NUUO®

Central Management System

NCS System Installation

User Manual

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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 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.
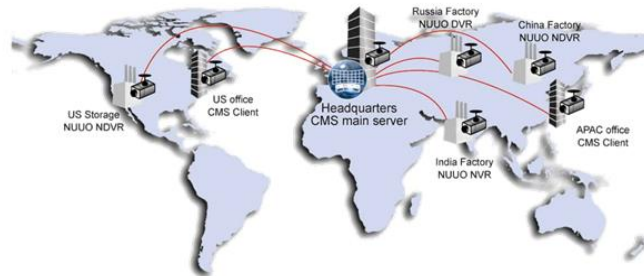
Client/Server Architecture

The **NCS System** uses 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 pre-determined events to a **SQL Server** (SQL database) and **NCS Client** systems. 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. The **NCS Matrix** system can be viewed as an extension of the NCS client used to populate the alarms to additional monitors. NCS Matrix system is controlled by NCS Client users.
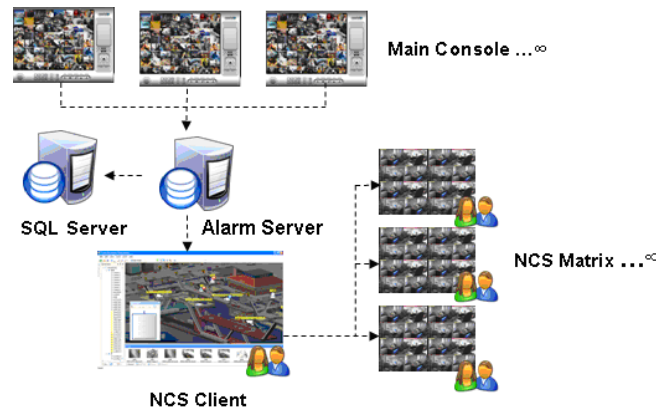
Definition of Terms:

Terms	Descriptions
NCS System	All components of Central Management system.
Recording Server	Front end servers of the Central Management system, consisting of Video Recording systems which send events to NCS Alarm Server.
SQL Server	Database of Central Management system, which backs up alarm logs.
NCS Alarm Server	Alarm Server of 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 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
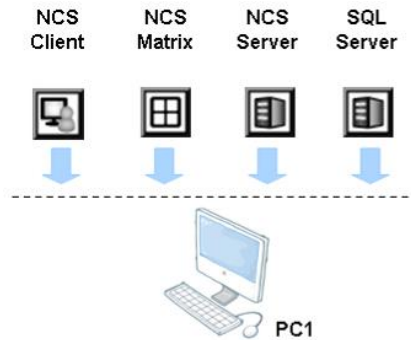
Recommended hardware specification for Scenario A

	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 / Vista / 2003 / Win 7 / 2008 R2 / Win 8 / Win 8.1 / 2012 R2

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
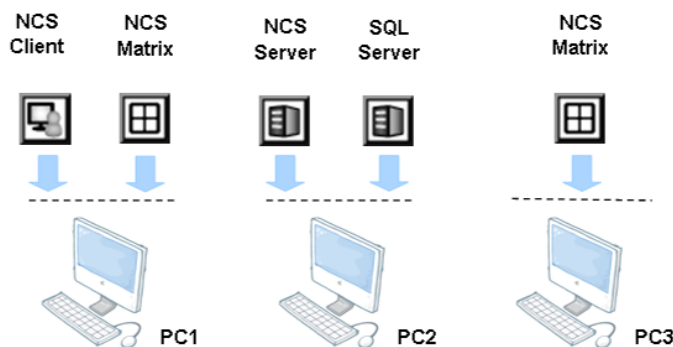

Recommended hardware specification for Scenario B

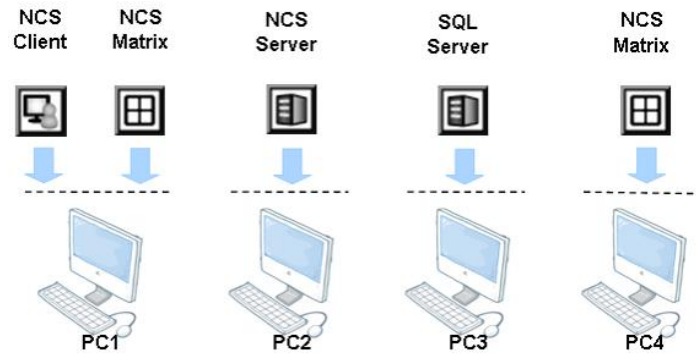|	PC1	PC2	PC3
CPU	Intel Core 2 Quad Q6660 @ 2400MHz	Intel Core 2 Duo E4500	Intel Core 2 Quad Q6660 @ 2400MHz
RAM	2 GB	2 GB	2 GB
Hard Disk	250 GB or above	250 GB or above	250 GB or above
Display	ATi X4350 or above	ATi X1600 or above	ATi X4350 or above
Mother-board	Intel 945 or 965 chip (for single monitor) 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 / Vista / 2003 / Win 7 / 2008 R2 // Win 8 / Win 8.1 / 2012 R2		

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

Recommended hardware specification for Scenario C

	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 / Vista / 2003 / Win 7 / 2008 R2 / Win 8/ Win 8.1 / 2012 R2			

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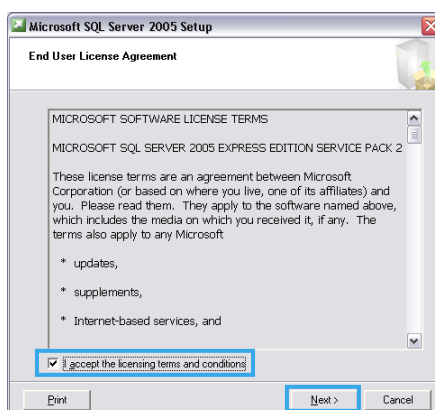
3. In the **End User License Agreement** dialog box, read the terms, check **I accept the licensing terms and conditions**, and then click **Next**.
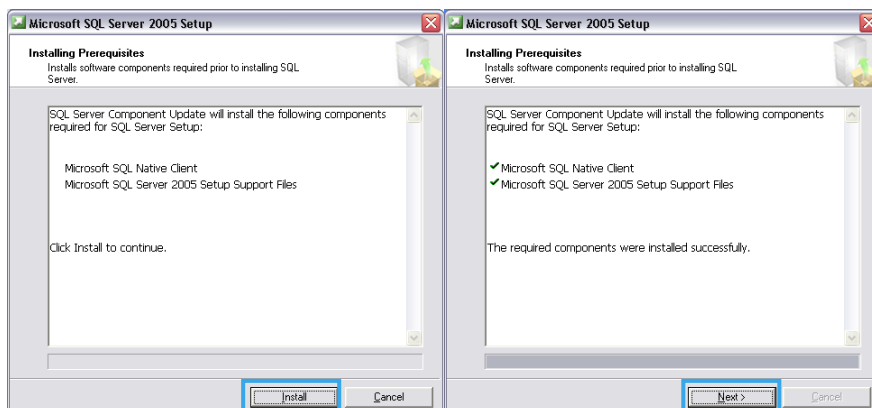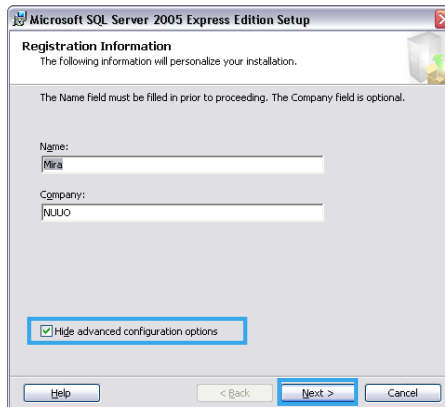

4. In the **Installing Prerequisites** dialog box, click **Install** to continue update, and then click **Next** to continue installation.
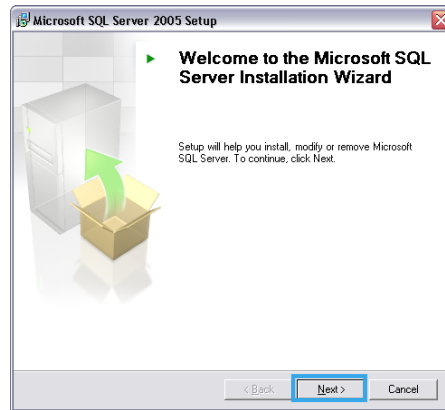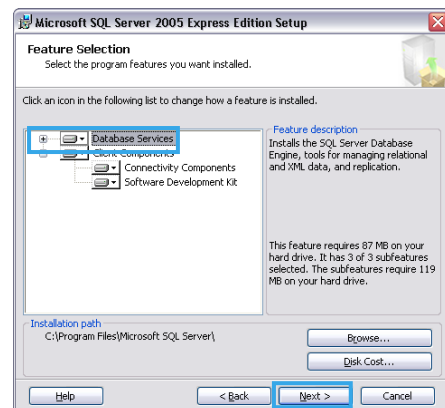
5. In the **Welcome to the Microsoft SQL Server Installation Wizard** dialog box, click **Next** to install.
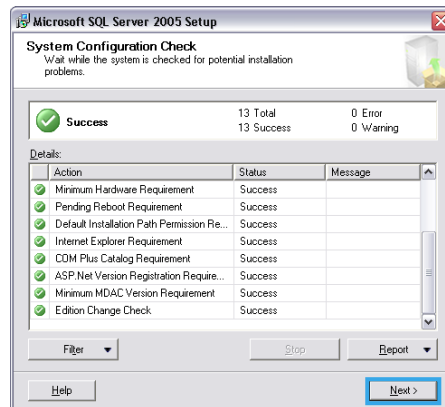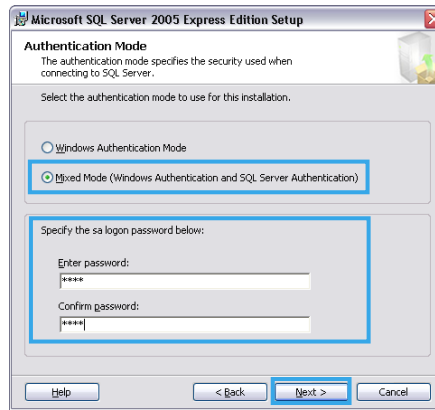

6. In the **System Configuration Check** dialog box, click **Next**.

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.
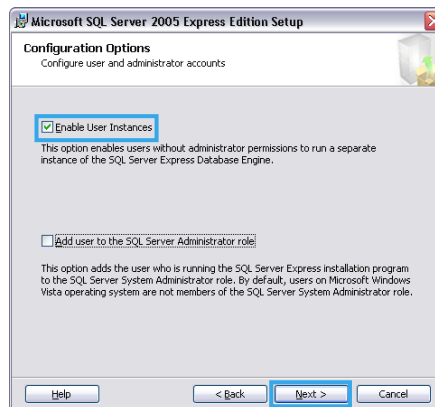
10. In the **Configuration Options** dialog box, select **Enable User Instances** option, and then click **Next**.
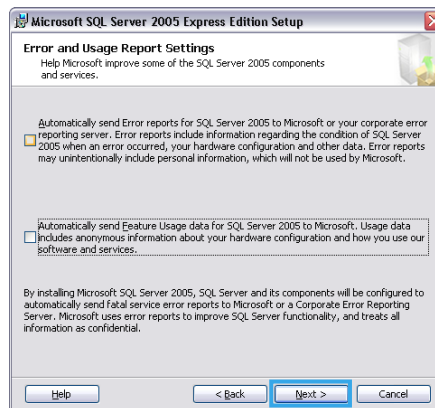
11. In the **Error and Usage Report Settings** dialog box, you do not need to select any option. Click **Next**.
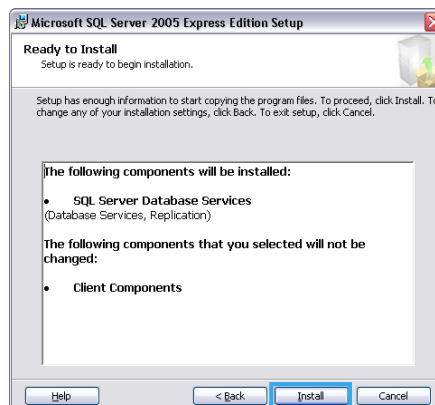
12. In the **Ready to install** dialog box, click **Install**.
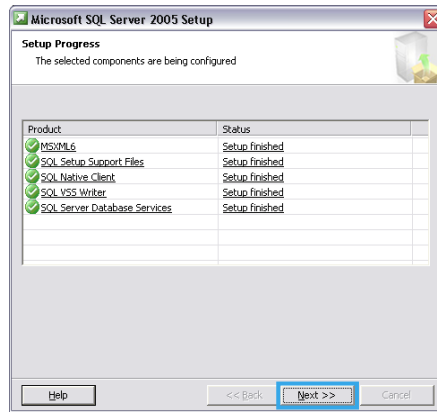
13. In the **Setup Progress** dialog box, wait for installation finish, and then click **Next**.
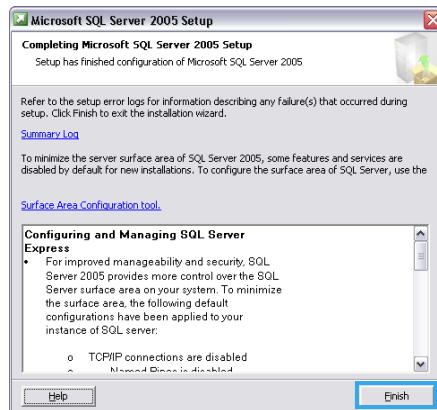
14. In the Completing Microsoft SQL Server 2005 Setup dialog box, click Finish

NCS Server

To install NCS Alarm Server:

1. Insert the NCS installation CD.

2. In the **Welcome to NCS** window, click **NCS Server**.
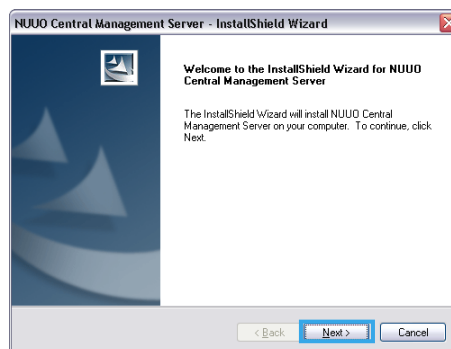
3. In the **InstallShield Wizard** dialog box, click **Next** to continue.

Installation
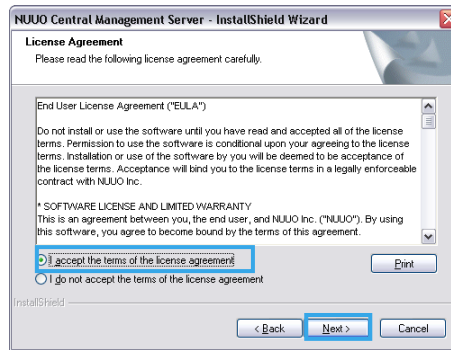
4. In the **License Agreement** window, read the terms, select **I accept the terms of the license agreement**, and then click **Next**.
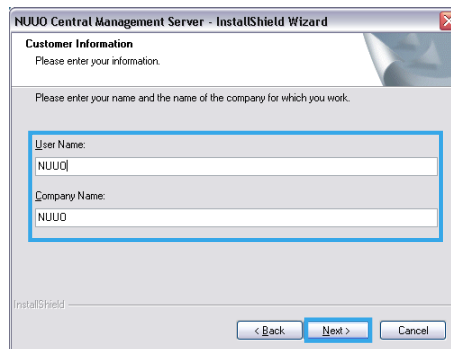
5. In the **Customer Information** window, enter your name and company, and then click **Next**.
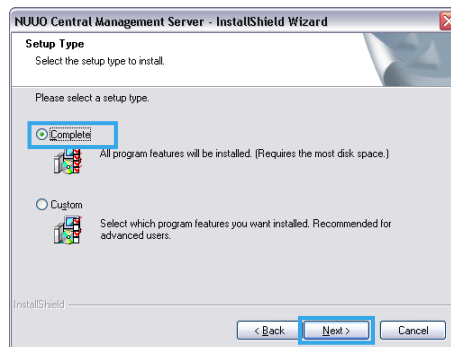
6. In the **Setup Type** window, select **Complete**, and then click **Next**.
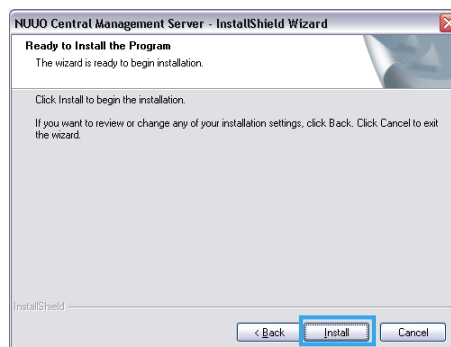
7. In the **InstallShield Wizard** window, click **Next**.
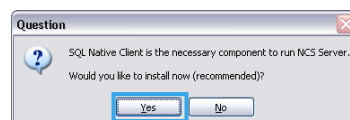
8. Please click **Yes** to install SQL Native Client program.
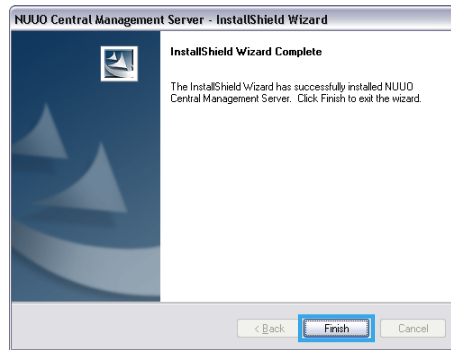
9. In the **InstallShield Wizard Complete** dialog box, click **Finish**.

NCS Client

To install NCS Client (include Matrix):

1. Insert the NCS installation CD.

2. In the **Welcome to NCS** window, click **NCS Client**.
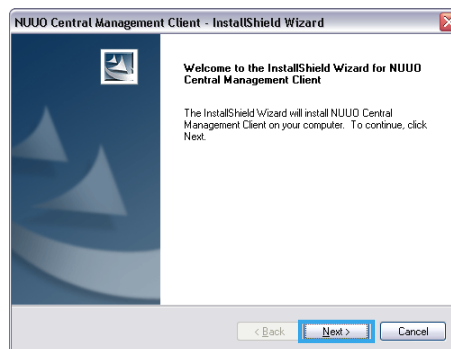
3. Complete installation as described in steps 3-7 of the *To install NCS Alarm Server* section on page 11.
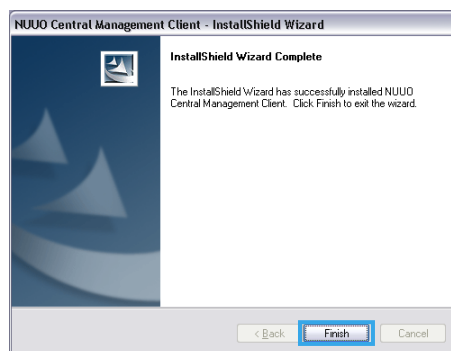
4. In the InstallShield Wizard Complete dialog box, click Finish.

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 13.

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).
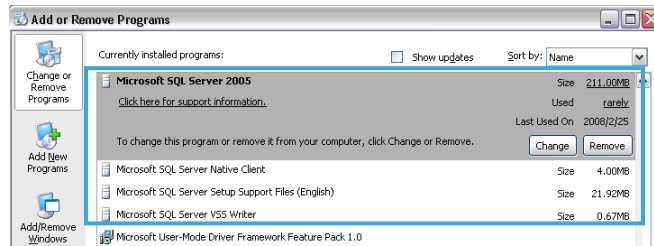
To uninstall the NCS system:

In the **Start** menu, point to **All programs**, point to **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**.
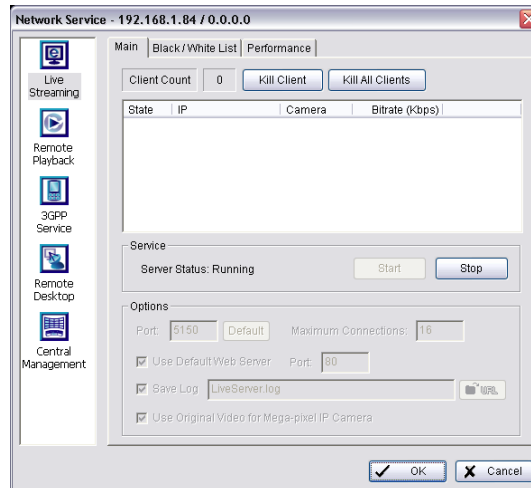
2. In **General Setting**, select **Network Service**, and set up the following services:

   - 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. This service is also responsible for providing data for client backup. Ensure this service works, please also Start Recording Schedule to record video.

   - Remote Desktop. This service enables remote configuration of the main console.

3. Select **Smart Guard Configuration**.
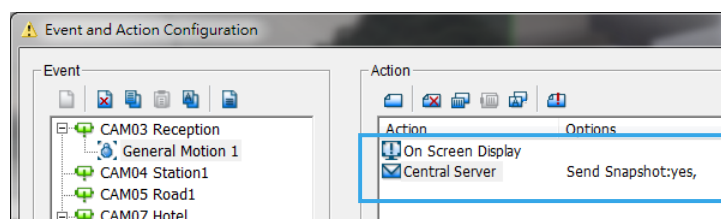
4. In the **Event and Action Configuration** window, configure alarm events and insert the action **Send to Central Server** for events that you want to appear on the NCS system.

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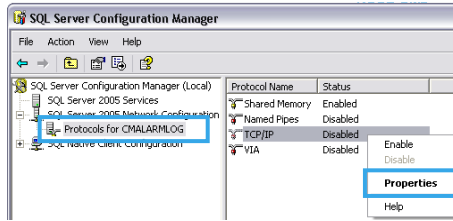
2. In the **SQL Server Configuration Manager** window, select **Protocols for CMALARMLOG**, right-click TCP/IP and then select **Enable** to enable TCP/IP protocol.
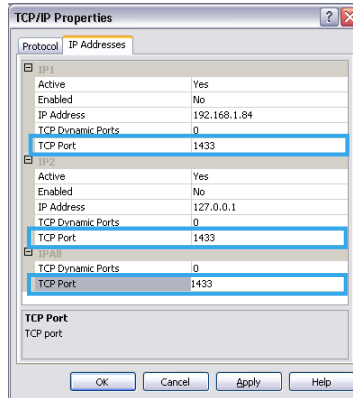
3. Double-click **TCP/IP**, then in the **TCP/IP Properties** window select the **IP Addresses** tab.

4. Enter **1433** as the **TCP port** in **IP1**, **IP2**, and **IPAII**, and then click **OK**.
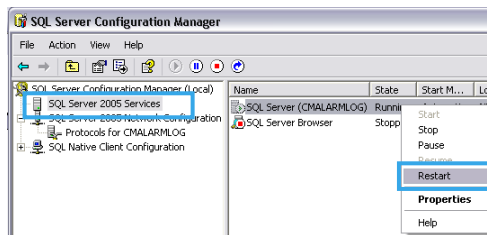
5. In the **SQL Server Configuration Manager** window, select **SQL Server 2005 Services**, right-click **SQL Server (CMALARMLOG)**, and then select **Restart**.

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 Central Management Server, and then select NCS Server.
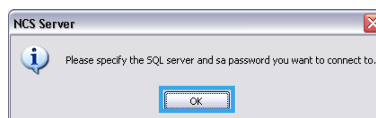
2. In the **NCS Server** dialog box, click **OK**. This is only required the first time you start NCS server.
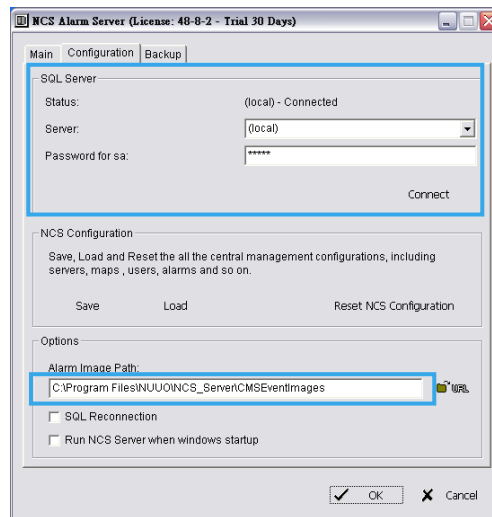
3.   The configuration of NCS Alarm Server.

   • In the **Configuration** tab of Central Server window, enter the IP address of the SQL Server, and then enter and confirm the password set when installing SQL Server. (see page 10)

   • 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.

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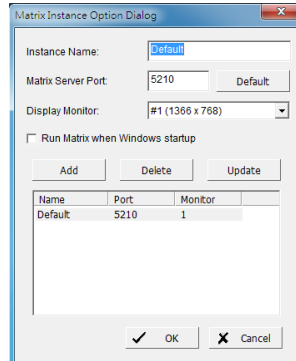
3.   In the Start menu, point to All Programs, then point to **NUUO Central Management Client** or **NUUO Central Management Matrix,** and click NCS Matrix.

Getting Started with the NCS System
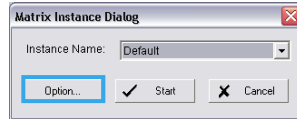
4. Click on **Option** to open Matrix Instance Dialog.

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 **Add**, you will see *Monitor 2* being added to the list.
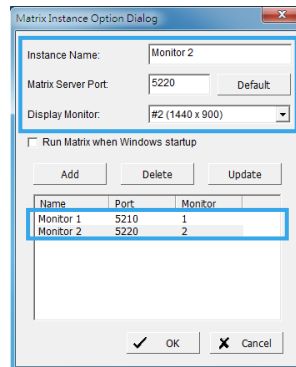
4. To configure a third and a fourth monitor, repeat steps 1-3 naming the matrix instances as appropriate (for example *monitor3*, *monitor4*), entering the port number (5230 for a third monitor and 5240 for a fourth), and selecting the appropriate monitor.

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.
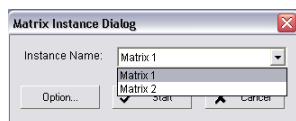
2. In the **Matrix Instance Dialog** window, choose the matrix you want in the drop-down list, and then click **Start** to start Matrix view.

3. Repeat steps 1 and 2 to execute each monitor.

NCS System Overview

NCS Server Window Introduction
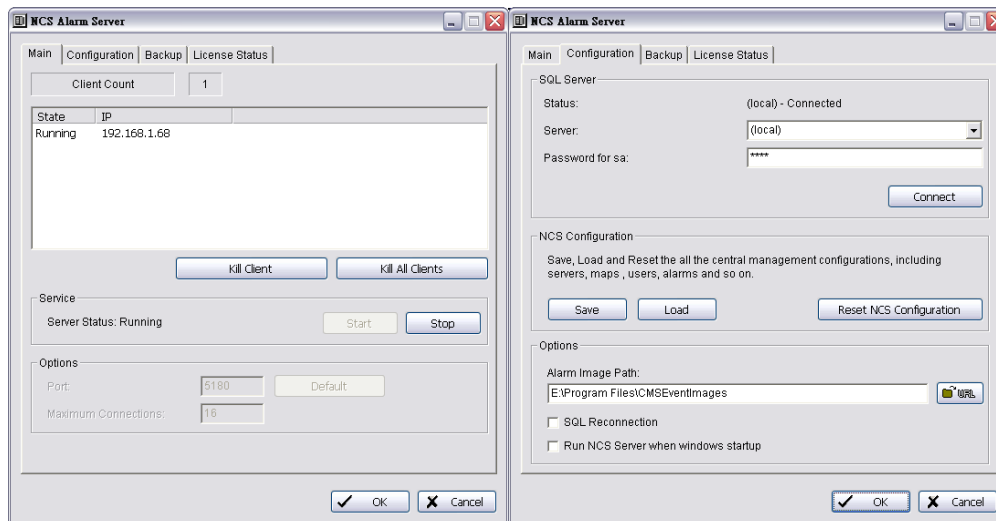
The NCS Server features four main tab windows, including:

The **Main** window controls the start/stop NCS server as well as the client connection through kill client/kill client all options.

Under the **Configuration** window you may setup the connection between *SQL Server* and NCS Server,.

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

NCS Server enables backing up alarm records at a local hard drive or to FTP servers. Define a storage location for video backups under the **Backup** window.

You may select between two storage locations. Choose Disk Storage for local hard drives or DAS, or choose FTP to backup to FTP servers.

The **License Status** window displays current available licenses in the system.
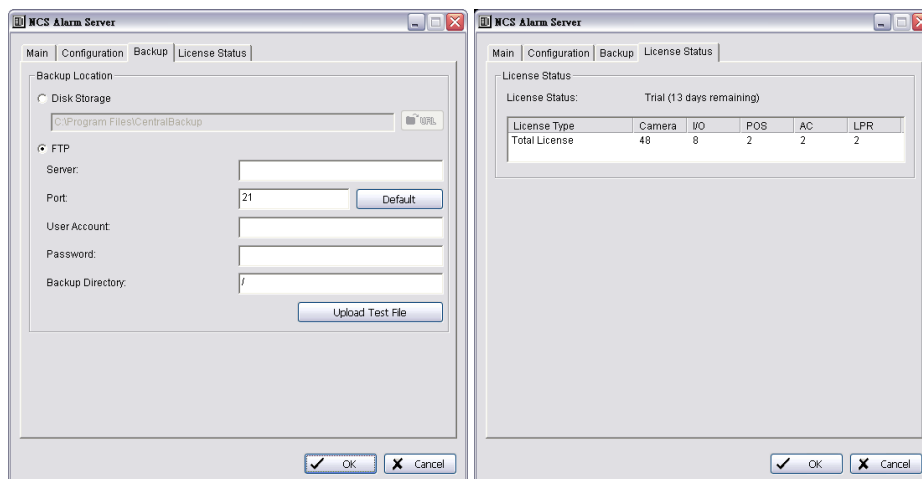
NCS System Overview

By double clicking on the server icon ▦ from the Windows Taskbar you can access NCS Server settings directly.

You can also check the version of your system or stop the service by right clicking on the icon and clicking **About** or **Exit.**
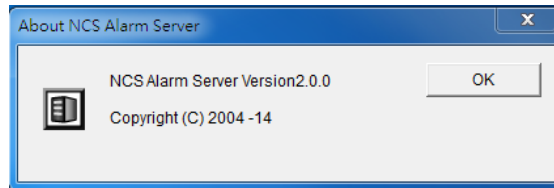
NCS Client Window Introduction

The default NCS Client window placement is as the following figure, including three main windows, a toolbar, and five menus.
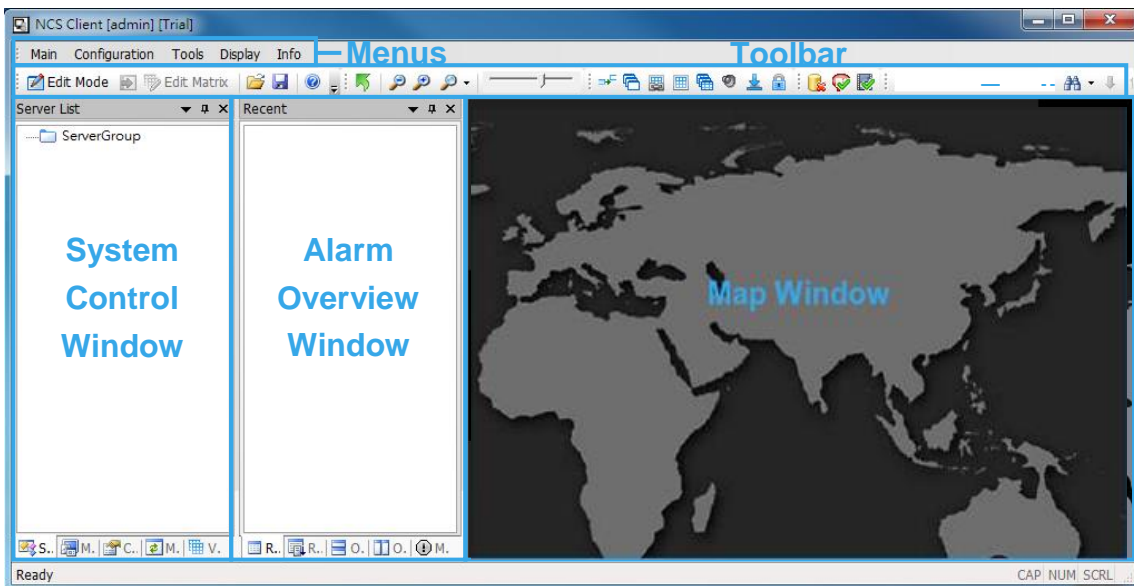
Three Main Windows are:

- **System Control** window: This window includes the **Server List, Map List, Configuration, Matrix List** and **View Group List** 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)
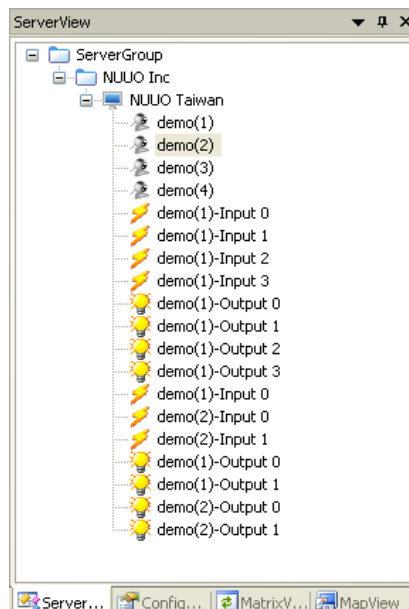
- **Map** window: This window shows all maps and device indicators. For day to day use, user can view the video, show device information, query and manage alarms from the indicators.

- **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.

Five menus are:

- **Main**: This menu has functions use to commit to NCS Server, export/import configuration, save current UI layout, and Logout/Exit NCS system.

- **Configuration**: It allows administrator to setup Server configuration (refer Central Server Configuration Window section of page 41) on Edit mode; and allows all user to setup Map Display setting of Map windows, Alarm Log setting of alarm overview windows, setup Joystick to control Matrix, import Indicator Image, and also go to License Manager.

- **Tools**: This menu has five tools to help user easy to get information for Main Console, manage alarms, and view live and record videos.

- **Display**: This menu has options to setup the appearance of NCS Client window.

- **Info**: The menu provides the version information of NCS Client.

The toolbars are:

- **Standard** toolbar: The functions accessed by this toolbar are: toggle Edit Mode/Operate Mode, committing configuration changes to the server, importing/exporting NCS Client software configuration, and displaying version information.

- **Map** toolbar: The functions accessed by this toolbar are used to adjust map appearance.

- **Operate** toolbar: The functions accessed by this toolbar help users in day to day use of the NCS Client. For more information.

- **Status** toolbar: Quick links to SQL Server Status and Central Backup Status and Video Backup Status can be found here.

- **Search** toolbar: The functions accessed by this toolbar include functions involved in searching.

| **Standard** | **Map** | **Operate** | **Status** | **Search** |

NCS Client Setting

You are able to configure functions including auto startup, login type, auto login, auto lock system, auto reconnection, instant playback and client recording under this window. Go to Configuration menu – NCS Client Setting.

- **Startup**: Check to enable auto startup, set login type, enable or auto login and auto lock system.

- **Reconnection**: Check to enable auto reconnection to NCS Server / NCS Matrix when connection is lost.

- **Miscellaneous**: Check **Show central ID on server list and matrix list** to display server / device / matrix ID number on server and matrix lists. This is mainly for Joystick control.

- **Record Setting**: Check to enable alarm triggered local recording on NCS client. You may customize pre/post record time and auto recycle settings.

- **Instant Playback Setting**: Configure pre/post playback length under instant playback windows.

> To enable **Recording on NCS Client** or **instant playback** you **MUST** also start recording from Main Console. NCS cannot access playback if Main Console has not recorded video.

Customized Client Layout

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.

- **Tabbed Document**

- **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 from screen.

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

> To restore appearance back to default, please go to **Display** 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:

- The **Central group** of Map Window, it allows move of window to one of the four edges of Map window.

- The **Outside group** of NCS Client Window, it allows move of window to one of four edges of Map window.

- The **Attached group** of individual window, it allows move of 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.
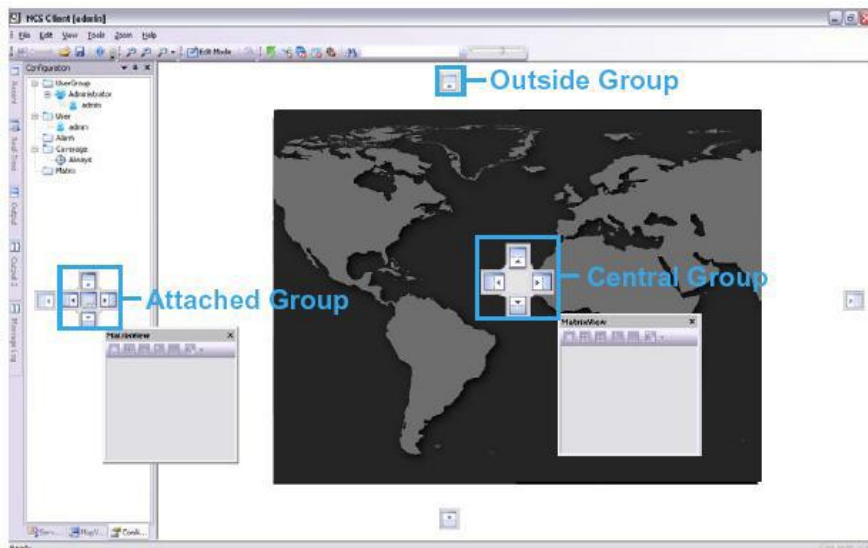
These direction arrow buttons groups only appear when NCS Client preset style set as Office 2003 / Visual Studio.NET 2005 / Office 2007

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 **Display** 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 **Display** 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 **Display** 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/Offline Mode

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

Press the **Edit Mode** toggle button 📝 Edit Mode 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**.

Offline Mode: If one NCS Client commits configuration to NCS server, all other NCS clients will pop up a message box to notify user. User can click ok to logout, and re-login to update latest configuration. Click Offline Mode to keep current status & operation. In offline mode, user will run out-of-date configuration to do live view/backup/export, but Alarm/Server status won't be updated. In offline mode, the some options will be disabled and be gray out.

⚠️	Any changes made to the system must be saved with the **Commit** ➡️ 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.

SQL Server Introduction

NCS system is use *SQL Server 2005 Express* of Microsoft free application software as database. It is recommended 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
💡	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.

Adding/Editing/Removing Server Groups

To add a server group:

1. Ensure that the client is in **Edit Mode** and that the **Server List** 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 **Server List** 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 27). This procedure ensures that the cameras, input/output devices, and metadata devices on the server are available for monitoring.

To add a server:

1. Ensure that the client is in **Edit Mode** and that the **Server List** 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.

4. The server you added should appear in the tree structure of the **Server List** window.

To edit settings of an existing server:

1. Go to Server List under **Edit Mode**.

2. Right-click on an existing server and choose **Settings…**

3. Click OK after configuration is done.

	Licenses for all servers and devices (cameras, I/O devices and metadata devices) need to be activated via NCS Client.
	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.

To add contacts to the server:

1. Click on **Add** under Server Configuration.

2. Complete the required info and click **OK.**

To synchronize server devices:

Right-click on a server icon , then click **Synchronize Device**. Then, all cameras, metadata 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 remove a server:

1. Right-click on a server icon .

2. Select **Delete** and click **Yes** at the confirmation prompt.

	You may sort servers under server groups or devices under servers according to name or type. To do this right click on any server group or server under Edit mode and choose **Sort by… Name or Type.** You may also drag and drop icons to rearrange order manually.

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 72.

	To carry out the functions described below, you need to be in **Edit Mode** and **Commit** after setup (see page 24).

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.

☐ 📷 Taiwan
    ☐ 📷   Taipei

	The default top level map is provided. 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 **Map List** 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 manually import another image and set to default.

5. Click **OK**. The map you added appears in the tree structure of the **Map List** 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.

	You may sort maps and devices on the map list according to name or type. To do this right click on any map under Edit mode and choose **Sort by… Name or Type.** You may also drag and drop icons to rearrange order manually.

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.
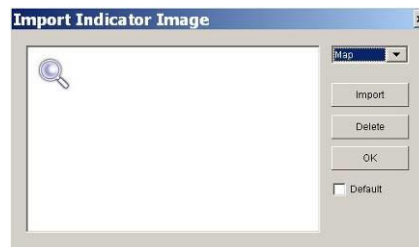
> 💡 To carry out the functions described below, you need to be in **Edit Mode** and **Commit** after setup.

Importing Indicator Images

To import an indicator image:

1. In the **Configuration** 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: **Map List** display and **Server List**.

To add device indicators to a map in Map List:

1. Ensure that the client is in **Edit Mode** and that the **Map List** window is selected.

2. Click on the map icon 🗺️ for the map you want to add an indicator to. This displays the map.

3. Right-click on the map icon.

4. Click **Add Server Indicator**, **Add Camera Indicator**, **Add Metadata Indicator** or **Add I/O Indicator**, as required.

5. From the drop-down list, select a device.
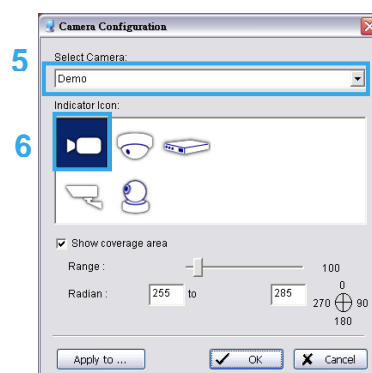
Servers/Devices on Map

6. Choose an indicator.

7
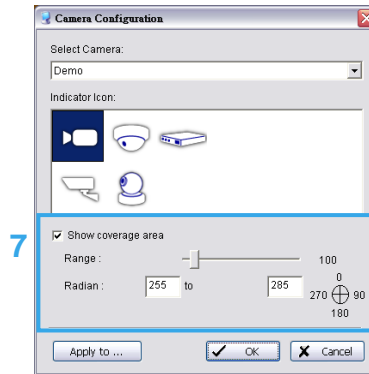
7. When the device is a camera select Show Coverage Area to set the Range and Radian.

8. Click **Apply to…** if you need to apply settings to other camera indicators.

9. Click **OK**.

10. The device indicator will appear on the map. Drag it to the required location.

To drag a device indicator to a map from Server List:

1. Ensure that the map you want is displayed.

2. Click on the **Server List** window.

3. Directly drag a device to the desired location on the map.

> If you are in **Map List** 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.
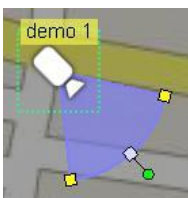
1. Right-click the indicator or right-click the device from **Map List**.

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 **Map List**.

2. Click **Rotate Arbitrary**.

3. Use the rotation handle to rotate the indicator to the desired angle, then right click again to open the menu.

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 **Map List**.

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 **Map List**.

2. Click **Settings**.

3. Select the indicator image you want, then click **OK**.

 To import a new indicator image, see page 29.

To remove a device indicator from a map:

1. Right-click the indicator or right-click the device form **Map List**.

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 24).

## 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**.
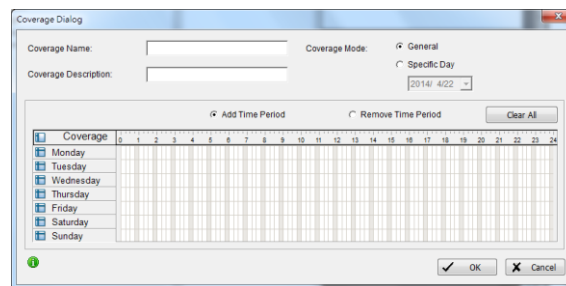
3. In the **Coverage Dialog** window, enter a coverage name and, if you want, a coverage description.

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.

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, and a matrix profile 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**.**

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 **User Group** folder icon UserGroup , then click **Add User Group**.
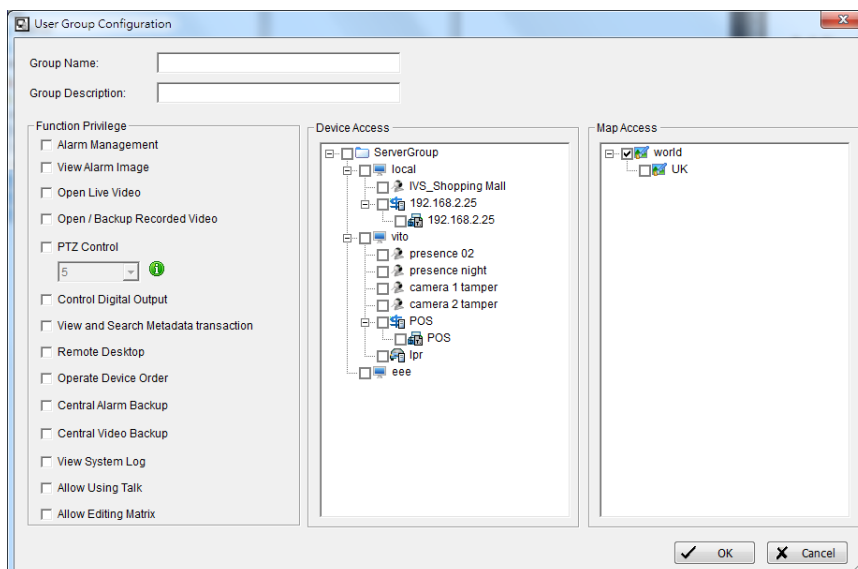
3. In the **User Group Configuration** window, enter a group name and a group description if required.

4. In the **Function Privilege** area, select the privileges for members of this **User Group**:

   • **Alarm Management –** allows users to change alarm status on the **Alarm Management** window
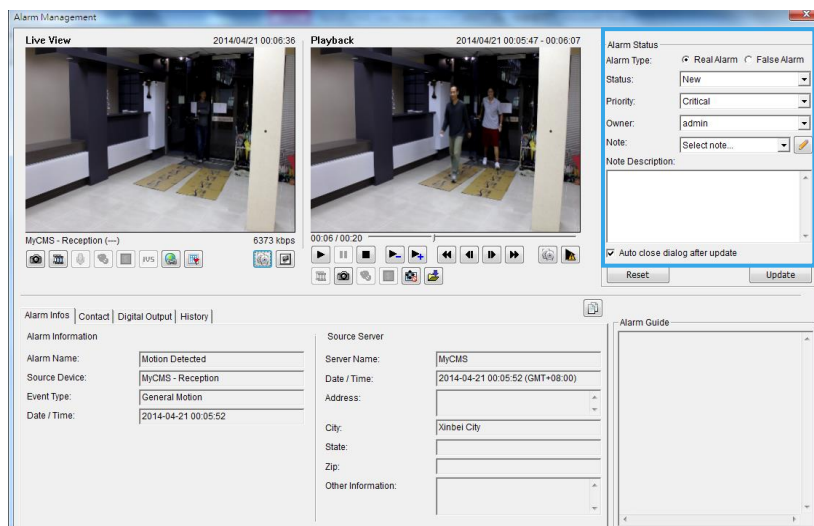
Alarm Status

User Groups and Users

- • **View Alarm Image –** allows users to see a snapshot from the camera as an icon in the **Recent** display 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 also have Open Live Video authority. Priority of PTZ control of the user group is defined by numbers 1-10, with 1 for the highest priority. Users with higher priority can obtain PTZ control from other users.

- • **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.

- • **View and Search Metadata transaction –** allows users with authorization to search metadata transactions.

- • **Remote Desktop –** allows users to open a remote desktop.

5. In the **Device Access** area, choose the devices which members of this **User Group** will be able to access. If the devices have not been enabled in Device Access table, users still don't have authority to use above functions.

6. Click **OK**. The user group you added appears in the tree structure of the **Configuration** window.

	To quickly add a new User Group with same configurations as an existing user group, please use **Insert Copy** option by right-clicking on the existing User Group which you want to duplicate.

To edit a user group:

1. Right-click on the **User Group** 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 **User Group** icon 🔵 for the user group you want to remove.

2. Select **Delete Group** and click **Yes** at the confirmation prompt.

Adding/Editing/Removing Users

Add new users and modify or remove existing users. You may choose to add **Central Users** directly in the system or import users from MS Active Directory (MSAD) as **Windows Users**.

To add a Central 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 Central User**. The **User Configuration** window appears.
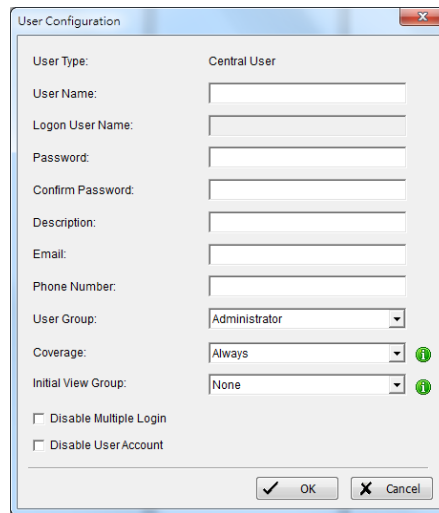
3. In the **User Configuration** window, input a user name.

4. If password access is required for this user, enter and confirm a password.

5. Enter a description if needed.

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, and a matrix initial view group 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.

To edit a Central 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 Central 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.
💡	You may sort users and user groups on the configuration window according to name. To do this right click on **User** or **User Group** under Edit mode and choose **Sort by… Name.** You may also drag and drop icons to rearrange order manually.

User Groups and Users

To add / remove / synchronize a Windows User:

1. Right-click on the **User** folder icon 📁 User , then click **Add/Remove/Sync. Windows User**. The **Select User** window appears

2. Check users or folders under **Select Active Directory user(s)** and click **OK** to add Windows Users.
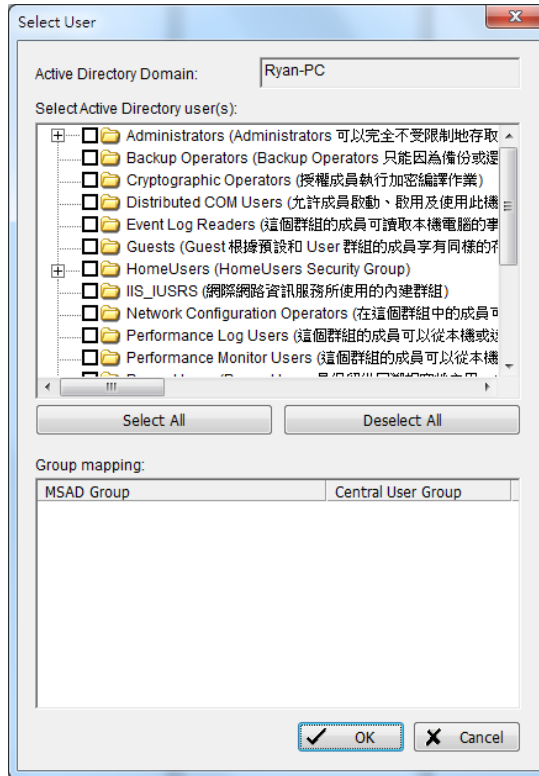
💡	Click **Select All** to check all available users and folders, or click **Deselect All** to uncheck all users.

Group Mapping:
Selected Windows users will be grouped according to default mapping:

MSAD Group	Central User Group
Administrator	Administrator
No Group	Default User
Other Groups	Automatically add a new user group with the same name

💡	You may further modify group setting for each user manually.
💡	Editable columns for **Windows Users** include **Email, Phone Number, User Group, Coverage, Initial View Group** and **Disable User Account**.

3. Synchronization results will be displayed for confirmation. Please refer to the default solution for all conflicts:

New accounts added from AD domain	**Add to Central System**
Accounts from AD domain removed	**Delete from Central System**

Account description modified	**Update description**
Encountered admin account	**Skip admin account**
Newly added account from AD domain conflicts with existing central user account	**Replace Central user account**
Current logged in account removed	**Skip login user**
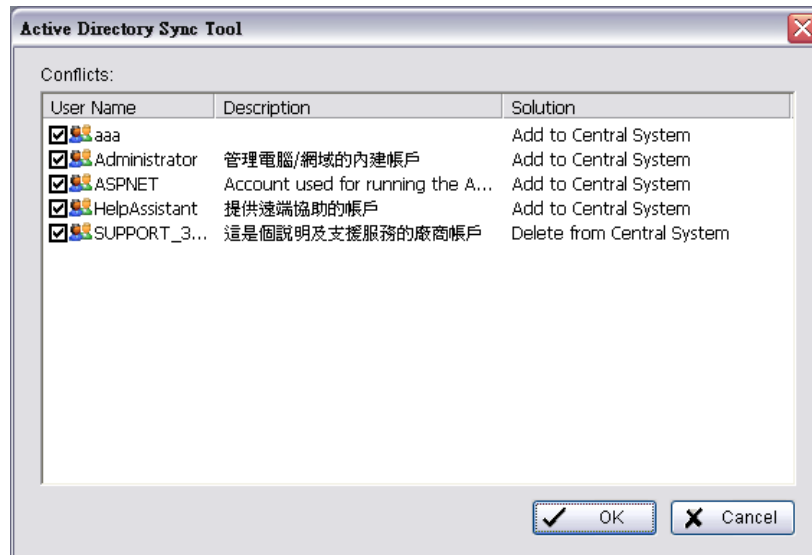
4. Uncheck items to skip applying solution to NCS Client user account settings.
   For example, if you uncheck an "Add to Central System" solution, the new account will not be added to NCS Client's user account list.

> Instead of manually adding and updating Windows users, you may also configure the system to automatically synchronize all Windows users at a specific period.

To configure synchronization on Windows Users:

1. Right-click on the **User** folder icon ☐ User , then click **Advance and Auto. Sync. Windows User Setting**. The **Advance and Auto Sync Windows User Setting** window appears.
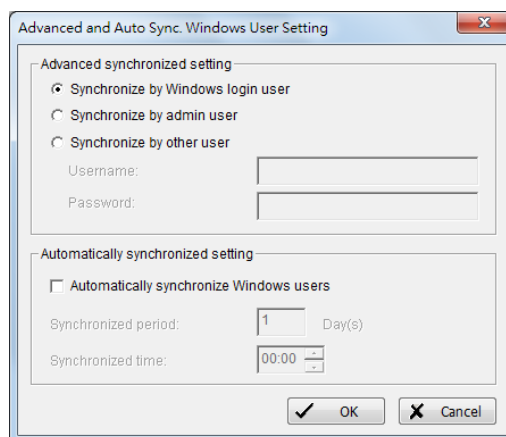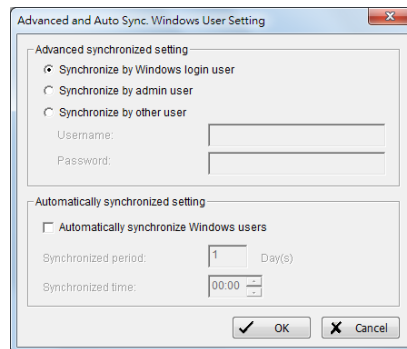
To configure automatic synchronization on Windows Users:

2. Right-click on the **User** folder icon ☐ User , then click **Advance and Auto. Sync. Windows User Setting**. The **Advance and Auto Sync Windows User Setting** window appears.

User Groups and Users

3. Check **Automatically synchronize Windows users**.

4. Configure synchronized period to start every ___ days.

5. Define synchronized time to decide what time the synchronization should start.

6. Click **OK**.

	Auto synchronization will apply all default solutions to conflicts.

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.

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 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.

Alarms

- You can pick from two **Close Alarm** options. If you want the alarm to close automatically when the triggering event ends, check **Auto Close Alarm**. You can also set a timer for the alarm to close automatically after a couple seconds.

- If you want to record video locally whenever this alarm is triggered, check **Recording on NCS Client.**

> To enable recording on NCS Client, you must check **Recording on the Client** under **Configuration – NCS Client Setting – Record Setting.**

-

- If you do not want to put the alarm into effect straight away, uncheck the **Enable Alarm**.

- If you want, click Alarm Management Guide and enter text. This text appears in the alarm detail window. 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.

- 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 and a **Group**. 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, and that matrix must be set to **Allow Show Video on Event**.

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*].

8. Choose the event type:

- **General Event** includes general events such as: general motion / IO event / system event / Metadata channel event.

- **Advance Event** includes IVS event such as Presence / Enter / Exit / Appear / Disappear / Stopped / Dwell / Direction Filter / Speed Filter / Tailgating / Abandoned Object / Removed Object

9. In the **Source Device** area, select the device/s which will trigger this alarm.

10. In the **Event Message** area, select the event/s which will trigger this alarm.

11. 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.

12. Click **OK**. The alarm you added appears in the tree structure of the **Configuration** window.

To create an alarm group:

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 Group**.

3. Name the new Alarm Group

4. Create new alarms under the Alarm Group or drag and drop the existing alarms to the Alarm Group.

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.
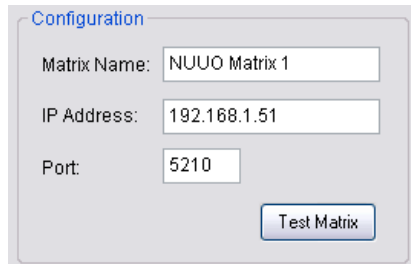
To edit an alarm:

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:
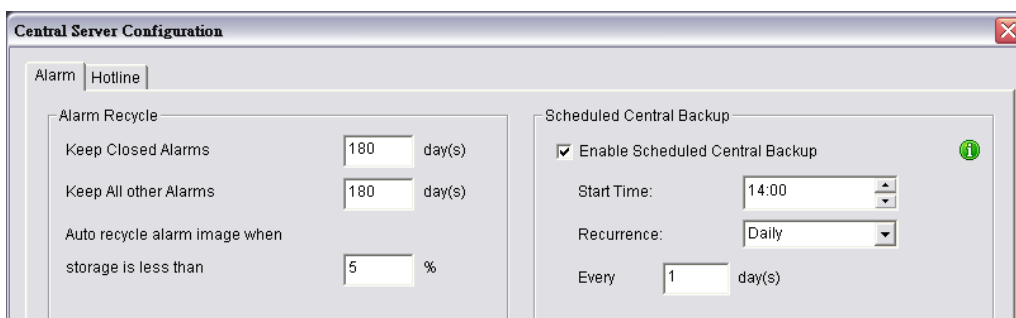
1. Right-click on the icon ⚠ for the alarm you want to remove.

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. Go to **Configuration** – **Server Configuration** under edit mode for this window.

💡	If necessary, consult with your IT administrator for details on these settings.

To configure server alarm records:
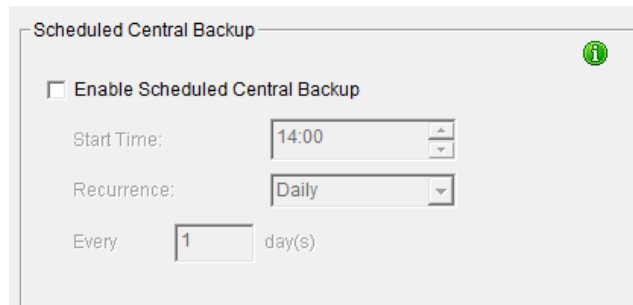
1. In the **Configuration** menu, click **Server Configuration**.

2. In the **Alarm Recycle** area of the **Central Server Configuration** window, enter the number of days to keep closed alarms and all other alarms.

3. Set a storage limit for alarm images on percentage. Recycling will be triggered under the desired remaining percentage of storage space.

Alarms

💡	The default period of **Keep Closed Alarms** is 180 days. The NCS system will remove all closed alarms three days old by 12:00 PM every day.
💡	The default period of **Keep All Other Alarms** is 180 days. The NCS system will remove all closed alarms thirty days old by 12:00 PM every day.
💡	The default limit for **Auto Recycle** is 5%. The NCS system will start recycling the oldest images when there is less than 5% storage space left.
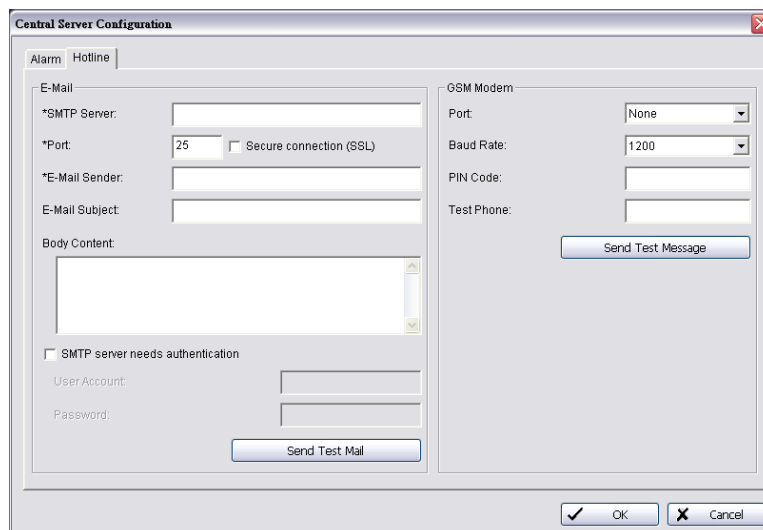
To setup scheduled alarm backup:

1. In the **Scheduled Central Backup** area of the **Central Server Configuration** window, check **Enable**.

2. Define **Start Time** and **Recurrence** of schedule backup.

To configure system auto notification via email:

1. In the **Configuration** menu, click **Server Configuration**. Select the **Hotline** tab.

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 to send a test email, click **Send Test Mail**.

To configure system auto notification via SMS:

1. In the **GSM Modem** area of the **Central Server Configuration** window, select a port and a baud rate from the drop-down lists.

2. Enter a PIN code if required.

3. 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.

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.

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**.
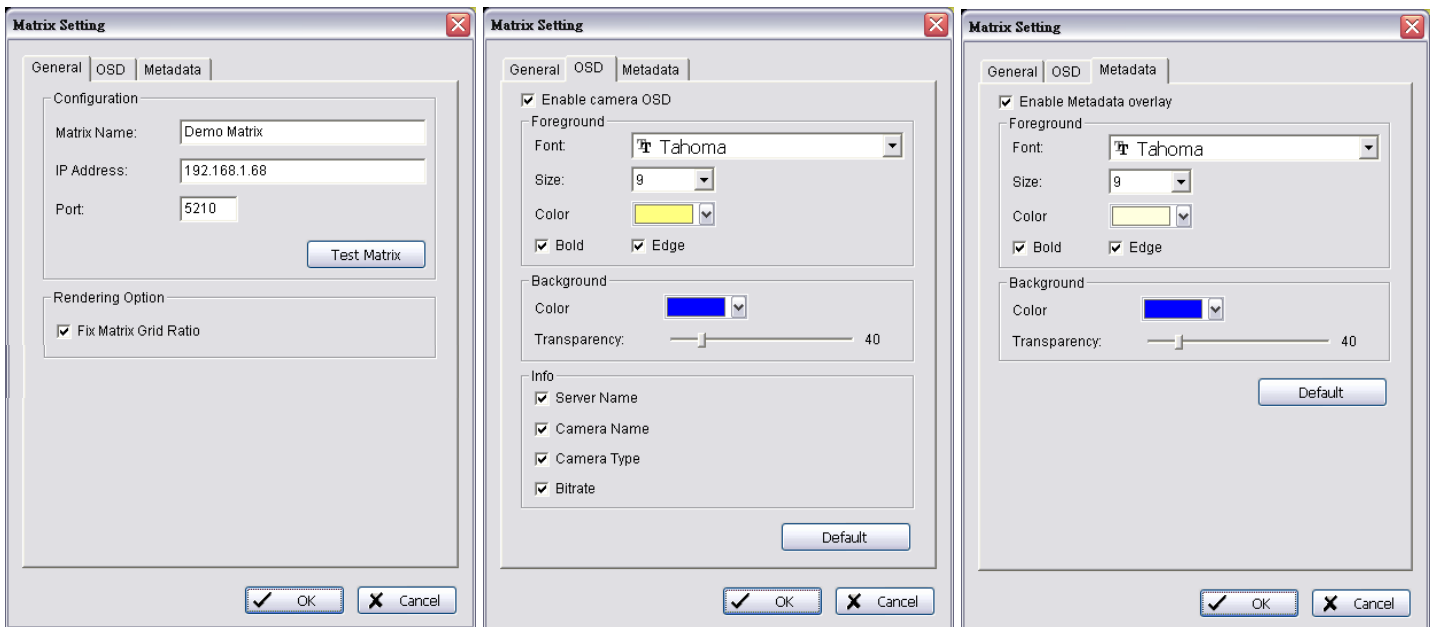
- To choose the rate at which camera images are updated on the matrix, enter a camera tour interval.

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**, **Camera Type** and **Bitrate** boxes as required.

6. Under **Metadata** in the Matrix Setting window

   - Select enable or disable Metadata overlay

   - For Metadata information displayed on the matrix, select a font, a font size, and font color.

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.
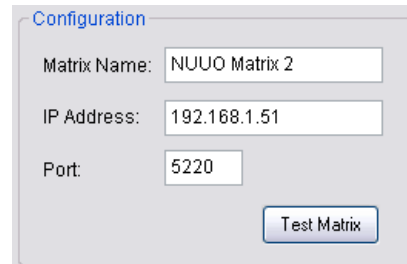
Configuration		Configuration	
Matrix Name:	NUUO Matrix 1	Matrix Name:	NUUO Matrix 2
IP Address:	192.168.1.51	IP Address:	192.168.1.51
Port:	5210	Port:	5220
	Test Matrix		Test Matrix

	You may sort matrixes on the configuration window according to name. To do this right click on the **Matrix** icon from **Configuration** under Edit mode and choose **Sort by… Name.** You may also drag and drop icons to rearrange order manually.

View Group Management

A View Group (Matrix Profile) stores the Matrix grids, stream profiles and camera positions for one or more Matrixes. All users can load View Groups, but only administrators can save and edit them.

Before proceeding to View Group Management, please carefully differentiate the terms below:

View Tour: A set of predefined Views grouped to display one after another. Each View is independently configured and can include different Matrix grid layouts and different video channels.
Camera Tour: A single View that contains more video channels than the chosen Matrix grid layout. All channels will be displayed in carousel under the same Matrix grid layout.
Grid Tour: A single video grid that contains more than one video channel. The video channel will be displayed one after another in the grid.
Alarm Tour: You may reserve specific grids in each view for alarm video display. These grids are marked with a colored corner. When incoming alarm videos exceed the number of reserved grids, the rule for displaying alarm video is called Alarm Tour. You may choose from two modes, Simple and Salvo.

View Groups can be managed under the **View Group List** under the System Control Window.
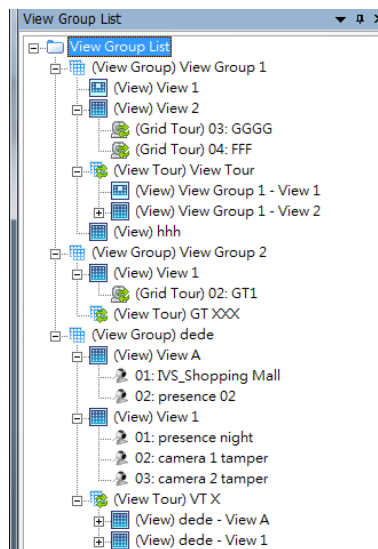
To add a new View Group:

Right click on [ ] View Group List and select **Add View Group**.
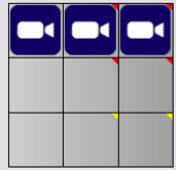
To add a new View:

1. Right click on any **View Group** [ ] Group and select **Add View.** You will see the **View Configuration** window.

2. Insert a name for the View in **View Name**.

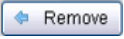3. All licensed cameras will be under **Available Cameras**. Select the cameras you want to add to the View and press [Add]. Press [Remove] to remove selected cameras.

4. Use the buttons [ ] and [ ] to adjust sequence of cameras.

5. Right click on any camera to choose a suitable stream profile.

6. Click [ ] to switch between different matrix grids.

7. Click [ ] to assign alarm video channels to show video on event. You are able to define up to 16 different groups indicated with 16 different colors under **Group Setting**.
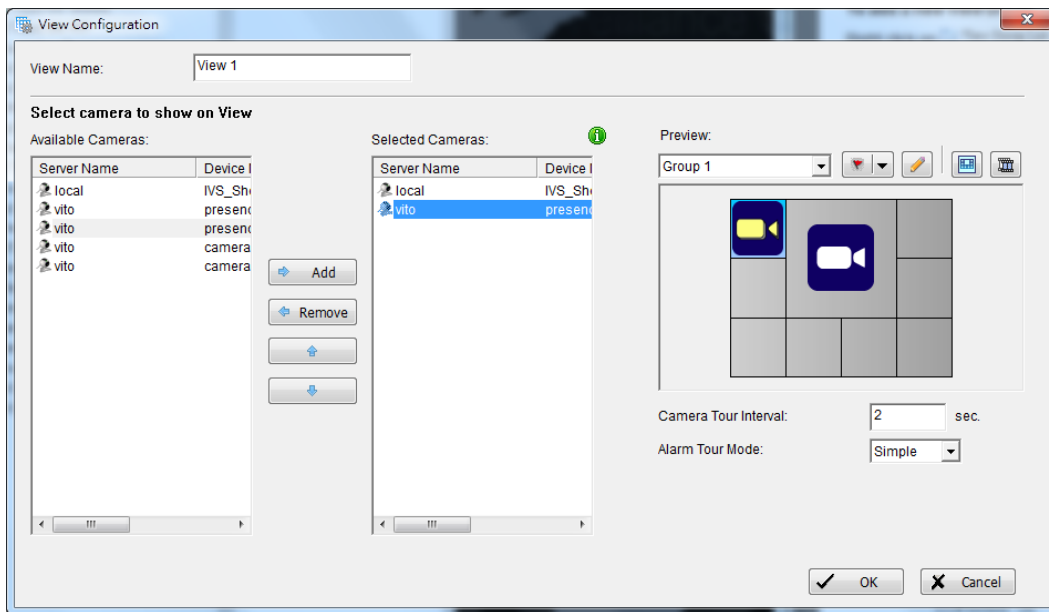
	By Clicking on the grids, you assign them as alarm video channels which will display alarm associated video when alarms are triggered. The corner of the grid will be marked with colors that stand for different groups (refer to picture on the right). For **Alarm Configuration**, please refer to p. 40 for details.	
	Note that if no grids are reserved for alarm videos, they cannot be displayed in the matrix. A notification will be shown in the status bar on the bottom of the NCS Client window.	
	Maximum channels for each view is 64 ch. This includes those in **Grid Tour**. Refer to the next section for more info on **Grid Tour**.	

8. Set **Camera Tour Interval.**

	When the number of cameras exceeds the number of Matrix grids, **Camera Tour** will be activated. **Camera Tour** does not involve changes of Matrix grids. For example, if you assign 12 cameras into a 3x3, 9 camera grid and set Camera Tour Interval at 2 seconds, the first 9 cameras will be shown for 2 seconds, then the remaining 3 cameras for another 2 seconds. The circulation continues until manually stopped.

9. Set **Alarm Tour Mode**: Simple or Salvo

	Alarm Tour takes effect when grids assigned as alarm video channels are all occupied, and new alarm associated video is ready for display. Under **Simple Mode**, old alarm associated channels will be replaced by new ones. Under **Salvo Mode**, alarm associated channels will go into carousel and be displayed continuously until the alarm is closed.
	Camera Tour of a view will be stopped when **Alarm Tour** starts.

10. Click **OK** to save settings.

	View groups can also be saved directly from the Matrix List. Click the **Save view group** button to do this. Refer to p.89 for more Matrix settings.

To add a new Grid Tour:

View Group Management

1. Right click on any **View Group** 🔳 Group and select **Add Grid Tour.** You will see the **Grid Tour Configuration** window.

2. Insert a name for the Grid Tour in **Grid Tour Name**.
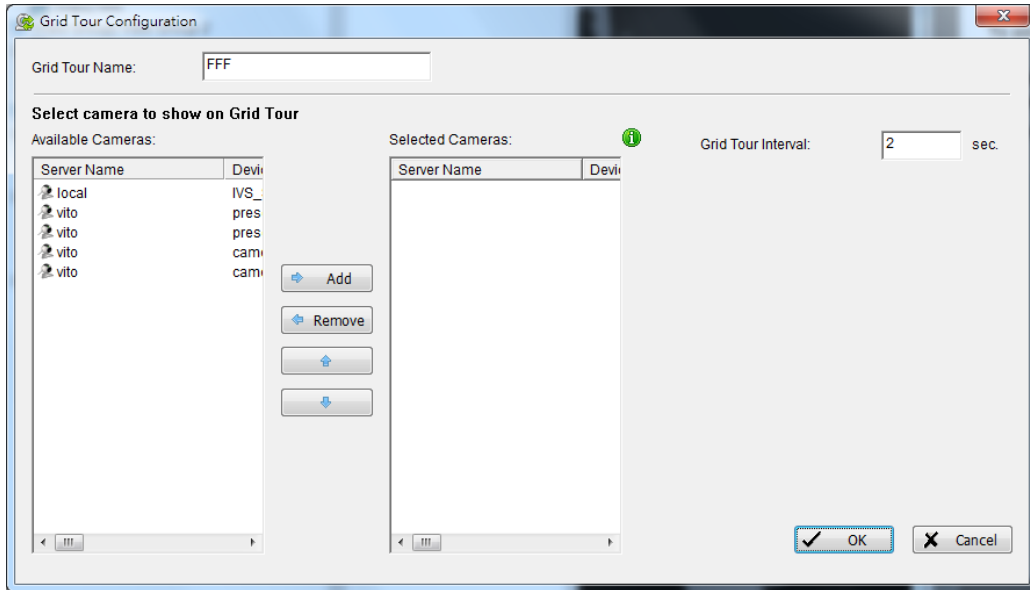
3. All licensed cameras will be under **Available Cameras**. Select the cameras you want to add to the Grid Tour and press [➡ Add]. Press [⬅ Remove] to remove selected cameras.

4. Use the buttons [⬆] and [⬇] to adjust sequence of cameras.

5. Right click on any camera to choose a suitable stream profile.

6. Set **Grid Tour Interval**.

7. Click **OK** to save settings.

💡	After defining a **Grid Tour**, you will be able to include it in the **View**. It will be displayed with other cameras under the **Selected Cameras** List.

To add a new View Tour:

1. Right click on 🗀 View Group List and select **Add View Tour.** You will see the **View Tour Configuration** window.
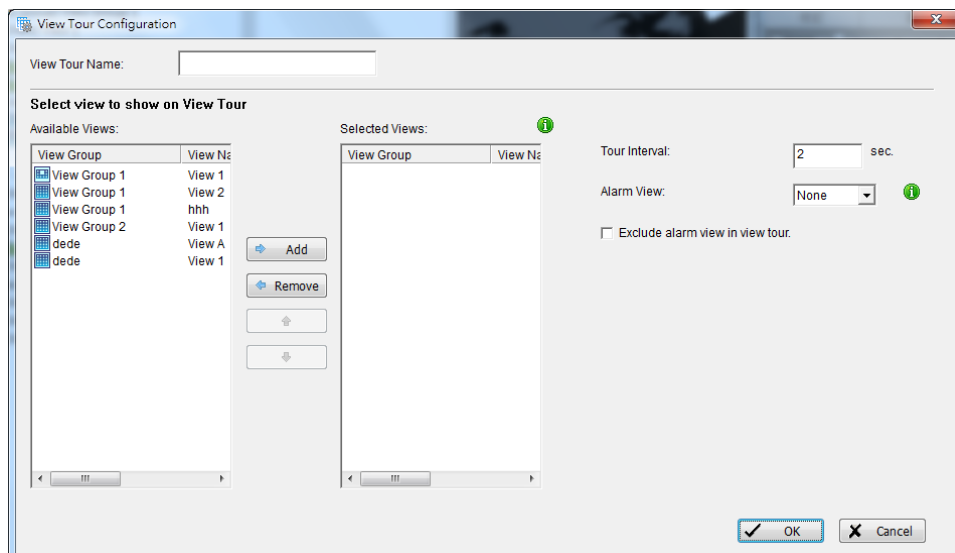
2. Insert a name for the View Tour in **View Tour Name**.

3. All Views will be under **Available Views**. Select the Views you want to add to the View Tour and press [Add]. Press [Remove] to remove selected Views.

4. Use the buttons [↑] and [↓] to adjust sequence of Views

5. Set **Tour Interval**.

6. Select an **Alarm View**. When alarms are triggered and alarm related video is ready to be displayed on reserved grids, View Tour will stop on the selected **Alarm View** to display the video. For more information, please refer to p. 46 on assigning alarm video channels to show video on event.

7. Click **Exclude alarm view in view tour** and select one view as the **Alarm View** in order to skip the view temporary. User can set a view as alarm view with flag and exclude it, so when alarm triggered, the alarm view will appear in view tour while skipped if not triggered.

8. Click **OK** to save settings.
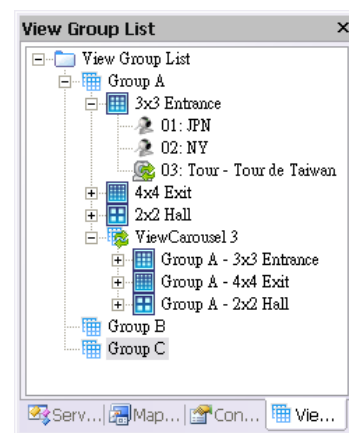
To load a View Group / View / View Tour:

1. Go to Operate Mode.

2. Go to the **View Group List** [View Group List] under the System Control Window.

3. To display all **Views** of a **View Group**, right click on any of the Groups and choose **Load on Matrixes.**

4. To display one specific **View** or **View Tour**, right click on the View / View Tour and choose **Show on Matrix.**

To assign users to an initial matrix view group upon startup:

1. Go to Edit Mode.

2. Right click on a specific user under **Configuration** under the System Control Window.

3. Click on **Edit user.**

4. Under **User Configuration**, choose a view group from the drop down list under **Initial View Group.**

This View group will be started automatically when this user logs in.
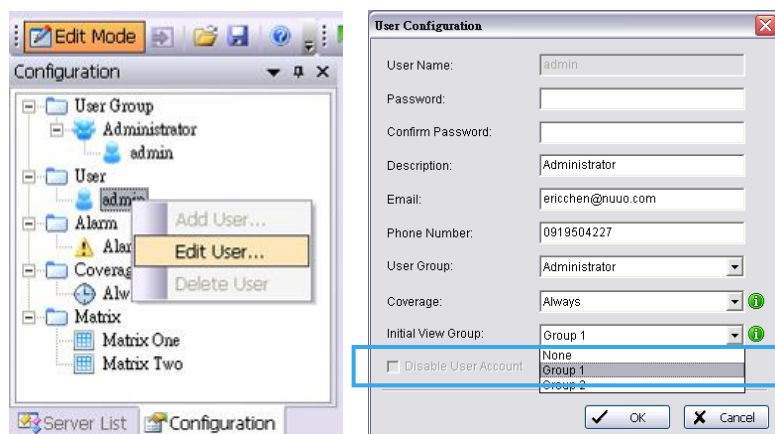
To rename a View / Grid Tour / View Group / View Tour:

1. Right click on the icon and label under Edit Mode.

View Group Management

2. Click on **Rename**.

To remove a View / Grid Tour / View Group / View Tour:

1. Right click on the icon and label under Edit Mode.

2. Click on **Delete**.

To edit a View / Grid Tour / View Group / View Tour:

1. Right click on the icon and label under Edit Mode.

2. Click on **Settings…**

	Under **Edit Mode**, drag and drop to change sequence of Views, View Groups, View Tours, Cameras and Grid Tours.

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] 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.
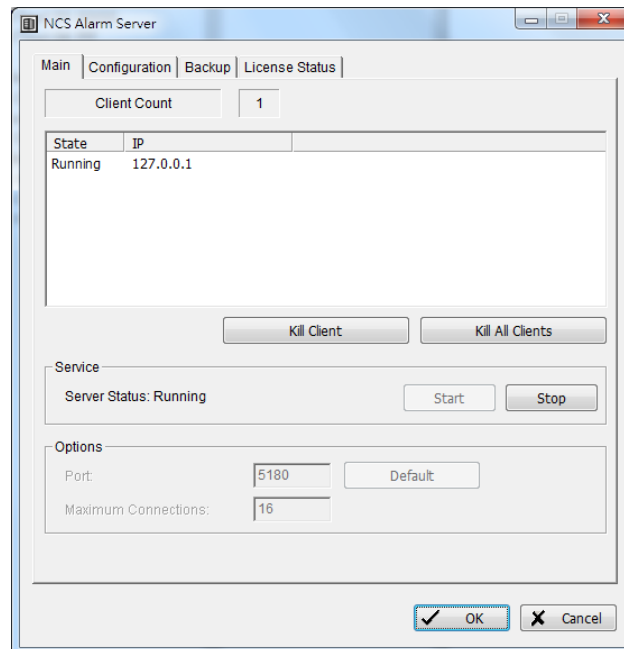
To change the NCS Server password:

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 [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 [icon].

Network Management

3. Click **OK** to open the Matrix Configuration window.

4. Click the **Allow List** button.
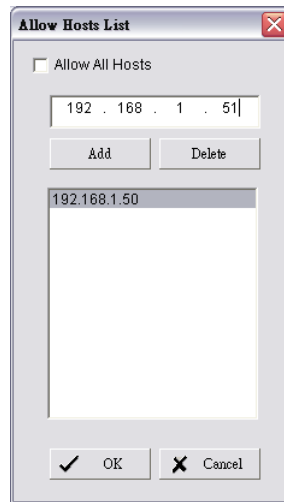
5. In the Allow Hosts List window, deselect **Allow All Hosts**, and then choose from the following actions:

   • 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**.
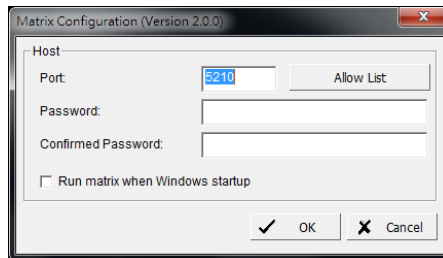
3. In the Matrix Configuration window, enter and confirm the password.

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**.

Importing/Exporting 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* .

To import or export NCS Client configuration:
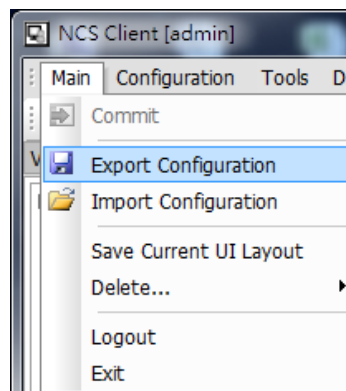
In the **File** menu, select **Import Configuration** or **Export Configuration**.

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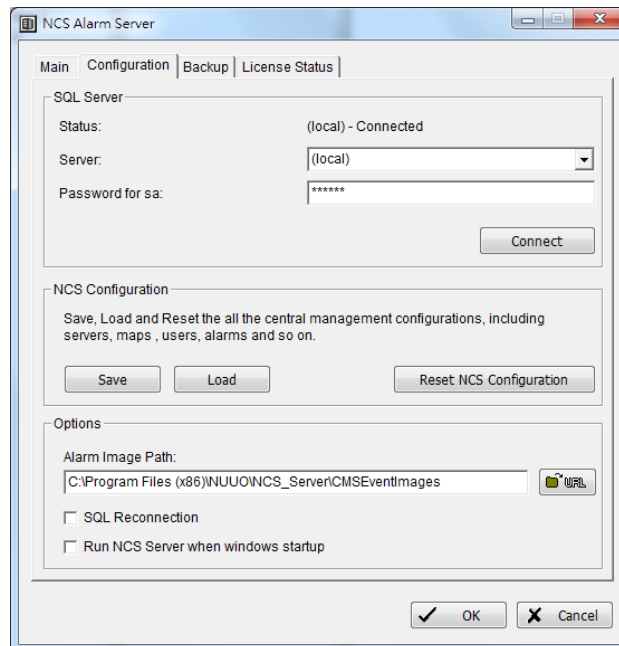
2. In the Central Server window, click Save, Load, or Reset NCS Configuration.

> 💡 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 or later versions**.

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 Online**" process.
- To "activate" the license with an NCS System not connected to the network, follow the "**Activation Offline**" 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 Online**" process.
- To "de-activate/transfer" the license with an NCS System not connected to the network, follow the "**Transfer Offline**" process.

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

License Management Tool Overview

Execute License Management Tool

1. Execute **License Management Tool** in **Configuration** of NCS Client.
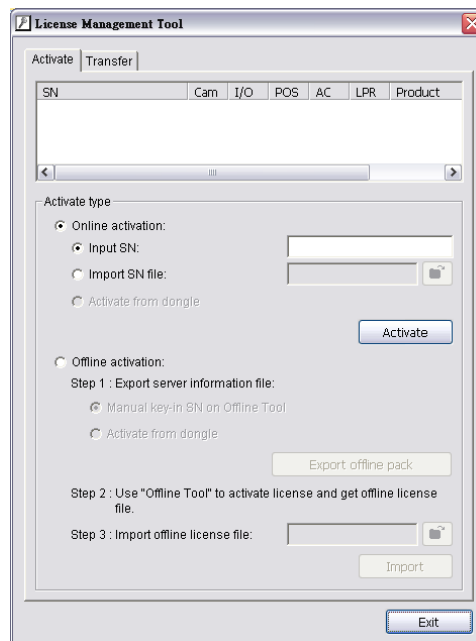
2.   The **License Management Tool** will appear. Please refer to the tool overview below.

License Management Tool

License Management Tool Overview

Activate
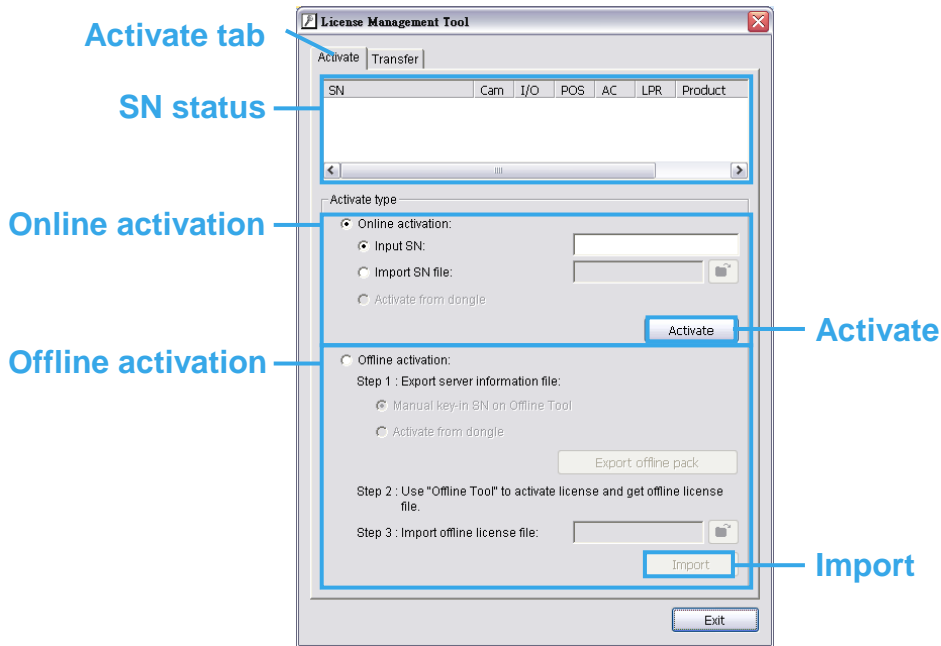
Transfer
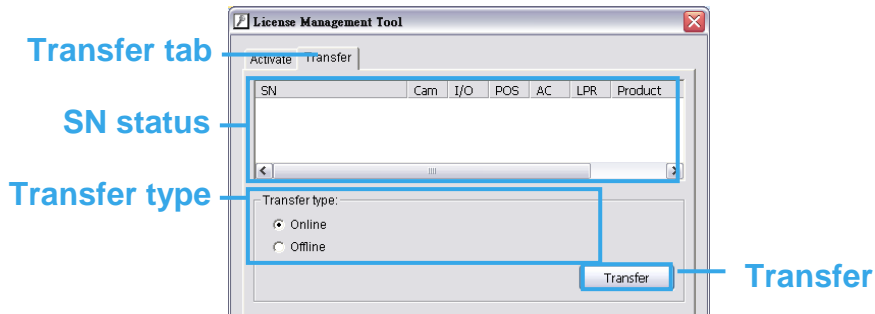
Activate/Transfer License

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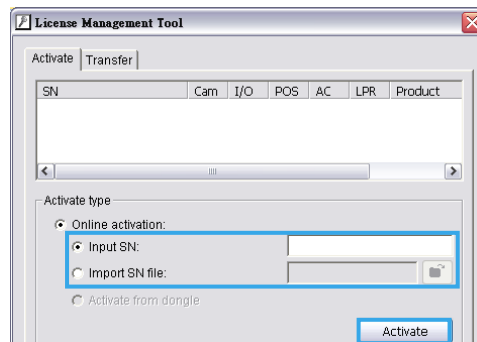
4. Restart **NCS-Client** if activated successfully.

Activation Offline

1. Open **License Manager Tool**.

2. Select **Offline** as **Activate** type.

3. Select **Manual key-in SN on Offline Tool** or **Activate from dongle**, then click **Export offline pack**.

4. Save Request file, and then take it to another PC connected to Internet.
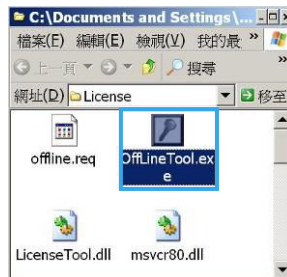
5. Execute **OffLineTool.exe** on another PC, Input SN or SN file or insert dongle, then click **Activate** to send request file to license server.
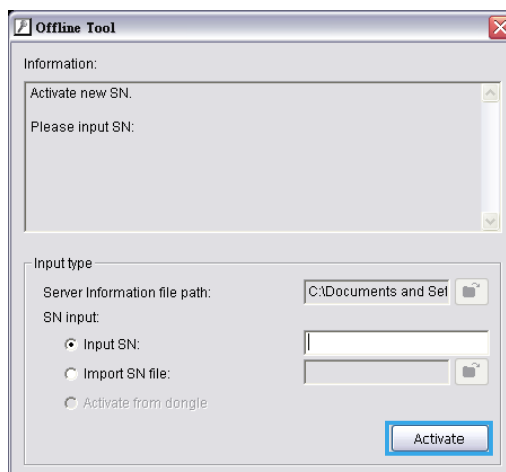
6. Save License file, and then take it to the original **NCS Client** of the NCS System.

7. Open **License Manager Tool** from NCS Client again, select **Import** license file, and then click the **Import** button to activate.

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

Transfer License

   Transfer Online

1. Open **License Manager Tool**.

2. Select **Transfer** Tab, and then check **Online** as Transfer type.

3. Select SN and click on **Transfer** button.

License Management Tool
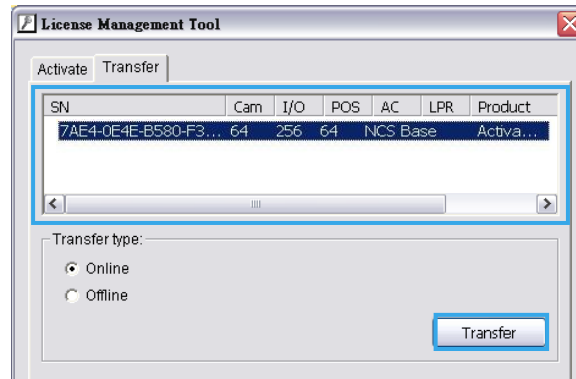
4.   Restart **NCS-Client** if transferred successfully.

   Transfer Offline

1.   Open **License Manager Tool**.

2.   Select **Transfer** Tab, and then check **Offline** as **Transfer** type.

3.   Select SN, and then click **Transfer** button to transfer SN.
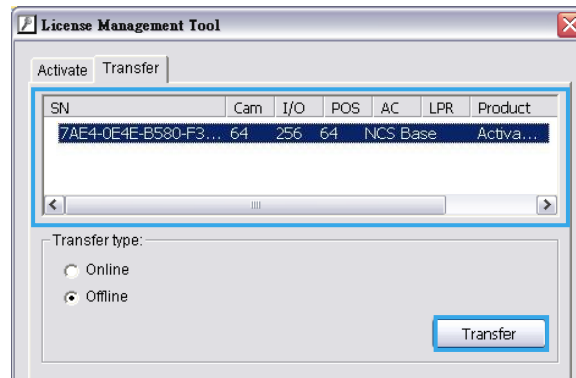
4.   Save Request file. Copy request file to another PC connected to internet.

5.   Execute **OffLineTool.exe** on another PC, check Transfer SN and click **Transfer** to send request file to license server.

6.   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, display and control of actions triggered by alarms.

It includes buttons below:

- The **Disable Go to Map** button ![icon]. When selected, alarm events cannot change the map view.

- The **Disable Popup** button ![icon]. When selected, alarm events cannot trigger a live video popup.

- The **Disable Link between Map and Matrix** button ![icon]. 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 ![icon]. When selected, alarm events cannot send alarm source camera and related camera video feed to matrixes.

- The **Disable Matrix Popup** button ![icon]. 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 ![icon]. When selected, alarm events cannot trigger a sound.

- The **Minimize Tray** button ![icon]. When selected the window will minimize to task bar.

- The **Lock System** button ![icon]. Click to maximize and lock the window. To unlock you must input username and password.

Alarm Overview Window
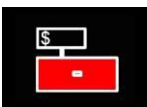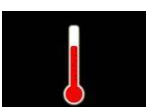
The Alarm Overview window shows recent alarm events in various formats, and is also used to show alarm query results and log messages. For any alarm displayed in this window, an **Alarm Detail** window can be opened. This enables easy management of alarms. There are five tabs in the window: **Recent**, **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 **Metadata 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.

Alarm Overview Window

Real-Time Tab

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**, **Status**, **Alarm Name**, **Event Type**, **Source Server**, **Source Device**, **Description**, **Owner**, and **Time**. In addition, the number of displayed alarm events can be controlled.

To filter by priority:

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

To filter by status:

Click the **Status** button. From the list, select the states for alarms you want to display.
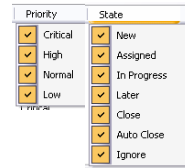
You can set the alarm status with hotkeys as well. Please refer to Hotkey Functions chapter.

To filter by alarm name:

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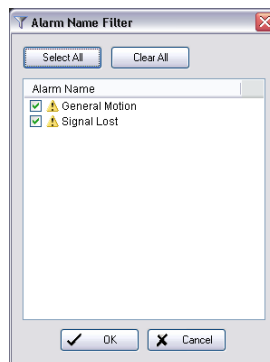
2.   In the **Alarm Name Filter** window, select the alarm names for the alarms you want to display.

To filter by event type:

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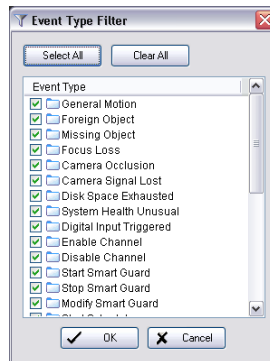
2.   In the **Event Type Filter** window, select the alarm names for the alarms you want to display.

To filter by source server or source device:

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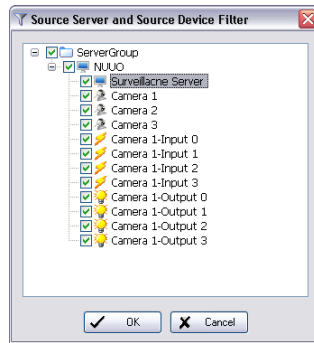
2.	In the **Source Server and Source Device Filter** window, select the server/s, the camera/s, I/O device/s or metadata device/s for the alarms you want to display.

To filter by Description:

1.	Click the **Description** button.

2.	In the **Alarm Description Filter** window, select the description that you typed in the Note Description in the Alarm Management window, and the alarm will be displayed.

To filter by alarm owner:

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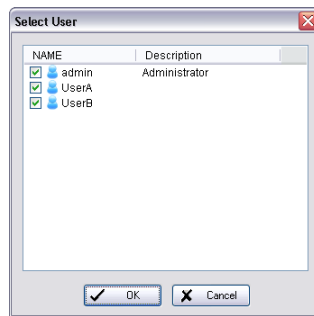
2.	In the **Select User** window, select the owners for the alarms you want to display.

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.
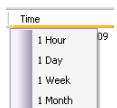
Output Tab and Output 2 Tab

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

Click on tab to order lists.

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 **Configuration** menu, click **Alarm Log Setting**.
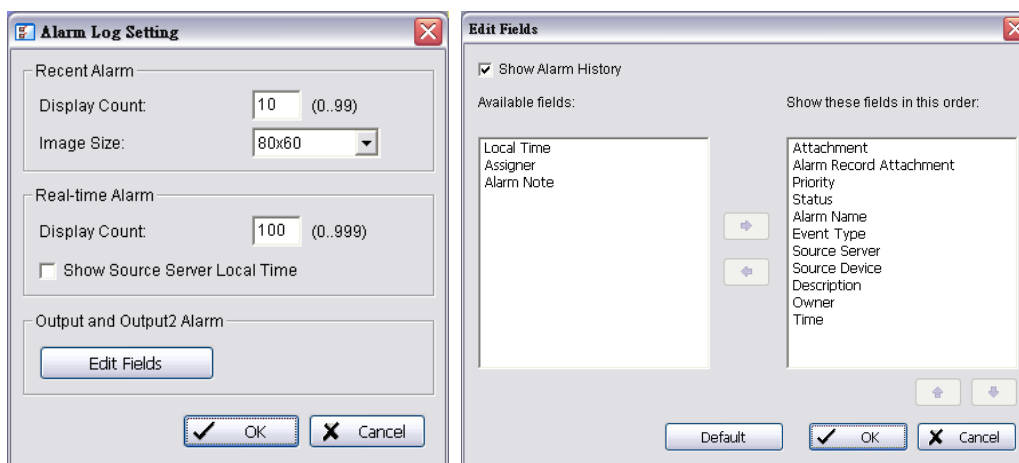
2.   In the **Alarm Log Setting** window, configure the following options:
     - In the **Recent Alarm** area, enter a display count in the range 0 to 99. This controls how many icons can be viewed at one time when the **Recent** tab is selected.
     - In the **Recent Alarm** area, select the Image 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**.
     - To customize desired output fields in the **Output** and **Output2** windows, click **Edit Fields**.

3.   In the **Edit Fields** window you may customize on which fields to display in the **Output** and **Output2** windows.
     - Check **Show Alarm History** to include **Alarm Note** in available fields.
     - Click on ➡ to add new fields into display or click on ⬅ to remove them. Click on ⬆ or ⬇ to adjust order.
     - Click on **Default** to reset to default settings.

Alarm Management Window and Batch Alarm Management

For any alarm displayed in the Alarm Overview window, an **Alarm Management** 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. You may also update or reset the state, priority, and owner of the alarm under this window.

To view alarm information in the Alarm Management window:

Right-click (or double-click) on any alarm event in the Alarm Overview window, and then click **Alarm Management**.
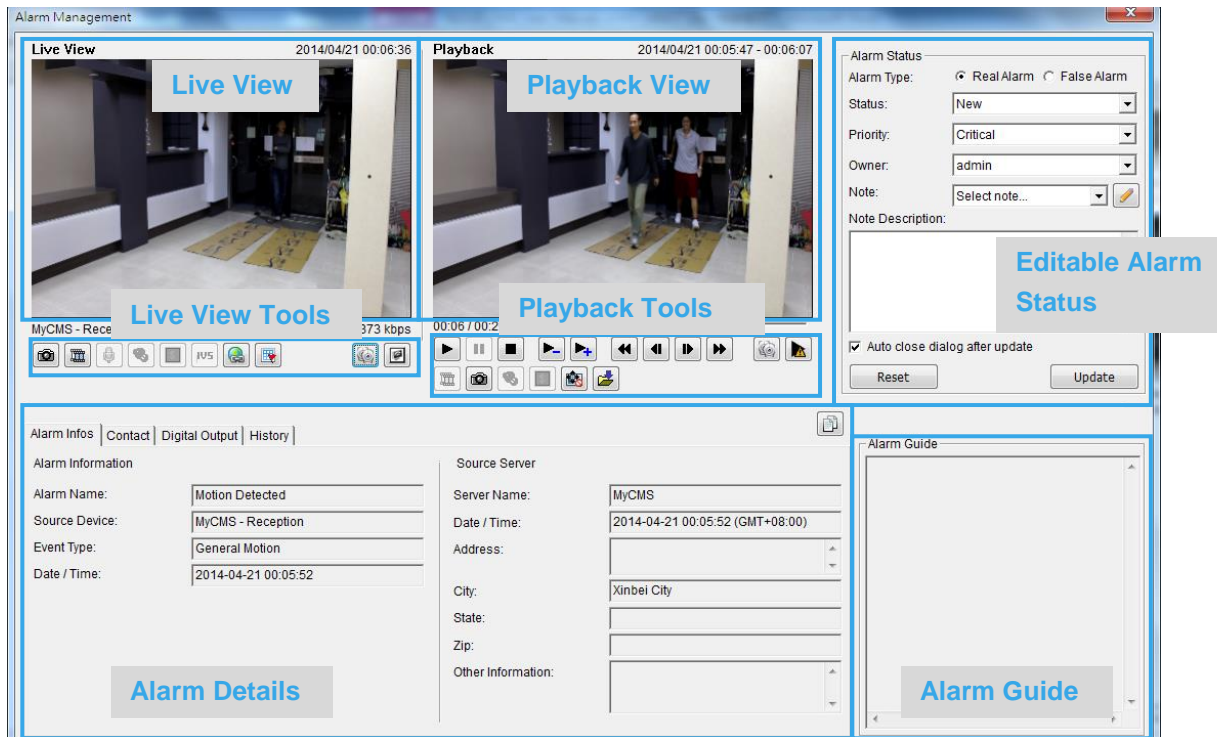
The **Alarm Management** window gives details of five sections:

- Live View: The live view of the camera that triggered the event, and related tools to control live view.

- Playback View: Instant video playback from the time alarm is trigger, and its related playback tools.

- Alarm Details: Includes general information of the alarm, related contact info, which digital output, and alarm history information.

- Alarm Status: The alarm status is to be updated according to actual events, the log can later be searched

- Alarm Guide: The guide for how to deal with this alarm. You can input the alarm guide at the alarm configuration window.

To view live video from the alarm source camera:

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

2. Click **Live Video** [icon]. The **Live Video Window** for the camera is displayed.
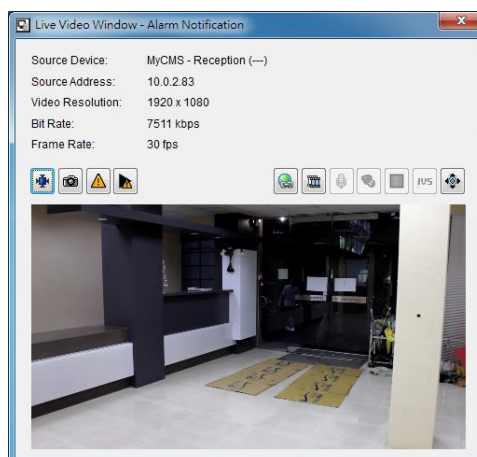
3. If you want to adjust the video to original video resolution, check **Adjust to original video resolution** [icon].

Alarm Overview Window

4. Click **Snapshot** 📷. The snapshot is displayed and users can save the image or copy it to the clipboard.

5. Click on **Alarm Management** ⚠️ to go to the alarm management window.

6. Click on **Alarm Playback** to view alarm playback video if available.

7. Click on **Connect to Camera Link** to go to camera ip address link (set up required) directly.

8. Select **Streaming profile** button to choose different video quality. Options include Original/Main, Recorded, High, Normal, Low and Minimum.

9. For cameras with two-way audio support, you may click and hold the **Talk** button for this function. Talking will end when you release the button. Please note alarm live view pop-ups will be temporarily disabled when using the Talk function.

10. If the camera is equipped with Audio function, the **Audio** button will appear. Click to enable audio stream.

11. If the camera is associated to metadata devices, the **Metadata** button will appear. Click the button to disable metadata display.

12. If the camera is configured with IVS alarm, the IVS will appear. Click the button to show the IVS display options.
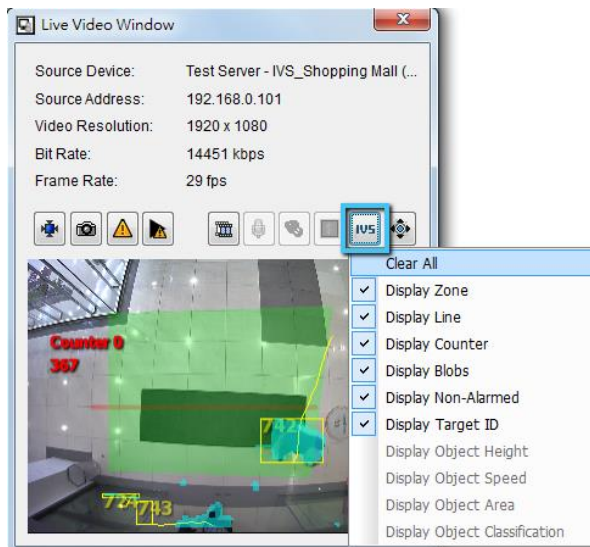
13. To use PTZ control in a live video window:

    Click the **PTZ** button for the following PTZ controls:

    - Enable Digital PTZ: Check to switch between digital / physical PTZ

    - Preset Point: Choose if available from the drop-down list

    - Patrol or AutoPan: Choose if available from the drop-down list, click to start and to stop

    - Direction controls: Up, Down, Left, Right and Home

    - Zoom out (-) and zoom in (+) controls

    - Focus far (-) and focus near (+) controls

    - Speed Dome Menu: If supported, this button enables the Setup Menu of Speed Dome cameras.

The menu will be displayed directly on the video channel. Use the PTZ controls to navigate down the menu. Other assigned keys with functions will be displayed on the screen, for example the Focus button for "Select".


- If the camera supports Fish eye lens and was correctly configured in Main Console, an additional button **Switch Fish eye** will appear above the PTZ Control panel. Click on the arrow to select between **Original / PTZ Mode / Quad Mode / Perimeter / Full Panorama Mode.**

Alarm Overview Window

-

To view recorded video from the alarm source camera:

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

2. Click **Recorded Video** [icon]. The **Remote Playback Window** has full playback controls.
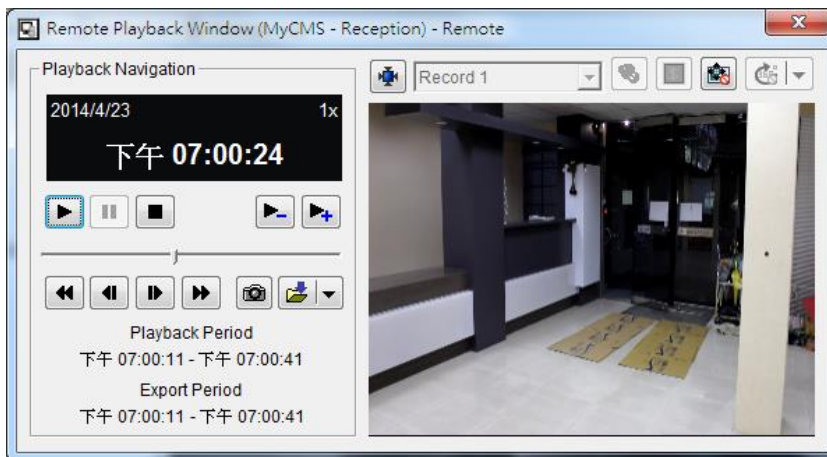
3. Click **Snapshot** button [icon]. The snapshot is displayed and users can save the image or copy it to the clipboard.

4. Click **Export Video** button [icon] 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 metadata display, or export video only.
   - Click OK to save the video.

5. If you want to fix the window size at the original resolution, check **Fix original video resolution** [icon].

6. If the camera is equipped with Audio function, the **Audio** button will appear. Click [icon] to enable audio stream.

7. If the camera is associated to metadata devices, the **Metadata** button [icon] will appear. Click the button to disable metadata display.

8. Click on the **Digital PTZ** button [icon] to enable Digital PTZ. Zoom in and out with your mouse wheel and drag to Pan / Tilt.

9. If the camera supports ish eye Lens and was correctly configured in Main Console, the **Switch to Fish eye** button [icon] will appear. Click on the arrow to select between **Original / PTZ Mode / Quad Mode / Parameter Mode.**

With dual record support, you can select to playback Record 1 or Record 2

1. Default playback is Record 1. To view Record 2, stop the playback, click on the scroll down menu to select Record 2.
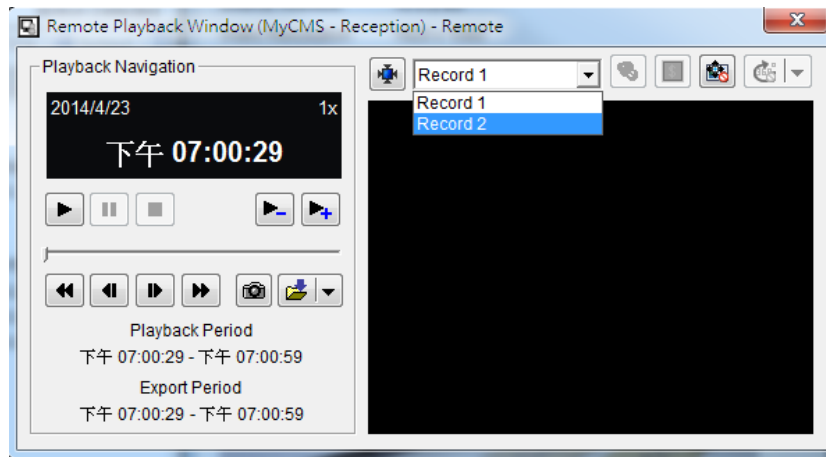
2. Now the video playback is of Record 2.
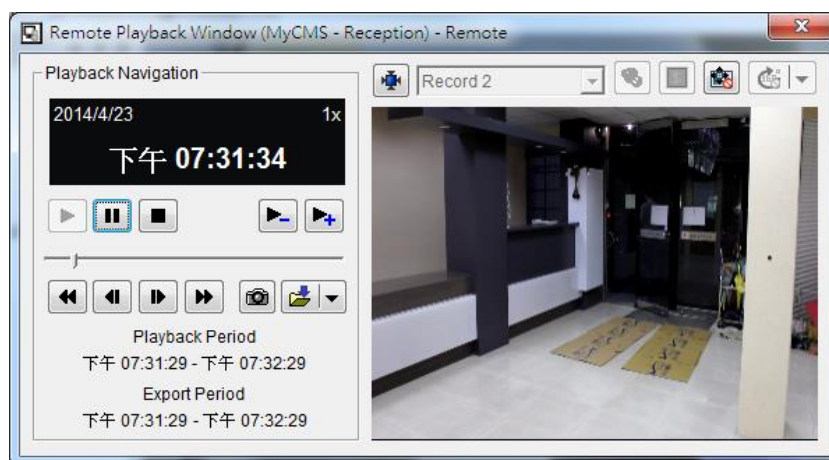
The default alarm playback period is 20 seconds, including 5 seconds prior to the event and 15 seconds after. This can be modified in **Edit – NCS Client Setting – Instant Playback Setting**. Alternatively you can use Remote Playback system which has full playback controls. Go to **Remote Playback** under **Tools**.

Alarm Overview Window

To send Video to Matrix:

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

2. Click **Send to Matrix** and **select previously set Matrix / Group** (see Matrix System, page 44). The video is sent to Matrix.

To view Metadata display:

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

2. If the alarm has Metadata display, the **Metadata** button will appear. Click to disable/enable display**.** The Metadata transaction data is displayed on the right.

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

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

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 metadata device:

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

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**.

To trigger a digital output device:

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

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 Management**.

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 Management Window, and the other is in the Batch Alarm Management Window, which is opened directly from 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 Management**.

2. In the **Alarm Status** 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 Batch Alarm Management window:**

1. Right-click on any alarm event in the Alarm Overview window, then click **Batch Alarm Management**.

2. In the **Batch Alarm Management** window, select the **State, Priority**, **owner and Note** from the drop-down lists. Click **OK**.
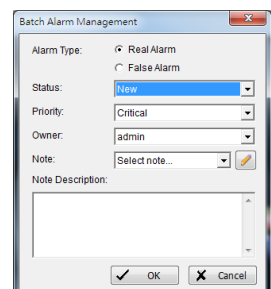
Exporting Alarm Data to an Excel File

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	I	J	K	L
1	AlarmNam	Priority	State	EventType	SourceSer	SourceDevice	Owner		AlarmTime			
125	A0	Critical	New	Source Ser	NVR_MainConsole		admin		2009-12-21 20:26:54			
126	A0	Critical	New	Source Ser	NDVR_MainConsole		admin		2009-12-21 20:26:34			
127	A0	Critical	New	Source Ser	NVR_MainConsole		admin		2009-12-20 23:19:12			
128	A0	Critical	New	Source Ser	NDVR_MainConsole		admin		2009-12-20 23:18:52			
129	A0	Critical	New	Source Ser	NVR_MainConsole		admin		2009-12-10 20:21:22			
130	A0	Critical	New	Source Ser	NDVR_MainConsole		admin		2009-12-10 20:21:02			
131	A0	Critical	New	Source Ser	NAS		admin		2009-12-09 01:56:55			
132	A0	Critical	New	Source Ser	NVR_MainConsole		admin		2009-12-07 22:58:36			
133	A0	Critical	New	Source Ser	NDVR_MainConsole		admin		2009-12-07 22:58:16			

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**.

Disable Alarm Temporary

Right-click on any alarm or alarm group, select **Re-enable After**, and select a time interval, so the alarm will be de-active within the time duration.

Choose **Resume** to make the alarm active again.

Re-enable After ▶	1 min
Resume	5 mins
	15 mins
	1 hour
	5 hours
	12 hours
	custom...
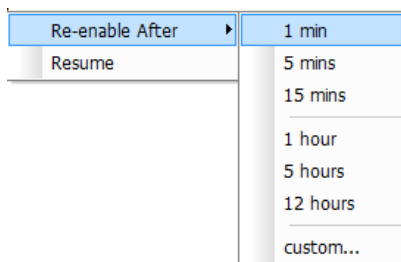
Map Window

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:

Use the zoom in 🔍 / zoom out 🔍 buttons or with the mouse wheel to adjust map size, or click the magnify 🔍 button and select one of the following options:

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

To enable area zoom:

Click the magnify 🔍 button and then select **Area Zoom**. Click and drag with your mouse to draw a rectangle on the map. This area will be magnified to fit the screen. Click again to turn **Area Zoom** off.

When **Area Zoom** is enabled, click on the map to center it. Drag the minimized icon on the lower right corner to move the map around.

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.

To adjust map brightness:

Move the brightness slider [slider] for the brightness you want.

💡	The controls above can also be accessed on the **Map** toolbar

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 **Map List**, and using indicators on the map.

To navigate in Map List:

Ensure that the **Map List** 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 **Map List** window is selected. Then click on a map indicator [station icon] to see the underlying (child) map. Click the Go to Parent Map button [icon] on **Map** toolbar to go to the parent map.

Searching for devices on the server list or on map

Users can search for devices, servers or map indicators on the server list or on maps by using the **Search** function.

To use the search function:

1. On the Search toolbar, click the Search icon [icon], and select Search Setting.

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.

    - **Device –** check to select which kinds of devices you want to include in the search.

    - **Find Where – MapTree / ServerTree –** Click to define search range, either from the MapTree or ServerTree.

    - **Find String In –** Specify string location for more accurate results.

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 **Map List** 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. Click **Find Previous** to go back to the previous found indicator.

[tip icon]	You can also search for indicators by entering a string in the Search box and pressing Enter.

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.

Map Window

	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
	Access Control is connected and has no alarm
	Access Control is disconnected and has no alarm
	Access Control is connected and has New alarm
	Access Control is connected and has Assigned, In Progress or Later alarm
	License Plate Recognition is connected and has no alarm
	License Plate Recognition is disconnected and has no alarm
	License Plate Recognition is connected and has New alarm
	License Plate Recognition 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 **Configuration** 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.

-
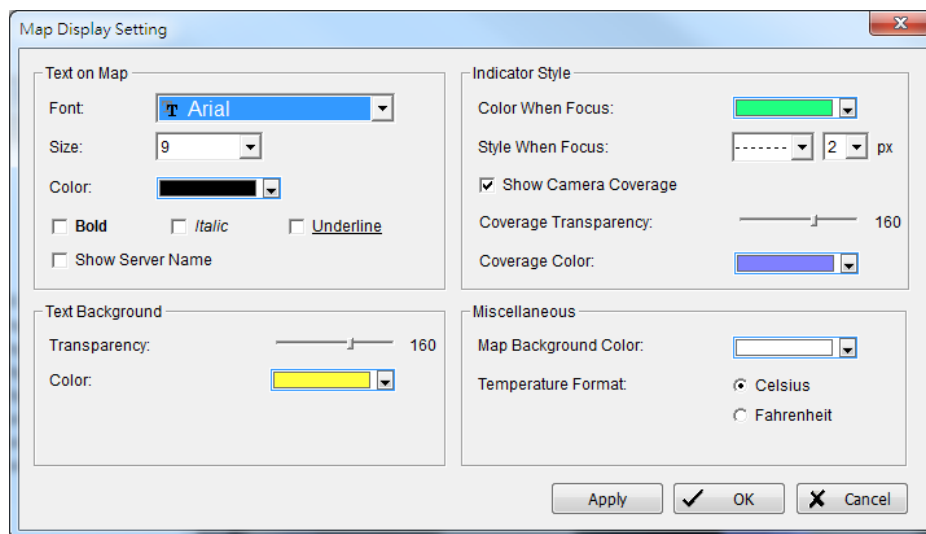
Device Alarm Menus

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.

- **Stream Profile –** displays the stream profile menu of the camera

- **Connect to Camera Link –** This allows for quick connection to the camera via the camera link set up at Server List.
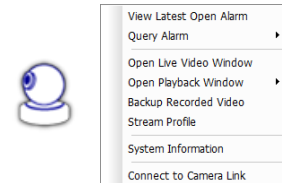
For a metadata device, the menu shows the following options:

- **Metadata Search –** searches metadata 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.

> The same menu is available by right clicking on icons of cameras / metadata devices / IO devices / recording servers under Operate Mode.

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 **Map List** display.

2. Click **View Latest Open Alarm**.

3. The **Alarm Detail Window** for the latest alarm opens.

To query alarms for a device:

1. Right-click on the indicator for the device, or on the device's icon in the **Map List** display.

2. Point to **Query Alarm**, then choose which alarms you want to see:

    • **Open –** shows all open alarms.

    • **Today –** shows alarms from the current day.

    • **Custom –** specify a range on date and time, then click **OK**.

	System administrators set the length of time that alarms are stored on the server. 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 displayed in the **Output/Output 2** tab. For information on this window, see page 63.

To show information about the server:

1. Right-click on the indicator for the device, or on the device's icon in the **Map List** 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 64-70).
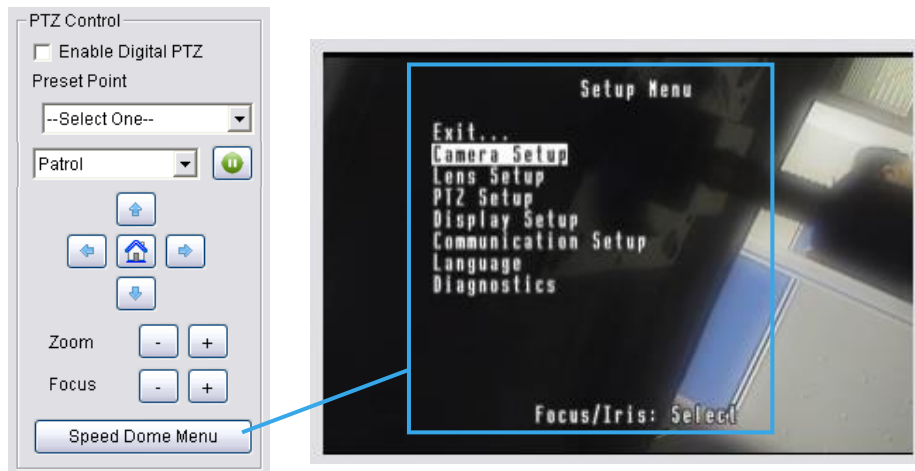
To open a live video window:

1. Right-click on the indicator for the camera, or on the camera's icon in the **Map List** 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. Click on **Alarm Management** to go to the alarm management window.

6. Click on **Alarm Playback** to view alarm playback video if available.

7. Click on **Connect to Camera Link** to go to camera ip address link (set up required) directly.

8. Select **Streaming profile** button to choose different video quality. Options include Original/Main, Recorded, High, Normal, Low and Minimum.

9. For cameras with two-way audio support, you may click and hold the **Talk** button for this function. Talking will end when you release the button. Please note alarm live view pop-ups will be temporarily disabled when using the Talk function.

10. If the camera is equipped with Audio function, the **Audio** button will appear. Click to enable audio stream.

11. If the camera is associated to metadata devices, the **Metadata** button will appear. Click the button to disable metadata display.

12. Click the **PTZ** button for the following PTZ controls:

    *   Enable Digital PTZ: Check to switch between digital / physical PTZ
    *   Preset Point: Choose if available from the drop-down list
    *   Patrol or AutoPan: Choose if available from the drop-down list, click to start and to stop
    *   Direction controls: Up, Down, Left, Right and Home
    *   Zoom out (-) and zoom in (+) controls
   *   Focus far (-) and focus near (+) controls

- • Speed Dome Menu: If supported, this button enables the Setup Menu of Speed Dome cameras.

  The menu will be displayed directly on the video channel. Use the PTZ controls to navigate down the menu. Other assigned keys with functions will be displayed on the screen, for example the Focus button for "Select".

- • If the camera supports Fish eye Lens and was correctly configured in Main Console, an additional button **Switch to Fish eye** will appear above the PTZ Control panel. Click on the arrow to select between **Original / PTZ Mode / Quad Mode / Parameter Mode.**
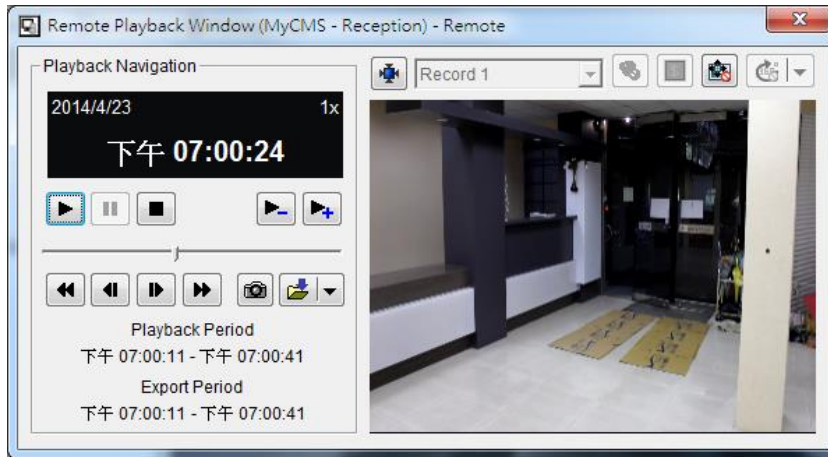
To open a recorded playback window:

1. Right-click on the indicator for the camera, or on the camera's icon in the **Map List** 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.
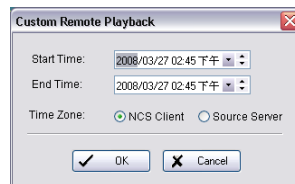
   - • One Minute Before- open one minute before.

   - • Ten Minutes Before- open ten minutes before.

   - • One Hour Before- open one hour before.

4. The **Remote Playback Window** has full playback controls.

Device Alarm Menus

5. Click **Snapshot** button . The snapshot is displayed and users can save the image or copy it to the clipboard.

6. 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 metadata display, or export video only.

   • Click OK to save the video.

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

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

9. If the camera is associated to metadata devices, the **Metadata** button will appear. Click the button to disable metadata display.

10. Click on the **Digital PTZ** button to enable Digital PTZ. Zoom in and out with your mouse wheel and drag to Pan / Tilt.

11. If the camera supports Fish eye Lens and was correctly configured in Main Console, the **Switch to Fish eye** button will appear.   Click on the arrow to select between **Original / PTZ Mode / Quad Mode / Parameter Mode.**

With dual record support, now you can select to playback Record 1 or Record 2

12. Default playback is Record 1. To view Record 2, stop the playback, click on the scroll down menu to select Record 2.

13. Now the video playback is of Record 2.

To Backup recorded video:
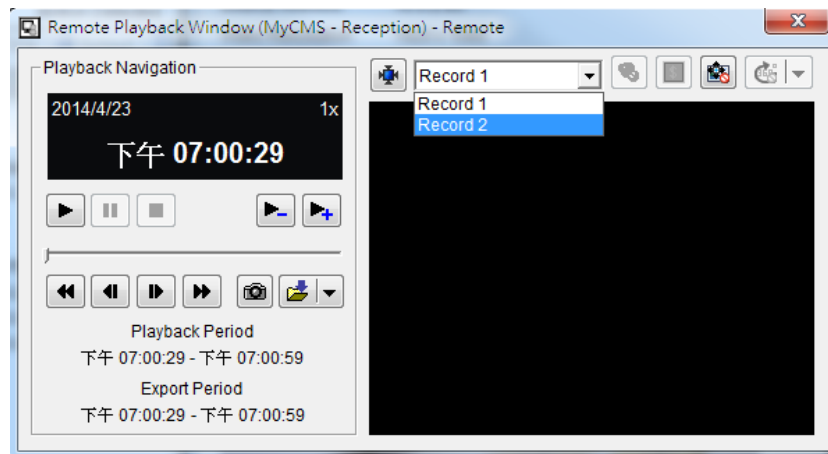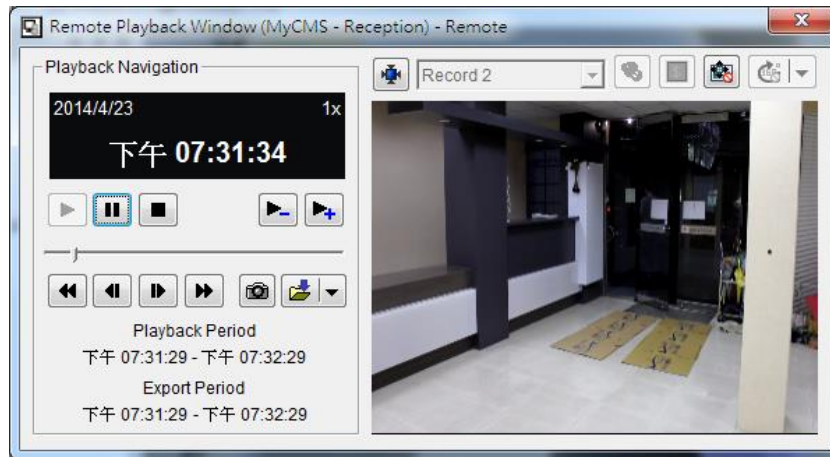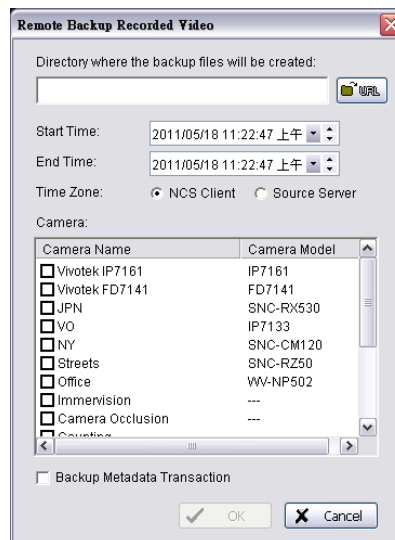
1. Right-click on the indicator for the camera, or on the camera's icon in the **Map List** display.

2. Click **Backup recorded video**.

3. In the **Remote Backup Recorded Video** window, choose a directory for the backup by pressing the **URL** button [URL] 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. Check **Backup Metadata Transaction** to include metadata information in the backup.

7. 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 **Map List** 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.

Device Alarm Menus

Metadata Alarm Menu

The **Metadata Search, Open Live Video Window**, **Open Playback Window**, and **Backup Recorded Video** commands appear on the device alarm menu for Metadata devices. The steps are the same as on the Camera Alarm Menu (see pages 78).
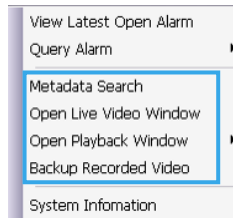
To search metadata transaction:

1. Right-click on a metadata indicator, or on any metadata icon in the **Map List** display.

2. Click **Metadata Search**. **Metadata Search Dialog** will display.

3. Check metadata devices from the device list.

4. Configure the starting and ending time and dates.

5. Enter keyword to search metadata transaction. Check **Search within result** to filter the result.

6. Choose a result to display metadata transaction and video from associated camera.
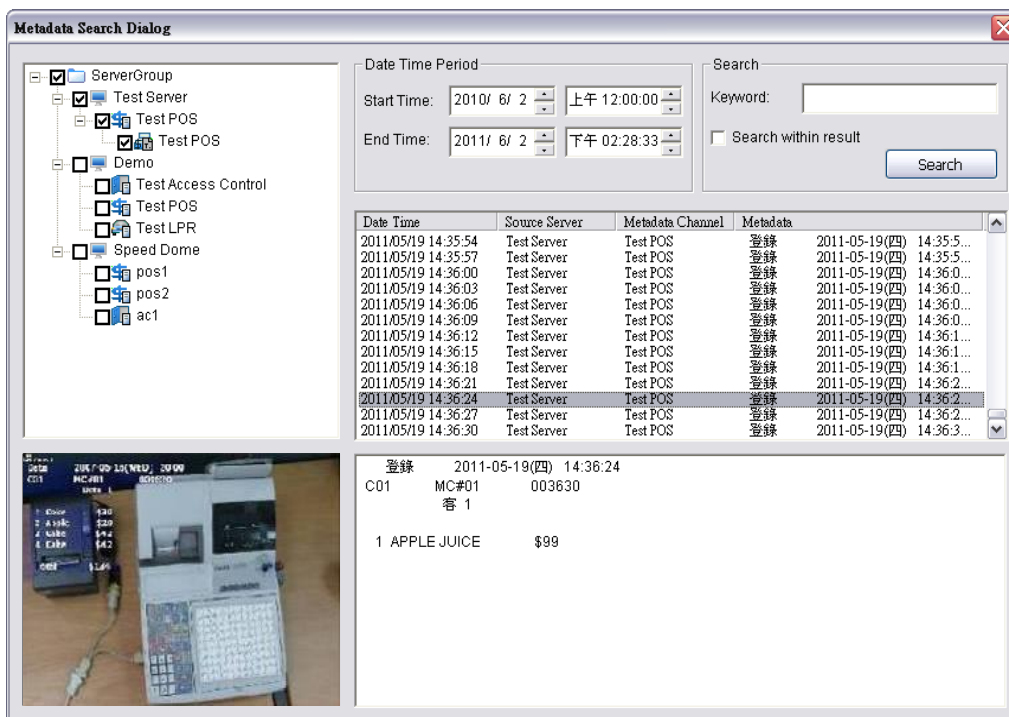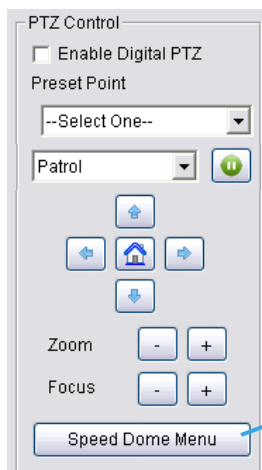
To open a live video window:

1. Right-click on the metadata indicator, or on the metadata icon in the **Map List** display.

2. Click **Open Live Video Window**. The **Live Video Window** for the metadata device 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. Options include Original/Main, Recorded, High, Normal, Low and Minimum.

6. If the camera is equipped with Audio function, the **Audio** button will appear. Click to enable audio stream.

7. Click the button to disable metadata display.

8. Click the **PTZ** button for the following PTZ controls:

   - Enable Digital PTZ: Check to switch between digital / physical PTZ

   - Preset Point: Choose if available from the drop-down list

   - Patrol or AutoPan: Choose if available from the drop-down list, click to start and to stop

   - Direction controls: Up, Down, Left, Right and Home

   - Zoom out (-) and zoom in (+) controls

   - Focus far (-) and focus near (+) controls

   - Speed Dome Menu: If supported, this button enables the Setup Menu of Speed Dome cameras.

     The menu will be displayed directly on the video channel. Use the PTZ controls to navigate down the menu. Other assigned keys with functions will be displayed on the screen, for example the Focus button for "Select".
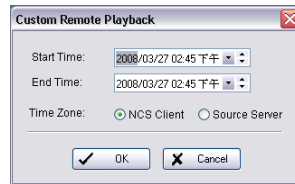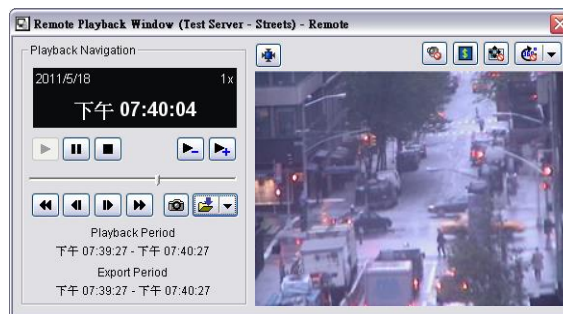
Device Alarm Menus

- If the camera supports Fish eye Lens and was correctly configured in Main Console, an additional button **Switch to Fish eye** ⊡ ▾ will appear above the PTZ Control panel. Click on the arrow to select between **Original / PTZ Mode / Quad Mode / Parameter Mode.**

To open a recorded playback window:

1. Right-click on the metadata indicator, or on the metadata icon in the **Map List** 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. Click **Snapshot** button ⊡ . The snapshot is displayed and users can save the image or copy it to the clipboard.

6. 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 metadata display, or export video only.

   - Click OK to save the video.

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

8. If the camera is equipped with Audio function, the **Audio** button will appear. Click ⊡ to enable audio stream.

9. If the camera is associated to metadata devices, the **Metadata** button ⊡ will appear. Click the button to disable metadata display.

10. Click on the **Digital PTZ** button ⊡ to enable Digital PTZ. Zoom in and out with your mouse wheel and drag to Pan / Tilt.

11. If the camera supports Fish eye Lens and was correctly configured in Main Console, the **Switch to Fish eye** button
   ![icon] will appear.   Click on the arrow to select between **Original / PTZ Mode / Quad Mode / Parameter Mode.**

To backup recorded video:

1. Right-click on the metadata indicator, or on the metadata icon in the **Map List** 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
   ![URL] 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.
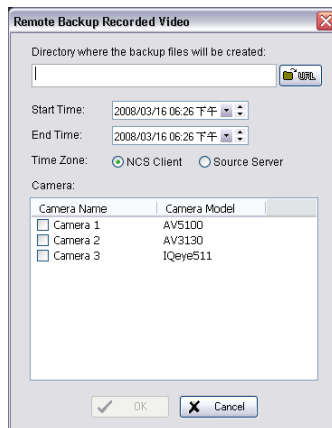
Output Device Alarm Menu

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 **Map List** 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 **Map List** 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
   ![URL] 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 **Map List** 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:

1. In the **Tools** menu, click **Advance Alarm Search**.

2. 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).
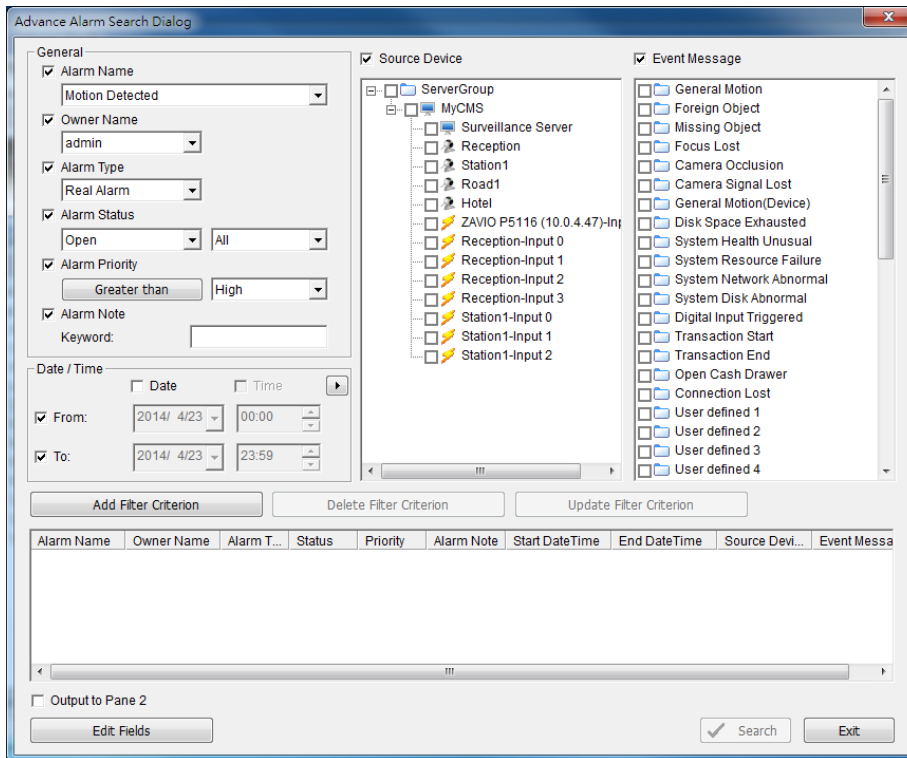
3. Setup the General options for criteria:

   • **Alarm Name –** choose a name from the drop-down list.

   • **Owner Name –** choose a name from the drop-down list.

   • **Alarm Type –** choose Undefined, Real alarm, or False alarm.

   • **Alarm Status –** 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

4. 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.

|	
	To setup one day as the search period, click on the icon next to **Time** and select 1 day. Or manual enable and set date from 2008/3/16 to 2008/3/17.

5. 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.

6. Click **Add Filter Criterion**. The search criteria you selected appear in the window.

7. 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.

8. 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**.

9. To customize desired output fields in the **Output** and **Output2** windows, click **Edit Fields**.

10. Click **Search**.

Central Manual Backup

Besides scheduled backup, you can also manually backup alarm or video from all servers listed in your CMS system.

For Central Manual Alarm Backup:

1. Go to **Central Manual Alarm Backup** under **Tools**.

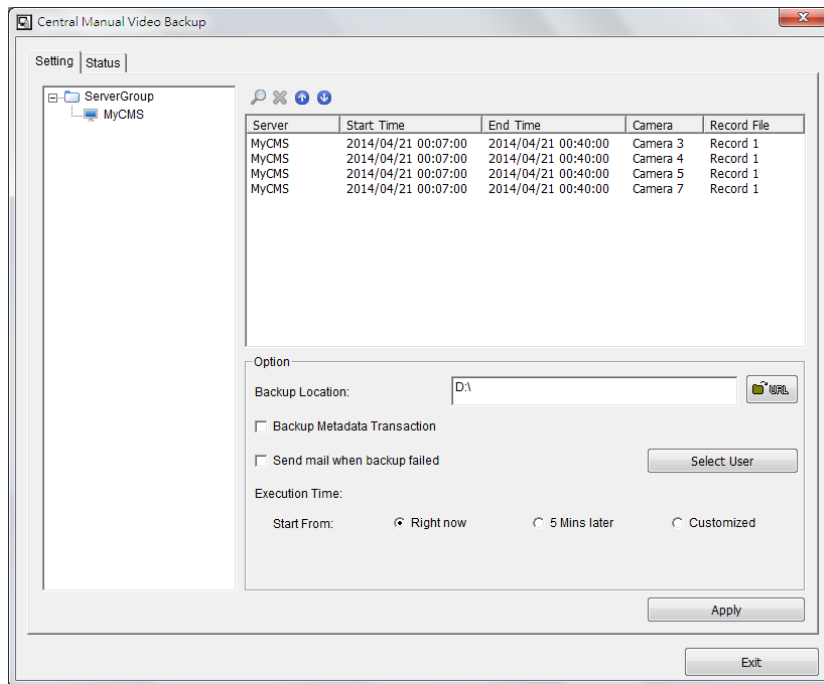2. Choose **Full Schedule Backup** or **Partial Schedule Backup.**
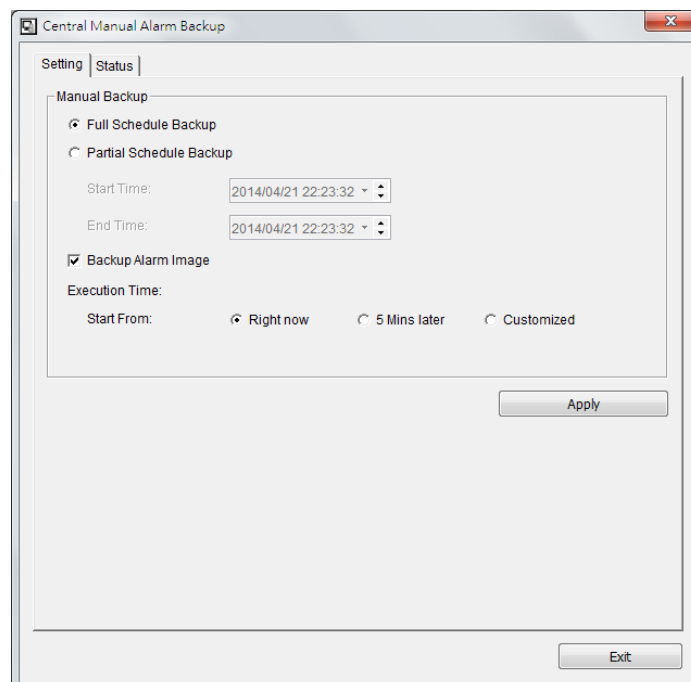
3. Check **Backup Alarm Image** if you would like the snapshots saved as well.

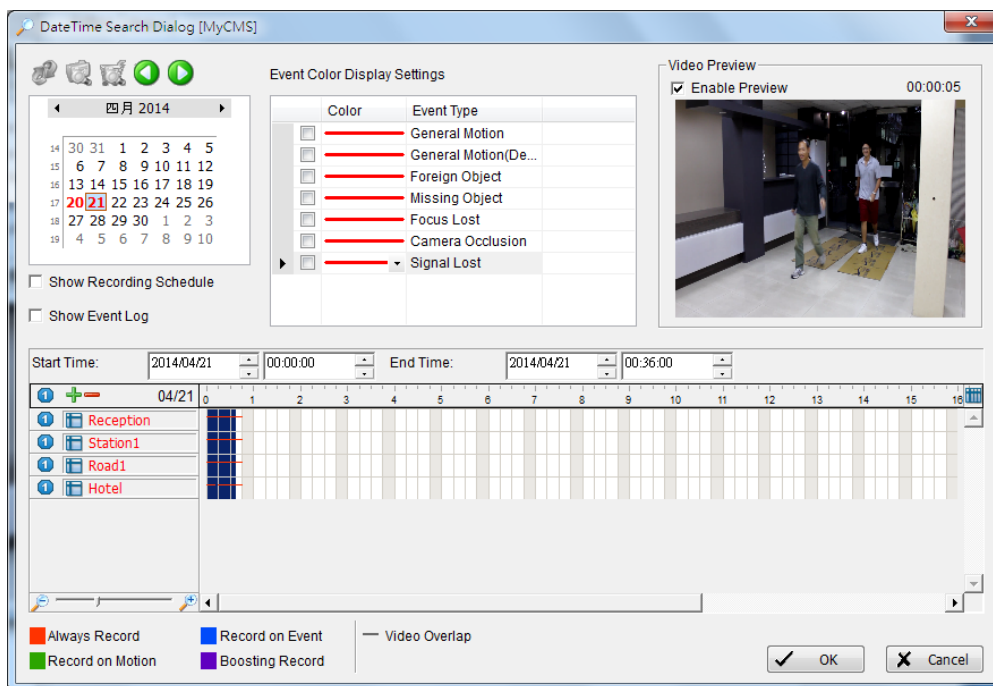4. Click **Apply** to start. To see the status click on the **Status** tab.

Device Alarm Menus

For Central Manual Video Backup:

1. Go to **Central Manual Video Backup** under **Tools**.

2. Choose the server that you would like to manually backup**.**

3. Click on the ⌕ icon, the **Date Time Search Dialog** will appear

4. Select the date, start/end time, and camera of the videos that you would like to backup.

5. Click on **OK**

6. The server name, cameras, and start/end time of the videos selected are displayed.

7. Choose your intended **Backup Location**

8. Click on **Apply** to start video backup.

9. You can click on the **Status** tab to check status or cancel backup.

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** – When selected, you can define matrix grids to display video from cameras when alarms are triggered. Only available under Edit mode.

- **Toggle tour** – Enable **Camera tour** when focused on Views, **View Tours** when focused on View Tours and **Grid Tour** when focused on grids. Only available under Operate mode.

- **Open PTZ Control Panel** – this opens a window for PTZ controls. When using a camera with Fish eye support, another button **Switch to Fish eye** will appear under the PTZ Control panel. Click to switch between **Original / PTZ Mode / Quad Mode / Parameter Mode.** Only available under Operate mode.

- **Go to previous view / next view** – Switch between Camera Tour views when focused on **Views**, between views when focused on **View Tours**, or between cameras when focused on **Grid Tours**. Only available under Operate mode.

- **Save View Group** – this saves the current matrix view group into the **View Group List**. Only available under Edit mode.

- The **Audio** button – this enables camera audio.

- The **Talk** button – this enables two-way audio, or talking directly to the chosen camera.

- 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 44. For the NCS Client to show video on a matrix, it must be logged in to that matrix.

To login to a matrix:

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

To load a matrix View Group / View / View Tour:

1. After logging in, go to the **View Group List** under Operate mode.

2. To load a **View Group**, right click on the icon and choose **Load on Matrixes**.

3. To load a **View** or **View Tour**, right click on the icon on a specific view and choose **Show on Matrix.**

Matrix View

	Alternatively, drag View Groups, Views and View Tours from the View Group list directly into the matrix list to load them. To do this, the NCS Client must be in Operate mode.

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 ⬚⬚⬚⬚⬚ 6² ▾ ⬚ ▾. The second button from the right 6² ▾ is the **Matrix Grid NxN** button. Clicking the arrow next to this displays a menu, from which you can select more display grid options. The button on the far right ⬚ ▾ **Matrix Grid 16:9** is a new set of grids dedicated to wide-screen displays.

	Double click on any channel under multiple channel view to switch to a dedicated single channel view. Double click again to switch back.

To add cameras / Grid Tours to 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. Drag cameras or Grid Tours directly from the **Server List**, **View Group List** or **Map** to the desired matrix grid.

4. 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.

5. Select **Stream Profile** of the camera. Choose **As NCS Client, Original/Main, Recorded, High, Normal, Low or Minimum**.

	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 on the arrow next to the **Remove Camera on Matrix** button ▦ ▾ and click **Reset matrix**.

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 [icon].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.

6. For advanced management, click on **Setting…**

    You are able to define up to 16 different groups indicated with 16 different colors under **Group Setting**.

To toggle tour:

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 Tour** button [icon].

4. Click **Toggle Tour** button again to disable tour.

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.

    • **Go to Preset Point** – go to the preset point of the view on a matrix or a live video. Select the parameter for the preset point.
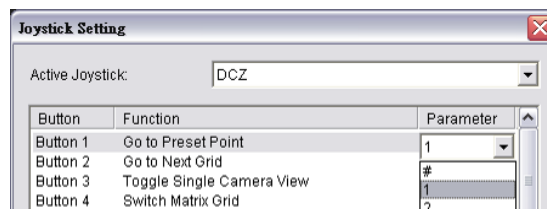
    • **Go to Previous Grid** – go to previous grid on a matrix.

    • **Go to Next Grid** – go to next grid on a matrix.

    • **Switch Matrix Grid** – switch grids of a matrix.

    • **Toggle Single Camera View** – toggle select camera to single view.

    • **Start/Stop Tour** –start/stop tour 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.

    • **Go to Matrix View** – go to Matrix List Window.

    • **Go to Server View** – go to Server List Window.

    • **Find Recording Server** – Focus to chosen Server on Server List. Must be used with number buttons.

[icon]	Format: Press this button + server number + Enter
	E.g. To go to server number 8, press **Find Recording Server** + 8 + Enter.

Matrix View

	To display server / camera / matrix numbers, go to **Edit – NCS Client Setting – Miscellaneous – Show central ID on server list and matrix list.**

- **Open Live View** – Open Live View window for selected camera. Must be used with number buttons.

	Format: Press this button + camera number + Enter
	E.g. To show live video of camera 12 from server 5, press **Open Live View** + 5012 + Enter.

- **Open Instant Playback** – Open Instant Playback for selected camera. Must be used with number buttons.

	Format: Press this button + camera number + Enter
	E.g. To show instant playback of camera 6 from server 3, press **Open Instant Playback** + 3006 + Enter.

- **Show Camera to Matrix** – Show selected channel of camera on selected grid of matrix.

	Format: Press this button + camera number + Enter + matrix and grid number + Enter.
	E.g. To show live video of camera 3 from server 5, to grid 11 of matrix 15, press **Show Camera to Matrix** + 5003 + Enter + 15011 + Enter.

- **Switch Stream Profile** – Press to switch between different stream profiles of Live View or matrix views.

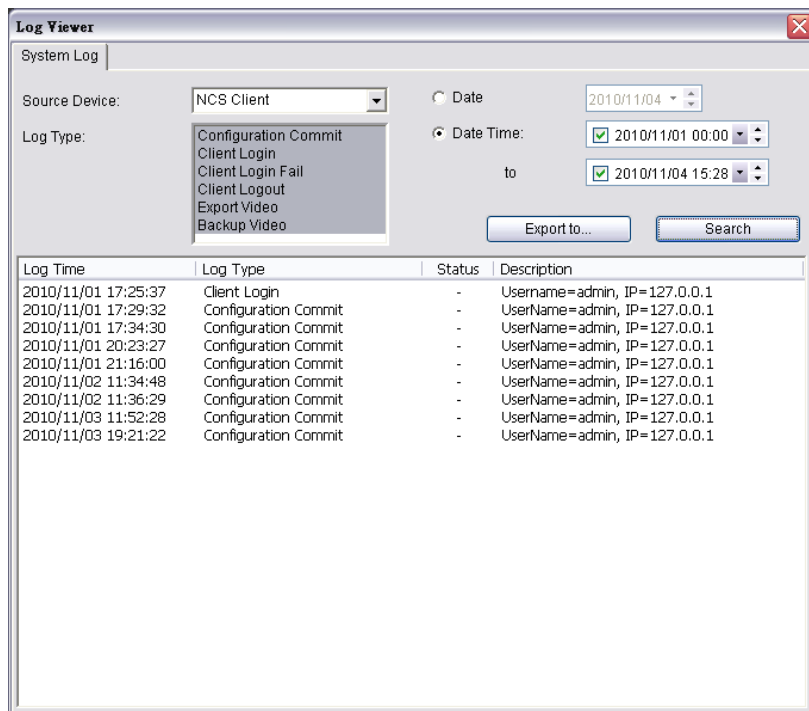|	Sequence of stream profiles: NCS Client – Original – Recorded – High – Normal – Low – Minimum

- **Take Snapshot** – Press to take a snapshot of current Live View or Playback window.

- **Play Playback** – Press to play Playback.

- **Pause Playback** – Press to Pause Playback.

- **Stop Playback** – Press to Stop Playback.

- **Numbers 0~9** – Assign numbers to input server / camera / matrix numbers.

- **Enter** – Confirm commands.

Log Viewer

The **Central System Log Viewer** can be accessed from the **Tools** menu. You are able to search and export a checklist of events according to source device and time/date.

To Search and Export log information:

1. Pick a source device: **NCS Server, NCS Client, Recording Server** or **All.**

2. Choose from a list of log types. Default includes all available options, click again to deselect.

3. Choose a **Date** or specify a time range under **Date Time.**

4. Click on **Search**. Log information will be displayed below.

5. Click on **Export to…** to export searched log information to Excel files.

Remote Playback Shortcut

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

To execute the Remote Playback shortcut:

6.   In the **Tools** menu, click **Remote Playback**.

7.   For multiple monitor systems, select which monitor you want the NVR/NDVR/DVR control screen to display on.
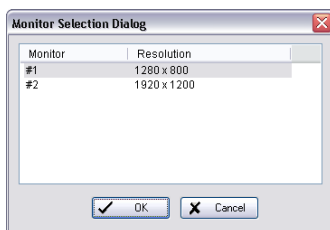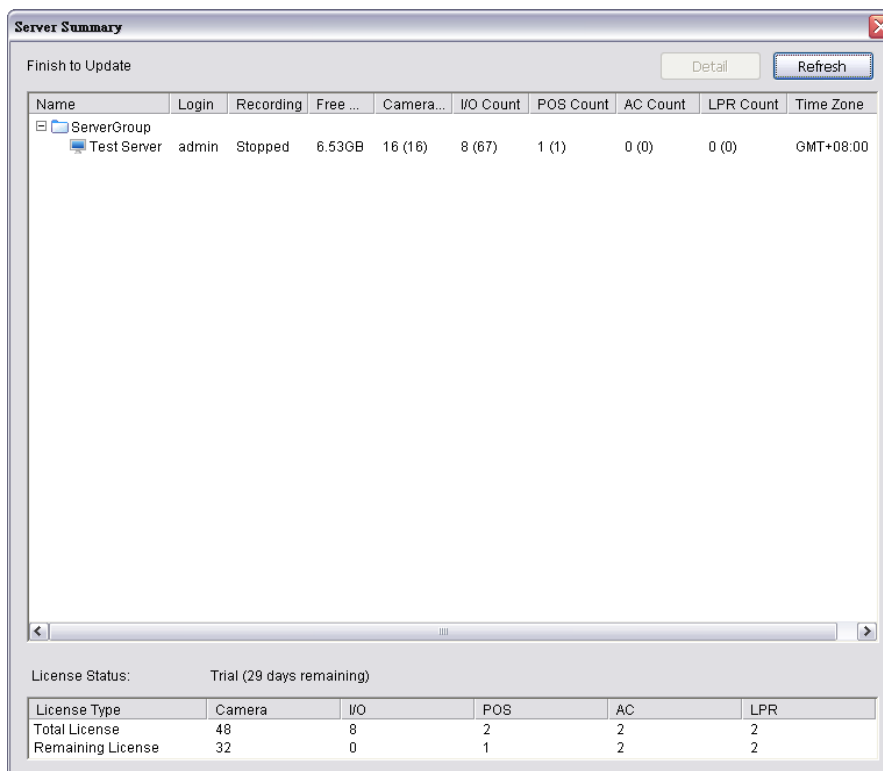

8.   Click **OK**.

Server Summary

The **Server Summary** (under **Info** menu) 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.

- **AC Count –**the number of access control devices connected to the recording server.

- **LPR Count –**the number of license plate recognition 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, metadata and I/O devices.

- **Remaining License –** the remaining number of licenses, including cameras, metadata 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 64).
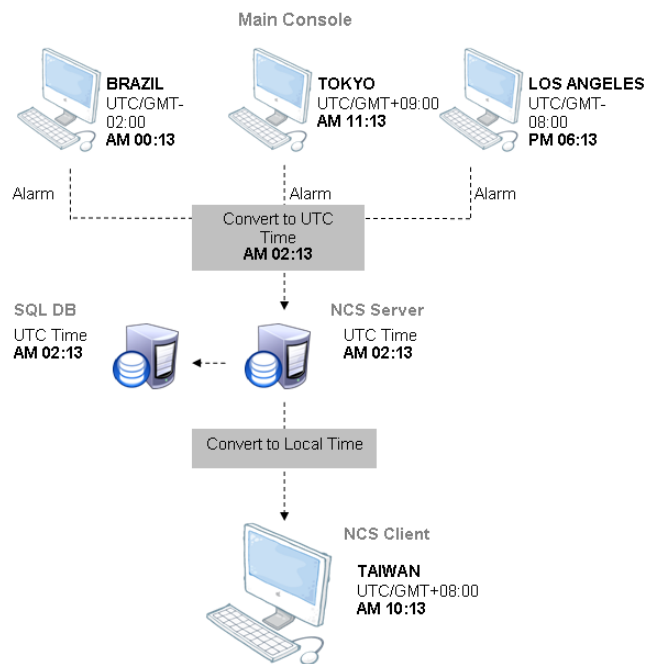
Hotkey Functions

Below lists the hotkey functions that you can use for quick actions.

Real-Time Alarm/Output/Output2 Tabs

- [Enter] Open alarm manager for selected row
- [ALT + C] Change the alarm status to close for the selected row(s)
- [ALT + A] Change the alarm status to assigned for the selected row(s)
- [ALT + P] Change the alarm status to in progress for the selected row(s)
- [ALT + L] Change the alarm status to later for the selected row(s)
- [ALT + I] Change the alarm status to ignore for the selected row(s)

Alarm Management

- [ALT + A] Change the alarm status to assigned for the selected row(s)
- [ALT + P] Change the alarm status to in progress for the selected row(s)
- [ALT + L] Change the alarm status to later for the selected row(s)
- [ALT + I] Change the alarm status to ignore for the selected row(s)"