NVSS6XXX system

USER’ S GUIDE
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Chapter1 Guide

Setup1:

By default, when you connect the device to the monitor, insert the mouse and connect the power cable, press the ON/OFF button, the Guide Interface will be showed automatically as pic1-1.

The Guide setup can lead you to setup some important setting of the NVSS. You can setup the system language at this page.

If you don’t want to use the Guide setup at that moment, please click the Cancel button. You can also choose to use it next time by checking the “Start Up When Power On” checkout.

It is worth nothing that if it is your first time to open the NVSS system, you should not cancel the guide, because you can finish the network settings in the guide to help your register your system in the interface of register after the guide.

Setup2:

Click Next button to continue the Guide setup, you will enter the Login window as pic1-2.
The default username and password is **admin**, you have to input the username and password to login in the system. You can also change the password by checking the “Modify Password” checkbox.

**Note:**
1. For security reason, please modify password after your first login.
2. You have to input the new password for twice correctly, then the new password will be valid.

**Setup3:**

Click **Next** button to continue. You can modify the system Timezone, system Date and Time in this Interface, showed as pic1-3.
**Note:**

In general, please do not modify the system date, because if you do this, the system will not be started successfully when you start it next time, if you have done so, you must restart the NVSS system and enter the BIOS to modify the system date, for the specific steps, please refer to the Appendix A for details.

**Setup4:**

Click **Next** to continue, you will enter the network setup as pic 1-4. Please input the correct IP Address, Mask Address, Gateway Address, and DNS Server.

Click **OK** to complete the startup Setup Wizard.
Chapter 2 Main Interface


2.1 Device Management

pic2-1
The main function of the NVSS is to connect the network cameras and record the video. So, before you can get a live view or record of the video, you should add the network cameras to the connection list of the device first, showed as pic2-1.

There are three ways to go into the device management to add IPC: select the Add Device of context menu; select the Device of the Main menu; click the button in toolbar panel.

The Device Management include add IP devices to NVSS system, modify or delete IP devices from NVSS system and IPC search. For resource limitation, you can add max 64 channel 1080P(1920*1080) IP cameras, including DVS / DVR and NVR.

Now our NVSS supports the following types of IP products: DG Series IPC, DH Series IPC, DK Series IPC, DT Series IPC, DX Series IPC, NV Series IPC, DZ Series IPC, ONVIF Protocol IPC.

2.1.1 Add IP Device

1. Add IP Device manually

Press the button, it will pop up a sub window, showed as pic2-1-1(a), you can add an IP Camera manually:

![Add Device](pic2-1-1(a))

**Server Name** Set a name for the new IP camera, the server name you set will be showed as camera name at the preview channel.

**IP Address** Input the IP address of the camera, it is an IP address or IP alias of an IP camera which is connected through DNS Server.

**Connect Port** Set the port through which connects to IP Camera.

**Login User's ID/Login Password** When the user want to visit IP Camera and the server has used the function of rights management, login user ID and password will be checked. If the user has no right to visit that camera, the connection will be cut down automatically.
【Device's Type】 Select the corresponding type for the IP camera. Now our NVSS system supports the following types of IP products: NV Series IPC, DH Series IPC, DT Series IPC, DG Series IPC, DK Series IPC, DX Series IPC, DZ Series IPC, ONVIF IPC.

【Stream Type】 Select Main-stream, sub-stream or double stream for the 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. Cameras】 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 max is 32 channels.

Note: The NVSS will allow users to add the PC Based Hybrid NDVR software system as an IP device from this version, but has the following limitations:
1). Max. 32 channels can be added, beyond channels will not display / record;
2). Max. 16 alarm inputs, beyond alarms will not be dealt with;
3). Max. 16 alarm outputs, beyond alarms will not be dealt with;
4). Max. 16 alarm channels can be dealt with;
5). Not support NV boards system (can’t preview or record / playback);
2. Auto Search and Add Device

Press the button, you will see the following interface.

**【Adapter IP Address】** Our NVSS system has two network adapters, please select one which you want to search firstly. The adapter’s IP address has been set in the guide.

**【Device Type】** Select the corresponding type for the IP camera. Now our NVSS system supports the following types of IP products: NV Series IPC, DH Series IPC, DT Series IPC, DG Series IPC, DK Series IPC, DX Series IPC, DZ Series IPC, ONVIF_V2.3 IPC.

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

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

2) **Name Device Customizable**: In this mode, please input the name which you want to set for the cameras into Customize Name blank.

**【Customize Name】** In *Name Device Customizable* mode, input the customize name for the series of IP cameras. Then the system will assign this name as a prefix for each IP camera of this series. E.g. input DT Series IPC, then the cameras will be named as:

- DT Series IPC_1
- DT Series IPC_2
DT Series IPC_3 etc..

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

【Stream Type】There are three types to select : main-stream, sub-stream and double stream for the devices.

【Connect Port】Set the port through which connects to IP Camera.

【Login User/Login Password】Please input the ID and password for the series of IP cameras, they will be checked by the IP cameras when the system is modifying their IP address and accessing them.

After the configuration are finished, press button to start auto search & add the devices, and press this button to stop. Showed as pic2-1-1(c).

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

3. Manual Search and Add Device

Press button to add IP device. Then you can see this interface, showed as pic2-1-1(d).
Our NVSS system has two network adapters, please select the "Adapter IP Address" which you want to search firstly. The adapter’s IP address has been set in the guide.

Then the system will display all the IP devices can be searched and connected. When there is a new IP device connected but you can’t find its IP address in the list, please press Update IP List button. Also, you can press Clear IP List to clear the IP devices from the list. You also can click to change the device's type to search different kinds of cameras.

You can set the server name, stream type, login user's ID, password, IP address, mask address, gateway address and connect port according to your own needs, click button to add the device into NVSS system. If IP address repeated, add the first to system only.

You can also sequence the searched IPC by clicking the head of any column.

**Note:**

1. For searching DH Series IP cameras, users have to connect them to switches under a router, and connect the router to one network port of the NVSS. 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.

2. Please select different Adapter IP Address to search cameras under different routers connected in different network port of NVSS.

3. 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 NVSS.

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2.1.2 Modify IP camera

Press Modify Camera button to modify IP camera information, the interface is the same as Add IP Camera, showed as pic2-1-1.

2.1.3 Delete IP camera device

Press Delete Camera button to delete a connected server.

2.2 Live View and Screen Menu

2.2.1 Live View

Live view shows the real-time video getting from the cameras. Users can setup the display split mode & camera in each window in the Preview Group Setting which will be introduced in the Screen Menu.

You can drag the camera in server list to any live view window in monitor 1 to preview its video. You also can scroll the mouse to magnify the selected image, eight times largest, in the magnified screen, you can long press the left mouse button and move to convert the perspective, if you want to restore the enlarged image, you should click the right mouse button.

The NVSS also support multiple display. it can support 3 monitors if your motherboard is SV6-B75A6 as pic2-1-1 shown, it can only support 2 monitors when your motherboard is GA-B75-D3V as pic2-1-2 shown.

The motherboard is SV6-B75A6:

![pic2-1-1]

The motherboard is GA-B75-D3V:
2.2.2 Screen Menu

User can Single-Right-Click image area to pop up the screen menu, showed as pic2-2:

1. Main Menu

Single right click Main Menu, the system will pop up the sub window, showed as pic2-2-1. There are 8 icons: System Setting, Channel Setting, Device Management, Playback, Backup, HDD Management, Lock Screen(ON/OFF) and Power Management. You can move the mouse to highlight the icon, then click mouse to enter the sub-menu.
Note:
If you disabled the "Local Password" in "System Setting-->User Management", the icon would be hidden.

2. Split View

Move your mouse to highlight Split View, it will pop up the sub menu, showed as pic2-2-2, you can select the window split mode in the pop-up menu.

3. Group view & Setting

a. Group view

You can single click Group View & Setting, it will pop up the sub menu, showed as pic2-2-3(a), you can step into the Preview Group Setting to set and save the preview group, and you can also save the current preview group of monitor 1 to
any group by clicking **Save the Current View as** like pic2-2-3(b) shown.

After you set and saved the preview group, you can call any preview group by single clicking the group name as pic2-2-3(a) shown.

![pic2-2-3(a)](image)

**b. Preview Group Setting**

You can step in the **Preview Group Setting** sub window, showed as pic2-2-3(c).

![pic2-2-3(b)](image)

---It will list all the servers & cameras connected to the system, and when your mouse stop above the camera name, you will see the detail information of the camera. You can drag any cameras in device list to any display window. If you
want to cancel the display of one camera in one window, you can double click it to remove.

**Default Stream Type**
-- The default stream type can be selected between “Main Stream” and “Sub Stream”. If you select a default stream type in the drop-down list, each camera you dragged to the window will be displayed as the selected stream.

**Note:**
You can also change the stream type of each camera manually by modifying the **stream type** in each window.

**Monitor**
-- The system can connect 3 monitors in the meantime, you can select any one to setup its preview group. If there is only one monitor, this option would be not selectable.

**Group**
-- You can select a group from the drop-down list to setup, support maximum 16 groups.

**System Start Display Group**
-- Check the box of any preview group, then the system will display this group automatically when the NVSS startup next time.

**Interval**
-- Users can drag several cameras into the same window to do sequence, and you can set the display interval as 5, 10, 15 and 20 seconds etc. from
When the NVSS system start without recognizing other monitors, you can press this button to enable expand mode, it may be possible to fix the problem, after enable this function, restart the system to take effect.

4. Preview Channel Management

Select a video window and single right click on main interface and choose the Preview Channel Management, it will pop up the sub menu, showed as pic2-2-4.

![pic2-2-4](image)

- **Full Screen**: make the live view area full screen;
- **Capture image**: capture image of the selected window;
- **Hide Video Title**: hide the selected window’s video title;
- **Close video window**: close display of the selected window’s video;
- **Hide All Video Title**: hide the all video’s title;
- **Show All Video Title**: display the all video’s title;
- **Close All Preview Widow**: close all video preview.

5. Instant Playback

User can Single-Right-Click image area to pop up the screen menu, select Instant Playback. Showed as pic2-2-5(a).
After that, choose a time from the submenu. Users can select last 10 seconds, 30 seconds, 1 minute, 3 minutes, 5 minutes, 8 minutes to playback. And then system will playback video data of current camera according to your selection (E.g.: you select 1 min, system will play back previous 1 minute video data of current camera). Showed as pic2-2-5(b).

---press this button to select the channel which you want to check instantly records, 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, showed as pic2-2-5(c). The size of the image is resolution of the video be played;

--press this button to jump to the previous 30 seconds video to continue the playback;

--press this button to jump to the next 30 seconds video to continue the playback;

--press this button to exit the instant playback.

6. Layout Management

You can manage the layout in Layout Management setting.

Load the Default Interface: Default interface is showed as pic2;

Load the Classical Interface: Classical interface only shows video in full screen mode;

Show Control Panel: You can check (uncheck) to display (hide) the control panel;

Show ToolBar Panel: You can check (uncheck) to display (hide) the toolbar panel;

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

7. Others
Camera Data Stream Statistics: It will pop up sub window, showed as pic2-2-6(b), there are 4 columns Server Name, Instant Value, Record Average Value and Record Loss. They show the instant data value / Average data value / accounts of the lost data package for corresponding cameras. Record loss will cause the video to jump when playback.

Log Search: It will pop up the Log Search sub menu, showed as pic2-2-6(c). There are three log contents: IPC Alarm, Local Operation and Exception. You can filter the log by the three contents and its filter parameter.
Export system parameters: It will pop up the Export System Parameters shown as the following picture. Just please input the file name and click the button Export, the parameters of the system has been exported to the selected USB flash disk.

<table>
<thead>
<tr>
<th>Time</th>
<th>Log Content</th>
<th>Filter Parameter</th>
<th>Server Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-08-22 16:43:36</td>
<td>Exception Server Disconnect</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>2013-08-22 16:43:45</td>
<td>Exception Server Disconnect</td>
<td>216</td>
<td></td>
</tr>
<tr>
<td>2013-08-22 16:43:54</td>
<td>Exception Server Disconnect</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>2013-08-22 16:44:03</td>
<td>Exception Server Disconnect</td>
<td>192.168.0.010</td>
<td></td>
</tr>
<tr>
<td>2013-08-22 16:44:12</td>
<td>Exception Server Disconnect</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>2013-08-22 16:44:21</td>
<td>Exception Server Disconnect</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>2013-08-22 16:44:30</td>
<td>Exception Server Disconnect</td>
<td>192.168.0.1333333</td>
<td></td>
</tr>
</tbody>
</table>

Import system parameters: It will pop up the Import System Parameters interface as shown blow. Just select the file you want to import and click the button Import, you can import the parameters what you want.

Synergy configuration: It will pop up the synergy configuration interface. You can share your multiple NVSS on your the server's desktop just move your mouse off the edge of one NVSS screen on to another.
a. Configure a server

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

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

Once you have added a client to your grid, it will have the name "Unnamed". Double click the icon to change its name to the name of your client, you can find or modify the client name by clicking its "Setting". You can add every client which you want to add by repeating the process.
b. Configure a client

After you've configured your server, you need to connect each client to the server. In the "Server IP" text box, enter the IP address of the server.

![Synergy interface]

**Restart the Synergy:** you can restart the synergy by click this item.

**About Register:** you can get the device's S/N and IPC License Number, showed as pic2-2-6(e). You can also upgrade by pressing “Upgrade” button to upgrade the license number of the system.

![Registration Information]

pic2-2-6(e)

8. Add Device

When you single click the Add Device, it will pop up the **Device Management**, 26
showed as pic2-1. You can add, modify, delete and search IPC in the sub window.

9. Manual Record

Users can start or stop the manual record function by selecting Manual Record.

10. POS Function

Firstly, users should enable “POS Function” in system setting. Showed as pic2-2-10(a).

![System Setting](image)

pic2-2-10(a)

Then open POS function setup interface by clicking “POS Function” in screen menu. Showed as pic2-2-10(b).
At first, you should select the POS Setup in screen menu, showed as pic1-1(b), press button, then you will enter the interface of POS 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
All available Com ports are listed in tree view. Select the COM Port that you like.

**Device**: Select the Device 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**: Then choose the Associated Camera/Cameras by pressing button. Showed as pic2-2-10(d).

--This status of channel means it be selected by other COM or LAN.
There are LAN for you to connect the pos, you can set a lot of LAN at the same time if it is necessary, the max is 32.

**Device:** Select the device 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:** Then choose the Associated Camera/Cameras by pressing button. Showed as pic2-2-10(f).
---This status of channel means it be selected by other LAN or COM.

This status of channel means it be selected by current LAN.

Press button on the Connect interface, if system popup a window, that is to say, the connection is OK.

When text data is sent from POS, the data will be shown on the window, showed as pic2-2-10(g), user can press button to begin saving and press it again to end saving. Press button to exit.

c. Camera Setup
Firstly, choose camera number that you want in list.

**Text Position:** Set the position of text. Default is set to upper left of the screen. As number increases, text will be displayed farther from the top.

**Text delay time:** Set time (sec 3-8) for text to stay on screen.

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

**Font Color:** Set the color of the font by setting the different value of RGB.

**Copy to:** Users can copy the current setup to other channels. It can copy to someone or all devices.

### 2. Data Filter Setup

Press button and select the device (you want to set, such as Comcash POS System) to set pos text filter rule:

a. Line Break
Set a rule for separating each line.

**Priority:** Default priority 1, user can’t modify it.

**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.

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 (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.
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 (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.

d. Invalid

![POS function setup](image)

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.

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

Press this button and open device setup interface, showed as pic2-2-10(i), user can add/delete device in the left list.

Press \[\text{New}\] button, system will add a device named \textit{New}.
Device”, user can single-left-click to select it and again to change its name as you like.

After that, user can press the arrow in the middle to add them to the available list on the right side.

- Pos Monitor

Click button to enter POS Monitor. All connection details display on table, showed as pic2-2-10(j).

![POS Monitor](image)

**pic2-2-10(o)**

1. Parameter Setup

Click button. The interface is be showed as pic2-2-10(k).

**Max show record count:** The toolbar can set the POS Record Count to be displayed. The max count is 1000.

**Playback setup:** Users can set forward time and back time for playback in this toolbar.
2. Filter Setup

User can set the POS Field Filter in this interface. Showed as pic2-2-10(l).

**Keyword:** Users can set keyword here, such as CASH.

**Color:** Set the color for the keyword that you set.

**Only work between:** Set the work 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 screen. Showed as pic2-2-10(m).

**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 message. Showed as pic2-2-10(n).

**Enable email:** Users can click the check box to enable it, when the keyword appeared, it will send email automatically.
Select a record and double-click it. It will popup one window to play video. The window is showed as below:

![POS Playback](image)

The left side of window will display the image of camera, the right side of window will display the text, you also can show the text on the image of one camera by checking the **Show text**.

The video will display the period bases on the Forward time and Back time which be set in parameter setup.

- **POS Playback**

  Click **POS Playback** in screen menu to enter multi-channel POS playback page, showed as below:

  At first, select one event type to search.
  Then, select the date, you can select the year, month and day which you want to search. The yellow days means it has records, you can click the yellow date to select the assigned period as **pic2-2-10(u)** shown.

  **Forward Time**: set the forward time of the video.
  **Backward Time**: set the backward time of the video.

  You can search as many as four channels together in several days. After one window is selected via clicking the black window on the right, you can double click the camera in the frame to display its video and text. You can display any camera in any window as **pic2-2-10(v)** shown.
Channel: Select one channel to playback its pos data;
Show Text: when you check-in, it will show pos text on the playback window;
Filter: It based on the keyword filtering and search the content that including the keyword, you can also input any word you want to filter.

- 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. You can check the picture in the local playback.

11. Video Analysis Function（Not available for Baytrail series）

After you enter the system setting to enable the video analysis function, showed
as pic2-2-11(a) shown.
Then you can single right click to enter the interface of video analysis setting.
Showed as pic 2-2-11(b) shown.

![Video Analysis Setting](image)

**Video Analysis**

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

**Notes:**
You can only select Video Analysis Function from the drop-down list by checking the **Choose analysis function**.

**a. Parameters Introduction**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td><strong>Image Scale</strong>&lt;br&gt;<img src="image" alt="Image Scale" /> 1</td>
</tr>
<tr>
<td></td>
<td>The image scale bar is used 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<em>768, you set the image scale as 2, then the length and width will be shrunk to 1/2 of original resolution, about 512</em>384 for detection. It is 1 by default.</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td><strong>Sensitivity</strong>&lt;br&gt;<img src="image" alt="Sensitivity" /></td>
</tr>
<tr>
<td></td>
<td>The sensitivity bar is used to adjust the sensitivity of the area you selected. The lower the value, the more sensitive the system. It is 10 by default.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td><strong>Volume ratio</strong></td>
</tr>
<tr>
<td><strong>4</strong></td>
<td><strong>Sub grid ratio</strong></td>
</tr>
<tr>
<td><strong>5</strong></td>
<td><strong>Duration time</strong></td>
</tr>
<tr>
<td><strong>6</strong></td>
<td><strong>Minimum size</strong></td>
</tr>
<tr>
<td><strong>7</strong></td>
<td><strong>Maximum size</strong></td>
</tr>
<tr>
<td><strong>8</strong></td>
<td><strong>Angle</strong></td>
</tr>
<tr>
<td><strong>9</strong></td>
<td><strong>Pixel offset</strong></td>
</tr>
<tr>
<td>9</td>
<td><strong>Mode</strong></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>10</td>
<td><strong>Movement Speed</strong>&lt;br&gt;Fast&lt;br&gt;Movement speed&lt;br&gt;Slow</td>
</tr>
<tr>
<td>11</td>
<td><strong>Schedule</strong></td>
</tr>
<tr>
<td>12</td>
<td><strong>Trigger alarm out</strong>&lt;br&gt;Enable the software to trigger an alarm output.&lt;br&gt;Click the button to assign output device.</td>
</tr>
<tr>
<td>13</td>
<td><strong>Display the detection zone in live image</strong>&lt;br&gt;You can display the detection zone in live image by checking “V” in</td>
</tr>
</tbody>
</table>
b. Unattended Object Detection

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

1. Click and select Unattended Object 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 as you like and you can draw several detection zones.

3. You can delete the detection zone by clicking the button.

4. Setup the suitable Image Scale, Sensitivity, Volume Ratio, Duration Time, it is suggested to keep the default value. (Reference: Parameters Introduction)

5. Choose Trigger Output for application. (Reference: Parameters Introduction)

6. Click the 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 the 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 filed and other high-risk fields.

**Note:**

You can also stop the alarm manually by single-right-click its preview screen and
c. Missing Object Detection

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

1. Click and select Missing Object 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 as you like and you can draw several detection zones.
3. You can delete the detection zone by clicking the button.
4. Setup the suitable Image Scale, Sensitivity, Volume Ratio, Duration Time, it is suggested to keep the default value. (Reference: Parameters Introduction)
5. Choose Trigger Output for application. (Reference: Parameters Introduction)
6. Click the 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 the 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.

**d. Movement Direction Detection**

![Image of Movement direction detection](image)

To detect movement direction within the camera view, follow the steps below:

1. Click ![Choose analysis function](image) and select Movement Direction Detection from the drop-down list.

2. Click the ![Start draw detection zone](image) 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 as you like and you can draw several detection zones.

3. You can delete the detection zone by clicking the ![Delete detection zone](image) button.

4. Setup the suitable Image Scale, Sensitivity, Volume Ratio, Duration Time, it is suggested to keep the default value. (Reference: Parameters Introduction)

5. Choose Trigger Output for application. (Reference: Parameters Introduction)

6. Click the ![Start](image) button to start the function.

7. If you have modified the parameters, please click the ![Apply](image) button to save them.

   When any object appear in the detection zone, move 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 movement direction alarm in system Log for later retrieval.

**Notes:**

In live image, the Red box meaning there are alarm objects in detection zone, green box meaning there are objects in detection zone.

**Application:** Applied in road and other places which allow one-way movement.
**e. Intrusion Detection**

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

1. Click the [Choose analysis function] button and select Intrusion Detection from the drop-down list.

2. 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 as you like and you can draw several detection zones.

3. You can delete the detection zone by clicking the [Delete detection zone] button.

4. Setup the suitable Image Scale, Sensitivity, Volume Ratio, Duration Time, it is suggested to keep the default value. (Reference: Parameters Introduction)

5. Choose Trigger Output for application. (Reference: Parameters Introduction)

6. Click the [Start] button to start the function.

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

When any object intrude 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.

**f. Tripwire Detection**
To detect tripwire within the camera view, 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 as you like and you can draw several detection zones.

3. You can delete the detection zone by clicking the button.

4. Click the button draw tripwire, only the last draw tripwire is available.

5. 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. Only the last draw direction is available.

6. Setup the suitable image scale, sensitivity, minimum size, maximum size, angle, minimum offset. It is suggested to keep the default value. (Reference: Parameters Introduction)

7. Choose Trigger Output for application. (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.

When any object step on the tripwire and move 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.

### 7. Face Detection

**pic Face detection**

To detect face within the camera view, follow the steps below:

1. Click and select Face 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 as you like and you can draw several detection zones.
3. You can delete the detection zone by clicking the button.
4. Setup the suitable Image Scale, Sensitivity, Volume Ratio, Duration Time, it is suggested to keep the default value. (Reference: Parameters Introduction)
5. Choose Trigger Output for application. (Reference: Parameters Introduction)
6. Click the button to start the function.
7. If you have modified the parameters, please click the button to save them.

When people appear in the detection zone, the face detection works and detects and records human faces. Then the thumbnail images will appear on the live image.

**Notes:**

1. Face contour must be clearly seen, especially the eyes.
2. If you wearing sunglasses or black box glasses, it may influence face detection accuracy.
3. If you look at the camera like this, then the software can recognize the face. But if you look at an angle, like 45 degrees, then the software can not recognize the face.

**Application:** Applied in the entrance guard system, bank and other places which need record the people’s faces.

8. Object Counting

![Object counting](image)

To count object within the camera view, 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 as you like and you can draw several detection zones.
3. You can delete the detection zone by clicking the button.
4. Click the button draw tripwire, only the last draw tripwire is available.
5. 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. Only the last draw direction is available.

6. Setup the suitable image scale, sensitivity, minimum size, maximum size, angle, minimum offset. It is suggested to keep the default value. (Reference: Parameters Introduction)

7. Choose Trigger Output for application. (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 appears in the detection zone, step on the tripwire and moves along the direction of the arrow, it will be counted as 1 out, when an object appears in the detection zone, step on the tripwire and moves reverse direction of the arrow, it will be counted as 1 in.

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

- **Motion Detection**

![Image](pic2-2-11(c))

---start all devices’ motion detection for smart search.
You can enter the motion detection parameter setting interface by checking the "Enable local motion alarm" box, the specific interface is showed as pic2-2-11(d).

### ① Parameters Introduction

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Volume ratio</strong></td>
<td><strong>The volume ratio bar is used 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%</strong>.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Sensitivity</strong></td>
<td><strong>The sensitivity value bar is used to adjust the sensitivity of the area you selected. The lower the value the more sensitive the system. The default value is 10.</strong></td>
</tr>
<tr>
<td>3</td>
<td><strong>Sub grid ratio</strong></td>
<td><strong>The pixel with motion area/the pixel unit, it is similar to the volume ratio, its detection area is smaller. The default value is 10%.</strong></td>
</tr>
</tbody>
</table>

### ② Motion Detection Setting

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

1. 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 as you like and you can draw several detection zones.

2. You can delete the detection zone by clicking the button.

3. You can click the button to choose the full screen as the detection zone.

4. Setup the suitable sensitivity, volume ratio, it is suggested to keep the default value. (Reference: Parameters Introduction)

5. Click the button to start monitoring for the application.

6. If you have modified the parameters, you shall click the button to save them.

7. Check-in to disable motion alarm from IP devices.

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

**Video Analysis Playback**

Click “Video Analysis Playback” option in screen menu to enter multi-channel video analysis playback page.

At first, select one event type to search from the drop-list. Secondly, select the date, you can select the year, month and day which you want to search. The yellow days means it has records, you can click the yellow date to select the assigned period as pic2-2-11(e) shown.

**Forward Time:** set the forward time of the video.

**Backward Time:** set the 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 as pic 2-2-11(f) shown. You can double click the face photo to playback.

If you select “Smart search” as event type, you can the interface as pic 2-2-11(g) shown. 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.

Note:

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

12. Lock Screen

Users can lock the Screen by selecting Lock Screen. Then you have to input the ID and password to unlock the screen.
2.3 Information Panel

This panel shows product's logo, current date, current system time, CPU occupancy rate, the information about HDD as pic2-3 shown.

The color of CPU percentage would be changed according to its value. 0-70% the text color would be [23]; 70-80% the text color would be [24]; 80-90% the text color would be [25]; 90-100% the text color would be [26].

You will get the SN, the used percentage and its record begin, end time of each HDD, when the mouse move closely or stop above the flag. It would be added one more flag when the added HDD has been formatted and mounted, you can also get the HDD status from the flag.

HDD status:

- 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 used, but it is not 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 unmount the HDD which is writing or formatting, it would cause bad track and damage its file system.
3. You need wait for about 20 seconds before see the HDD icon when you inset one new HDD.
2.4 Control Panel

2.4.1 Sever List

All the connected IP devices will be showed in the Sever List, showed as pic2-4-1. Users can get the detailed connection information when the mouse stops above the device flag.

You can also know the connection and recording status about the server from its server and recording flag.

Server status:
- The IPC connected successfully;
- The IPC connected failed;
- The NVR/DVR connected successfully;
- The NVR/DVR connected failed.

Recording status:
- The camera is recording continuously;
- The camera is recording manually;
- The camera is recording in motion detection alarm;
- The camera is recording in event alarm.
Users can preview any video of the server list by dragging the camera to any live view window. The drop-down box gives the choice of main stream or sub stream for the preview of the camera.

-- you can open the all connected cameras' sub stream or 8 channels main stream by clicking this button.
-- you can close the all preview camera by clicking this button.

2.4.2 Color/Audio Adjust

The detailed function of each button:

- Drag the white and small button to adjust the brightness of the image which you selected, click this button will resume its default value;
- Drag the white and small button to adjust the contrast of the image which you selected, click this button will resume its default value;
- Drag the white and small button to adjust the hue of the image which you selected, click this button will resume its default value;
- Drag the white and small button to adjust the saturation of the image which you selected, click this button will resume its default value;
-- Drag the white and small button to adjust the volume, click this button will turn off the audio.

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

2.4.3 PTZ Control

![PTZ Control](pic2-4-3)

The detailed function of each button:

-- Please set the presets for the cameras in Channel Setting, then you can select the camera and press this button, it will pop up this menu for you to call a preset or tour group of the selected camera.

**Note:**

Only when you selected the video is dragged to the live view directly from the Server List, you can control the PTZ in the main interface; video set in preview group can’t be controlled.

-- Users can drag the slider bar to adjust the speed of PTZ. Its range is from 1 to 255, the bigger number the faster speed.

-- Zoom function of the PTZ camera control.

--Overrides the PTZ cameras auto-iris and brighten or darken the image.
-- Auto-focus setup of the PTZ camera overrides, adjusted to focus the image.

-- you can move up, down, left, right as well as other directions by pressing and holding these buttons.

-- Users can press this button to start the selected PTZ camera to do an automatic tour of 360, but for speed dome, many PTZ factorizes forbid this command.

2.4.4 DI/DO Control

Users can get the name of DI/DO when the mouse stops above the number button, showed as pic2-4-4.

Users can set the DO status in Channel Setting. When there is no alarm triggered out, users can press the number button to output alarm forcibly and the button will turn to blue. Press it again, the output will be closed and the button will turn back.

**The status of DI:**

1 -- Input channel 1 has no alarm input.

2 -- Input channel 1 has an alarm input.

**The status of DO:**

1 -- Input channel 1 has no alarm output.

2 -- Input channel 1 has an alarm output.
2.5 Toolbar Panel

1. Split view

Press \[\text{button}\] to set the window’s partition mode of the main screen. There are many types of partitions, showed as pic2-5-1:

![Partition Types](pic2-5-1)

2. System Setting

Press \[\text{button}\] to enter the **System Setting** window, please refer to **Chapter3** for details.

3. Playback

Press \[\text{button}\] to enter **Playback** submenu to search local video/audio data. You can get the detailed information from **Chapter4**.
4. **Group view&Setting**

   Press button to enter **Preview Group setting** to set preview group; choose the group which you want to view; and save the current view in monitor 1 to any preview group. When you press this button, it will pop up a submenu, showed as pic2-5-2.

![pic2-5-2]

5. **Manual Record**

   Press button to record manually and press it again to stop manual recording for all cameras. The record status will change to when you start manual record.

6. **Capture**

   Press button to grab a picture of a selected camera to local hard disk, you can view and download the capture picture in the capture picture and view of playback.

   **Note:**

   If the size of all the captured pictures beyond 2G, it would delete about half of them to save new one.

7. **Channel Setting**

   Press button to enter **Channel Setting** window.

8. **Device management**
Press button to enter Device Management sub window.

9. Lock NVSS (ON/OFF)

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

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

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

Note:

If you disabled the local password, the button would be hidden.

10. Power

Press button to enter the power management submenu, when you press this button, it will pop up this window, showed as pic2-5-4.

You can logout, restart or shutdown this system in the sub window.
Note:
If the buffer of data is writing to the HDD, it will spend a little more time to shut-down the system.

2.6 Log Panel

<table>
<thead>
<tr>
<th>Time</th>
<th>Log Content</th>
<th>Filter Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014/02/19 10:25:04</td>
<td>Local Operation</td>
<td>Login</td>
</tr>
<tr>
<td>2014/02/19 10:24:58</td>
<td>IPC Alarm</td>
<td>Sensor Alarm</td>
</tr>
<tr>
<td>2014/02/19 10:24:56</td>
<td>Exception</td>
<td>Restart</td>
</tr>
</tbody>
</table>

All the real-time log information will be displayed in the log panel. showed as pic2-6.
Users can search all logs in Log search. Users can also set different color for different log information in the Log Color setting.
Chapter 3 System Setting

The NVSS System Setting includes 5 partitions: General Setting, Network Setting, Record Schedule Setting, Log Color Setting, Exception Setting, and User Management.

3.1 General Setting

3.1.1 General Setting

【Language】 Display the current system language, users can also choose the other language in the drop-down box.

【Timezone】 Display the current system timezone, users can also modify it according to your requirement.

【Display Resolution】 Display the current system display resolution, the software will adjust its display resolution according to the monitor’s resolution. You can also choose other resolution which the monitor supports in the drop-down box.

【Date Format】 Display the current date format. You can also change it, there
are three modes YYYY-MM-DD, MM-DD-YYYY, DD-MM-YYYY. It decides the
date display mode of system, including the information panel on the main interface.

【System Date】 Display the current system date. You can also change the date
here.

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

【Enable the Wizard】 Enable or disable the wizard when the system starts up.
【Enable POS Function】 Enable or disable the POS function.
【Enable Video Analysis Function】 Enable or disable the video analysis
function.

【Device Name】 Display the name of NVSS.
【Device ID】 Display the ID of NVSS.
【System Version】 Display the system version.
【Software Version】 Display the software version.

3.1.2 NTP Setting

【Enable NTP】 Enable or disable the NTP.
【Timezone】 Select one timezone that you want.
【Server Mode】Two kinds of modes: Default and Custom.
【NTP Server】The default NTP server IP address is 128.138.141.172, you also can set other NTP server addresses after you select “custom” mode in server mode.

3.1.3 Reboot Setting

【Reboot】You can enable the reboot function by checking the Reboot checkbox, or unchecking to disable it.
【Reboot At】Set auto-reboot date here.
【Reboot Time】Set auto-reboot time here.

3.2 Network Setting

3.2.1 Network Setting
There are two network adapters on the motherboard, you can choose one network adapter and configure it. You can set one for IP video input and the other for transferring video to clients, you can get the detailed setup from Dual Network Adapters IP Surveillance Solution.

【DHCP】 Enable this function by checking the box, and the NVSS will then get an IP address automatically.

【IP Address】 If you don’t use the function of DHCP, please setup the IP address here.

【Mask Address】 Please input the mask address, actually it can get the correctly mask address automatically.

【Gateway Address】 Please input the correctly gateway address here.

【MAC Address】 Display the mac address of the configuring network adapter.

【Preferred DNS Server】 You need input the Preferred DNS Server here when the NVSS is connected under a router.

【Alternate DNS Server】 You can input the address of alternate 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 server, you can modify it here.

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

3.2.2 Email Setting
【SMPT Server】 SMTP server address, e.g.: mail.jstHybridNDVR.com.
【SMPT Port】 SMTP listening port for connect request.
【Login User ID】 The ID of mailbox.
【Login Password】 The password of Mailbox.
【Auth. Type】 Login mailbox, operator should select SMTP authentic type. Or select “simple login”.
【SSL Security】 Security protocol for Mailbox.
【Email Title】 Enter title of the E-Mail 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】 You can select whether send an attachment of the E-mail or not.

When the setup is finished, user can press to test the function.
3.3 Record Schedule Setting

<table>
<thead>
<tr>
<th>Camera Name</th>
<th>94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Event Record</td>
<td>3</td>
</tr>
<tr>
<td>Post Record Time</td>
<td>3</td>
</tr>
<tr>
<td>Record Sub Stream</td>
<td>Disable</td>
</tr>
</tbody>
</table>

**Copy to: All**

**Record Schedule Setup**

- **Camera Name**: Select the cameras that you want to set.
- **Pre-Event Record**: Select the pre-event record time for alarm record, when there is an alarm, the NVSS will record video seconds earlier than the alarm is triggered.
- **Post Record Time**: Select the post record time for alarm record, when there is an alarm, the NVSS will record video seconds later after the alarm ended.
- **Record Sub Stream**: Select to enable / disable record sub stream, if you select enable, you can view the sub stream in clients.
- **Copy to**: Select the cameras you want to copy to, and press the button to paste the same record schedule to the selected camera.

---

**Pic3-3**

- **Camera Name**: Select the cameras that you want to set.
- **Pre-Event Record**: Select the pre-event record time for alarm record, when there is an alarm, the NVSS will record video seconds earlier than the alarm is triggered.
- **Post Record Time**: Select the post record time for alarm record, when there is an alarm, the NVSS will record video seconds later after the alarm ended.
- **Record Sub Stream**: Select to enable / disable record sub stream, if you select enable, you can view the sub stream in clients.
- **Copy to**: Select the cameras you want to copy to, and press the button to paste the same record schedule to the selected camera.
Note:

One block of pane means half an hour. Firstly, click record mode icon, then click schedule diagram, hold down the mouse and move it to select large area (Drag & Drop).

**The record mode:**

- -- Normal record, system will always record video;
- -- Sensor record, system will begin to record only when there is sensor alarm or POS data;
- -- Motion record, system will begin to record video only when it receives motion alarm from cameras;
- -- Motion or Alarm record, Combine with above 2 and 3 function;
- -- Normal&motion record, system records in motion when it receives motion alarm and in normal record when there is no motion;
- -- Not record, system records no video.

### 3.4 Log Color Setting
【Log Type】There are three types which you can set the text’s color. Including Alarm Information, Local Operation, Exception Information.

【Text Color】Users can set different color for different log type, when you press the button, a sub window will pop up, showed as pic3-4-1. You can select any color you like in the window.

![Color Selection Window]

Pic3-4-1

【Select Channel】You can select the all channel which connect to the system, or press the button to choose the channels you want to set their log color in the pop-up window, showed as pic3-4-2.
3.5 Exception Setting
【Exception Type】There are four types of exception types, it includes HDD Full, Reboot Exception, Record Exception, Device Disconnected.

【Audio Warning】Users can click the checkbox to enable audio warning, it will indicate the alarm with voice. Only you move the mouse in main interface, the buzzer sound will stop.

【Send Email】Users can click the checkbox to enable it, when exception happened, it will send email automatically.

Note:
In order to send email successfully here, please keep the network normally and users must have configured the email settings. For more detail information of the email setting, please query 3.3.2 Email Setting.

【Trigger Alarm Output】Users can click the checkbox to select to trigger all alarm outputs, you also can select output you want by pressing the button, showed as pic3-5-1.

![pic3-5-1](image)

The Device Disconnected exception can Select Cameras, showed as pic3-5-2.

![pic3-5-2](image)

you can select the channel you want to set by pressing the button, showed as pic3-5-3.
3.6 User Management

【ID】It displays the number of users.
【User Name】It displays the name of all users.
【Auth. Level】Display the level type of users.
【Local Password】Select “Enable” to enable User Manage mode for local NVSS, and activate the lock button in main window. Only authorized user can log into NVSS at User Manage Mode.

【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 NVSS
automatically.

【Network Password】Select “Enable” to enable User Manage mode for Client. When you enable this function, client must pass the authentication in order to connect the NVSS.

【Add New User】Click icon to add new user you edited to user list. It will pop up the sub window User Information, showed as pic3-6-1.

![User Information Window](pic3-6-1)

In the User Information window, you can input the new ID, select its user level type, set its password. The user rights include system setting, group view and setting, device management, power management, check the HDD information, backup, local DO control, layout management, check the camera data stream statistics, log search, import/export system configuration, synergy, upgrade register information, manual record, chat, display/hide video title, POS setup, POS monitor, Video analysis.

You can also set permission for each channel in the Channel Setting option, you can select the camera you want to set by pressing the button. The channel setting includes playback, capture picture, channel setting, preview video, PTZ control.

【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:**

1. Only the admin has the right to add or delete a user, the admin also has the right to manage the password for each user.
2. The admin’s default password is admin, only the admin ID can modify it. The other users except admin can only modify their own password.
Chapter 4 Playback

There are two ways to go into the Playback to search record data: select the Playback from the Main menu; or press the icon in the toolbar panel.

When you click the playback button, it will pop up the playback interface, showed as pic4. The default split view is four window views.

4.1 Select Date

Before you open the videos, the upper right of the playback interface is the date panel, it includes year, month, and the current date, showed as pic4-1-1. Users can select the date which they want to do playback.
Click the ➡️⬅️ to change month and year to search the data which you want.

In the process of playback, the first step is to select the date you want to playback, when they are selected, it will pop up the dialog box to select playback time, shown as pic4-1-2. You can just select any period to playback by dragging the mouse; double click to select the whole day; right-click to cancel the selected period.

The advantage of this feature displays in three aspects:
- It can reduce the search time
- It can be more accurate positioning
- When there are large amounts of the video data, it can reduce the possibility of packer loss caused by the search.

**Note:**
It would spent about 300s to search the whole day’s video data when the total recording video data stream is about 300M/s.

### 4.2 Select Record Type
Press the icon , you can check all records, press the icon when you only want to playback motion recording, other record will be filtered. Sensor, Manual buttons are the same.

If there is no record data of the selected record type, it will show like pic4-2-2.

Press the button, you can zoom in the time bar, and press the button to zoom out. Users also can scroll the mouse to zoom in / out the time bar.

After zoom in the time bar, press the button you can check the previous period records, and press the button you can check the next period records.

Press button or button to view the record data of other cameras.

4.3 Play Files and Related Operations

You can select the camera in server list to any live view window to preview its video. You also can scroll the mouse to magnify the selected image, eight times largest, if you want to restore the enlarged image, you should click the right mouse button.

--Press this button to set partition mode of playback windows, there are 1, 4, 9 and 16 splits;

--Press this button to open all playback windows in sequence according to the order of the cameras. When you start playing the records, the upper right of the interface will change to the interface like pic4-3 showed. This is the nine divided, others are similar. You can click the button for each window to select camera to play.
Note:
If you press this button after entered the playback interface, all the cameras will start to play from the first record data of the day. If you select a point of time on the time bar and press this button, then, all the cameras will start to play from the selected time point.

- Press this button to close all cameras;
- Press this button to play;
- Press this button to pause;
- Press this button to play next frame;

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

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

4.4 Backup

- Press this button to enter the backup interface, showed as pic4-4. You can also run the backup by pressing the icon in the main menu.
【Backup Camera】 Select the backup camera. Users can select more than one camera at one time.

【Select Begin Time】【Select End Time】 Select the begin time and end time to backup.

【Backup Data Size】 Show the size of the backup file for the selected cameras between the begin and end time. You can check the file’s value by pressing button to show the total value.

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

【Convert Quality】 Select among High, Default and Low.

Note:
1. Before back up, please make sure that you have inserted a flash disk with enough space.
2. The end time must later than the begin time.

4.5 Capture Picture and View

-- 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, showed as pic4-5-1. The size of the image is resolution of the video be played.
-- Click this button to enter the window of Picture View, showed as pic4-5-2.

-- Select the channel which you want to view its 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 unmount 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 the all pictures in the list.
-- Click this button to delete the selected pictures.

-- Click this button to exit the Picture View.

4.6 Icon Search

*Application:* This feature will be very useful when you are trying to look at someone / objects appeared in the camera, it will help you to overview the camera’s video for a long time of the day and quickly navigate to the moment the event happened.

-- Press this button to run the icon search function, showed as pic4-6.

![Image of Icon Search](image)

-- Select the camera you want in the drop list.

-- Set the I Frame interval number between each play window.

*Note:* Software accurate time according to the I Frame, when the I Frame Interval in the camera is the same as the camera’s fps, there should be 1 I Frame in 1 second, and the time between each video window will be the I Frame Interval set in
ICON Search. When the I Frame Interval in the camera is twice as the camera’s fps, there should be 1 I Frame in 2 seconds, and the time between each video window will be twice of the I Frame Interval set in ICON Search.

-- Set the begin time of searching the record.

Search -- Click this button to start the search.

Next -- Press this button to search the next records according to your last search result and the I Frame Interval

Play -- Select a video window and click this button to play the video.

Note: Software will not stop till you select another window.

Exit -- Press this button to exit this function to normal playback mode.
Chapter 5 Channel Setting

There are two ways to go into the Channel Setting: select Channel in Main menu; click the button in the toolbar panel.

The NVSS Channel Setting includes 7 partitions: Display Setting, Video Setting, Motion Detection, Privacy Mask, Alarm Input Setting, PTZ Setting and Linkage Setting.

You can check and modify any camera’s setup in the window by selecting the camera in the drop-down list of Select Device column.

5.1 Display Setting

【Channel NO.】 It displays the channel number of selected device. Users can also select the camera you want to set from the drop-down list.

【Channel Name】 It displays the name of the selected channel.

Note:
1. If the selected device is an IPC, its Channel NO. and Channel Name are the same.
2. The channel name of multi-NVR should be set in the device’s IE client, it can’t be modify in the Channel Setting.

【Brightness】 【Contrast】 【Hue】 【Saturation】 Users can set the image parameters by dragging the label, the value range from 0 to 100. you can also press the button to restore the initial image parameter.

OSD — you can configure the OSD setting by clicking the checkbox or cancel
the OSD by unchecking.

【Display Name】【Display Date】【Display Week】Users can display these parameters by clicking their checkbox or cancel them by unchecking.

【Time Format】【Date Format】Users can select the time format and date format in the drop-list.

【Copy settings to other channel of this device】After finishing one channel, if you want to set any other channels’ configuration of this device as the same as this channel, you can select channel number from drop-list, and press Copy button to copy it.

【Copy settings to other same type devices】After finishing one camera, if you want to set the same configuration to other cameras which are same types, you can select the devices number from drop-list, or select all to finish configuration copy by pressing the Copy button.

Click the Apply&Save button to apply the settings. Users can also press the Refresh button to see the result.

5.2 Video Setting

![Video Setting Table](pic5-2)

【Stream Type】It shows the steam type of each column.

【Resolution】Set the main stream resolution (The NVSS will record at this resolution) and sub stream resolution. The higher the resolution is, the more record disk space needed.

【Bit Rate Type】Select bit rate type from Variable Bit Rate (VBR) and Constant Bit Rate (CBR):

VBR range= Poorest, Poor, Medium, Good, Best.

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CBR range = 45 Megabytes/Hour to 400 Megabytes/Hour.

【Image Quality】Set the quality of the image to be recorded. Select from Lowest, Lower, Low, High, Higher and Highest.

【Frame Rate】Set the frame rate of camera from drop-list.

【Bit Rate Limit】Input the maximum bit rate for the camera’s video stream.

【I Frame Interval】Select the I Frame Interval from drop-list. Usually, the number of I Frame interval should be twice of the Frame Rate.

【Enable Video】 You can enable the video by clicking the checkbox, the audio of main stream has been enabled in by default.

【Enable Audio】 You can enable the audio by clicking the checkbox.

5.3 Motion Detection

Click the check box be in front of Enable to enable the motion detection function, then you can set the detection area and schedule.

5.3.1 Area Setting

Left-click mouse and drag it on the video to set a motion detecting area, multi-areas are supported. You can also set the whole area by pressing the button, or clear all areas by pressing the button.

5.3.2 Detection Schedule
Press the button, it will pop up the sub window, showed as pic5-3-2(b), you can set the schedule in this window.

Select date firstly, then set time segment according to the sequence. After the precaution time of a certain day is set, you can copy the parameter to other dates by selecting a day and press the copy button.

Note:
The time of each segment should not be overlapped.

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.

Left-click mouse and drag it on the video to select several privacy mask areas, multi-areas are supported. You can also clear the zones by pressing button.

5.5 Alarm Input Setting

Pic 5-5

【Alarm Input NO.】 Select one alarm input to be set.
【Enable】 Enable the selected alarm input by clicking the checkbox
【Alarm Type】 Select alarm type (sensor type) from “NO” (Normally Open) or “NC” (Normally Closed).
【Alarm Name】 Display the name description of the sensor.
Press the button, it will pop up the sub window, showed as pic5-5-1, you can set the time schedule in this window.

![Schedule Edit](image)

Pic 5-5-1
Select date first, then set time schedule. After the arm schedule of a certain day is set, you can copy the parameter to other dates by selecting the dates and press the copy button.

**Note:**
The time of each schedule should not be overlapped.

### 5.6 PTZ Setting

In the PTZ Setting window showed in pic5-6, users can define the PTZ Presets as well as the tour group to cruise them.

- **【Channel】** Select the camera to be set from the drop-list.
- **PTZ Speed** -- Set the speed of PTZ, users can select the speed form the drop-list.
  - Focus+
  - Focus-
  - Iris+
  - Iris-
  - Up
  - Left
  - Right
  - Zoom+
  - Zoom-
  - Down
-- Users can adjust the PTZ camera's image in the PTZ setting by these 10 buttons.
5.6.1 Preset

When you step in the PTZ setting, the system will stay at Preset Setup interface by default, showed as pic5-6-1, users can set presets in this window.

【Name】 Set the name for the current preset.
【Preset】 Set the preset number for the current preset.
【Mode】 Set the Mode of preset, includes Call Preset and Save Preset two modes.

- Add — Add the preset follow current configuration.
- Modify — Modify the preset you selected.
- Delete — Select a preset from the list and delete it.
- Call — Call the Preset if the Mode is Call preset. If the mode is save preset, you would save the preset and could not call the preset.

Home position delay time Disable — Set the time interval for the camera to return to the home position when there is no PTZ action or
disable the auto return function. Users can select the Home Position from the drop-list, the home position includes all Tour Groups and Presets.

![Image: pic5-6-1]

**5.6.2 Scheme**

When you press the **Scheme** button, the right interface will convert, showed as pic5-6-2. Users can set the scheme of the PTZ camera here.

![Image: pic5-6-2]

**【Preset|Tour】** Set a preset or TourGroup and click **Add** to add it to the Preset Schedule or select one from the list and press **Delete** to
delete from the Preset Schedule.

【Call Time】【Hour】【Minute】 Set the time when the preset / TourGroup will be called.

【Copy To】 you can copy the setting of Preset|Tour, Hour and Minute to other dates.

5.6.3 Tour

When you press the Tour button, the right interface will convert, showed as pic5-6-3. Users can set the TourGroup of the PTZ camera here.

5.7 Linkage Setup

5.7.1 Motion Alarm
pic5-7-1(a)

【Channel NO.】 It displays the channel number of selected device. Users can also select the camera you want to set from the drop-list.

【Enable】 Users can click the checkbox to enable the motion alarm linkage function or disable this function by unchecking.

【Policy】 Handling policies will be available as follows:

【Audio Warning】 Indicate the alarm with voice;
【SendEmail】 Send an email when the alarm triggered to the email address which you set in “system setting-network setting-Email Setting”.
【Trigger Alarm Output】 Set the trigger alarm output, Users can click the checkbox to select to trigger all alarm outputs, or press the button it will pop up a sub window, showed as pic5-7-1(b), you can select the output you want to trigger here.

【Trigger PTZ】 Users can enable the function to trigger a PTZ camera to call a special preset by clicking the checkbox of Enable.
【PTZ Server】 Select the PTZ server you want to set in the drop-list.
【PTZ Channel】 Select the channel of the selected PTZ server in the drop-list.
【Preset NO.】 Select the Preset of the Channel you selected.
5.7.2 Sensor Alarm

【Alarm Input NO.】 It displays the alarm input number of the selected device. Users can also select other input you want to set from the drop-list.

【Enable】 Users can click the checkbox to enable the motion alarm linkage function or disable this function by unchecking.
【Policy】 Handling policies will be available as follows:

【Audio Warning】 Indicate the alarm with voice;
【SendEmail】 Send an email when the alarm triggered to the email address which you set in “system setting-network setting-Email Setting”.
【Trigger Alarm Output】 Set the trigger alarm output, Users can click the checkbox  to select to trigger all alarm outputs, or press the button it will pop up a sub window, showed as pic5-7-1(b), you can select the output you want to trigger here.
【Trigger Record Camera】 Set the record cameras when alarm triggered, click the checkbox  to select the all cameras to record, or press the button  to pop up a sub window, showed as pic5-7-2(b), to select the cameras you want to record.

![Record Channel Linkage Setting](pic5-7-2(b))

【Trigger PTZ】 Users can enable the function to trigger a PTZ camera to call a special preset by clicking the checkbox of Enable.
【PTZ Server】 Select the PTZ server you want to set in the drop-list.
【PTZ Channel】 Select the channel of the selected PTZ server in the drop-list.
【Preset NO.】 Select the Preset of the Channel you selected.
Chapter 6 Web Client

Users can view videos of NVSS Server remotely through the NVSS Web Client. We can support five kinds of browsers, include IE, Google Chrome, Mozilla Firefox, Opera, Safari. The default web server port is 80, you can change the port in the “System Setting->Network Setting”. If you changed it to other port, please add this port number after the IP or domain name of the NVSS when visit through internet explorer. E.g.: http://192.168.0.43:1280.

After inputting the correct IP address and port, you will see the interface like pic6-1, you should input the valid User ID and password to acquire the corresponding rights that you have, the you can see the preview interface of web client.

Note:

Web client is update from this version, you must download and install the plug-in, close the browser when installing it, the interface is shown as follow:

If you have installed the plug-in, but it runs error on IE client, please do next steps:
1. Find and click the “tools”
2. Open the “Internet options”
3. Select the “Safe” option
4. Find the “trusted sites”, and add the IP address of your NVSS system to trusted sites
5. Then restart the browser.

6.1 Live View

Live view shows the real-time video getting from the cameras, and you can scroll the mouse to magnify the selected image, eight times largest, if you want to restore the enlarged image, you should click the right mouse button.

Users can setup the display split mode & camera in each window, the interface of live view contains four parts: Camera List, PTZ, Video Parameters and Toolbar Panel. Showed as pic6-1.

![Web client](pic6-1)

6.1.1 Camera List

All the connected IP devices of your NVSS system will be showed in the camera list, showed as pic6-1-1. You can press 🎥 icon to start or stop the video of the current channel.
6.1.2 PTZ

-- It supports eight directions for PTZ cameras to move up, down, right, right-up, right-down, left, left-up, left-down.

--Press this button to initiate the connected PTZ camera to do an automatic tour of 360, but for speed dome, many PTZ factories forbid this command.

-- Zoom function of the PTZ camera control.

-- Auto-focus setup of the PTZ camera overrides, adjusted to focus the image.

-- Overrides the PTZ cameras auto-iris and brighten or darken the image.

--Users can drag the slider bar to adjust the speed of PTZ. Its range is from 1 to 255, the bigger number the faster speed.

--If you have set the preset for the camera in the NVSS, you can see the set preset here, showed as pic 6-1-2(a), if you don not set, it will null.
When you select one preset, you can call the preset, showed as pic 6-1-2(b).

--If you have set the tour group for the camera in the NVSS, you can see the tour group here, showed as pic 6-1-2(c), if you don not set, it will null.

**Note:**
Only when you selected the video is dragged to the live view directly from the **Camera List**, you can control the PTZ in the main interface.

### 6.1.3 Video Parameters

Drag the small button to adjust the brightness, contrast, saturation, hue,
audio of the camera which you selected, its range is from 1 to 128, click this button will resume its default value. Showed as pic6-1-3.

6.1.4 Toolbar Panel

--Press this button to open or close all video of the connected cameras.

--Press this button to grab a picture, the size of the image is resolution of the video be played. The default directory of picture is D:\test\Capture Files, you also can set it in local configuration.

--Press this button to start all connected channels to record at the same time.

-- Press button to the previous page.

-- Press button to the next page.

--Press this button to enable the speak.

--Press this button to enable the audio for the connected cameras.

--Press this button to set partition mode of window, there are 1, 4, 9 and 16 splits. Showed as pic6-1-4.

6.2 Playback

Press button to the interface of playback, showed as pic6-2.

6.2.1 Select Date

Before you open the videos, the upper right of the playback interface is the date panel, it includes year, month, and the current date, showed as pic6-2-1(a). Users can select the date which they want to do playback.
Click ‹‹ and ›› to change month and year to search the data which you want.

In the process of playback, the first step is to select the date you want to playback, the blue dates means it have record data, when they are selected, it will pop up the dialog box to select playback time, showed as pic6-2-1(b).

You can just select any period to play by dragging the mouse; double click to select the whole day; right-click to cancel the selected period.

6.2.2 Record Type

There are four types of record, different record type have different color to show, specific as follows:

- Command record.
- Schedule record.
- Alarm record.
- Manual record.

6.2.3 Play Files and Related Operations

You can select the camera in camera list on the left to any window to preview its video. You also can scroll the mouse to magnify the selected image, eight times largest, if you want to restore the enlarged image, you should click the right mouse button.
--Press this button to pause;
--Press this button to close the current cameras;
--Press this button to play slowly;
--Press this button to play fastly, up to four times, click slow button to back to normal.
--Press this button to play the next frame;
--Press this button to open or close all playback windows;
--Press this button to grab a picture, the default directory of picture is D:\test\Capture Files, you also can set it in configuration;
--Press this button to create file clip;
--Press this button to enable the audio of cameras.
--Press button to set the window’s partition mode of the main screen. There are four types of partitions: 1, 4, 9 and 16.

6.3 Configuration

6.3.1 Local Configuration

【Stream Type】 Select Main-stream or sub-stream for the device.
【Record File Size】 You can set the record file size as 32M, 64M, 128M.
【Save Record File to】 This is the directory of local record.
【Save Snapshots in Live View to】 The directory of snapshots.
【Save Clips to】 This directory is used to save the clips from playback.
【Save Snapshots when playback to】 The directory of snapshots which are from playback.

6.4 Logout

Press  button, you can logout the web client of your NVSS and back to the login screen.
Chapter 7 Remote Help (Nomachine)

Users can use Nomachine tool to connect to a remote NVSS through network, showed as Pic 7-1

![Pic 7-1](image)

Then users can configure the remote NVSS such as add / del devices / set record schedule etc.. the operation is the same as you control local NVSS. Also users can use this tool to check any problems the end users have.

**Note:**

1). This function only work in Desktop version;
2). Minimize NVSS interface is available in Desktop version;
3). Change NVSS resolution is forbidden in Desktop version.
The steps of making a connection from a computer to a NVSS are showed in the following pictures:

Pic 7-2

Pic 7-3
All protocols use cryptography to protect your communication. NX is the native protocol used by Nomachine and is optimized for multimedia. SSH is an industry standard for accessing computing resources from external networks.

Insert the hostname or IP and port where you want to connect.

Host: 192.168.0.103  Port: 4000

The port was chosen automatically based on the default for the protocol. If the remote computer was configured to listen on a different port, please insert it above.

Use UDP communication for multimedia data.
Pic 7-8 Input the IP of the remote NVSS(LAN or WAN)

Pic 7-9
Pic 7-10 connecting

Pic 7-11
The default Username is Admin, the default Password is nvss6000
Finish the display settings of the NOMACHINE interface:

Pic 7-12

Pic 7-13
Pic 7-14

Pic 7-15

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Users can start to operate the remote NVSS now:
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 NVSS system includes two kinds of motherboard:

   The motherboard of SV6-B75A6:

   ![BIOS Screenshot]

   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 for SV6-B75A6 motherboard, for GA-B75-D3V motherboard press F10.

   Then the NVSS system will start.
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 introduce the SV6-B75A6 motherboard as example here, other motherboards are similar.

2. Enable the Hot Plug

   Press “←” or “→” to switch the screen and select the Advanced screen, showed as pic2-1:

   ![pic2-1](image)

   Select the “SATA Configuration” and Enter it. Showed as pic2-2:

   ![pic2-2](image)
Enter the “**SATA Mode Selection**” and select the “**AHCI**” mode, showed as pic2-2.

Then there are many “**Serial ATA Port**”, select the “**Hot Plug**” option and enter it, and enable the hot plug here. Showed as pic 2-3.

![Pic2-3](image_url)

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.