



# Central Management System

## Software Installation Guide

Ver. 1.7.0.130326.001

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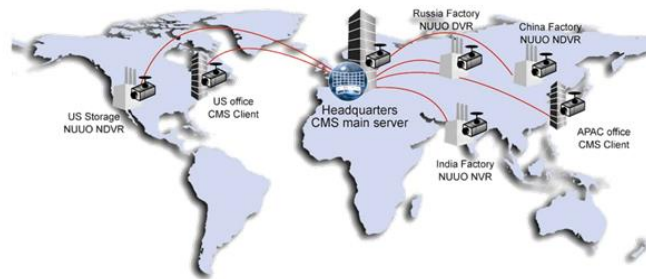
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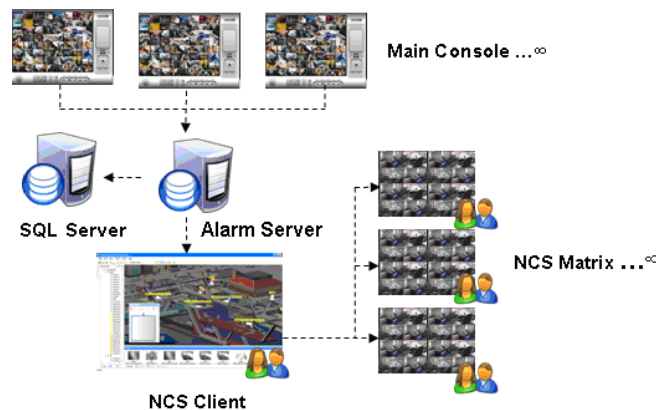
# System Introduction

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



## Client/Server Architecture

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



## Definition of Terms:

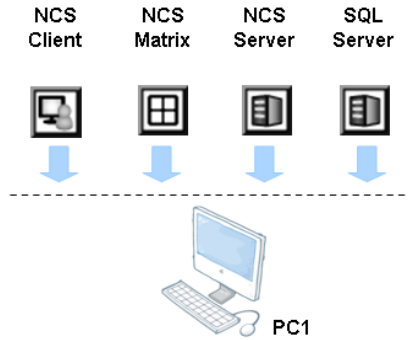
Terms	Descriptions
<b>NCS System</b>	All components of NUUO Central Management system.
<b>Recording Server</b>	Front end servers of the NUUO Central Management system, consisting of NUUO Video Recording systems which send events to NCS Alarm Server.
<b>SQL Server</b>	Database of NUUO Central Management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

# System Requirements

## System Setup

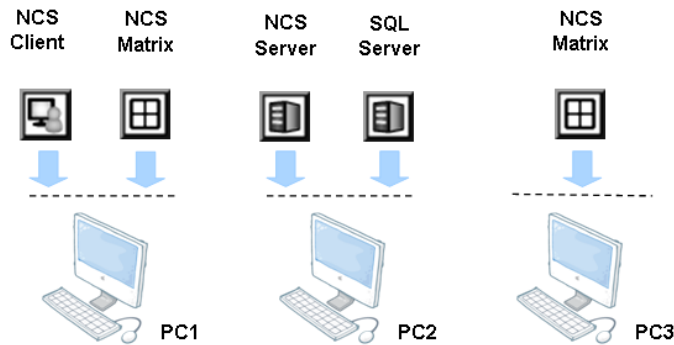
There are three scenarios for NCS system setup. Depending on customers' budget and the size of the project, customers can choose a suitable scenario. The system requirements for each scenario are detailed below.

**Scenario A:** Using one PC for all installed elements



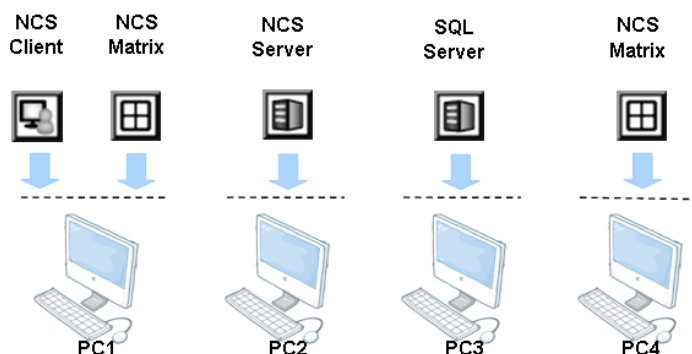
	PC1
<b>CPU</b>	Intel Core 2 Quad Q9550 @ 2830MHz
<b>RAM</b>	2 GB
<b>Hard Disk</b>	250 GB or above
<b>Mother-board</b>	Intel 945 or 965 chip (for single monitor) Intel P35/975 chip or nVidia nForce 650i chip (for multiple monitors)
<b>Display</b>	ATI X4350 or above, nVIDIA GeForce 9500series or above
<b>Ethernet</b>	100 baseT or above, Gigabit LAN recommended
<b>OS</b>	MS Windows XP Pro SP3 / Vista / 2003 / Win 7 / 2008 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



	PC1	PC2	PC3
<b>CPU</b>	Intel Core 2 Quad Q6660 @ 2400MHz	Intel Core 2 Duo E4500	Intel Core 2 Quad Q6660 @ 2400MHz
<b>RAM</b>	2 GB	2 GB	2 GB
<b>Hard Disk</b>	250 GB or above	250 GB or above	250 GB or above
<b>Display</b>	ATI X4350 or above	ATI X1600 or above	ATI X4350 or above
<b>Mother-board</b>	Intel 945 or 965 chip (for single monitor) Intel P35/975 chip or nVidia nForce 650i chip (for multiple monitors)		
<b>Ethernet</b>	100 baseT or above, Gigabit LAN recommended		
<b>OS</b>	MS Windows XP Pro SP3 / Vista / 2003 / Win 7 / 2008 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



	PC1	PC2	PC3	PC4
<b>CPU</b>	Intel Core 2 Quad Q6660 @ 2400MHz	Intel Core 2 Duo E4500	Intel Core 2 Duo E4500	Intel Core 2 Quad Q6660 @ 2400MHz
<b>RAM</b>	2 GB	1 GB	1 GB	2 GB
<b>Hard Disk</b>	250 GB or above	250 GB or above	250 GB or above	250 GB or above
<b>Display</b>	ATi X4350 or above	ATi X1600 or above	ATi X1600 or above	ATi X4350 or above
<b>Mother-board</b>	Intel 945 or 965 chip (for single monitor) Intel P35/975 chip or nVidia nForce 650i chip (for multiple monitors)			
<b>Ethernet</b>	100 baseT or above, Gigabit LAN recommended			
<b>OS</b>	MS Windows XP Pro SP3 / Vista / 2003 / Win 7 / 2008 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:

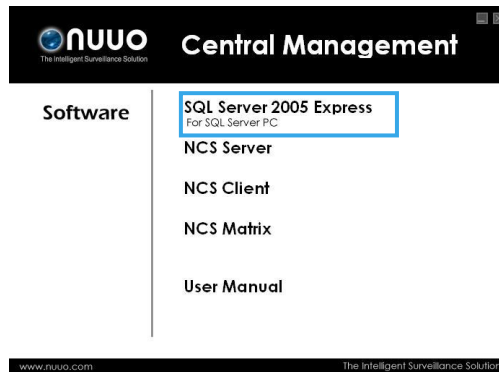
- For the PC running SQL Server, install SQL Server 2005 Express.
- For the central server PC, install NCS Server
- For client PCs, install NCS Client
- For PCs displaying video matrixes, install NCS Matrix.

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


## SQL Server 2005 Express

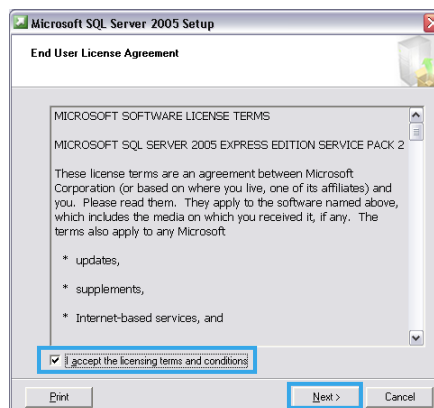
To install SQL Server 2005 Express:

1. Insert the NCS installation CD.

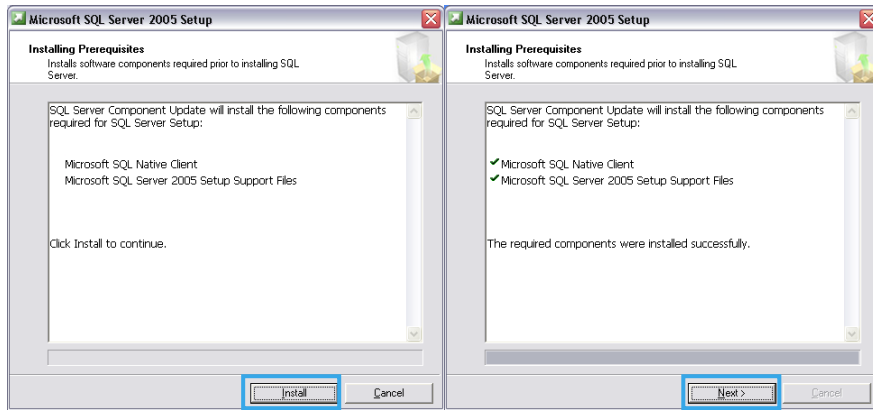


2. In the **Welcome to NCS** window, click **SQL Server 2005 Express**.

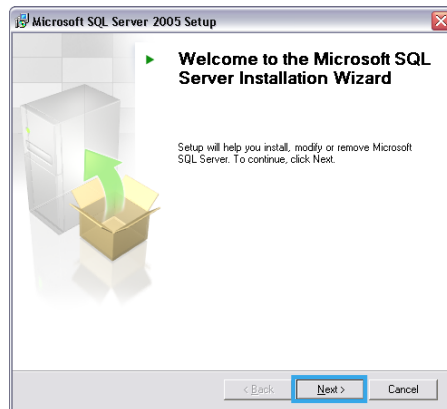
 If you do not have **Microsoft .Net Framework 2.0** and **Windows Installer 3.1** installed, a message will appear. Download and install the application from the link in the message or from the toolbox directory of installed CD.



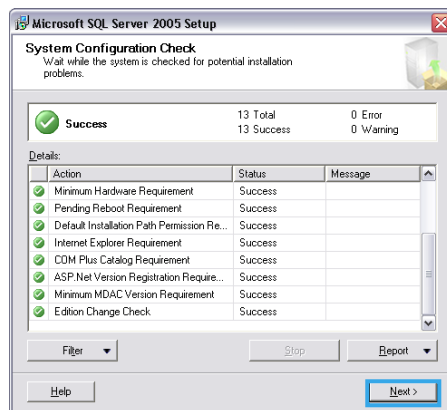
3. In the **End User License Agreement** dialog box, read the terms, check **I accept the licensing terms and conditions**, and then click **Next**.



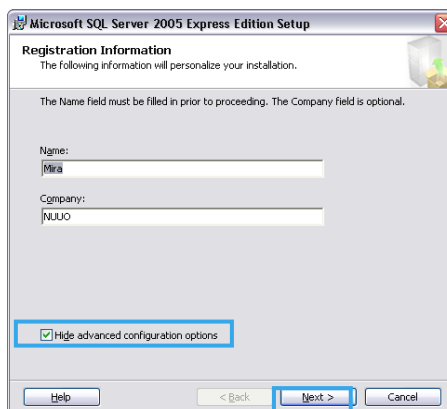
4. In the **Installing Prerequisites** dialog box, click **Install** to continue update, and then click **Next** to continue installation.



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

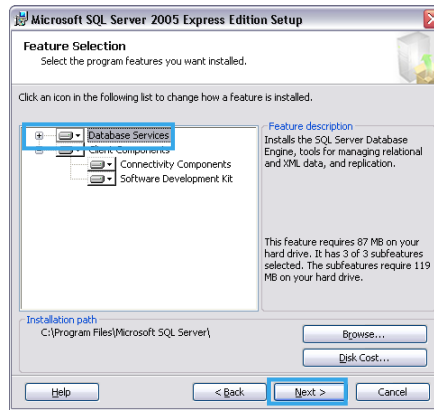


6. In the **System Configuration Check** dialog box, click **Next**.

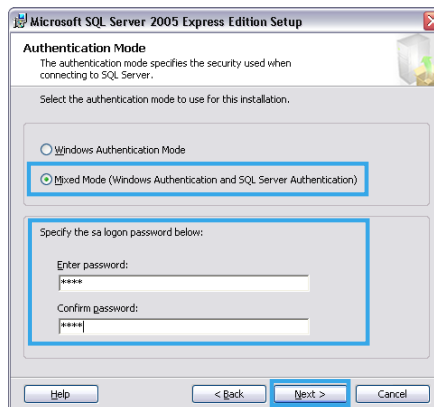


7. In the **Registration Information** dialog box, enter your name and company, and then click **Next**.

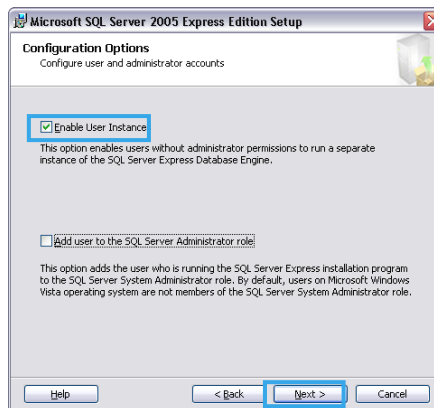
## Installation



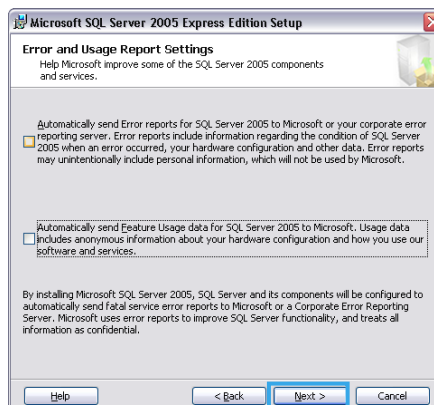
8. In the **Feature Selection** dialog box, select **Database Services**, and then click **Next**.



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

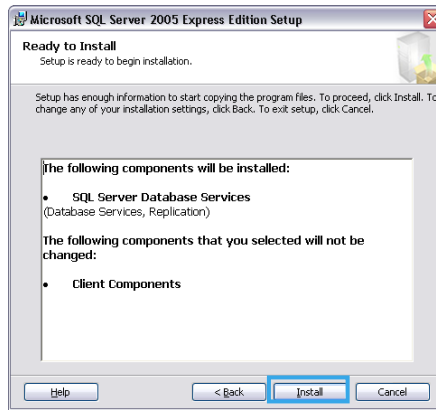


10. In the **Configuration Options** dialog box, select **Enable User Instances** option, and then click **Next**.

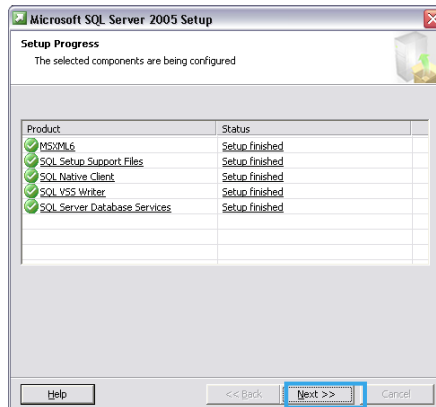


11. In the **Error and Usage Report Settings** dialog box, you do not need to select any option. Click **Next**.

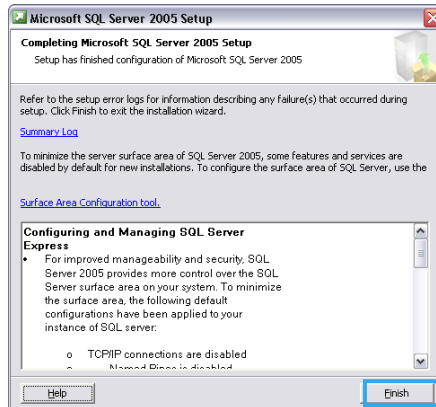




12. In the **Ready to install** dialog box, click **Install**.



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



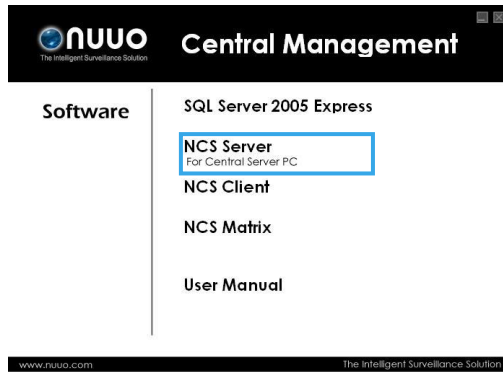
14. In the **Completing Microsoft SQL Server 2005 Setup** dialog box, click **Finish**

## NCS Server

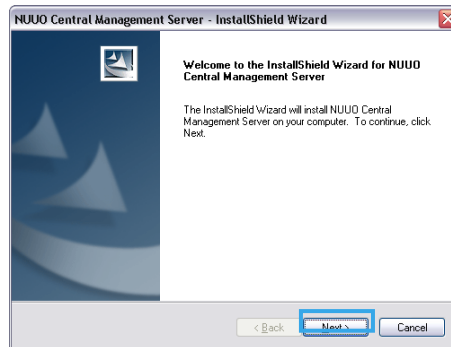
### To install NCS Alarm Server:

1. Insert the NCS installation CD.

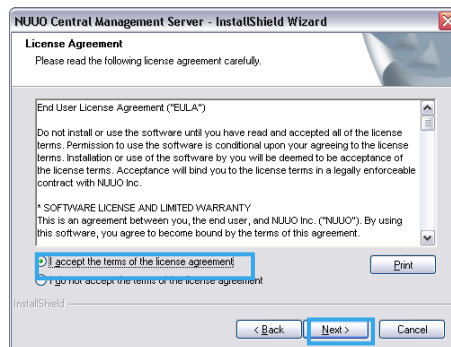
## Installation



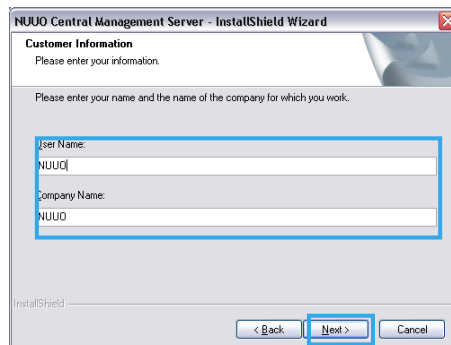
2. In the **Welcome to NCS** window, click **NCS Server**.



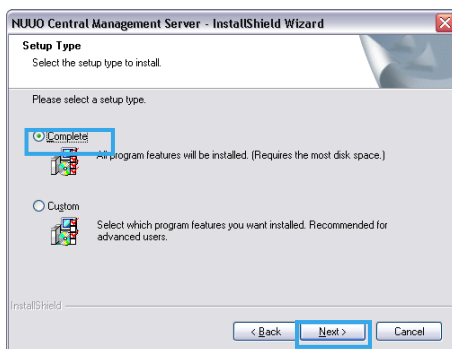
3. In the **InstallShield Wizard** dialog box, click **Next** to continuous.



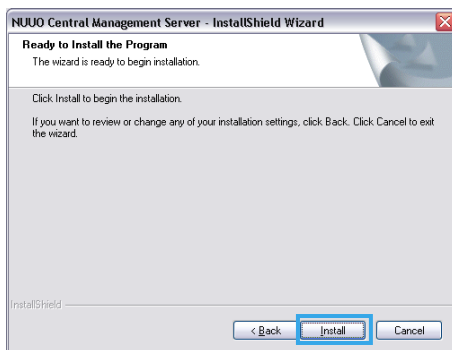
4. In the **License Agreement** window, read the terms, select **I accept the terms of the license agreement**, and then click **Next**.



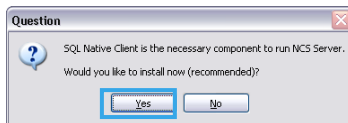
5. In the **Customer Information** window, enter your name and company, and then click **Next**.



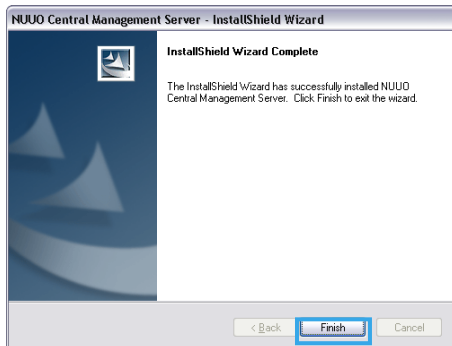
6. In the **Setup Type** window, select **Complete**, and then click **Next**.



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



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



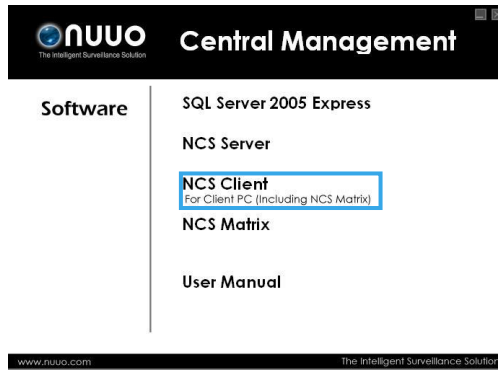
9. In the **InstallShield Wizard Complete** dialog box, click **Finish**.

## NCS Client

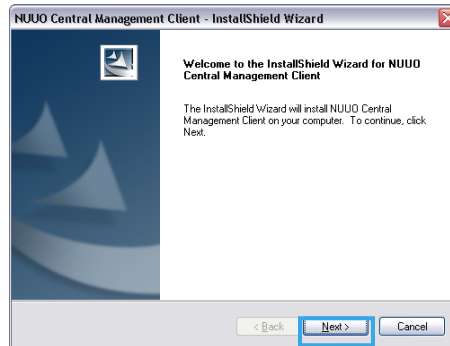
### To install NCS Client (include Matrix):

1. Insert the NCS installation CD.

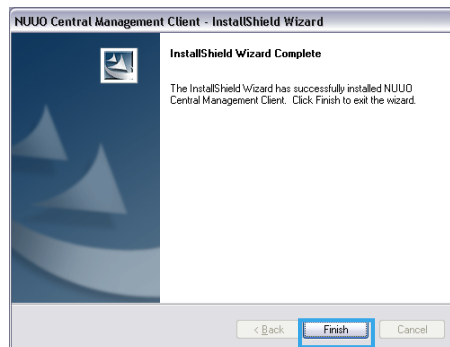
## Installation



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



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

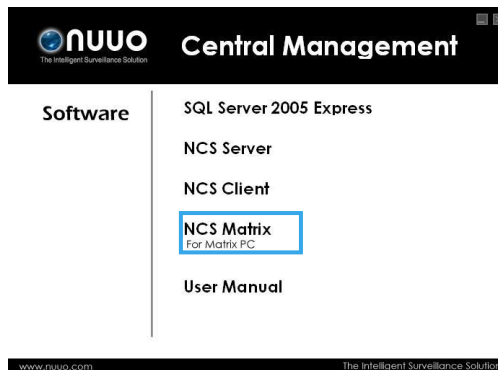


4. In the InstallShield Wizard Complete dialog box, click Finish.

## NCS Matrix

### To install NCS Matrix:

1. Insert the NCS installation CD.

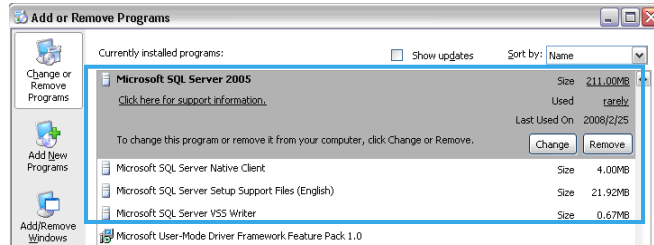


2. In the **Welcome to NCS** window, click **NCS Matrix**.
3. Complete installation as described in steps 3-4 of the *To install NCS Client* section on page 11.

## Uninstalling NCS System

### To uninstall SQL Server:

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



### To uninstall the NCS system:

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

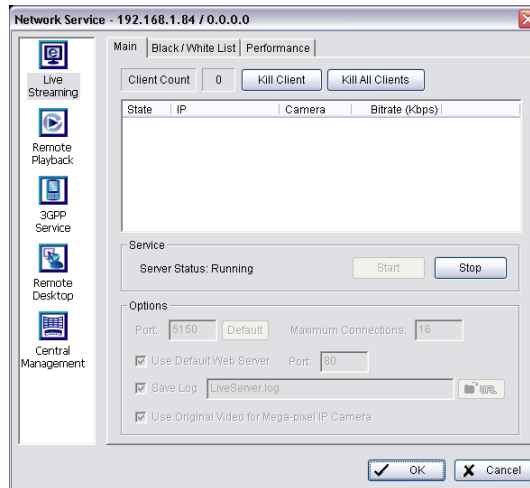
	Transfer all license connections and then transfer license base before you uninstall the NCS System.
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## Getting Started with the NCS System

### Main Console Configuration

To configure the Main Console:

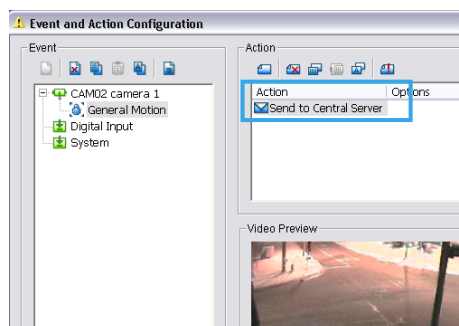
1. Run **MainConsole.exe**.



2. In **Config**, select **Network Service**, and set up the following services:

- Live Streaming and Central Management. These services are essential to run the NCS system. Please Start these two services.
- Remote Playback. This service enables recorded video viewing and remote playback. Ensure this service work, please also Start Recording Schedule to record video.
- Remote Desktop. This service enables remote configuration of the main console.

3. Select **Guard**.

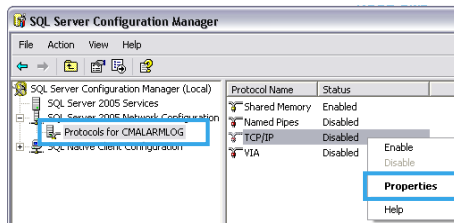


4. In the **Event and Action Configuration** window, configure alarm events and insert the action **Send to Central Server** for events that you want to appear on the NCS system.
5. Click **OK** to return to the main console.
6. In the **Start Menu**, select **Start Smart Guard System** to start detecting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

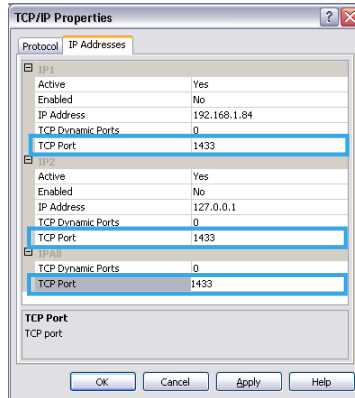
### SQL Server

To configure SQL Server:

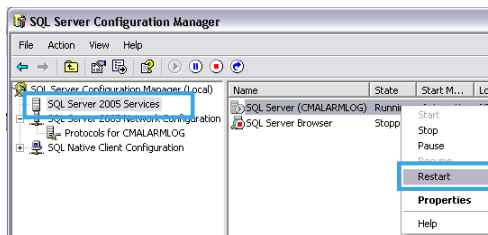
1. In the Start menu, point to All programs, point to Microsoft SQL Server 2005, point to Configuration Tools, and then select SQL Server Configuration Manager.



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



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

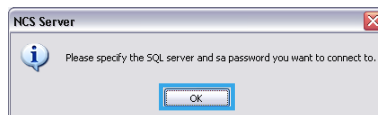


5. In the **SQL Server Configuration Manager** window, select **SQL Server 2005 Services**, right-click **SQL Server (CMALARMLOG)**, and then select **Restart**.
6. Ensure that any firewall allows access through port 1433.

## NCS Alarm Server

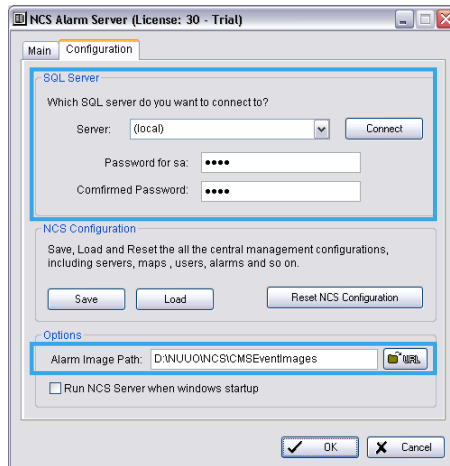
### To configure NCS Server:

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



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

### Getting Started with the NCS System



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

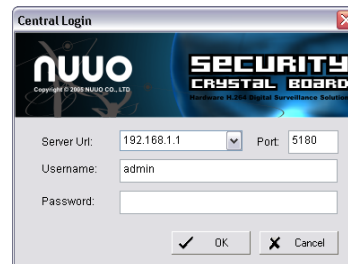


The NCS Server must be executed before the NCS Client can be executed.

## NCS Client

### To configure and execute the NCS Client:

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



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

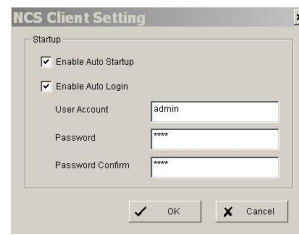
### To activate software license key(s)

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

### To start up NCS Client automatically:

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





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

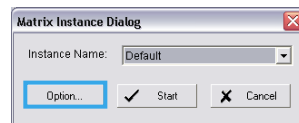
## NCS Matrix

### To execute a single matrix display:

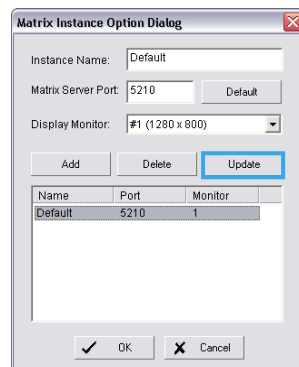
1. In the Start menu, point to All Programs, then point to NUUO Central Management Client or NUUO Central Management Matrix, and click NCS Matrix.

### To configure the first matrix in a multiple matrix system:

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



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

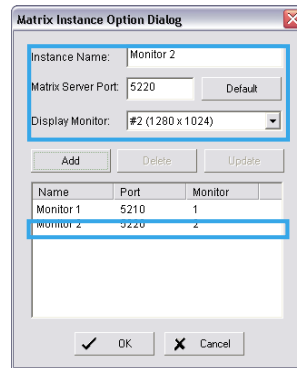


5. In the **Matrix Instance Option Dialog** window, select **Default** from list table.
6. Enter a matrix name, for example *Monitor 1*, in the **Instance Name** text box, leave the port at the default setting of 5210, select the **#1** monitor from drop-down list, and then click **Update** to update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

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

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

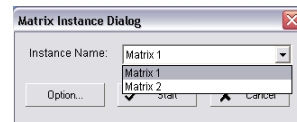
## Getting Started with the NCS System



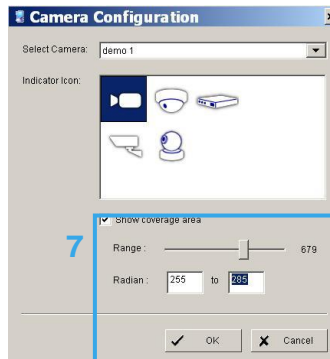
- To configure a third and a fourth monitor, repeat steps 1-3 naming the matrix instances as appropriate (for example *monitor3*, *monitor4*), entering the port number (5230 for a third monitor and 5240 for a fourth), and selecting the appropriate monitor.
- Click **OK** to save all configuration of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

### To execute a matrix in a multiple matrix system:

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



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



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

### To drag a device indicator to a map from ServerView:

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

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

### To remove a device indicator from a map:

- Right-click the indicator.
- Click **Delete**.

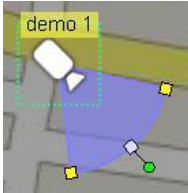
3. Click **Yes** in the confirmation window.

## 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 form **MapView**.
2. Click **Rotate** and choose an angle (preset angle 0, 45, 90, 135, 180, 225, 270, or 315 degrees).

	The radian, range, color and area of Camera Indicator can be set to show camera coverage.
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### To rotate a device indicator to an arbitrary angle:


1. Right-click the indicator or right-click the device form **MapView**, or click  icon from **Edit** toolbar.
2. Click **Rotate Arbitrary**.
3. Use the rotation handle to rotate the indicator to the desired angle, then click to fix the angle.
4. Click **Rotate Arbitrary** again to close this option.

### To mirror a device indicator:

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

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



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

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

### Getting Started with the NCS System

#### To remove a device indicator from a map:

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

## 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.

