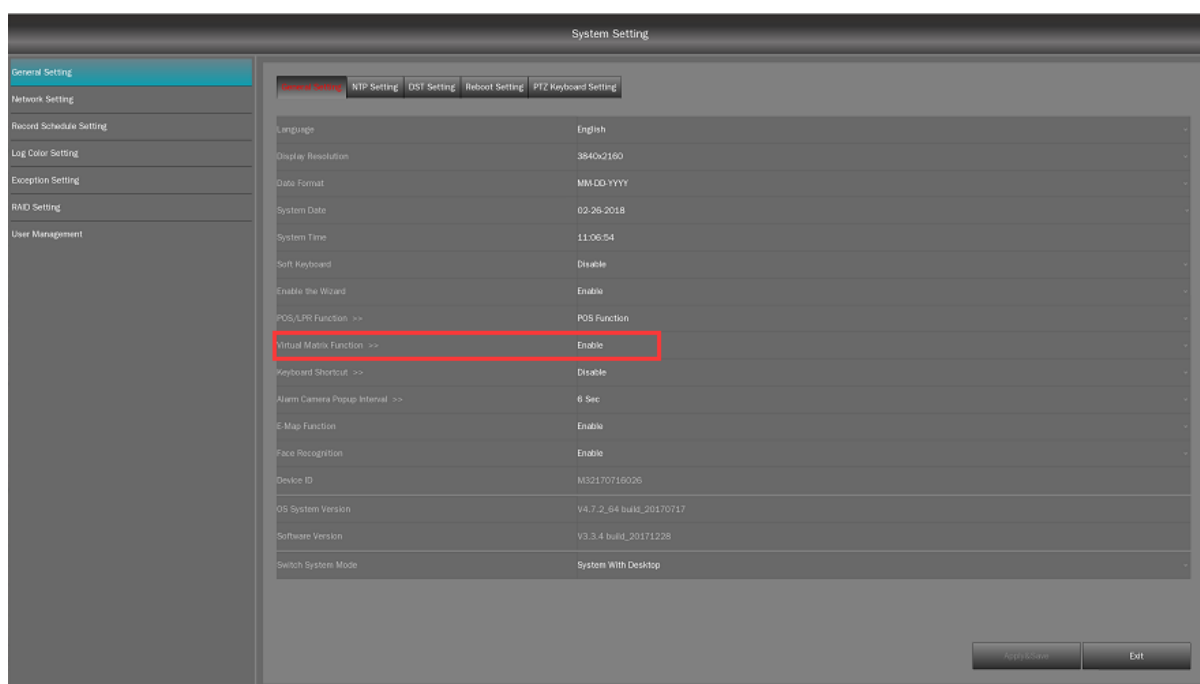
-- Press this button to grab a picture, when a picture is grabbed, there will be a dialog pop up to ask for a file name.

Tips:

All results of video analysis can be exported to flash disk by right-click on the left information box.

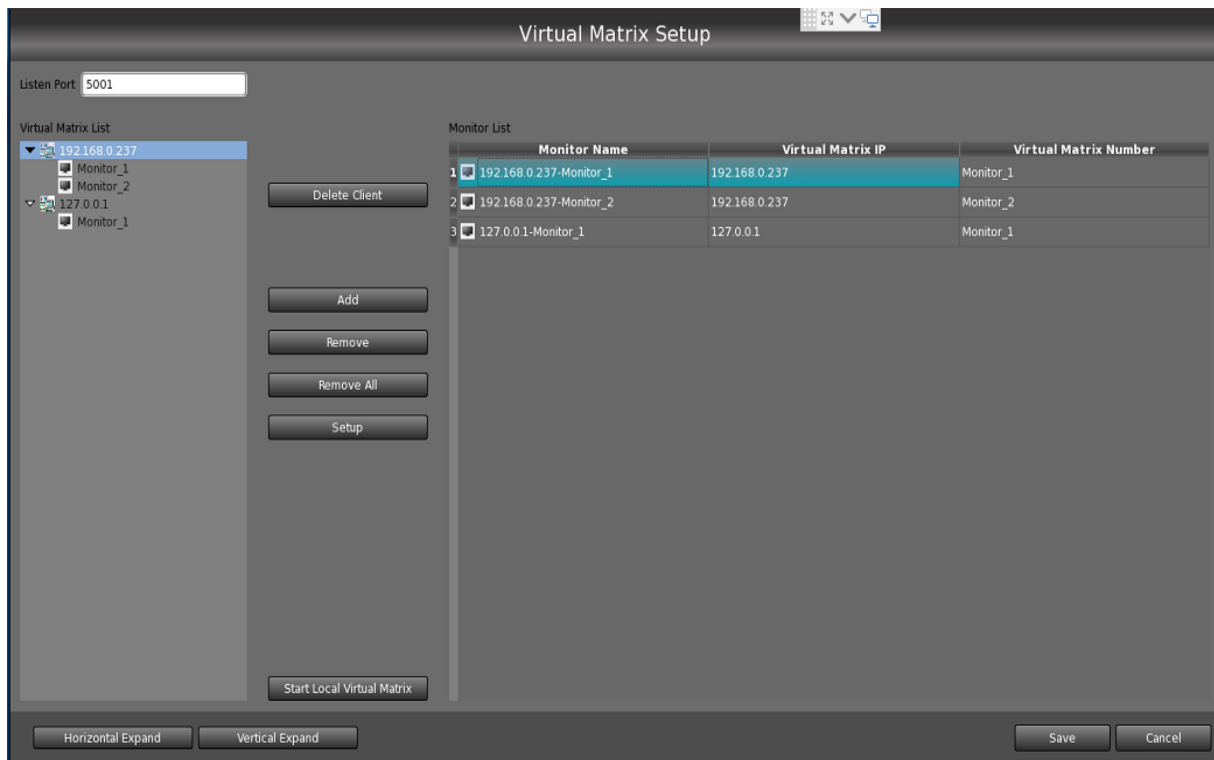
2.5 Virtual Matrix Function

Before using this feature, please enable “Virtual Matrix Function” in System Setting.



2.5.1. Monitor Setup

You can single-right-click to enter the interface of Virtual Matrix Setup in the main interface.



The IP “127.0.0.1” client is called the second monitor. It means dual monitors (includes the main monitor and the second monitor) connected to system. The IP “192.168.0.237” client is IP Matrix machine. The main monitor is current monitor that you can do all functions of system on, and the second monitor of system and all monitors of IP Matrix machine which connect to system are defined as Virtual Matrix monitors.

Start Local Virtual Matrix ---Click on this button to help system recognize the second monitor.

Horizontal Expand & **Vertical Expand** ---Adjust the second monitor’s image to display more friendly.

Delete Client ---It’s a client just like this  127.0.0.1 ,select it and click button

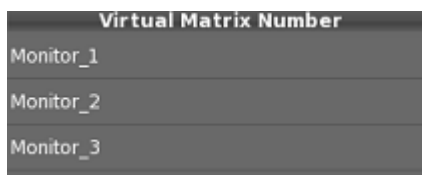
Delete Client to delete it from Virtual Matrix List.

Add ---Select one monitor from Virtual Matrix List , then click button **Add** to add this monitor to Monitor List (or double click one monitor to add it).

Remove ---Select one monitor from Monitor List , then click button **Remove** to remove it.

Remove All ---click this button to remove all monitors in the Monitor List.

Setup ---Select one monitor from Monitor List , then click button **Setup** to enter the interface of Monitor Setup (or just double click one monitor to enter).



---You can modify monitor(s)'s name here.

2.5.2. Group Setup

You can set as many as 16 groups for each TV monitor. Select a group from the drop down list to set it, you can define its name and partitions, the changed name will be active after saving configurations. There are 1/4/9 and 16 partitions modes.

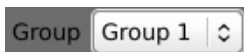
Default Stream Type --It includes "Main Stream" and "Sub Stream". After you select one default stream type, each camera you dragged to the sub-window would be displayed as the selected stream.

Note:

You can manually change the stream type of each camera by modifying the stream type in each sub-window. This setting will overwrite the "Default Stream Type".



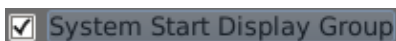
-- You can select any monitor to configure camera displaying sequence or switch viewing interval. If there is only one monitor, this option would be not selectable.



--Select a group to setup, support maximum 16 groups.



-- Define group's name and partitions.



--Check this checkbox and save it for the system to show next time the system boots up.



--You can drag multiple cameras into one sub-window for switch viewing, and the switch interval options are disable/5/10/15 and 20 seconds etc.



2.5.3. Monitor Control

Select “Virtual Matrix Function>>Open All Monitor” in context menu to view all the monitors connected to the system, you can drag them to anywhere on the main interface, the names of cameras on TV client will be shown in the monitor window. Also you can open only one monitor at a time via selecting it below “Close All Monitor”.

You can adjust the view mode, select cameras or groups to display, and control PTZ on the monitor you opened just now.

View: Click this button to adjust window split mode, including 1/4/6/9/13 and 16 views mode. And click “restart”, the current TV client will be restarted.

>>: Click this button to select a group set in Virtual Matrix Setup to display, or click “Close All” to close all images.

Tips:

You can drag cameras from Device List panel or preview interface to monitor window to display.

PTZ: Click “PTZ” button to enter PTZ control menu. PTZ can only be controlled when select PTZ camera, it is similar to the operation on PTZ control panel. But you can only call the preset set in channel setting.

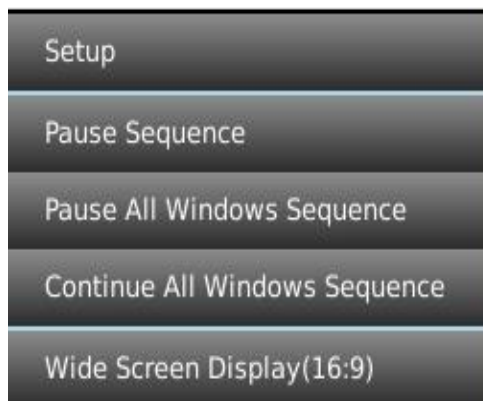
Hide: Click “Hide” button to hide monitor window.

Close Image: Single-right-click on one sub-window of monitor window, and then press “Close Image” to close current video view.

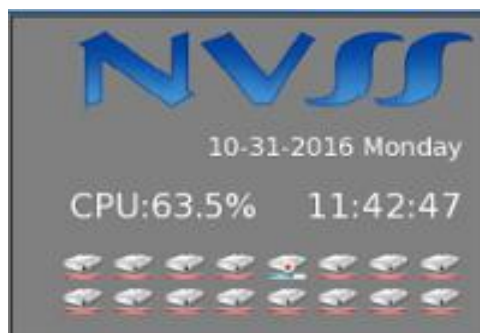
Pause/Continue Sequence: Single-right-click in any sub-window to pop up a sub-menu, then press “Pause Sequence” to stop sequence in that window. After “Pause Sequence” is pressed, it will turn to “Continue Sequence”, when you enter the sub-menu again, press it to continue the sequence in this window.

2.5.4. Operations on local TV Client

Right-click on the local TV Client to bring up following menu. You can adjust camera displaying sequence and image displaying mode here.



2.6 Information Panel




This panel shows product's logo, current date and system time, CPU occupancy rate and the information about HDD.

The color of CPU percentage is changing according to its value. Usually, the higher CPU causes the darker color. 0-70% the text color would be 123; 70-80% the text color would be 123; 80-90% the text color would be 123; 90-100% the text color would be 123.

Move close to or stop above each HDD icon to get its SN ,status, used memory and recording begin time and end time.

HDD status: The left-hand icons mean RAID enabled.

 --The HDD is waiting for formatting;

 -- The HDD is formatting;

 --The HDD is empty;



--The HDD is writing;



--The HDD is full;



--The HDD is error.

Note:

1. A 1TB HDD would cost about 2 minutes to format and mount to the system.
2. Don't uninstall the HDD which is writing or formatting, it would cause bad track and damage its file system.
3. Don't uninstall the HDD when RAID is properly running.
4. You need wait for about 20 seconds before see the HDD icon when you insert one new HDD.

2.7 Control Panel

2.7.1 Device List

All the connected IP devices will be shown in the Device List,.You can get detailed connection information when the mouse stops above a camera figure.

You can also know the connection and recording status about camera.

Device status:



--The IPC is online;



--The IPC is offline;



--The NVR/DVR is online;



--The NVR/DVR is offline.

Recording status:



-- The camera is in normal continuous record mode;



-- The camera is in manual record mode ;

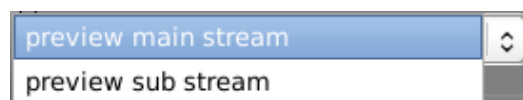


-- The camera is in motion detection record mode;



-- The camera is in sensor alarm record mode.

You can preview any video in the device list by dragging the camera to any live view window. The drop-down box

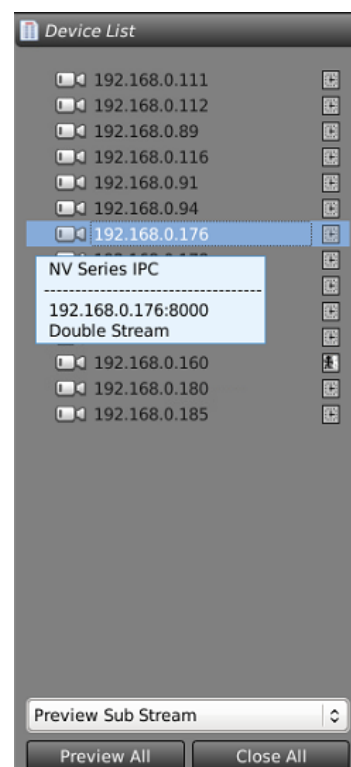


gives the choice of main stream

or sub stream for camera preview.

Preview All

-- you can open the all connected cameras' image by clicking this button.




Close All

-- you can close all camera previews by clicking this button.


2.7.2 Color/Audio Adjust

The detailed function of each button:




-- Move slider to adjust the brightness of the image which you select, click this button  to resume its default value;




-- Move slider to adjust the contrast of the image which you select, click this button  to resume its default value;



-- Move slider to adjust the hue of the image which you select, click this button  to resume its default value;



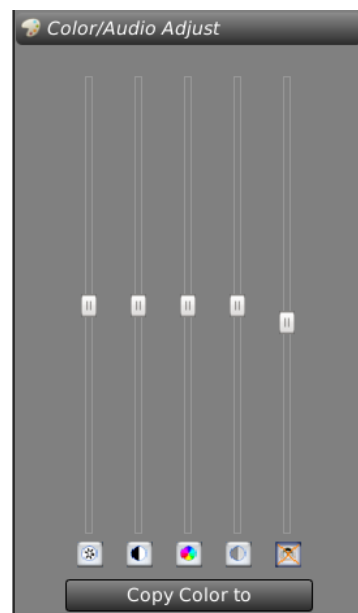
-- Move slider to adjust the saturation of the image which you select, click this button  to resume its default value;



-- Move slider to adjust the volume, click this button  to turn off the audio.

Copy Color to

-- Click this button and select cameras to copy the color and audio adjustment to them.



2.7.3 PTZ Control

The detailed function of each button:


Speed Dome

-- Please set presets for PTZ cameras in Channel Setting first, then you can select a PTZ camera in live view window and click on this button to



Preset Call >

Preset Tour >

pop up this menu to call a preset or tour group.

Speed:  128

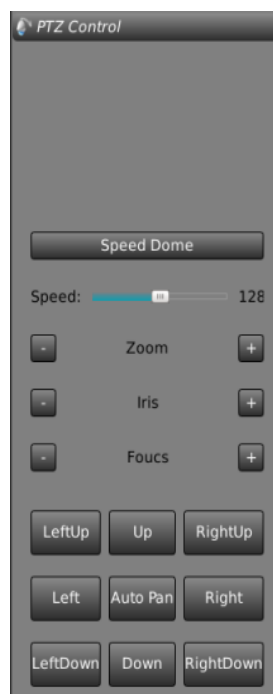
-- Move the slider to adjust PTZ speed. It ranges from 1 to 128, the bigger number the faster speed.

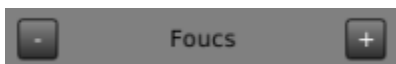
 Zoom 

-- Zoom in and zoom out.

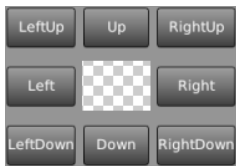
 Iris 

-- Override the PTZ camera's auto-iris and brighten or darken the image.





-- Adjust focus, normally used for motorized zoom camera. PTZ camera has auto focus function.



-- Direction control by pressing and holding these buttons.



-- Auto Pan depends on PTZ camera hardware function. Many companies set Auto Pan disabled by default.

2.7.4 DI/DO Control

You can get the name of DI/DO when the mouse stops above the number button.

You can set DI status in Channel Setting. When there is no alarm triggered out, you can press the number button to output alarm forcibly and the button will become blue. Press it again, the output will be closed and the button will become gray.

The status of DI/DO:



-- DI/DO port is not in alarm trigger.



-- DI/DO port is in alarm trigger.

2.8 Toolbar Panel

■ Split view



Press button to set split view mode of the main screen.

■ System Setting



Press button to enter the System Setting interface, please refer to Chapter3 for details.

■ Playback



Press button to enter Playback sub-menu to search local video/audio data. please refer to Chapter4 for details.


■ Group view & Setting




Press button to bring up sub-menu in which you can: ① Call pre-stored


group;②Save current view into a group;③Enter Preview Group Setting interface.

■ Manual Record

Press  button to begin Manual Record for all cameras, the record status will change to

 immediately, and press it again to stop Manual Record. Manual Record has priority to overwrite all other system record settings.

■ Capture

Press  button to grab a picture of a selected camera to local hard disk. You can view and download the captured picture in the Search Images of playback.

Note:

If the size of all the captured pictures exceeds 2G, system would automatically delete half of them to free disk space.

■ Channel Setting


Press  button to enter Channel Setting window.

■ Device management

Press  button to enter Device Management sub window.


■ E-Map

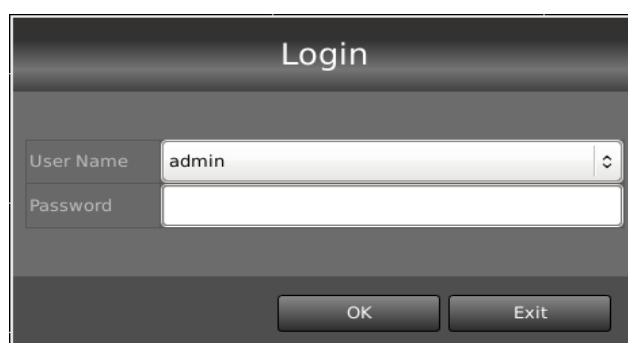
Firstly, make the “E-Map Function” enable in System Setting.

Press  button to enter E-map window

■ Lock Screen (ON/OFF)

Firstly, make “Local Password” in System Setting enable.

Press  button to prevent unauthorized user to operate system. Press it again, the login dialog box will be displayed as shown blow. Input your User ID and password then press OK to unlock it.




The image shows a 'Login' dialog box with a dark gray background. At the top, the word 'Login' is centered in white. Below it, there are two input fields: 'User Name' with the text 'admin' and a dropdown arrow, and 'Password' which is empty. At the bottom, there are two buttons: 'OK' and 'Exit'.

Note:

1.Default User ID is “admin”, password is “admin” too.

2.If you disabled the Local Password, the icon  would be hidden in toolbar panel.

■ Power

Press  button to enter the power management sub-menu as shown blow.



You have three options to choose: Logout, Restart or Shutdown.

Note:

If the buffer of data is being written to the HDD, it will spend a little more time to shut down the system.

2.9 Log Panel

The log panel displays all real-time system log information.You can search all log history in Log Search. You can also set different font color for different log information in the Log Color Setting.

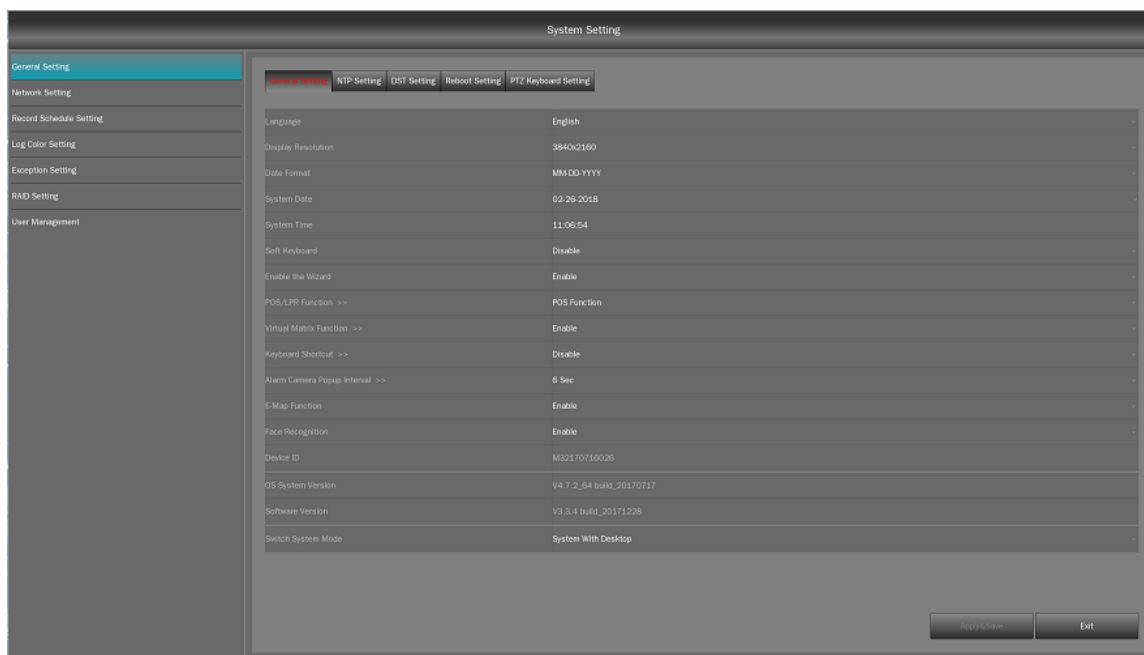
	Time	Log Content	Filter Parameter	Device Name	Channel Name
5	2017/01/18 14:40:22	Local Operation	Channel Setting		
4	2017/01/18 13:47:17	Local Operation	Virtual Martix Setting		
3	2017/01/18 13:04:37	Local Operation	Start Group Preview		
2	2017/01/18 13:04:37	Device Alarm	Sensor Alarm Start	192.168.0.160	non-name-0
1	2017/01/18 13:04:32	Exception	Restart		

Chapter 3 System Setting

The System Setting includes 7 parts: General Setting, Network Setting, Record Schedule Setting, Log Color Setting, Exception Setting, RAID Setting and User Management.

3.1 General Setting

3.1.1 General Setting



【Language】 Set system language.

【Display Resolution】 Set system display resolution, normally system will automatically adjust its display resolution according to the monitor's resolution. You can also choose other resolution supported by the monitor in the drop-down box.

【Date Format】 Set OSD date format. There are three options: YYYY-MM-DD, MM-DD-YYYY, DD-MM-YYYY.

【System Date】 Display the current system date. You can only change the date in BIOS.

【System Time】 Display the current system time, you can adjust the time here.

【Enable the Wizard】 Enable or disable the wizard when the system starts up.

【POS Function】 Enable or disable the POS Function.

【Virtual Matrix Function】 Enable or disable the Virtual Matrix function.

【Keyboard Shortcut】 Turn on or turn off the shortcut function of computer keyboard.

【Alarm Camera Popup Interval】 Setup the time interval for the alarm pop-up cameras.


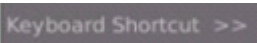
【Device ID】 Display the ID of System.

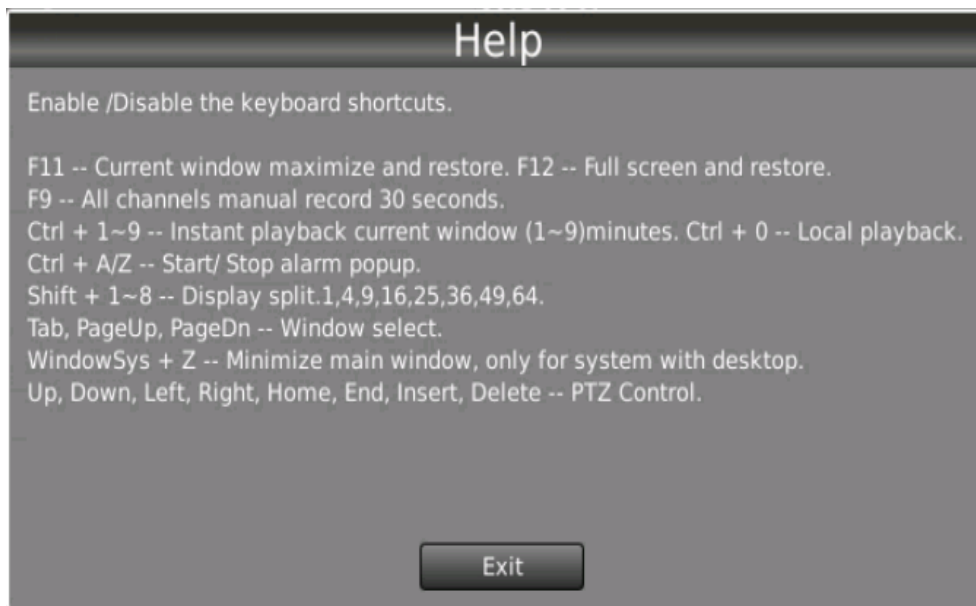
【System Version】 Display the system OS version.

【Software Version】 Display the system software version.

【Switch System Mode】 Turn on or turn off the Linux Desktop. For high security system, please turn off Linux Desktop function to prevent operators to do something unrelated with surveillance.

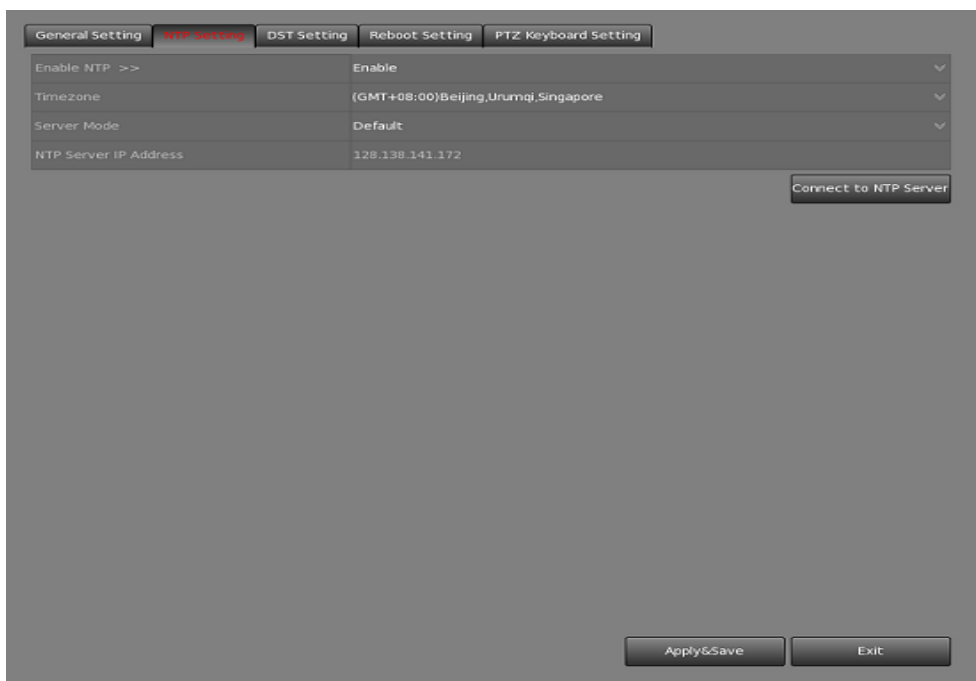
Note:

We add explanations for some functions, double click on  such as , to pop up help information, shown as below.



3.1.2 NTP Setting

After you enable NTP(Network Time Protocol) feature,please choose correct Time Zone for your system.Normally you don't need to change this setting.



3.1.3 DST Setting

After you enable DST(Daylight Saving Time) feature,please follow the setup interface to configure Start Time,End Time and DST Bias.

3.1.4 Reboot Setting

Setting 1-2 times reboot per week is necessary to free RAM resource, it will be helpful to keep system more stable for long time working.

【Reboot】 Check on Reboot checkbox to enable reboot function.

【Reboot At】 Set auto-reboot date here.

【Reboot Time】 Set auto-reboot time here.

3.1.5 PTZ Keyboard

【Enable PTZ Keyboard】 Set Enable to turn on the PTZ keyboard function.

【Keyboard IP】 Input the IP address of IP keyboard.

【Keyboard Port】 Input keyboard port number. After finishing these settings, the IP address of system can be searched and displayed on the screen of IP keyboard.

Double click the device name from Device List to add it into left panel which lists cameras that will be controlled by the IP Keyboard. Click button “Monitor Setting” to enter Monitor Setting interface, you can adjust monitors display sequence and modify monitor’s name.

General Setting NTP Setting DST Setting Reboot Setting **PTZ Keyboard Setting**

Enable PTZ Keyboard Enable

Keyboard IP

Keyboard Port 0

NO.	Server Name	Camera Name
1	192.168.0.89	192.168.0.89
2	192.168.0.91	192.168.0.91
3	192.168.0.111	192.168.0.111
4	192.168.0.112	192.168.0.112
5	192.168.0.116	192.168.0.116

Device List

- 192.168.0.111
- 192.168.0.112
- 192.168.0.89
- 192.168.0.116
- 192.168.0.91
- 192.168.0.94
- 192.168.0.176
- 192.168.0.178
- 192.168.0.159
- 192.168.0.157
- 192.168.0.162
- 192.168.0.160
- 192.168.0.180
- 192.168.0.185

Top Bottom Move Up Move Down Delete

Monitor Setting

Apply&Save Exit

Monitor Setting

NO.	Monitor Server	Monitor Name
1	local host	main display
2	127.0.0.1-Monitor_1	local TVClient
3	192.168.0.239-Monitor_2	Monitor_2

Device List

- 127.0.0.1
- Monitor_1
- 192.168.0.239
- Monitor_1
- Monitor_2

Top Bottom Move Up Move Down Delete

Save Cancel

Operations on IP Keyboard:

1.ESC: Return to the previous interface.

2.SETUP: Press the button to get into system setting of the keyboard. There are Network Mode, Sound, Language, Password and Default. You can only use the joystick to choose options.

Network Mode: It includes two options(Static and DHCP) that you can choose through the

joystick .

Sound: You can choose whether open the sound of the keyboard or not.

Language: Set IP Keyboard language.

Password: Set keyboard's password.

Default: Click to restore your keyboard settings to default.

3.Inquiry: You can view the client list by pressing the button.

4.Lock: Press the button to lock keyboard system. Press it again to input the password to unlock it.

5.Single: Current window maximize and restore.

6.Full: Full screen and restore.

7.Views: Press the button and input a number for split views, press the button "OK" to take effect.

8.CAM: Press the button and then input camera number set in the System(PTZ Keyboard Setting), it will show the camera with single view.

9.Win+/Win-: Press the button to select a window on the monitor.

10.Group: Press the button and then input group number set in the System-->Virtual Matrix Setup to show the group.

11.MON: Press the button and then input the monitor number(you can view the number in the PTZ Keyboard Setting-->Monitor Setting in System), then you can control the monitor you choose.

13.Title: Press the button to show/hide all video title.

14.REC.: Press the button to make all record types change to manual record. Press it again to restore.

15.Grab: Press the button to grab.(it only works on the software decode)

16.Tours: Please select the PTZ camera and then press the button to input the Tour Group number set in the System.

17.Alarm On: Press the button to Enable the alarm camera popup.

18.Alarm Off: Press the button to Disable the alarm camera popup.

19.Inst Play: Press the button to input the number(1-9, represents 1min-9min), and then current window will be instantly played back. If you input "0", it will get into local playback. Press the "Stop" button to exit playback.

20.Set Preset: Please select a PTZ camera first. Press the button and then input number to set a preset.

21.Clear Preset: Please select a PTZ camera first. Press the button and then input number to clear the preset.

22.Call Preset: Please select a PTZ camera first. Press the button and then input number to call the preset.

23.Focus+, Focus-: Auto-focus setup of the PTZ camera overrides, adjusts to focus the image.

24.Zoom in, Zoom out: Zoom function of the PTZ camera control.

25.Iris+, Iris-: Overrides the PTZ cameras auto-iris and brighten or darken the Image.

26.Auto Pan, Wiper, Relay: It can not work now, please wait for the function update.....

27.Joystick: Please select a PTZ camera first. You can control direction by rocking the joystick.

3.2 Network Setting

3.2.1 Network Setting

Network Adapter	Network Adapter 1
DHCP	<input type="checkbox"/>
IP Address	192 . 168 . 0 . 248
Mask Address	255 . 255 . 255 . 0
Gateway Address	192 . 168 . 0 . 1
MAC Address	70:8b:c0:54:79:1b
Preferred DNS Server	61.128.128.68
Alternate DNS Server	
Network Listen Adapter	Network Adapter 1
Server Port	5100
HTTP Port	80

【Network Card Working mode】 Independent Working Mode: Each network interface works as normal. The Network Card Binding Mode: all the network card are bound with the same one IP address. A prepared network card will replace the wrong network card to continue working.

【Network Adapter】 There are multiple network adapters on the motherboard, please choose network adapter one by one to configure.

【IP Address】 Please input static IP address here according to your local network configuration.

【Mask Address】 Please input the subnet mask here.

【Gateway Address】 Please input the default gateway here. For your attention: Only the “Network Listen Adapter” could be input Gateway Address.

【MAC Address】 Display the adapter MAC address.

【Preferred DNS Server】 Please input first DNS Server here if the System is connecting to WAN.

【Alternate DNS Server】 Second DNS server here.

【Network Listening Adapter】 Please choose the network adapter which can be connected by clients.

【Server Port】 Display the data port of the system, you can modify it here.

【HTTP Port】 Display the http port of the system, you can modify it here.

Clear

Clear

---There will be a button showing up in the above interface and the interface of network setting in the **Guide** after you changed the motherboard of the SSD. Before configuring network information, please click it to clear the old network information. It won't show up unless you change another motherboard for the same SSD.

3.2.2 Email Setting

Network Setting		Email Setting	P2P Setting
SMTP Server	smtp.gmail.com		
SMTP Port	465		
Login User ID	suzen1120@gmail.com		
Login Password	*****		
Auth.Type	Simple Login		
SSL Security	SSL		
Email Title	alarm_test		
Sender Address	suzen1120@gmail.com		
Send To	suzen1120@hotmail.com		
Copy To	513977217@qq.com		
Send Attachment	<input type="checkbox"/>		

Email Testing Apply&Save Exit

【**SMTP Server**】 SMTP server address, e.g.: mail.jstHybridNDVR.com.

【**SMTP Port**】 SMTP listening port for connect request.

【**Login User ID**】 The ID of Email box.

【**Login Password**】 The password of Email box.

【**Auth. Type**】 Login Email box, operator should select SMTP authentic type. Or select “simple login”.

【**SSL Security**】 Security protocol for Email box.

【**Email Title**】 Enter title of the Email to be sent.

【**Sender Address**】 Enter email address of sender. It should be the same with Login User ID.

【**Send To**】 Set the address of receiver.

【**Copy To**】 Set another address of receiver.

【**Send Attachment**】 Check on to enable attachment sent with Email.

When the setup is finished, user can press  to test the function.

3.2.3 P2P Setting

【**Enable P2P**】 Enable or disable the P2P function.

【**P2P Connect Port**】 Set the port number for P2P connection.

【**P2P Connect ID**】 The serial number can be scanned from the below QR code. This serial number is used to login when you want to connect the System by P2P in the mobile client. It is same as the device ID. For CMS connection, you can input this P2P ID and port directly when add device in CMS;


【**Push Message**】 Enable this function to push alarm message to mobile client from server.

Network Setting

Email Setting

P2P Setting

Enable P2P	Enable
P2P Connect Port >>	11206
P2P Connect ID	VMS160620011
Push Message	Disable



Apply&Save

Exit

3.3 Record Schedule Setting

System Setting

General Setting

Network Setting

Record Schedule Setting

Log Color Setting

Exception Setting

User Management

Record Schedule Setting

Channel Name	192.168.0.170
Pre-Event Record(s)	2
Post Record Time(s)	2
Record Sub Stream	Disable
Record Day(s)	3
Copy to	All

Normal Rec.

Sensor Rec.

Motion Rec.

Motion or Sensor Rec.

Normal&Motion Rec.

Not Rec.

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SUN																								
MON																								
TUE																								
WED																								
THU																								
FRI																								
SAT																								

Apply&Save

Exit


【Camera Name】 Select the camera that you want to configure.

【Pre-Event Record】 Select the time would like to start recording before an alarm triggered, when the system is in Motion Detection mode or in Sensor Detection mode, it can record video prior to the alarm being triggered.

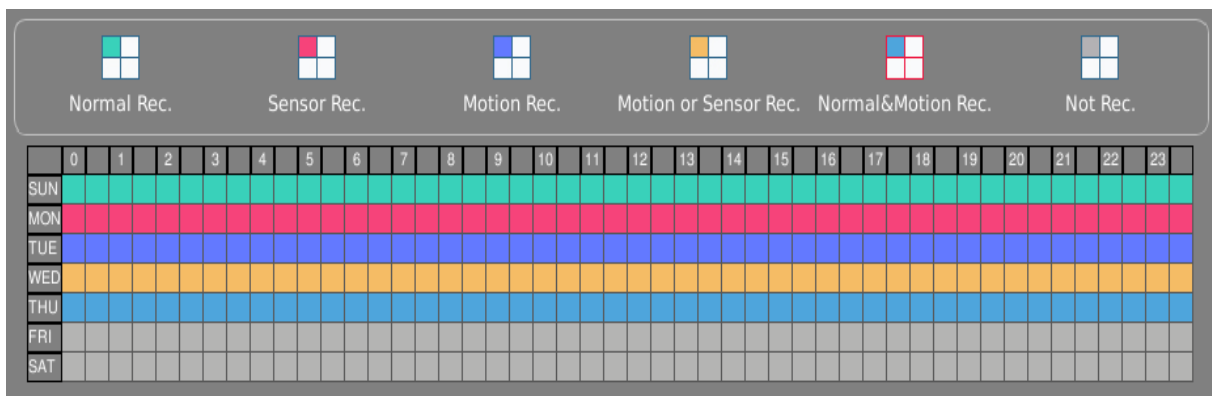
【Post Record Time】 Select the time would like to stop recording after an alarm has been triggered, when the system is in Motion Detection mode or in Sensor Detection mode, it can stop recording after the alarm has already ended.

【Record Sub Stream】 Select to enable /disable record sub stream, if you select enable, you can remote playback the sub-stream video in clients,useful for low speed internet connection.



【Record Days】 Select different days for different cameras according to your need. The number you choose determines the days that you can search record data in the local playback, and remote playback.

【Copy to】Select the cameras you want to copy to, and press the button  to paste the same record schedule to the selected camera .







【Recording Schedule Setup】



Note:

One block of pane  equals to half an hour. Firstly, click record mode icon like , then click schedule diagram, holding down the left mouse button and moving it to select an area (drag & drop).

The record mode:

1.  -- Normal record. The system is always recording video;
2.  -- Sensor record.The system begins to record only when there is a sensor triggered alarm;
3.  -- Motion record.The system begins to record video only when it detects a moving object;
4.  -- Motion or Sensor record.The system begins to record video with it either detects a moving object or one of the sensors has been triggered ;
5.  -- Normal& Motion record.The system works as continuous record but meanwhile save the motion detection information for smart search.
6.  -- Not record. The system stops recording any video.

3.4 Log Color Setting

Log Color means system log font color, please follow blow interface to choose the color you like.

Note:

Selecting corresponding log type and cameras is one of the necessary conditions to output Motion Alarm log, Sensor Alarm log and Video Analysis Alarm log.

Log Type	Text Color	Select Channel
Alarm Information	■ Select Color	<input type="checkbox"/> All Select Channel
Local Operation	■ Select Color	<input type="checkbox"/> All Select Channel
Exception Information	■ Select Color	<input type="checkbox"/> All Select Channel

3.5 Exception Setting

Set system how to take action when exception occurs. There are two types of corresponding action: ① Audio Warning; ② Send Email. The system exceptions include HDD Error, HDD Full, Reboot Exception, Record Exception and Device Disconnected. Please follow the blow interface to do setup.

Exception Type	HDD Error
Audio Warning	<input type="checkbox"/> Buzzer sound wouldn't stop until you move the mouse.
Send Email	<input type="checkbox"/> Please keep network normally and configure the Email Setting correctly.
Trigger Alarm Output	<input type="checkbox"/> Check All Select Output

3.6 RAID Setting

This feature don't need RAID card. It is best that the HDDs which are used to RAID have the same capacity.

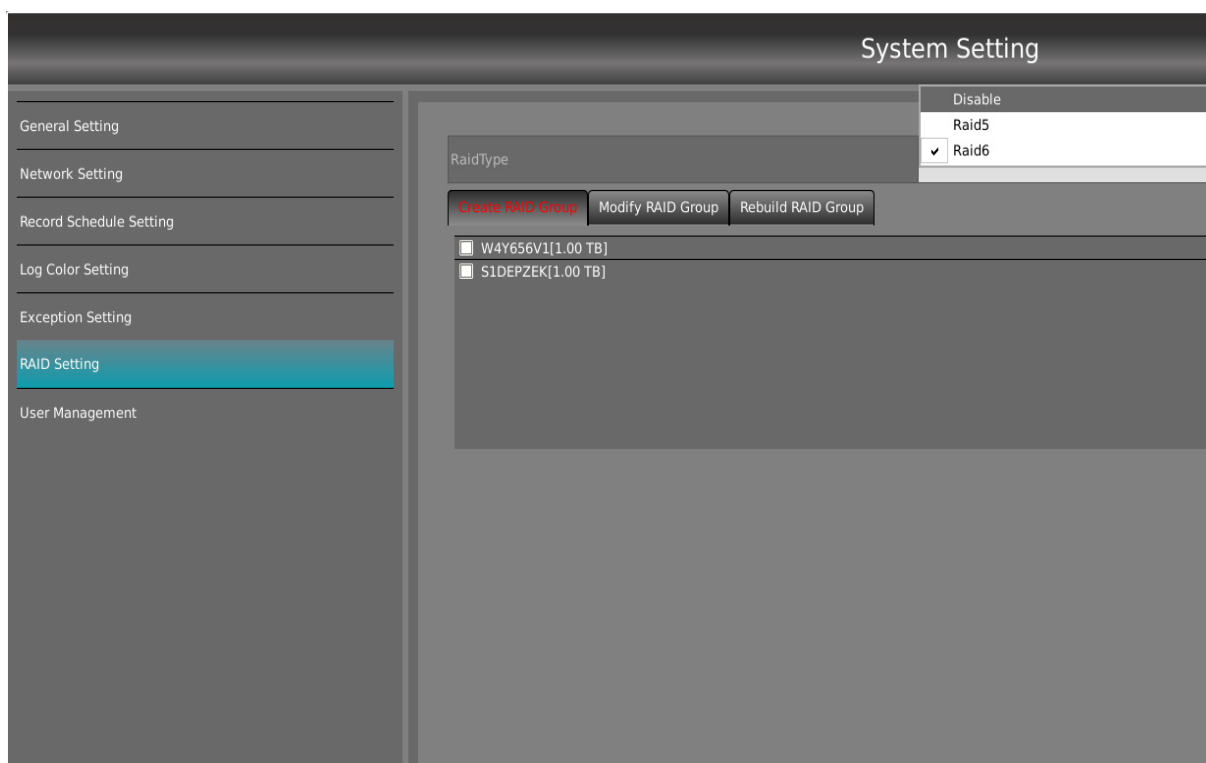
First, make sure there are three HDD at least, then enable RAID function in the local "System Setting-->RAID Setting". The system will restart to take effect.

When your system has more than three HDDs, you can enable this RAID function. But we suggest at least six HDDs with two RAID groups, because when some HDD of one RAID group gets wrong, then you need replace it with a new HDD, the RAID will take time to rebuild and during this period, it can not be used to record.

RAID 5 consists of block-level striping with distributed parity. Upon failure of a single drive,

subsequent reads can be calculated from the distributed parity such that no data is lost. RAID 5 requires at least three disks. $Size = (N - 1) \times \min(S_1, S_2, \dots, S_N)$

RAID 6 consists of block-level striping with double distributed parity. Double parity provides fault tolerance up to two failed drivers, it requires a minimum of four disks. $Size = (N - 2) \times \min(S_1, S_2, S_3, \dots, S_N)$

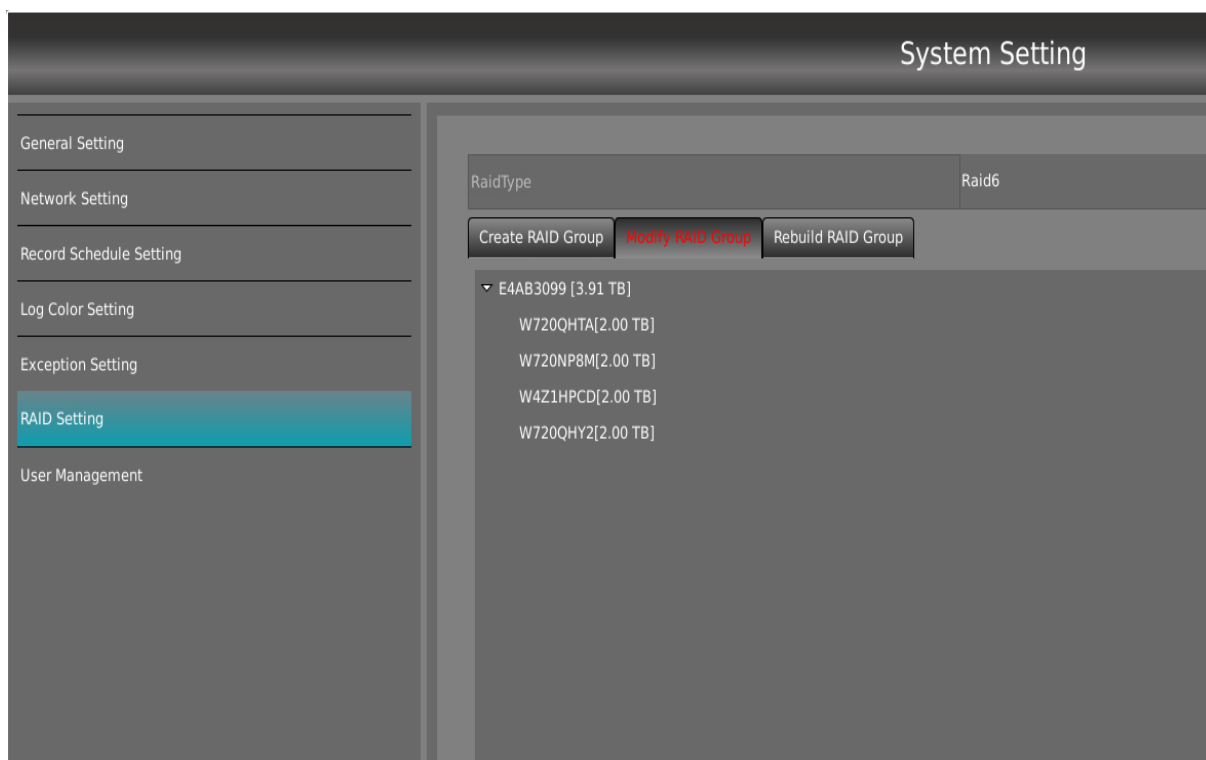


Note:

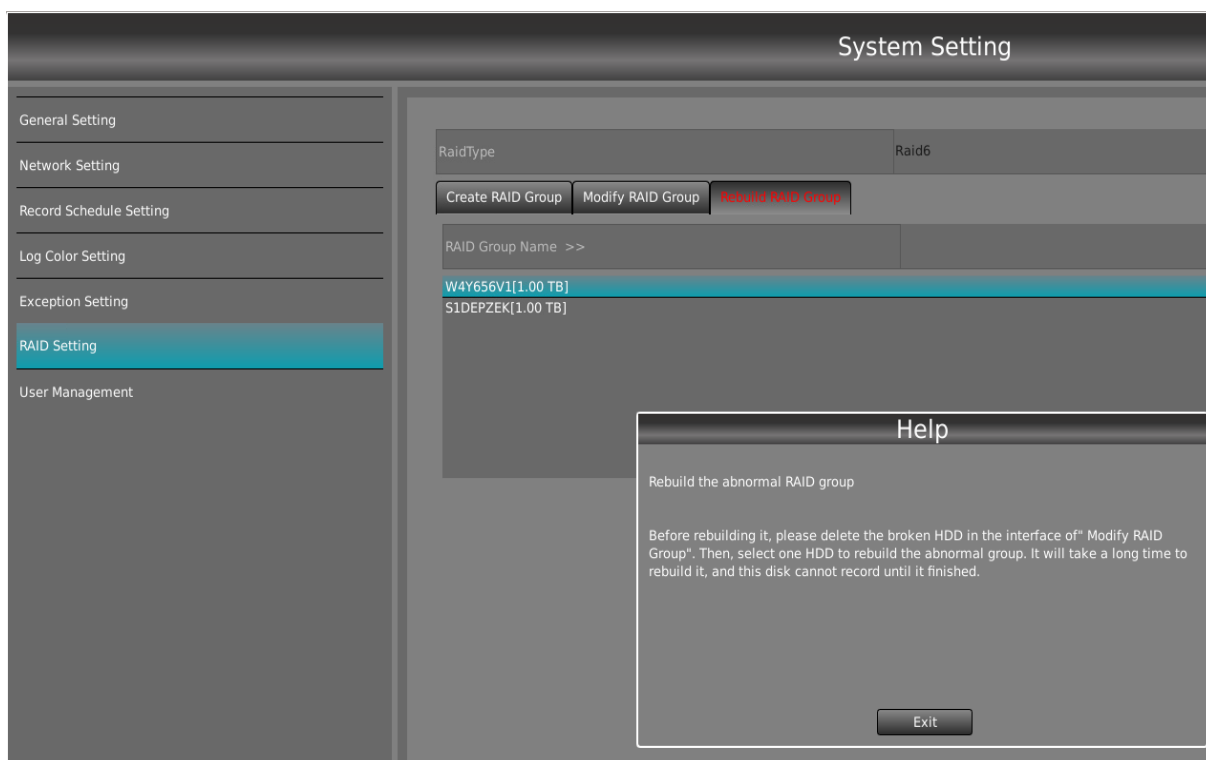
1. If you enable this function, all the disks will be formatted, all the history record data will be lost.
2. This function may cause higher CPU usage.
3. If your system has issue, and there is issue on raid group at the same time, then raid group couldn't rebuild after you reimaged system.

【Create RAID Group】 Select HDD to create RAID group, please select three HDD at least, click **Start to Create** to start creating. In the process of creating, please don't pull the disk out as far as possible.

【Modify RAID Group】 There are all your created RAID group. You can check the information of group here, or delete one of them.



【Rebuild RAID Group】 When one disk of group is error, the status of group will turn to abnormal, you can rebuild it here.



Pic 3-6-2

Select the abnormal RAID group in the item of RAID group name, plug in new HDD, then click **Rebuild Group** to rebuild it.

Note:

Before rebuilding it, please delete the broken HDD in the interface of "Modify RAID Group".

Then, select one HDD to rebuild the abnormal group. It will take a long time to rebuild it, and this disk cannot record until finished. 1TB disk space will take about 2 hours to rebuild.

When RAID is enabled, do not unplug any normal HDD, or else it will be detected as error HDD and need to be rebuilt.

RAID Group status:



--The RAID Group is waiting for formatting;



-- The RAID Group is formatting;



--The RAID Group is empty;



--The RAID Group is writing;



--The RAID Group is full;



--The RAID Group is used, but it is not full;



--The RAID Group is error;



--The RAID Group is rebuilding.

3.7 User Management

User Management

ID	User Name	Auth.Level
1	admin	Super User
2	1111	Manager

Local Password

Enable

▼

Lock Screen Delay Time

Disable

▼

Network Password

Enable

▼

Add New User

Modify

Delete

Apply&Save

Exit

【ID】 List the number of users.


【User Name】 Show all user names.

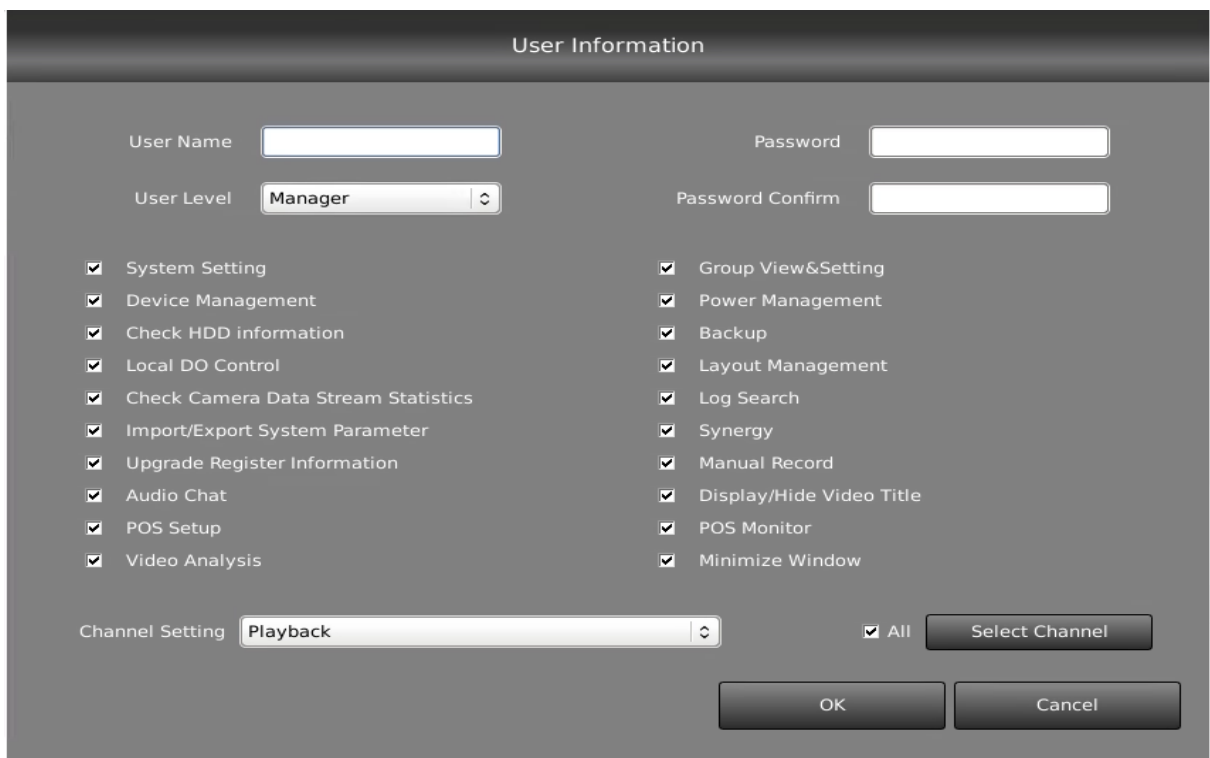
【Auth. Level】 Show the user type.

【Local Password】 Enable or disable User Management function. Selecting Enable will activate the lock button in the main interface.

【Lock Screen Delay Time】 Select “Disable” to disable the automatically lock screen function, or you can select 3,6,9,12,15 minutes interval to lock the system automatically after nobody operates on the system.

【Network Password】 When you enable this function, remote access client must pass system authentication.


【Add New User】 Click  icon to add new user. It will pop up “User Information” interface, as shown below.



The "User Information" dialog box is a window for adding a new user. It features a title bar "User Information" and a dark gray background. The form includes the following fields and controls:

- User Name:** A text input field.
- Password:** A text input field.
- User Level:** A dropdown menu with "Manager" selected.
- Password Confirm:** A text input field.
- Permissions:** Two columns of checkboxes for various system functions. All are checked by default:
 - Left column: System Setting, Device Management, Check HDD information, Local DO Control, Check Camera Data Stream Statistics, Import/Export System Parameter, Upgrade Register Information, Audio Chat, POS Setup, Video Analysis.
 - Right column: Group View&Setting, Power Management, Backup, Layout Management, Log Search, Synergy, Manual Record, Display/Hide Video Title, POS Monitor, Minimize Window.
- Channel Setting:** A dropdown menu with "Playback" selected.
- Buttons:** "OK" and "Cancel" at the bottom right.
- Additional Controls:** A checkbox labeled "All" and a "Select Channel" button are located near the bottom right.

In the User Information window, please input the user ID and password then select its user level type. Please follow the screen to check/uncheck the general user rights for the new user.

For cameras permissions, there are 5 types of operation permissions: ① playback, ② capture picture, ③ channel setting, ④ preview video, ⑤ PTZ control. Please pick one type of Channel Setting permission then click on button  to assign this permission to corresponding camera(s).


【Modify】 Select a user from user list, then click  button to modify it.

【Delete】 Select a user from user list, then click  button to delete it.

Note:

Only the Super User has the right to add or delete a user, the it also has the right to manage the password for each user.

Chapter 4 Playback

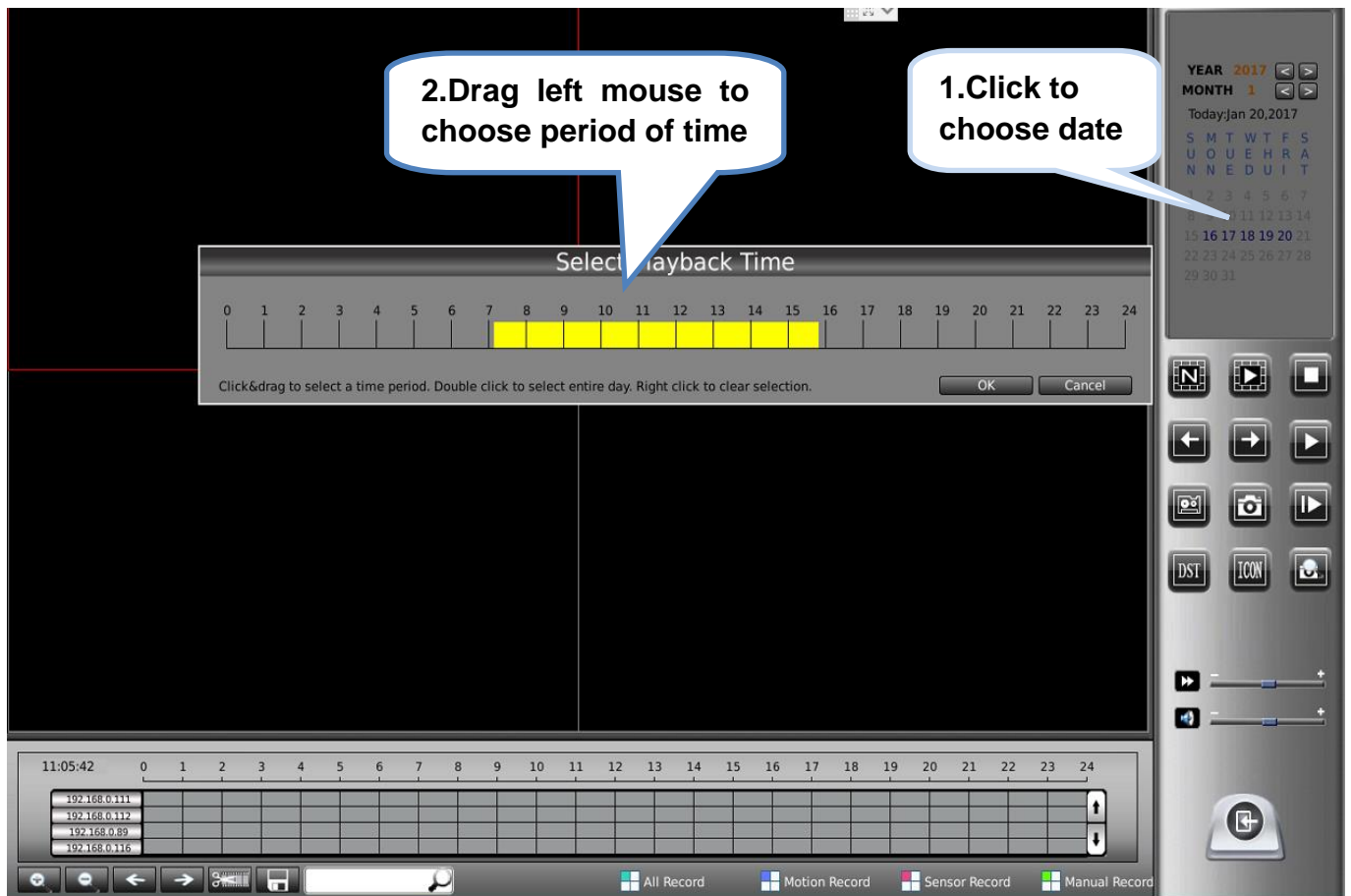
There are two ways to enter the Playback interface: ①Choose Playback in the Main Menu;② press the icon  on the Toolbar Panel. The default split view is four window views.

The first step is to choose date in the calendar panel. Blue-colored dates means there is recording data, gray-colored dates means there is no recording data, and yellow-colored dates means currently selected data. Please follow the screen to operate, see pictures below.

Tips:

1. When the mouse moves close to, or stops at a icon, a short description tip about the button's meaning will show up immediately.

2. Right click the picture to switch full screen viewing mode. Double click one image to switch between one split and multiple split.





---Press this icon to show up all recorded data in the active day.



---press this icon to show up all Motion Detect Record data in the active day.



---press this icon to show up all Sensor Alarm Record data in the active day.



---press this icon to show up all Manual Record data in the active day.



---Click these buttons to zoom in / zoom out the time bar. You also can scroll the mouse wheel to zoom in / zoom out the time bar too.



---Click these buttons to move the time bar slices.



---Input camera name for fast search and play.



---Click this button to start a video clip when the camera is playing back (only for highlighted channel), click on it again to stop the video clip.



---After finish the video clip, click on this button to save the file, then it will bring up Backup interface, refer to 4.1 Backup.



---Click these buttons to show other channels.



---Press this button to set split viewing mode of playback windows, there are 1/ 4/9 /16 splits;



---Press this button to play all cameras in current split view.If the cameras number exceeds the split view number,you should be asked for choosing..



--- Press this button to close all playing video and bring up the calendar panel for searching other date;



--- click this button to go back 1 minute, right click this button to choose how many minutes you want to go back.



--- click this button to go forward 1 minute, right click this button to choose how many minutes you want to go forward.




-- press this button to pause,press it again to play;




-- press this button to play next frame;



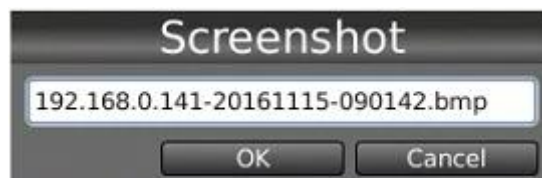
-- Adjust playing speed. Click the  button to resume normal playing speed;



-- Adjust the audio. Click the  button to close the audio.




--- Press this button to grab a picture, when a picture is grabbed, there will be a dialog popped up to ask for a file name. The size of the image is resolution of the video.



4.1 Backup



-- Press this button to enter the Backup interface. You can also press the icon  in the Main Menu to enter Backup interface.

Before you enter Backup interface, please make sure you have plugged in the USB stick with enough free space.

【Backup Camera】 Select the backup camera(s).

【Select Begin Time】**【Select End Time】** Select the beginning time and end time of the video to be backed up.

【Backup Data Size】 Show the file size info(MB). Please click Check button to update file size after you modify any camera or any backup time.

【Merge Unite】 Set the size for each file to be backed up. You can set it to be 200M to 999M.

【Convert Quality】 Choose one among High, Default and Low.


For your attention:

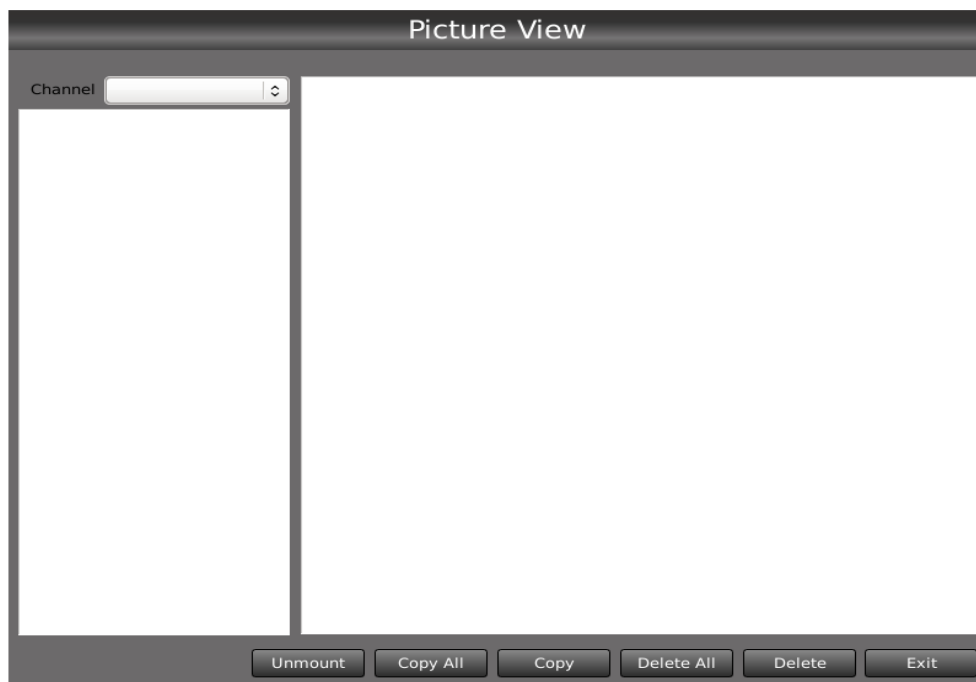
1.If your system time(Shown in Information Panel) is not synchronized with camera's time(shown in camera's OSD),when you playback the backup data, you will find the camera OSD time is earlier or later than the backup time you set before.

2.The backup video can be played back with third party player such as Windows Media Player.

3.Due to the differences of computer hardware and software version,some backup video with special resolution(such as 1600*1200 pixels,2048*1536 pixels,2562*1920 pixels)couldn't be played by Windows Media Player.Please use VLC Media Player instead of Windows Media Player.

4.2 Capture Picture and View

Click on the button  to enter the window of Picture View, as shown below. If you want to download or copy captured image, please use a USB stick.



-- Select the channel which you want to view the grabbed picture in the drop list. Then all grabbed images of selected channel will be listed on the left side. You can double click the image name to display it on the right side.



-- Click this button to uninstall your flash disk.



-- Click this button to copy all the pictures in the list to the flash disk.



-- Click this button to copy the selected pictures to the flash disk.



-- Click this button to delete all pictures in the list.




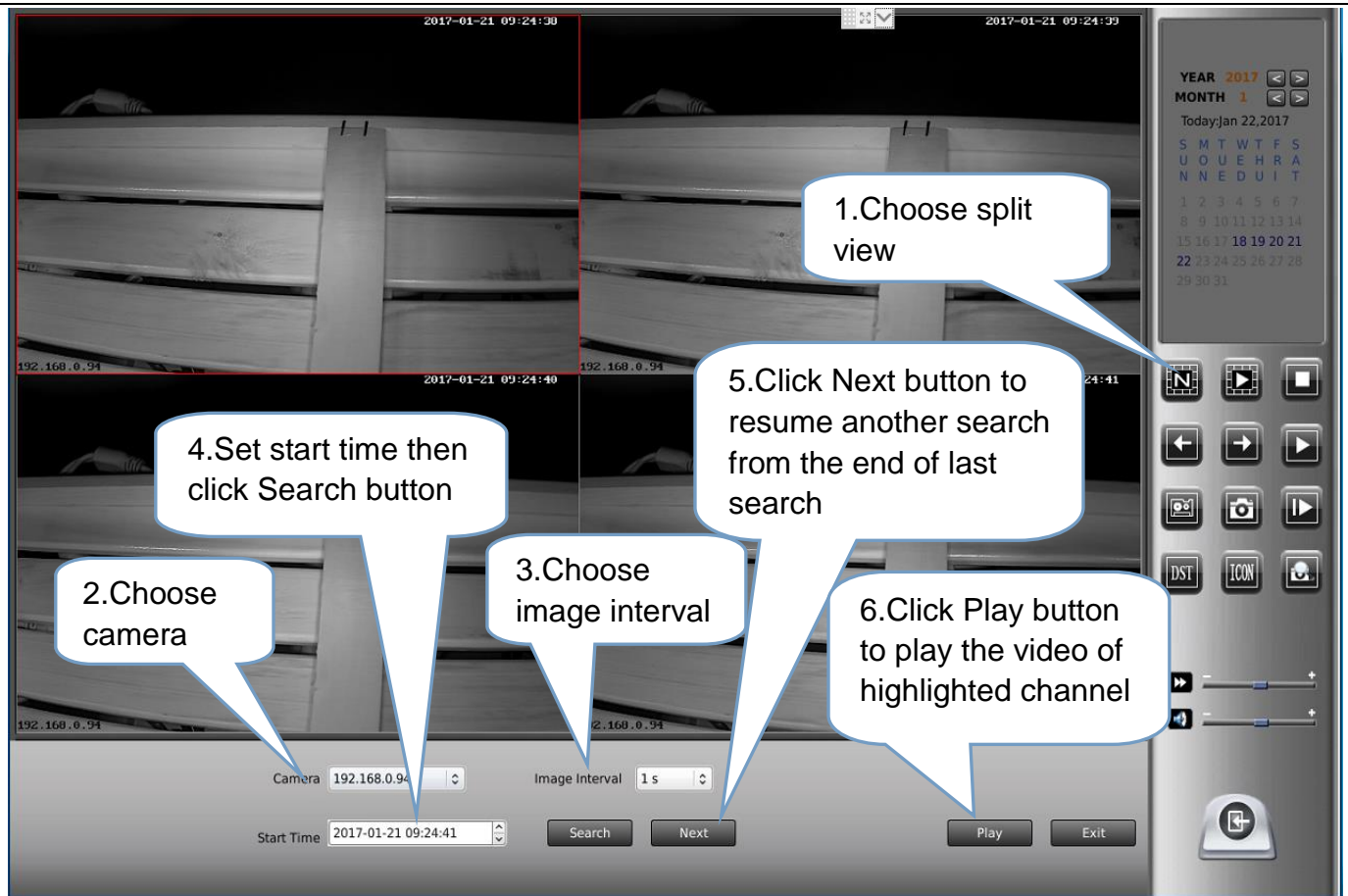
-- Click this button to delete the selected pictures.



-- Click this button to exit the Picture View.


4.3 Icon Search

Click on Icon Search  button to enter following interface. This feature will be very useful to easily and quickly find out how an event was happening and going forwards. In Icon Search, it can playback one camera at different periods of time, showing images in multiple windows. Every sub-window shares an interval time defined by I Frame Interval.



4.4 DST Playback



Press  button to enter the DST playback. DST function consists of two kinds of record types. 1). The record is the bias time you set in the DST Setting; 2) If you changed the system time to an earlier time (more than one minute), the video recording at the second time can be played back in DST.

Chapter 5 Channel Setting

There are two ways to enter Channel Setting interface: ①choose Channel in the Main Menu;

②click the button  in the Toolbar panel.

The Channel Setting includes 7 sections:①Display Setting, ②Video Setting, ③Motion Detection, ④Privacy Mask, ⑤Alarm Input Setting, ⑥PTZ Setting and ⑦Linkage Setting.

For your attention:

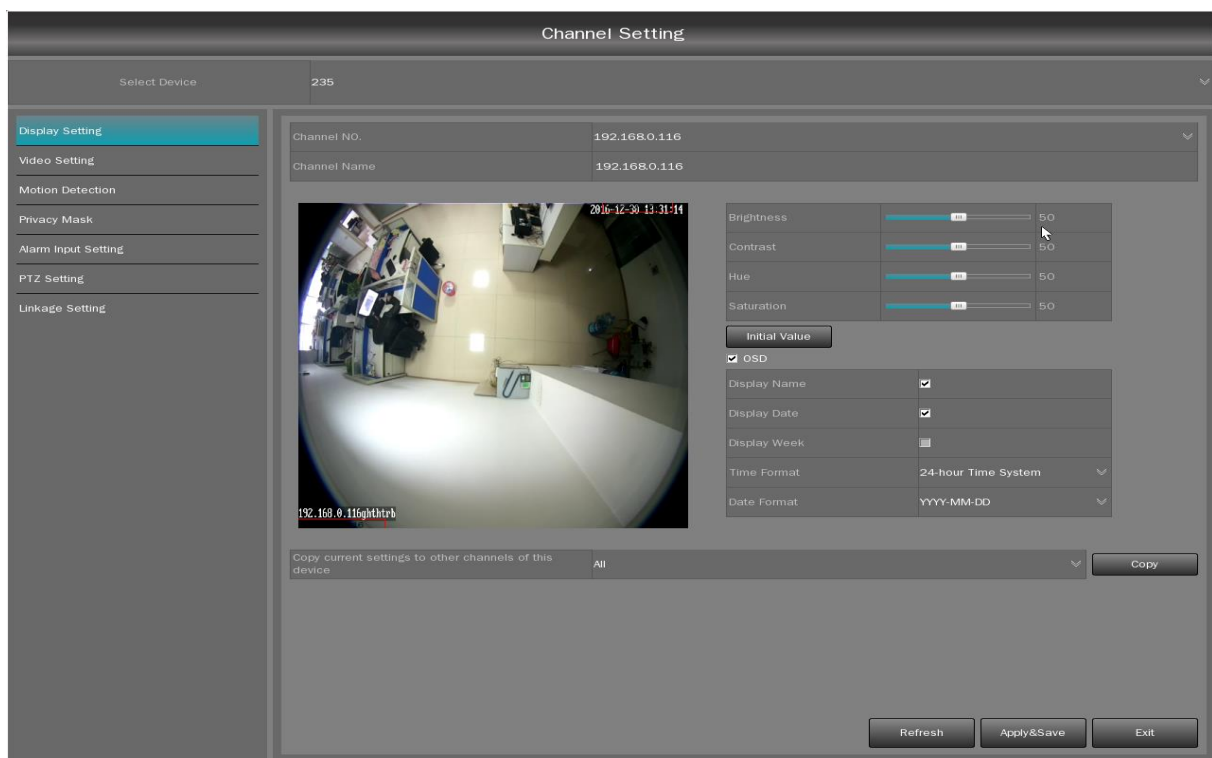
Not all models of IP camera fully support the configuration in this section due to the firmware version of IP camera might mismatch the software version of system.If you get warning message “Device can’t support this function” or the settings you have saved still don’t take effect,please run a web client to log in the camera to configure parameters.

5.1 Display Setting

In this interface,you can configure IP camera’s image parameters and OSD info,please follow the screen to do settings.

For your attention:

- 1).If the selected device is an IP camera, its Channel NO. and Channel Name are the same.
- 2).The channel name of IP camera is set when you first add it in Device Management,you can also modify it in Channel Name bar.
- 3)The channel name of DVR/NVR can’t be modified here. You can modify it in Device Management.



5.2 Video Setting

Please refer to camera specifications and local network bandwidth to configure the Video Setting. We strongly recommend that you choose double stream connection when you add IP Device. The main stream is used for recording and full screen preview. The sub-stream is used for preview 4 or more split viewing mode.

Stream Type	Main Stream	Sub Stream
Resolution	2560*1440	704*576
Bit Rate Type	VBR	VBR
Image Quality	High	High
Frame Rate	25	25
I Frame Interval	50	50
Bit Rate Limitation	6MB	512KB

Copy current settings to other channels of this device: All

Copy

5.3 Motion Detection

Check the checkbox in front of Enable to enable the motion detection function, then you can set the detection area and schedule.

5.3.1 Area Setting

Hold down the left mouse button and draw a rectangular zone or multiple zones on the image to set detection area. You can also set the whole area by pressing **Select All** button, or clear the area(s) you set by pressing **Clear All** button.

Move the slider to adjust sensitivity, from left to right is low to high. For some models of IP camera, motion detection can only be set in IE web client.

Sensitivity: 100

Select All

Clear All

Copy current settings to other channels of this device: All

Copy

Copy current settings to other devices of the same type: All

Copy

Refresh Apply & Save Exit

5.3.2 Detection Schedule

Press the button **Schedule Edit** to bring up “Edit Schedule” sub-window to setup motion detection working time table, as shown below.

Note:

- 1) Each time segment should not be overlapped.
- 2) If you need 100% reliable motion detection, please turn on the motion detection in Intelligent Video Analysis (IVA) operation.

The screenshot shows the 'Edit Schedule' window. At the top, there's a title bar 'Edit Schedule'. Below it, there are tabs for days of the week: MON, TUE, WED, THU, FRI, SAT, and SUN. The 'TUE' tab is currently selected. Below the tabs is a table with three columns: 'Period', 'Start Time', and 'End Time'. The table has 8 rows. The first row shows '1' in the Period column, '00:00' in the Start Time column, and '23:59' in the End Time column. The remaining rows (2-8) show '2' through '8' in the Period column, and '00:00' in both the Start Time and End Time columns. Below the table, there's a section for 'Copy To' with checkboxes for 'Everyday', 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday', and 'Sunday'. The 'Everyday' checkbox is checked. To the right of these checkboxes is a 'Copy' button. At the bottom right of the window are 'Save' and 'Exit' buttons.


Period	Start Time	End Time
1	00:00	23:59
2	00:00	00:00
3	00:00	00:00
4	00:00	00:00
5	00:00	00:00
6	00:00	00:00
7	00:00	00:00
8	00:00	00:00

Copy To ☒ Everyday ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday ☐ Sunday

5.4 Privacy Mask

Click the check box of Enable to enable the Privacy Mask function. Users are allowed to setup several four-sided privacy mask zones that cannot be viewed by the operator. The privacy mask can prevent certain surveillance areas to be viewed or recorded.



Operations: Hold down the left mouse button and drag a rectangular zone or multiple zones on the image you would like to hide. You can also clear the zone(s) by pressing  button.

5.5 Alarm Input Setting

The system will automatically detect the alarm in/out port for each IP device/IP camera. If alarm feature is not available for the selected device, a warning message "Device can't support this function" will pop up. The alarm type means sensor type, NC=Normal Close, NO=Normal Open. After choosing correct sensor type, please click on button "Edit" to set the sensor working time table, see picture below.

Note:

The time of each period should not be overlapped.

Alarm Input NO.	non-name-0
Enable	<input checked="" type="checkbox"/>
Alarm Type	NO
Alarm Name	non-name-0

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON																									
TUE																									
WED																									
THU																									
FRI																									
SAT																									
SUN																									

Copy settings to other channel of this device: All

Copy Settings to other same type devices: All

Edit Schedule

MON

TUE

WED

THU

FRI

SAT

SUN

Period	Start Time	End Time
1	00:00	23:59
2	00:00	00:00
3	00:00	00:00
4	00:00	00:00
5	00:00	00:00
6	00:00	00:00
7	00:00	00:00
8	00:00	00:00

Copy To
☐ Everyday
☒ Monday
☐ Tuesday
☐ Wednesday
☐ Thursday
☐ Friday
☐ Saturday
☐ Sunday

Copy

Save

Exit

5.6 PTZ Setting

Before you configure the PTZ setting, please make sure that the PTZ camera can be controlled in the Control Panel of main interface. If not (for some cameras), maybe you should log into the PTZ camera by IE web client to configure correct protocol and baud rate.

The PTZ preset saves in 2 modes Call Preset and Save Preset. Only those presets saved in Call Preset mode can be executed call. The Save Preset mode is used for special purpose such as to implement PTZ system reserved feature.

Scheme:

The Scheme means system will automatically call the preset or a tour group according to a scheduled time table. When the system time reach, the PTZ camera will auto move to preset position or run a preset tour. If you want add a tour into a scheme, please setup tour at first.

Tour:

Tour means you can put different preset position in a sequential group, each preset position could be defined a staying time. When a tour is running, the PTZ camera will continuously move between preset positions according to the sequence and time table saved in the group. You can save up to 8 tour groups.

Channel Setting

Select Device 192.168.0.97

Display Setting

Video Setting

Motion Detection

Privacy Mask

Alarm Input Setting

PTZ Setting

Linkage Setting

Channel 192.168.0.97

2017-03-09 13:09:33

192.168.0.97

PTZ Speed 192

Focus+ Focus- Up

Iris+ Iris- Left Right

Down

3. Set preset name, number and mode.

Preset Name

Preset NO.

Mode

Add Modify Delete Call

Preset Name Preset NO. Mode

4. Click "Add" to finish one preset. Repeat step 2/3/4 to add more presets.

Home position delay time

Copy To

5. Click "Apply&Save" to save the configuration.

Apply&Save Exit

1. Set PTZ speed.

2. Set preset's position and zoom/focus/iris to move the camera to aim position.

Channel Setting

192.168.0.110

Channel 192.168.0.110

2017-05-05 17:05:20

192.168.0.110sAffTkk

PTZ Speed 192

Focus+ Focus- Up

Iris+ Iris- Left Right

Zoom+ Zoom- Down

1. Choose preset or tour group.

2. Choose date.

Preset Scheme Tour

Preset|Tour TourGroup1

Call Time Sunday

Hour 0 Minute 0

Copy To Sunday Copy

3. Choose execution time.

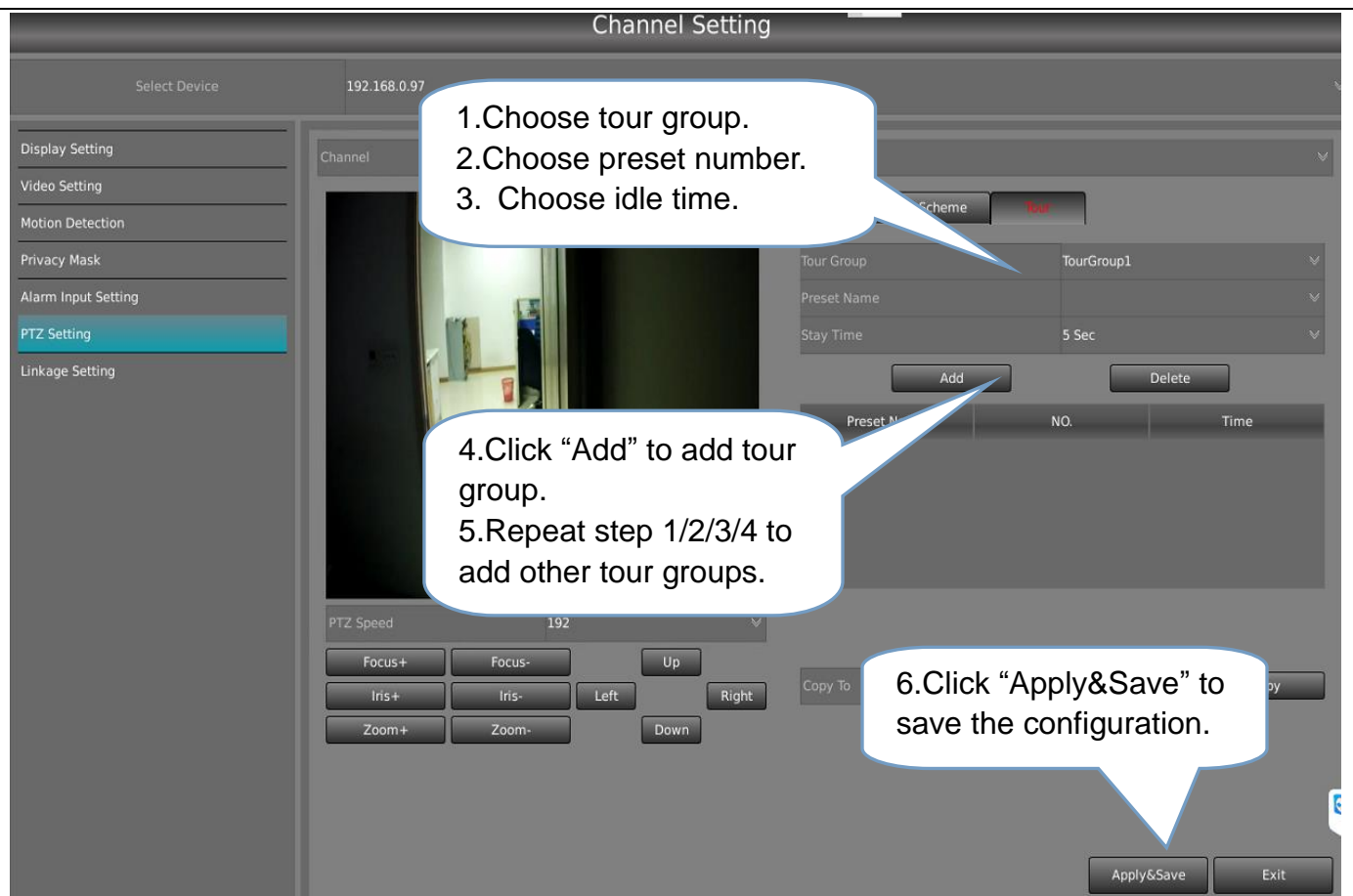
4. Click "Add".

Add Delete

Date Time Preset|TourGroup

5. Click "Apply&Save" to save the configuration.

Apply&Save Exit



5.7 Linkage Setup

Linkage Setting is used for alarm-out feature configuration. Through alarm linkage setting, every camera's alarm signal could be used to trigger multiple alarm-out ports and multiple PTZ cameras to call preset.

5.7.1 Motion Alarm

【Select Device】 / 【Channel NO.】 If the Select Device is a DVR/NVR/DVS(IP Server), the channel NO would be selectable from drop-down list. If the Select Device is a IP camera, the Channel NO would be equaled to the selected device.

【Enable】 Check on to enable the motion alarm linkage function for this camera.

【Policy】 Three handle policies will be available to correspond the alarm as follows:

【Audio Warning】 Indicate the alarm with sound;

【Send Email】 Send an email alert when the alarm is triggered

【Output Log】 Write system log.

Note:

It won't output motion alarm log in log panel until you check "Output Log" as well as checking the corresponding channels in "**System setting—Log Color Setting—Alarm Information**".

【Trigger Alarm Output】 Choose which alarm-out port(s) to be triggered by above camera.

【Trigger PTZ】 You can enable this function to trigger a PTZ camera to call a special preset when there is alarm input.

【PTZ Server】 / 【PTZ Channel】 If the **PTZ Server** is a DVR/NVR/DVS(IP Server),the **PTZ Channel** would be selectable from dropdown list.If the **PTZ Server** is a IP camera,the **PTZ Channel** would be equaled to the selected device.

【Preset NO.】 Select the aim preset of the PTZ channel you selected.

Channel Setting

Select Device

192.168.0.153

▼

Display Setting

Video Setting

Motion Detection

Privacy Mask

Alarm Input Setting

PTZ Setting

Linkage Setting

Motion Alarm

Sensor Alarm

Video Analysis Alarm

Channel NO.

192.168.0.153

▼

Enable

☒

Policy

☐ Audio Warning ☐ SendEmail ☐ Output Log

Alarm Action After It Times-out

☐ Stop Immediately ☒ Do Not Stop ☐ Wait

0

 Secs. Then Stop

Trigger Alarm Output

☒ All

Select Output

Trigger PTZ

Enable

☒

PTZ Server

192.168.0.92

▼

PTZ Channel

192.168.0.92

▼

Preset NO

▼

Copy settings to other channel of this device

All

▼

Apply&Save

Exit

Alarm Out Setting		
Server Name	Alarm Out Name	Alarm Out Linkage
181	non-name-0	<input type="checkbox"/>
112	non-name-0	<input type="checkbox"/>
211	non-name-0	<input type="checkbox"/>
108	non-name-0	<input type="checkbox"/>
212	non-name-0	<input type="checkbox"/>
117	non-name-0	<input type="checkbox"/>
192.168.0.106	non-name-0	<input type="checkbox"/>
XL73	non-name-0	<input type="checkbox"/>
XL76	non-name-0	<input type="checkbox"/>
XL70	non-name-0	<input type="checkbox"/>
XL75	non-name-0	<input type="checkbox"/>
192.168.0.94	alarm output1	<input type="checkbox"/>
192.168.0.113	non-name-0	<input type="checkbox"/>
210	non-name-0	<input type="checkbox"/>

OK

5.7.2 Sensor Alarm

In the Sensor Alarm interface, the configuration steps is similar to above Motion Alarm

configuration except one more choice---【Trigger Record Camera】It means you can select camera(s) to record when alarm is triggered.

Channel Setting

Select Device
192.168.0.153

Display Setting

Video Setting

Motion Detection

Privacy Mask

Alarm Input Setting

PTZ Setting

Linkage Setting

Motion Alarm
Sensor Alarm
Video Analysis Alarm

Alarm Input NO.

non-name-0

Enable

☒

Policy

☒ Audio Warning ☐ SendEmail ☐ Output Log

Alarm Action After It Times-out

☐ Stop Immediately
 ☒ Do Not Stop
 ☐ Wait Secs. Then Stop

Trigger Alarm Output

☒ All Select Output

Trigger Record Camera

☐ All Select Camera

Trigger PTZ

Enable	<input type="checkbox"/>
PTZ Server	
PTZ Channel	
Preset NO	

Copy settings to other channel of this device

All

Copy

Apply&Save
Exit

Record Channel Linkage Setting

Server Name	Channel Name	Trigger Record
109	109	<input type="checkbox"/>
181	181	<input type="checkbox"/>
112	112	<input type="checkbox"/>
211	211	<input type="checkbox"/>
108	108	<input type="checkbox"/>
212	212	<input type="checkbox"/>
133	133	<input type="checkbox"/>
134	134	<input type="checkbox"/>
135	135	<input type="checkbox"/>
116	116	<input type="checkbox"/>
117	117	<input type="checkbox"/>
192.168.0.106	192.168.0.106	<input type="checkbox"/>
192.168.0.217	192.168.0.217	<input type="checkbox"/>
XL73	XL73	<input type="checkbox"/>
XL76	XL76	<input type="checkbox"/>

OK

5.7.3 Video Analysis Alarm

Before you implement this function, please make sure that the Video Analysis Function is working. The operation in this tag is similar to Motion Alarm tag, please refer to above Motion Alarm setting.

Channel Setting

Select Device192.168.0.153

Display Setting

Video Setting

Motion Detection

Privacy Mask

Alarm Input Setting

PTZ Setting

Linkage Setting

Motion AlarmSensor AlarmVideo Analysis Alarm

Channel NO.192.168.0.153

Enable☒

Policy

☐ Audio Warning☐ SendEmail☐ Output Log

Alarm Action After It Times-out

☐ Stop Immediately☒ Do Not Stop☐ Wait0Secs. Then Stop

Trigger Alarm Output

☒ AllSelect Output

Trigger PTZ

Enable☒

PTZ Server192.168.0.92

PTZ Channel192.168.0.92

Preset NO

Copy the current settings to other channel of this deviceAllCopy

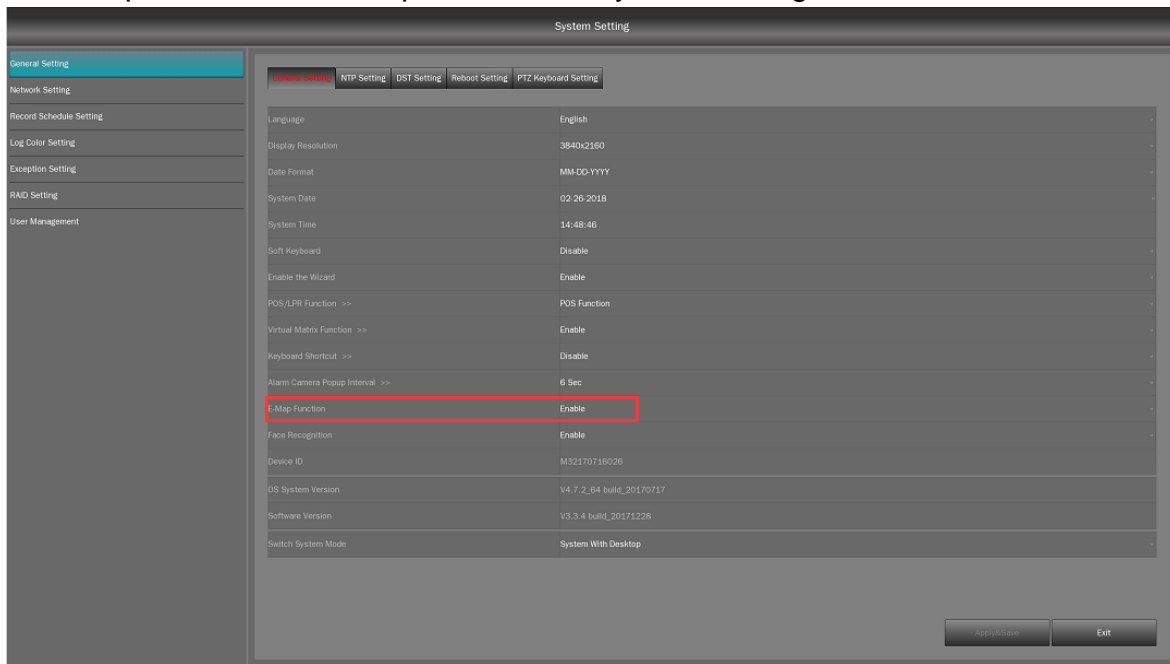
Apply&SaveExit

Alarm Out Setting		
Server Name	Alarm Out Name	Alarm Out Linkage
181	non-name-0	<input type="checkbox"/>
112	non-name-0	<input type="checkbox"/>
211	non-name-0	<input type="checkbox"/>
108	non-name-0	<input type="checkbox"/>
212	non-name-0	<input type="checkbox"/>
117	non-name-0	<input type="checkbox"/>
192.168.0.106	non-name-0	<input type="checkbox"/>
XL73	non-name-0	<input type="checkbox"/>
XL76	non-name-0	<input type="checkbox"/>
XL70	non-name-0	<input type="checkbox"/>
XL75	non-name-0	<input type="checkbox"/>
192.168.0.94	alarm output1	<input type="checkbox"/>
192.168.0.113	non-name-0	<input type="checkbox"/>
210	non-name-0	<input type="checkbox"/>
		OK

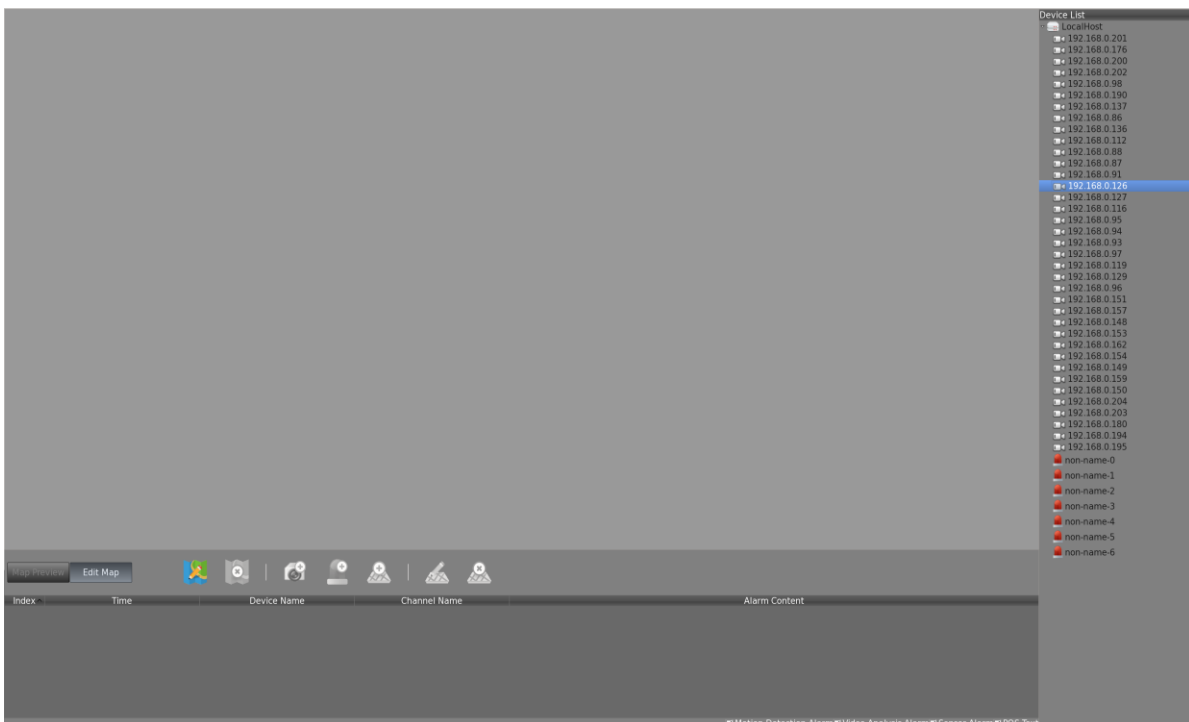
Chapter 6 E-Map

The E-map function offers users a platform to get a visual overview of the locations and distributions of the installed cameras and alarm input devices. You can get the live view of the cameras on the map, and you will get notification messages from the map when alarm is triggered. If you use multiple monitors with NVSS, Emap function will be shown on another monitor automatically.

The first step is to enable E-map Function in System Setting.





Secondly, click the icon  on the Toolbar Panel to enter the E-map interface, see picture blow.



6.1 Add an E-map

For your first time to open E-map function, please add a map at first.

Steps:

1. In the mode of **Edit Map** by default, Click the icon  to open E-map info dialog box;
2. Click the button  to select a map file from the local path;
3. Click “OK” to finish the map adding.

Tips:

1. The picture format of the map can only be *.jpg, *.png, *.bmp;
2. Only one map can be added at a time.

After finishing the map adding, the map added will be displayed in the map display area. Scroll the mouse wheel to zoom in/out the map, or click-and-drag the yellow window in the lower-right corner to adjust the map area for view.

Click the button “Edit Map” or “Map Preview” in the E-map toolbar to enter the map editing mode or map preview mode.



---Add a map the first time you open E-map function, or replace added map.



---Delete the map.



---Add a camera or cameras in batches as the hot spot(s) on the map (or you can click-and-drag the camera from **Device List** to the map directly).



---Add an alarm input sensor as the hot spot on the map (or you can click-and-drag the alarm input sensor from **Device List** to the map directly).



---It does not take effect here.



---Modify the information of the selected hot spot.



---Delete the selected hot spot.



---Clear the alarm information displayed on the map.



---It does not take effect here.




6.2 The Hot Spot Function

The cameras and alarm inputs can be added on the map and are called the hot spots. You can get the live view by double clicking the camera on the map and check alarm information of the surveillance area through these hot spots.

6.2.1 Add Hot Spots

There are two methods to add cameras as hot spots:

The steps of method 1:



1. Under the mode of map editing, click the icon  in the E-map toolbar to enter Add Hot Spot dialog box;
2. Check the checkbox to select cameras to be added.
3. Besides, you can double-click the corresponding box to select the name color.
4. Click "OK" to save the settings. The icons of added cameras changed from  to  in the device list. You can click-and-drag cameras icons to move the hot spots to the desired locations.

The steps of method 2:



Click-and-drag the camera icons one by one from the device list to the map directly to add the hot spots.

6.2.2 Modify Hot Spot

In the mode of map editing, there are three ways to modify the information of added hot spots, including changing current hot spot or selecting color: ① you can double-click the camera





icons on the map ; ② click the icon  in the toolbar panel; ③ select the hot spot and right-click it, then select  .

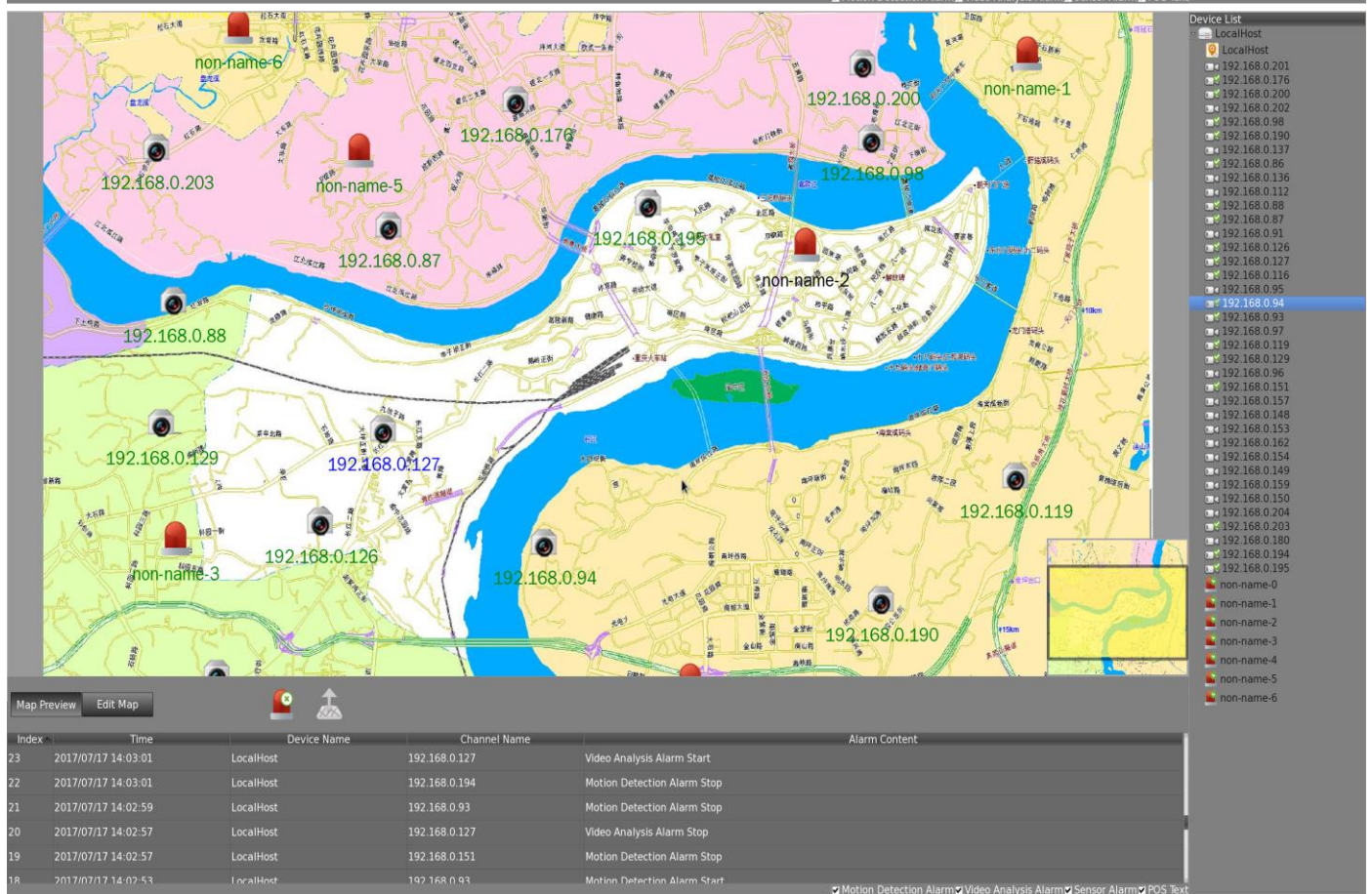
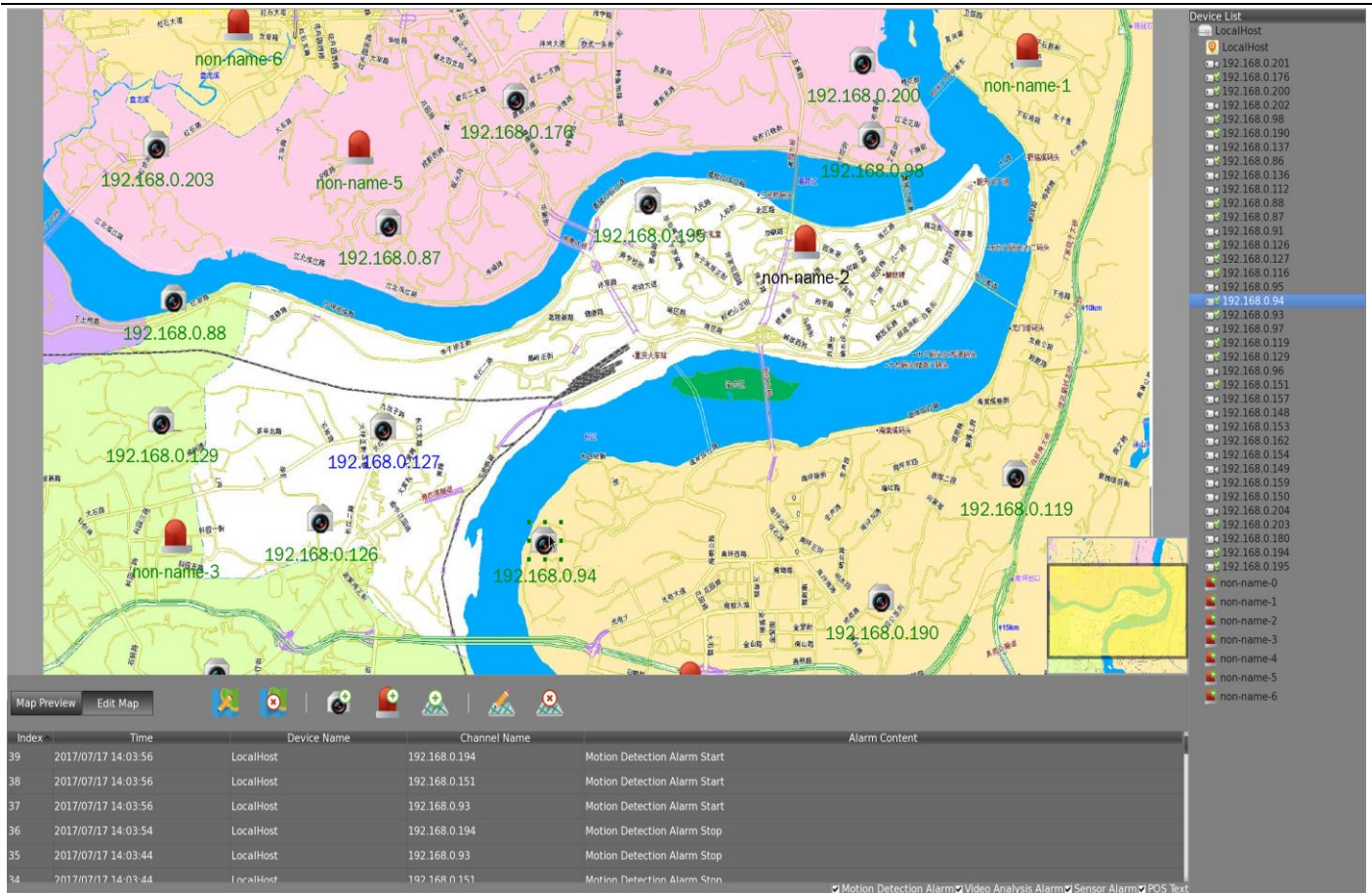
6.2.3 Delete Hot Spot

In the mode of map editing, click the icon  in the toolbar panel or right-click the hot spot and then select  to delete the hot spot.

6.2.4 Hot Spot Preview

Steps:

1. Click the button  to enter the mode of map preview;
2. Double-click the icon  on the map or right-click it and select  to get the live view of cameras;
3. If you have set the alarm linkage action for camera hot spots, The icon  will appear and twinkle near the hot spot when there is alarm triggered, click the alarm icon to bring up the alarm type.



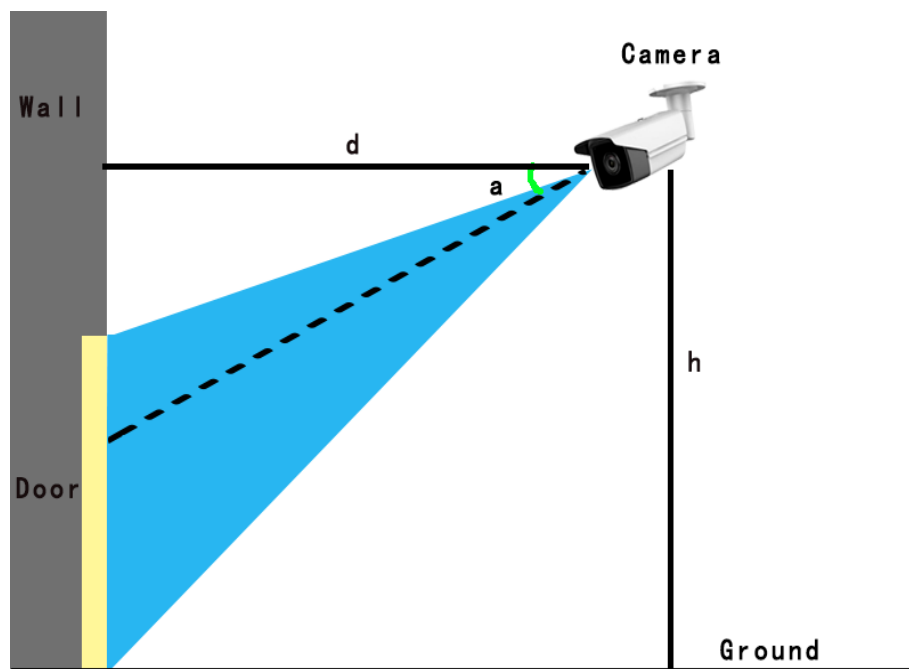
Chapter 7 Face Recognition

Face recognition function includes face detection, face matching, face retrieval. User can set a normal camera or face detection camera to detect a face. NVSS can finish the whole process of face recognition if use normal camera, but will assume more CPU than use detection cameras. Face recognition is always used to build black / white list, when there is face has a higher similarity than the one set in black list, NVSS will pop up the alarm monitor to show information about this face.

7.1 Camera Installation

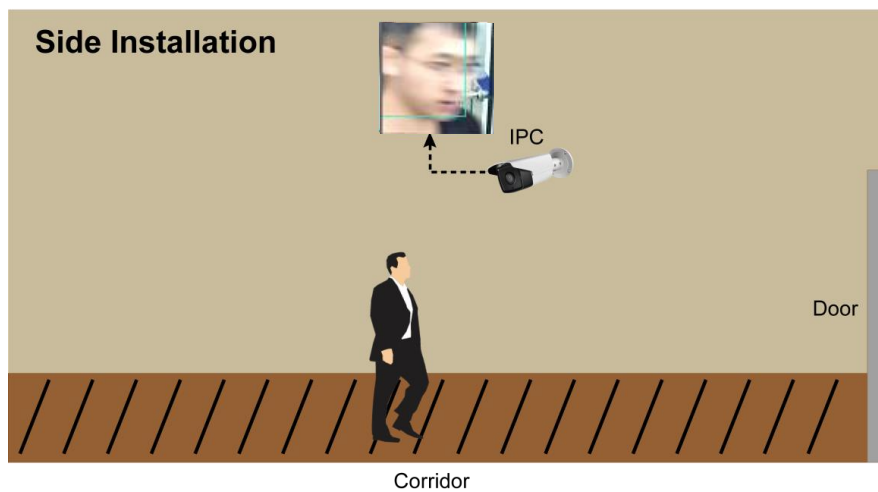
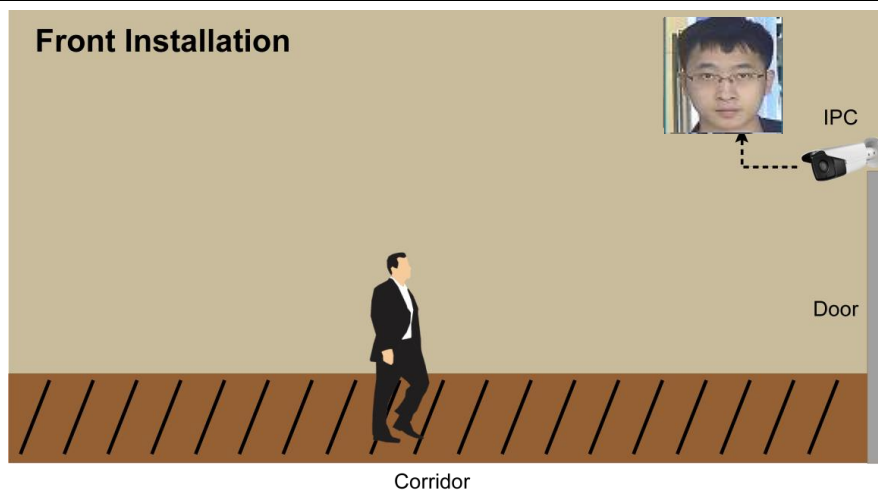
7.1.1 Camera Installation Position

Camera should be installed in proper position right above the entrance so all people's face can be detected even when they come from entrance together. User can install camera according to the following picture.



- h is the height of camera position, it should be 2m to 2.5m
- a is the overlooking angle of camera, it should be no more than 15°
- d is the horizontal distance between camera and entrance, it is related to the focal length of lens

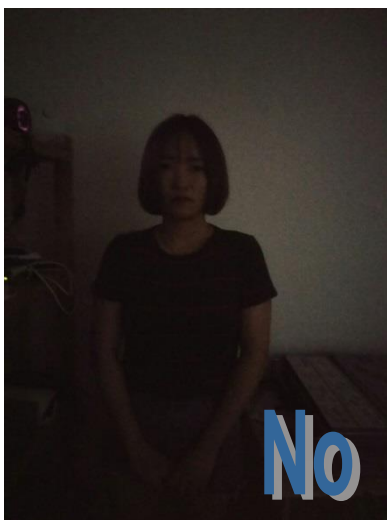
People walking towards camera with face visible frontally, to keep the target face captured longer time to get a clearer picture for recognition. There is a comparison picture as follows.



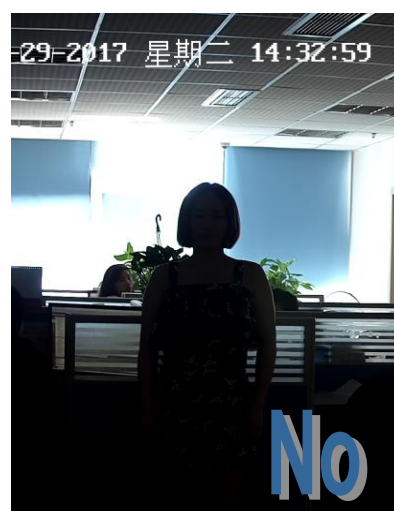
7.1.2 Camera Installation Environment

Indoor/outdoor environment with good constant illumination, There are two illumination conditions needed if you want to get a better face picture.

1. Enough illumination
2. When lens face to strong light, it need use WDR camera



Underexposed face

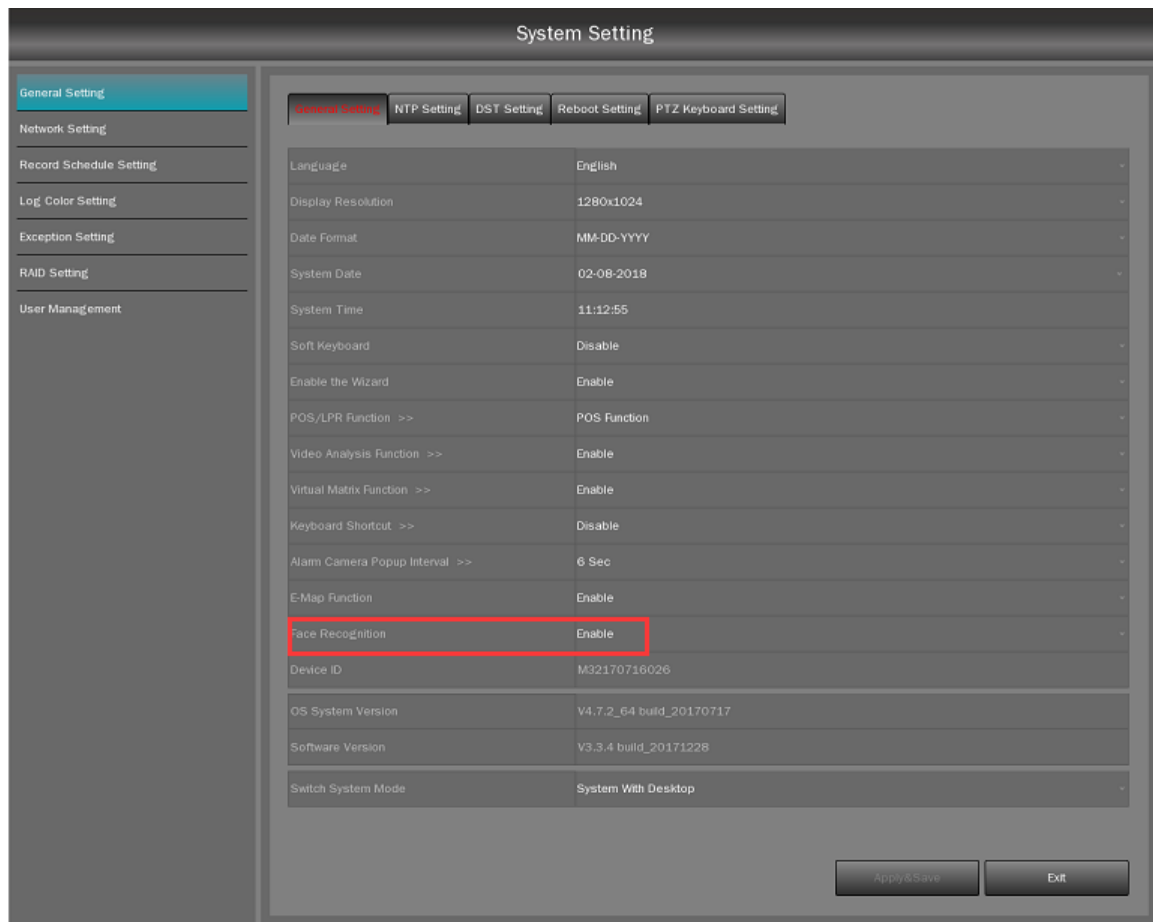


Strong light

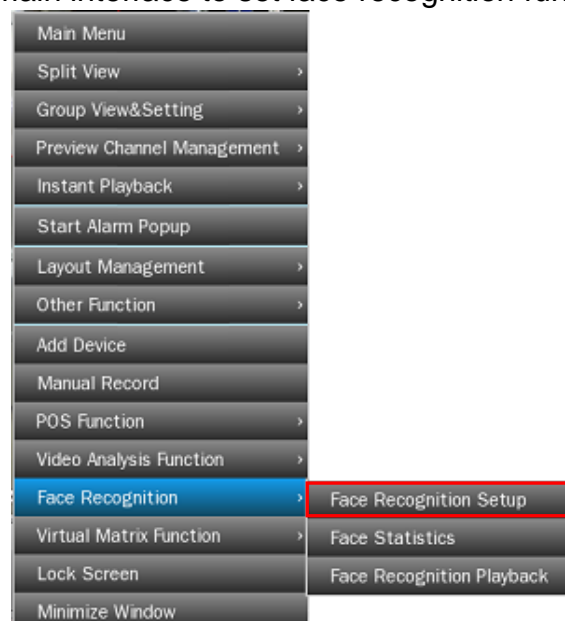
7.2 Face Recognition Setup

User can add / modify / delete face information in black / white List Setup, set face alarm in Face Alarm Setup, add cameras to detect faces in Camera Setup here.

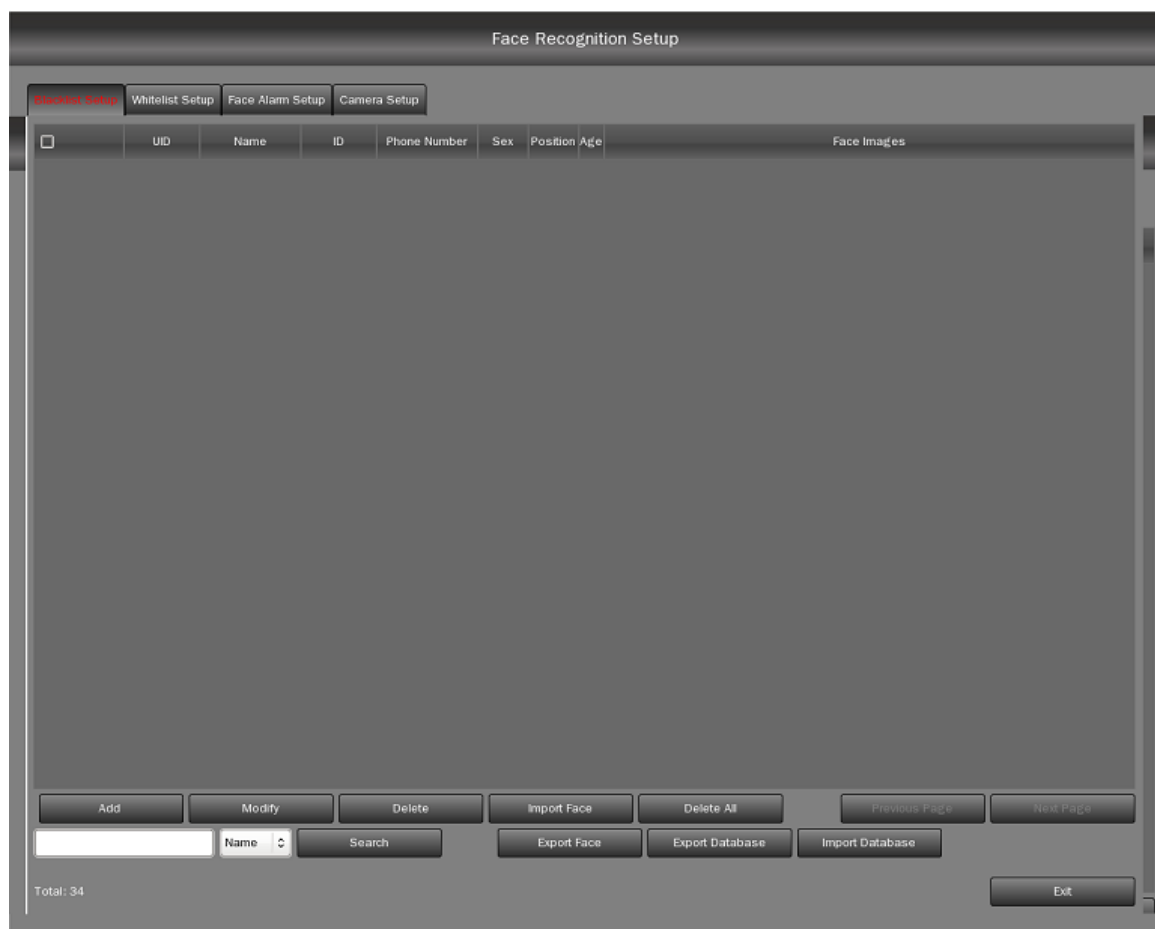
The first step is to enable Face Recognition in System Setting, it needs 16 license to enable this function.



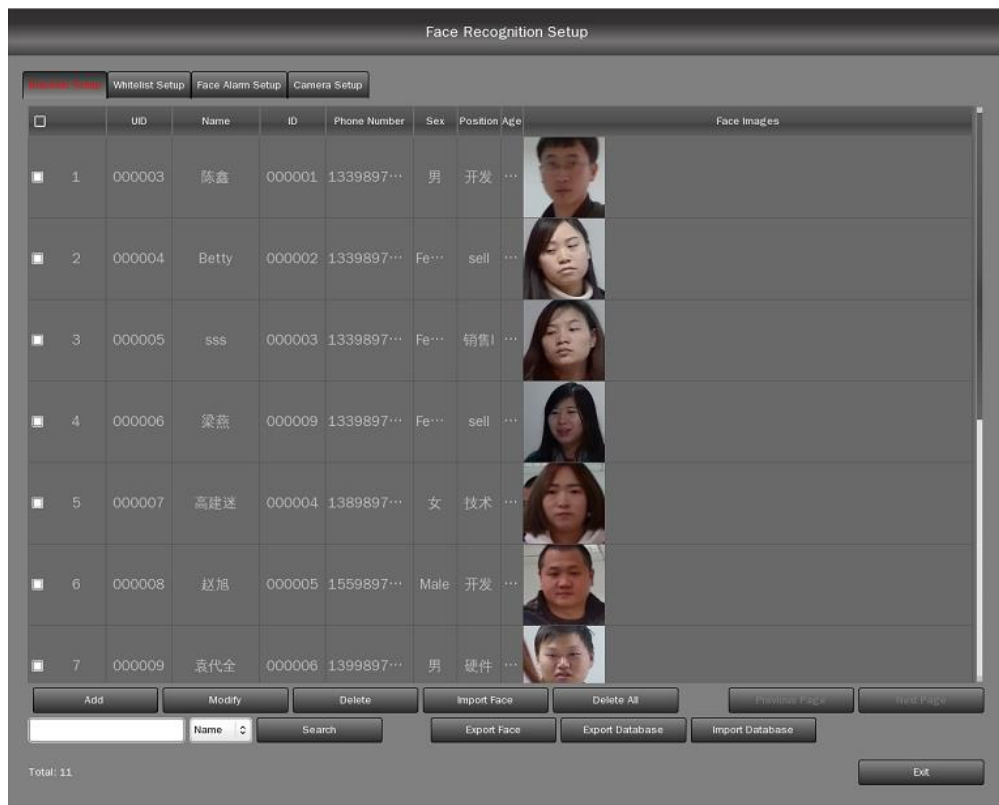
Then, right click on the main interface to set face recognition function.




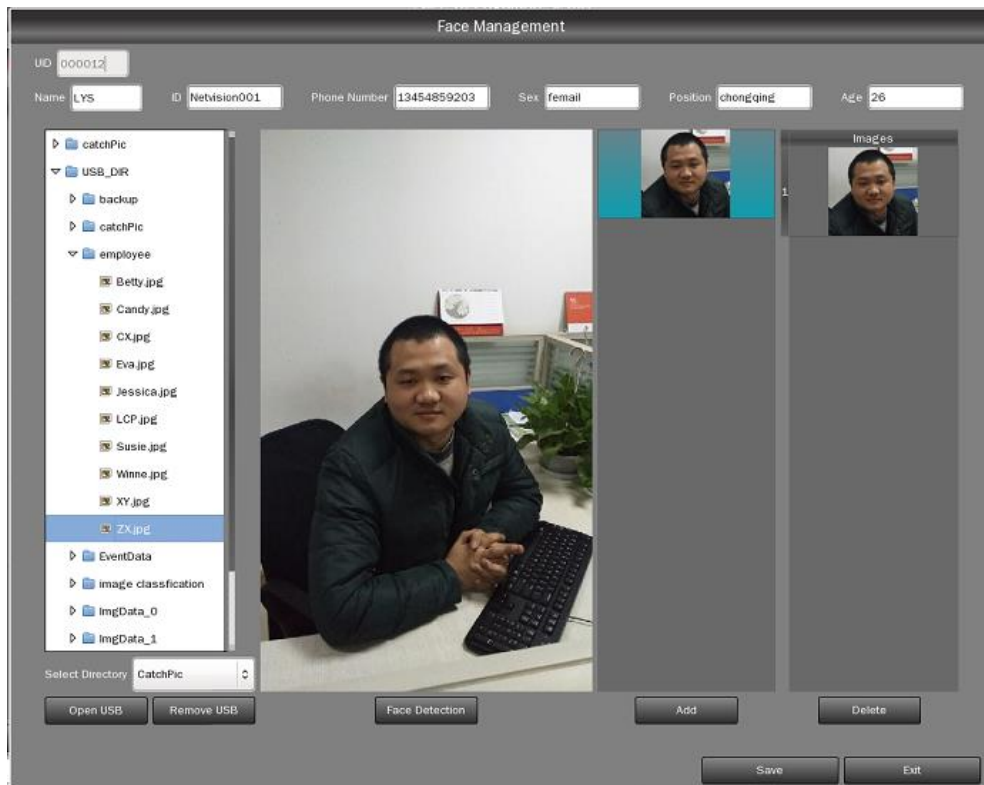
Click **Face Recognition Setup**, the interface will be shown as the following picture.









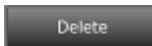




7.2.1 Black list Setup



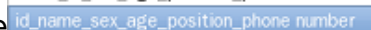
There are five ways to add faces into database, the first way is to add face manually. User can click  on the Blacklist Setup interface to add faces manually, it will pop up a interface as follows.





The pictures captured in NVSS will be list on the left, you can select a directory here , desktop is the pictures on desktop, Catchpic is the picture captured in NVSS and USB. If you want to detect a face on the picture of USB, insert USB to NVSS, select Catchpic as a directory, then click  to get the picture from USB. Click  to remove USB. Double click a picture to show picture in the face detection zone, click  to detect the faces on this picture, detected faces will be list on the middle window, user must input name here , you can also input some other informations here , then click  to add this face to the right window , also you can click  to delete the face you have added on the right window, then click  to save faces to black list, NVSS support to add multiple faces for a UID.



The second way is to add face automatically. Click  to choose a format of

name
name_id
id_name
name_id_sex_age
id_name_sex_age
name_id_sex_age_phone number
id_name_sex_age_phone number
name_id_sex_age_position_phone number
id_name_sex_age_position_phone number

pictures' name here , it can be .png, .jpg, .bmp. then select a directory from NVSS or USB to add faces with all informations. It will input all information of corresponding face into face list according to pictures' name. there will pop up a information to let you know the




importing has been finished , click  to export face pictures to USB.

The third way is to import face database file. When you want to build another new NVSS systes, you can insert a USB to old NVSS, then export face database file to USB by click , wait several minutes to make sure the file has been exported completely. Insert USB to new NVSS system, then click , new NVSS will recognise face database file automatically and start to import, all the face inforamtion will be imported into new NVSS, it will restrat after finished.

Notice:  is used to export face pictures to USB,  is used to export face database file which can only be used in NVSS to USB.




The fourth way is to add face from live view, right click on the captured face which is shown on the bottom of live view.




It will pop up a window to add current face to black / white list, input name or ID, then click , it will show a existing face information of black / white list, click  to add this face to an exist person. Also User can click  to add a new face with new UID. Interface is as follows.



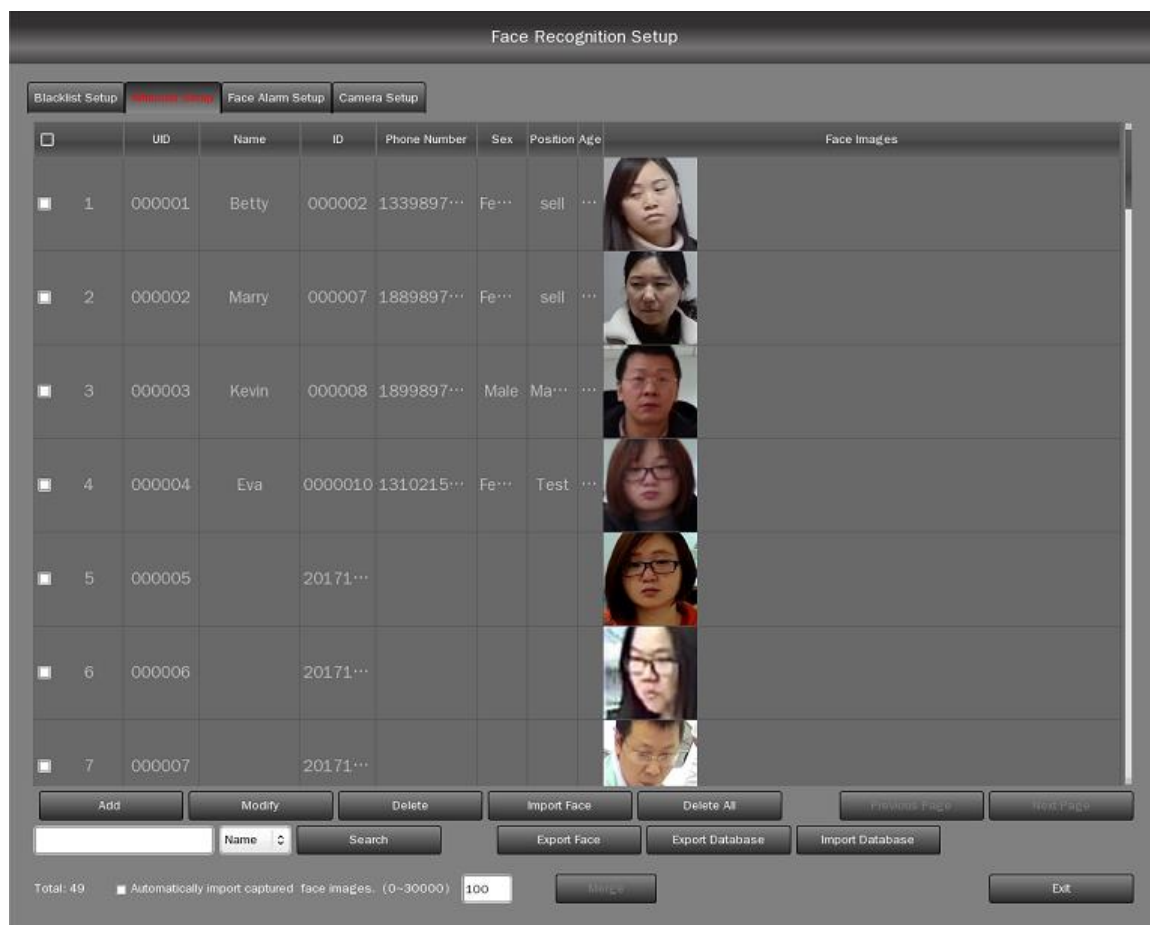
The fifth way is to add face from face recognition playback. Please refer [chapter 7.3](#)

User can click  to modify all the information of a face except UID. Click  to delete the information of a face, also you can click  to delete all the face informations of black list. If you need to search a certain person, you can input UID or name here

	Name
	ID

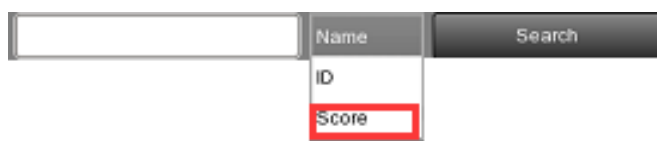
, also keep it to be null, then click  to show all the face information.

7.2.2 Build white list

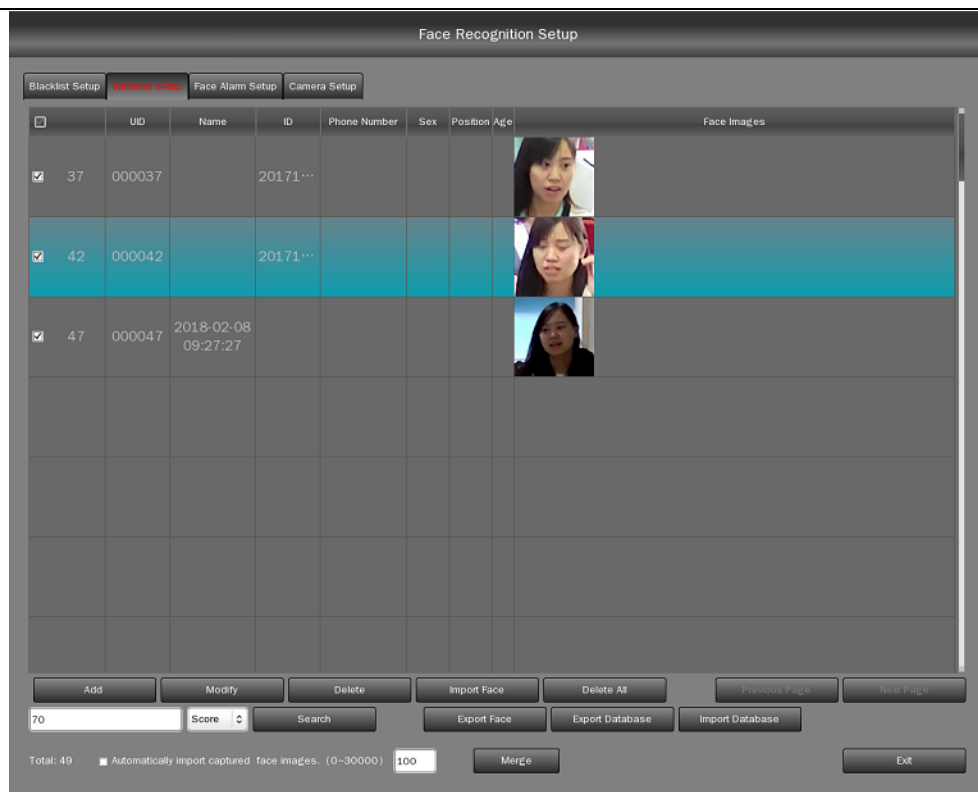


There are six ways to add faces, user can check the detail of the first five ways in [chapter 7.2.1](#), the sixth way is to add all faces which aren't a face of white list automatically. ☒ Automatically import captured face images. (0~30000) 100, this kind of way is better than other ways, because face recognition will be influenced by the quality of database face, it will add captured faces directly which is with the same condition(light, angel etc) with live view of camera, this way makes face recognition function be more accurate. It is always used in some place with large traffic. Such as school, factory, super market etc.

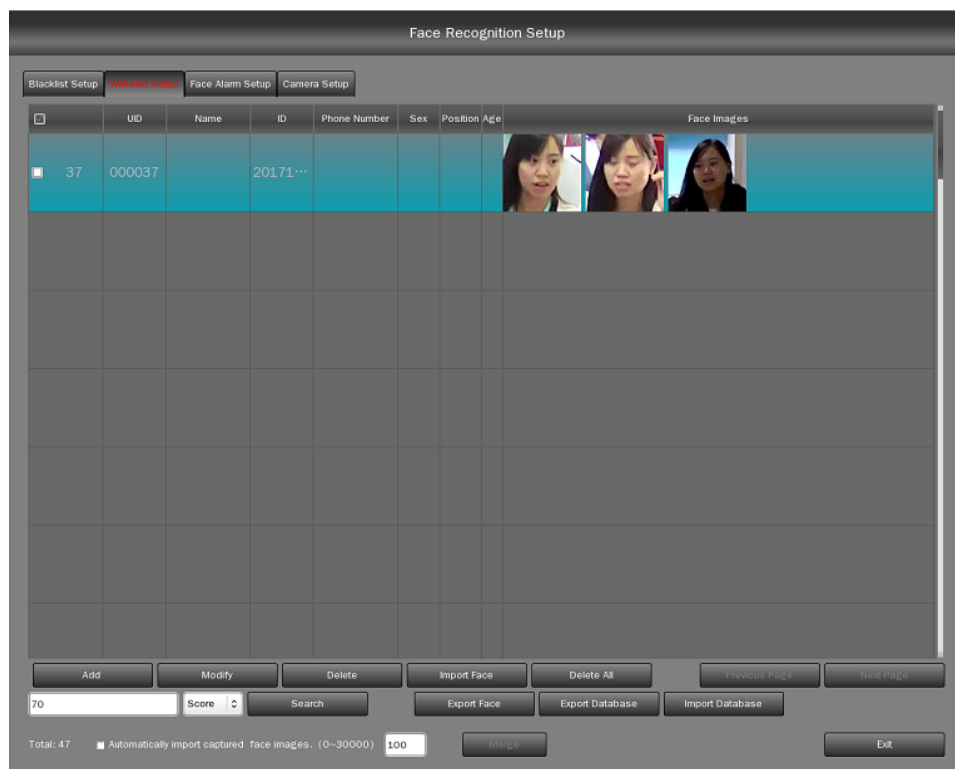
Face will be added with UID(automatic generation) and name(capture time). User can enable this function here ☒ Automatically import captured face images. (0~30000) 100, you can set to add Max. 30000 faces, then it will stop adding after added 30000 faces. It will add multiple faces with different angel of a same person with different UID, there is a way to merge them into a UID, choose a added face,



then input score here, the score is a filter threshold between 70 and 85, it will list all the similar faces as following picture.



Select all the similar faces, then click  to merge all the faces, it will be shown as following picture.



Also you can change name or ID of captured faces one by one, then search with name or ID to merge them, don't input name or ID to show all face information back, you must input a number if you select to search with score.

7.2.3 Face Alarm Setup

It includes face picture setting, camera filter threshold setting, camera linkage alarm.

Face Recognition Setup	
Blacklist Setup Whitelist Setup Face Alarm Setup Camera Setup	
Face Picture Expand	50%
List GUI Width	Size 2
Alarm Filter Time	5 Second
Show Face Mode	Show all face
Face Alarm	Enable
Alarm Channel	192.168.0.181
Blacklist Threshold	Peno 15:30-17:59 90%, 00:00-23:00 85%
Whitelist Threshold	Peno 14:50-23:59 84%, 08:00-15:30 85%
Camera Linkage	192.168.0.181
Alarm Linkage	Enable
Linkage Type	Blacklist
Audio Alarm	Dingdang.wav
Send Email	<input type="checkbox"/> Please keep network open and configure the Email Setting correctly.
Face Statistics	<input checked="" type="checkbox"/> When there is an alarm, write to face statistics.
Push Alarm Message	<input type="checkbox"/> Push the alarm message to the APP.
Trigger Alarm Output	<input type="checkbox"/> Select Output
Save Exit	

Face Picture Expand

-- It is used to set the face picture, user can set it to be 20%, 30%, 40%, 50%, 60%. The percent is more higher, then the face picture will be shown with more background.

List GUI Width

--It is used to define the width of alarm monitors, there are size 1, size 2, size 3, size 4, size 5. Size5 is the widest, size1 is the narrowest.

Alarm Filter Time

-- If there is a person stay at the front of a face detection camera all the time, NVSS will alarm again after the time you set here. User can set from 5s to 60s. If the one disappear from the live view of cameras and back again in this period time, then it will still alarm.

Show Face Mode

--Set the faces which is shown on live view, when you select 'show all faces', it will show all the captured faces. when you select 'only show stranger faces, then it would only show the faces didn't recognize by NVSS.

Blacklist Threshold

--If captured face and black list face have a higher similarity than the one you set here, black list alarm monitor will show information of this face. Similarity of 85% is the one we suggest to set, click **Peno** to set several period time with different threshold.

Whitelist Threshold

--If captured face and black list face have a higher similarity than the one you set here, white list alarm monitor will show information of this face, Similarity of 85% is the one we suggest to set, click **Period** to set several period time with different threshold, it will pop up a window as follows.

Perio NO	Start Time	End Time	Alarm Threshold
<input checked="" type="checkbox"/> Perio 1	15:30:00	17:59:59	90%
<input checked="" type="checkbox"/> Perio 2	00:00:00	23:00:00	85%
<input checked="" type="checkbox"/> Perio 3	16:00:00	23:59:59	80%
<input type="checkbox"/> Perio 4	00:00:00	00:00:00	85%

Linkage Type

--User can choose to set black list, white list and stranger separately

Audio Alarm

--User can choose audio here for each linkage type. NVSS support to add audio customerly, copy video to path ' /usr/jstnvr/Alarm Sound ', need to make sure the format of audio is .wav

Send Email

--Send email when there is alarm.

Face Statistics

--Write face alarm information to face statistics.

Push Alarm to App

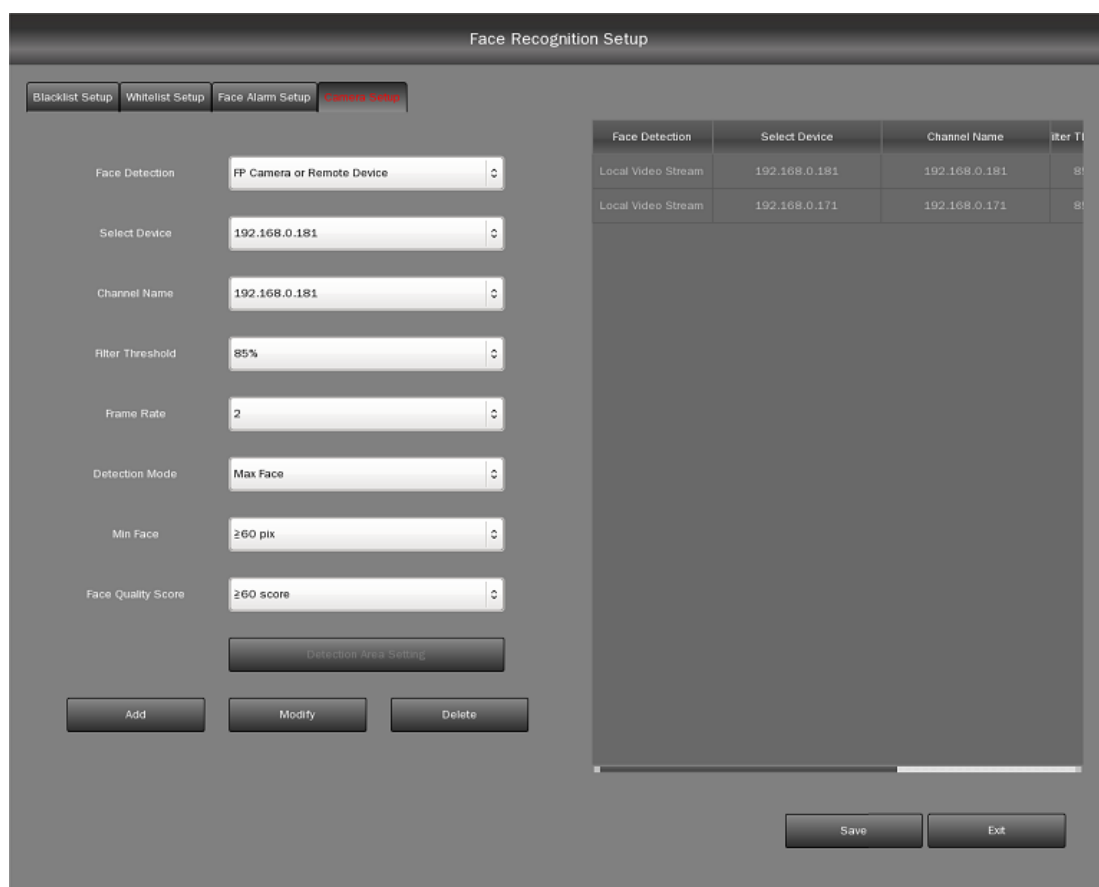
-- Push alarm message to APP




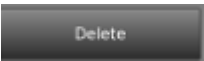

Trigger Alarm Output

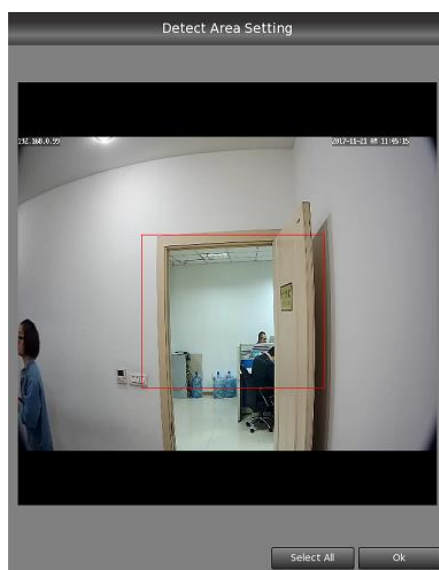
--Support to choose device to show alarm as DO, there is a alarm out delay time which used to set to close DO.

7.2.4 Camera Setup

User can add / delete / modify devices to detect faces, the devices can be normal cameras, face detection cameras or cameras of another face detection NVSS.



Select all the information about camera's setting, then click  to add this camera, it will be shown on the right window. Double click the name of a camera listed on the right window to modify its information, click , then click  to save the modified information. Click  to delete this device. NVSS support to choose detection zone on a cameras live view by click , you will see a interface as the following picture, User can draw a zone or select all zone to detect a face.



Face Detection

Local Video Stream
IP Camera or Remote Device

Face Recognition of Large Application



Form 1:

CPU	Analysis channels	Frame per second	Max Faces in per camera
Intel Celeron	1	2	≤ 2
Intel Core i3	2	1	≤ 4
	2	2	≤ 2
	3	1	≤ 4
	3	2	≤ 2
Intel Core i7	2	3	≤ 2
	2	2	≤ 3
	2	1	≤ 7
	4	3	≤ 2
	4	2	≤ 3
	4	1	≤ 7

Form 2:

CPU	Total faces analyzed per second	Analysis channels	Average Max Faces in per camera
Intel Celeron	4	1	≤ 3
		2	≤ 2
Intel Core i3	16	2	≤ 5
		4	≤ 4
		6	≤ 3
		8	≤ 2
Intel Core i7	32	4	≤ 8
		6	≤ 5
		8	≤ 4
		10	≤ 3
		16	≤ 2

Filter Threshold

70

--Filter Threshold is used for filter face which will list on the bottom of live view interface. it is designed for the situation when you set frame rate to be multiple frames. A face may be captured several times in a short time, if the similarity between two faces is higher than the fileter shreshold, then face won't be shown on live view, this option is only effective when you choose local device to detect face.

Frame Rate

1

--Frame Rate is used to limite the frames of a camera should analysis in per second. this option is only effective when you choose local device to detect face.

Detection Mode

Max Face

All Face

--User can set NVSS to detect Max face or all faces of each frame

Min Face

≥ 60 pix

--It will limite the pixel of a face which can be detected by NVSS. ≥ 60 pix means NVSS will detect the faces which are with a higher pixel than 60 pixel.

Face Quality Score

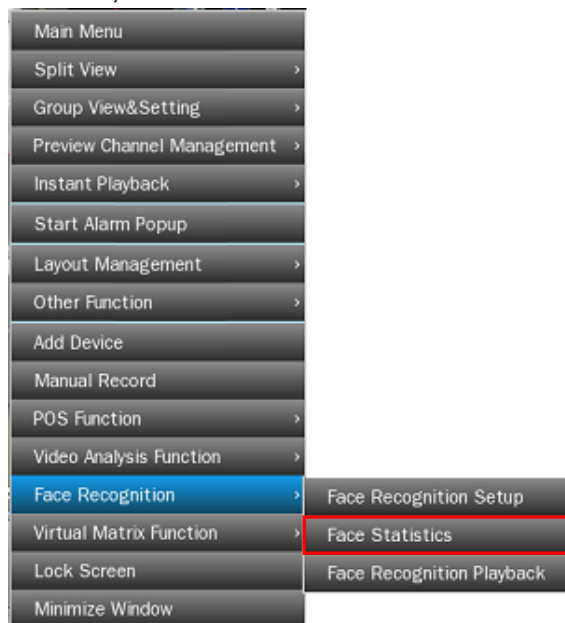
≥ 80 score

-- face quality score is used to filter the unclear faces

which are not good for face recognition. The score is higher, the face recognition will be more accurate, but it will discard some faces.

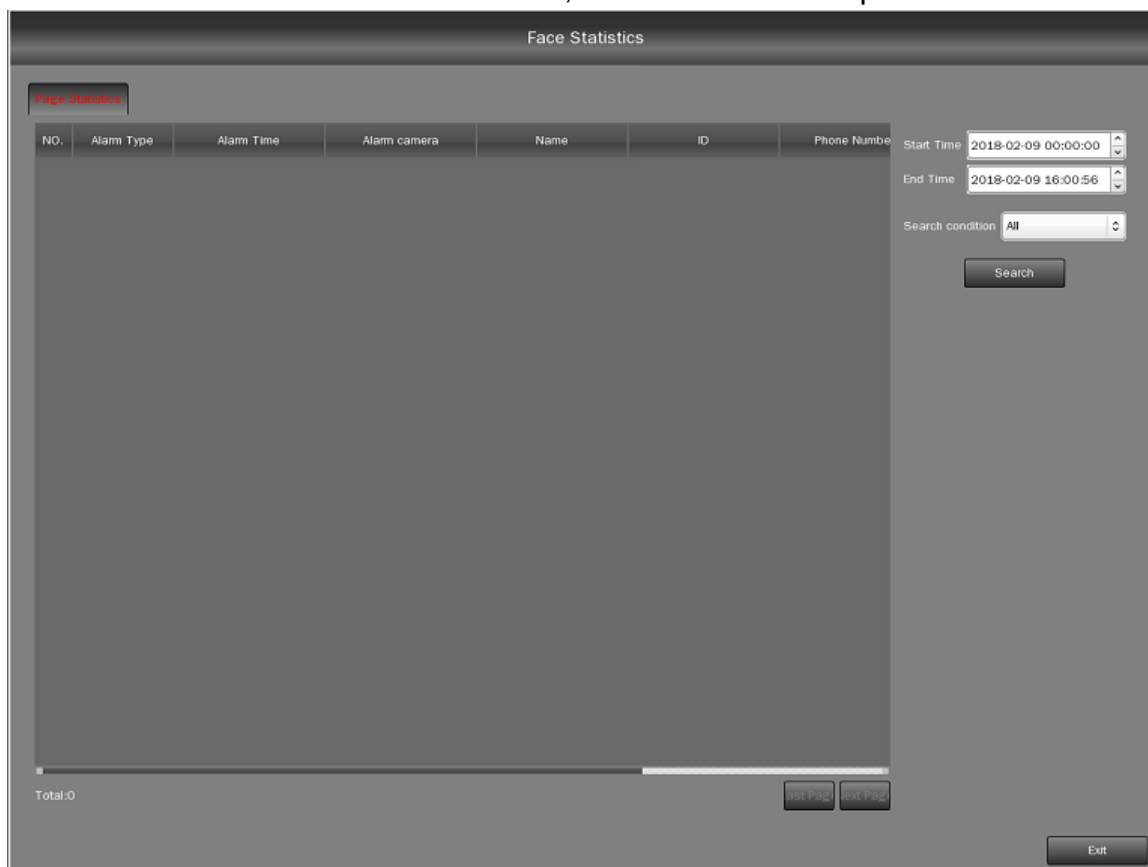
7.3 Face Statistics

Right click on the main interface, then select face statistics.



Face alarm statistics is used to induct face alarm information. Check the following interface.

1. Check the information of a exist person in face list which can be used to do staff attendance
2. Check the visitors flowrate in a period time, used in some super market.
3. Check visitors in and out of the situation, used in residential quarters



Start Time

End Time

--Select a period of time to search here

Search condition

Designated Face

Other condition

--Select a search condition here

All: It will search all the information about face alarm

Designated Face: Search face alarm information of a existing face in black / white list. It will show as following picture when you select designated face,

Search condition

Name

Click , it will pop up the following interface

Search Face

Facelist Type

Search Type

Search Keyword

Image	ID
-------	----


Input a ID or name of black / white list, then click to show the face information on the right window as following picture.


Search Face

Facelist Type

Search Type

Search Keyword

Image	ID
	000003

Select it, then click , this face picture will be shown on the face statistics main interface as follows.



Then click , it will be shown as follows.

Face Statistics

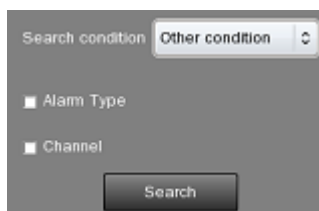
NO.	Alarm Type	Alarm Time	Alarm camera	Name	ID	Phone Number
1	Whitelist	2018-02-09 09:43:43	192.168.0.181	Betty	000002	1339897055
2	Whitelist	2018-02-09 13:06:12	192.168.0.181	Betty	000002	1339897055
3	Whitelist	2018-02-09 13:12:37	192.168.0.183	Betty	000002	1339897055
4	Whitelist	2018-02-09 14:04:18	192.168.0.181	Betty	000002	1339897055
5	Whitelist	2018-02-09 14:04:40	192.168.0.183	Betty	000002	1339897055
6	Whitelist	2018-02-09 14:04:43	192.168.0.183	Betty	000002	1339897055
7	Whitelist	2018-02-09 14:33:04	192.168.0.181	Betty	000002	1339897055
8	Whitelist	2018-02-09 14:43:02	192.168.0.183	Betty	000002	1339897055
9	Whitelist	2018-02-09 15:06:49	192.168.0.181	Betty	000002	1339897055
10	Whitelist	2018-02-09 15:07:29	192.168.0.183	Betty	000002	1339897055
11	Whitelist	2018-02-09 15:07:32	192.168.0.183	Betty	000002	1339897055
12	Whitelist	2018-02-09 15:42:07	192.168.0.183	Betty	000002	1339897055
13	Whitelist	2018-02-09 15:58:58	192.168.0.183	Betty	000002	1339897055

Total:13

Start Time: 2018-02-09 00:00:00
End Time: 2018-02-09 16:26:09
Search condition: Designated Face
Name: Betty
Search Face
Search

Exit

Other condition: It will show two options as follows, you can search face alarm information according to alarm type or channel.



There are three options which are black list alarm, white list alarm and stranger alarm for alarm

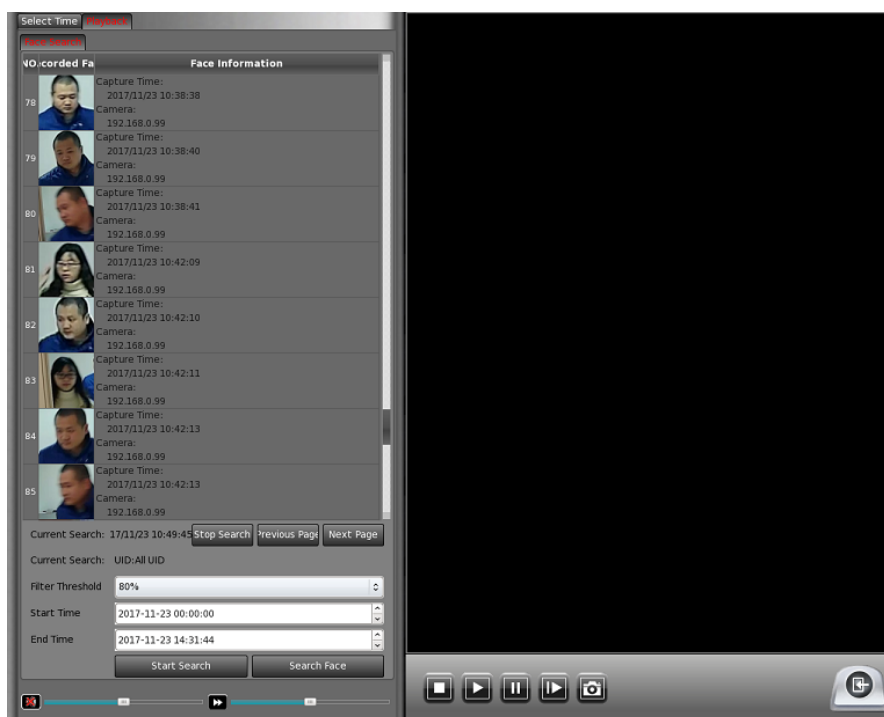


Face Statistics								
Page Statistics							Start Time	2018-02-09 00:00:00
							End Time	2018-02-09 16:00:56
							Search condition	Other condition
							<input checked="" type="checkbox"/> Alarm Type	Blacklist Alarm
							<input type="checkbox"/> Channel	
							Search	
NO.	Alarm Type	Alarm Time	Alarm camera	Name	ID	Phone Num		
19	Blacklist	2018-02-09 11:12:33	192.168.0.171	赵旭	000005	155989705		
20	Blacklist	2018-02-09 11:12:34	192.168.0.183	赵旭	000005	155989705		
21	Blacklist	2018-02-09 11:12:35	192.168.0.183	赵旭	000005	155989705		
22	Blacklist	2018-02-09 11:14:07	192.168.0.171	赵旭	000005	155989705		
23	Blacklist	2018-02-09 11:14:09	192.168.0.183					
24	Blacklist	2018-02-09 11:14:11	192.168.0.183	赵旭	000005	155989705		
25	Blacklist	2018-02-09 11:14:11	192.168.0.183	高建迷	000004	138989705		
26	Blacklist	2018-02-09 13:24:47	192.168.0.181	袁代全	000006	139989705		
27	Blacklist	2018-02-09 13:28:16	192.168.0.171	Eva	000010	131021535		
28	Blacklist	2018-02-09 13:37:11	192.168.0.171	赵旭	000005	155989705		
29	Blacklist	2018-02-09 13:37:52	192.168.0.171	赵旭	000005	155989705		
30	Blacklist	2018-02-09 13:47:30	192.168.0.181	sss	000003	133989705		
31	Blacklist	2018-02-09 13:47:54	192.168.0.183	sss	000003	133989705		
32	Blacklist	2018-02-09 13:47:56	192.168.0.183	sss	000003	133989705		
33	Blacklist	2018-02-09 13:59:25	192.168.0.183	Eva	000010	131021535		
34	Blacklist	2018-02-09 14:04:18	192.168.0.181	Betty	000002	133989705		
35	Blacklist	2018-02-09 14:04:40	192.168.0.183	Betty	000002	133989705		
36	Blacklist	2018-02-09 14:04:43	192.168.0.183	Betty	000002	133989705		
37	Blacklist	2018-02-09 14:26:34	192.168.0.183	sss	000003	133989705		
38	Blacklist	2018-02-09 14:26:36	192.168.0.183	sss	000003	133989705		
Total:38							Exit	

When you select a channel here ☒ Channel 192.168.0.181, it will be shown as follows.

Face Statistics								
Page Statistics							Start Time	2018-02-09 00:00:00
							End Time	2018-02-09 16:00:56
							Search condition	Other condition
							<input checked="" type="checkbox"/> Alarm Type	
							<input checked="" type="checkbox"/> Channel	192.168.0.181
							Search	
NO.	Alarm Type	Alarm Time	Alarm camera	Name	ID	Phone Num		
80	Whitelist	2018-02-09 10:35:02	192.168.0.181	2018-02-08 09:29:17				
81	Whitelist	2018-02-09 10:35:15	192.168.0.181	2018-02-08 09:29:17				
82	Whitelist	2018-02-09 10:43:50	192.168.0.181	2018-02-08 09:29:17				
83	Whitelist	2018-02-09 10:44:08	192.168.0.181	2018-02-08 09:29:17				
84	Whitelist	2018-02-09 10:45:04	192.168.0.181	2018-02-08 09:29:17				
85	Whitelist	2018-02-09 10:45:09	192.168.0.181	2018-02-08 09:29:17				
86	Whitelist	2018-02-09 10:47:19	192.168.0.181	2018-02-08 09:29:17				
87	Whitelist	2018-02-09 10:47:22	192.168.0.181	2018-02-08 09:29:17				
88	Whitelist	2018-02-09 10:48:23	192.168.0.181	2018-02-08 09:29:17				
89	Whitelist	2018-02-09 10:48:34	192.168.0.181	2018-02-08 09:29:17				
90	Whitelist	2018-02-09 10:48:36	192.168.0.181	2018-02-08 09:29:17				
91	Whitelist	2018-02-09 10:49:26	192.168.0.181	2018-02-08 09:29:17				
92	Whitelist	2018-02-09 10:50:16	192.168.0.181	2018-02-08 09:29:17				
93	Whitelist	2018-02-09 10:50:27	192.168.0.181	2018-02-08 09:29:17				
94	Whitelist	2018-02-09 10:50:54	192.168.0.181	2018-02-08 09:29:17				
95	Whitelist	2018-02-09 10:50:57	192.168.0.181	2018-02-08 09:29:17				
96	Whitelist	2018-02-09 10:53:13	192.168.0.181	2018-02-08 09:29:17				
97	Whitelist	2018-02-09 10:59:35	192.168.0.181	2018-02-08 09:29:17				
98	Whitelist	2018-02-09 11:01:37	192.168.0.181	2018-02-08 09:29:17				
99	Whitelist	2018-02-09 11:02:52	192.168.0.181	2018-02-08 09:29:17				
100	Whitelist	2018-02-09 11:02:58	192.168.0.181	2018-02-08 09:29:17				
Total:237							Exit	

Also you can search with two options at the same time. It will be shown as follows



Right click on a face picture, it will show a list as follows.

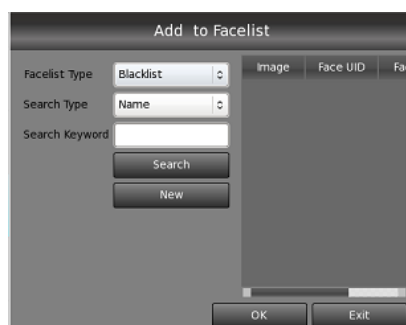



Export current face ---Export this face picture you choose to USB

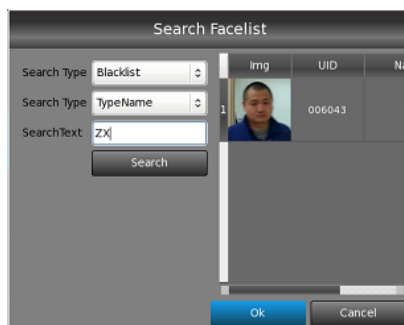
Export all faces of current page ---All the faces in current page will be exported into USB.


Search current face ---it will search current face automatically

Add to facelist ---Add face to black / white list. It will pop up a windows as the following picture, you can search the person you want to add face from black / white list by name or ID firstly, then click **Search**, information about this person will be shown on the right, click information on the left to choose it, then click **OK** to add new face for this person. Also User can input a name, then click **New** to add a new face with new ID into black / white list.






Set filter threshold and time to search a certain person by click , then it will pop up a window, you can input a ID or name of black / white list to search. Interface is as follows.



Click  to search automatically, similar faces will be list here, double click a face picture to display a short video about this face. Interface will be like the following picture.



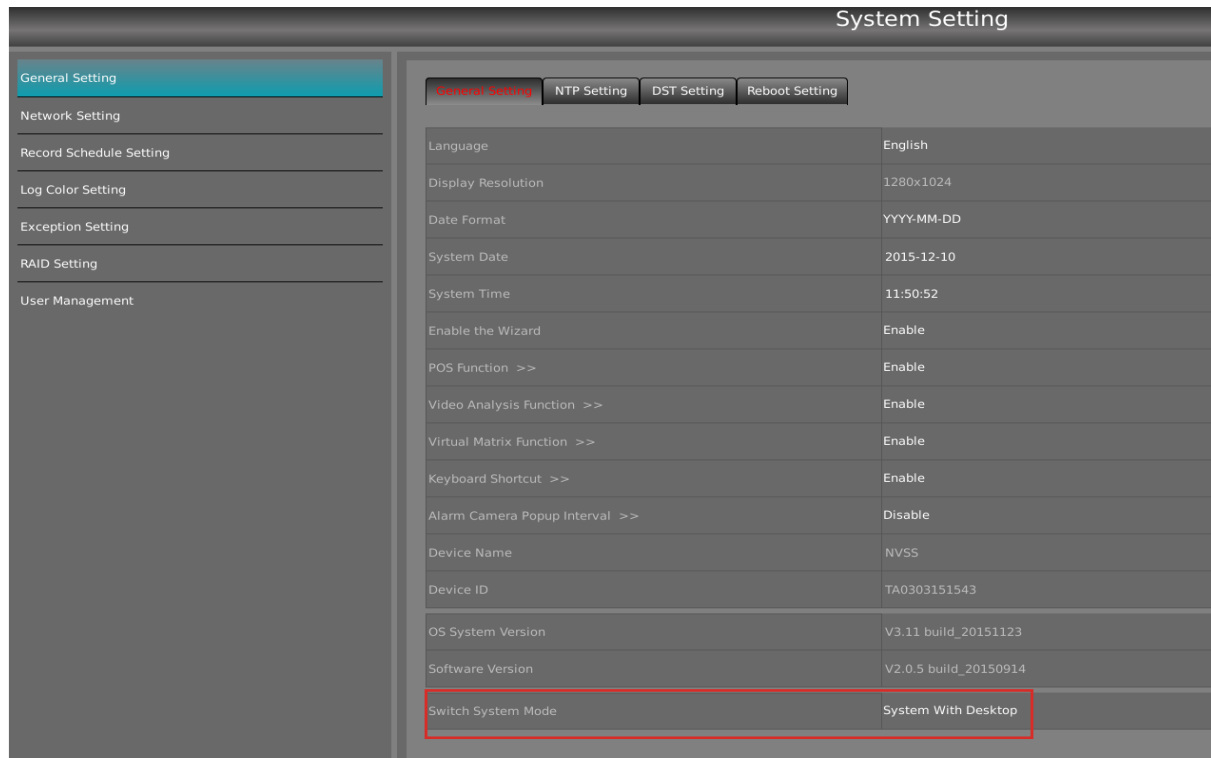
If you choose a long period time to search, it will need some time to finish, you can click  to stop searching, click  to see the next page of face pictures, there are 100 faces in one page. Click  to come back to previous page.

Chapter 8 Remote Help (TeamViewer)

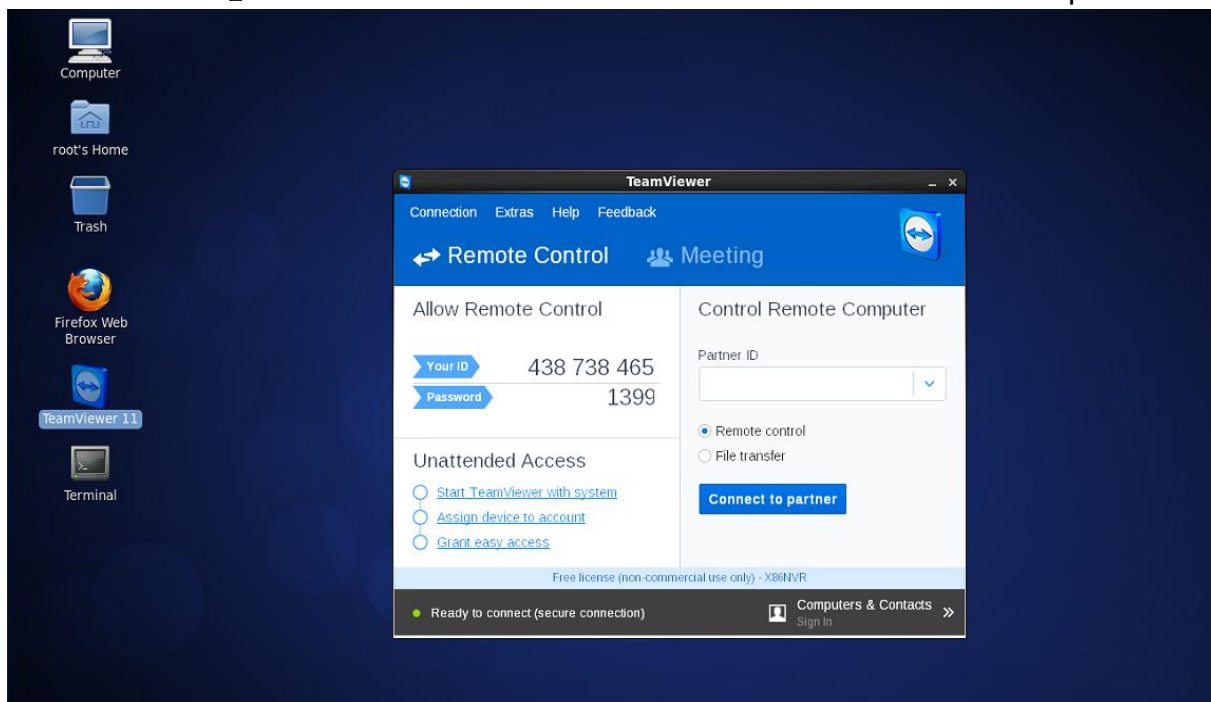
Note:

Only supported by Desktop version with 64GB MATA card. Those mSATA cards bought before v1.4.3 can't update to support Desktop version.

【Switch System Mode】 User can set the System to desktop mode or none desktop mode, Team viewer can only run under desktop mode



【Minimize Window】 Click Minimize Window in Screen menu to back to desktop



TeamViewer is a proprietary computer software package for remote control, desktop sharing, and file transfer between computers.

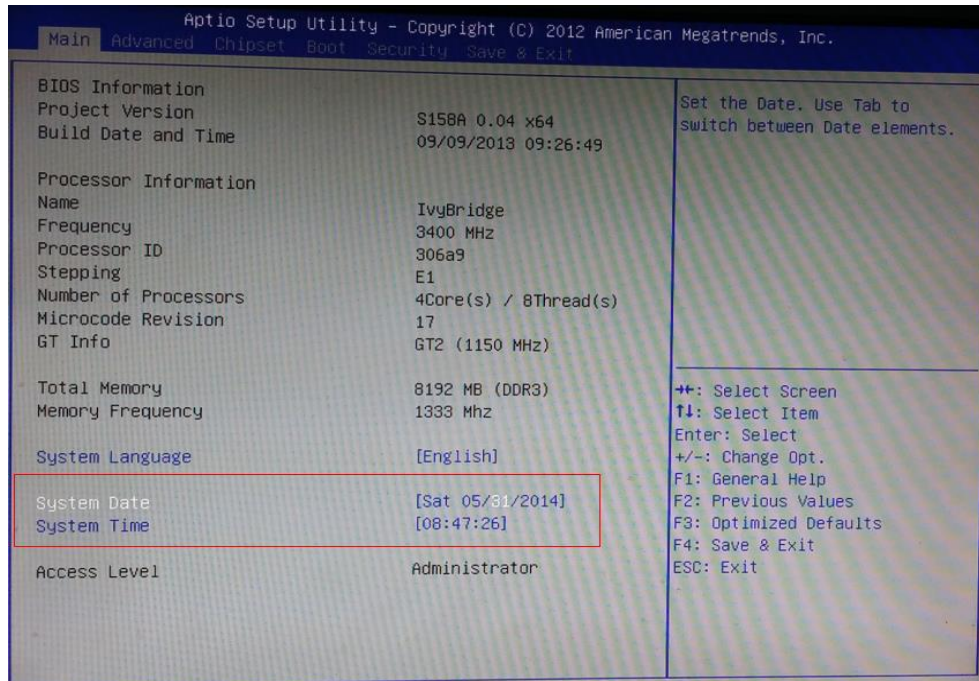
When TeamViewer is started on System, it generates a partner ID and password (user-defined passwords are also supported). To establish a connection between a local client and a remote client, TeamViewer generated ID and password of either client are required. The local client requires the remote client's ID and password to gain control over the remote client, whereas the remote client requires the local client's ID and password to gain control over the local client

Appendix A: Modify the System Date in BIOS

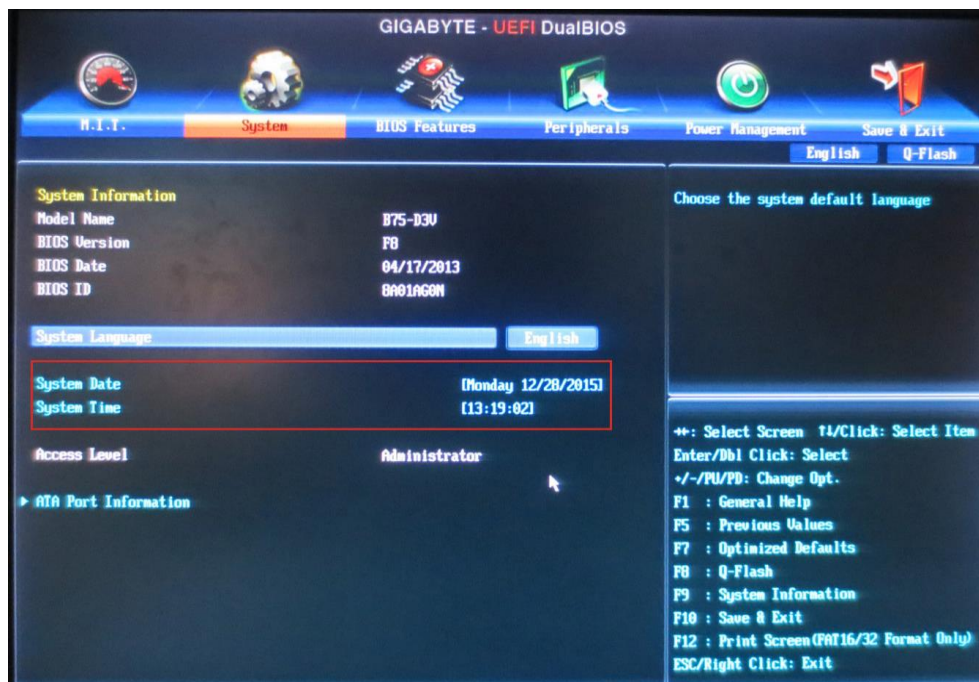
1. Enter BIOS

Restart the system, press DEL key constantly to enter the BIOS when the system is being started. Our System system includes two kinds of motherboard:

The motherboard of SV6-B75A6:



The motherboard of GA-B75-D3V:



2. Modify the System Date

After you enter the main interface of BIOS, then select the row of System Date by pressing

↑and ↓keys.

Set the date that you want by using the TAB key to switch between data elements.

3.Save and Exit

If you have set your system date successfully, now, press F4 to save and exit of SV6-B75A6 motherboard, for GA-B75-D3V motherboard press F10.

Then the System system will start up.

Appendix B: Enable the Hot Plug

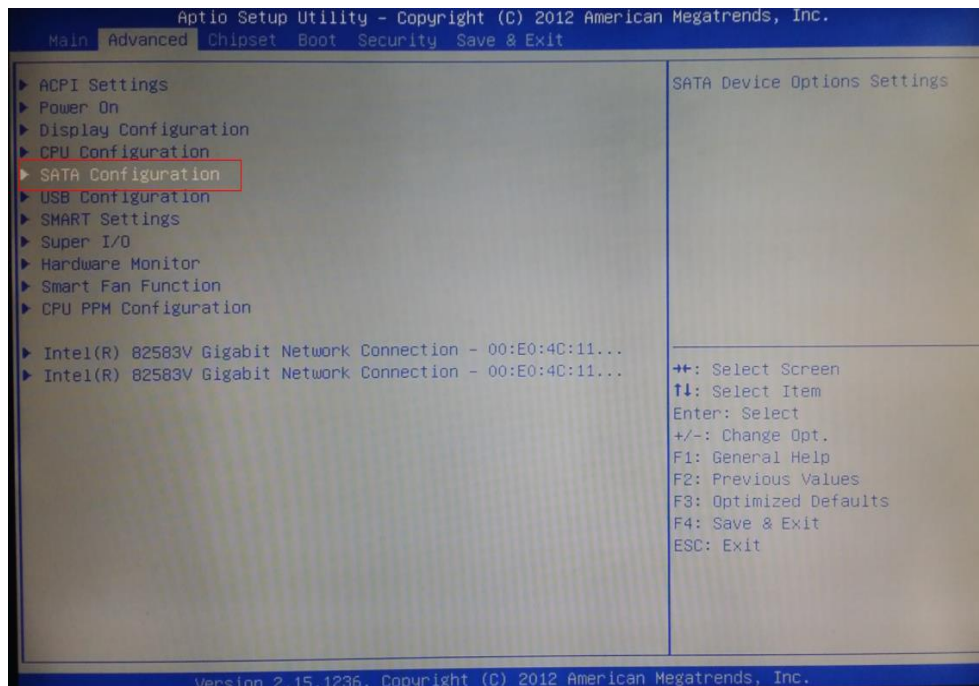
1. Enter BIOS

Restart the system, press DEL key constantly to enter the BIOS when the system is being started.

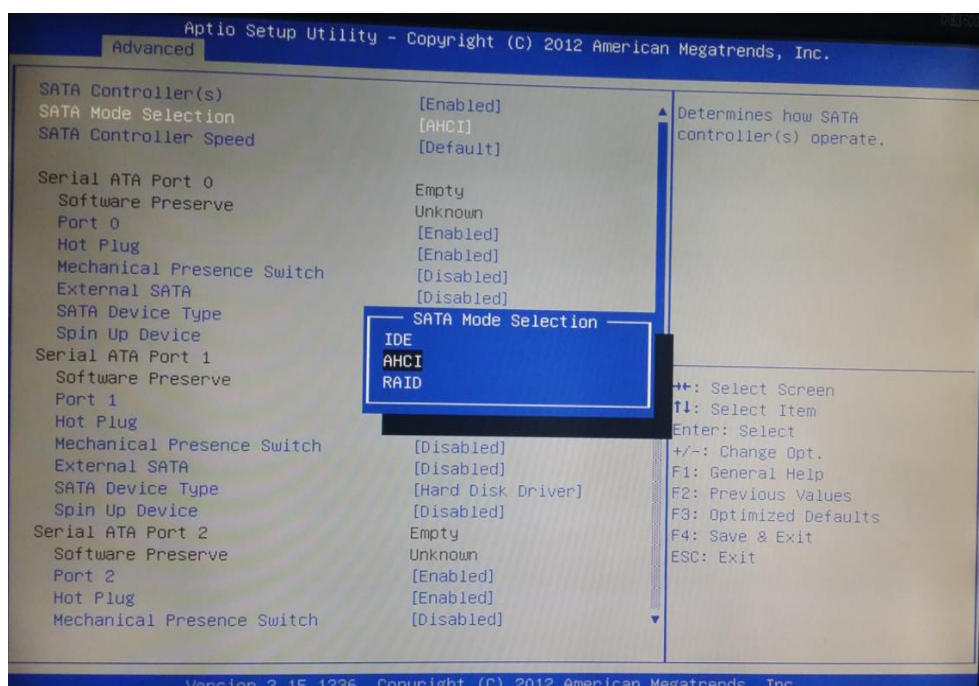
We take the SV6-B75A6 motherboard for example here, other motherboards are similar.

2. Enable the Hot Plug

Press “←” or “→” to switch the screen and select the **Advanced** screen.

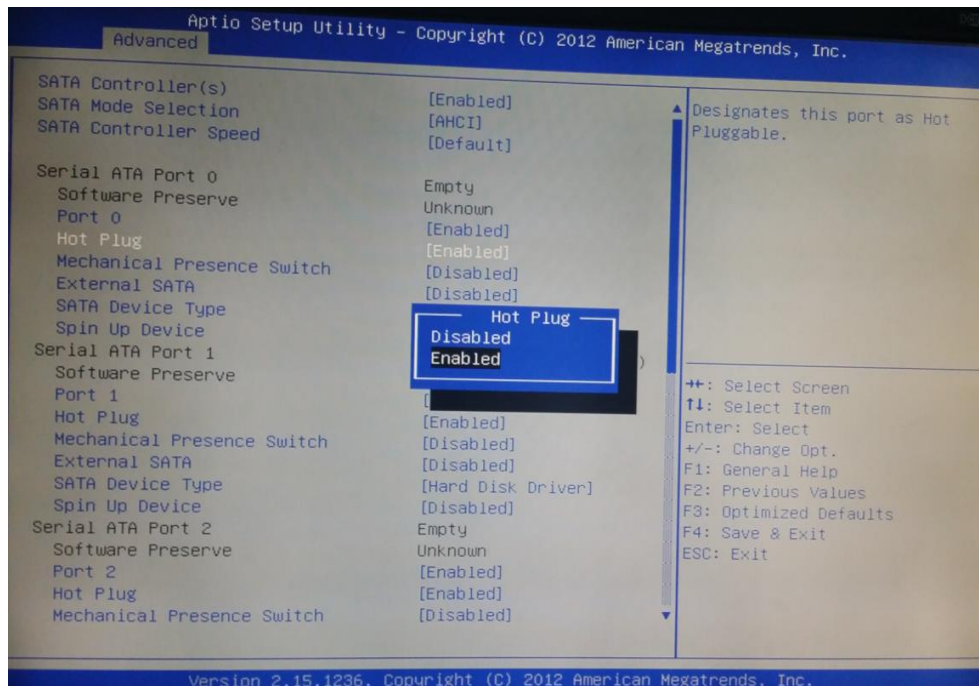


Select the “**SATA Configuration**” and Enter it.



Enter the “**SATA Mode Selection**” and select the “**AHCI**” mode.

Then there are many “**Serial ATA Port**”, select the “**Hot Plug**” option and enter it , and enable the hot plug here.



Repeat this step to enable all hot plug of every serial ATA port.

3. Save& Exit

Press “F4” to save and exit, the system will restart.

Note:

The settings of different motherboard is different, maybe some motherboard does not support this function;

Appendix C:Frequently Asked Questions and Solutions

1.Why the live preview is frame skip?

- (1)Please run a web client to log in the camera to check whether it is the reason of camera.
- (2)Please check all the channels in the system to make sure whether it is caused by switch you use. Firstly, check the switch which connect with your system and make sure that it is a 1000M switch. Secondly,we need to think about the processing capacity of the switch. For example,you add 128 cameras to Device List,and configure each camera's main stream 3Mbps,then you can figure out the total instant value should be 384Mbps, but it is far from 384Mbps when you check Camera Data Stream Statistics in your software,it may be 200Mbps.then we have reasons to doubt the processing capacity of the switch, it causes a serious data packet loss. you should change a switch to have a test.
- (3)If there is only one or two cameras having the problem,then check the brand of your cameras.it may be caused by the cameras and software compatibility issues.

2.There is live preview of cameras,but why it can't record?

- 1.If you can only preview the image with the sub-stream, and you can not preview the image with the main stream,then we have to think about compatibility issues between cameras and our software.
- 2.If you can preview the image with the main stream, please check Record schedule Setting in system setting which decides the record mode.

3.When I click on the icon in toolbar panel,there is no response, then I click again,it says "Other program is already running",why?

1. In desktop mode, the interface of subroutine will be hidden behind the main interface sometimes. You need to exit the main window(right click to choose Minimize Window or press Alt+9),or press Alt+Tab to switch window.
2. If it is inconvenient for you, please switch it to non-desktop mode in System setting, then it will work as an embedded system.

4.My system always takes a very long time to boot, is there any problem?

please press Esc key to check the startup process of background,if you find that the smartd service is stuck while booting,then you should check whether there is a bad hardware disk,pull out the bad one to restore boot speed.

5.The software crashes frequently when shows the main interface, It can't work as usual.

This kind of issue always happened when you added new cameras with onvif protocol which had compatible issues with software. It crashes because of the compatible issues when it receives the data of video stream. The watch dog in the software will detect the crash and reboot system. The

solutions is as follows.

1. In desktop mode, please run the command(`rm -rf /usr/jstnvr/paramcamera/dvparam.dat`)in the terminal.
2. In non-desktop mode, we will help you to restore your system.

6. There is no response when I run instant playback function.

Please choose the window which has a live preview and right click on instant playback. There will be no response when you choose a window with no image.

7. When visiting the Web Client, it happens that the loading interface is abnormal.

Please check whether you installed the plugin unit properly and clear the buffer of your browser, and then reopen your browser.

8. After hot swap, the system can't recognize HDD when I insert it into the running system.

Please enter the BIOS of motherboard to enable the hot-swapped in the HDD or SATA Configuration, then save and restart.

9. I can't send email successfully

Please check the related settings carefully, especially the server address and port. You can test settings via Foxmail or Outlook, if sends successfully, then it will be ok in our software.

10. NTP can't correct the time of cameras with onvif protocol.

It is due to the compatibility, please consider to set correct time zone in the IE interface of related IPC devices.

11. The remote playback is not normal when the system is doing the local playback.

It is normal, the program is designed like this. when playing back locally, the system doesn't allow remote playback to avoid the usage of CPU too high, also in case the speed of HDD is not so enough that cause the loss of video clips.

12. Calculate the Hard Disk Size after creating the RAID

RAID5: Please choose the smallest Hard Disk of every RAID group, then multiply by total amount of Hard Disk minus 1

RAID6: Please choose the smallest Hard Disk of every RAID group, then multiply by total amount of Hard Disk minus 2

13. Something about cellphone app

Please search "NVSS Client" from Google market for Andriod phone; For iPhone users, please download it from App Store; NVSS Client support two kinds of ways to connect: TCP and P2P.

14.The used mSata card is used on a new motherboard, but there is still old cameras informaton showing in playback list. I can't find the new one.

Please delete the file named Camera.ini in the path:/usr/jstnvr/SetPara/Camara.ini. And then reboot the system.

15.The software is freezing and both the keyboard and mouse have no response

The OS is dead because of the video card driver,it can be solved if you use the motherboard with hardware watch dog like our company. If not, I suggest you to change a motherboard.

16.Some cameras in the software always disconnect.

please check the instant value in Camera Data Stream Statistics, if the Record Average Value is less than the one you set in cameras,we have reason to believe that the issue is caused by network. Especially, when the total instant value is not more than 100Mbps, but in fact it should be 200Mbps or 300Mbps, it must be caused by network.the bad network may be caused by crystal head and cable quality. Normally, 100M just need to connect with 2345 line, but 1000M need to connect 8 lines and must make sure line connectivity. but many self-adaption switch don't need to make sure the 8 lines are line connectivity, it just looks like line connectivity, but in fact it is not more than 100M.

17.If you are prompted with “called runscript when not marked in progress” when installing the cmsClient software under Win10 operating system,please do the following steps to solve the problem:

1. In the taskbar below the computer desktop, right-click to find the task manager and get into it;
2. Click the details to find the Windows file explorer (explorer.exe) and right-click to end the task;
- 3.Click the "File" on the top left of the task manager,and then click the button "run the new task";
- 4.In the pop-up dialog box,click the button "Browse" to find the path "System > Windows> explore.exe" .
5. Select the "explorer.exe" file and then right-click, select "run as administrator" to complete the operation.
- 6.You can install the software after finishing the above operations.