

Brickcom

Network Video Recorder

NR-04A

User's Manual

Quality Service Group

Product name: Network Video Recorder (NR-04A)

Release Date: 2010/07

Manual Revision: V1.00

Web site: www.brickcom.com

Email: technical@brickcom.com

info@brickcom.com

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Before You Use This Product

When you first open the product's package, verify that all the accessories listed on the "Package Contents" are included. Before installing the NR-04A, read the warnings in the "Quick Installation Guide" to avoid misuse. When installing the NR-04A, carefully read and follow the instructions in the "Installation" chapters to avoid damages due to faulty assembly or installation.

Package Contents

- NR-04A Network Video Recorder
- Power Adapter (Input 100-240V, Output +12V/4A)
- Ethernet Cable
- Printed Quick Installation Guide
- Printed Warranty Card
- CD-ROM (Quick Installation Guide, User's Manual, Setup Wizard)

Network Video Recorder Overview

The Brickcom NR-04A Network Video Recorder (NVR) is an ARM9-based recording solution for SMB and SOHO users to effectively grow and navigate their network surveillance systems. This NVR is equipped with an embedded Linux operating system to allow users to remotely monitor, record, and view live video feed from up to 4 Brickcom network cameras. With the support of megapixel resolution and H.264 compression, it uses less bandwidth while offering the optimal recording quality and image viewing.

Easy installment and management is central to the operation of the NR-04A. For easy set up and scalability, the NVR is able to automatically search and access the available cameras on the network. Operation of the IP cameras and NVR is managed through Brickcom's EasyConfig software and GUI. A maximum of four PCs are able to concurrently access the NVR and view live or recorded video feed using Microsoft Internet Explorer and the Brickcom GUI.

The NR-04A is designed for long-term recording and video storage with a Gigabit Ethernet port and two SATA hard disks with a maximum capacity of 3 terabytes. Flexible recording options include manual, event-triggered, scheduled or continuous. With the help of the Brickcom NR-04A and its IP cameras, users can quickly and easily build a secure IP surveillance system.

System Requirements

The following are minimum system requirements for a system to operate the NR-04A:

Operating System

Microsoft Windows 2000 Professional

Microsoft Windows XP Professional (32 bit)

Microsoft Windows Server 2003 (32 bit)

Microsoft Windows 7 (32 bit)

Browser

Microsoft Internet Explorer 7 or above

CPU

Minimum Intel Core 2 Duo @ 2.4GHz or higher

RAM

Minimum 1 GB of RAM, 2GB or above is recommended

Network

Minimum 10/100 Ethernet (Gigabit Ethernet is recommended)

Graphics Adapter

AGP or PCI-Express, minimum 1024×768, 16 bit colors.

*Note: It is highly recommended to use a graphics adaptor that provides higher than 1024 x 768 resolution in order to experience the full benefits of the software.

- *Make sure the display DPI setting is set to the default at 96DPI*
- *To set DPI value, right-click on the desktop, choose "Settings" tab >> "Advanced" >> "General"*

CD-ROM Drive:

It is necessary to read the operating instructions in the provided CD-ROM.

Adobe Reader:

It is necessary to read the operating instructions in the provided CD-ROM.

The audio function will not work if a sound card is not installed in the PC. Audio may be interrupted depending on network traffic.

Install Hard Disk

1. Push the silver button to release the HDD tray



2. Pull out the HDD tray



3. Place the HDD on the tray and secure the HDD with the screws at the bottom (as illustrated)

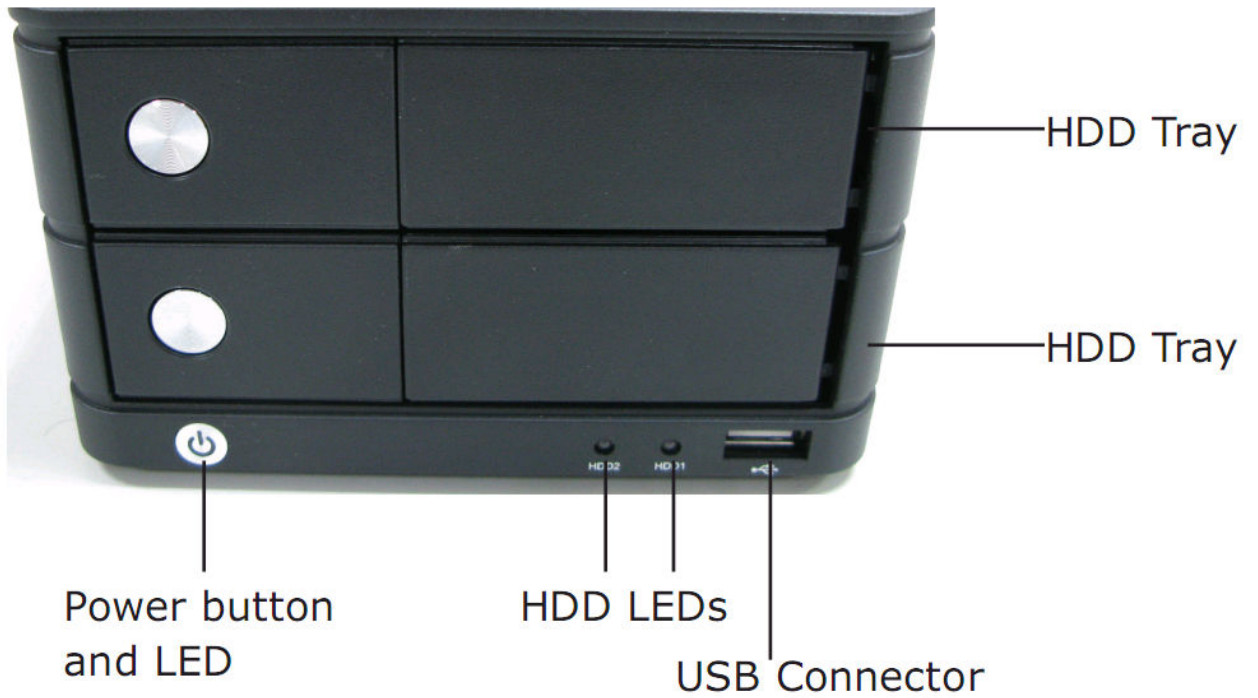


4. Push the tray back in the unit and press down the black bar to secure the tray

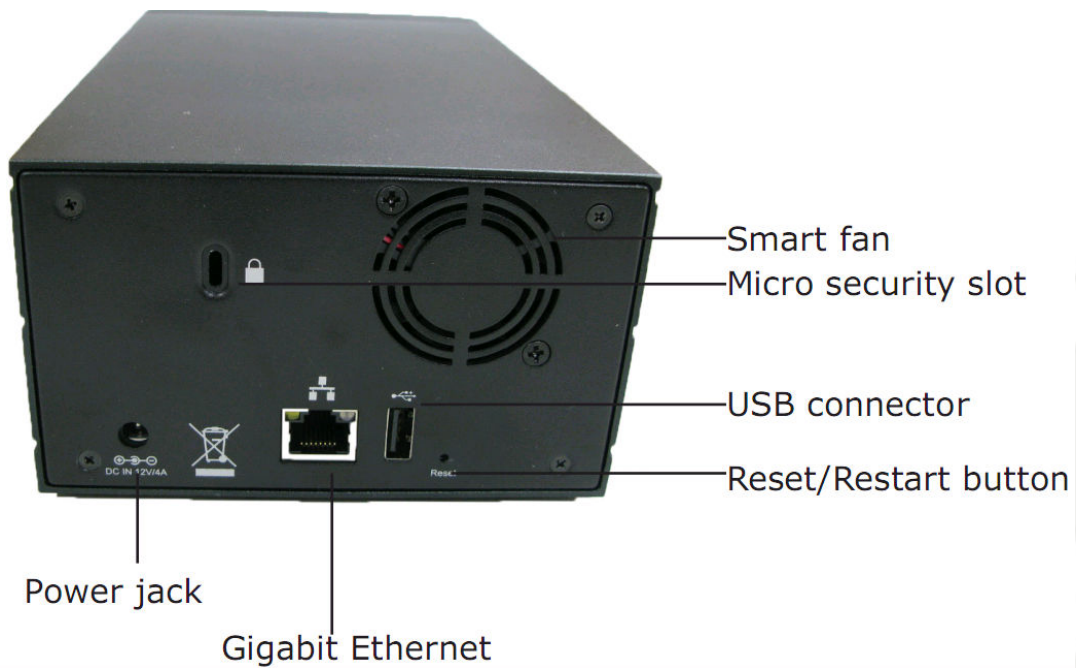


Once a hard disk has been installed in the NR-04A, it must be initialized in preparation for recording. Basic information about the installed hard disk can be viewed under Disk Setup on page 40.

Hardware Illustration (Front)



Hardware Illustration (Rear)



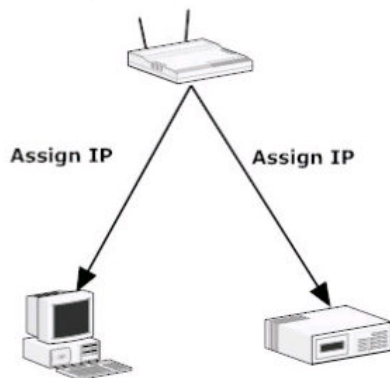
Connect to the NR-04A

There are two methods for connecting the NR-04A to a network:

- If the NR-04A is added to a network with a DHCP server, connect to the NR-04A using the **Setup Wizard Utility**
- If the NR-04A is added to a network without a DHCP server or it is being accessed directly, **connect to the NR-04A using its default IP Address**

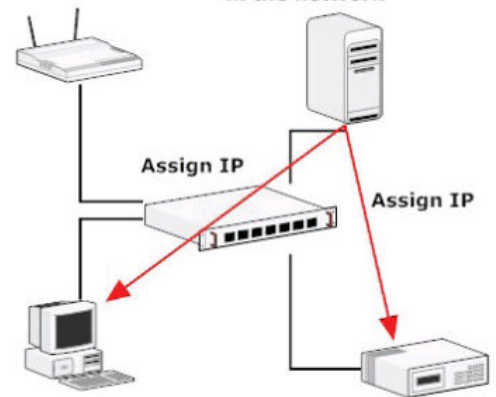
1.

Network gateway as the DHCP server



2.

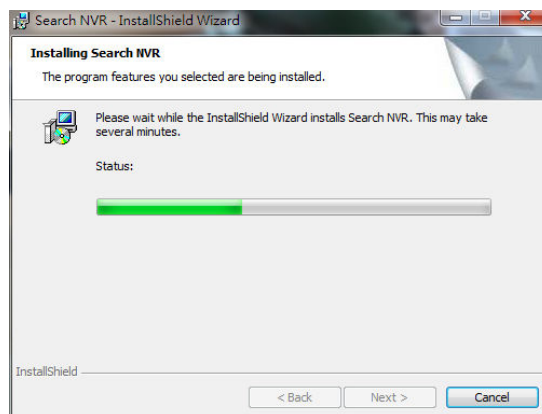
A separate DHCP server in the network



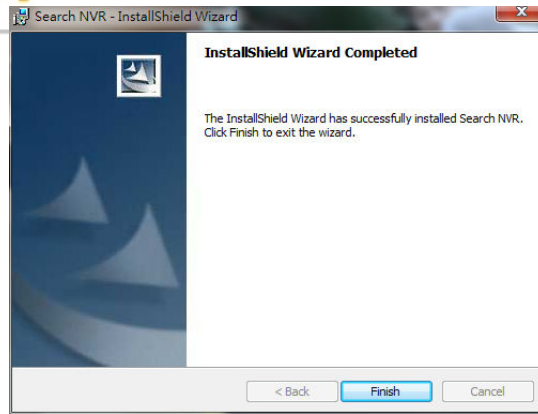
Using Setup Wizard Utility

If the NR-04A is added to a corporate network or a local area network where a DHCP server is already presented, install the “Smart Device Search” utility onto a computer that is connected to the network. This utility is available on the provided CD. Once the utility has been installed, located the NR-04A with the IP address that is assigned by the top-level DHCP server.

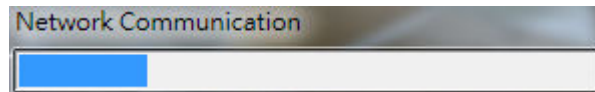
To begin, launch the “Setup Wizard” from the CD and proceed with the installation.



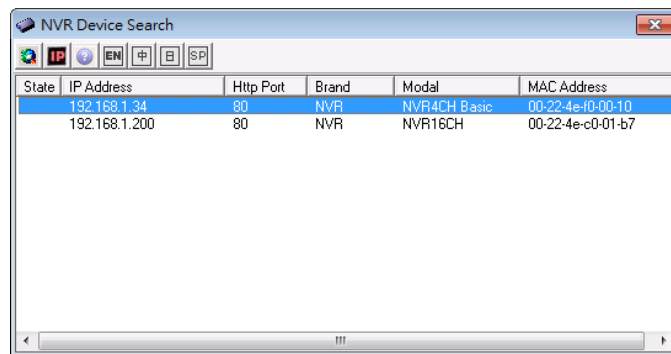
Once the installation is completed, click “Finish” and launch the NVR Search Utility.



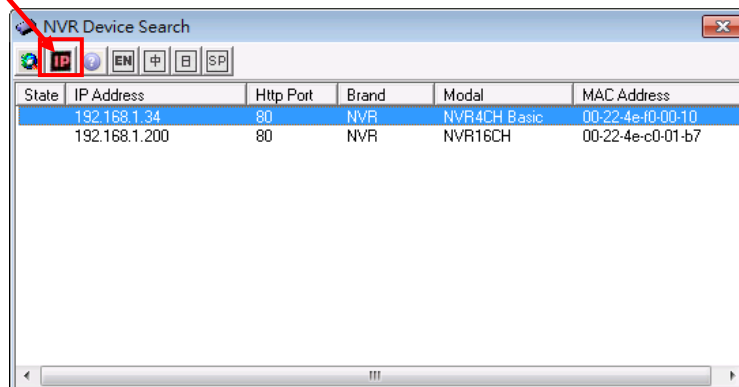
The search should start automatically and the status should be displayed.



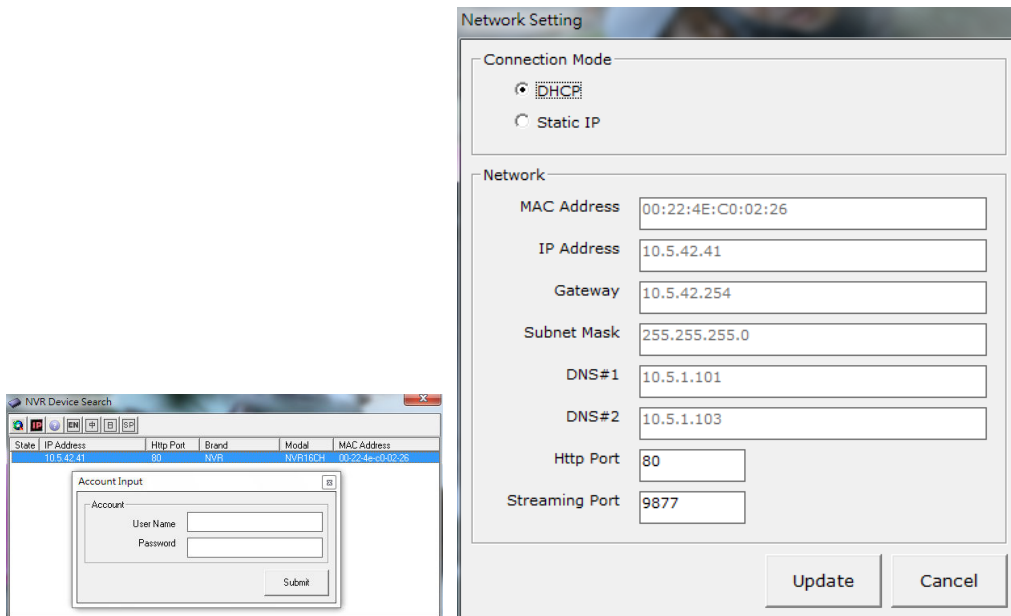
The utility will locate the NR-04A and display its IP address. Double-click to access the NR-04A. The NR-04A web administration page will automatically open in the default web browser.



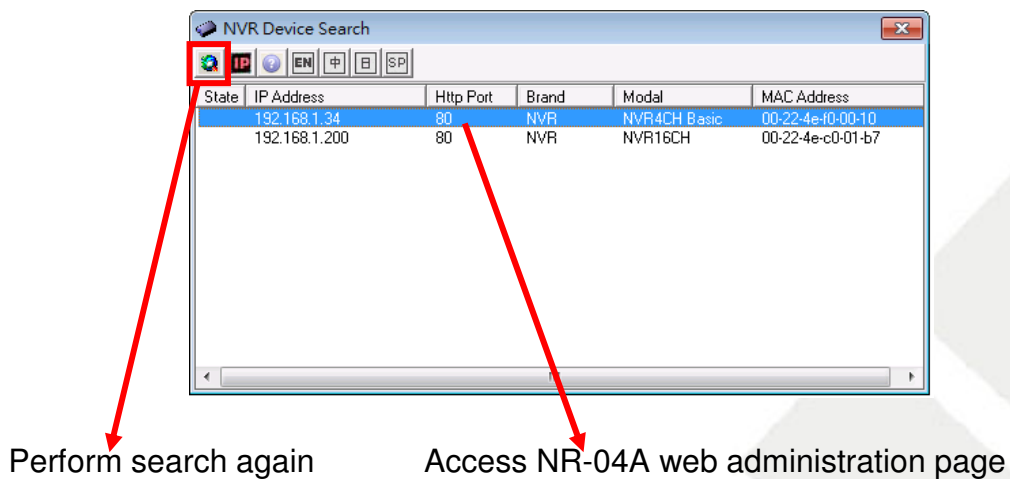
The NR-04A IP address can be changed by clicking on the button highlighted below.



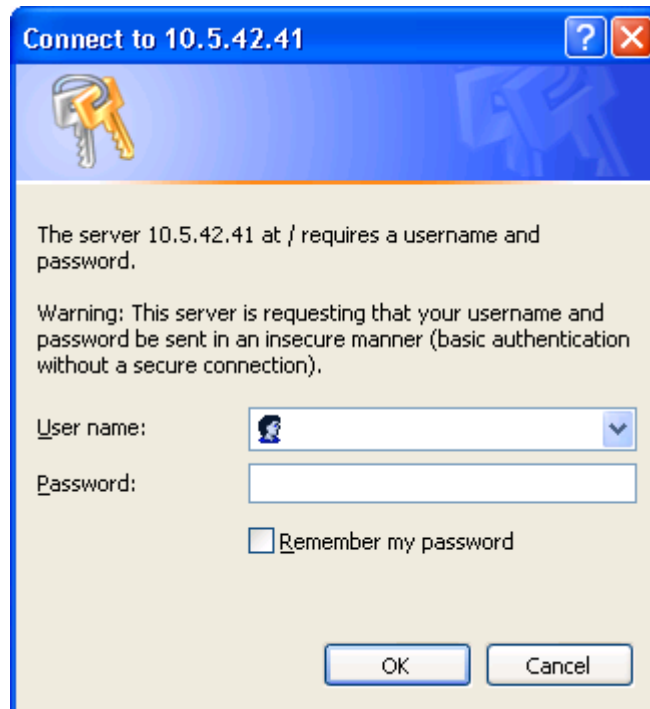
The user will be prompted to enter the NR-04A login information before being allowed to change the device's IP address. The default username and password is admin/admin.



To search again for the NR-04A, click on the button highlighted below. To access the NR-04A's web administration page, double-click on any of the search results.



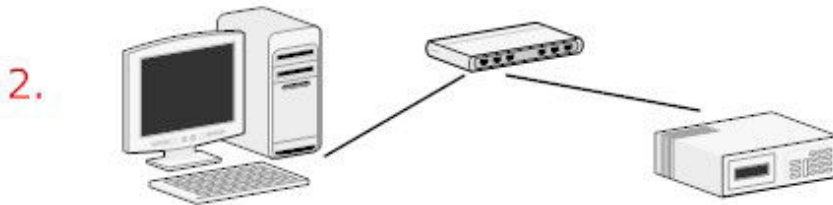
When accessing the NR-04A's web administration page, user will be prompted for the NR-04A username and password. For first time use, the default username and password are **admin/admin**. Enter the username and password and click "OK" to continue.



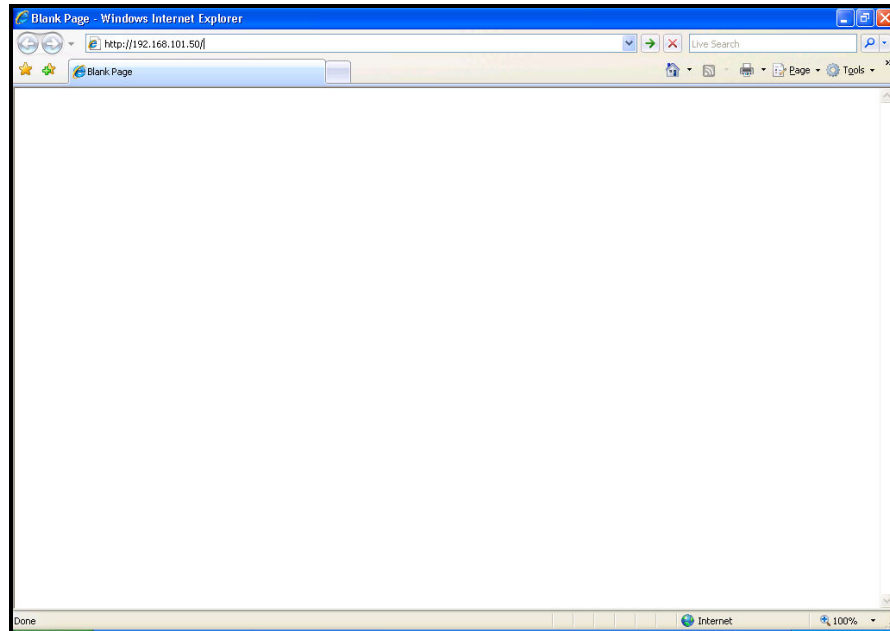
Access NR-04A with its Default IP Address

The NR-04A is preconfigured with a static IP address: **192.168.101.50**. However, the IP address will only be used when there is no DHCP server present in the network. If there is no server, the NR-04A will turn on its DHCP server function and act as the DHCP server in the network. Users have two options to connect to the NR-04A:

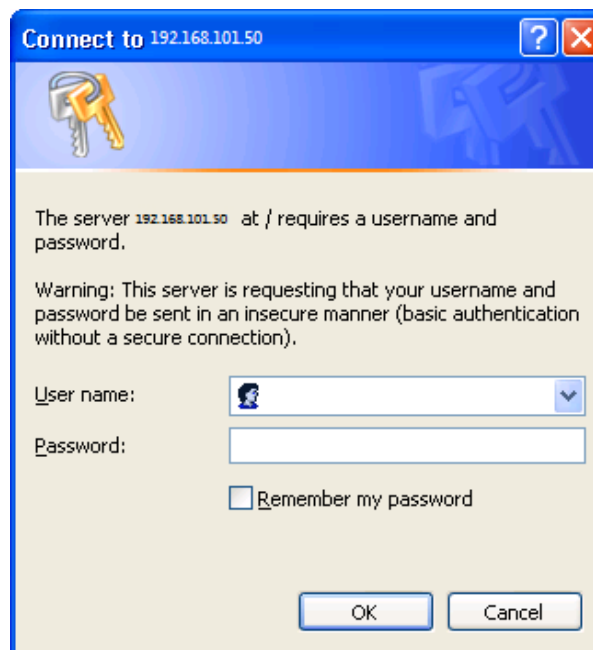
1. Connect the PC directly to the NR-04A using a crossover CAT5 Ethernet cable
2. A PC can use a switch or hub to connect to the NR-04A over the network



Once the PC is connected to the NR-04A, open a web browser and enter the IP address: 192.168.101.50. The computer will automatically connect to the NR-04A.



The user will be prompted to enter the NR-04A's username and password. The default username and password are **admin/admin**. Click "OK" to continue.



Live View

NVR4Ch

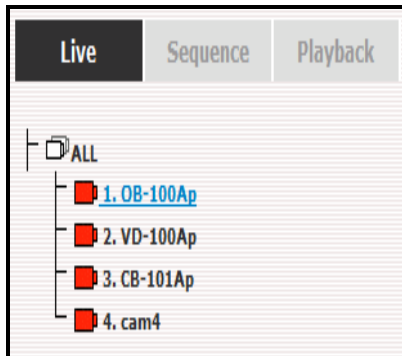


The Live View page provides the following functions:

- Retrieve Camera's Video Stream
- Retrieve Camera's Status
- View Live Sequence
- PTZ Control
- View PTZ Preset Sequence
- Perform Manual Recording
- Take Snapshot
- Receive Audio of a Video Stream
- Send Audio
- Change Web GUI Display Language

1.1 Retrieve Camera's Video Stream


On the Live View page, the list of available cameras will be displayed on the left-hand side of the Live View screen.





- Click "All" to display the video from all cameras in 4-video display mode
- Click on any camera to display video in single-view display mode

1.2 Retrieve Camera's Status

The camera list will show each camera's current status. Each status is represented with a different color:

 Camera is connected

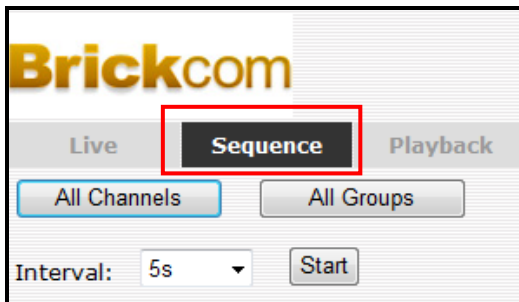
 Camera is not connected

 Camera is currently recording

1.3 Perform Sequence Viewing

Sequence View is a function that allows the user to automatically view multiple video streams from selected cameras in sequence.

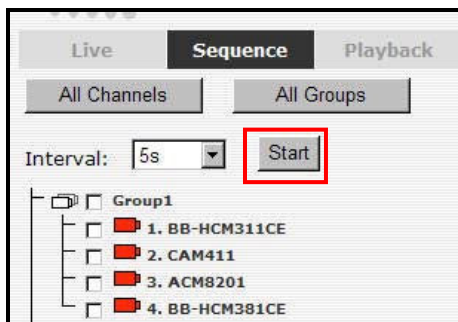
1. To perform Sequence View, select “Sequence” from the upper-left hand corner.



2. Select the interval time from the drop-down menu.



3. Select one or more camera(s) for Sequence Viewing.
 - a. *Click “All Channels” to automatically select all available channels and start Sequence View in single-view display mode.



4. Click “Start” to start Sequence Viewing

1.4 PTZ Control

PTZ control allows the user to control the pan, tilt, and zoom functions of a PTZ camera. The user can also adjust the camera's focus and iris.



The camera(s) which are available for PTZ Control will be displayed in the PTZ drop-down menu. Select a camera to control the pan, tilt, and zoom functions.



The bar below allows the user to control the pan/tilt speed.



1.5 View PTZ Preset Sequence

There are three functions provided in the Preset section:

- Create preset point viewing positions for a camera
- Auto-pan a camera
- View preset point sequence

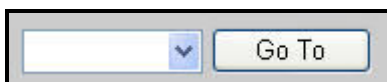


Preset Point Viewing

1. Select a PTZ camera from the drop down list:



2. Its available PTZ preset points will be listed in the drop down list shown below:



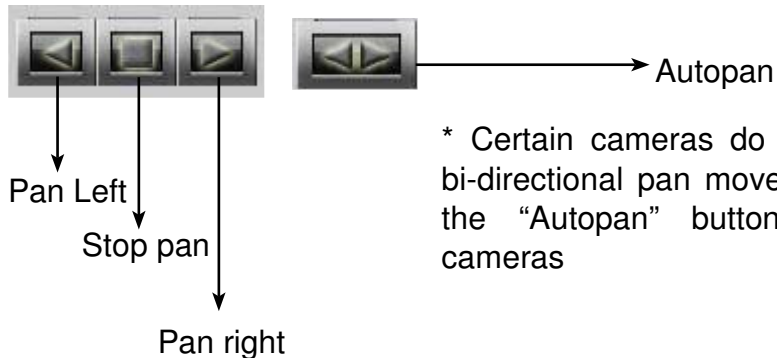
3. Select a preset position from the drop-down list and click "Go to" to move the camera to that position.

Auto Pan Viewing

1. Select a PTZ camera from the drop down list:



2. Use the Auto Pan Control buttons to pan right or left and to stop the auto pan



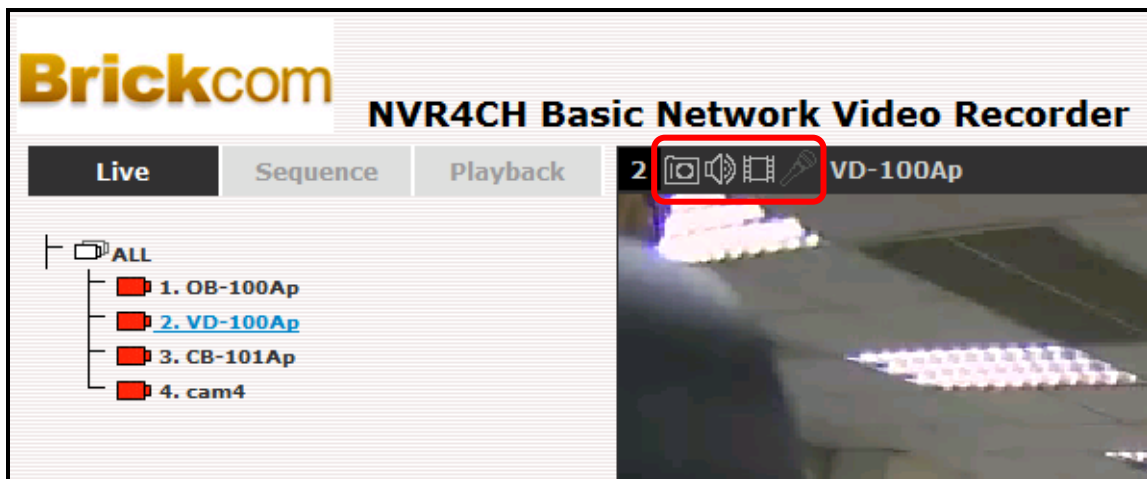
* Certain cameras do not support bi-directional pan movements. Use the "Autopan" button for such cameras





Preset Point Sequence Viewing

This function allows the user to view multiple preset points of a camera without having to select them one by one.



1. Define the preferred preset points in "**Camera Configurations**" >> "**PTZ Preset Sequence**" under the "**Setup**" menu.
2. Click "Start" and the recorder will automatically begin to display videos from the preset points in sequence
3. Click "Stop" to end the preset point sequence viewing.

1.6 Live Video Control Buttons




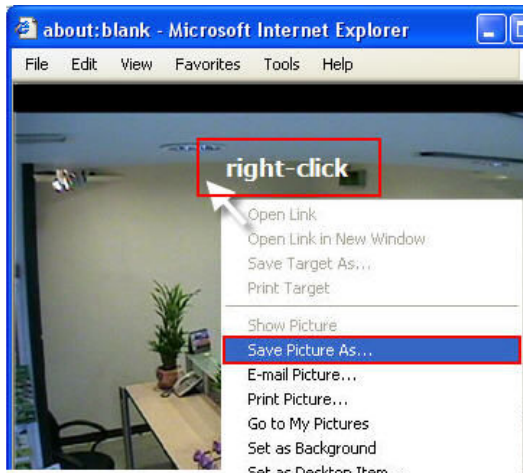
-  Take a snapshot of the live view monitor
-  Turn audio on/off
-  Start/stop recording of live view
-  Audio post function



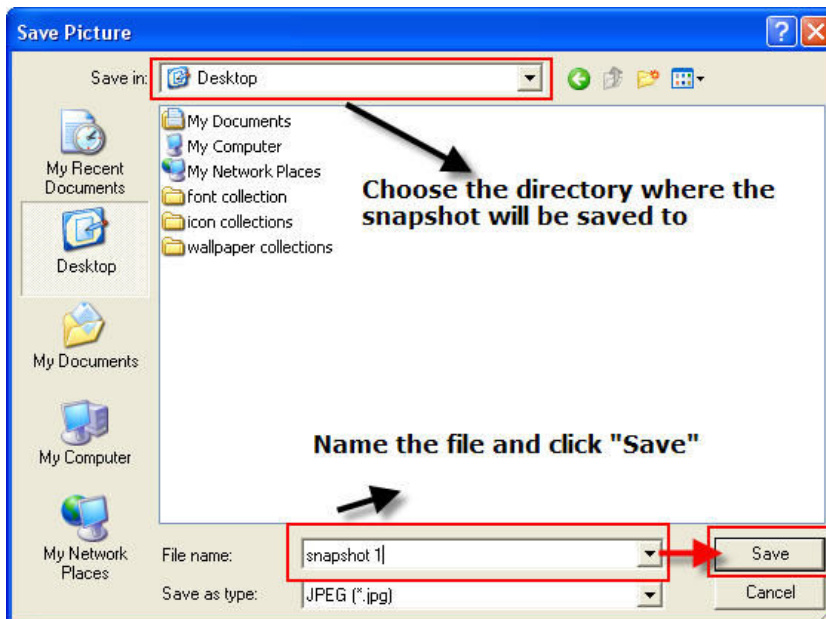
-  View the Live View in full screen
-  Display the Live View in its original size

Take a Snapshot of the Live View Monitor


1. Click the  button to take a snapshot of the live video monitor.
2. The snapshot will be displayed in a pop up window:




3. Right-click anywhere on the image and select "Save Image As..." from the pull-down menu
4. Name the image file and choose which directory the image will be saved to. Click "Save".



Turn Audio On/Off

Click  to receive audio from a camera. Click the button once to turn audio on and the button will change color. The user can only receive audio from one channel at a time. Click the button again to turn audio off.


Start/Stop Recording of Live Video

Users can manually start or stop recording of a live video by using the  button. The button will change color when the NR-04A is recording.

Audio Post Function

This function allows the user to transmit audio through the camera using the computer microphone.

View the Live View in Full Screen

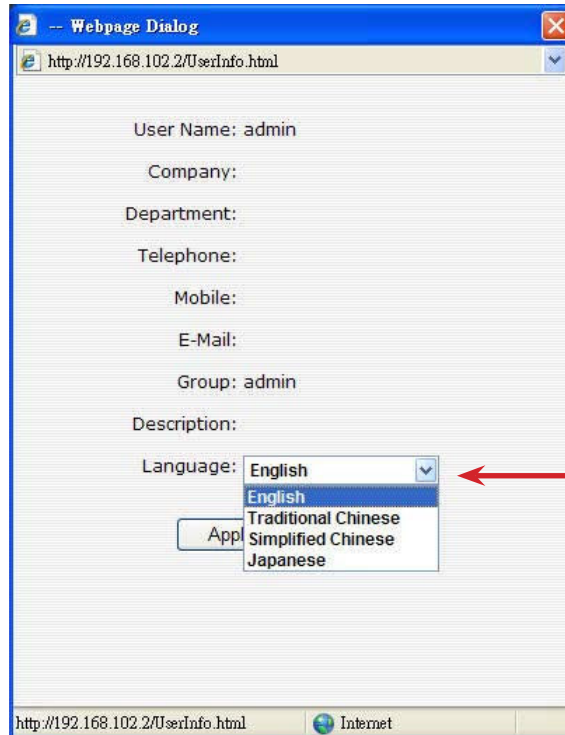
To view a video in full screen, click the  button. To exit full screen mode, double-click anywhere on the screen.

1.7 Change Web UI Display Language

The user can change the web GUI display language by selecting the username link from the upper-right hand corner.



A window will open displaying the user information. The user can select a language from the Language drop down menu. Click Apply to save the new settings.



2. Playback

Playback is a function that allows the user to view recorded videos from cameras attached to the NR-04A. The NR-04A offers synchronized playback from up to 4 channels and various types of search methods are provided to help the user sort through the recorded videos quickly.

Playback video can be viewed in full screen and snapshots can be taken and saved during a video playback.

The screenshot displays the Brickcom NVR4CH Basic Network Video Recorder playback interface. The interface is divided into several sections:

- Header:** Brickcom logo, navigation links (Main View, Google Map Monitor, Local MAP Monitor, NVR4CH Basic Setup, Channel Status), System Time (July 12, 2010 14:31:52), and User (admin).
- Playback Info Panel (Left):**
 - Buttons for Live, Sequence, and Playback.
 - Channel selection: 1, 2, 3, 4.
 - Speed: 1 [Normal]
 - Play Time: 2010/07/12 14:20:47
 - Playback controls: Previous, Stop, Play, Next, Full Screen.
 - Year: 2010, Month: 07
 - Timeline for 2010/07/12 with columns for channels 1, 2, 3, and 4, and rows for time intervals from 14:20:00 to 14:21:55.
- Video Feeds (Right):** A 2x2 grid of video feeds:
 - Top-left: Channel 1, OB-100Ap, 1 FPS. Shows a person at a workstation.
 - Top-right: Channel 2, VD-100Ap, 1 FPS. Shows a wide view of a control room.
 - Bottom-left: Channel 3, CB-101Ap, 1 FPS. Shows a close-up of a workstation.
 - Bottom-right: Channel 4, cam4, 1 FPS. Shows another workstation.

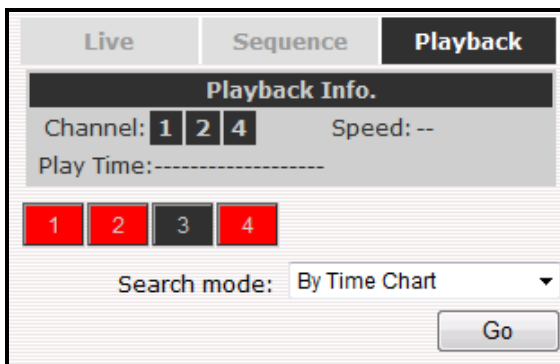
2.1 Methods to Search Playback Videos

The NR-04A offers three methods to quickly help the user search through the recorded videos:

- Search by time
- Search by event
- Play by start time

Search by Time

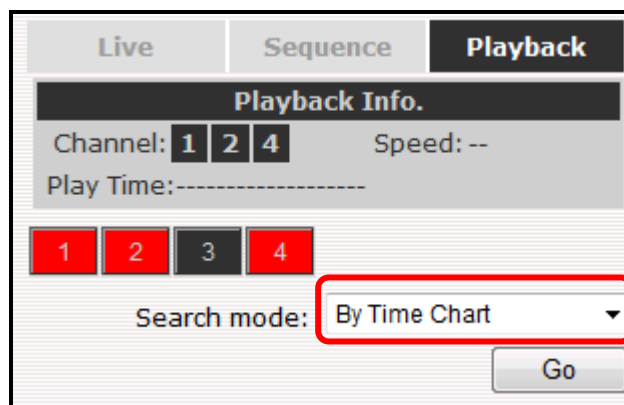
- Select channel(s) to search through the recorded videos.



* Selected channels will be marked in red

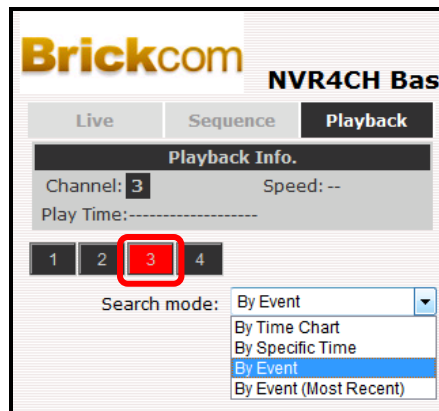


- Select "Search By Time Chart" from the "Search mode" drop down list and click "Go" to start the search.



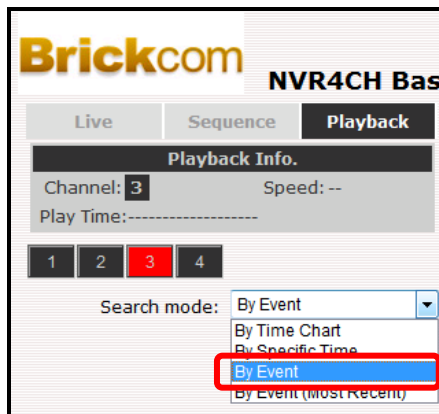
Search by Event

- Select channel(s) to search through the recorded videos.

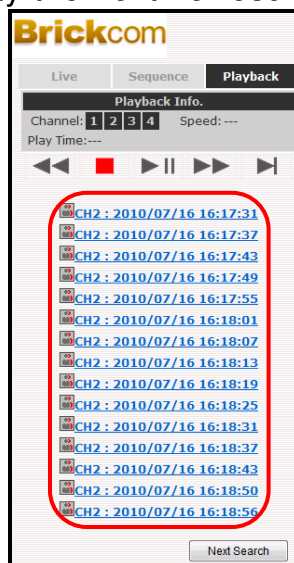


*Selected channels will be marked in red.

- Select “Search by event” from the “Search mode” drop down list and click “Go” to start the search.



- The results will be displayed in a list, with the newest recordings displayed first. Click on a result to view the video recording. Click “Next Search” to display the next 15 results.

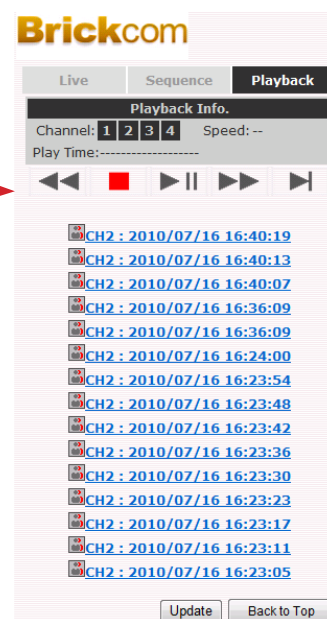
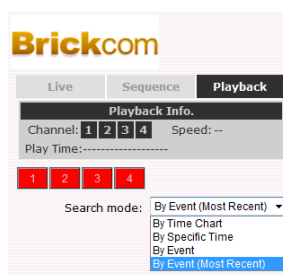


- Use the search tool to set a date and time and click “Search”. The list of recorded videos will begin from the new time and date. The user can set the number of recorded videos to be displayed to 30 or less.



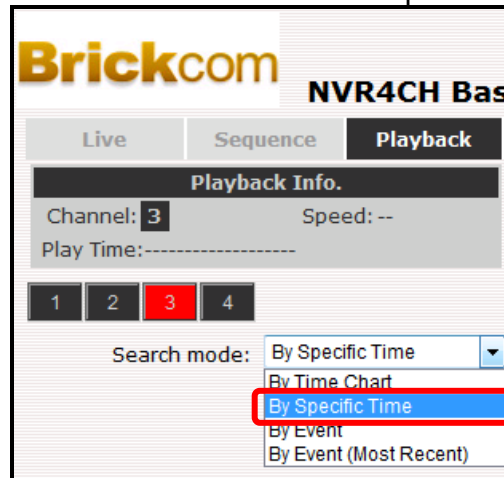
Search by Event (Most Recent)


This function displays the most recent event recordings from the selected channels, displaying the most recent recordings first. Click “Update” to update the list and display the most recent results.

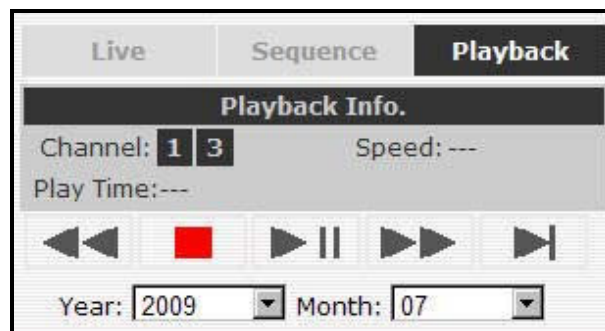


Play by Specific Time

- If the user knows the time when a recording took place and would like to view this recording, select "By Specific Time" from the "Search mode" drop-down menu.



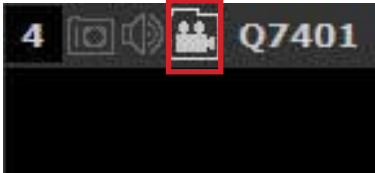
- The user will be prompted to enter a specific time and date. Use the  button to select the month, date, and year. Press play to view the recorded video.



2.2 Export Playback Videos as AVI Files

The user can export recorded playback videos stored on the NR-04A to a local computer and save them in AVI file format. The files can then be played on the PC by a third party media player, such as VLC player or Windows Media player.


1. Locate the recorded videos using any method in section 2.1.
2. Hit the "Export AVI" button on a recorded video window to export the video.



3. A dialog window will pop up which displays the recorded video information.

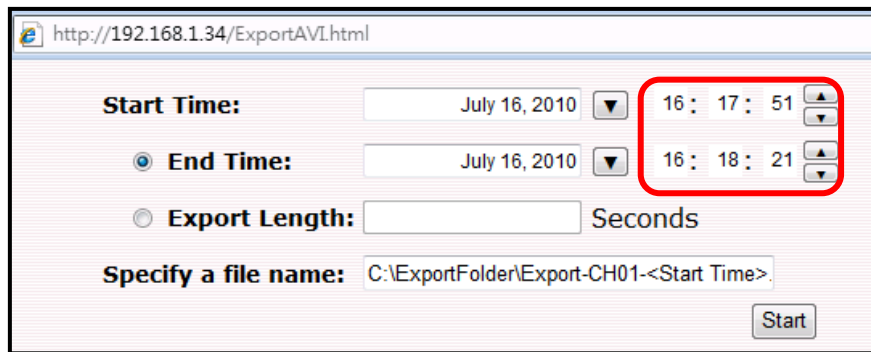
A screenshot of a web browser window displaying the 'Export AVI' dialog. The address bar shows 'http://192.168.1.34/ExportAVI.html'. The dialog contains the following fields:

- Start Time:** July 12, 2010 (dropdown), 12:25:12 (time picker)
- End Time:** July 12, 2010 (dropdown), 12:25:42 (time picker)
- Export Length:** [] Seconds
- Specify a file name:** C:\ExportFolder\Export-CH01-<Start Time>
- Start** button

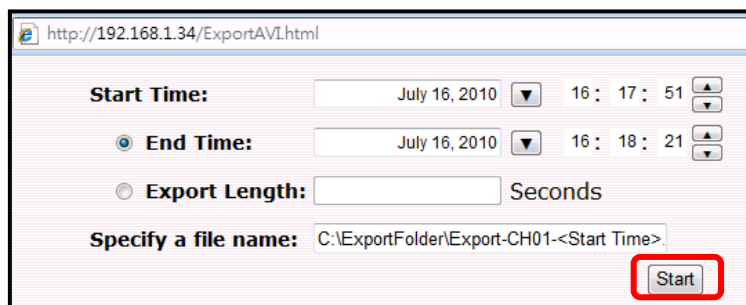
- a. The user can change the length of the video of the file. Click the  button to pull down the calendar to change the month, date, or year.

A screenshot of the 'Export AVI' dialog window with a calendar popup. The calendar is for July 2010 and shows the date July 12, 2010 selected. The dialog fields are the same as in the previous screenshot, but the 'Start Time' field now has a calendar icon instead of a dropdown. The 'End Time' field is still set to July 12, 2010, 12:25:42.

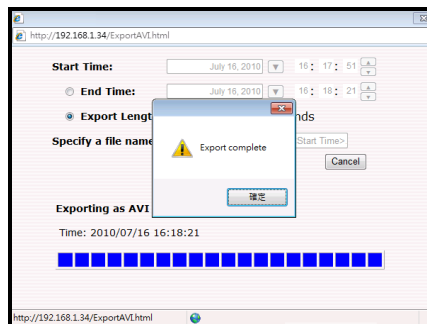
- b. Change the length of the recorded video by changing the start and end times.



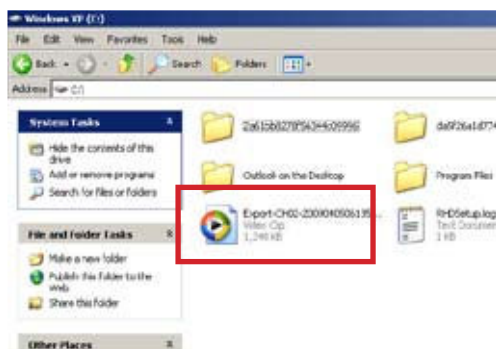
- c. Click the “Start” button to begin exporting. The file will be automatically named and saved under the C: \partition.



4. When the recorded video is exported, a window will pop up notifying the user that the AVI file was successfully exported.



5. The exported AVI file will be saved under the C partition
a. ffdshow is required to play the exported AVI file with Windows Media Player. Download “ffdshow_rev3476_20100615_clsids.exe” from <http://sourceforge.net/projects/ffdshow-tryout/>”



3. System Setup

3.1 System Configurations

The System Configurations page provides options to set up the NR-04A quickly and properly. The options include:

- Configuring the network settings to ensure that the NR-04A works properly with the network,
- Adjusting the system time and date so that videos will be recorded with correct timestamp,
- Setting up user accounts and group privileges to prevent settings from being altered by users other than the system administrator.
- Preparing the hard disk for the video recording.

3.1.1 Network Settings

The user needs to adjust the settings in the Network Setup page in order for the NR-04A to work properly within the LAN.

The screenshot shows the Brickcom web interface for network configuration. On the left is a navigation menu under the heading "Setup". The menu items are: "System Configuration" (expanded), "Network Setup" (selected), "Time and Date", "Users Account", "Group Privilege", "Disk Setup", "Channel Configuration", "Event Configuration", "Recording Configuration", and "System Options". The main content area is titled "Network Setting" and contains the following fields and controls:

- Connection Type:
- IP Address: 10.5.42.113
- Subnet Mask: 255.255.255.0
- Gateway: 10.5.42.254
- DNS 1: 10.5.1.103
- DNS 2: 10.5.1.101
- HTTP Port:
- Streaming Port:
- UPnP Port Forwarding: External Port:

Below the "Network Setting" section is an "Optional Setting" section with a "Device Name:" label and an empty text input field. At the bottom center of the form is an "Apply" button.

By default, the recorder is set to automatically obtain the IP address from the DHCP server. It should be sufficient in most network environments, and most likely the user should not need to alter anything in this page. To locate the recorder, use the IP Utility with steps described in page 12.

To assign a static IP address to the NR-04A:

1. Choose "Static IP" from the "Connection Type" drop-down menu
2. Enter the IP address, subnet mask, default gateway address and DNS server address for the recorder.
3. Enable the DHCP Server by selecting "On" from under "DHCP Server" to use the recorder as a DHCP server. Leave it disabled if there is already a DHCP server in the network.
4. Click Apply to save the new settings.

If the user changes the NVR-04A's IP Address, the recorder needs to be restarted. Follow the path: System Options >> Maintenance to restart the NR-04A.

Network Setting

Connection Type: **Static IP**

IP Address: 10 . 5 . 42 . 205

Subnet Mask: 255 . 255 . 255 . 0

Gateway: 10 . 5 . 42 . 254

DNS 1: 10 . 5 . 1 . 101 Please enter at least one valid DNS server if you plan to use services (such as NTP server) with their domain names

DNS 2: 10 . 5 . 1 . 103

HTTP Port: 80

Streaming Port: 9877

UPnP Port Forwarding: External Port: 6000

Optional Setting

Device Name:

DHCP Server

DHCP Server: ON OFF

3.1.2 Time and Date

Brickcom

NVR16CH Setup

- System Configuration
 - Network Setup
 - Time and Date**
 - Users Account
 - Group Privilege
 - Disk Setup
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options

Time and Date Setting

Time Zone: GMT+08 (Beijing, Hong Kong, Shanghai, Taipei) Summer time

Manual

Year: 2010 Month: 06 date: 07
Hour: 15 Minute: 46 Second: 02

Sync with NTP Server

NTP Server: ntp.ucsd.edu
Update Interval: 24 hr

Last sync: June 07, 2010 14:11:52. Status: Success

Sync with PC June 07, 2010 15:46:51

Apply/Save

Set the time and date by according to the correct time zone. It is important to set the recorder's time correctly to avoid the following errors:

- Incorrect display time for playback videos
- Inconsistent display time of event logs and when they actually occur.

After selecting the time zone, choose an option below to set the recorder time

- **Manual** – Use the drop down list and configure the time manually
- **Sync with NTP server** – enter the hostname or IP address of a valid NTP server and set how often the recorder should synchronize the time with the recorder by using the “Update interval” drop-down menu
- **Sync with PC** – Check this option to synchronize the recorder time with the PC that is currently being used to access the recorder

3.1.3 User Account

The recorder can be accessed by multiple users simultaneously. Under the User Account tool, user accounts can be added, removed, or edited. Each recorder comes with a built-in “admin” account with password “admin”. It’s highly recommended to change the password upon the initial login.

Brickcom
NVR16CH Setup

- System Configuration
 - Network Setup
 - Time and Date
 - Users Account
 - Group Privilege
 - Disk Setup
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options

User Account Setting

| User Name | Group | Description |
|-----------|-------|-------------|
| admin | admin | |

Add User

User Name: Only A-Z, a-z, 0-9 and _.@ are allowed

Password:

Confirm Password:

Company: (Optional)

Department: (Optional)

Telephone: (Optional)

Mobile: (Optional)

E-Mail: (Optional)

Group:

Language: English

Description: (Optional)

User Account Setting

| User Name | Group | Description |
|-----------|-------|-------------|
| admin | admin | |

Modify User

User Name: admin Only A-Z, a-z, 0-9 and _.@ are allowed

Password:

Confirm Password:

Company: (Optional)

Department: (Optional)

To change the password of the “admin” account:

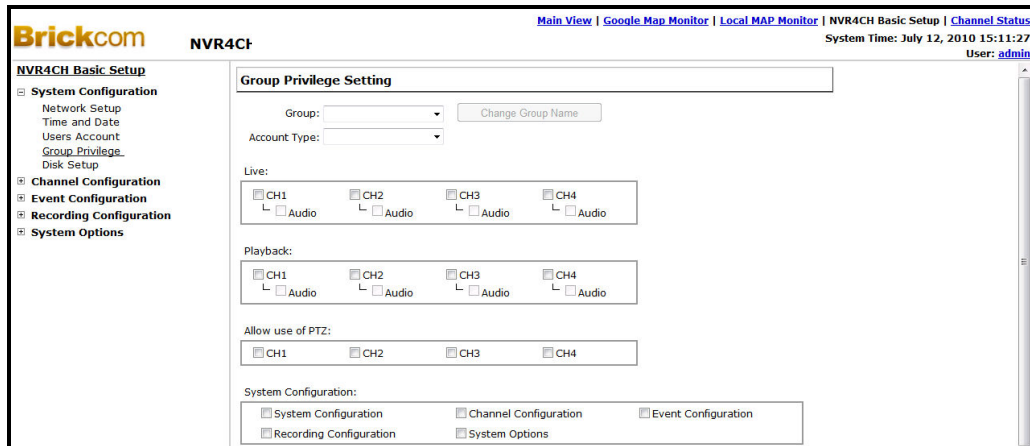
1. Click and highlight the “admin” account in the account list and click “Edit”.
2. Its information should be displayed in “User Account Information”.
3. Enter a new password in the “Password” field and enter it again in “Confirm Password”.

To add a new user:

1. Enter a username and password in “User Account Information”. All other fields are optional.
2. Select a group from the “Group” drop-down menu to assign the new user to a particular group
3. Enter a short description for the account
4. Click “Apply” to create the user account.

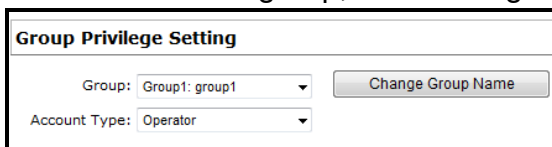
3.1.4 Group Privilege

Group Privilege can be used to create multiple customized access policies for situations where the recorder will be accessed by users other than the administrator. To use this feature, create a group and then remove access privileges for certain configuration pages or cameras. Users that are created and assigned to this group will have limited access instead of full administration rights.

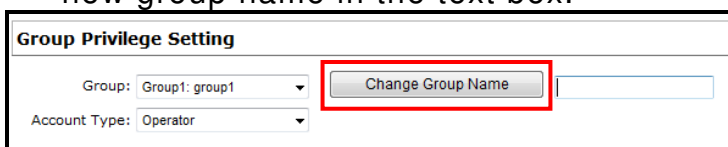


The recorder comes with seven built-in groups and five built-in privilege profiles. Other than the admin and guest groups, the other five groups, the other five groups are fully customizable. More than one user can be assign to the admin group. Users assigned to the guest account can only view the Live View page and cannot make any changes to any settings.

To create a group, select a group from the “Group” drop-down menu.



To change a group name, click on the “Change Group Name” button. Enter the new group name in the text box.

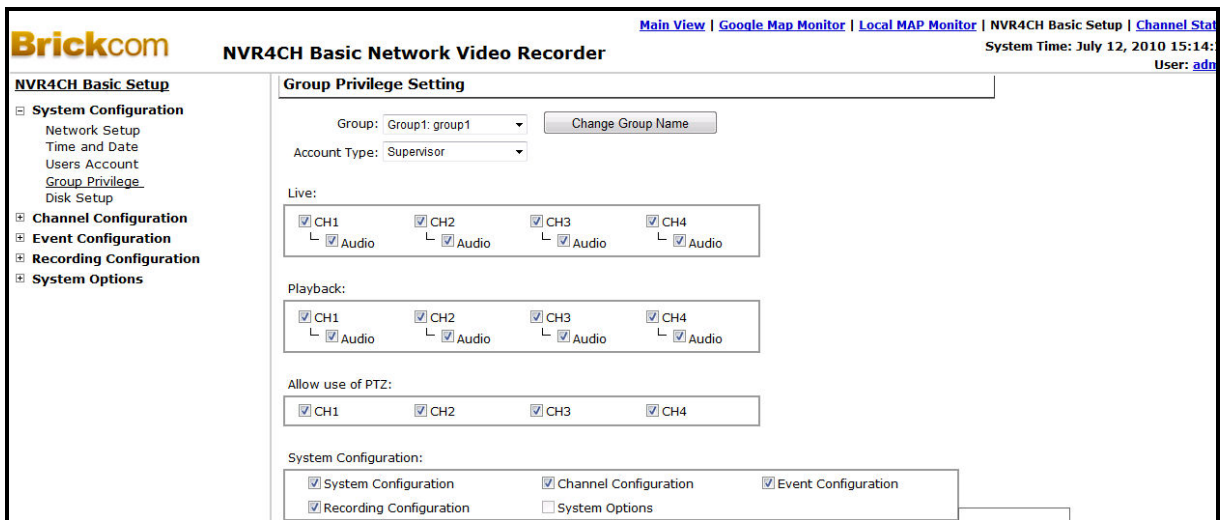


Set the privilege level for the group by selecting a level from the “Privilege Type” drop-down menu



Group: Group 1
Privilege Type: Operator

The access privileges will be displayed. Add or restrict access to cameras and settings by checking or unchecking privilege boxes.



Brickcom NVR4CH Basic Network Video Recorder

Main View | Google Map Monitor | Local MAP Monitor | NVR4CH Basic Setup | Channel Stat
System Time: July 12, 2010 15:14: User: admin

NVR4CH Basic Setup

- System Configuration
 - Network Setup
 - Time and Date
 - Users Account
 - Group Privilege
 - Disk Setup
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options

Group Privilege Setting

Group: Group1:group1
Account Type: Supervisor

Live:

| | | | |
|---|---|---|---|
| <input checked="" type="checkbox"/> CH1 | <input checked="" type="checkbox"/> CH2 | <input checked="" type="checkbox"/> CH3 | <input checked="" type="checkbox"/> CH4 |
| <input checked="" type="checkbox"/> Audio | <input checked="" type="checkbox"/> Audio | <input checked="" type="checkbox"/> Audio | <input checked="" type="checkbox"/> Audio |

Playback:

| | | | |
|---|---|---|---|
| <input checked="" type="checkbox"/> CH1 | <input checked="" type="checkbox"/> CH2 | <input checked="" type="checkbox"/> CH3 | <input checked="" type="checkbox"/> CH4 |
| <input checked="" type="checkbox"/> Audio | <input checked="" type="checkbox"/> Audio | <input checked="" type="checkbox"/> Audio | <input checked="" type="checkbox"/> Audio |

Allow use of PTZ:

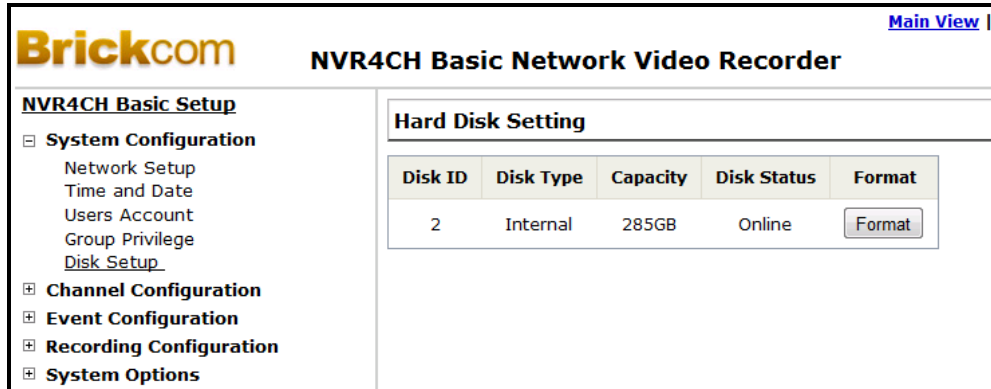
| | | | |
|---|---|---|---|
| <input checked="" type="checkbox"/> CH1 | <input checked="" type="checkbox"/> CH2 | <input checked="" type="checkbox"/> CH3 | <input checked="" type="checkbox"/> CH4 |
|---|---|---|---|

System Configuration:

| | | |
|---|---|---|
| <input checked="" type="checkbox"/> System Configuration | <input checked="" type="checkbox"/> Channel Configuration | <input checked="" type="checkbox"/> Event Configuration |
| <input checked="" type="checkbox"/> Recording Configuration | <input type="checkbox"/> System Options | |

3.1.5 Disk Setup

For instructions on how to install a hard disk in the NR-04A, refer to page 6. Once a hard disk has been installed in the NR-04A, it must be initialized in preparation for recording. To initialize it, click the “Format” button



The screenshot shows the Brickcom NVR4CH Basic Network Video Recorder web interface. The page title is "NVR4CH Basic Network Video Recorder" and it includes a "Main View" link. The left sidebar contains a navigation menu with the following items: "NVR4CH Basic Setup", "System Configuration" (expanded), "Channel Configuration", "Event Configuration", "Recording Configuration", and "System Options". Under "System Configuration", the following sub-items are listed: "Network Setup", "Time and Date", "Users Account", "Group Privilege", and "Disk Setup". The main content area is titled "Hard Disk Setting" and contains a table with the following data:

| Disk ID | Disk Type | Capacity | Disk Status | Format |
|---------|-----------|----------|-------------|---------------------------------------|
| 2 | Internal | 285GB | Online | <input type="button" value="Format"/> |

The firmware can be upgrading through the recorder’s external USB thumb drive.

To obtain detailed information about the disk, open the path: “System Options” >> “Disk Status”.

3.2 Channel Configurations

3.2.1 Add a Camera

The NR-04A provides two options for adding a new camera. Users have the option to let the recorder automatically find the cameras or to manually enter a camera's information and add it.

The screenshot shows the 'Channel Setting' page in the Brickcom NVR4CH Basic Network Video Recorder web interface. The page title is 'NVR4CH Basic Network Video Recorder' and the user is logged in as 'admin'. The system time is July 12, 2010 15:17:13. The left sidebar shows the navigation menu with 'Channel Setting' selected. The main content area displays a table of existing channels:

| Channel | Channel Name | IP Address | Format | Resolution |
|---------|--------------|--------------|--------|------------|
| 1 | OB-100Ap | 192.168.1.35 | H.264 | 640x400 |
| 2 | VD-100Ap | 192.168.1.20 | H.264 | 640x400 |
| 3 | CB-101Ap | 192.168.1.32 | H.264 | 640x400 |
| 4 | cam4 | 10.5.42.206 | H.264 | 640x400 |

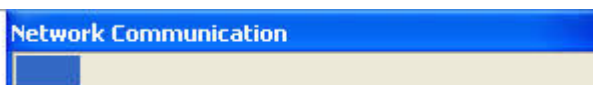
Below the table are 'Remove' and 'Edit' buttons. A 'Search' button is also present. A note states: 'Click here to search camera: Search * You may skip this step and add a new camera manually by entering camera's setting in the "Camera Information" section'. Below this is the 'Add New Channel' form with fields for Channel ID (dropdown), Channel Name, IP Address, User Name, Password, and HTTP Port (set to 80). A 'Detect' button is at the bottom with the text: 'Once you fill out above information, click "Detect" to retrieve camera setting'.

Automatic Search:

1. Click the "Search" button to perform the camera search. The user may be prompted to install the Active Control component in order for the search function to operate properly. Click "Install" to install the component.



2. Once the Active Control component has been installed, the NR-04A will begin searching for available cameras on the network. The status will be displayed as below:



- The available cameras on the network will be listed. Select a camera from the list and click "Configure".

Click here to search camera:

* You may skip this step and add a new camera manually by entering camera's setting in the "Camera Information" section

| Brand | Model | IP Address | HTTP Port | Installed |
|----------------------|----------|--------------|-----------|-----------|
| Brickcom Corporation | VD-100Ap | 192.168.1.20 | 80 | * |
| Brickcom Corporation | CB-101Ap | 192.168.1.32 | 80 | * |
| Brickcom Corporation | OB-100Ap | 192.168.1.35 | 80 | * |

*Select a camera from search result and click "Configure" to configure setting below.

- The selected camera's information will be displayed in the "Camera Information" section. Enter its username and password. Select the channel ID and name the camera.

Add New Channel:

Channel ID: 11

Channel Name: WCB-100Ap

Group: Group3

IP Address: 10.5.42.18

User Name: admin

Password: *****

HTTP Port: 80

- Click on "Detect" to establish the connection between the recorder and the camera. If connection establishes successfully, the camera's detailed information will be displayed.

Add New Channel:

Channel ID: 11

Channel Name: WCB-100Ap

Group: Group3

IP Address: 10.5.42.232

User Name: admin

Password: *****

HTTP Port: 80

Once you fill out above information, click "Detect" to retrieve camera setting

- Adjust its video format, resolution, and quality. Click on "Preview" to preview the live video of the camera.

Once you change the camera's IP, User Name, Password or HTTP Port, click "Detect" to retrieve the camera's settings

Additional Camera Information

Video Port: 554

Format: MJPEG

Resolution: 1280x800

Frame Rate: 15

Quality: 6

Record: Continuous

- Click "Add" to finish adding the camera

If the camera is marked with * in the search results, then that camera is already configured and connected to the NR-04A.

Re-Search

and a new camera by manually entering camera's setting in the "Camera Information."

| | IP Address | HTTP Port | Installed |
|--|----------------|-----------|-----------|
| | 192.168.101.40 | 80 | |
| | 192.168.101.42 | 80 | |
| | 192.168.101.41 | 80 | |
| | 192.168.101.47 | 80 | |
| | 192.168.101.43 | 80 | |
| | 192.168.101.23 | 80 | * |
| | 192.168.101.46 | 80 | |

Add a Camera Manually

From the Channel Settings page, manually enter the camera's IP address and information into the "Camera Information." Follow steps 5-7 as described above.

Add New Channel:

2.

Channel ID: 3

Channel Name: cam3

Group: Group1

IP Address: 192.168.101.20

User Name: root

Password: ●●●●

HTTP Port: 80

Once you fill out above information, click "Detect" to retrieve camera setting

Enter manually

3.2.2 OSD Settings

The On Screen Display (OSD) allows users to add an informational text message to the video. By default, this function is turned off. To add texts to a video:

1. Select a camera to add text to and choose “Display OSD”.



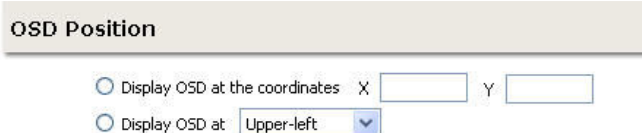
The screenshot shows the 'OSD Settings' section of a web interface. It features a dropdown menu for 'Camera' with 'Camera 1' selected. Below it are two radio buttons: 'Do Not Display OSD' (unselected) and 'Display OSD' (selected). Red boxes highlight the 'Camera' dropdown and the 'Display OSD' radio button.

2. Choose to add any of the three text display options: show time, show frames per second, or to show a custom text message which can be a maximum of 32 characters.



The screenshot shows the 'Text Display Options' section. It contains three checkboxes: 'Show Time', 'Show FPS', and 'Show Text'. The 'Show Text' checkbox is selected, and next to it is a text input field with the placeholder '(Max. 32 char.)'.

3. Define the text display position on the video screen. The user can define the position by entering an X/Y coordinate or using the predefined positions from the drop-down menu



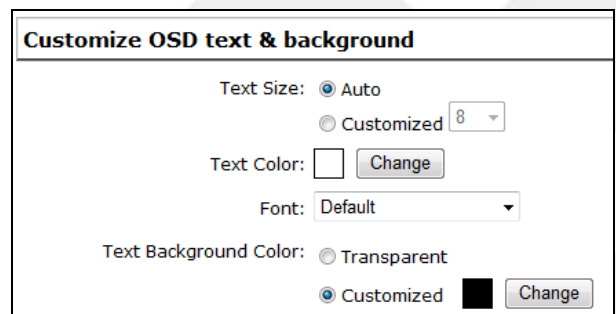
The screenshot shows the 'OSD Position' section. It has two radio buttons: 'Display OSD at the coordinates' (unselected) with 'X' and 'Y' input fields, and 'Display OSD at' (selected) with a dropdown menu showing 'Upper-left'.

4. Click on “Preview” to preview the settings and click “Apply” to save the configuration



Preview - click this button to see a preview for your OSD setting

- Users can further adjust the size, color, and font of the OSD text so it is more visible on the video screen.



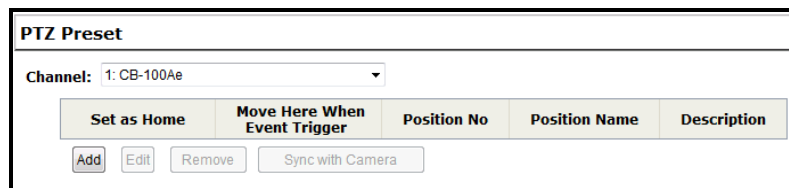
The screenshot shows the 'Customize OSD text & background' section. It includes settings for 'Text Size' (Auto selected, Customized 8), 'Text Color' (Change button), 'Font' (Default), and 'Text Background Color' (Customized selected, Change button).

3.2.3 PTZ Preset Settings

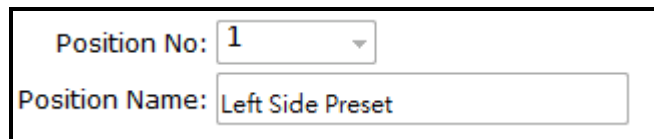
The NR-04A is compatible with PTZ cameras. Users can set multiple preset points or retrieve and manage preset points that are set in the camera. This is useful for monitoring multiple positions in one area from a single camera.



1. To set up PTZ preset points, select a camera from the “Camera” drop-down menu and click “Add”.



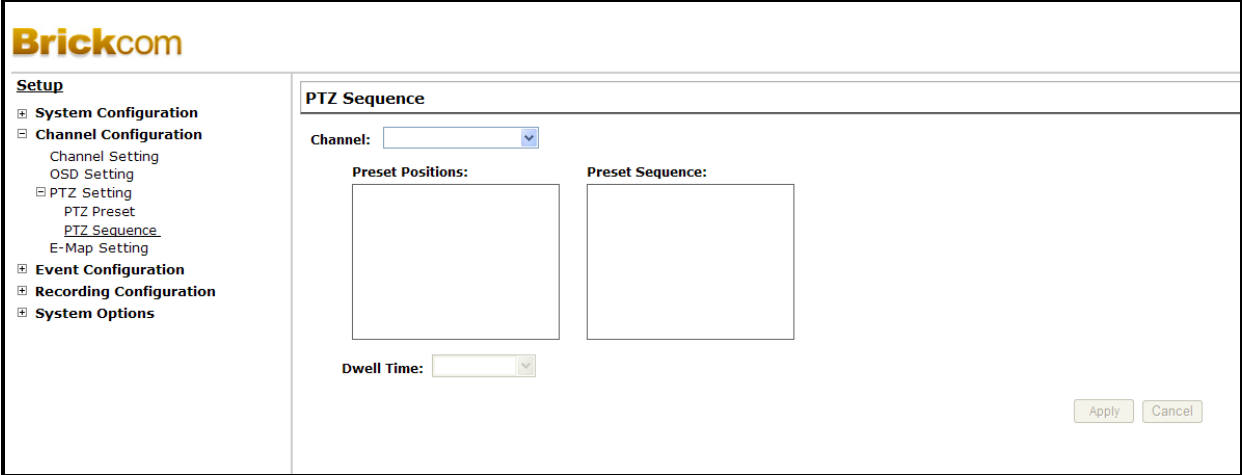
2. Select a position number for the preset point from the “Position Number” drop-down menu and fill in a name in the “Position Name” field for easier identification.



3. Use the PTZ control provided in the configuration page to set the preset point and set the position as the “HOME” position if desired.
4. Click “Apply” to save the configuration settings.

3.2.4 PTZ Preset Sequence

Once multiple preset points have been defined for a camera, the NR-04A can be programmed to automatically switch between preset points for the user.

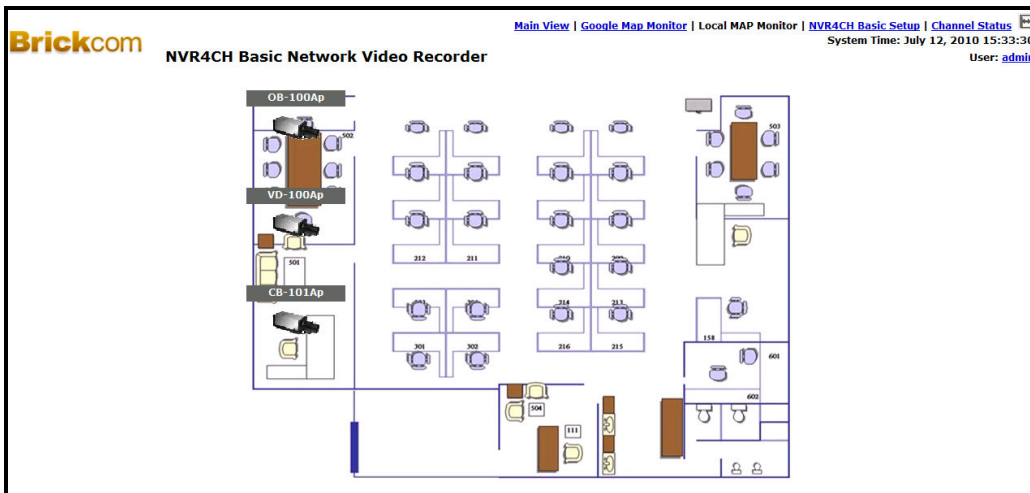


The screenshot shows the Brickcom web interface for configuring PTZ sequences. On the left is a navigation menu under 'Setup' with categories: System Configuration, Channel Configuration (including Channel Setting, OSD Setting, PTZ Setting, PTZ Preset, PTZ Sequence, and E-Map Setting), Event Configuration, Recording Configuration, and System Options. The main area is titled 'PTZ Sequence' and contains a 'Channel:' dropdown menu. Below this are two columns: 'Preset Positions' and 'Preset Sequence', each with an empty rectangular box. At the bottom left is a 'Dwell Time:' dropdown menu, and at the bottom right are 'Apply' and 'Cancel' buttons.

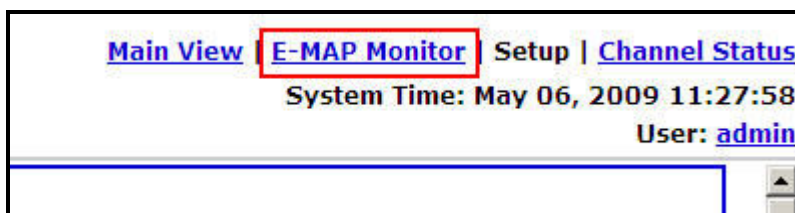
1. To configure preset sequence for a camera, select a camera from the “Camera” drop-down menu
 2. The available preset points will be listed in the “Preset Position” column.
 3. Pick preset points for sequence viewing and click the “->” button to move them to the “Preset Sequence” column. Use the arrow keys to reorganize the sequence list.
 4. Finally, select a dwell time from the drop-down menu and click “Apply” to save the configuration settings.
- To begin preset sequence viewing, see page 20 for instructions

3.2.5 E-Map Monitor

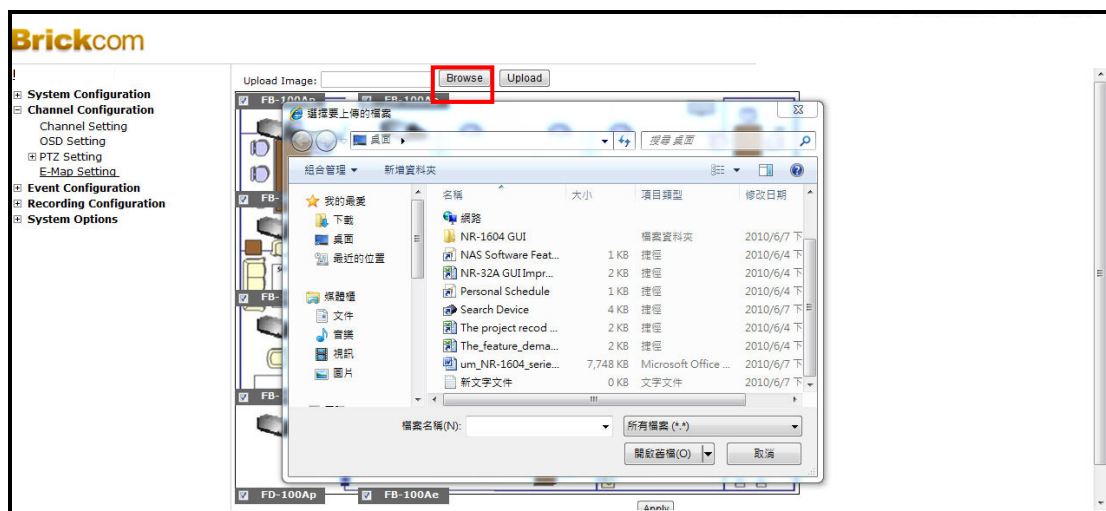
E-Map monitor is a function that alerts the user whenever there is an event triggered (e.g. motion detected) from a camera with a geographical perspective. With this function, the user can quickly identify which camera has detected an event and where this event is happening. This function works by incorporating the event detection function as well as the recording function, which, as a result, helps the user to take the necessary actions when an event occurs.



Access the E-Map Monitor page by clicking on the E-MAP Monitor link.



To replace the E-map picture, click “Browse” to locate the new map image file from the local PC and then click “Upload”.



Click and drag each camera icon to the camera's appropriate location.



When the NR-04A receives an event notification from any of the cameras, their videos will be displayed on the E-Map and you can double-click on the video to enlarge the Live View.



3.3 Event Configurations

The “Event Configurations” section allows the user to define conditions that constitute an event, its corresponding trigger action and when it will be triggered. This setting can reduce management overhead and notify the administrator only when necessary.

3.3.1 General Settings

The General Settings section helps the user configure when an event is triggered, how often events are triggered and the corresponding actions when events are triggered.

The screenshot shows the configuration interface for an NVR4CH Basic Network Video Recorder. The page title is "NVR4CH Basic Network Video Recorder" and it includes a navigation menu on the left with options like "System Configuration", "Channel Configuration", "Event Configuration", "Recording Configuration", and "System Options". The "Event Configuration" section is expanded to show "General Setting".

General Setting

Event Trigger Duration

Always

Only during: Sun Mon Tues Wed Thur Fri Sat

Start Time: [00] : [00] End Time: [00] : [00]

Event Trigger Interval

Interval: 5 Seconds. (5~86400)

Trigger Actions

Subject: <TIME> : <CH> <TRIGGER> from <IP>

Send Message

Text:

FTP File Name:
<IP>_<CH>_<TRIGGER>_<TIME>

Event Trigger Duration

- This setting is used to define the time period during which events can be triggered.
- Choose “Always” or “Only During”
- For the “Only During” option, choose the days by using the check box and then define the time range in those days in the “Start Time” and “End Time” fields that you would like the event trigger function to be enabled.

Event Trigger Interval

- Enter a time interval to define how often events can be triggered.

Trigger Action

- The user can choose to have a selected number of frames from the video recorder sent out when an even is triggered.
- The user can choose to have the NR-04A send a warning message as an email or uploaded to a FTP server as a text file.

3.3.2 Event Servers

Event servers are designed to be used with event trigger actions. In the case of unusual motion detected by the camera or a disk failure, the recorder can send a notification with the acceptable format (image/txt) to a designated event server.

Configuring an FTP Server

The screenshot shows the 'FTP Servers Setting' page in the Brickcom NVR4CH Basic Network Video Recorder web interface. The page has a sidebar menu on the left with categories like System Configuration, Channel Configuration, Event Configuration, Recording Configuration, and System Options. The main content area is titled 'FTP Servers Setting' and contains a table with columns for Name, Network Address, Port, Passive Mode, and Enabled. Below the table, there are input fields for Name (FTP Notification Server), Network Address (10.5.1.121), and Port (21). There are also sections for Login Information (User Name: Brickcom, Password: masked) and Passive Mode (checked). A Test button is at the bottom with a note: '*Click "Test" to test the connection to the FTP server'.

To add an FTP server,

1. Enter a name for the FTP Server.
2. Enter the hostname or the IP address of the FTP server.
3. Enter the communication port of the FTP server (usually port 21).

This is a close-up of the 'FTP Server' configuration form. It features a dark header bar with the text 'FTP Server'. Below the header, there are three input fields: 'Name:' followed by an empty text box, 'Network Address:' followed by an empty text box and a note '*Enter host name or IP address', and 'Port:' followed by an empty text box.

4. Enter the username and password of the FTP server if required.
5. Check "Use Passive Mode" to use passive mode for the FTP server or leave it unchecked to use active mode.

Login Information

User Name:

Password:

Passive Mode

Use Passive Mode

6. Click "Test" to verify that the information was entered correctly and the connection to the FTP can be established successfully.
7. Click "Apply" to save the new settings.

Test

*Click "Test" to test the connection to the FTP server:

- To make changes to an FTP server, highlight the FTP server from the profile list and choose the Edit, Remove, Enable, or Disable button.

Brickcom [Main View](#) | [Google Map Monitor](#)

NVR4CH Basic Network Video Recorder

NVR4CH Basic Setup

- System Configuration
- Channel Configuration
- Event Configuration
 - General Setting
 - DI Setting
 - Event Servers
 - FTP Servers
 - SMTP Servers
 - Event Trigger
- Recording Configuration
- System Options

FTP Servers Setting

| Name | Network Address | Port | Passive Mode | Enabled |
|-------------------------|-----------------|------|--------------|-------------------------------------|
| FTP Notification Server | 10.5.1.121 | 21 | Yes | <input checked="" type="checkbox"/> |

FTP Server

Name:

Network Address: *Enter host name or IP address

Port:

Login Information

User Name:

Password:

Passive Mode

Use Passive Mode

Test

*Click "Test" to test the connection to the FTP server

Configuring an SMTP server

Brickcom

- System Configuration
- Channel Configuration
- Event Configuration
 - General Setting
 - DI/DO Setting
 - Event Servers
 - FTP Servers
 - HTTP Servers
 - SMTP Servers
 - Event Trigger
- Recording Configuration
- System Options

SMTP Servers Setting

SMTP Server 1

Network Address: *Enter host name or IP address

Port:

Sender's Name:

Sender's E-mail:

Enable Authentication:
User Name:
Password:

Test

Send Test Email To:

SMTP Server 2

Network Address: *Enter host name or IP address

Port:

Sender's Name:

Sender's E-mail:

Enable Authentication:
User Name:
Password:

Test

Send Test Email To:

1. Enter the hostname or the IP address of the SMTP server.
2. Enter the port of the SMTP server.
3. Specify the sender's name in the "Sender's name" field.
4. Enter the sender's e-mail address.
5. Check "Enable Authentication" and enter the username and password of the SMTP server.
6. Click "Apply" to save the new settings.

3.3.3 Event Triggers

This section can be used to finish event configuration by setting:

- Which channels will have event trigger function enabled
- What is considered to be an event, and
- Where the warnings will be sent to and how they will be sent.

Brickcom NVR4CH Basic Network Video Recorder

Main View | Google Map Monitor | Local MAP Monitor | NV Sys

NVR4CH Basic Setup

- System Configuration
- Channel Configuration
- Event Configuration
 - General Setting
 - DI Setting
 - Event Servers
 - FTP Servers
 - SMP Servers
 - Event Trigger
- Recording Configuration
- System Options

Event Handling Setting

When Channel is triggered by

| | 1 | 2 | 3 | 4 |
|------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| I/O Input | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Motion Detection | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

*Please make sure you have properly enabled and configured motion detection region in the camera's web configuration UI before enabling motion detection in the NVR4CH Basic. The NVR4CH Basic only supports single region detection, and only the first region will be used even if you set multiple motion detection regions in the camera.

When NVR4CH Basic is triggered by

- Recycled
- Disk Full
- Disk Fail
- When NVR4CH Basic Start Up
- When NVR4CH Basic Shutdown
- When NVR4CH Basic System Configuration Changed
- When Channel's Configuration Changed

Trigger Actions

- E-Mail:** E-Mail Addresses: *use "," to separate e-mails
- FTP** Upload Path:
- Move to particular preset points**

Apply

Select Channels to Enable Event Trigger and Which Type of Event Should be Triggered

- Check the boxes to enable the event trigger for desired channels

Event Handling Setting

When Channel is triggered by

| | 1 | 2 | 3 | 4 |
|------------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| I/O Input | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Motion Detection | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- Define which system events should trigger the recorder to send out notifications

When NVR4CH Basic is triggered by


- Recycled
- Disk Full
- Disk Fail
- When NVR4CH Basic Start Up
- When NVR4CH Basic Shutdown
- When NVR4CH Basic System Configuration Changed
- When Channel's Configuration Changed

- Define how and where notifications are sent

Trigger Actions

- E-Mail:** E-Mail Addresses: *use "," to separate e-mails
- FTP** Upload Path:
- Move to particular preset points**

Apply

 **Note:** Event trigger may not work for cameras that are placed outside of the local network or on the Internet until the "UPnP Port Forwarding" is enabled on both the NVR and the router.

3.4 Recording Configurations

The Recording Configurations gives the user the overall control of how and when a recording is performed and the quality of different types of recordings performed on each channels. It can help the recorder to operate with sufficient system resource by performing recording only when it's necessary with adjustable recording frame rate.

3.4.1 General Settings

General Settings can be used to define the following:

- Pre-Alarm/Post-Alarm recording length
- Recording frame rate
- Enable/disable different recording types on different cameras

The screenshot shows the 'Recording General Settings' page in the Brickcom NVR4CH Basic Network Video Recorder. The page is divided into several sections:

- Recording Buffer:** Pre-Alarm Buffer: 0 Seconds, Post-Alarm Buffer: 5 Seconds.
- Recording Frame Rate:** A table with columns 1, 2, 3, 4 and rows Continuous, Schedule, Event, Manual. Each cell contains a dropdown menu with options like 'I Only', 'Full', and '1 Only'.
- Keep Video:** A checkbox labeled 'Keep the previous' followed by a text input field containing '0' and the text 'days of recorded videos'.
- Camera Recording Setting:** A table with columns 1, 2, 3, 4 and rows Continuous, Schedule, Event. Each cell contains a checkbox.
- Record Audio:** A table with columns 1, 2, 3, 4 and a row 'Record audio'. Each cell contains a checked checkbox.

At the bottom right, there are 'Apply' and 'Cancel' buttons.

The Recording Buffer allows the user to set the pre-alarm and post-alarm buffer. These buffers will determine how much video will be recorded before and after an alarm has been triggered. The Pre-Alarm Buffer range is from 0 to 3 seconds and the Post-Alarm Buffer range is from 5 to 30 seconds.

This is a close-up view of the 'Recording Buffer' section of the 'Recording General Settings' page. It shows two dropdown menus: 'Pre-Alarm Buffer: 0 Seconds' and 'Post-Alarm Buffer: 5 Seconds'.

Recording Frame Rate allows the user to set different frame rate for each recording type and camera. The recording types include continuous, schedule, event, and manual. Use the drop-down menu and select one of the predefined frame rates. The predefined frame rates include 1, 5, 10, 15, 20, and full.

| Recording Frame Rate | | | | |
|----------------------|----------|----------|----------|---|
| | 1 | 2 | 3 | 4 |
| Continuous | I Only ▾ | I Only ▾ | I Only ▾ | |
| Schedule | I Only ▾ | I Only ▾ | I Only ▾ | |
| Event | Full ▾ | Full ▾ | Full ▾ | |
| Manual | Full ▾ | Full ▾ | Full ▾ | |

Camera Recording Setting allows the user to enable continuous, schedule, or event recording on any channel.

| Camera Recording Setting | | | | |
|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|
| | 1 | 2 | 3 | 4 |
| Continuous | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Schedule | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Event | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

3.4.2 Schedule Recording

The user can use the Schedule Recording settings to define the time range of the scheduled recording for all channels.

The screenshot shows the 'NVR4CH Basic Network Video Recorder' interface. On the left is a navigation menu with 'Schedule Recording Settings' selected. The main area is titled 'Schedule Recording Settings' and contains a 'Channel:' dropdown menu. Below it is a 'Schedule Table' with a grid for days (Sunday to Saturday) and hours (0 to 23). A 'Quick Configuration' section includes checkboxes for 'Sun', 'Mon', 'Tues', 'Wed', 'Thur', 'Fri', 'Sat', and 'All'. The 'Duration' section has radio buttons for 'All day' and 'During', with 'Start Time' and 'End Time' dropdowns. At the bottom are buttons for 'Copy Schedule To All Channels', 'Apply', and 'Cancel'.

To Configure a Schedule Recording:

1. Select a camera from the "Camera" drop-down menu.

| Schedule Recording Settings | |
|-----------------------------|----------------------|
| Channel: | <input type="text"/> |

2. Use the Schedule Table to specify times for scheduled recordings. Each cell represents fifteen minutes of time. Click one or more boxes to omit consecutive recording.

| Schedule Table | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| Sunday | | | | | | | | | | | | | | | | | | | | | | | | |
| Monday | | | | | | | | | | | | | | | | | | | | | | | | |
| Tuesday | | | | | | | | | | | | | | | | | | | | | | | | |
| Wednesday | | | | | | | | | | | | | | | | | | | | | | | | |
| Thursday | | | | | | | | | | | | | | | | | | | | | | | | |
| Friday | | | | | | | | | | | | | | | | | | | | | | | | |
| Saturday | | | | | | | | | | | | | | | | | | | | | | | | |

3. Instead of the Schedule Table, the user can use the Quick Configuration to define the recording time range. Check the days to record and specify the duration by choosing either "All Day" or enter a start and end date for a specific recording duration.

| Quick Configuration | |
|---|--|
| Days: | |
| <input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tues <input type="checkbox"/> Wed <input type="checkbox"/> Thur <input type="checkbox"/> Fri <input type="checkbox"/> Sat <input type="checkbox"/> All | |
| Duration: | |
| <input type="radio"/> All day | |
| <input checked="" type="radio"/> During Start Time: 00 : 00 End Time: 00 : 00 | |
| <input type="button" value="Add"/> | |

4. Select the "Copy to" option to duplicate the recording schedule to another camera.

| |
|---|
| <input checked="" type="radio"/> During Start Time: 00 : 00 End Time: 00 : 00 |
| Copy Schedule To Channel: <input type="text"/> |
| <input type="button" value="Copy Schedule To All Channels"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/> |

3.5 System Options

System Options gives the user an overview of the system status and allows the user to perform maintenance tasks such as upgrading firmware, restore/backup device settings or reboot device.

3.5.1 Device Information

The Device Information provides the general information of the device such as the firmware version, system time, and current network settings and status.

The screenshot shows the 'NVR4CH Basic Network Video Recorder' web interface. On the left is a navigation menu with 'System Options' expanded to show 'Device Information'. The main content area is divided into two sections: 'General Information' and 'Network Information'. The 'General Information' section lists: Device Name (NVR4CH Basic), Model Name (NVR4CH Basic), Firmware Version (1.5.4g.30026803), and Device Time (Up 2 days 21:47:40, since Jul 09 2010 18:05:13). The 'Network Information' section lists: Network Type (DHCP), Device IP (192.168.1.34), HTTP Port (80), Streaming Port (9877), MAC Address (00:22:4E:F0:00:10), and UPnP Port Forwarding (Disabled).

3.5.2 Logs and Reports

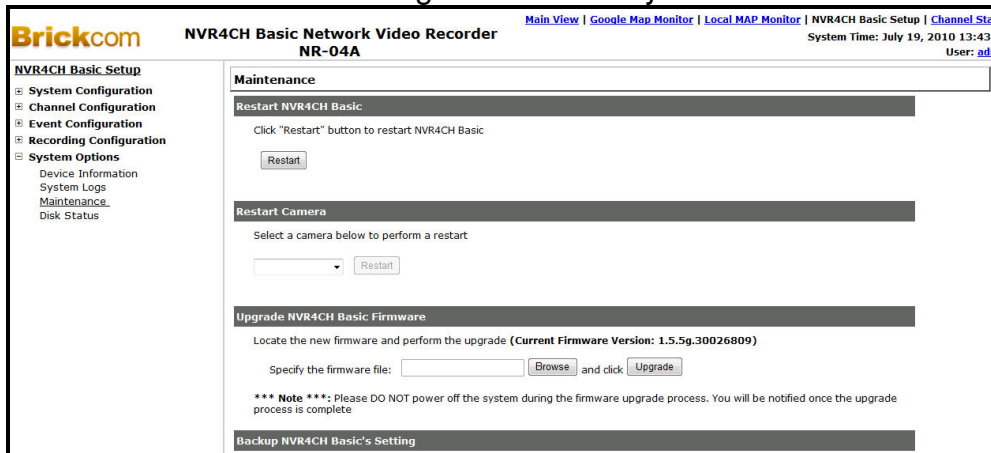
Logs and Reports records the events of the NR-04A and provides basic information for troubleshooting.

The screenshot shows the 'NVR4CH Basic Network Video Recorder' web interface with the 'System Logs' page selected. The left navigation menu shows 'System Options' expanded to 'System Logs'. The main content area displays a list of system events. A note states: 'Below time is expressed in Coordinated Universal Time (UTC)'. The log entries include server start success, admin logins from 192.168.0.50 and 192.168.1.21, system power off, firmware upgrades, system restarts, and channel additions.

3.5.3 Maintenance

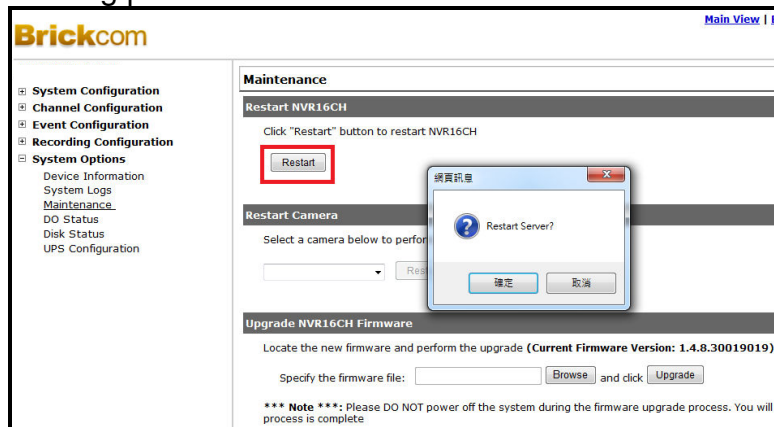
Maintenance provides functions for the user to:

- Reboot the NR-04A
- Reboot cameras directly from the NR-04A
- Perform Firmware Upgrade
- Backup the NR-04A's settings to a local hard drive
- Restore the NR-04A's settings from a previously saved configuration file
- Reset the NR-04A's settings to their factory default values

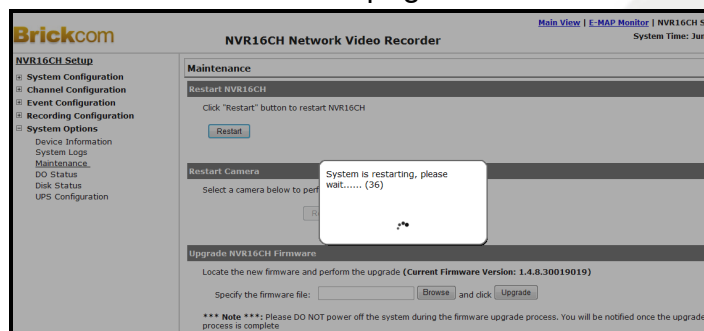


Reboot the NR-04A

Click "Restart" to begin the reboot process. A dialog window will pop up to confirm the rebooting process. Click "Ok".

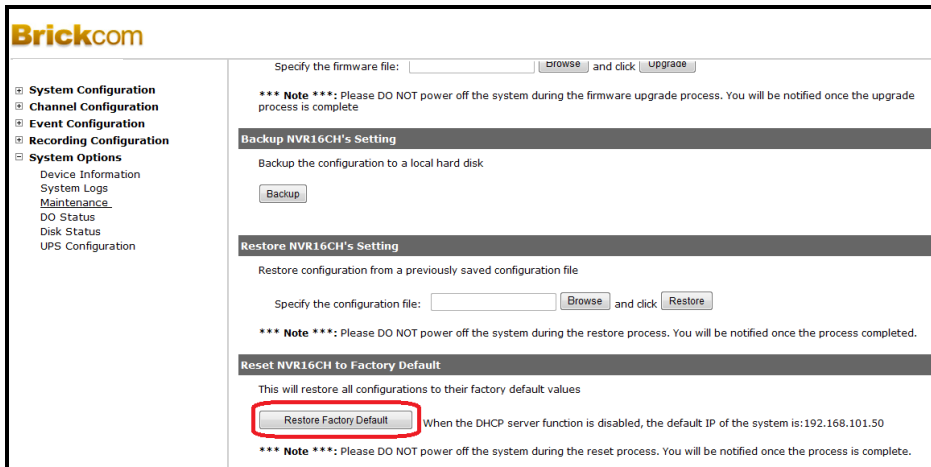


A progress window will be displayed. When the reboot process is complete, the NR-04A will return to the Maintenance page.

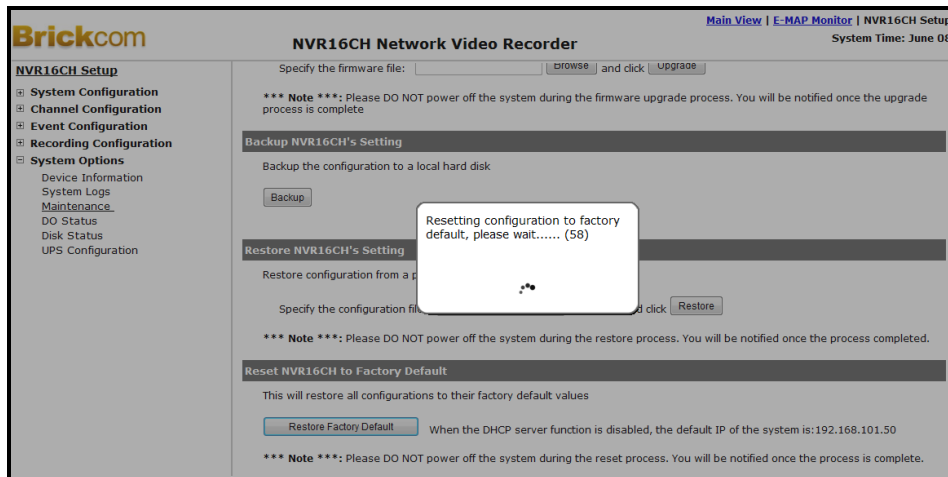


Reset the NR-04A to Factory Default Settings

To reset the recorder back to its factory default, click the “Default” button.

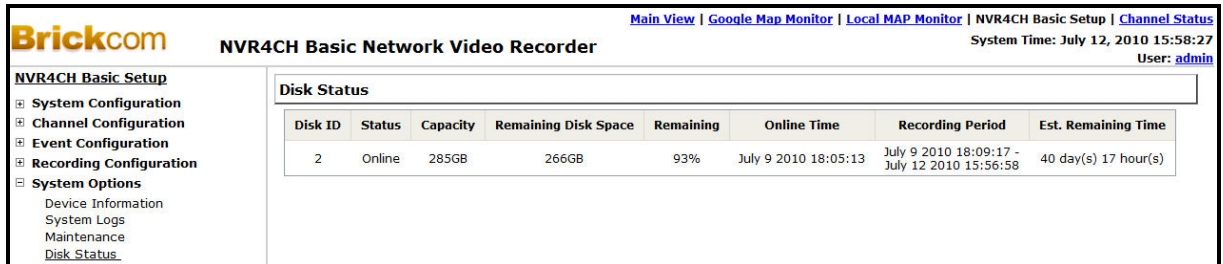


A progress window will be displayed. When the reset process is complete, the NR-04A will return to the Maintenance page.



3.5.4 Disk Status

The Disk Status provides detailed information about the hard drive currently installed in the NR-04A.



The screenshot displays the 'Disk Status' page within the Brickcom NVR4CH Basic Network Video Recorder interface. The page includes a navigation menu on the left, a breadcrumb trail at the top, and a table of disk information.

Brickcom NVR4CH Basic Network Video Recorder

Main View | Google Map Monitor | Local MAP Monitor | NVR4CH Basic Setup | Channel Status
System Time: July 12, 2010 15:58:27
User: admin

NVR4CH Basic Setup

- System Configuration
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options
 - Device Information
 - System Logs
 - Maintenance
 - Disk Status

Disk Status

| Disk ID | Status | Capacity | Remaining Disk Space | Remaining | Online Time | Recording Period | Est. Remaining Time |
|---------|--------|----------|----------------------|-----------|----------------------|---|----------------------|
| 2 | Online | 285GB | 266GB | 93% | July 9 2010 18:05:13 | July 9 2010 18:09:17 - July 12 2010 15:56:58 | 40 day(s) 17 hour(s) |