Central Management System

NCS System Installation

user's manual

Ver. 1.3.0.091020.001

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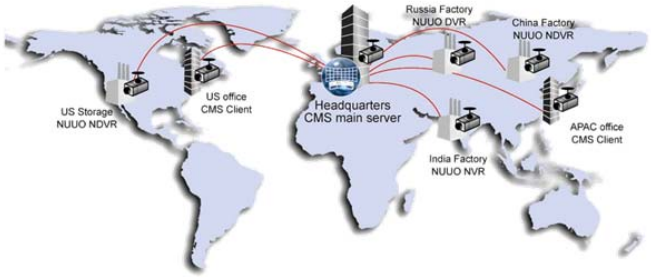
Part 1: NCS Overview

This section describes the NCS architecture and how to install and start the NCS system. It includes the following sections: System Introduction, System Requirements, Installation, Getting Started with the NCS System, and NCS Client Overview.

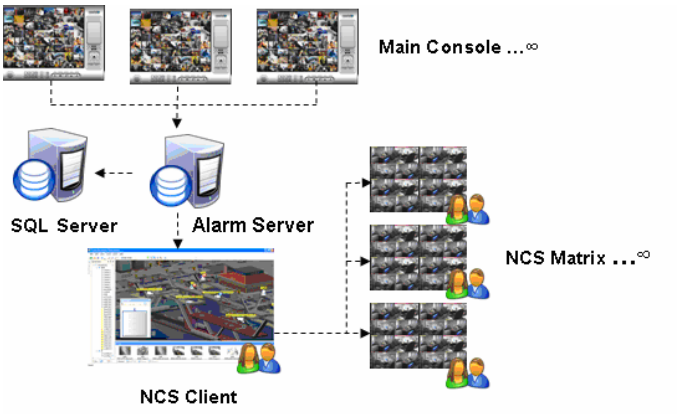
System Introduction

The NUUO Central Management System (NCS) is a powerful system which brings traditional central management systems out of the control room through Internet access. The network-based key operation system can manage unlimited combinations of analog and network cameras worldwide, via unlimited working stations in different locations. NCS is the universal solution for large scale projects.



Client/Server Architecture

The **NCS System** uses a client/server architecture to manage unlimited recording systems. These send events to the NCS **Alarm Server**. After filtering the events, the NCS Alarm server sends alarm logs of qualified events to an **SQL Server** (SQL database) and **NCS Client** systems. The **NCS Matrix** system is controlled by NCS Client users. The NCS Client system allows users in different locations to log in to the NCS Alarm server and, if they have the authority, to change the system configuration.



Definition of Terms:

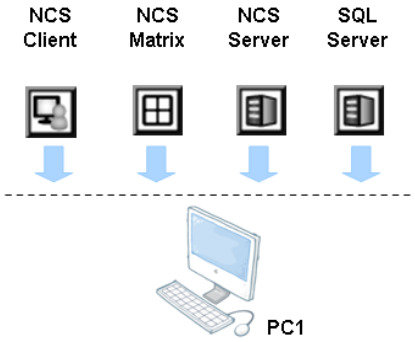
Terms	Descriptions
NCS System	All components of NUUO Central Management system.
Recording Server	Front end servers of the NUUO Central Management system, consisting of NUUO Video Recording systems which send events to NCS Alarm Server.
SQL Server	Database of NUUO Central Management system, which backs up alarm logs.
NCS Alarm Server	Alarm Server of NUUO Central Management system, which filters events in order to send out alarms, and saves configuration of NCS system. Abbreviate **NCS Server** or **Alarm Server**.
NCS Client	Client end software of NUUO Central Management system, which is used to log in to the Alarm Server.
NCS Matrix	Video Matrix to view live video, controlled by NCS Client.

System Requirements

System Setup

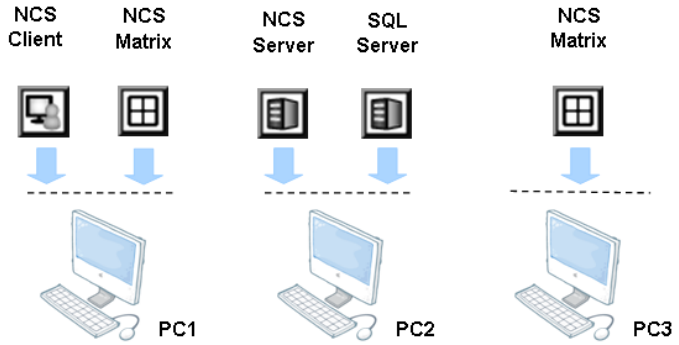
There are three scenarios for NCS system setup. Depending on customers' budget and the size of the project, customers can choose a suitable scenario. The system requirements for each scenario are detailed below.

Scenario A: Using one PC for all installed elements



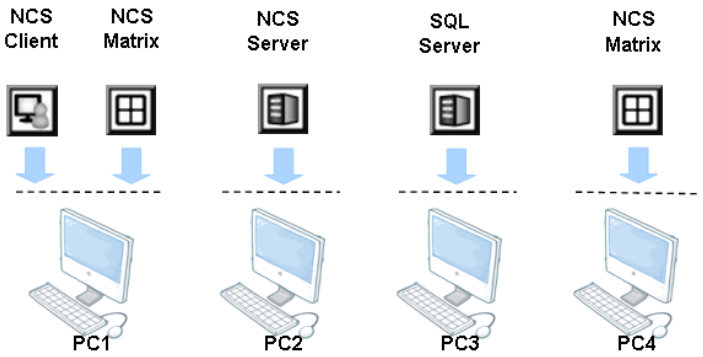
	PC1
CPU	Intel Core 2 Quad Q9550 @ 2830MHz
RAM	2 GB
Hard Disk	250 GB or above
Mother-board	Intel 945 or 965 chip (for single monitor) Intel P35/975 chip or nVidia nForce 650i chip (for multiple monitors)
Display	ATi X4350 or above, nVIDIA GeForce 9500series or above
Ethernet	100 baseT or above, Gigabit LAN recommended
OS	MS Windows XP Pro SP3 / Windows Vista/ 2003

Scenario B: Using three PCs with NCS Client and NCS Matrix on PC1, NCS Server and SQL Server on PC2, and NCS Matrix on PC3



	PC1	PC2	PC3
CPU	Intel Core 2 Quad Q6660 @ 2400MHz	Intel Core 2 Duo E4500	Intel Core 2 Quad Q6660 @ 2400MHz
RAM	2 GB	2 GB	2 GB
Hard Disk	250 GB or above	250 GB or above	250 GB or above
Display	ATi X4350 or above	ATi X1600 or above	ATi X4350 or above
Mother-board	Intel 945 or 965 chip (for single monitor) Intel P35/975 chip or nVidia nForce 650i chip (for multiple monitors)		
Ethernet	100 baseT or above, Gigabit LAN recommended		
OS	MS Windows XP Pro SP3 / Windows Vista/ 2003		

Scenario C: Using four PCs with NCS Client and NCS Matrix on PC1, NCS Server on PC2, SQL Server on PC3, and NCS Matrix on PC4



	PC1	PC2	PC3	PC4
CPU	Intel Core 2 Quad Q6660 @ 2400MHz	Intel Core 2 Duo E4500	Intel Core 2 Duo E4500	Intel Core 2 Quad Q6660 @ 2400MHz
RAM	2 GB	1 GB	1 GB	2 GB
Hard Disk	250 GB or above	250 GB or above	250 GB or above	250 GB or above
Display	ATi X4350 or above	ATi X1600 or above	ATi X1600 or above	ATi X4350 or above
Mother-board	Intel 945 or 965 chip (for single monitor) Intel P35/975 chip or nVidia nForce 650i chip (for multiple monitors)			
Ethernet	100 baseT or above, Gigabit LAN recommended			
OS	MS Windows XP Pro SP3 / Windows Vista/ 2003			

Multiple Monitor Configuration

For a PC running the NCS Client and NCS Matrix, it is suggested that three monitors are used: one to display the **Map** window and the **System Configuration** window, one to display the **Alarm Overview** window, and one to display the live video feed matrix. This enables efficient use of the system and saves hardware costs.

PCs using multiple monitors in this way should have a Intel P35/i975x motherboard which can support two display cards. Each display card should be the same model, to avoid hardware conflicts.

Installation

The NCS Installation CD contains the software you need to run the complete NCS system. If you are installing the system on multiple PCs as described earlier, install the appropriate software for each PC:

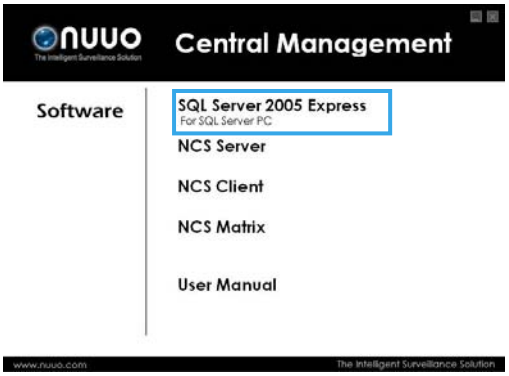
- For the PC running SQL Server, install SQL Server 2005 Express.
- For the central server PC, install NCS Server
- For client PCs, install NCS Client
- For PCs displaying video matrixes, install NCS Matrix.

The following sections describe installation of each element of the NCS system.

SQL Server 2005 Express

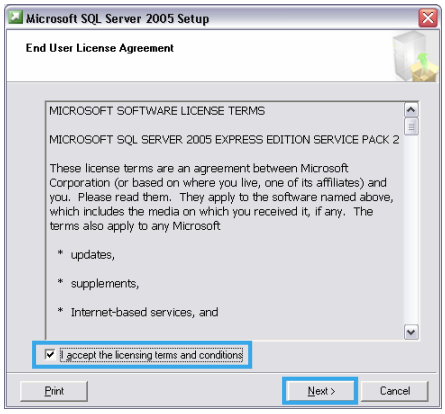
To install SQL Server 2005 Express:

1. Insert the NCS installation CD.

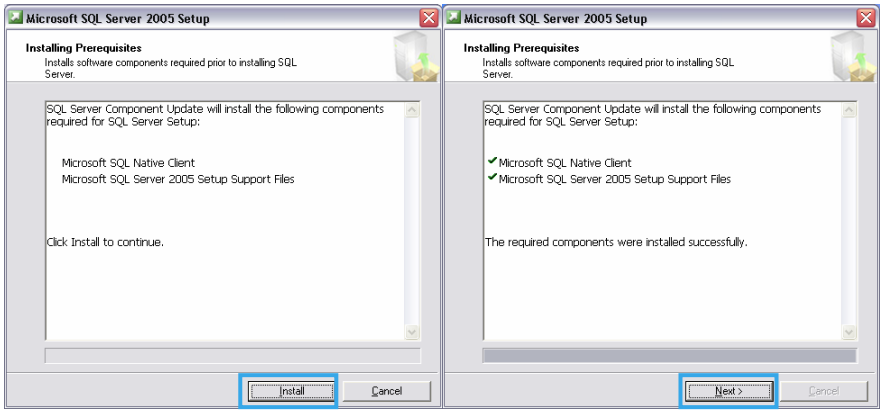


2. In the **Welcome to NCS** window, click **SQL Server 2005 Express**.

	If you do not have **Microsoft .Net Framework 2.0** and **Windows Installer 3.1** installed, a message will appear. Download and install the application from the link in the message or from the toolbox directory of installed CD.

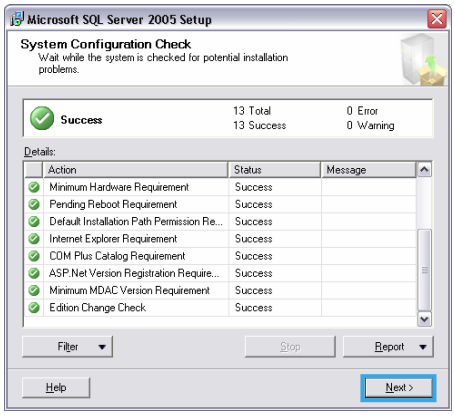


3. In the **End User License Agreement** dialog box, read the terms, check **I accept the licensing terms and conditions**, and then click **Next**.

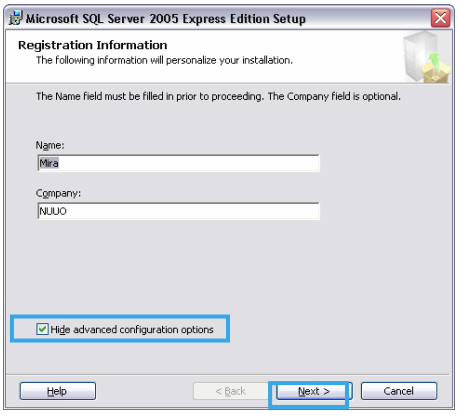


4. In the **Installing Prerequisites** dialog box, click **Install** to continue update, and then click **Next** to continue installation.

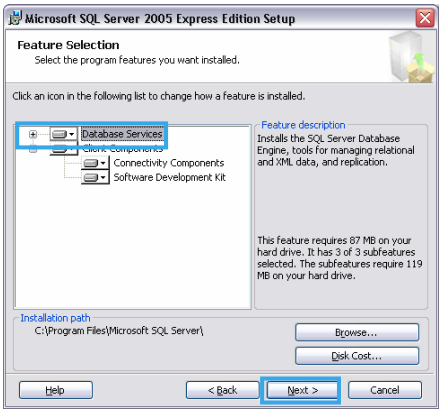
5. In the **Welcome to the Microsoft SQL Server Installation Wizard** dialog box, click **Next** to install.



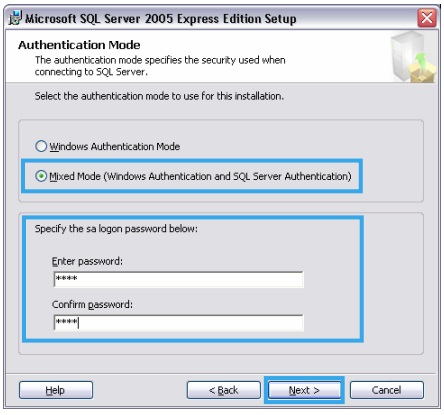
6. In the **System Configuration Check** dialog box, click **Next**.



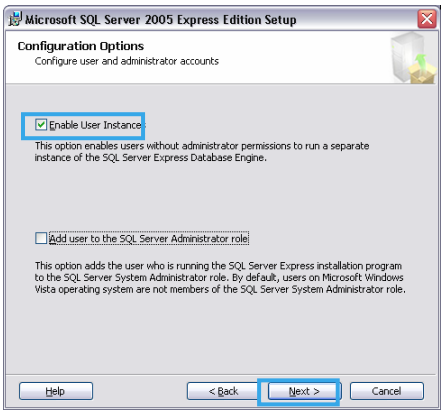
7. In the **Registration Information** dialog box, enter your name and company, and then click **Next**.



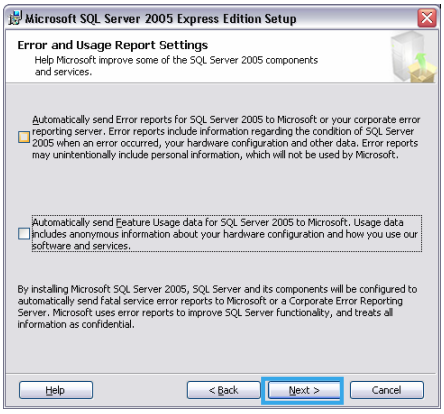
8. In the **Feature Selection** dialog box, select **Database Services**, and then click **Next**.



9. In the **Authentication Mode** dialog box, enable **Mixed Mode** option, and then enter and confirm a password.

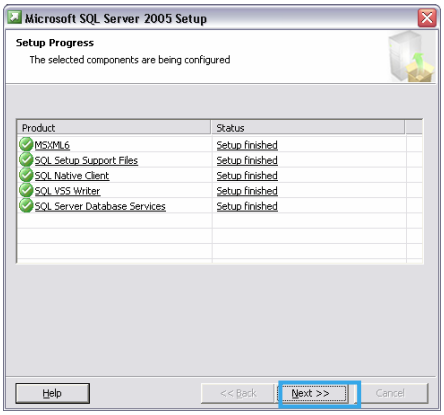


10. In the **Configuration Options** dialog box, select **Enable User Instances** option, and then click **Next**.

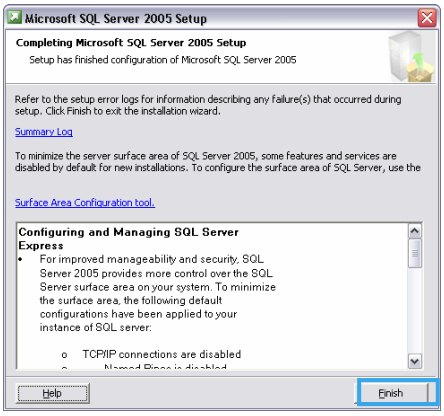


11. In the **Error and Usage Report Settings** dialog box, you do not need to select any option. Click **Next**.

12. In the **Ready to install** dialog box, click **Install**.



13. In the **Setup Progress** dialog box, wait for installation finish, and then click **Next**.



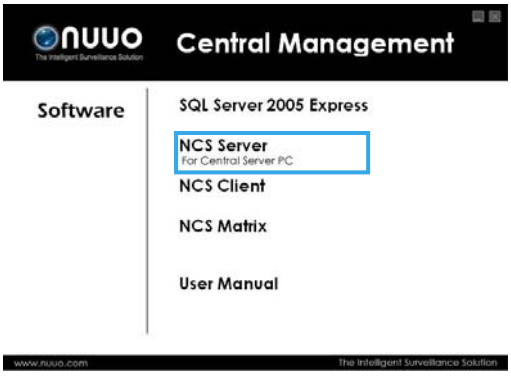
14. In the Completing Microsoft SQL Server 2005 Setup dialog box, click Finish

NCS Server

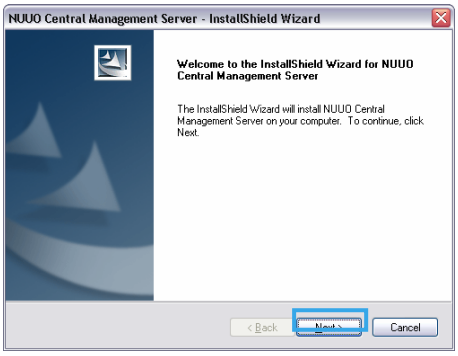
To install NCS Alarm Server:

1. Insert the NCS installation CD.

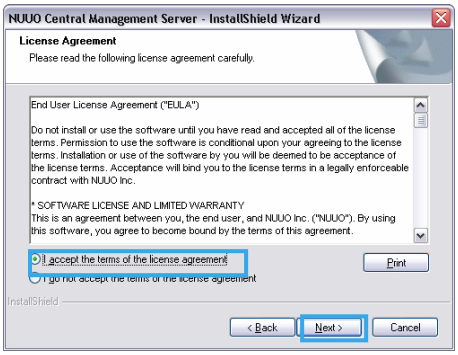
Installation



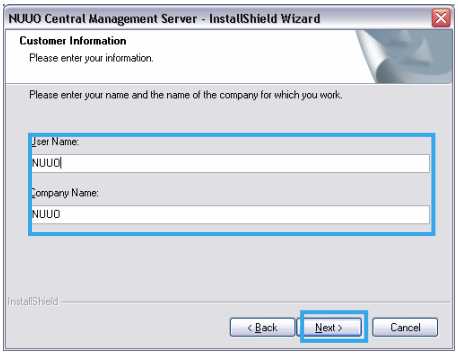
2. In the **Welcome to NCS** window, click **NCS Server**.



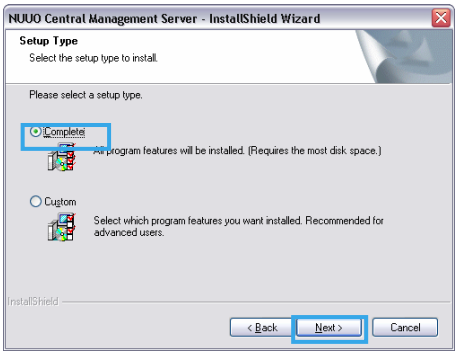
3. In the **InstallShield Wizard** dialog box, click **Next** to continuous.



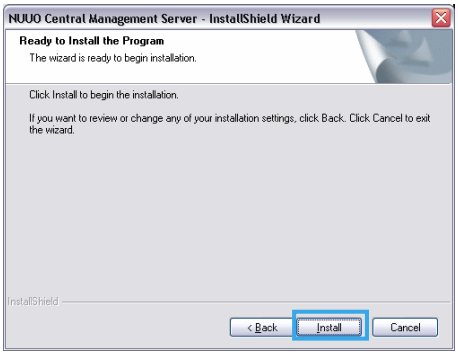
4. In the **License Agreement** window, read the terms, select **I accept the terms of the license agreement**, and then click **Next**.



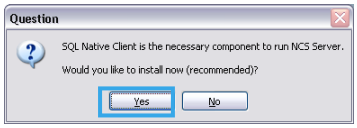
5. In the **Customer Information** window, enter your name and company, and then click **Next**.



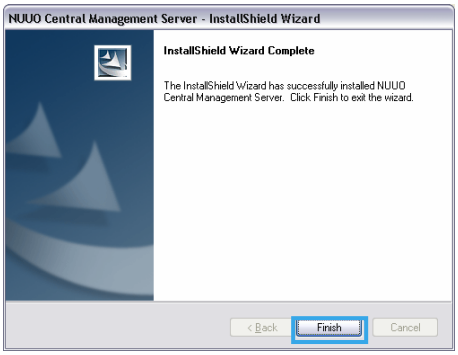
6. In the **Setup Type** window, select **Complete**, and then click **Next**.



7. In the **InstallShield Wizard** window, click **Next**.



8. Please click **Yes** to install SQL Native Client program.



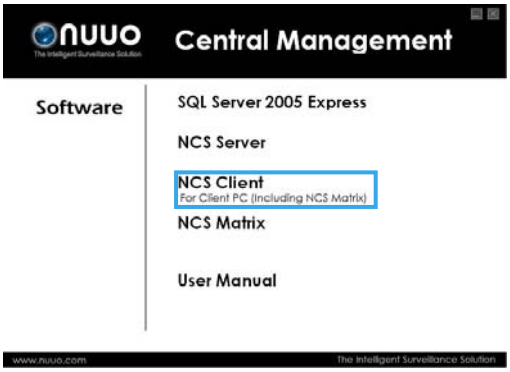
9. In the **InstallShield Wizard Complete** dialog box, click **Finish**.

NCS Client

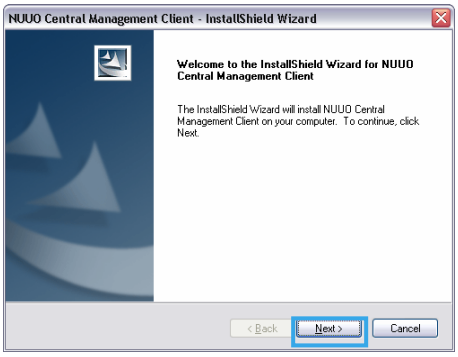
To install NCS Client (include Matrix):

1. Insert the NCS installation CD.

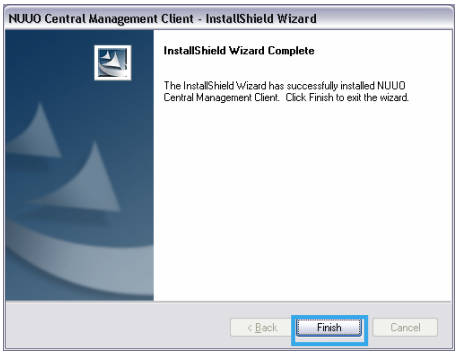
Installation



2. In the **Welcome to NCS** window, click **NCS Client**.



3. Complete installation as described in steps 3-7 of the *To install NCS Alarm Server* section on page 9.

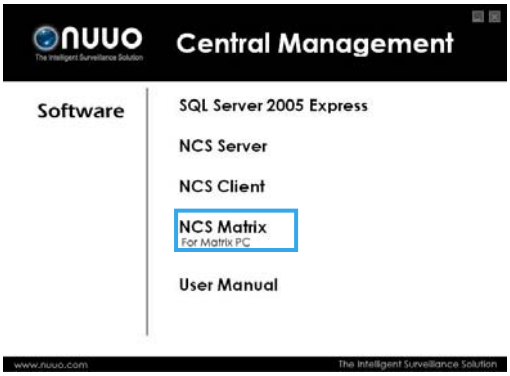


4. In the InstallShield Wizard Complete dialog box, click Finish.

NCS Matrix

To install NCS Matrix:

1. Insert the NCS installation CD.

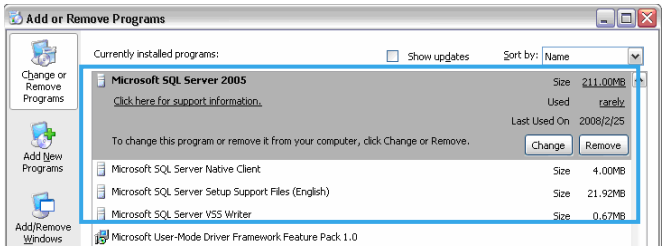


2. In the **Welcome to NCS** window, click **NCS Matrix**.
3. Complete installation as described in steps 3-4 of the *To install NCS Client* section on page 11.

Uninstalling NCS System

To uninstall SQL Server:

In the **Control Panel**, open **Add or Remove Programs**, select and click on **Remove** button to uninstall four SQL objects (Microsoft SQL Sever 2005, Native Client, Setup Support Files, VSS Writer).



To uninstall the NCS system:

In the **Start** menu, point to **All programs**, point to **NUUO Central Management Server/Client/Matrix**, and then click **Uninstall NCS System**.

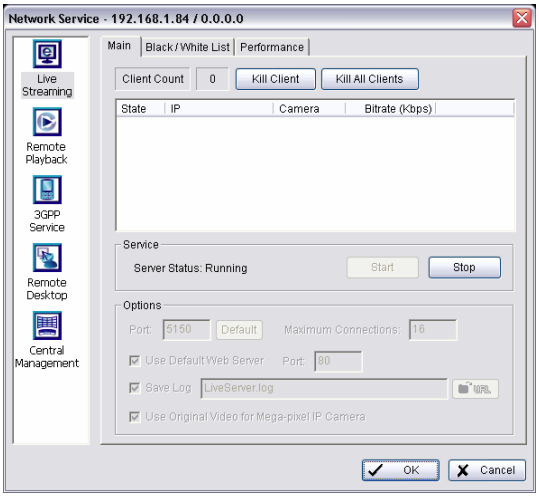
	Transfer all license connections and then transfer license base before you uninstall the NCS System.

Getting Started with the NCS System

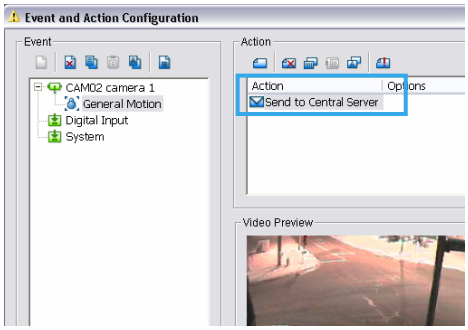
Main Console Configuration

To configure the Main Console:

1. Run **MainConsole.exe**.



2. In **Config**, select **Network Service**, and set up the following services:
   - Live Streaming and Central Management. These services are essential to run the NCS system. Please Start these two services.
   - Remote Playback. This service enables recorded video viewing and remote playback. Ensure this service work, please also Start Recording Schedule to record video.
   - Remote Desktop. This service enables remote configuration of the main console.
3. Select **Guard**.

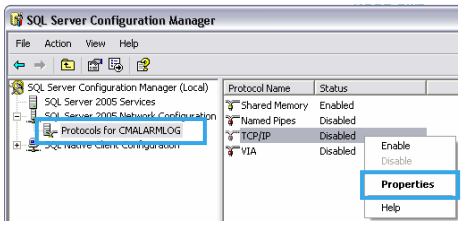


4. In the **Event and Action Configuration** window, configure alarm events and insert the action **Send to Central Server** for events that you want to appear on the NCS system.
5. Click **OK** to return to the main console.
6. In the **Start** Menu, select **Start Smart Guard System** to start detecting events.

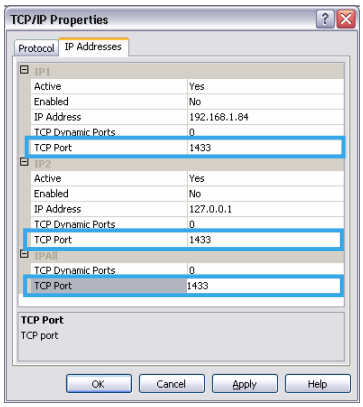
SQL Server

To configure SQL Server:

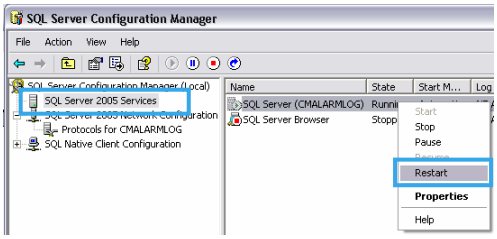
1. In the Start menu, point to All programs, point to Microsoft SQL Server 2005, point to Configuration Tools, and then select SQL Server Configuration Manager.



2. In the **SQL Server Configuration Manager** window, select **Protocols for CMALARMLOG**, right-click TCP/IP and then select **Enable** to enable TCP/IP protocol.



3. Double-click **TCP/IP**, then in the **TCP/IP Properties** window select the **IP Addresses** tab.
4. Enter **1433** as the **TCP port** in **IP1**, **IP2**, and **IPAll**, and then click **OK**.

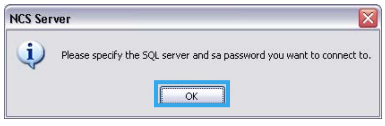


5. In the **SQL Server Configuration Manager** window, select **SQL Server 2005 Services**, right-click **SQL Server (CMALARMLOG)**, and then select **Restart**.
6. Ensure that any firewall allows access through port 1433.

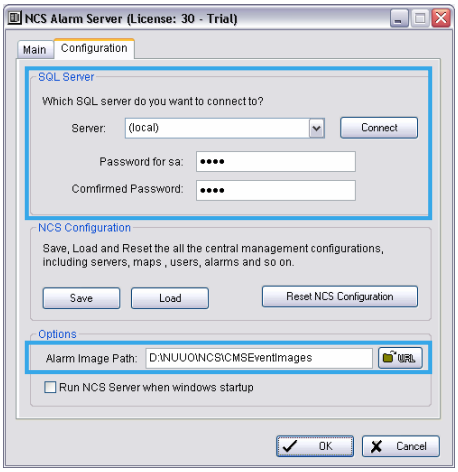
NCS Alarm Server

To configure NCS Server:

1. In the Start menu, point to All programs, point to NUUO Central Management Server, and then select NCS Server.



2. In the **NCS Server** dialog box, click **OK**. This is only required the first time you start NCS server.



3. The configuration of NCS Alarm Server.
   - In the **Configuration** tab of Central Server window, enter the IP address of the SQL Server, and then enter and confirm the password which sat when installed SQL Server. (see page 8)
   - Specify a URL at which to store all alarm images.
   - Select Run NCS Server when Windows starts up if you want NCS Server to startup automatically at Windows startup
4. In the **Main** table of this window, check the server has been **Start** and click **OK**.

	The NCS Server must be executed before the NCS Client can be executed.

NCS Client

To configure and execute the NCS Client:

1. In the Start menu, point to All Programs, point to NUUO Central Management Client, and then select NCS Client.

2. In the **Central Login** window, enter the IP address and port of the NCS Server PC. The default port is 5180.
3. Enter a user name and, if required, a password. The default user name is ***admin*** and the default password is empty.
4. Click **OK**.

To activate software license key(s)

1. Open **License Manager** Tool in **Help** menu.
2. Select **Activate** tab, check the NCS system in **On line** network environment.
3. Insert the SN, SN file or dongle to activate license.
4. After software license is activated successfully, please restart NCS Client.

	Please refer page 46 for advanced settings.

To start up NCS Client automatically:

1. In the **Edit** menu, select **NCS Client Setting**.

2. In the **NCS Client Setting** window, select **Enable Auto Startup** and **Enable Auto Login**
3. Enter a user account and, if required, a password.
4. Click **OK**.

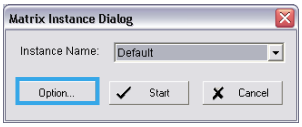
NCS Matrix

To execute a single matrix display:

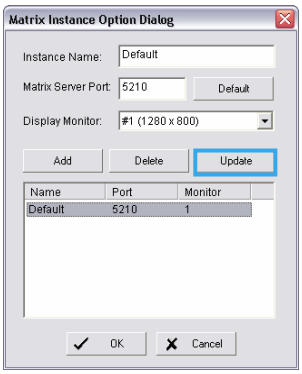
1. In the Start menu, point to All Programs, then point to NUUO Central Management Client or NUUO Central Management Matrix, and click NCS Matrix.

To configure the first matrix in a multiple matrix system:

2. Ensure that the PC is configured to use multiple monitors.
3. In the **Start** menu, point to **All Programs**, then point to **NUUO Central Management Client** or **NUUO Central Management Matrix**, and click **NCS Matrix**.



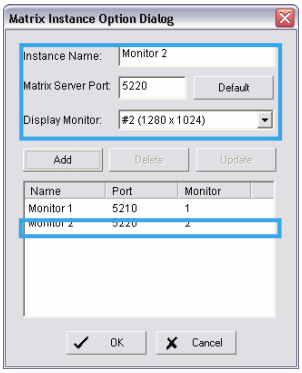
4. Click on **Option** to open Matrix Instance Dialog.



5. In the **Matrix Instance Option Dialog** window, select Default from list table.
6. Enter a matrix name, for example *Monitor 1*, in the **Instance Name** text box, leave the port at the default setting of 5210, select the **#1** monitor from drop-down list, and then click **Update** to update modification.

To configure the second and subsequent matrixes in a multiple matrix system:

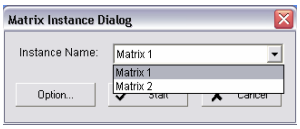
1. In the **Matrix Instance Option Dialog** window, enter a matrix name, for example *monitor 2* in the **Instance Name** text box.
2. Enter port number 5220.
3. Select the **#2** monitor from drop-down list, and then click **Update** to update modification.



4. To configure a third and a fourth monitor, repeat steps 1-3 naming the matrix instances as appropriate (for example *monitor3*, *monitor4*), entering the port number (5230 for a third monitor and 5240 for a fourth), and selecting the appropriate monitor.
5. Click **OK** to save all configuration of Matrix.

To execute a matrix in a multiple matrix system:

1. Ensure that the matrixes have been configured as described above.



2. In the **Matrix Instance Dialog** window, choose the matrix you want in the drop-down list, and then click **Start** to start Matrix view.
3. Repeat steps 1 and 2 to execute each monitor.

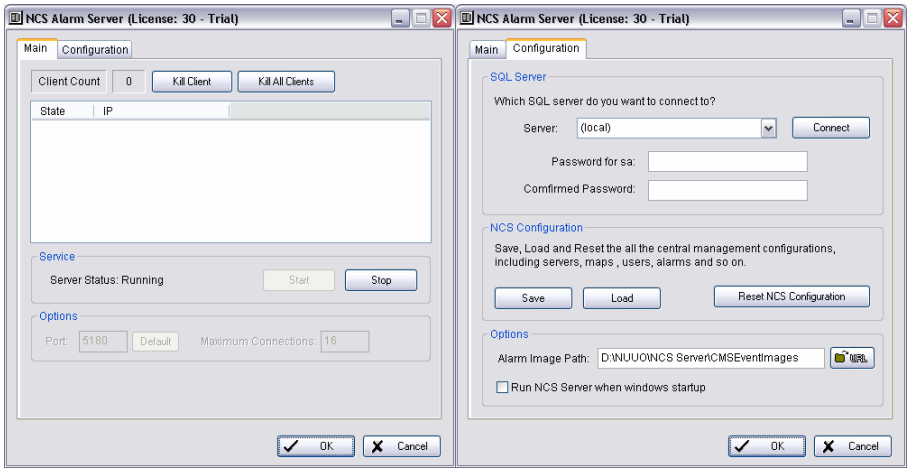
NCS System Overview

NCS Server Window Introduction

The NCS Server features two main windows. The windows are:

Main window can control all connection situations, include *Start/Stop NCS Server*, *Port*, *maximum connection* of Clients, and restrict connection of client by *Kill Client* option.

Configuration window has three major options for setup the connection between *SQL Server* and NCS Server, Save/Load or Restore *NCS Configuration* which set by NCS Client(refer Loading/Saving NCS Client Configuration section of page 44), and set basic *Options* of NCS Server which include storage of save alarm image and run NCS Server when Windows startup.

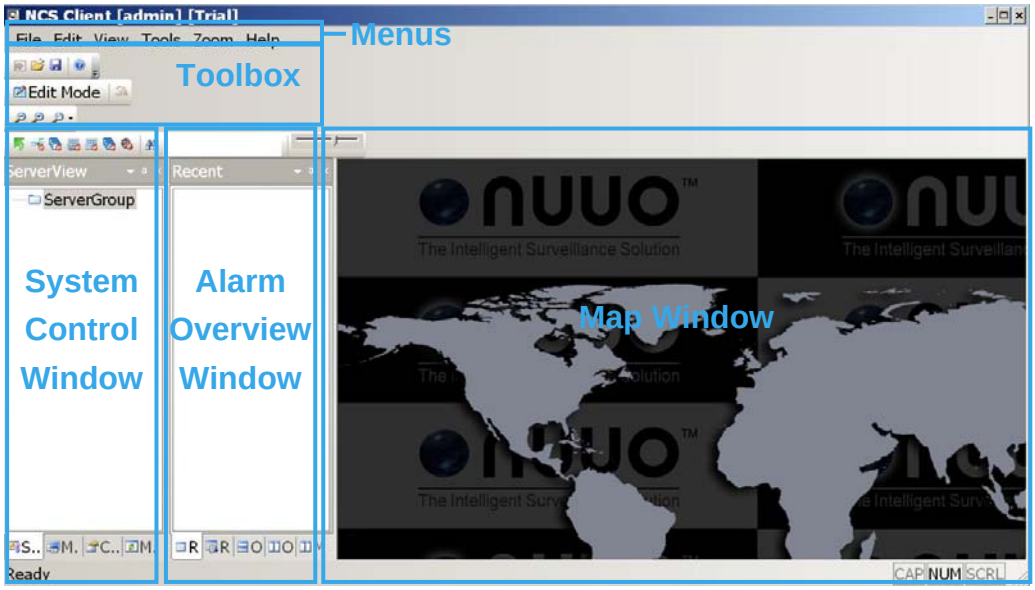


	Restore NCS Configuration will not clear the setting of SQL Server.

Also some quick start in Taskbar when running NCS Server, you can see the version or exit the NCS Server by click the  icon from Taskbar. 

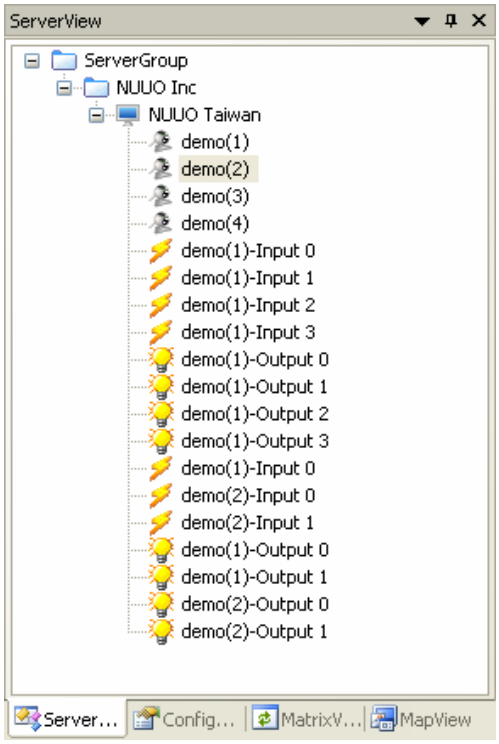
NCS Client Window Introduction

The default NCS Client window placement is as below figure, include three main windows, four toolbars, and six menus.



Three Main Windows are:

- **System Control** window: This window includes Server, Config, Matrix, and MapView sub-windows. Administrators can configure the NCS system in this window, when the system is in Edit Mode. (See Part 2: Administrator Functions (Setting Up the NCS System)



- **Map** window: This is window shows all maps and device indicators. For setup by administrators, see page 27. For day to day use, user can view the video, show device information, query and manage alarms form the indicators (please refer page 59).

- **Alarm Overview** window: The default Alarm Overview window contains the Recent, Real-Time, Output, Output 2, and Message Log tabs, which allow users to manage alarms (see page 52).

Six menus are:

- The **File** menu: This menu has functions use to commit to NCS Server, save/load NCS Client Configuration, and Logout/Exit NCS system.

- The **Edit** menu: It allows administrator add New Object to configuration sub-window of System Control Window, Import Indicator Image, setup Server configuration (refer Central Server Configuration Window section of page 37) on Edit mode; and allows all user to setup Map Display setting of Map windows, Alarm Log setting of alarm overview windows, and setup Joystick to control Matrix.
- The **View** menu: This menu has options to setup the appearance of NCS Client window.
- The **Tools** menu: This menu has five tools to help user easy to get information for Main Console, manage alarms, and view live and record videos.
- The **Zoom** menu: User can control and adjust map appearance (see page 59).
- The **Help** menu: The menu provides the version information of NUUO NCS Client.

The toolbars are:

- The **Standard** toolbar: The functions accessed by this toolbar are: committing configuration changes to the server (see page 23), importing/exporting NCS Client software configuration (see page 45), and displaying version information (see page 76).
- The **Zoom** toolbar: The functions accessed by this toolbar are the same as Zoom menu, used to adjust map appearance (see page 59).
- The **Edit** toolbar: The functions accessed by this toolbar are: toggle Edit Mode/Operate Mode (see page 23) and rotate indicator on/off (see page see page 29).
- The **Operate** toolbar: The functions accessed by this toolbar help users in day to day use of the NCS Client. For more information, see page 51.

Standard Zoom Edit Operate

Customizing Client Appearance

The appearance of the NCS Client is customizable. The System Control and Alarm Overview windows and their nine associated tab display windows can be moved or removed to four appearance types:

- **Floating**: A floating window can be moved to any position on the screen.
- **Docking**: A docking window is aligned with one of the four edges of the application window.
- **Auto Hide**: Docking windows can be set to **AutoHide**. The window then displays only when you point to the area of the screen where the window is docked.
- **Hide**: Hide the windows can be removed form screen.

Toolbars also can be moved or removed. The look of the client can also be changed to various preset styles.

	To restore appearance back to default, please go to **View** menu and click on **Reset Window Placement**.

To move a main window:

Click the title bar at the top of the window and drag it to the position you want. If you want it to dock at one of the edges of the NCS Client window, drag it to one of the direction arrow buttons. There are three direction arrow buttons groups of different windows (refer next page):

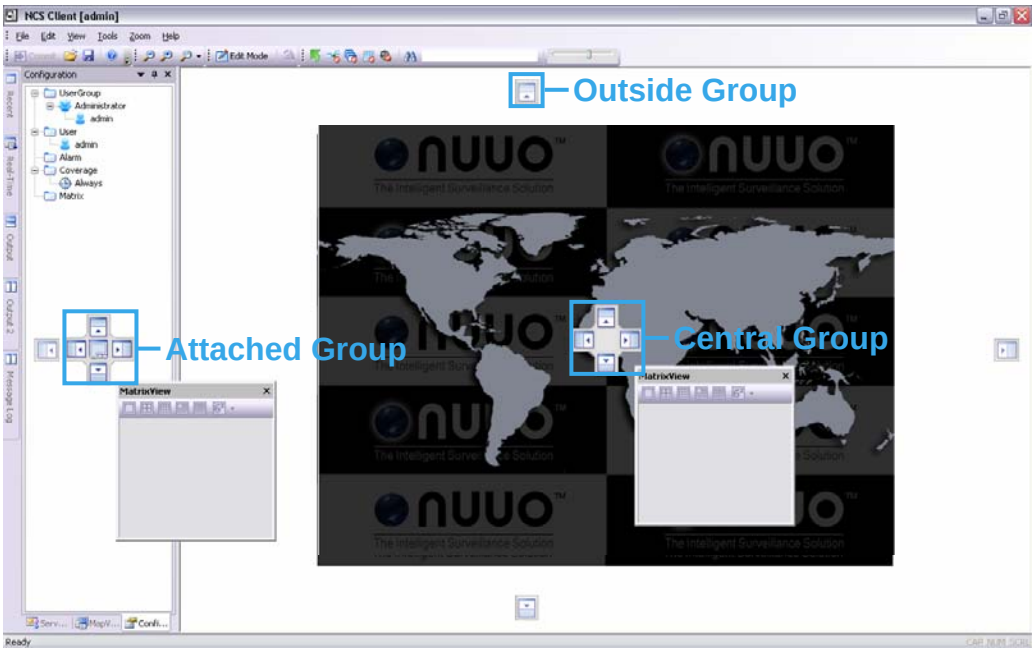
- The **Central group** of Map Window, it allow move window to four edge of Map window.
- The **Outside group** of NCS Client Window, it allow move window to four edge of Map window.
- The **Attached group** of individual window, it allow move window to four edge of individual window and move to be an associated tab display windows.

To move an individual tab display window:

Right-click on a tab and select **Floating**, or click directly on the tab and drag the window to the position you want. If you want it to dock at one of the edges of the NCS Client window, drag it to one of the blue direction arrow buttons. The **Auto Hide** function can now be applied to that tab window individually.

To move an individual tab display window to a main window:

Right-click on a tab and select **Docking**, or click directly on the tab and drag it to a tab bar in a main window.



	These direction arrow buttons groups only appear when NCS Client preset style set as Office 2003 / Visual Studio.NET 2005 / Office 2007

To Auto Hide a window (only available when window is docked):

Either:

- Right-click in the window and select Auto Hide.

Or:

- In the title bar for the window, click the Auto Hide toggle button .

	The Auto Hide function applies to all tab windows in a main window. If one of the tab windows in a main window is set to Auto Hide, all the other tabs will also Auto Hide.

To close an individual tab display window:

Right-click on a tab and select **Hide** or click directly on the Close Window button on the top right corner of the window. To display the window again, go to the **View** menu, point to **Toolbars**, and then check the window you want to show.

	Another way to close a window is to uncheck a box in the **Toolbars** menu.

To move a toolbar:

Click on the double line on the left side of a toolbar and drag it to the position you want.

To hide or display a toolbar

Go to the **View** menu, point to **Toolbars**, and then uncheck or check the toolbar you want to hide or show. And if user drag to as an individual menu in window, simply click the button on the top right corner of the menu to close it.

To change the look of the NCS Client to a preset style:

In the **View** menu, point to **Application Look**, and choose one of the following preset application looks: Office 2000 / Office XP / Office 2003 / Visual Studio.NET 2005 / Windows XP / Office 2007

System Operate Mode/Edit Mode

	To carry out most administrator functions, you need to be in **Edit Mode**.

Press the **Edit Mode** toggle button 

to enter **Edit Mode**, and press it again to exit **Edit Mode**. When in **Edit Mode**, the NCS Client will not receive alarms. A flashing indicator  reminds you that you are in **Edit Mode**.

	Any changes made to the system must be saved with the **Commit**  button. When administrators click the **Commit** button to save changes, other users will be disconnected from the NCS server and will need to log in again.

NCS Matrix Window Introduction

Move Mouse to right-down area, the  icon would auto appear. User can edit/exit the Matrix, further option please see page 42.

SQL Server Introduction

NCS system is use *SQL Server 2005 Express* of Microsoft free application software as database. NUUO recommend user to use *Microsoft SQL Server Management Studio Express* to backup SQL Server. Please refer the web site of Microsoft http://technet.microsoft.com/en-us/library/ms365247.aspx .

Part 2: Administrator Functions (Setting Up the NCS System)

This section describes functions and operations of the administrator to set up the NCS Client software system while in Edit Mode. Please follow this section to setup Servers/Devices, Maps, Servers/Devices on Map, User Groups and Users, Coverage, Alarms, and Matrix system.

Servers/Devices

The NCS Client provides the ability to monitor unlimited cameras and input/output devices through unlimited Main Console servers. For convenience, Main Console servers and their related devices are organized into groups. The default top-level group is called **ServerGroup**. Child groups can be added to this in a hierarchical structure.

	To carry out the functions described below, you need to be in **Edit mode** and **Commit** after setup (see page 23).
	The license of the software should be registered first before operating the formal version of NCS System. Execute the License Management Tool in **Help**>**License Manager** to activate the license from a dongle or serial number allocated with the NCS software package, or de-activate the license then use it on another PC to activate it again. *Note:* Please refer page 46 for how to configure the License Management Tool.

Adding/Editing/Removing Server Groups

To add a server group:

1. Ensure that the client is in **Edit Mode** and that the **ServerView** tab is selected.
2. Right-click on the **ServerGroup** icon at the top of the window, then click **Add Group**.
3. Enter the group name, then click **OK**.
4. The group you added appears in the tree structure of the **ServerView** window.

To edit a server group name:

1. Right-click on the server group icon for the group you want to edit.
2. Select **Settings**.
3. Enter the name you want, then click **OK**.

To remove a server group:

1. Right-click on the server group icon for the server group you want to remove.
2. Select **Delete** and click **Yes** at the confirmation prompt.

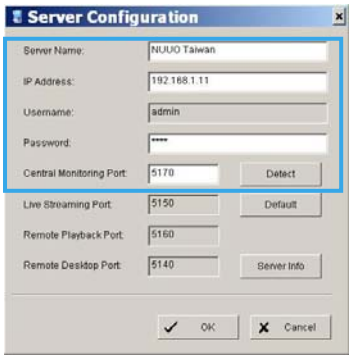
Adding/Editing/Removing Servers

Servers can be added to any server group. When a server is added, the devices on it must be synchronized with the NCS Client (See page 26). This procedure ensures that the cameras, input/output devices, and POS (Point of Sale) on the server are available for monitoring.

To add a server:

1. Ensure that the client is in **Edit Mode** and that the **ServerView** tab is selected.
2. Right-click on a server group icon, then click **Add Server**.
3. Enter the server details, then click **OK**. The Central Management Port should be the same as setup in Main Console server.

Servers/Devices



	Licenses for all servers and devices (cameras, I/O device and POS) need to be activated via NCS Client. (See Page 47)
	If you enter the Central Management port and click **Detect**, the NCS system will auto-detect the ports for Live Streaming, Remote Playback and Remote Desktop.
	Click the Server Info button to open a Server Information window, and the Server Information will be displayed on the Alarm detail window when an alarm is active.

4. The server you added appears in the tree structure of the **ServerView** window.

To synchronize server devices:

Right-click on a server icon , then click **Synchronize Device**. Then, all cameras, POS and input/output devices of Main Console server will appear and be available for monitoring.

	You must have enough licenses for the devices, otherwise the devices without licenses will show disable icon . In the **Tool** menu, select **Server Summary** to check the license status.

To edit server settings:

1. Right-click on a server icon , then click **Settings**.
2. Enter the required settings, then click **OK**.

To remove a server:

1. Right-click on a server icon .
2. Select **Delete** and click **Yes** at the confirmation prompt.

Maps

The Map window displays indicator icons representing the devices and servers that the NCS client monitors. They are shown against map backgrounds. This enables quick and easy control and monitoring of devices according to their location. Multiple maps of different locations and at different scales can be used, as described below. To change the size, pan settings and brightness of map graphics, see page 59.

	To carry out the functions described below, you need to be in **Edit Mode** and **Commit** after setup (see page 23).

Map Hierarchy

Maps can be layered in a hierarchical structure. Typically, the top–level (parent) map is at a large enough scale to cover the geographical areas of all the lower-level (child) maps. Each child map is assigned an icon on the parent map. Clicking a child map icon shows the child map in the Map window. Multiple levels of child maps can be defined.

	The default top level map is provided by NUUO. To change this, see the section **To edit map settings** below.

Adding/Editing/Removing Maps

To add a child map to a parent map:

1. Ensure that the client is in **Edit Mode** and that the **MapView** window is selected.
2. Right-click on the icon for the parent map , then click **Add Map**.
3. Enter the required details.
4. If you do not want to use the default indicator image, please manual import another image and set to default (For information on importing indicator images, see page 28.).
5. Click **OK**. The map you added appears in the tree structure of the **MapView** window.
6. The map indicator appears on the parent map. Drag it to the position you want.

To edit map settings:

1. Right-click on a map icon , then click **Settings**.
2. Enter the required settings, then click **OK**.

To remove a map:

1. Right-click on a map icon .
2. Select **Delete** and click **Yes** at the confirmation prompt.

Servers/Devices on Map

Each Main Console server or device can be assigned to a map. An indicator for the Main Console server or device is displayed on the map at the position you choose. This allows quick and easy control and monitoring. You can control the orientation of indicators as well as the appearance of accompanying text and the information it shows. The NCS Client software comes with default indicator images, but you can also import your own.

	To carry out the functions described below, you need to be in **Edit Mode** and **Commit** after setup (see page 23).

Importing Indicator Images

To import an indicator image:

1. In the **Edit** menu, select **Import Indicator Image**.
2. From the drop-down list, select the type of indicator image you want to import.

3. Click **Import**, browse to the required image file, and open it.
4. Click **OK**.

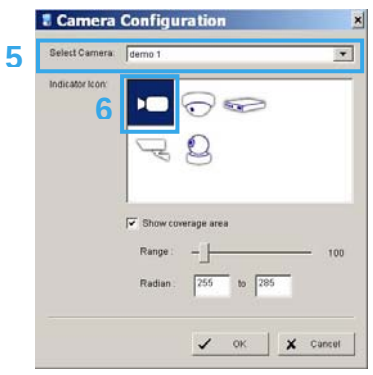
	If you want to set a specific image as the default for a file type, select the image, then select the **Default** checkbox.

Adding/Removing Device Indicators

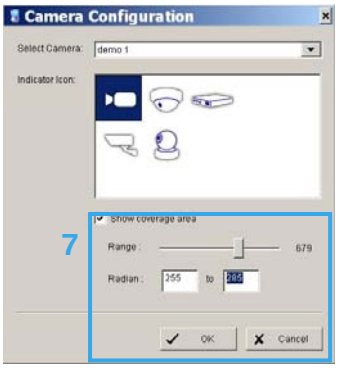
There are two ways to add device indicators to a map: **MapView** display and **ServerView**.

To add device indicators to a map in MapView:

1. Ensure that the client is in **Edit Mode** and that the **MapView** window is selected.
2. Click on the map icon for the map you want to add an image to. This displays the map.
3. Right-click on the map icon.
4. Click **Add Server Indicator**, **Add Camera Indicator**, **Add POS Indicator** or **Add I/O Indicator**, as required.
5. From the drop-down list, select a device.



6. Choose an indicator.



7. When the device is a camera select Show Coverage Area to set the Range and Radian.
8. Click **OK**.
9. The device indicator will appear on the map. Drag it to the required location.

To drag a device indicator to a map from ServerView:

1. Ensure that the map you want is displayed.
2. Click on the **ServerView** window.
3. Directly drag a device to the desired location on the map.

	If you are in **MapView** and click on a device which has already been added to a map, the map for that device will be displayed.

To remove a device indicator from a map:

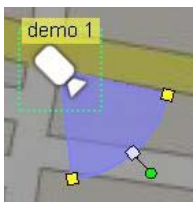
1. Right-click the indicator.
2. Click **Delete**.
3. Click **Yes** in the confirmation window.

Edit Device Indicators

An indicator image can be rotated, mirrored, or changed. The image can also be set to refer to a different device than the one originally chosen.

To rotate a device indicator to a preset angle:

Once a device indicator has been added or dragged to a map, the indicator image can be rotated. This is useful to show which direction a camera is pointing.



1. Right-click the indicator or right-click the device from **MapView**.
2. Click Rotate and choose an angle (preset angle 0, 45, 90, 135, 180, 225, 270, or 315 degrees).

	The radian, range, color and area of Camera Indicator can be set to show camera coverage.

To rotate a device indicator to an arbitrary angle:

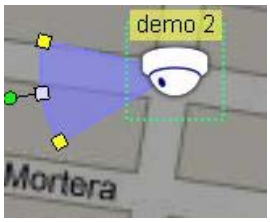
1. Right-click the indicator or right-click the device form **MapView**, or click  icon from **Edit** toolbar.

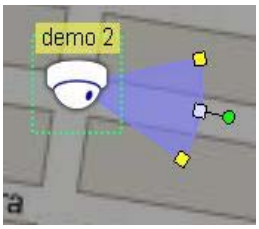
2. Click **Rotate Arbitrary**.
3. Use the rotation handle to rotate the indicator to the desired angle, then click to fix the angle.
4. Click **Rotate Arbitrary** again to close this option.

To mirror a device indicator:

Indicator images can be mirrored (flipped horizontally) so that a mirror image is displayed. One use would be to show in which direction a camera is pointing. For example, a default image may show a camera pointing left.

1. Right-click the indicator or right-click the device form **MapView**.
2. Click **Mirror**.
3. Mirroring would then have it facing right.





	The mirror command is a toggle. To un-mirror a previously mirrored indicator, follow steps 1 and 2 again.

To change a device indicator image:

1. Right-click the indicator or right-click the device form **MapView**.
2. Click **Settings**.
3. Select the indicator image you want, then click **OK**.

	To import a new indicator image, see page 28.

To remove a device indicator from a map:

1. Right-click the indicator or right-click the device form **MapView**.
2. Click **Delete**.
3. Click **Yes** in the confirmation window.

Coverage

Coverage is a defined period or periods of time. This is used for the following purposes:

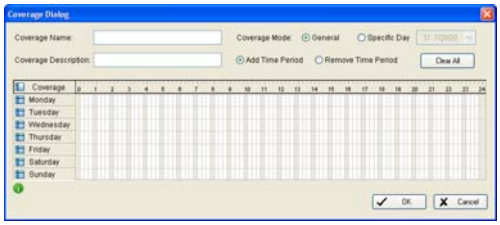
- To define the times a user can log in to the system and use the NCS client. This coverage is applied according to the local time of the NCS Client.
- To define the times that an alarm is active. This coverage is applied according to the local time of the source Main Console server.

	To carry out the functions described below, you need to be in **Edit Mode** and **Commit** after setup (see page 23).

Adding/Editing/Removing Coverage

To add a coverage:

1. Ensure that the client is in **Edit Mode** and the **Configuration** window is selected.
2. Right-click on the **Coverage** folder icon Coverage , then click **Add Coverage**.



3. In the **Coverage Dialog** window, enter a coverage name and, if you want, a coverage description.
4. Choose a coverage mode:
   - **General** is for regular coverage periods.
   - **Specific Day** means that this coverage applies to a specific date only. Choose the date from the drop-down list.
5. Select the time periods you want for this coverage.
   - Drag over the time periods you want. Selected periods appear in blue.
   - To remove periods, select **Remove Time Period** and drag over the periods you want to remove.
   - To clear all selected periods, click the **Clear All** button.
6. Click **OK**. The coverage you added appears in the tree structure of the **Configuration** window.

	You can also add a coverage from the **Edit** menu by pointing to **New Object**, clicking on **Coverage** then following steps 3 – 6 above.

To edit a coverage:

1. Right-click on the coverage icon for the coverage you want to edit.
2. Select **Edit Coverage**.
3. Edit the settings as required.
4. Click **OK**.

To remove a coverage:

1. Right-click on the coverage icon for the coverage you want to remove.
2. Select **Delete Coverage** and click **Yes** at the confirmation prompt.

User Groups and Users

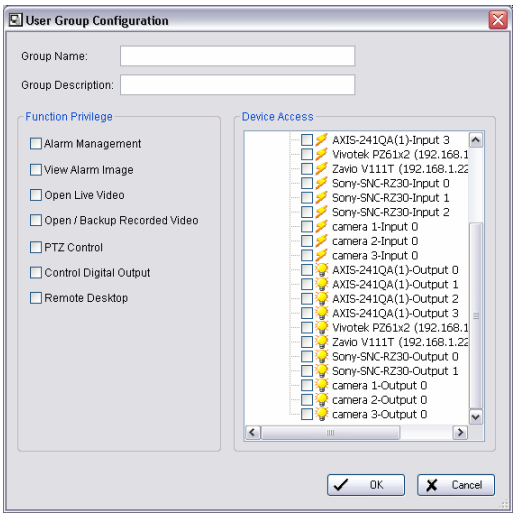
System administrators can control who can use the NCS client, when they use it, their ability to perform various functions, and which devices they can access. Privileges are assigned via user groups. For each user group, an administrator can define permitted functions as well as which devices the users in that group can access. Password control, permitted access times (see page 31), and a matrix profile (see page 40) are configured in the settings for each user.

	To carry out the functions described below, you need to be in **Edit Mode** and **Commit** after setup (see page 23).

Adding/Editing/Removing User Groups

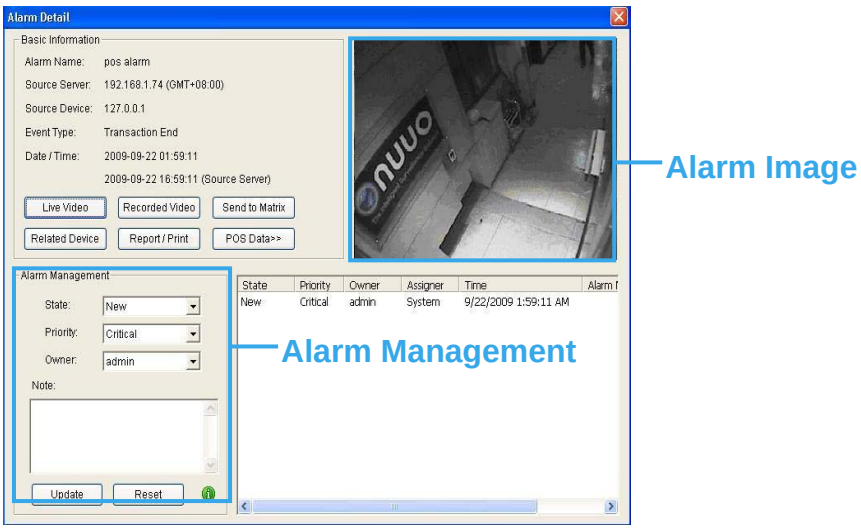
To add a user group:

1. Ensure that the client is in **Edit Mode** and that the **Configuration** window is selected.
2. Right-click on the **UserGroup** folder icon  UserGroup , then click **Add User Group**.



3. In the **User Group Configuration** window, enter a group name and, if you want, a group description.
4. In the **Function Privilege** area, select the privileges for members of this **UserGroup**:

- **Alarm Management –** allows users to change alarm status on the **Alarm Detail** window (see page 52).



- **View Alarm Image –** allows users to see a snapshot from the camera as an icon in the **Recent** display (see page 52) and view snapshot on Alarm detail Window.

- **Open Live Video –** allows users to open a live video window to view image of the camera and related devices from the **Alarm Detail** window or by right-clicking on a camera indicator.
- **Open/Backup Recorded Video –** allows users to open or back up recorded video of the camera and related devices from the Alarm Detail Window or by right-clicking on a camera indicator.
- **PTZ Control –** allows users to control the PTZ (pan, tilt, zoom) settings of compatible cameras. This option only works when users have Open Live Video authority simultaneously.
- **Control Digital Output –** allows users to control digital outputs such as alarms. This option only works when setting IO devices as related devices in Alarm setting (see page 35).
- **View and Search POS transaction –** allows users with authorization to search POS transactions.
- **Remote Desktop –** allows users to open a remote desktop.

5. In the **Device Access** area, choose the devices which members of this **UserGroup** will be able to access. If the devices have not been enabled in Device Access table, users still don't have allow to use above functions.
6. Click **OK**. The user group you added appears in the tree structure of the **Configuration** window.

	You can also add a user group from the Edit menu by pointing to **New Object**, clicking on **User Group** then following steps 4 – 6 above.
	For quick add a new UserGroup, please use **Insert Copy** option by right-click on the UserGroup which you want to copy.

To edit a user group:

1. Right-click on the **UserGroup** icon for the user group you want to edit.
2. Select **Edit User Group**.
3. Edit the settings as required.
4. Click **OK**.

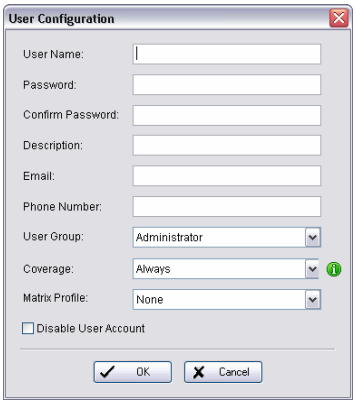
To remove a user group:

1. Right-click on the **UserGroup** icon for the user group you want to remove.
2. Select **Delete Group** and click **Yes** at the confirmation prompt.

Adding/Editing/Removing Users

To add a user:

1. Ensure that the client is in **Edit Mode** and the **Configuration** window is selected.
2. Right-click on the **User** folder icon User , then click **Add User**. The **User Configuration** window appears.



3. In the **User Configuration** window, enter a user name.
4. If password access is required for this user, enter and confirm a password.
5. If you want, enter a description.

6. If you want this user to receive auto alarm notifications by email or SMS, enter the email address and/or Cellphone number.
7. Choose a user group, a coverage (see page 31), and a matrix profile (see page 40) from the drop-down lists. The coverage here is based on the NCS Client's local time.
8. Click **OK**. The user you added appears in the tree structure of the **Configuration** window.

	You can also add a user from the **Edit** menu by pointing to **New Object**, clicking on **User** then following steps 3 – 8 above.

To edit a user:

1. Right-click on the user icon  for the user you want to edit.
2. Select **Edit User**.
3. Edit the settings as required.
4. Click **OK**.

To remove a user:

1. Right-click on the user icon  for the user you want to remove.
2. Select **Delete User** and click **Yes** at the confirmation prompt.

	Enable **Disable User Account** option on **User Configuration** window also can reject this user account to login NCS system.

Alarms

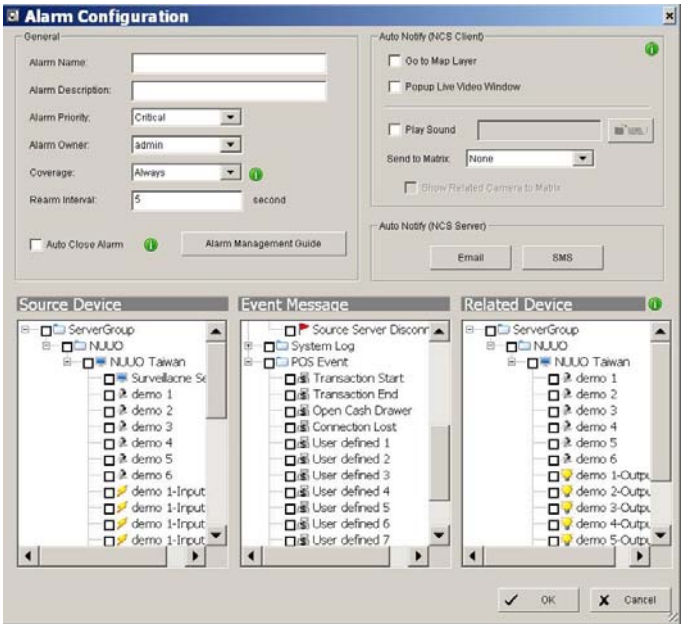
The alarm functions of the NCS Client can be configured to monitor many different events triggered by cameras, input devices, output devices, and servers.

	To carry out the functions described below, you need to be in **Edit Mode** and **Commit** after setup (see page 23).

Adding/Copying/Editing/Removing Alarms

To add an alarm:

1. Ensure that the client is in **Edit Mode** and the **Configuration** window is selected.
2. Right-click on the **Alarm** folder icon Alarm , then click **Add Alarm**.



3. In the **Alarm Configuration** window, enter an alarm name and, if you want, an alarm description.
4. Choose an alarm priority and an alarm owner from the drop-down lists.
5. Choose from the following settings:
   - Choose a coverage (default coverage is Always). The coverage here is based on the alarm source device's local time.
   - Enter a rearm interval. If the rearm interval is too short (default interval is 5 sec.), multiple alarms may be triggered by certain events such as motion.
   - If you want the alarm to close automatically when the triggering event ends, check **Auto Close Alarm**.
   - If you do not want to put the alarm into effect straight away, check **Disable Alarm**.
   - If you want, click Alarm Management Guide and enter text. This text appears in the alarm detail window (see page 55). The text also appears when users point to a device for which the alarm is active.
6. Select options in the **Auto Notify (NCS Client)** area:
   - If you want the map window to automatically display the map for the alarm's source device, select **Go to Map Layer**. User can click on icon to stop this function when day to day use.
   - For a camera alarm event, if you want a live video window from that camera to pop up, select **Popup Live Video Window**. Up to three live video windows can be open at a time. User can click on icon to stop this function when day to day use.

Alarms

- If you do not want to send the video of an alarm source camera and a related camera to matrixes, check Disable to Matrix button .
- If you do not want alarm events to replace old events on the Matrix if the Matrix is full and users do not close old events, check the Disable Matrix Popup button .

	NCS system will auto filter the same alarm of one camera, it can't allow one alarm of a camera to use more than one popup live video windows.

- If you want a sound to play when the alarm is triggered, check the **Play Sound** box, then click the **URL** button and browse to a sound file.
- For a camera alarm event, if you want the camera's video feed automatically sent to a matrix, choose a matrix from the **Send to Matrix** drop-down list. If a related camera is selected, you can also choose to **Show Related Camera to Matrix** by checking that box.

	The options of this section, **Go to Map Layer, Popup Live Video Window, Play Sound**, **Send to Matrix**, and **Show Related Camera on Matrix** settings apply only to one computer. If users run the NCS Client on another computer, they will have to configure the settings for that computer. To use **Send to Matrix** and **Show Related Camera on Matrix**, a matrix must be configured (see page 38), and that matrix must be set to **Allow Show Video on Event** (see page 71).

7. Select options in the **Auto Notify (NCS Server)** area:
   - If you want the server to send an automatic email to users when an alarm event happens, click the **Email** button and then select users.
   - If you want the server to send an automatic SMS message to users when an alarm event happens, click the **SMS** button. The text of the message is [*Alarm Name*] on [*Date/Time*].

	To configure the server's GSM modem and email settings (including email content), see page 37.

8. In the **Source Device** area, select the device/s which will trigger this alarm.
9. In the **Event Message** area, select the event/s which will trigger this alarm.
10. In the **Related Device** area, select devices which you want to relate to this alarm. For example, an input device event can automatically trigger a live video popup from a related camera.
11. Click **OK**. The alarm you added appears in the tree structure of the **Configuration** window.

	You can also add an alarm from the **Edit** menu by pointing to **New Object**, clicking on **Alarm** then following steps 3 – 11 above.

To copy an alarm:

1. Right-click on the icon for the alarm you want to copy.
2. Select **Insert Copy**.
3. Configure the alarm as described above.
4. Click **OK**. The alarm you added appears in the tree structure of the **Configuration** window.

To edit an alarm:

1. Right-click on the icon for the alarm you want to edit.
2. Select **Edit Alarm**.
3. Edit the settings as required.
4. Click **OK**.

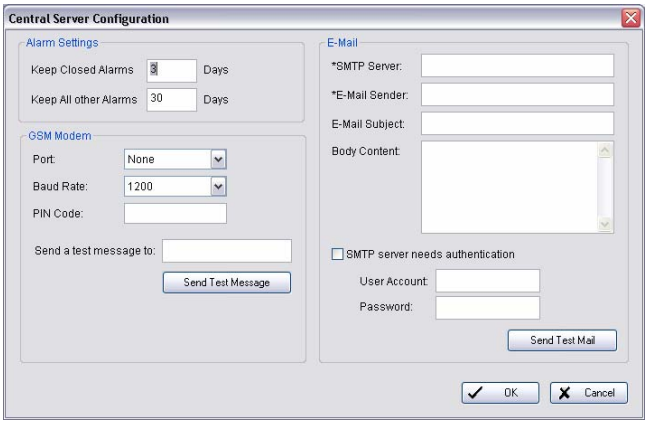
To remove an alarm:

1. Right-click on the icon ⚠ for the alarm you want to remove.
2. Select **Delete Alarm** and click **Yes** at the confirmation prompt.

Central Server Configuration Window

The **Central Server Configuration** window controls how the server keeps alarm records, and also GSM and E-Mail server settings for auto notification of alarms to users.

	If necessary, see your IT administrator for details on these settings.



To configure server alarm records:

1. In the **Edit** menu, click Server **Configuration**.
2. In the **Alarms Settings** area of the **Central Server Configuration** window, enter the number of days to keep closed alarms and all other alarms.

	The default period of **Keep Closed Alarms** is 3 days, the NCS system would remove all closed alarm happened three days ago at 12:00 PM everyday.
	The default period of **Keep All Other Alarms** is 30 days, the NCS system would remove all closed alarm happened thirty days ago at 12:00 PM everyday.

To configure system auto notification via SMS:

1. In the **Edit** menu, click **Server Configuration**.
2. In the **GSM Settings** area of the **Central Server Configuration** window, select a port and a baud rate from the drop-down lists.
3. Enter a PIN code if required.
4. If you want to send a test message, enter the destination phone number and click **Send Test Message**.

	NCS system will auto filter the SMS for the same alarm, one alarm can't trigger another SMS before one SMS send out.

To configure system auto notification via email:

1. In the **Edit** menu, click **Server Configuration**.
2. In the **E-Mail** area of the **Central Server Configuration** window, enter an SMTP server, port and select **Secure connection (SSL)**
3. Enter an email sender, an email subject, and the body content of the email.
4. If the SMTP server requires authentication, check the box and enter the user account name and password.
5. If you want, click **Send Test Mail**.

Matrix System

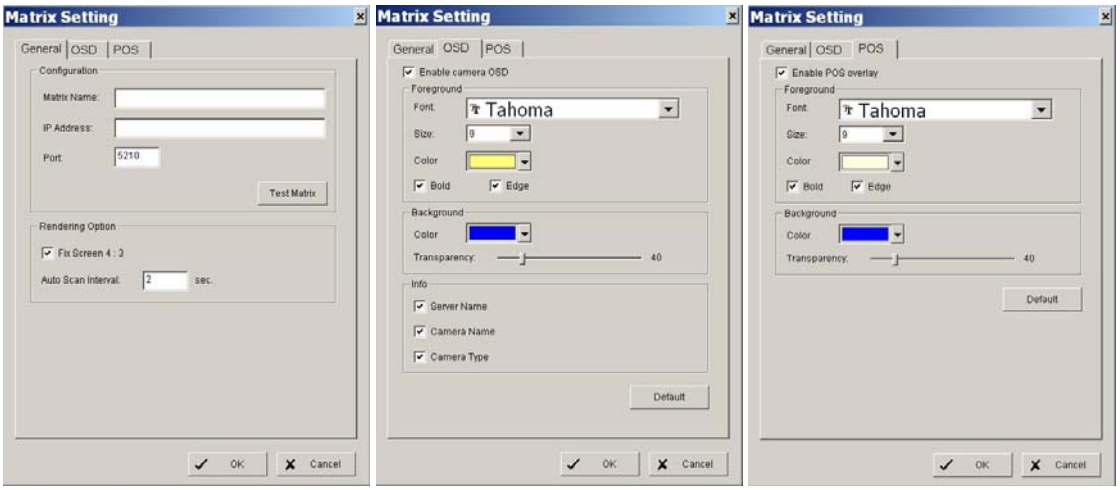
The NCS Client provides feeds over the Internet to multiple video matrixes. Each matrix can display images from up to 64 cameras, along with text above each image including information about the camera and server.

	To carry out the functions described below, you need to be in **Edit Mode** and **Commit** after setup (see page 23).

Adding/Editing/Removing Matrixes

To add a matrix:

1. Ensure that the NCS Matrix system is running, either on the same computer as the NCS Client, or on another computer.
2. Ensure that the client is in **Edit Mode** and the **Configuration** window is selected.
3. Right-click on the Matrix folder icon Matrix , then click **Add Matrix**.



4. Under General in the **Matrix Setting** window, enter a matrix name and an IP address.
   - To enter a port. This port must be the one configured for the matrix itself. For multiple matrix systems, enter the same IP, and the port for each matrix as described on page 39.
   - To test the matrix server, click **Test Matrix**.
   - To fix the screen aspect at 4:3, check the box.
   - To choose the rate at which camera images are updated on the matrix, enter an auto scan interval.
5. Under OSD in the Matrix Setting window
   - For text displayed on the matrix, select a font, a font size, and font styles.
   - Choose what information is included in on-matrix text, by checking **Info**: **Server Name**, **Camera Name**, and **Camera Type** boxes as required.
6. Under POS in the Matrix Setting window
   - Select enable or disable POS overlay
   - For POS information displayed on the matrix, select a font, a font size, and font color.

	You can also add a matrix from the **Edit** menu by pointing to **New Object**, clicking on **Matrix** then following steps 4–7 above.

To edit a matrix:

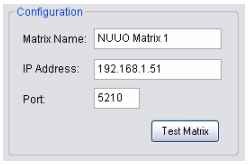
1. Right-click on the icon for the matrix you want to edit.
2. Select **Edit Matrix**.
3. Edit the settings as required.
4. Click **OK**.

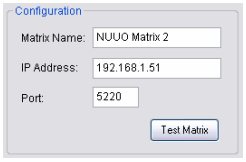
To remove a matrix:

1. Right-click on the icon for the matrix you want to remove.
2. Select **Delete Matrix** and click yes at the confirmation prompt.

To configure the NCS Client for a multiple matrix system:

Follow steps 1-7 of the procedure described above, entering the matrix name and port as appropriate for each matrix.





Loading/Saving/Managing Matrix Profiles

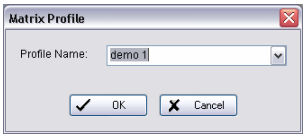
A matrix profile stores the matrix grids, stream profile and camera positions for one or more matrixes. (For information on configuring matrix grids and camera positions, see page 71). All users can load matrix profiles, but only administrators can save and edit them.

To load a matrix profile:

Click the Profile button and point to **Load Profile**, then click the profile you want to load.

To save a matrix profile:

1. Click the Profile button, then click **Save Profile**.

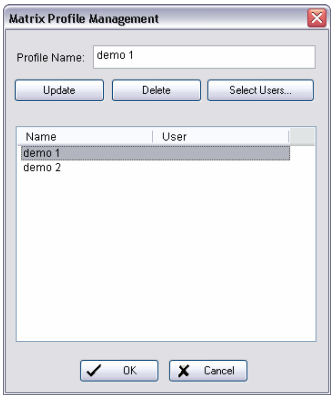


2. In the **Matrix Profile** window, enter a name, then click **OK**.

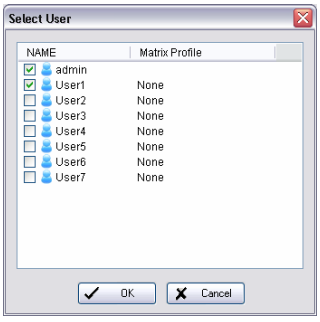
	The setup of Matrix, please see page 71.

To assign users to a matrix profile from the Matrix Profile Management window:

1. Click the Profile button, then click **Profile Management**.



2. In the **Matrix Profile Management** window, select the profile you want to assign users to, then click **Select Users**.



3. In the **Select User** window, check the boxes for the users you want, then click **OK**.
4. In the **Matrix Profile Management** window, click **OK**, then click the **Commit** button Commit to save your changes to the server.

	You can also assign a user to a matrix profile in the **User Configuration** window (see page 33).

To rename a matrix profile:

1. Click the Profile button, then click **Profile Management**.
2. In the **Matrix Profile Management** window, select the profile you want to rename.
3. In the **Profile Name** box, enter the new name.
4. Click **Update**, then click **OK**.
5. In the **Matrix Profile Management** window, click **OK**, then click the **Commit** button Commit to save your changes to the server.

To remove a matrix profile:

1. Click the Profile button, then click **Profile Management**.
2. In the **Matrix Profile Management** window, select the profile you want to remove.
3. Click **Delete**, then click **OK**.
4. Click the **Commit** button Commit to save your changes to the server.

Network Management

NCS Server Management

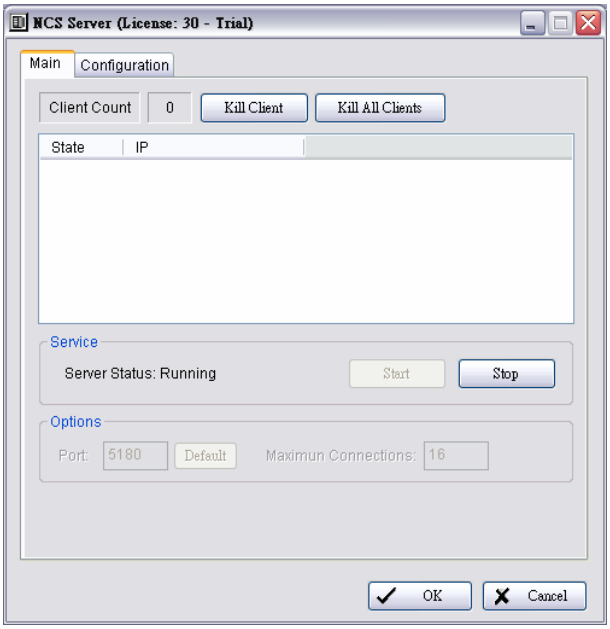
On the NCS Server Window, administrators can Kill Client, change port of connect, and limit the maximum client connections.

To kill a connected client:

1. Double click on the NCS Server icon to open the NCS Server Window.
2. Choose a client IP and click **Kill Client**.

To change connect port and maximum connections:

1. Click **Stop** to cut all connections.
2. Change port of connection and maximum connections.
3. Click on **Start** to allow connections.



To change the NCS Server password:

The default password of admin account is empty. Modify the password from the client software and commit it to the server as follows:

1. Open NCS Client Software and log in with the **admin** account.
2. In **Edit Mode**, select the **Configuration** Window.
3. Right-click on the user icon admin for the admin account and select **Edit User**.
4. Enter a new password, and then click OK.
5. Click on the **Commit** button Commit to commit the modification to the server.

Matrix Management

To edit the Allow Hosts list:

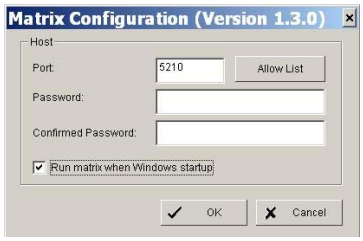
1. In the **Start** menu, point to **All Programs**, point to **NUUO Central Management Client**, and then select **NCS Matrix** to start the matrix.
2. Point to the bottom-right corner of the screen, and then click on the General Setting icon .
3. Click **OK** to open the Matrix Configuration window.

4. Click the **Allow List** button.

5. In the Allow Hosts List window, deselect **Allow All Hosts**, and then choose from the following actions:
   - To add a host, enter the host IP address, and then click **Add**.
   - To remove an IP address from the allow list, choose the IP from the table and then click **Delete**.
6. Click **OK** to save the configuration.

To set a matrix password:

1. In the **Start** menu, point to **All Programs**, point to **NUUO Central Management Client**, and then select **NCS Matrix** to start the matrix.
2. Point to the bottom-right corner of the screen, click on the General Setting icon  , and then click **OK**.



3. In the Matrix Configuration window, enter and confirm the password.
4. Click **OK**.

To start up NCS Matrix automatically:

1. In the Start menu, point to All Programs, point to NUUO Central Management Client, and then select NCS Matrix to start the matrix.
2. Point to the bottom-right corner of the screen, and then click on the General Setting icon  .
3. Click **OK** to open the Matrix Configuration window.

4. In the **Matrix Configuration** window, select **Run Matrix when Windows startup**
5. Click **OK**.

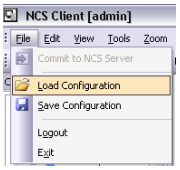
Loading/Saving NCS Client Configuration

The NCS Client configuration can be saved to the local PC and loaded back again. The configuration includes:

- Map display settings
- Alarm log Settings
- Matrix Settings
- MatrixView configuration

To save or load other settings such as server settings or map settings, see ***Loading/Saving NCS Server Configuration*** on page 45.

To load or save NCS Client configuration:



In the **File** menu, select **Load Configuration** or **Save Configuration**.

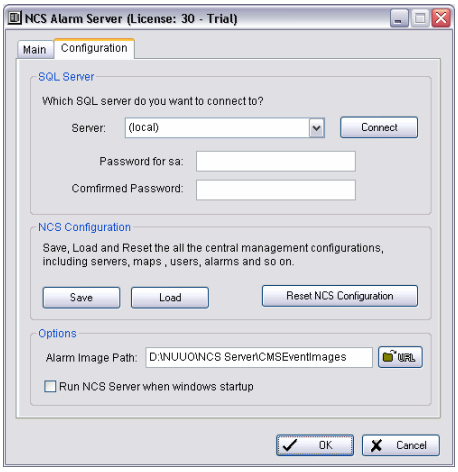
Loading/Saving NCS Server Configuration

The NCS Server configuration can be saved to the NCS Server PC and loaded back again. It can also be reset to default status. The configuration includes:

- Server settings
- Map settings
- Device settings on maps
- User group settings
- User settings
- Alarm settings
- Coverage settings
- Indication import settings
- Server configuration
- Address and password of SQL Server

To save, load, or reset NCS Server configuration:

1. Click the  icon from Taskbar and enter the password.



2. In the Central Server window, click Save, Load, or Reset NCS Configuration.

	Restore NCS Configuration will not clear the setting of SQL Server.

License Management Tool

The license of the software should be registered first when upgrading to **NCS V1.3.0**.

Execute the **License Management Tool** to activate the license from a dongle or serial number allocated with the software package, or de-activate the license and then use it on another PC to activate it again.

Both “On line” and “Off line” status of PC environment could execute the tool to “activate” or “transfer” the license. Below list 5 types of license management process:

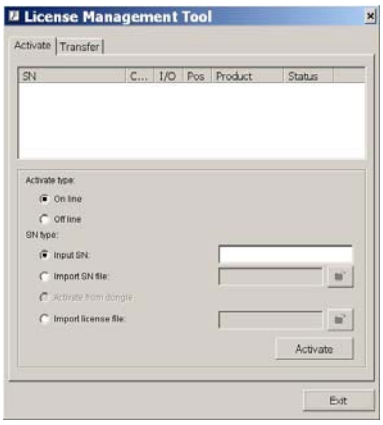
- To “activate” the license with an NCS System connected to the network, follow the “**Activation On line**” process.
- To “activate” the license with an NCS System not connected to the network, follow the “**Activation Off line**” process.
- To “activate” the license from a dongle either with an NCS System connected or not connected to the network, follow the “**Activation from dongle**” process.
- To “de-activate/transfer” the license with an NCS System connected to the network, follow the “**Transfer On line**” process.
- To “de-activate/transfer” the license with an NCS System not connected to the network, follow the “**Transfer Off line**” process.

Please refer to the chapter below for detailed steps of each process.

License Management Tool Overview

Execute License Management Tool

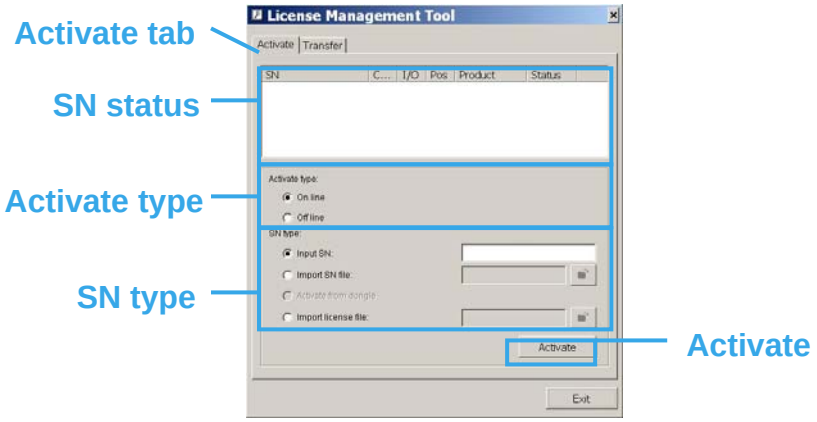
1. Execute **License Manager Tool** in Help of NCS Client.



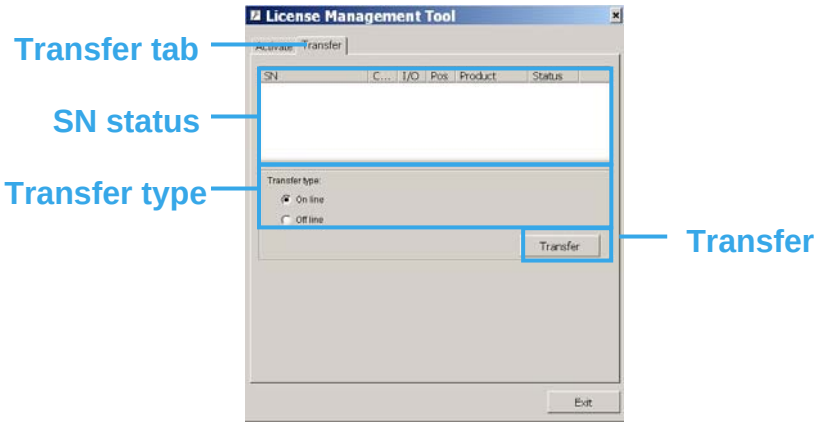
2. The **License Management Tool** will appear. Please refer to the tool overview below.

License Management Tool Overview

Activate



Transfer

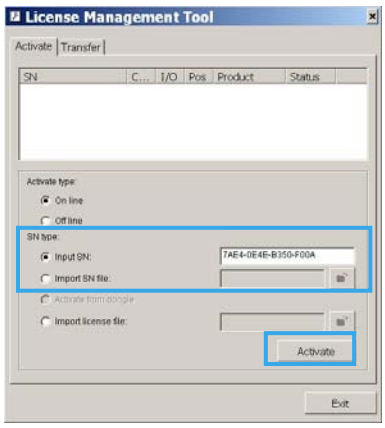


Activate/Transfer License

Activate License

Activation Online

1. Open **License Manager Tool**.
2. Select On line as **Activate** type.
3. Input the **SN (Serial number)** or **Import SN file**, and then click on the **Activate** button.



4. Restart **NCS-Client** if activated successfully.

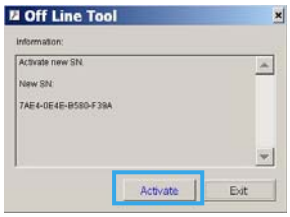
Activation Off line

1. Open **License Manager Tool**.
2. Select **Off line** as **Activate** type.

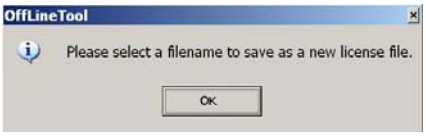
3. Input the SN, and then click on **Activate** button.

4. Save Request file, and then take it to another PC connected to Internet.

5. Execute **OffLineTool.exe** on another PC, and then click **Activate** to send request file to license server.



6. Save License file, and then take it to the original **NCS Client** of the NCS System.
7. Open **License Manager Tool** from NCS Client again, select **Import** license file, and then click **Activate** button to activate.

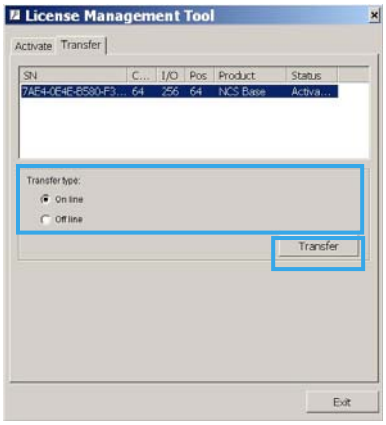


8. Restart **NCS-Client** if activated successfully.

Transfer License

Transfer On line

1. Open **License Manager Tool**.
2. Select **Transfer** Tab, and then check **On line** as Transfer type.
3. Select SN and click on **Transfer** button.

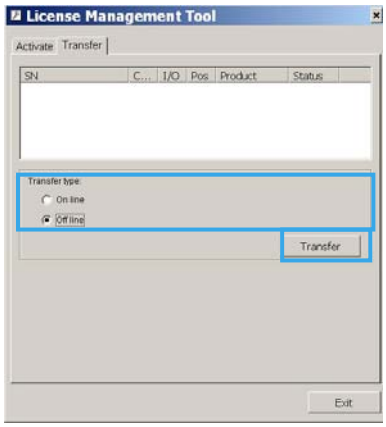


4. Restart **NCS-Client** if activated successfully.

Transfer Off line

1. Open **License Manager Tool**.

2. Select **Transfer** Tab, and then check **Off line** as **Transfer** type.
3. Select SN, and then click **Transfer** button to transfer SN.



4. Save Request file. Restart **NCS-Client** if activated successfully.
5. Copy request file to another PC connected to internet.
6. Execute **OffLineTool.exe** on another PC, check Transfer SN and click **Transfer** to send request file to license server.
7. Check **Transfer Completed**.

	User must copy the request file to another PC and send it to the license server, otherwise the SN cannot be reactivated!!
	NCS Server cannot connect to SQL Server without NCS Base License.

Part 3: User Functions (Day to Day Use)

This section describes function and operations of the client in day to day use, including alarm management and view live video on NCS Matrix.

	The commands which a user can access are governed by the user group privileges assigned by the administrator. For this reason, some of the commands described in the section may not be available to each user.

Operate Toolbar

The Operate toolbar controls common functions connected with map view and display, map device searching, and control of actions triggered by alarms.

It has seven controls and three tools:

- The **Go to Parent Map** button , which shows the parent map in the **Map** window.
- The **Disable Goto Map** button . When selected, alarm events cannot change the map view.
- The **Disable Popup** button . When selected, alarm events cannot trigger a live video popup.
- The **Disable Link between Map and Matrix** button . When selected, links between **Map** and **Matrix View** devices cannot be displayed on the **NCS Client**.

	If users enable **Link between Map and Matrix,** selected cameras on the map can be highlighted on the Matrix View and vice versa.

- The **Disable to Matrix** button . When selected, alarm events cannot send alarm source camera and related camera video feed to matrixes.
- The **Disable Matrix Popup** button . When selected, video of new alarm events cannot replace old events on the **Matrix** if the **Matrix** is full and users do not close old events.
- The **Close Sound** button . When selected, alarm events cannot trigger a sound.
- The **Search** button , which opens the **Search** window, to search devices on the map.
- The **Search** text entry box , which enables quick search of devices on the map.
- The **Brightness** slider , which controls the brightness of the map.

Alarm Overview Window

The Alarm Overview window shows recent alarm events in various formats, and is also used to show alarm query results and log messages. For any alarm displayed in this window, an **Alarm Detail** window can be opened. This enables easy management of alarms. There are five tabs in the window: **Recent**, **Real Time**, **Message Log**, **Output** and **Output2**. The first three tabs show recent real-time alarm information, and the remaining two tabs show query and search results. The function and use of these tabs is described below.

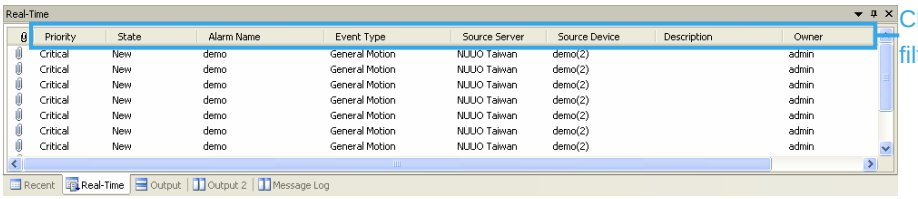
Recent Tab

The **Recent** tab gives a display of recent alarm events in icon format. When the alarm event is triggered by a camera, the icon normally shows a snapshot of the video feed from that camera at the time the alarm was triggered. However, when the camera signal is lost or the user does not have authority to view snapshots from that camera, or when the event is triggered by another device, other icons are displayed. The various icons and their meanings are shown below.

	Event Message Snapshot for **Camera Events**, including General Motion, Foreign Object, Missing Object, Focus Loss, Camera Occlusion
	Event Message Picture for **Camera Event** of Signal Lost.
	Event Message Picture for **I/O Event** of Digital Input Triggered.
	Event Message Picture for **POS Event** without an associated camera or no authorization to view video.
	Event Message Picture for **Server System Abnormal Events**, including Disk Space Exhausted, System Health Unusual and Source Server Disconnect.
	Event Message Picture for **Server System Operational Events**, including Start/Modify/Stop Smart Guard, Schedule, Live Streaming Server, Remote Playback Server, Start/Stop Manual Record, Modify Confiquration, Enable/Disable Channels, Lock/Unlock System.
	Event Message Picture for Device **Authority** Deficiency; The user does not have the authority to view the snapshot of that device.

To control the number and size of icons, see page 55.

Real-Time Tab

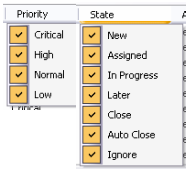


Click on tab to filter alarms.

The **Real-Time** tab gives a list of alarm events as they come in to the client. For client configurations where a lot of devices are being monitored, a great many alarm events may be received. To display only relevant events the user can filter by **Priority**, **State**, **Alarm Name**, **Event Type**, **Source Server**, **Source Device**, **Owner**, and **Time**. In addition, the number of displayed alarm events can be controlled (see page 55).

To filter by priority:

Click the **Priority** button. From the list, select the priorities for alarms you want to display.

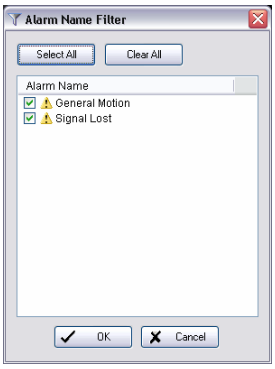


To filter by state:

Click the **State** button. From the list, select the states for alarms you want to display.

To filter by alarm name:

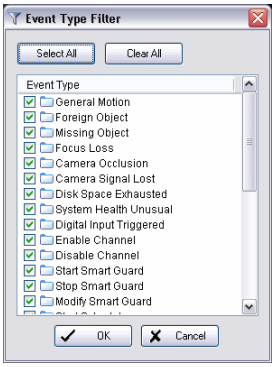
1. Click the **Alarm Name** button.



2. In the **Alarm Name Filter** window, select the alarm names for the alarms you want to display.

To filter by event type:

1. Click the **Event Type** button.

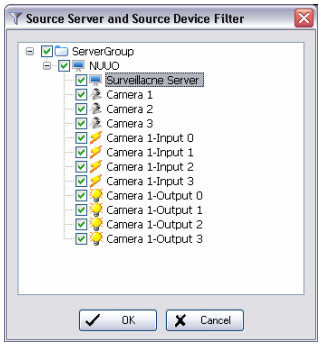


2. In the **Event Type Filter** window, select the alarm names for the alarms you want to display.

To filter by source server or source device:

1. Click either the **Source Server** or the **Source Device** button.

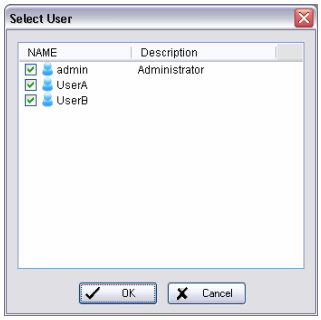
Alarm Overview Window



2. In the **Source Server and Source Device Filter** window, select the server/s, the camera/s, I/O device/s or POS/s for the alarms you want to display.

To filter by alarm owner:

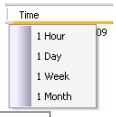
1. Click the **Owner** button.



2. In the **Select User** window, select the owners for the alarms you want to display.

To filter by time:

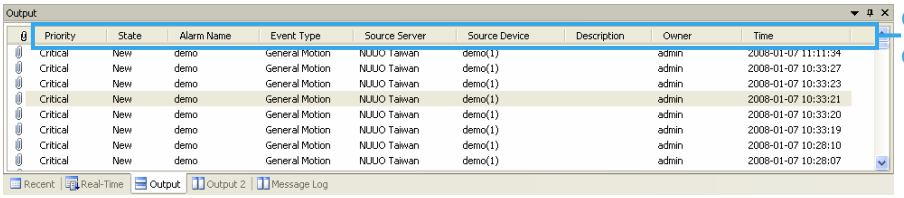
Click the **Time** button. From the list, select the period (1 Hour, 1 Day, 1 Week, or 1 Month) for alarms you want to display.



	The above filter options can also be accessed by going to the **Tools** menu, pointing to **Real-Time Filter**, and clicking on the filter option you want.

Output Tab and Output 2 Tab

The **Output** and **Output 2** tabs show lists of alarm event query results (see page 63) or alarm event search results from the **Advance Alarm Search** tool (see page 69). The lists can be ordered according to **Priority**, **State**, **Alarm Name**, **Event Type**, **Source Server**, **Source Device**, **Description**, **Owner**, or **Time**.



To order lists in Output and Output 2 tabs:

Click the button at the top of the column you want to order by. For example, if you want to order by time, click the **Time** button. To reverse the order, click the button again.

Message Log Tab

This tab displays messages from the server. The displayed messages are as follows:

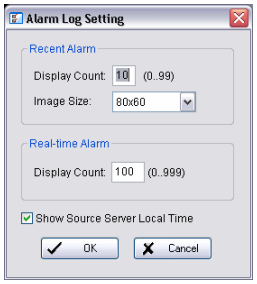
- NCS server failed to execute SQL command
- The disk space of NCS server is low
- The license of NCS server is missing
- Failed to connect to matrix [matrix name]
- Failed to connect live video on matrix [matrix name]

Alarm Log Settings

The **Alarm Log Setting** window features controls for the **Recent** and the **Real-Time** displays. It also includes the option to display the local time of the source Main Console server for alarm events.

To configure alarm log settings:

1. In the **Edit** menu, click **Alarm Log Setting**.



2. In the **Alarm Log Setting** window, configure the following options:
   - In the **Recent Alarm** area, enter a display count in the range 0 to 99. This controls how many icons can be viewed at one time when the **Recent** tab is selected.
   - In the **Recent Alarm** area, select the Image Size from drop-down list. This controls the size of icons viewed when the **Recent** tab is selected. There are four image size, 80x60,160x120, 240x180, 320x240.
   - In the **Real-Time Alarm** area, enter a display count in the range 0 to 999. This controls how many alarm events can be viewed at one time when the **Real-Time** tab is selected.
   - If you want to view alarm event times in the local time at the source server, check **Show Source Server Local Time**.
3. Click **OK**.

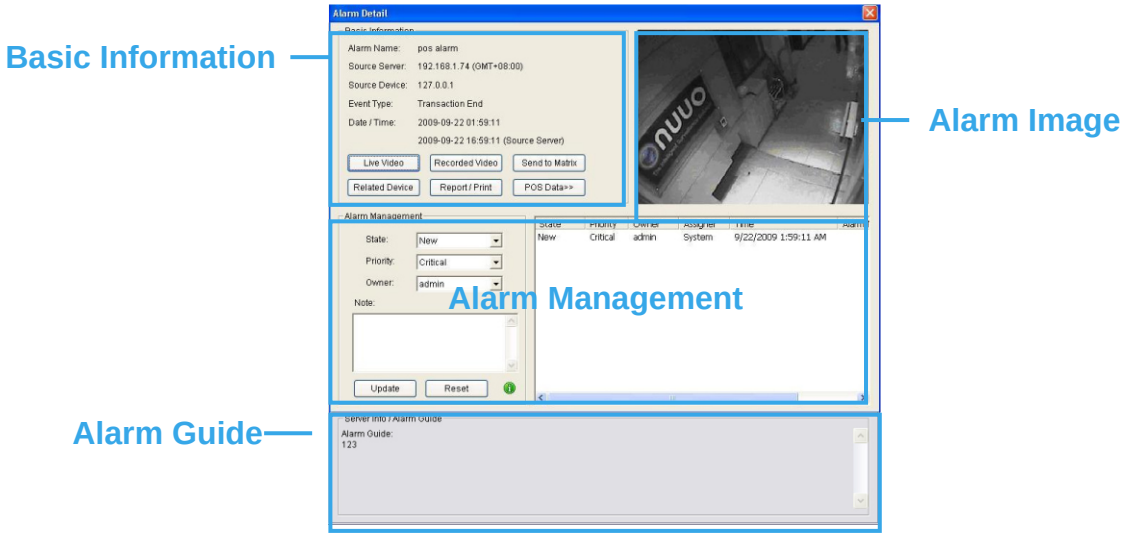
Alarm Detail Window and Alarm Management

For any alarm displayed in the Alarm Overview window, an **Alarm Detail** window can be opened. This gives detailed information about the alarm. Depending on the privileges assigned to users, it can also include basic information options to view live or recorded video feeds, to trigger digital output devices (for example an audible alarm signal), and to print alarm details; and alarm management tools to set or reset the state, priority, and owner of the alarm.

To view alarm information in the Alarm Detail window:

Right-click on any alarm event in the Alarm Overview window, and then click **Alarm Detail**.

Alarm Overview Window

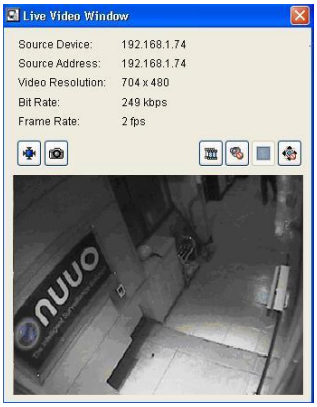


The **Alarm Detail** window gives details of four sections:

- Basic information: Include **Alarm Name**; **Source Server**; **Source Device**; **Event Type**; **Date /Time** (client local time in the first line, and source server local time of Main Console in the second line)
- Alarm Image: The snapshot or icon image of alarm.
- Alarm Management: The List of Alarm Management, include **State**; **Priority**; **Owner**; **Assigner**; **Time**(assigned time of client local time)**; and Alarm Note** (to note how users deal with the alarm)
- Server Info/ Alarm Guide: The guide for how to deal with this alarm.

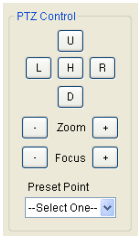
To view live video from the alarm source camera:

1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Detail**.
2. Click **Live Video**. The **Live Video Window** for the camera is displayed.



3. If you want to adjust the video to original video resolution, check **Adjust to original video resolution**.
4. Click **Snapshot** button  . The snapshot is displayed and users can save the image or copy it to the clipboard.
5. Select **Streaming profile** button  to choose different video quality: includes Original/Main, Recorded, High, Normal, Low, Minimum.
6. If the camera is equipped with Audio function, the **Audio** button will appear. Click **the** button  to disable audio stream.
7. If the camera is associated to POS, the **POS** button  will appear. Click the button to disable POS information.
8. To use PTZ control in a live video window:

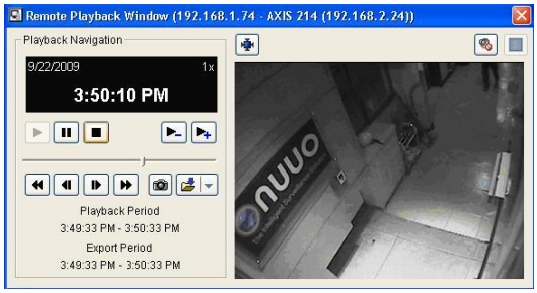
If the camera is equipped with remote PTZ (pan, tilt, zoom) control, the **PTZ** button will appear. Clicking this reveals the following controls:



- Direction controls: U (up), D (down), L (left), R (right), H (Home)
- Zoom out (-) and zoom in (+) controls
- Focus controls
- The **Preset Point** drop-down list. If preset points have been defined for the camera, these appear in the list.

To view recorded video from the alarm source camera:

1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Detail**.
2. Click **Recorded Video**. The **Remote Playback Window** has full playback controls.



3. If you want to fix the window size at the original resolution, check **Fix original video resolution**.

	The default playback period is 1 minutes. To viewer longer period, please right-click the device and choose the longer period which you want (see page 65) or use Remote Playback system which has full playback controls. In Tools menu, point to Remote Playback.

To send Video to Matrix:

1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Detail**.
2. Click **Send to Matrix** and **select Matrix which you set** (see Matrix System, page 38). The video is sent to Matrix.

To view POS Transact:

1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Detail**.
2. If the alarm has POS transact, the **POS Data** button will appear. Click **POS Data.** The POS transact data is displayed on the right.

To view live video from a camera related to the alarm source I/O device or POS:

1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Detail**.
2. Click **Related Device**, then point to **Open Live Window**, and click the camera you want. The **Live Video Window** for the camera is displayed.
3. If you want to fix the window size at the original resolution, check **Fix original video resolution**.

To view recorded video from a camera related to the alarm source I/O device or POS:

1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Detail**.
2. Click **Related Device**, then point to **Open Playback Window**.
3. If you want to fix the window size at the original resolution, check **Fix original video resolution**.

Alarm Overview Window

To trigger a digital output device:

1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Detail**.
2. Click **Related Device**, then point to **Trigger Digital Output**, and choose the output device you want to trigger.

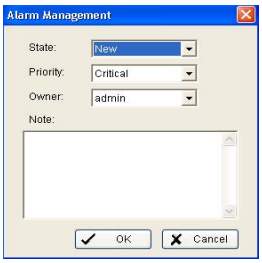
To report/print alarm details:

1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Detail**.
2. Click **Report/Print Alarm**, then select the printer options you want and click **OK**.

To set the alarm state, priority, owner and Note:

There are two ways to manage alarm state, priority, and owner. One is in the Alarm Detail Window, and the other is in the Alarm Management Window, which is opened directly form the alarm event in the Alarm Overview window.

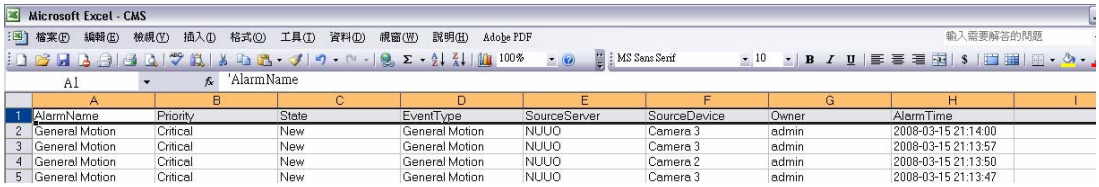
- **In the Alarm Detail window**
  1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Detail**.
  2. In the **Alarm Management** area, select the **State**, **Priority**, **owner and Note** from the drop-down lists. If you want to reset these options to the settings when you opened the window, click **Reset**.
  3. Click **Update** to manage this alarm.
- **In the Alarm Management window:**
  1. Right-click on any alarm event in the Alarm Overview window, then click **Alarm Management**.



  2. In the **Alarm Management** window, select the **State, Priority**, **owner and Note** from the drop-down lists. Click **OK**.

Exporting Alarm Data to an Excel File

Alarm data can be exported to an Excel file. You can do this for a single selected alarm, or for all alarms in the Alarm Overview window. The columns in the exported file are including AlarmName, Priority, State, EventType, SourceDevice, Owner, AlarmTime.



	A	B	C	D	E	F	G	H
1	AlarmName	Priority	State	EventType	SourceServer	SourceDevice	Owner	AlarmTime
2	General Motion	Critical	New	General Motion	NUUO	Camera 3	admin	2008-03-15 21:14:00
3	General Motion	Critical	New	General Motion	NUUO	Camera 3	admin	2008-03-15 21:13:57
4	General Motion	Critical	New	General Motion	NUUO	Camera 2	admin	2008-03-15 21:13:50
5	General Motion	Critical	New	General Motion	NUUO	Camera 3	admin	2008-03-15 21:13:47

To export a single alarm event to Excel:

Right-click on any alarm event in the Alarm Overview window, then click **Export Selected to Excel**.

To export all alarm events in the Alarm Overview window to Excel:

Right-click on any alarm event in the Alarm Overview window, then click **Export All to Excel**.

Clearing Alarms

All alarm events can be cleared from the Alarm Overview window.

To clear all alarm events:

Right-click on any alarm event in the Alarm Overview window, and then click **Clear All**.

Map Window

Adjusting Map Appearance

The display of map graphics in the Map window can be controlled. The size of the map can be selected, and the map moved in the window to show the required area. The brightness of the map graphic can also be changed without affecting the brightness of device indicators on the map.

To control the size of a map:

Either use the zoom in and zoom out buttons to adjust the map size, or click the magnify button and select one of the following options:

- **Full Size**
- **Fit Image**
- **Fit Width**
- **Fit Height**

To lock the map size:

Click the magnify button and then select **Zoom Lock**. This prevents the accidental changing of the map size. To turn **Zoom Lock** off, click it again.

To pan when the map size is larger than the Map window:

Click and drag the map to the position you want.

To lock the map pan setting:

Click the magnify button and then select **Pan Lock**. This prevents accidental panning of the map. To turn **Pan Lock** off, click it again.

	The controls above can also be accessed on the **Zoom** menu.

To adjust map brightness:

Move the brightness slider for the brightness you want.

Navigating Between Map and Servers/ Devices

It is easy to navigate between different layers of maps, and to show the maps for devices in various locations. There are two ways of doing this: clicking icons in **MapView**, and using indicators on the map.

To navigate in MapView:

Ensure that the **MapView** window is selected. Then either:

- Click the icon for the map you want to display.

or

- Click a device icon. The map which the device indicator is on will display.

To navigate with indicators:

Ensure that the **MapView** window is selected. Then click on a map indicator to see the underlying (child) map. Click the Go to Parent Map button to go to the parent map.

Map Window

Searching for an Indicator on the Map

Users can find device, server or map indicators on a map by using the **Search** function.

To use the search function:

1. On the Operate toolbar, click the Search icon .

2. In the **Search** window, enter the full name or part of the name of the indicator you want to search for.
3. Select from the following options:
   - **Match case –** searches for names where the case matches the letters you entered.
   - **Match whole word only –** searches for the term you entered as a whole word. If the term you entered forms only part of an indicator's name, that indicator will not be found.
   - **Look At Map/Server/Device –** checking the boxes selects which kinds of indicator are searched.
   - **Find In MapTree/ServerTree –** if **ServerTree** is selected when the **ServerView** window is displayed, servers and devices in the **ServerView** window will be searched.
4. Click **Find Next** to search for the indicator name. If an indicator is found, the map it is on will be displayed and the indicator will be highlighted. The corresponding icon in the **MapView** window will also be highlighted.
5. If you want to search through multiple indicator names which include the same term, click **Find Next** until the indicator you want is found.

	You can also search indicators by entering a term in the Search box and pressing the Enter key on your keyboard.

Map Indicators

Indicators on a map provide a graphical representation of the connection and alarm states of the devices or servers they represent, or for map indicators the alarm state of devices on their child maps. The meaning of the various graphics is given below.


Camera is connected and has no alarm


Camera is disconnected and has no alarm


Camera is connected and has New alarm


Camera is connected and has Assigned, In Progress or Later alarm


Server is connected and has no alarm


Server is disconnected and has no alarm


Server is connected and has New alarm


Server is connected and has Assigned, In Progress or Later alarm


POS is connected and has no alarm


POS is disconnected and has no alarm


POS is connected and has New alarm


POS is connected and has Assigned, In Progress or Later alarm


Input device is connected and has no alarm


Input device is disconnected and has no alarm


Input device is triggered and has no alarm


Input device is triggered and has New alarm


Input device is triggered and has Assigned, In Progress or Later alarm


Output device is connected but not triggered


Output device is disconnected


Output device is connected and triggered


There is no alarm on underlying map


There are New alarms on underlying map


There are Assigned, In Progress or Later alarms on underlying map

Map Display Settings

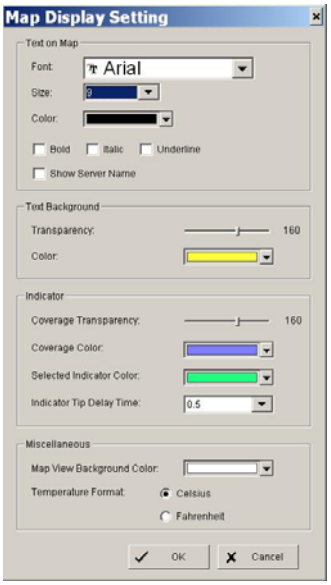
You can control the appearance of text which accompanies device indicators, and the information it shows.

To change the map display settings:

In the **Edit** Menu, click **Map Display Setting**, and choose the desired configuration:

- For text displayed above device indicators, select the font, font size, font color and any font effects desired.
- If you want the server name displayed alongside the device name, select **Show Server Name**.
- Select the background color, background transparency and camera coverage color for device indicator text.

Map Window


Map Display Setting
Text on Map
Font:
Arial
Size:
Color:
Bold
Italic
Underline
Show Server Name
Text Background
Transparency:
160
Color:
Indicator
Coverage Transparency:
160
Coverage Color:
Selected Indicator Color:
Indicator Tip Delay Time:
0.5
Miscellaneous
Map View Background Color:
Temperature Format:
Celsius
Fahrenheit
OK
Cancel

Device Alarm Menus

When a user right-clicks on a device indicator on a map, or on a device's icon in the System Control window, a Device Alarm menu is shown.

There are some commands which are common functions to all device alarm menus. These are:

- **View Latest Open Alarm –** shows the latest open alarm (alarm with **New** status) for the device.
- **Query Alarm –** displays open alarms (alarms with **New** status), or alarms for any particular date, for the device
- **System Information –** gives information about the server.

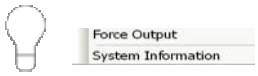
In addition, the Device Alarm menu shows different options depending on what kind of device you right-click on.

For a camera, the menu shows the following options:

- **Open Live Video Window –** opens a window with live video feed from the camera.
- **Open Playback Window –** opens a recorded video playback window.
- **Backup Recorded Video –** saves a backup of recorded video from the device, in the directory you specify.

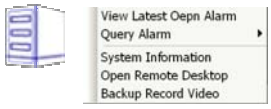
For a POS, the menu shows the following options:

- **POS Search –** searches POS transaction by date, time and keyword
- **Open Live Video Window –** opens a window with live video feed from the associated camera.
- **Open Playback Window –** opens a recorded video playback window.
- **Backup Recorded Video –** saves a backup of recorded video from the device, in the directory you specify.



For an output device, the menu shows the following option:

- **Force Output –** triggers a digital output device such as an audible alarm signal.



For a server, the menu shows the following options:

- **Open Remote Desktop –** opens a remote desktop for the server.
- **Backup Record Video –** saves a backup of recorded video from any or all of the cameras on the server, in the directory you specify.

Common Functions

The **View Latest Open Alarm**, **Query Alarm**, and **System Information** commands are common to all device alarm menus.

To view the latest open alarm for a device:

1. Right-click on the indicator for the device, or on the device's icon in the **MapView** display.
2. Click **View Latest Open Alarm**.
3. The **Alarm Detail Window** for the latest alarm opens. For information on this window, see page 55.

To query alarms for a device:

1. Right-click on the indicator for the device, or on the device's icon in the **MapView** display.
2. Point to **Query Alarm**, then choose which alarms you want to see:
   - **Open –** shows all open alarms.

Device Alarm Menus

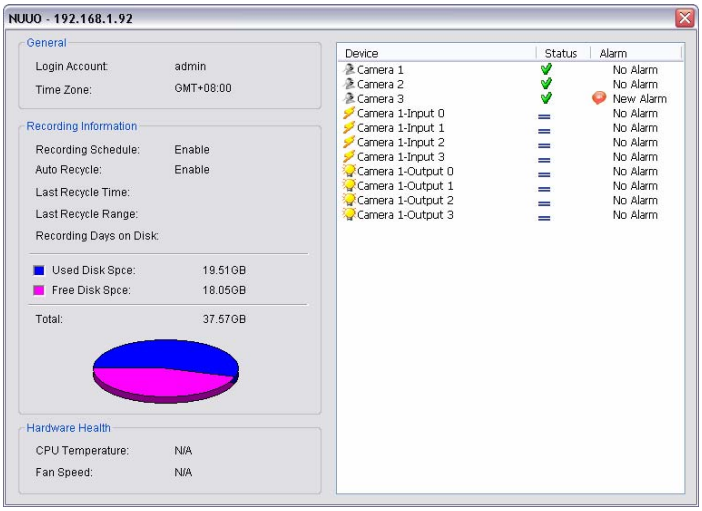
- **Today –** shows alarms from the current day.
- **Custom –** opens the **Calendar Dialog** window. Choose a date, then click **OK**.

	System administrators set the length of time that alarms are stored on the server (see page 37). If you choose a date for which alarm information is not stored, the **No alarm found on the device** message is displayed.

3. The query results are display in the **Output/Output 2** tab. For information on this window, see page 54.

To show information about the server:

1. Right-click on the indicator for the device, or on the device's icon in the **MapView** display.
2. Click **System Information**.

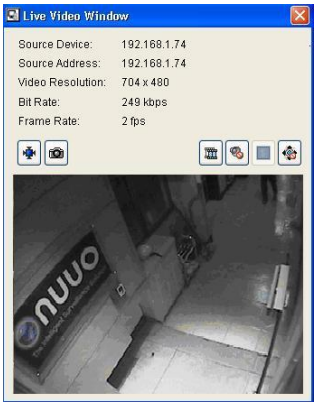


Camera Alarm Menu

The **Open Live Video Window**, **Open Playback Window**, and **Backup Recorded Video** commands appear on the device alarm menu for cameras. The first two options are the same as on the Alarm detail Window (see pages 55-58).

To open a live video window:

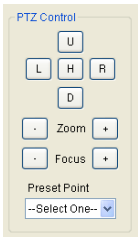
1. Right-click on the indicator for the camera, or on the camera's icon in the **MapView** display.
2. Click **Open Live Video Window**. The **Live Video Window** for the camera is displayed.



3. If you want to adjust the video to original video resolution, check **Adjust to original video resolution**.
4. Click **Snapshot** button  . The snapshot is displayed and users can save the image or copy it to the clipboard.
5. Select **Streaming profile** button  to choose different video quality: includes Original/Main, Recorded, High, Normal, Low, Minimum.

6. If the camera is equipped with Audio function, the **Audio** button will appear. Click the button  to enable audio stream.
7. If the camera is associated to POS, the **POS** button  will appear. Click the button to disable POS information.
8. To use PTZ control in a live video window:

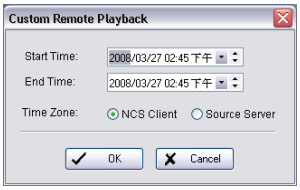
   If the camera is equipped with remote PTZ (pan, tilt, zoom) control, the **PTZ** button will appear. Clicking this reveals the following controls:



   - Direction controls: U (up), D (down), L (left), R (right), H (Home)
   - Zoom out (-) and zoom in (+) controls
   - Focus controls
   - The **Preset Point** drop-down list. If preset points have been defined for the camera, these appear in the list.

To open a recorded playback window:

1. Right-click on the indicator for the camera, or on the camera's icon in the **MapView** display.
2. Point to **Open Playback Window**.
3. Select the period which want to display.
   - Last Open Alarm- it would open one minute recording video before last open alarm.
   - Custom Time- it can set Start/End time to define the period of recording video.

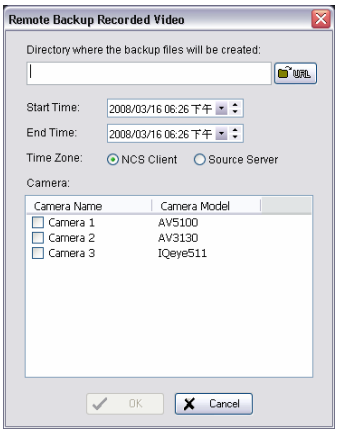


   - One Minute Before- open one minute before.
   - Ten Minutes Before- open ten minutes before.
   - One Hour Before- open one hour before.
4. The **Remote Playback Window** has full playback controls.
5. If you want to adjust the video to the original video resolution, check **Adjust to original video resolution**.
6. Click **Snapshot** button  . The snapshot is displayed and users can save the image or copy it to the clipboard.
7. Click **Export Video** button to save recorded video.
   - Set up the cue in and cue out points; the cue in and cue out time will show on the information window.
   - Click **Export Video** button, choose the folder where you want to save the file at, enter the file name and click SAVE.
   - Set the Export Format as ASF or AVI (ASF recommend) and set the Use Profile.
   - Select to export (i.e. save) the record video with Audio, OSD and POS, or export video only.
   - Click OK to save the video.

8. If the camera is equipped with Audio function, the **Audio** button will appear. Click the button  to enable audio stream.
9. If the camera is associated to POS, the **POS** button will appear. Click the button to disable POS information.

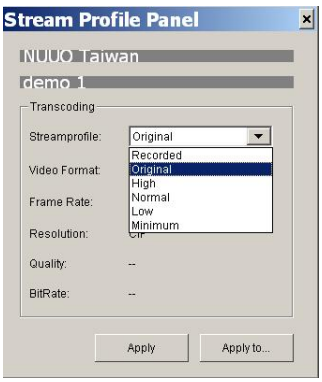
To back up recorded video:

1. Right-click on the indicator for the camera, or on the camera's icon in the **MapView** display.
2. Click **Backup recorded video**.
3. In the **Remote Backup Recorded Video** window, choose a directory for the backup by pressing the **URL** button  and browsing to the directory you want.
4. Setup the Time Zone and use setting Start/End Time to select a period.
5. Use the checkboxes to select which cameras to back up video for.
6. Click on **OK** to start backup.



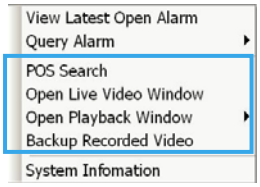
To Set up Stream Profile:

1. Right-click on the indicator for the camera, or on the camera's icon in the **MapView** display.
2. Click **Stream Profile**.
3. In the **Stream Profile Panel**, choose **Recorded, Original, High, Normal, Low or Minimum** for the **stream profile** to change video format, frame rate, resolution, quality and bitrate.
4. Click Apply to set up.
5. If you want to apply the Stream Profile setting to other cameras, click **Apply to** to set up another device.



POS Alarm Menu

The **POS Search, Open Live Video Window**, **Open Playback Window**, and **Backup Recorded Video** commands appear on the device alarm menu for the POS. The steps are the same as on the Camera Alarm Menu (see pages 64).



To search POS transaction:

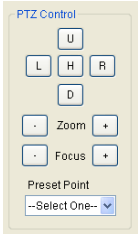
1. Right-click on the indicator for the POS, or on the POS's icon in the **MapView** display.
2. Click **POS Search**. **POS Search Dialog** will display
3. Setup the Date/Time for search:
   - Date/Time – check Date and/or Time; and From and/or To, in the checkboxes. Then choose the date/s and time/s you want.
4. Enter keyword to search POS transaction. Click Search within result to filter the result.
5. Choosing a result to display POS transaction and video from associated camera.

To open a live video window:

1. Right-click on the indicator for the POS, or on the POS's icon in the **MapView** display.
2. Click **Open Live Video Window**. The **Live Video Window** for the POS is displayed.

3. If you want to adjust the video to the original video resolution, check **Adjust to original video resolution**.
4. Click **Snapshot** button  . The snapshot is displayed and users can save the image or copy it to the clipboard.
5. Select **Streaming profile** button  to choose different video quality: includes Original/Main, Recorded, High, Normal, Low, Minimum.
6. If the camera is equipped with Audio function, the **Audio** button will appear. Click the button  to enable audio stream.
7. Click the button to disable POS information.
8. To use PTZ control in a live video window:

   If the camera is equipped with remote PTZ (pan, tilt, zoom) control, the **PTZ** button will appear. Clicking this reveals the following controls:

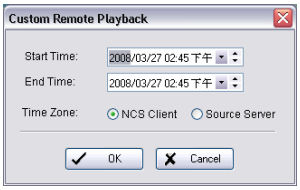


- Direction controls: U (up), D (down), L (left), R (right), H (Home)
- Zoom out (-) and zoom in (+) controls
- Focus controls

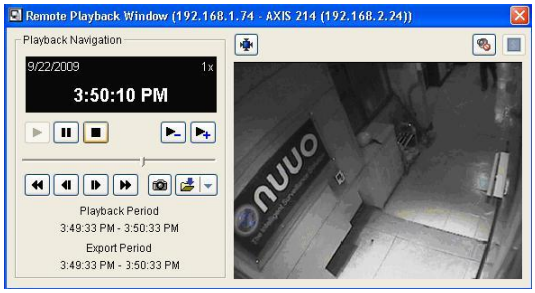
- The **Preset Point** drop-down list. If preset points have been defined for the camera, these appear in the list.

To open a recorded playback window:

1. Right-click on the indicator for the POS, or on the POS's icon in the **MapView** display.
2. Point to **Open Playback Window**.
3. Select the period you want to display.
   - Last Open Alarm- this opens one minute of recording video before the last open alarm.
   - Custom Time- this sets the Start/End time to define the period of recording video.



   - One Minute Before- open one minute before.
   - Ten Minutes Before- open ten minutes before.
   - One Hour Before- open one hour before.
4. The **Remote Playback Window** has full playback controls.

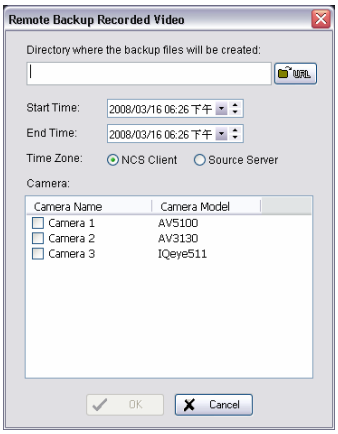


5. If you want to adjust the video to the original video resolution, check **Adjust to original video resolution**.
6. Click **Snapshot** button  . The snapshot is displayed and users can save the image or copy it to the clipboard.
7. Click **Export Video** button to save recorded video.
   - Set up the cue in and cue out points; the cue in and cue out time will show on the information window.
   - Click **Export Video** button, choose the folder where you want to save the file at, enter the file name and click SAVE.
   - Set the Export Format as ASF or AVI (ASF recommend) and set the Use Profile.
   - Select to export (i.e. save) the record video with Audio, OSD and POS, or export video only.
   - Click OK to save the video.
8. If the camera is equipped with Audio function, the **Audio** button will appear. Click the button  to enable audio stream.
9. Click the button to disable POS information.

To back up recorded video:

1. Right-click on the indicator for the POS, or on the POS icon in the **MapView** display.
2. Click **Backup recorded video**.
3. In the **Remote Backup Recorded Video** window, choose a directory for the backup by pressing the **URL** button  and browsing to the directory you want.
4. Setup the Time Zone and use setting Start/End Time to select a period.
5. Use the checkboxes to select which cameras to back up video for.

6. Click on **OK** to start backup.



Output Device Alarm Menu

The **Force Output** command appears on the device alarm menu for output devices.

To force output:

1. Right-click on the indicator for the output device, or on the output device's icon in the **MapView** display.
2. Click **Force Output**. A signal is sent to trigger the output device.

Server Alarm Menu

The **Backup Record Video** and **Open Remote Desktop** commands appear on the device alarm menu for servers.

To back up recorded video:

1. Right-click on the indicator for the server, or on the server's icon in the **MapView** display.
2. Click **Backup recorded video**.
3. In the **Remote Backup Recorded Video** window, choose a directory for the backup by pressing the **URL** button 

and browsing to the directory you want.
4. Setup the Time Zone and use setting Start/End Time to select a period.
5. Use the checkboxes to select which cameras to back up video for.
6. Click on **OK** to start backup.

To open a remote desktop for the server:

1. Ensure that the source server has enabled the Remote Desktop network server.
2. Right-click on the indicator for the server, or on the server's icon in the **MapView** display.
3. Click **Open Remote Desktop**.

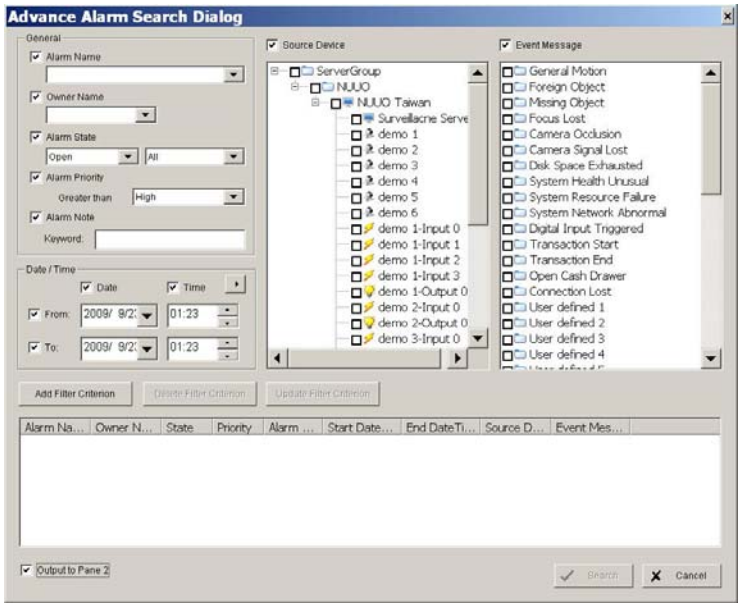
Advance Alarm Search

The **Advance Alarm Search** window provides a comprehensive set of filters to search for alarm events. The results can be displayed either in the **Output** window or the **Output 2** window.

To use Advance Alarm Search:

4. In the **Tools** menu, click **Advance Alarm Search**.
5. In the **Advance Alarm Search Dialog** window, check the box or boxes for the search criteria you want, then choose the desired options (if no options are selected for a given field, it means search for all).

Device Alarm Menus

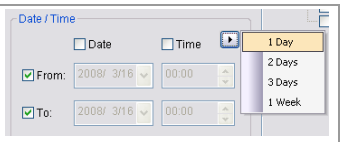


6. Setup the General options for criteria:
   - **Alarm Name –** choose a name from the drop-down list.
   - **Owner Name –** choose a name from the drop-down list.
   - **Alarm State –** choosing Open or Close in the first list reveals different states in the second list:

     Open – All, New, Assigned, In Progress, or Later in the second list.

     Close – All, Close, Auto Close, or Ignore in the second list.
   - **Alarm Priority –** click the button to cycle through Greater than, Equal to, and Less than. In the drop-down list, select a priority.
   - **Alarm Note** – enter keyword for search
7. Setup the Date/Time for search:
   - **Date/Time –** check Date and/or Time; and From and/or To, in the checkboxes. Then choose the date/s and time/s you want.

For setup one day as the search period, click icon by the side of Time and select 1 day. Or manual enable Date and set date from 2008/3/16 to 2008/3/17.



8. Choose the Source Device and Event Message.
   - **Source Device –** check the box or boxes for the devices you want to search. If only check the Source Device without select any devices from tab, the criteria would search for all devices.
   - **Event Message –** check the box or boxes for the event messages you want to search. If only check the Event Message box without select any events from tab, the criteria would search for all events.
9. Click **Add Filter Criterion**. The search criteria you selected appear in the window.
10. You can edit or remove the set of search criteria you have just created, or add another set of search criteria:
    - To edit a set of search criteria, select that set, choose filter options as described above, then click Update Filter Criterion.
    - To remove a set of search criteria, select that set, then click Delete Filter Criterion.
    - To add another set of search criteria, choose filter options as described above, then click Add Filter Criterion, the search result would include each combination of all criteria.
11. By default, search results are displayed in the **Output** window. If you want the results to be displayed in the **Output 2** window, check **Output to Pane 2**.
12. Click **Search**.

Matrix View

The NCS Client provides feeds over the Internet to multiple video matrixes. Each matrix can display images from up to 64 cameras, along with text above each image including information about the camera and server. Matrixes can also be configured to show video from a camera when an alarm event occurs. To display video on a matrix, the NCS client must be logged in to that matrix. Once logged in, the matrix display can be configured and cameras chosen.

Matrix View Toolbar

The Matrix View Toolbar has the following buttons:

- **Login/Logout matrix** – the NCS Client must be logged in to a matrix in order for most of the Matrix Toolbar commands to be used.
- **Remove camera on matrix** – when a camera icon on a matrix is selected, clicking this button removes it.
- **Reset matrix** – this button removes all cameras from the selected matrix.
- **Toggle allow show video on event** – this is a toggle button. When selected, you can enter edit mode to set that video from a camera and related cameras can be displayed on the matrix when an alarm event occurs.
- **Toggle auto scan** – this allows auto scanning of cameras on the matrix.
- The **Profile** button – this opens the Profile menu. For information on this see below.
- The **Audio** button – this enables camera audio.
- The **Matrix grid** buttons these control the layout of the matrix grid.

Showing Video on a Matrix

Showing video on a matrix requires that a matrix system be executed, either on the same computer as the one running the NCS Client, or another one. For information on how to execute a matrix system, see page 38. For the NCS Client to show video on a matrix, it must be logged in to that matrix.

To load a preset matrix profile:

Click the Profile button and point to **Load Profile**, then click the profile you want to load.

To log in to a matrix:

Select the matrix you want to log in to and click the **Login matrix** button .

To configure a matrix grid layout:

1. Ensure that the NCS Client is logged in to the matrix as described above.
2. Select the matrix you want to configure.
3. Click one of the **Matrix grid** buttons . The button on the far right is the **Matrix Grid NxN** button. Clicking the arrow next to this displays a menu, from which you can select more display grid options.

To select the cameras on a matrix:

1. Ensure that the NCS Client is logged in to the matrix as described above.
2. Select the matrix you want to configure.
3. Click the Profile button and point to **Select Cameras on Matrix**.
4. In the **Select Cameras on Matrix** window, check the cameras that you want to appear on the currently selected matrix, then click **OK**.

Matrix View

5. The camera icons appear on the matrix. You can drag them to different positions on the matrix. To see which camera a particular icon represents, point to the icon. A text bubble appears showing the camera name, type, and server.
6. Select **Stream Profile** of the camera. Choose **As NCS Client, Original/Main, Recorded, High, Normal, Low or Minimum**.

	You can also drag cameras to the matrix by clicking a camera indicator on a map, and dragging it to the matrix. To do this, the NCS Client must be in Operate mode.
	You can disable the Link between the Map and Matrix by clicking the Disable Link between Map and Matrix button .
	You can disable send video on event to Matrix by clicking the Disable to Matrix button .
	Video of new alarm events cannot replace old events on the Matrix if the Matrix is full and users do not close old events when you click The Disable Matrix Popup button .

To remove a camera from a matrix:

1. Ensure that the NCS Client is logged in to the matrix as described above.
2. Select the matrix you want to configure.
3. Select the camera icon and click the **Remove camera on matrix** button .

	The setting of Matrix can only save on NCS client PC. The same user account login server with different PC can't load the original Matrix setting.

To reset matrix:

1. Ensure that the NCS Client is logged in to the matrix as described above.
2. Select the matrix you want to configure.
3. Click the **Reset matrix** button

To toggle allow show video on event:

1. Ensure that the NCS Client is logged in to the matrix as described above.
2. Select the matrix you want to configure.
3. Click the **Toggle Allow Show Video on Event** button .or select **Edit "Show On Event" Mode**. Select grids you want to show video on events. Clicking again can disable allow show video on events.
4. Choose **Select All** to toggle allow all grids show video on events.
5. Choose **Clear All** to disable allow all grids show video on events.

To toggle auto scan:

1. Ensure that the NCS Client is logged in to the matrix as described above.
2. Select the matrix you want to configure.
3. Click **Toggle Auto Scan** button .
4. Click **Toggle Auto Scan** button again to disable auto scan.

Joystick Control

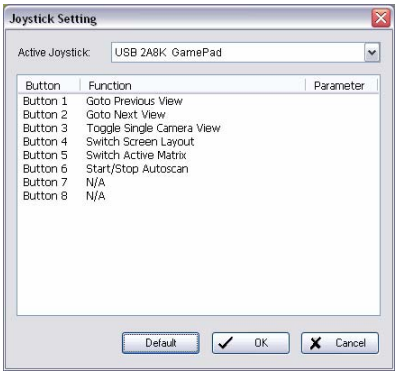
Matrix system can be controlled by a joystick. Prior to setup, it requires a joystick device connected to NCS Client computer.

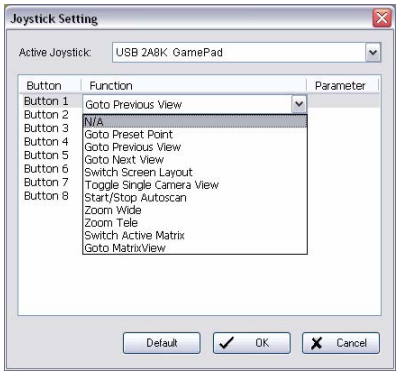
To setup Joystick Control:

1. Click the Edit button and point to **Joystick Setting**.
2. In **Joystick Setting Window**, select the Active Joystick you want to use.
3. Select the function and the parameter from drop-down menu for the button of joystick. The function are as below:

- **N/A** – make the button ineffective.
- **Goto Preset Point** – go to the preset point of the view on a matrix or a live video. Select the parameter for the preset point.

- **Goto Previous View** – go to previous view on a matrix.
- **Goto Next View** – go to next view on a matrix.
- **Switch Matrix Grid** – switch grids of a matrix.
- **Toggle Single Camera View** – toggle select camera to single view.
- **Start/Stop Autoscan** –start/stop autoscan on a matrix.
- **Zoom Wide** – zoom wide of the view on a matrix.
- **Zoom Tele** – zoom tele of the view on a matrix.
- **Switch Active Matrix** – switch into different matrix.
- **Goto Matrix View** – go to Matrix View Window.



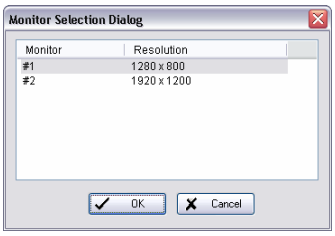


Remote Playback Shortcut

The **Remote Playback** command in the **Tools** menu displays a NUUO NVR/NDVR/DVR control screen from the server. For information about the NUUO NVR/NDVR/DVR software, see its accompanying documentation.

To execute the Remote Playback shortcut:

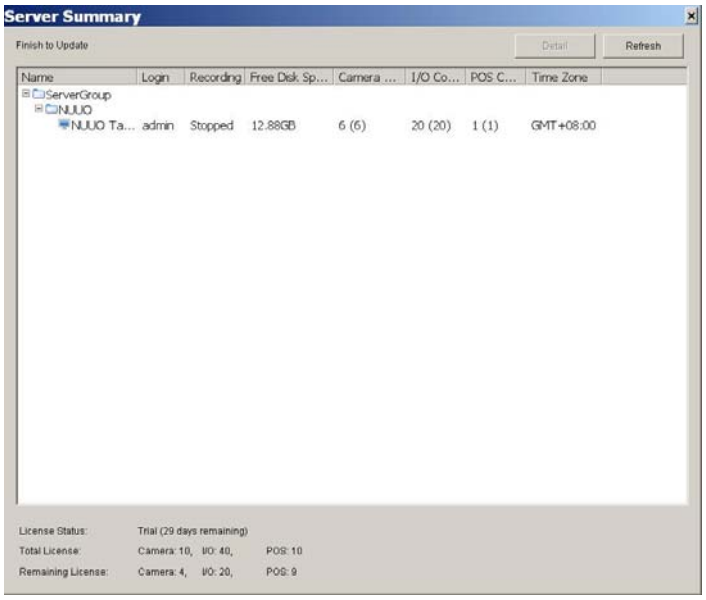
1. In the **Tools** menu, click **Remote Playback**.
2. For multiple monitor systems, select which monitor you want the NVR/NDVR/DVR control screen to display on.



3. Click **OK**.

Server Summary

The **Server Summary** window displays summary information about all the source servers connected to the NCS Client.



This information consists of:

- **Login –** the login name for the recording server.
- **Recording –** the video recording status of the recording server.
- **Free Disk Space –** remaining recording server disk space.
- **Camera Count –** the number of camera licenses connected to the recording server.
- **I/O Count –**the number of input and output devices connected to the recording server.
- **POS Count –**the number of POS devices connected to the recording server.
- **Time Zone –** the time zone of the recording server.
- **License Status –** the license status of the NSC system
- **Total License –** the total number of licenses, including cameras, POS and I/O devices.
- **Remaining License –** the remaining number of licenses, including cameras, POS and I/O devices.

To use the Server Summary window:

1. In the **Tools** menu, click **Server Summary**.
2. Use the ⊞ and ⊟ buttons beside the server group folders to view server information.
3. To refresh the information in the window, click **Refresh**. This refreshes Login User, Recording status and Free Disk Space. To refresh number of cameras, IO, and Time Zone, select **Synchronize Device** while in **Edit Mode**.

To open a window with more detailed server information:

In the **Server Summary** window, select a server, then click **Detail**.

NCS Client Software version

To view the NCS Client software version:

In the Standard Toolbar, click to see version information. Alternatively, in the **Help** menu, select **About Central**.

Cross Time Zone Scenario

The NCS System is easy to use across multiple time zones. The NCS Server and the SQL database record all alarm times in UTC (Coordinated Universal Time). This enables the NCS Server to put the alarms in order before they are sent to the NCS Client. The NCS Client converts the alarm times to the local time, to enable users to manage alarms efficiently.

If required, NCS Client users can access source devices' local times in the **Alarm Detail** window and the Alarm Overview window (see ***Alarm Log Settings*** on page 55).