

DNS-722-4 / DNS-726-4

Version 1.10

2-Bay Network Video Recorder

User Manual

Business Class Networking

Preface

D-Link reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes.

Manual Revisions

Revision	Date	Description
1.0	November 21, 2008	DNS-722-4/DNS-726-4 revision A1
1.1	March 24, 2010	DNS-722-4/DNS-726-4 revision A1

Trademarks

D-Link and the D-Link logo are trademarks or registered trademarks of D-Link Corporation or its subsidiaries in the United States or other countries. All other company or product names mentioned herein are trademarks or registered trademarks of their respective companies.

Copyright © 2010 by D-Link Systems, Inc.

All rights reserved. This publication may not be reproduced, in whole or in part, without prior expressed written permission from D-Link Systems, Inc.

Table of Contents

Preface	i	Configuring the NVR.....	28
Manual Revisions	i	Network Setup	29
Trademarks	i	Camera Search.....	30
Product Overview	1	Camera Setup.....	31
Package Contents	1	Audio and Video	32
System Requirements	2	Live and Playback Setup	33
Introduction.....	3	Recording Schedule	34
Features	4	Auto-Backup Setup.....	37
Hardware Overview	8	Event Setup	38
Front View.....	8	E-mail Setup	39
Bottom View.....	9	Dynamic DNS	40
Rear Panel (Connections)	10	Time and Date Setup.....	41
Hardware Installation	11	Maintenance	42
Install New Hard Disk Drive	11	User Management	42
Connecting Your NVR to the Network	16	RAID	44
Network Setup	16	Backup and Restore	46
Configuration	17	Firmware Update	47
Getting Started	17	Status	48
NVR Search Utility	18	Camera Status.....	48
Login	19	Device Info.....	49
Configure Hard Drive	20	System Log.....	50
Web UI.....	23	NVR Log	51
Setup	24	Help	52
Wizard.....	24	Live Video	53

Playback.....	56
Open Record and Setting	59
Search the Recorded Video to Playback.....	61
Smart Search from the Recorded Video (Pro version only)	63
Recorded Video Enhancement.....	65
Save Video	66
Save Image.....	67
Print Image	68
Page Setting	68
Backup the Recorded Video	69
Multi-NVR Viewer Application	70
Playback Manager Application.....	73
Set Connections to the Units	74
Backup and File Manager Application.....	75
Troubleshooting	77
Choose a RAID Level	80
Replacing or Adding a New Hard Drive.....	81
Technical Specifications.....	82
Firmware Specification	82
Hardware Specification.....	83

Product Overview

Package Contents

- D-Link DNS-722-4/ DNS-726-4 Network Video Recorder (NVR)
- CAT5 Ethernet Cable
- Power Adapter
- Cable Holder
- Keys
- Manual and Software on CD
- Quick Install Guide



Note: Using a power supply with a different voltage than the one included with your product will cause damage and void the warranty for this product.

If any of the above items are missing, please contact your reseller.

System Requirements

Hardware Requirements	<ul style="list-style-type: none"> • One or two 3.5" SATA hard disk drive(s)*
Network Requirements	<ul style="list-style-type: none"> • Broadband Internet connection (for remote access) • IP Camera(s) (refer to the D-Link website for a list of supported cameras) • Gigabit Ethernet switch or router
Web-based Configuration Utility Requirements/Remote PC Minimum Requirements	<p>Computer with the following:</p> <ul style="list-style-type: none"> • Windows® 2000/XP/2003/Vista® (32bit) • Pentium 4 - 2.4GHz or higher • 512MB or higher <p>Browser Requirements:</p> <ul style="list-style-type: none"> • Internet Explorer 6.0 or higher <p>Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.</p>
Optional	UPS with USB interface

**Hard disk drives should be from the same manufacturer. To ensure maximum performance, identical drives are recommended for RAID 1 configurations.*

Introduction

DNS-722-4/DNS-726-4 is a standalone wired NVR (Network Video Recorder) which supports multi-channel network cameras with M-JPEG, MPEG4, H.264 recording using two high-speed 3.5-inch SATA hard disks (up to 3TB total capacity for extended recording). The NVR can record video directly sent from local and remote network cameras without the need for a dedicated PC.

DNS-722-4 supports D-Link network cameras only.

DNS-726-4 supports D-Link, Axis, Panasonic, Sony, Mobotix, Arecont, IQinvision, Cisco and ACTi network cameras.

The bundled 16-channel (DNS-726-4 only) recording software can connect to multiple NVRs and manage them as a group. The DViewCam NVR software provides a total solution for high quality remote monitoring with reliable network functionality.

Features

Comprehensive IP Surveillance Solution

- **Total Solution:** The D-Link NVR is a standalone SATA RAID network video recorder capable of 24/7 recording without a PC. The NVR can manage multiple network cameras, providing direct access to view live video and play recorded data through the Internet from anywhere anytime. The device itself is compact in size and incorporates a physical security lock.
- **Easy to Use:** A user-friendly GUI simplifies network and camera setup, allowing users to easily access multiple cameras for viewing, recording, playback, and configuration.
- **Centralized Interface for Configuration:** NVR provides a flexible and economic alternative to manage and configure multiple IP cameras on a centralized web interface.
- **Megapixel Resolution Support:** The major advantage of digital over analog video is its higher resolution support. The NVR supports high resolution megapixel recording for vivid video with high clarity.

Complete Network Functionality

- **PPPoE Support:** The D-Link NVR utilizes ADSL services. It can connect to the Internet via an ADSL modem over Ethernet.
- **DDNS Support:** Dynamic DNS is a solution for users without a fixed IP address. With DDNS service, users can connect to the NVR from the Internet using an easy-to-remember domain name.
- **NTP Support:** Maintaining an accurate record of time is essential if recorded data is to be used as evidence. To ensure that the time recording is always accurate, the NVR can update the system clock from an Internet server using the Network Time Protocol (NTP).
- **DHCP Client:** The NVR can acquire an IP address from a DHCP server, making it easy to locate during installation.

Fully Functional Recording

1. **Flexible Recording Schedule:** Once cameras have been set up, a highly configurable scheduling system allows for continuous recording or recording during specifically allotted time frames. Each camera can be set to record independently at preset intervals. The NVR also provides event recording based on specific triggers.
2. **Recording Automatic Overwrite:** The NVR can be configured to overwrite the oldest data automatically when Hard Disk space runs out, allowing for continuous and uninterrupted recording. Users can specify the number of days the recording should be kept (within the limits of the Hard Disk capacity). For example, if the NVR has the capacity to store 7 days of recording, using the overwrite option, the NVR will record the 8th day and delete the 1st day.
3. **Recording Stop Alert:** The NVR also provides the option to stop recording when the Hard Disk is full. Should the disk reach capacity, a notification can be sent via E-mail or to an external device such as an audible alarm or LED display.

Comprehensive Data and Hardware Security

1. **Secure Data:** RAID 1 duplicates the recordings database onto two separate drives. In the event of an Hard Disk failure, data integrity is maintained on the secondary Hard Disk.
2. **Auto Boot after Power Recovery:** The NVR will boot up automatically once the power is recovered after a power outage.
3. **Access List Control:** User can specify safe and blocked IP addresses to filter the external connections; this feature increases data security.
4. **Physical Security:** NVR enclosure is compact and easy to conceal in a secure remote location. A front panel lock protects the Hard Disk and a rear panel lock can be used to secure the NVR with a cable.
5. **Multiple User Privilege Control:** Administrators may also choose access privileges for users by specifying the cameras they may have access to live view, playback, audio, and PTZ functions.
6. **UPS Status Monitor:** A UPS can be used as emergency power supply for the NVR. The UPS uses a USB interface to notify the NVR to perform a proper shutdown before battery power runs out.
7. **Backup Recording Data:** Recorded data is stored in a secure database. This recorded data can be backed up to additional storage locations periodically or whenever needed.

Powerful Event Management

1. **Camera Status:** The camera status page will show connection, recording, frame rate and bit rate information of each camera. Meanwhile, the estimated available recording time is also displayed for quick reference.
2. **Flexible Event Management:** Event setup is another key configuration of the NVR. The NVR can monitor all of the camera triggers from motion detection or digital input interface(only DNS-726-4 support DI/DO). One of the most powerful functions is notification application. The NVR centrally controls the digital output, E-mail and recording of all the connected cameras. For example, if camera 1 detects motion, the NVR can trigger camera 2 to record, camera 3 to output a light.
3. **Event Log:** With the simple event log, the log pages are organized by date for easy look up.
4. **Multiple Mailing Lists:** Administrators can setup multiple contact lists for event notification.

Instant Live View

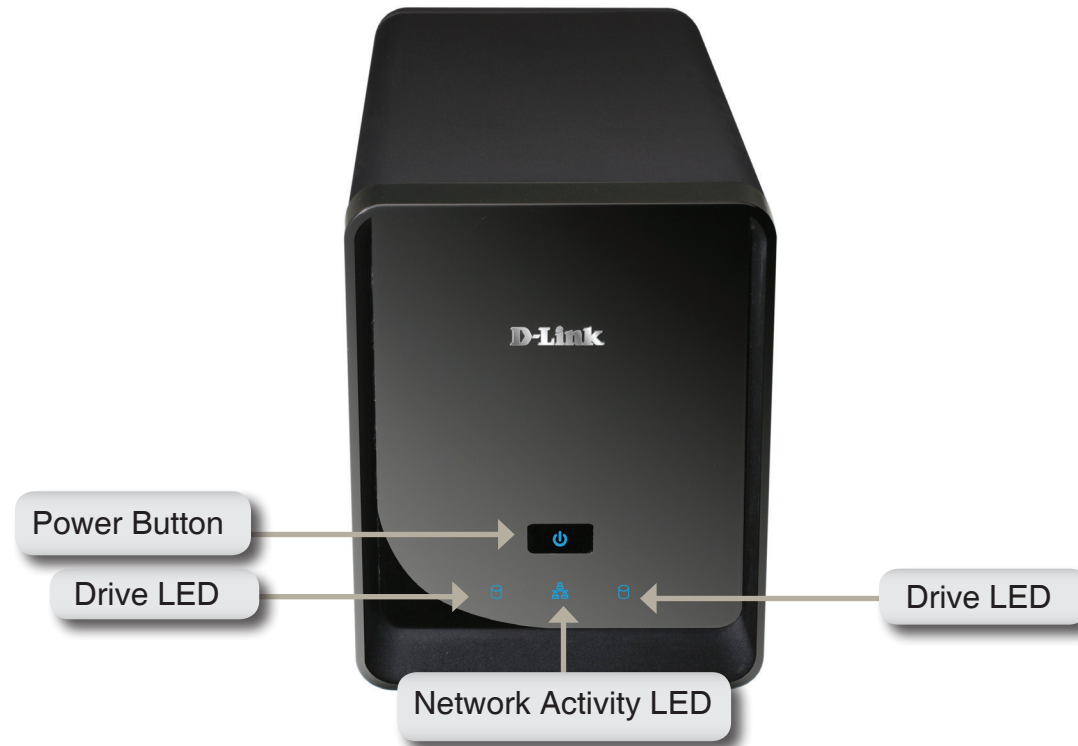
1. **Full Screen:** Enlarge the display to full screen of live view and recorded video.
2. **Drag and Drop GUI:** With multiple channels enabled, users can change channel by drag and drop.
3. **Camera Name and Status on OSD:** Camera name and recording status are displayed via OSD to aid in identification.
4. **PTZ/Audio Support:** Users can control pan/tilt/zoom (PTZ) functions from within the interface using the provided interface buttons or by directly clicking on the video. A single camera may be viewed full-screen with optional two-way audio.
5. **Preset Point:** Presets from within the interface can be set to instantly restore a previously saved view.
6. **Digital Zoom:** Videos can be enlarged by digital zoom.

Intelligent Playback

1. **Smart Search:** (DNS-726-4 only). Searching through recorded data can be tedious and frustrating. However, the NVR's smart search function makes detecting notable events effortless. By selecting a target area on the video and setting search sensitivity, the smart search will traverse the video database based on specified search criteria to locate noteworthy events. Search criteria include options such as motion detection, missing or abandoned object, lost focus or camera occlusion.
2. **Multiple Channel Playback:** Multiple channels can be selected for playback or monitored live.
3. **Quad View:** The DNS-726-4 supports 4 channel simultaneous playback and the DNS-722-4 supports 1 channel playback.
4. **AVI/ASF Outputs:** During playback, if a user uncovers video that needs to be exported, two formats are available. The AVI and ASF format will transpose a timestamp on the exported video.
5. **Playback Speed Control:** Playback speed control allows for up to 16x speed fast forward or reverse play. The step playback option displays one frame at a time.
6. **Video Enhancement:** Users can enhance the recorded video with controls such as brightness, contrast, and sharpness.
7. **Print Picture:** If a printer is connected to the user's PC, the NVR can also print the selected still image.

Hardware Overview

Front View



Power Button:

Press once to power on the NVR. Press and hold the button until the LED begins to blink to power down the NVR.

Drive LEDs:

These LEDs will be solid BLUE when the drives are connected but inactive. The LEDs will blink when the drives are being accessed, formatted or synchronized. They will illuminate AMBER if a drive has failed.

Activity LED:

The LED will be solid BLUE when there is an Ethernet connection. It will blink to indicate LAN traffic.

Bottom View

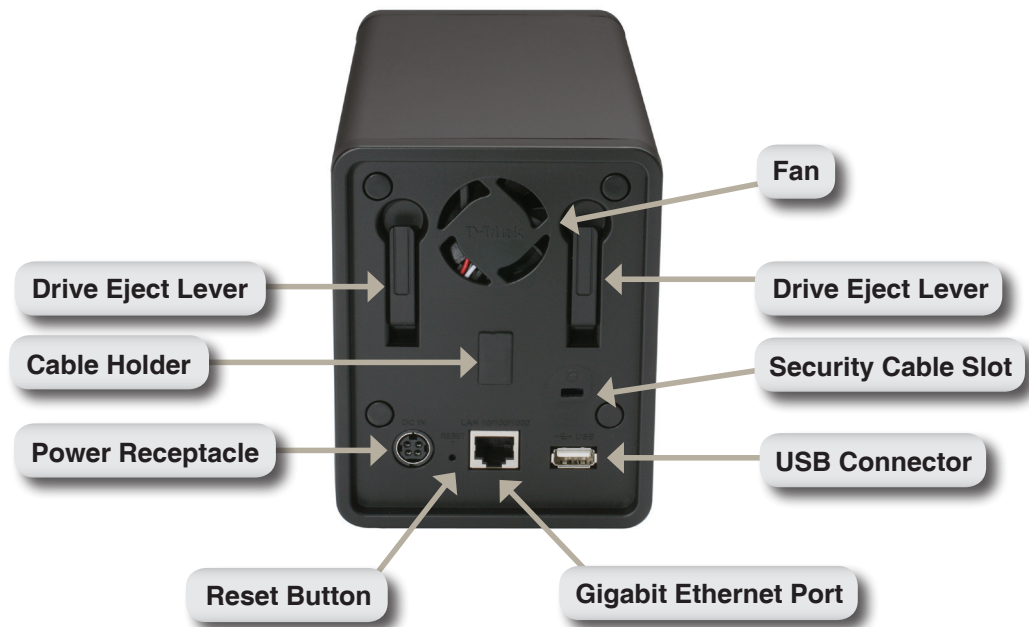


Key lock:

Use this lock to secure the front panel of the NVR.

The panel can be unlocked with the provided key for initial installation.

Rear Panel (Connections)

**Power Receptacle:**

The supplied power adapter connects here.

Gigabit Ethernet Port:

The Gigabit Ethernet port connects the NVR to a network.

Drive Eject Lever:

Use these levers to eject the hard drives. The front panel must be removed before ejecting the drives. Make sure to reset the ejector before installing the new hard drive.

Reset Button:

A pinhole button located beside the Ethernet socket is used to reset the system or restore the factory default settings. To reset, simply press and hold the button until the power LED flashes.

USB Connector:

A UPS can be used as an emergency power supply for the NVR. The UPS can use the USB interface to notify the NVR to perform a proper shutdown before battery power runs out.

Security Cable Slot:

An external lock can be affixed to this slot to prevent theft.

Fan:

The NVR will adjust the system temperature automatically by turning the fan on/off.

Cable Holder:

Holds the power cable to ensure a safe operating environment.

Note: After resetting the unit, you will still be able to access the recorded data on your hard drives.

Hardware Installation

Install New Hard Disk Drive

Install the Hard Drives:

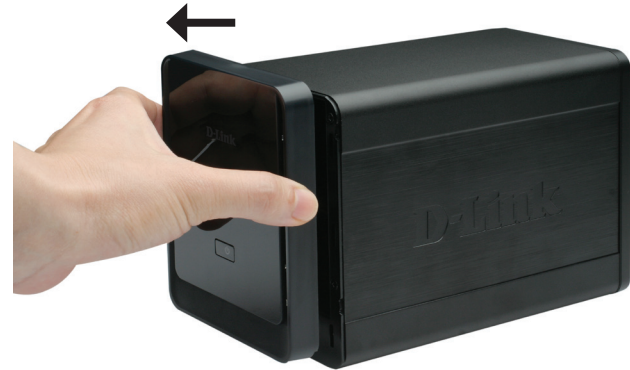
1. Please install at least one 3.5" SATA hard drive before turning on the NVR. Use the key to unlock the faceplate from the bottom of the NVR.



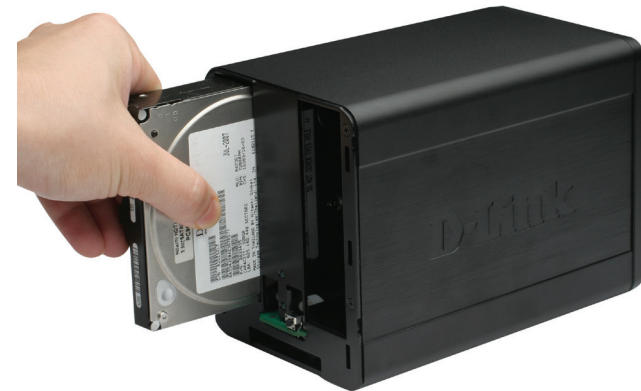
2. Slide the faceplate up until it unlatches from the device.



3. Once the faceplate is unlatched, pull it off the device, exposing the drive bays.



4. Insert a 3.5" SATA hard drive into an available drive bay. Make sure to align the drive connector to the SATA connector on the bottom edge inside the drive bay of the NVR. Gently push the drive in until it connects. When a drive is inserted properly, you will feel it "seat" into the connector. Some hard drives that are thin or oddly shaped may need to be guided carefully into position. If a drive is not properly seated, the LED will not illuminate once the device has been powered on.



Optional: When installing an optional second Hard Disk, please repeat Step 4. To avoid data incompatibility in RAID 1 operation, use identical SATA drives from the same manufacturer. Formatted drive capacity for RAID 1 operation is dependant on the Hard Disk with the lowest capacity.

5. Attach the faceplate to the front of the device.



6. Lock the faceplate to secure the Hard Disks.



Connect the Ethernet Cable

Connect an Ethernet cable to the Ethernet port. Connect one end of the Ethernet cable to the NVR. Connect the opposite end of this cable to a Gigabit Ethernet LAN port of a router or a switch, or directly to a computer.



Connect the UPS (Optional)

If you have a Universal Power Supply (UPS) that you would like to use with the NVR, you may connect it before powering the unit on.

1. Connect the USB cable from the UPS to the port on the back of the NVR.
2. Connect the power cable to the UPS. (Ensure that the UPS is plugged in and receiving power.)

Note:
To turn off the NVR, simply push the power button for 5 seconds. The power LED will blink and the NVR will turn off after a moment.

Attach the External Power Supply

Attach the external power supply to the DC power receptacle located on the NVR's rear panel (labeled DC12V) and connect the other end to an AC power outlet.



Turn on the Power and Initialize the Hard Disk

Push the power button at the front panel. The LED on the NVR will begin to blink. When you have a proper connection, wait about 60 seconds, the NVR power LED will stay steady and the Hard Disk and network LEDs will begin to blink. The NVR will initialize the Hard Disk to default settings. To change Hard Disk settings, please visit the SETUP page in the web-based configuration utility.

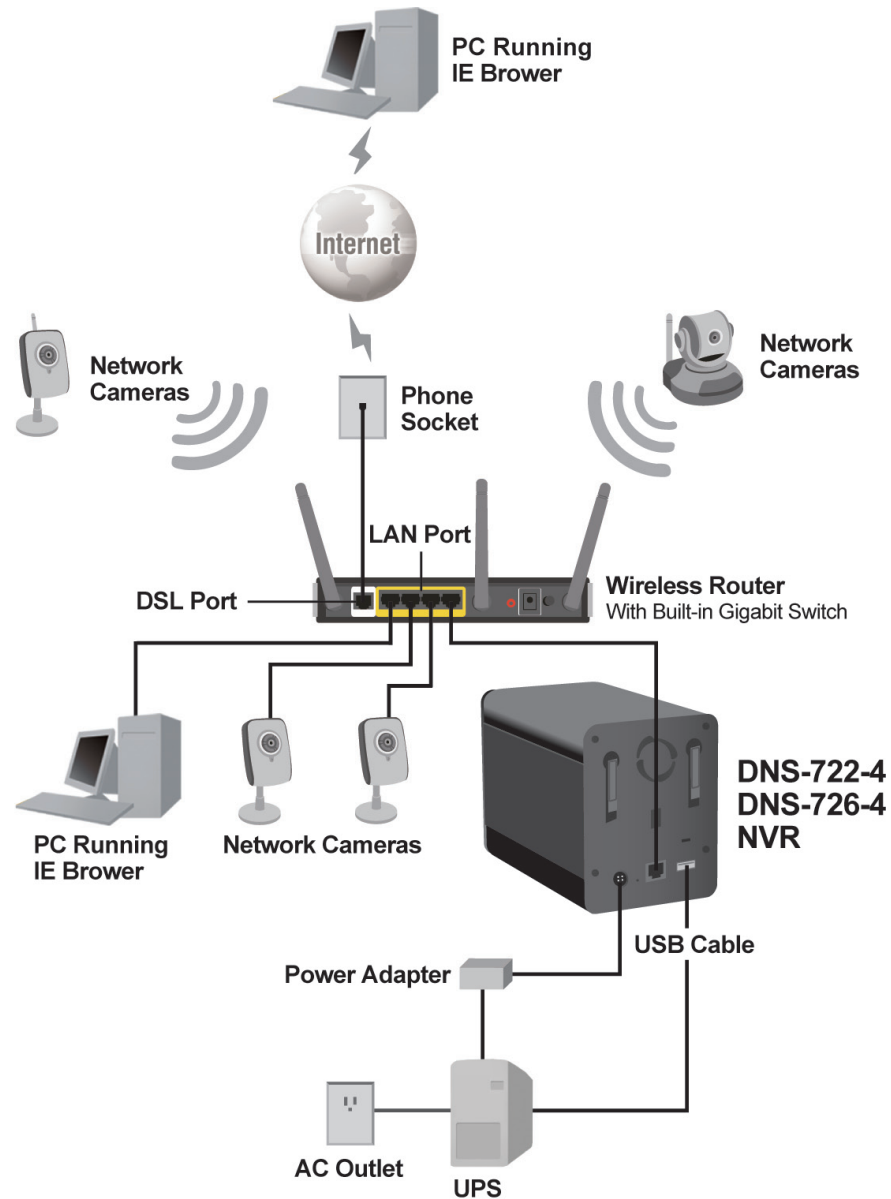


Supported Cameras

DNS-722-4: Supports all D-Link network cameras. Includes support for auto-discovery, and up to 1.3 megapixel resolution.

DNS-726-4: Supports known-brand network cameras including D-Link, Axis, Panasonic, Sony, Mobotix, Arecont, IQinVision, Cisco and ACTi. Specific feature support depends on software.

Connecting Your NVR to the Network Network Setup



Configuration

Getting Started

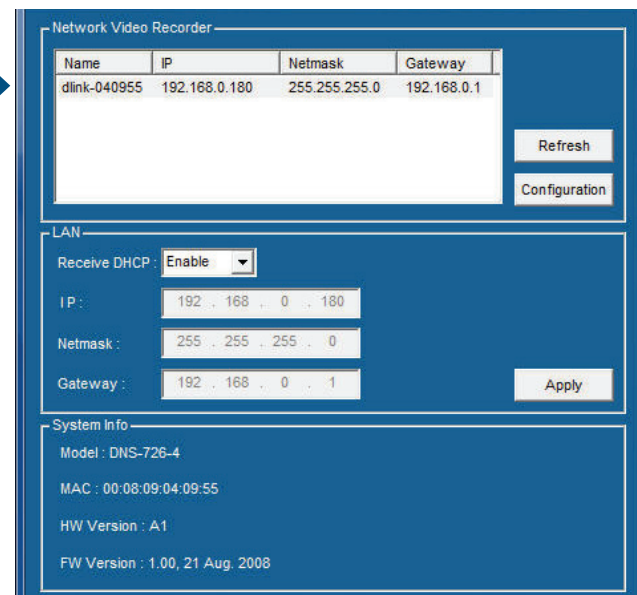
Step 1: Make sure the NVR is connected to a network via a router or a switch, or directly connected to a PC.

Step 2: Turn on the computer and insert the D-Link DNS-722-4/DNS-726-4 Autorun CD into the CD-ROM drive. The following step-by-step instructions appear when using Windows Vista operating system. The steps and screens are similar for other Windows operating systems.

Click **NVR Search Utility**.



Highlight an available NVR and click **Configuration** to access the web-based utility.



NVR Search Utility

When the NVR is first powered on, during the initial boot sequence, it will wait to be assigned an IP address via DHCP. If it does not receive a DHCP assigned IP address, by default it will have a self-assigned IP address of 192.168.0.32. It is recommended to use the included **D-Link NVR Search Utility** when accessing and configuring the NVR for the first time. If you would like to change the IP address before logging in or if you are unable to connect to the NVR IP address, you can use the **NVR Search Utility** provided on the product CD to locate the device on your network and make any necessary changes.

Network Video Recorder: The **NVR Search Utility** displays the available NVR devices on the network.

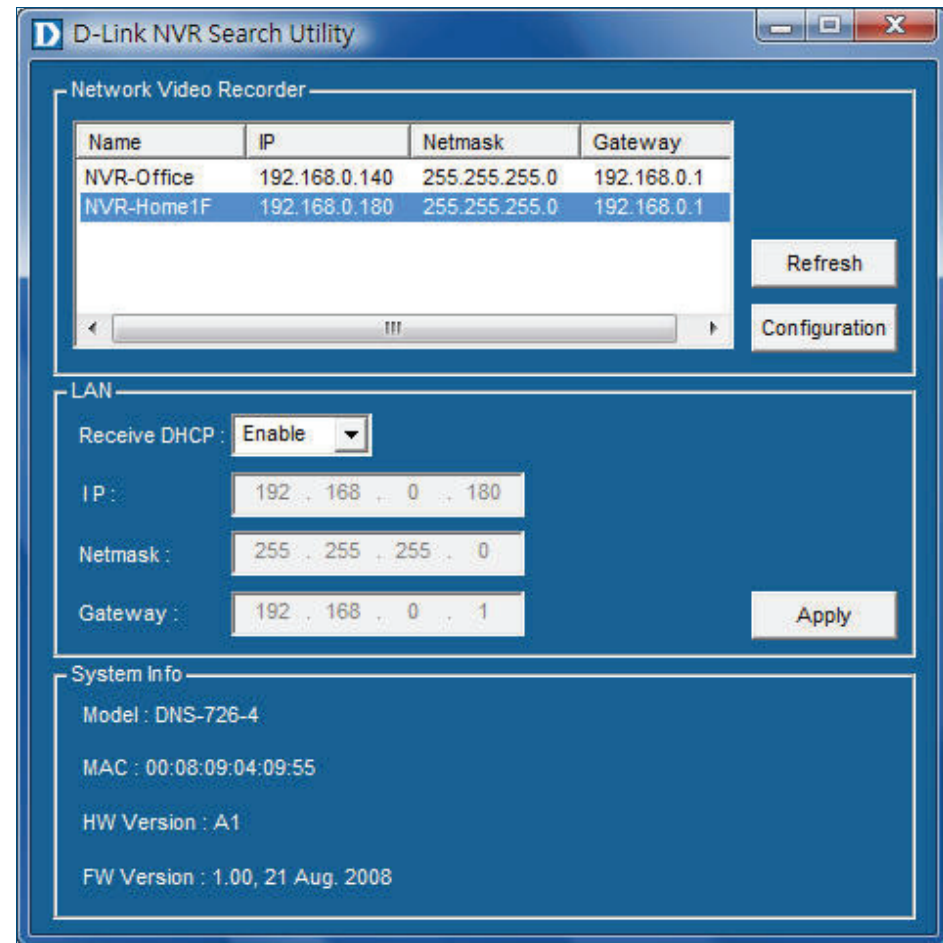
Refresh: Refresh the device list.

Configuration: Click the **Configuration** button to open a web browser for viewing, playback and configuration. Double-clicking on the name or IP of an NVR will also open a web browser.

LAN: Configure the LAN Settings for the NVR here.

Apply: Click **Apply** to save and activate changes to the LAN Settings.

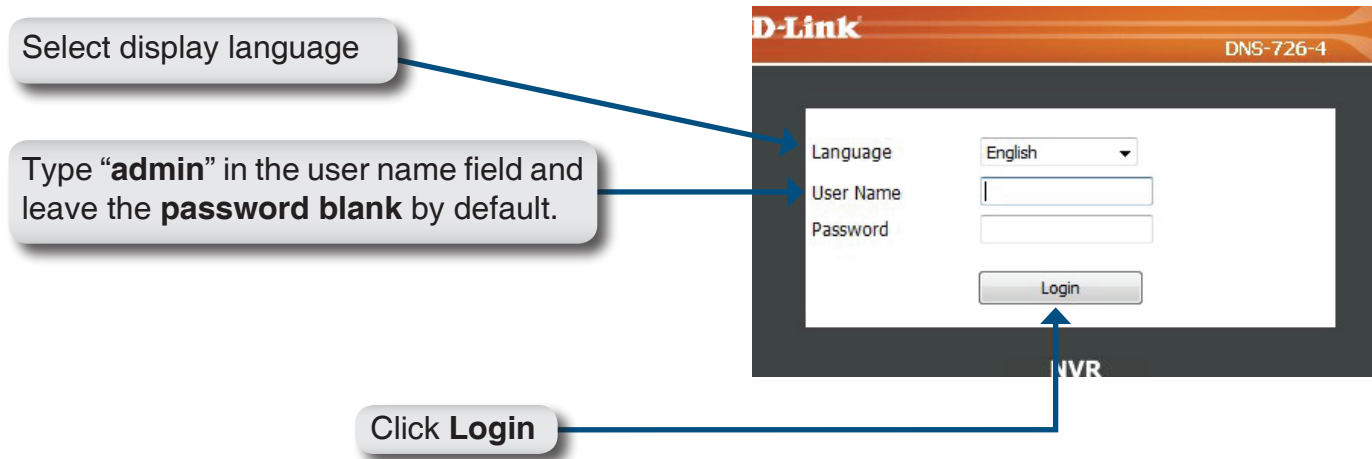
System Info: The system information for the selected NVR is displayed here.



Login

This section will show you how to configure your new D-Link NVR using the Web-based Configuration Utility. To access the configuration utility, click the NVR name or IP on the **NVR Search Utility** or manually open a web-browser (Internet Explorer only) and enter the IP address of your NVR.

The Login screen will appear:



When logging into the NVR for the first time, you will be asked to choose a drive configuration type and format the drives. There are four options: **Standard**, **JBOD**, **RAID 0** and **RAID 1**. **Standard** configures each disk as a separate volume, while **JBOD** combines both disks into a single volume. See page 42 for more details on using the RAID configurations.

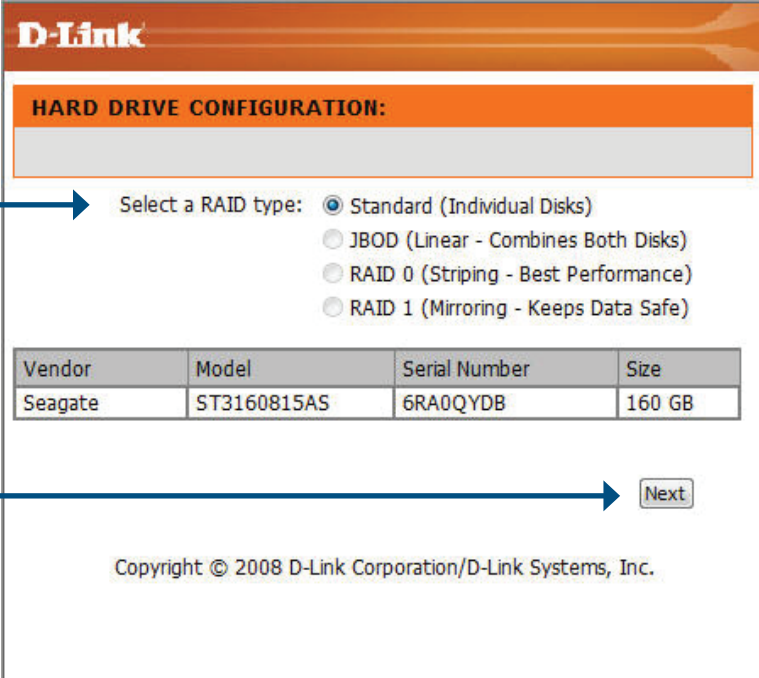
Note: Refer to page 40 for instructions on how to change the password of your admin account.

Configure Hard Drive

When prompted to configure the Hard Drive Settings:

Select the type of hard drive configuration, Standard, JBOD, RAID 0 or RAID 1.

Click **Next** to continue.



D-Link

HARD DRIVE CONFIGURATION:

Select a RAID type:

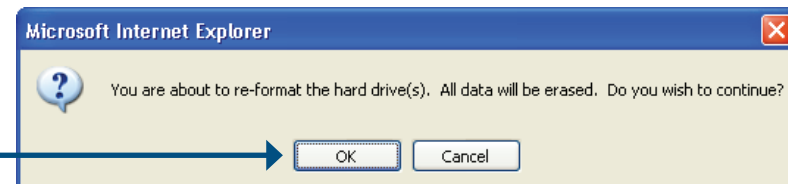
- Standard (Individual Disks)
- JBOD (Linear - Combines Both Disks)
- RAID 0 (Striping - Best Performance)
- RAID 1 (Mirroring - Keeps Data Safe)

Vendor	Model	Serial Number	Size
Seagate	ST3160815AS	6RA0QYDB	160 GB

Next

Copyright © 2008 D-Link Corporation/D-Link Systems, Inc.

A warning message appears informing you that your drives will be formatted and all data will be erased. Click **OK** to continue.



When formatting of the drive completes, the NVR will prompt the user to restart. A restart countdown screen will appear, and when the restart is complete, the login screen will appear:

Press **Restart** to restart the NVR.

Volume Name	File System	Format Result
Volume_1	EXT2	SUCCESS
Volume_2	EXT2	SUCCESS

Restart

Type **admin** for the username and leave the password field blank.

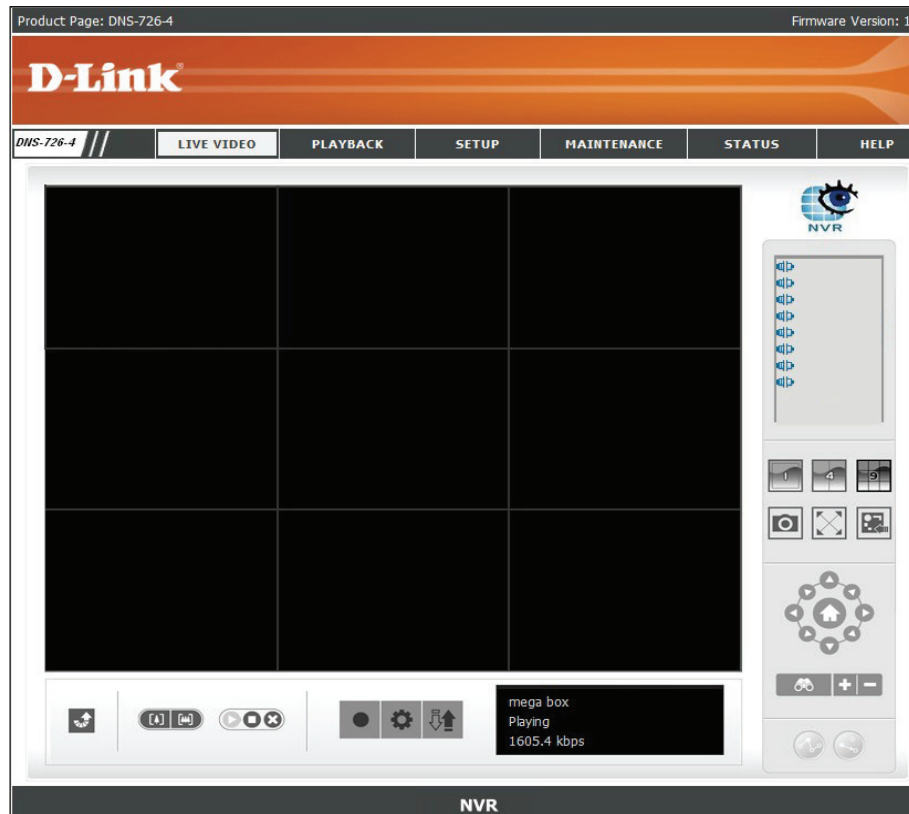
Click **Login**

Language: English
User Name:
Password:
Login

NVR

Note: After logging in to the NVR for the first time it is recommended to add a password to the admin account. (See page 40 for details.)

After login, you will be redirected to the NVR web UI:



Web UI

The main categories for configuration are located on the menu tabs at the top of the page. These categories include:

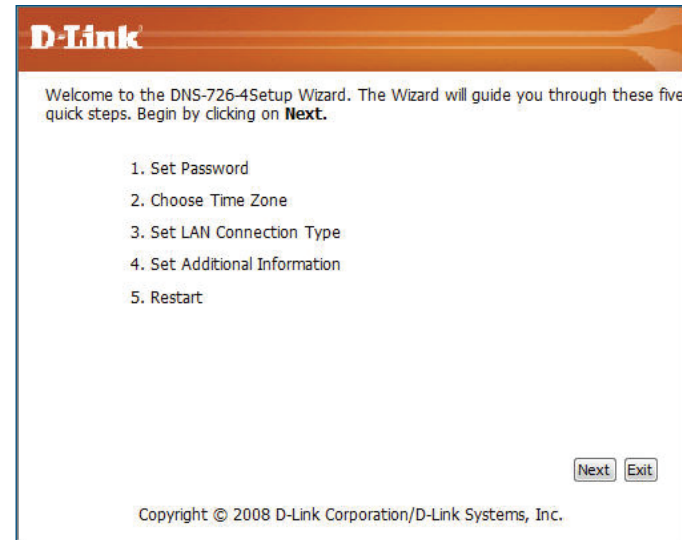
- **LIVE VIDEO** - Shows the live video of network cameras and controls PTZ functions.
- **PLAYBACK** - Displays recorded video and exports snapshots or video.
- **SETUP** - Contains the DNS-722-4/DNS-726-4 setup wizard, as well as the LAN configuration settings, camera search, camera settings, recording schedule, auto backup, event settings, time and system settings, and device settings.
- **MAINTENANCE** - Contains the Administrator account configuration options, Hard Disk management options and RAID configuration options. System configuration, backup, and restore functions are also available.
- **STATUS** - Contains system, NVR, and event logs.

These pages and their configuration options will be discussed in detail in the following pages of this manual.

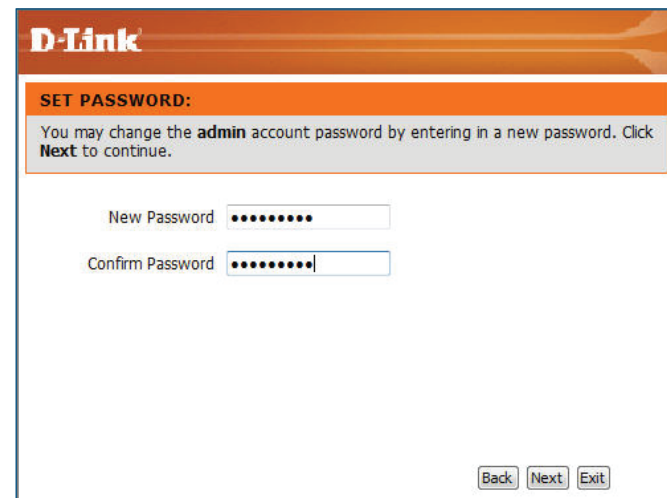
Setup Wizard

The NVR has a setup Wizard that allows you to quickly configure some of the basic device settings.

When running the NVR setup wizard, the welcome screen details the five steps of the wizard. Click **Next** to continue.



It is recommended you set an admin password here. Enter the new password and re-enter it for confirmation. Click **Next** to continue.



Set the appropriate Time Zone and click **Next** to continue.

D-Link

CHOOSE TIME ZONE:

Select the appropriate time zone for your location and click **Next** to continue.

Time Zone

(GMT +08:00) Beijing, Chongqing, Hong Kong, Taipei

Back Next Exit

It is recommended to assign your NVR a **Static IP** address. Enter an available IP address, the subnet mask of your network, the Gateway IP address (usually the IP address of your router) and the IP address of your DNS Server(s). Click **Next** to continue.

Note: The IP address(es) of your NVR and camera(s) must be in the same network.

D-Link

SELECT LAN CONNECTION TYPE:

Select your connection type and fill out the IP information if necessary. Click **Next** to continue.

DHCP Client

Static IP

IP Address 192.168.0.180

Subnet Mask 255.255.255.0

Gateway IP Address 192.168.0.1

DNS1 192.168.0.1

DNS2

Back Next Exit

Enter a name for the NVR, or leave the default values and click **Next** to continue.

The screenshot shows the 'SET ADDITIONAL INFORMATION' screen of the D-Link setup wizard. At the top is the D-Link logo. Below it, the title 'SET ADDITIONAL INFORMATION :' is displayed in an orange bar. The main text reads: 'Enter your Name for the DNS-726-4 if necessary. Otherwise you may accept the default values and click **Next** to continue.' There is a text input field labeled 'Name' containing the text 'NVR-Home1F'. At the bottom right, there are three buttons: 'Back', 'Next', and 'Exit'.

When the wizard completes, click **Back** to go back and make changes or click **Restart** to restart the NVR and save the configuration.

While the NVR is restarting, a countdown screen will appear.

The screenshot shows the 'SETUP COMPLETED' screen of the D-Link setup wizard. At the top is the D-Link logo. Below it, the title 'SETUP COMPLETED :' is displayed in an orange bar. The main text reads: 'The Setup Wizard is complete. Click **Back** to make any changes. Click **Restart** to save the current settings and restart the DNS-726-4.' At the bottom right, there are three buttons: 'Back', 'Restart', and 'Exit'.

When the login prompt appears, login using the new administrator password.

A screenshot of the D-Link DNS-726-4 NVR login page. The page has an orange header with the D-Link logo on the left and the model number 'DNS-726-4' on the right. Below the header is a dark grey frame containing a white login form. The form has three input fields: 'Language' with a dropdown menu set to 'English', 'User Name' with an empty text box, and 'Password' with an empty text box. Below these fields is a 'Login' button. At the bottom of the dark grey frame, the text 'NVR' is visible.

Language	English ▾
User Name	<input type="text"/>
Password	<input type="password"/>
	<input type="button" value="Login"/>

Configuring the NVR

BASIC OPERATION

You may run the wizard to configure the setup for your NVR. There are basic and advanced operations. You must first configure the basic operations in order to activate and utilize the features of our NVR.

Step 1: **Camera Search** - Search for a network camera using UPnP and add it to the NVR camera list.

Step 2: **Recording Schedule** - Configure a camera for recording and create a detailed schedule. Users can also simply choose **Always Record** and select connected cameras.

After completing the above settings, the NVR will be fully functional.

ADVANCED OPERATION

Step 1: **E-mail Setup** - Configure the E-mail address and messages for event notification.

Step 2: **Event Setup** - Configure event options with various combinations. Events can be triggered in the event of camera motion detection, digital input, or full hard disk warning. An event action can be configured to send E-mail or trigger camera digital output.

Step 3: **Dynamic DNS** - Configure DDNS to access your NVR using a domain name without the need to track the IP address of your NVR.

The screenshot displays the D-Link NVR web interface. At the top, it shows 'Product Page: DNS-726-4' and 'Firmware Version: 1.10'. The D-Link logo is prominently displayed. Below the logo is a navigation menu with tabs for 'LIVE VIDEO', 'PLAYBACK', 'SETUP', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'SETUP' tab is selected, and a sidebar on the left lists various configuration options, with 'Wizard' highlighted. The main content area is titled 'WIZARD' and contains the following text:

The NVR provides a convenient and safe location on the network for recording video and audio data streaming from network cameras. The Setup Wizard will guide you through configuring the basic settings of your device.

Run Wizard

BASIC OPERATION

Please setup following steps of basic operation of NVR:

Step 1: [Camera Search](#) - Search the network camera by UPnP and add to NVR camera list.

Step 2: [Recording Schedule](#) - Setup recording camera and detail schedule. User can simply choose Always Record and select connected cameras.

With above settings, NVR will work normally.

ADVANCE OPERATION

Step 1: [E-mail Setup](#) - Setup the e-mail address and message for event notification.

Step 2: [Event Setup](#) - Setup event trigger while hard disk is full. Also setup the email contact list.

Step 3: [Dynamic DNS](#) - Setup DDNS for easier internet connection.

On the right side, there is a 'Helpful Hints..' section with the following text:

These basic settings can be configured individually in the following sections.

The NVR Setup wizard will guide you through the setup in five quick steps.

Please find detail function description from the manual.

Network Setup

The Network settings for your NVR can be configured on this page.

DHCP: Select this connection if you have a DHCP server running on your network and would like a dynamic IP address to be automatically updated to your NVR.

Static IP: You may obtain a static or fixed IP address and other network information from your network administrator for your NVR. A static IP address will simplify access to your NVR in the future.

IP Address: The fixed IP address.

Subnet Mask: The default value “255.255.255.0” is used to determine if the destination is in the same subnet.

Gateway IP Address: The gateway forwards frames to destinations in a different subnet. Invalid gateway settings may cause the failure of transmissions to a different subnet.

DNS1: Primary domain name server that translates names to IP addresses.

DNS2: Secondary domain name server to backup the primary one.

PPPoE Settings: Enable this setting if your ISP (DSL service) is using PPPoE. You may already have a Username and Password provided by your ISP, or you may need to contact your ISP. The connection status will be determined automatically by the system.

DHCP server: Enable or disable the DHCP server. If your network doesn't have DHCP server, enable NVR DHCP server for easier local network setup.

Product Page: DNS-726-4 Firmware Version: 1.1

D-Link

DNS-726-4 // **LIVE VIDEO** **PLAYBACK** **SETUP** **MAINTENANCE** **STATUS** **HELP**

Wizard
 Network Setup
 Camera Search
 Camera Setup
 Audio and Video
 Live & Playback Setup
 Recording Schedule
 Auto-Backup Setup
 Event Setup
 E-Mail Setup
 Dynamic DNS
 Time and Date Setup
 Logout

NETWORK SETUP

Select your connection type and enter the IP information if necessary.

LAN SETTINGS

DHCP Client
 Static IP

IP Address
 Subnet Mask
 Gateway IP Address
 DNS1
 DNS2

PPPoE SETTINGS

PPPoE Enable Disable
 User Name e.g. name@isp.com
 Password
 Connection Status **Not Available.**

DHCP SERVER SETTINGS

Helpful Hints..

Points to remember while setting up a network connection:

- A static IP address is recommended for a network connection for easy management. The PPPoE connection is also useful for network setup.
- Any changes in the **Network Settings** will restart the system.

Camera Search

Step 1: Click the **Search** button to search for UPnP cameras. The system will list all the available cameras at this moment. Click the “+” icon to add this camera into your camera list.

Step 2: After clicking the icon, the camera setting page will pop-up. Click on the camera that you want to add.

Step 3: Enter the camera name, user name, and password of the camera.

Note

- Some cameras will limit the login authority to the administrator only.
- To add cameras without the UPnP function, please go to the Camera Setup menu and enter the IP address manually.
- You may not be able to see all the cameras on your first search. It may take a moment for the devices to respond to the UPnP request. Please click **Search** again if cameras are not immediately displayed.

Step 4: Click the **Add** button to add the selected camera.

Step 5: After clicking **Add**, the updated information will be displayed in the Camera List.

Step 6: Repeat step 2 through 5 to add other cameras into your list.

Product Page: DNS-726-4 Firmware Version: 1.1.0

D-Link

DNS-726-4 // LIVE VIDEO PLAYBACK SETUP MAINTENANCE STATUS HELP

Wizard
Network Setup
Camera Search
Camera Setup
Audio and Video
Live & Playback Setup
Recording Schedule
Auto-Backup Setup
Event Setup
E-Mail Setup
Dynamic DNS
Time and Date Setup
Logout

CAMERA SEARCH
Click **Search** to list out all the UPnP cameras.

CAMERA LIST

Index	Name	Address	Port	Vendor	Model
1	Megapixel PoE	172.17.5.95	80	D-Link	DCS-3110
2	H.264 PTZ	172.17.5.125	80	D-Link	DCS-5605
3	WDR	172.17.5.130	80	D-Link	DCS-3710
4	Megapixel PoE	172.17.5.151	80	Axis	211M
5			80	-- none --	-- none --
6			80	-- none --	-- none --
7			80	-- none --	-- none --
8			80	-- none --	-- none --

UPNP SEARCH
Search Searching...

IP Addr	Vendor	Model	MAC
172.17.5.107	D-Link	DCS-3110	00-1C-F0-78-83-7E
172.17.5.125	D-Link	DCS-5605	1C-AF-F7-00-86-A4

Helpful Hints..
To add a camera:
1. Click + to add a camera into the list. The camera setting page appears.
2. Select the camera you want to add.
3. Enter the camera name, user name and password details. Please input user name ("admin" is the user name for every D-link's cameras) and password in order to access and configure the cameras using the NVR's UI.
Notes
- Some cameras will limit the login authority to the administrator only.
- To add cameras without the UPnP function, please go to **Camera Setup** menu and enter the IP address manually.
- You may not be able to see all the cameras on your first search. It takes time

CAMERA SETTINGS :

Add IP Camera

Camera Name PT camera

IP Address 192.168.0.143 Port 80

User Name admin Password

Add to channel 2 Protocol TCP

Vendor D-Link Model DCS-5220

Add Cancel

Current Camera Settings

Index	Camera Name	IP Addr	Vendor	Model
1	Megapixel Camera	192.168.0.131	D-Link	DCS-3110
2			-- none --	-- none --
3			-- none --	-- none --
4			-- none --	-- none --

Camera Setup

Step 1: Select the camera which you would like to modify.

Step 2: Modify its information on the top of the page.

Step 3: Click the **Save Settings** button.

Step 4: If you would like to replace a camera, select that camera, modify its address, port, user name, and password, and then click the **Save Settings** button.

Camera Channel: Select the number of analog cameras supported by one video server from the list.

Vendor: Displays the manufacturer's name.

Auto Detection: If you have already input the camera IP, you may simply click this button to automatically detect camera information (such as the channel, protocol, vendor, and model number).

Note
Some cameras will limit the login authority to the administrator only.

Product Page: DNS-726-4 Firmware Version: 1.10

D-Link

Product Page: DNS-726-4 Firmware Version: 1.10

Navigation: LIVE VIDEO | PLAYBACK | **SETUP** | MAINTENANCE | STATUS | HELP

Left Menu: Wizard | Network Setup | Camera Search | **Camera Setup** | Audio and Video | Live & Playback Setup | Recording Schedule | Auto-Backup Setup | Event Setup | E-Mail Setup | Dynamic DNS | Time and Date Setup | Logout

CAMERA SETUP

To manually add the camera, enter the IP address of the camera.

Buttons: Save Settings | Don't Save Settings

CAMERA SETUP

Index: **Camera 1**

Name: Megapixel PoE camera

Address: 172.17.5.107 | Port: 80

Administrator Name: admin | Password: []

Camera Channel: 1 | Protocol: TCP UDP HTTP

Vendor: D-Link | Model: DCS-3110

Buttons: Auto Detection | Clear

CAMERA LIST

Index	Name	Address	Port	Vendor	Model
1	Megapixel PoE	172.17.5.107	80	D-Link	DCS-3110
2	H.264 PTZ	172.17.5.125	80	D-Link	DCS-5605
3	WDR	172.17.5.130	80	D-Link	DCS-3710
4	Megapixel PoE	172.17.5.151	80	Axis	211M
5			80	-- none --	-- none --
6			80	-- none --	-- none --

Helpful Hints..

The following list briefly describes the **Camera Setup** menu items:

Camera Channel: Select the number of analog cameras supported by one video server from the list.

Vendor: Displays the manufacturer's name.

Auto Detection: Click to automatically detect all the information (such as camera channel, protocol used, vendor, model number) of the camera.

Note:
Some cameras will limit the login authority to the administrator only.

Audio and Video

This section will allow you to configure and modify the audio and video parameters for each camera.

Step 1: Select the camera which you would like to modify in the camera list.

Step 2: NVR will display the parameters for the selected camera. You can modify the information at this page.

Camera Name: The name of the camera.

Video Format: Select the video format the camera supports.

Frame rate: Select the frame rate.

Resolution: Select the resolution.

Quality: Select the image quality.

Audio: Check the **Enable Audio** option for live view and recording

Go to Web: Click to connect to the web page of the selected network camera for advanced setup. For example, motion detection should be configured via the camera web interface to enable the NVR to receive the trigger message.

The screenshot shows the D-Link NVR web interface. At the top, it displays 'Product Page: DNS-726-4' and 'Firmware Version: 1.10'. The D-Link logo is prominently featured. Below the logo is a navigation menu with tabs for 'LIVE VIDEO', 'PLAYBACK', 'SETUP', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'SETUP' tab is selected, and the 'AUDIO AND VIDEO' configuration page is displayed. The page includes a 'Wizard' sidebar on the left with options like 'Network Setup', 'Camera Search', 'Camera Setup', 'Audio and Video', 'Live & Playback Setup', 'Recording Schedule', 'Auto-Backup Setup', 'Event Setup', 'E-Mail Setup', 'Dynamic DNS', 'Time and Date Setup', and 'Logout'. The main content area is titled 'AUDIO AND VIDEO' and contains a message: 'You may wish to modify the parameters in this page or directly go to the camera web site. The NVR will display all the necessary information of the selected camera.' Below this message are 'Save Settings' and 'Don't Save Settings' buttons. The 'CAMERA PARAMETER' section shows the following settings: Name: H.264 PTZ 10x; Video Format: Motion JPEG, MPEG4, H.264 (selected); Frame Rate: 30; Resolution: 640x480; Quality: Standard; Audio: Enable Audio. The 'CAMERA LIST' section shows a table with columns for Index, Name, Address, Vendor, Model, and Original Web. The table lists six cameras, with the second camera (H.264 PTZ) highlighted in blue. A 'Helpful Hints..' sidebar on the right provides additional information: 'The following list briefly describes the Audio and Video menu items: Video Format: Select the type of format the camera supports. Frame rate: Select the frame rate of the camera. Resolution: Select the resolution of the camera. Quality: Select the image quality of the camera. Audio: Select Enable Audio to view and enable audio recording. Note: The system will automatically adjust the frame rate, based on the maximum frame rate of the camera.'

Step 3: Click the **Save Settings** button.

Note: The system will adjust the frame rate automatically based on the maximum frame rate which that camera can support.

Live and Playback Setup

Port: Enter the live streaming transmission port.

Maximum Connections: Enter the maximum connections for remote access. The maximum number of remote connections is 32.

Port: Enter the playback transmission port.

Maximum Users: Enter the maximum number of users who can access playback functions at the same time. The maximum number of users for the playback server is 8.

Emap: upload your map with camera location to NVR. Max. size 20KBytes of BMP and JPG file.

Allowed / Blocked List: **Allowed List:** IP addresses in this list can always access your NVR.

Blocked List: IP addresses in this list will always be blocked

Product Page: DNS-726-4 Firmware Version: 1.10

D-Link

DNS-726-4 // LIVE VIDEO PLAYBACK SETUP MAINTENANCE STATUS HELP

Wizard
Network Setup
Camera Search
Camera Setup
Audio and Video
Live & Playback Setup
Recording Schedule
Auto-Backup Setup
Event Setup
E-Mail Setup
Dynamic DNS
Time and Date Setup
Logout

LIVE AND PLAYBACK SETUP

For live viewing and playback over the internet, you need to dedicate a port for the streaming server.

Save Settings Don't Save Settings

LIVE STREAMING SERVER

Port: 5150
Maximum Connections: 16

PLAYBACK SERVER

Port: 5160
Maximum Users: 4

E-MAP UPLOAD

File Path:

ALLOWED/BLOCKED LIST

Allowed List Enable
Blocked List Enable

to

Helpful Hints..

If NVR is placed behind a NAT router, open the port on the router for the Live and Playback streaming server. The following list briefly describes the **Live and Playback Setup** menu items:

Maximum Connections: The maximum number of remote connections is 32.

Maximum Users: The maximum number of users for the playback server is 8.

Allowed List: Allows only certain IP Addresses to log in for live view and playback.

Blocked List: IP addresses in this list will always be blocked.

Note
If the maximum number of connections is 16 and if a user connects to 4 cameras, the number of connected users is 4 and not 16.

Note: When setting Maximum Connections in Live Streaming Server settings, 1 connection means that 1 user can connect to 1 camera only. If the maximum number of connections is 16 and if each user connects to 4 cameras, then the maximum number of connected users is 4 and not 16.

Recording Schedule

This section will allow you to configure the recording mode and recording schedule.

Recording Mode: No Record: Turn off recording.

Record by Schedule: Record according to the schedule you can create. Refer to the next page.

Always Record: Check the camera to always record.

Automatic Overwrite: Enable this option to automatically empty disk space when the disk space is full. This will overwrite the earliest recorded video with the latest video one day at a time.

In the event that a volume reaches full capacity during a single day, recording will stop. This ensures that any video from the current day will not be overwritten until the following day.

Store Videos: Set the duration to store recorded video clips. After the duration, the clips will be purged.

Note: The NVR permits a minimum hard disk volume of 2GB.

Product Page: DNS-726-4 Firmware Version: 1.10

D-Link

DNS-726-4 // LIVE VIDEO PLAYBACK SETUP MAINTENANCE STATUS HELP

Wizard
Network Setup
Camera Search
Camera Setup
Audio and Video
Live & Playback Setup
Recording Schedule
Auto-Backup Setup
Event Setup
E-Mail Setup
Dynamic DNS
Time and Date Setup
Logout

RECORDING SCHEDULE

You can set up individual cameras to record at specific times, day or night, one time or each day of the week.

Save Settings Don't Save Settings

RECORDING MODE

No Record
 Record by Schedule

Manual Record: **Disabled**

RECORDING SCHEDULE

Automatic Overwrite Enable
Store Videos Store Videos by Schedule Days

RECORDING SCHEDULE

Camera List	Schedule																
<ul style="list-style-type: none"> Day and night C. Megapixel day & fixed entry cam 18x zoom box WDR dome H.264 WDR camera Outdoor day&night H.264 day & Nig 	<p><input checked="" type="radio"/> Day <input type="radio"/> Week</p> <p>00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24</p> <p>Cam1 Cam2 Cam3 Cam4 Cam5 Cam6 Cam7 Cam8</p> <p>Insert Delete Configure Copy</p> <table border="1"> <thead> <tr> <th>Start Time</th> <th>End Time</th> <th>Record</th> <th>Audio</th> </tr> </thead> <tbody> <tr> <td>00:00</td> <td>09:00</td> <td>Always</td> <td>Disabled</td> </tr> <tr> <td>09:00</td> <td>19:00</td> <td>Event</td> <td>Enabled</td> </tr> <tr> <td>19:00</td> <td>24:00</td> <td>Always</td> <td>Disabled</td> </tr> </tbody> </table>	Start Time	End Time	Record	Audio	00:00	09:00	Always	Disabled	09:00	19:00	Event	Enabled	19:00	24:00	Always	Disabled
Start Time	End Time	Record	Audio														
00:00	09:00	Always	Disabled														
09:00	19:00	Event	Enabled														
19:00	24:00	Always	Disabled														

Helpful Hints...

The following list briefly describes the **Recording Schedule** menu items:

Automatic Overwrite: Select this option to automatically empty disk space when the disk space is full. This will overwrite the earliest recorded video with the latest video one day at a time.

Store Videos by Schedule: Set duration to store recorded video clips. After this, the clips will be purged and cannot be recovered. **Insert:** Insert new schedules.

Delete: Delete the selected schedule.

Configure: Modify the schedule and recording mode setting.

Notes

- The **Always Record** option will start recording immediately.
- When configuring the **Motion Detection** event, ensure to setup the motion detection function in your camera first.
- When changing the motion detection settings of your camera, ensure to disconnect the NVR and then re-connect to update the settings in your NVR.
- When setting up an event, a video motion or digital input can be used to trigger the other cameras. This means that when motion is detected by a camera, it can send out warning signals to the other connected cameras.
- An alternative option is to drag the time bar to change the recording time period. The red bar represents the **Always Record** period.

Set Recording Schedule

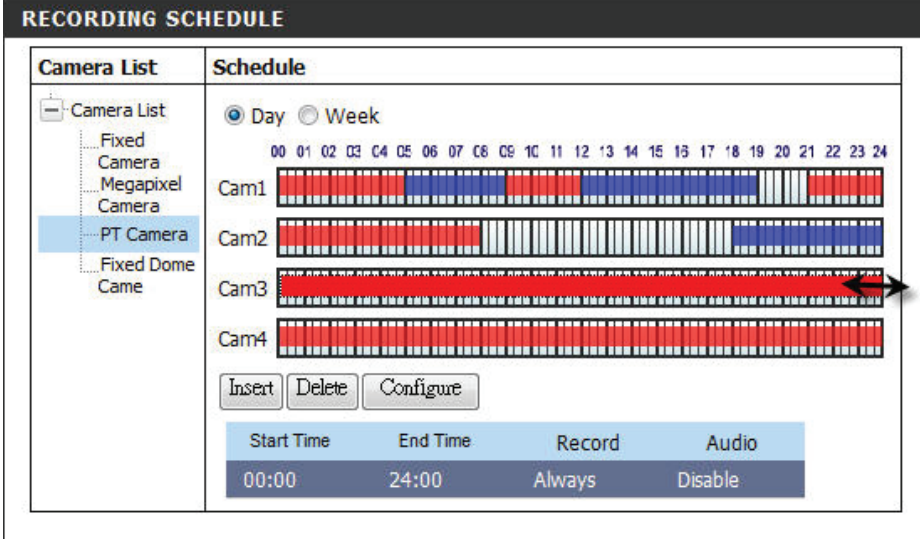
Day: Schedule the cameras to turn the recorder on and off at the same time every day according to your preference.

Week: Schedule the cameras differently for each day of the week.

Insert: Insert new schedules (refer to the next page).

Delete: Delete the selected schedule.

Configure: Modify the schedule and recording mode setting.



Camera List	Schedule								
<ul style="list-style-type: none"> Camera List Fixed Camera Megapixel Camera PT Camera Fixed Dome Came 	<p><input checked="" type="radio"/> Day <input type="radio"/> Week</p> <p>00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24</p> <p>Cam1 [Recording Schedule]</p> <p>Cam2 [Recording Schedule]</p> <p>Cam3 [Recording Schedule] →</p> <p>Cam4 [Recording Schedule]</p> <p>Insert Delete Configure</p> <table border="1"> <thead> <tr> <th>Start Time</th> <th>End Time</th> <th>Record</th> <th>Audio</th> </tr> </thead> <tbody> <tr> <td>00:00</td> <td>24:00</td> <td>Always</td> <td>Disable</td> </tr> </tbody> </table>	Start Time	End Time	Record	Audio	00:00	24:00	Always	Disable
Start Time	End Time	Record	Audio						
00:00	24:00	Always	Disable						

Set Up the Schedule

Step 1: Select the schedule of the camera you want to modify.

Step 2: Click the column at the bottom of the page.

Step 3: The default recording schedule is from 00:00 to 24:00. If you want to modify the time slot, click the Configure button.

Schedule Configuration

Set Recording Schedule Configuration

Step 1: Enter the desired **Start Time** and **End Time**.

Step 2: Enter pre-record period and post-record for event trigger recording.

Step 3: Check the enable audio box to record audio from your camera (if supported).

Step 4: Choose the recording mode and the trigger source.

Step 5: Press **OK** to add this new schedule.

Step 6: If you would like to add another new schedule, click the **Insert** button.

Schedule Configuration

Time
 Start Time: 04 : 40
 End Time: 12 : 00
 Pre-record 5 sec. (Max: 60)
 Post-record 5 sec. (Max: 60)

Audio
 Enable audio

Mode
 Always Record
 Record on Event

Motion
 Motion on Megapixel Camera
 Motion on PT camera
 Motion on Fixed camera

Digital Input
 Input #1 on Megapixel Camera

Ok Cancel

Note

- The **Always Record** option will start recording immediately.
- When configuring the Motion Detection event, be sure to set up the motion detection function on your camera first.
- After changing the motion detection settings of your camera, be sure to disconnect the camera from the NVR and then re-connect it to update all new changes.
- When setting up an event, a video motion or digital input can be used to trigger the other cameras. This means that when motion is detected by a camera, the NVR can send out warning signals to the other connected cameras.
- Alternatively users can drag the time bar to change the recording period. The red bar represents the **Always Record** feature and the blue bar represents the **Event Recording** feature.

*DNS-722-4 does not support "Record on event" function.

Auto-Backup Setup

To backup recorded video to remote server require certain amount of upload bandwidth. It varies with camera numbers and recorded data size.

Auto Backup: Enable or disable the auto backup function.

Daily Backup Time: Begin to backup the recorded data of previous day from this time.

Start Time: Backup the data of recorded video/audio from start time to end time.

Camera:

Only selected camera(s) will be backup.

Note

Important: During uploading data, NVR performance might be affected by network traffic.

If data backup (of the specified period on previous day) is unable to be completed within 24 hours, the new backup schedule will start and the remaining data will be ignored.

Product Page: DNS-726-4
Firmware Version: 1.10

D-Link

DNS-726-4

LIVE VIDEO

PLAYBACK

SETUP

MAINTENANCE

STATUS

HELP

Wizard

Network Setup

Camera Search

Camera Setup

Audio and Video

Live & Playback Setup

Recording Schedule

Auto-Backup Setup

Event Setup

E-Mail Setup

Dynamic DNS

Time and Date Setup

Logout

AUTO-BACKUP SETUP

Backup the recorded data to remote server in a pre-defined daily schedule.
Important: The performance of live view and recording will be impacted during backup.

Save Settings
Don't Save Settings

BACKUP SERVER

Auto Backup Enable

Daily Backup Time :

Start Time :

End Time :

select: all / none

Camera Camera 1 Camera 2 Camera 3 Camera 4
 Camera 5 Camera 6 Camera 7 Camera 8

Helpful Hints..

To backup recorded video to remote server require certain amount of upload bandwidth. It varies with camera numbers and recorded data size.
Daily Backup Time: Begin to backup the recorded data of prior day from this time.
Start Time: Backup the data of recorded video/audio from start time to end time.
Camera: Only selected camera(s) will be backup.
Important: During uploading data, NVR performance might be affected with network traffic.
If it's not able to backup data of prior day within 24 hours, new backup schedule will start and ignore the rest of data.

BACKUP SERVER

FTP Site

FTP Port

User Name

Password

Backup to Remote Folder

Event Setup

This option may be configured and applied using DNS-726-4.

Step 1: Choose the camera, and then select one of the three events.

Connection lost: Action is triggered if the connection between the camera and NVR is lost.

Motion Detected: All motions from camera will trigger the action.

Input: External input will trigger the action.

Note

Before setting the event **Motion from Camera**, you must first configure the motion detection function on your camera

Step 2: Click the **Add** button to setup the actions of the event.

Output: If the event occurs, the system will send a signal to other connected devices.

E-mail: If the event occurs, the system will send an E-mail to the pre-set contacts.

Step 3: Click the action, and then click the **Configure** button to modify the details of that action if necessary.

Step 4: Repeat step 2 through 3 to add more actions.

Step 5: Repeat step 1 through 3 to set more cameras.

Note:

- In addition, you can also set the event notification for when the hard disk is full.
- The screen will display the event information after you have configured the settings.

The screenshot shows the D-Link DNS-726-4 web interface. The top navigation bar includes 'LIVE VIDEO', 'PLAYBACK', 'SETUP', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'SETUP' menu is expanded, showing options like 'Wizard', 'Network Setup', 'Camera Search', 'Camera Setup', 'Audio and Video', 'Live & Playback Setup', 'Recording Schedule', 'Auto-Backup Setup', 'Event Setup', 'E-Mail Setup', 'Dynamic DNS', 'Time and Date Setup', and 'Logout'. The 'Event Setup' screen is active, displaying instructions to select a camera from the 'Camera List' and choose one of three events: 'Connection Lost', 'Motion Detected', or 'External Input'. Below the instructions are 'Save Settings' and 'Don't Save Settings' buttons. The 'EVENT ACTION MANAGER' section shows a tree view of the 'Camera List' with 'Megapixel PoE c' selected. Underneath, the 'Event & Action' table is visible, showing actions like 'Email', 'E-Map', and 'Output' with their respective options.

Action	Options
Email	opoperator
E-Map	Pop-up E-Map
Output	Trigger: Output#0 on Megapixel PoE c

Helpful Hints..

Connection Lost: When a connection between the camera and NVR is lost, the NVR triggers an action.

Motion Detected: When video motion is detected, the camera triggers an action.

Input: Any external input can trigger an action. **Output:** When an event occurs, the system sends out an output signal to other connected devices.

E-Mail: When an event occurs, the system will send e-mail notifications. Ensure to add an e-mail address first.

Notes

- When configuring the **Motion Detected** event, ensure to setup the motion detection function in your camera first.
- You can also set up an event action, when the hard disk space is full.

E-mail Setup

This section allows you to configure the sender's email account and the contact or receiver's list.

Server Address: SMTP (Simple Mail Transport Protocol) server IP address.

Sender: Sender email address.

Subject: The E-mail subject.

Body of Message: The E-mail content.

SMTP Authentication: Provide the user name and password to the SMTP server for identification before sending E-mail.

User Name: Input the SMTP server login user name.

Password: Input the SMTP server login user password.

Add Contacts

Step 1: Insert the name of a new contact.

Step 2: Insert the E-mail address of this new contact.

Step 3: Click the **Add Contact** button.

Step 4: Click the **Save Settings** button to save the new contact list.

Product Page: DNS-726-4 Firmware Version: 1.10

D-Link

DNS-726-4 // LIVE VIDEO | PLAYBACK | **SETUP** | MAINTENANCE | STATUS | HELP

Wizard
Network Setup
Camera Search
Camera Setup
Audio and Video
Live & Playback Setup
Recording Schedule
Auto-Backup Setup
Event Setup
E-Mail Setup
Dynamic DNS
Time and Date Setup
Logout

E-MAIL SETUP

You can set up your SMTP server to send e-mail alerts to notify you when an event occurs.

SMTP SERVER

Server Address:

Sender:

Subject:

Body of Message:

SMTP Authentication:

User Name: Password:

CONTACT

User Name: Email:

Name	Email	Delete
admin	admin@gmail.com	✘
operator	operator@yahoo.com	✘
user	user@hotmail.com	✘

Helpful Hints..

The following list briefly describes the **SMTP Server** settings menu items:

Body of Message: Enter your e-mail message.

SMTP Authentication: Before sending out an e-mail, enter the user name and password for SMTP authentication.

Add Contact: Add a new contact into the contact list.

Dynamic DNS

Enable this option only if you have purchased a domain name and registered with a dynamic DNS service provider. The following parameters are displayed when the option is enabled.

Server Address: Select a dynamic DNS service provider from the pull-down list.

Host Name: Enter your host name. For example: myhost.mydomain.net.

Username or Key: Enter the username or key provided by your service provider. If the Dynamic DNS provider supplies only a key, enter that key in all three fields.

Password or Key: Enter the password or key provided by your service provider.

Verify Password or Key: Re-type the password or key provided by your service provider.

Status: Displays the current status of connection to the DDNS server.

Product Page: DNS-726-4 Firmware Version: 1.10

D-Link

DDNS-726-4 // LIVE VIDEO PLAYBACK **SETUP** MAINTENANCE STATUS HELP

Wizard
Network Setup
Camera Search
Camera Setup
Audio and Video
Live & Playback Setup
Recording Schedule
Auto-Backup Setup
Event Setup
E-Mail Setup
Dynamic DNS
Time and Date Setup
Logout

DDNS SETUP

The Dynamic DNS feature allows you to host a server (Web, FTP, NVR, etc..) using adomain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IPaddresses. Using a DDNS service provider, your friends can enter your host name to connect to your NVR no matter what your IP address is.

[Sign up for D-Link Free DDNS service at www.DLinkDDNS.com.](http://www.DLinkDDNS.com)

Save Settings Don't Save Settings

DDNS SETTING

DDNS Enable Disable

Server Address << ▾

Host Name e.g.: me.mydomain.net

Username or Key

Password or Key

Verify Password or Key

Status

Helpful Hints..

To use this feature, you must first have a Dynamic DNS account from one of the providers in the drop down menu.

Time and Date Setup

Time Zone Settings: Select your time zone from the pull-down list. Click **Set Time** to apply the settings.

There are three choices for setting the time.

NTP Server: Select or enter an **NTP Server** here. An **NTP Server** is a server on the Internet that maintains time. The NVR will contact the server you entered and receive the correct time. Click **Set Time** after entering an **NTP Server**.

From My Computer: Click **Set Time** to have the NVR set its own clock according to the time on your computer.

Manually Set the Time and Date: Enter the complete time and date settings manually. Click **Set Time** to apply the settings.

The screenshot shows the D-Link web interface for the DNS-726-4 device. The top navigation bar includes 'LIVE VIDEO', 'PLAYBACK', 'SETUP', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'SETUP' menu is expanded to show 'Time and Date Setup'. The main content area is titled 'TIME AND DATE SETUP' and contains the following sections:

- TIME AND DATE SETUP:** A header section with the text 'Here you may configure the internal clock of your NVR.' and a display showing 'Time: 12:56:28' and 'Date: 03/23/10'.
- TIME ZONE SETTINGS:** A section with a 'Time Zone' dropdown menu set to '(GMT+08:00) Beijing, Chongqing, Hong Kong, Taipei' and a 'Set Time' button.
- NTP SERVER:** A section with an 'NTP Server' text input field containing 'ntp1.dlink.com', a '<<' button, another dropdown menu set to 'ntp1.dlink.com', and a 'Set Time' button.
- FROM THIS COMPUTER:** A section with the text 'Set time from this computer' and a 'Set Time' button.
- MANUALLY SET THE TIME AND DATE:** A section with four dropdown menus for 'Month' (03), 'Day' (23), 'Year' (2010), and 'Second' (01), along with 'Hour' (12) and 'Minute' (56) dropdowns, and a 'Set Time' button.

On the right side of the interface, there is a 'Helpful Hints..' section with the text: 'Setting the correct time zone and time will allow you to have accurate logs and proper scheduling for recordings. Synchronizing time from NTP server will provide the most accurate time if your NVR is connected to the internet.'

Maintenance

User Management

This option allows you to add users and modify or delete accounts. You may also configure the privilege settings for the users.

Create A User

Step 1: Input the new user name.

Step 2: Input the password. Type the password again to confirm.

Step 3: Select the live view cameras and **PTZ/ IO Control** functions which this user can access.

Step 4: Select the playback channels and **Backup Data** function which this user can access.

Step 5: Click the **Save Settings** button to create a new user.

Note

The Administrator account can configure all functions of the NVR. This account cannot be deleted. The default password for “admin” is blank. Setting a password after the first login is strongly recommended. If the administrator password is lost, you may hold the reset button on the rear panel of the device to reset the NVR to factory defaults. Note: This will erase all the previously-saved settings.

User List

Change User’s Password

Step 1: Click the **Modify Password** icon of the user name who you would like to modify.

Step 2: Input the password of the user. Type the password again to confirm.

Step 3: Click the **Apply** button to save. Click **Cancel** to abort.

Product Page: DNS-726-4 Firmware Version: 1.10

D-Link

DNS-726-4 // LIVE VIDEO PLAYBACK SETUP MAINTENANCE STATUS HELP

User Management
RAID
Backup and Restore
Firmware Update
Logout

USERS
You may add, modify and delete user account as well as the user privileges. In addition, you may modify the password for your admin account.

Save Settings Don't Save Settings

CREATE A USER

User Name: user
Password: *****
Confirm Password: *****

Live View Privileges:
 Channel 1 Channel 2
 Channel 3 Channel 4
 Channel 5 Channel 6
 Channel 7 Channel 8
 PTZ Control IO Control

Playback Privileges:
 Channel 1 Channel 2
 Channel 3 Channel 4
 Channel 5 Channel 6
 Channel 7 Channel 8
 Backup Data

Helpful Hints..
User passwords must include at least five characters.
Administrator can manage and change all the setting for the NVR, and this account is not removable. Default password of administrator password is null, it is strongly recommended to change it upon first login. If user forgets the administrator password, please press the reset button from the rear panel of the device to reset to factory default.
Note: Reset to factory default will clear all the settings.

USER LIST

User Name	Modify Password	Delete User	Modify User Privileges
admin			
operator			

Delete A User

Step 1: Click the **Delete User** icon of the user you would like to delete.

Step 2: In the confirmation box, click the **OK** button.

Modify User Priviledges

Step 1: Click the **Modify User Privileges** icon for one of the users in the User List.

Step 2: Select the live view cameras and **PTZ/IO Control** functions which this user can access.

Step 3: Select the playback channels and **Backup Data** functions which this user can access.

Step 4: Click the **Apply** button to save. Click **Cancel** to abort.

RAID

In this section, you may configure your hard drives by clicking the **Set RAID Type and Re-Format** button. All data will be lost during this process.

Standard: Creates two separate volumes (or one volume if only one hard drive is present). Each hard drive has its own volume.

JBOD (Linear): Combines both hard drives in a linear fashion which will create one large volume geared towards maximum available space.

RAID 0: Combines both hard drives in a striped fashion which will create one large volume geared towards maximum performance.

RAID 1: Mirrors the hard drives for redundancy. If one hard drive fails, the other still has all of the data. Replace the failed hard drive and it will re-mirror, restoring maximum data protection.

Product Page: DNS-726-4 Firmware Version: 1.00

D-Link

DNS-726-4 // LIVE VIDEO PLAYBACK SETUP MAINTENANCE STATUS HELP

User Management
RAID
Backup and Restore
Firmware Update
Logout

HARD DRIVE CONFIGURATION

Change the hard drive configuration or format the newly inserted drive.
If you are not first time to configure your hard disk on the NVR, please refer to current disk status from STATUS > Device Info > [HARD DRIVE INFORMATION](#) before you make any changes.

RAID CONFIGURATION

Set RAID type and re-format the hard disk

Helpful Hints..

To see information on the current hard disk configuration, go to the STATUS page.

The NVR supports four different disk configuration types: **Standard**, where each drive is a unique volume, **JBOD**, which combines both drives in a linear fashion to create one volume, as well as **RAID 0** and **RAID 1**.

RAID, short for **Redundant Array of Independent Disks**, is a combination of two or more disks with the aim of providing fault tolerance and improving performance. There are several different levels of RAID, with each providing a different method of sharing or distributing data amongst the drives. The NVR supports RAID levels 0 and 1.

What is RAID?

RAID, short for Redundant Array of Independent Disks, is a combination of two or more disks with the aim of providing fault tolerance and improving performance. There are several different levels of RAID, with each providing a different method of sharing or distributing data amongst the drives. The NVR supports RAID levels 0 and 1.

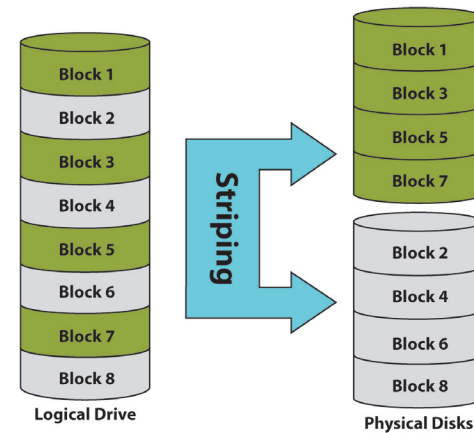
RAID 0 RAID 0 provides *data striping*, which spreads out blocks of data over both drives, but does not provide data redundancy.

Although performance is improved, the lack of fault tolerance means that if one drive fails, all data in the array will be lost.

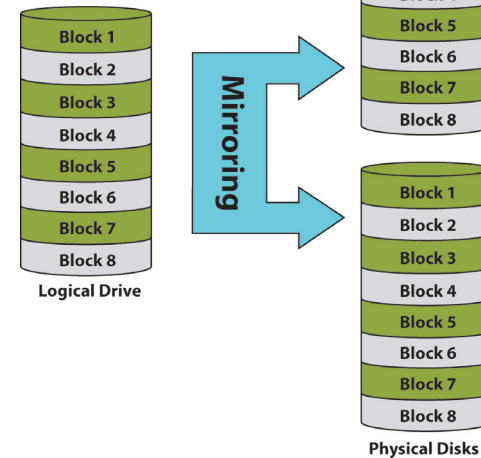
RAID 1 RAID 1 provides *mirroring* over both disks, with the same read/write speed of a single disk. A RAID 1 array can only be as large as its smallest member disk.

Because the data is stored on both disks, RAID 1 provides fault tolerance and protection, in addition to performance advantages.

RAID 0



RAID 1



Backup and Restore

Users can save the NVR configuration to a file and restore it when necessary. Occasionally, restarting the NVR can keep the system running smoothly. Reset the NVR to restore all configurations to factory default.

Save Configuration: All the configurations can be saved as a file to the specified location. Click the **Save Configuration** button to save the file.

Load Configuration File: User can restore the configuration file after reset to factory default file. Click the **Browse** button to select the configuration file and restore it by clicking the **Restore Configuration from File** button.

Restart: If the NVR is malfunctioning or crashes unexpectedly, click the **Restart** button on the NVR. Restarting the NVR will take about one and a half minutes.

Reset to Default: This will reset all configurations to factory default. User can select to preserve the **IP** or **DDNS**, thus the remote connection will remain after reset.

The screenshot displays the D-Link web interface for a DNS-726-4 device. The main navigation bar includes 'LIVE VIDEO', 'PLAYBACK', 'SETUP', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists 'User Management', 'RAID', 'Backup and Restore', 'Firmware Update', and 'Logout'. The 'Backup and Restore' section is active, showing a 'BACKUP AND RESTORE' header with a helpful tip: 'User can save the configurations to a file or restore it once necessary. Restart the NVR can keep system work freshly, Reset the NVR will restore all configuration to factory default.' Below this, there are three main sections: 'BACKUP AND RESTORE' with 'Save Configuration File' (Save Configuration button) and 'Load Configuration File' (Browse... button, Restore Configuration From File button); 'RESTART' with 'System Restart' (Restart button); and 'DEFAULT' with 'Restore to factory default settings.' (Restore button) and 'Set Configuration' (IP/DDNS checkboxes). A 'DEVICE SETTINGS' section at the bottom shows 'Name' set to 'dlink-040955' with an 'Apply' button. A 'Helpful Hints..' sidebar on the right provides detailed instructions for 'Back and Restore', 'Restart', and 'Reset to Default'.

Firmware Update

The device firmware can be upgraded from this page. The firmware update must be saved on the local hard drive of your computer. Click the **Browse** button to search the local hard drive for the firmware update file. Click **Apply** to upgrade. You may always check for firmware updates on the D-Link Support Page.

The screenshot displays the web interface for a D-Link DNS-726-4 device. At the top, it shows 'Product Page: DNS-726-4' and 'Firmware Version: 1.10'. The D-Link logo is prominently displayed. Below the logo is a navigation menu with tabs for 'LIVE VIDEO', 'PLAYBACK', 'SETUP', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'MAINTENANCE' tab is selected, and the 'Firmware Update' option is highlighted in the left sidebar. The main content area is titled 'FIRMWARE UPGRADE' and contains the following text:

A new firmware upgrade may be available for your NVR. D-Link recommends you to maintain firmware updates to improve the performance and functionality of your NVR.

- For firmware upgrades, click [D-Link Support Page](#) and download to save the latest version of the NVR to your local hard drive.
- Click **Browse** to locate the file on your local hard drive and then click **Apply** to start the firmware upgrade.

Below the text are two buttons: 'Apply' and 'Cancel'. Underneath is a section titled 'FIRMWARE INFORMATION' which shows:

Current Firmware Version 1.10
Firmware Date 03/12/2010
File Path

On the right side of the interface, there is a 'Helpful Hints..' section with the following text:

Firmware updates are released periodically to maintain and improve the functionality of your DNS-726-4 and also to add features. If you run into a problem with a specific feature of the DNS-726-4, check our support site by clicking on the [Support](#) link and see if an updated firmware is available for your DNS-726-4.

Status

Camera Status

This page displays the connection and recording status of your cameras.

Connection Status: Shows the camera connection status. The user can click **Connect** or **Disconnect** to change the connection status.

Recording Status: Shows the recording schedule and current recording status of the cameras. Please note that if the camera is disconnected, the recording may continue but will produce blank video.

Frame Rate: Displays the frame rate of the camera.

Bit Rate: Displays the transmission bit rate of the camera.

Disk Status: Shows the hard drive space and estimated remaining recording time status.

Note: The recording time information is estimated by current bit rate. This may change each time a user refreshes this page.

Product Page: DNS-726-4 Firmware Version: 1.00

D-Link

DNS-726-4 // LIVE VIDEO PLAYBACK SETUP MAINTENANCE STATUS HELP

Camera Status
Device Info
System Log
NVR Log
Logout

CAMERA STATUS
This page displays the camera and recording status of the camera.

CAMERA STATUS

Index	Name	Address	Connection Status	Recording Status	Frame Rate	Bit Rate
1	Fixed	192.168.0.125	Connected Disconnect	Always recording - Recording	2.0 fps	25.2 Kbps
2	Mega	192.168.0.177	Connected Disconnect	Always recording - Recording	3.2 fps	2458.5 Kbps
3	PT Cc	192.168.0.169	Connected Disconnect	Always recording - Recording	19.3 fps	313.4 Kbps
4	Fixed	192.168.0.140	Connected Disconnect	Always recording - Recording	29.0 fps	103.1 Kbps
5			Disconnect Connect	No Recording	0.0 fps	0.0 Kbps
6			Disconnect Connect	No Recording	0.0 fps	0.0 Kbps
7			Disconnect Connect	No Recording	0.0 fps	0.0 Kbps
8			Disconnect Connect	No Recording	0.0 fps	0.0 Kbps
						Total Bit Rate: 2900 Kbps

Last update on Mon Oct 06 10:40:51 2008

DISK STATUS

Total Hard Drive Capacity: 156474 MB
Unused Space: 13964 MB
Estimated Total Recording Time: 2 day(s) and 22 hour(s)
Estimated Remaining Recording Time: 14 hour(s)

Helpful Hints..
The following list briefly describes the Camera and Recording Status menu items:
Connection Status: Click Connect or Disconnect to change the connection status.
Recording Status: Set the recording schedule of the camera.
Frame Rate: Displays the frame rate of the camera.
Bit Rate: Displays the transmission bit rate of the camera.

Device Info

This section displays the summary information of your NVR.

LAN Information: Displays the local network settings of the NVR.

Device Information: Displays the device name and current temperature of the NVR.

UPS Information: Displays the connected UPS status from USB connection.

Hard Drive Information: Displays the hard drive information, including the disk mode, total size, used and remaining drive space.

The screenshot shows the D-Link web interface for a DNS-726-4 NVR. The page title is "Product Page: DNS-726-4" and the firmware version is "1.00". The navigation menu includes LIVE VIDEO, PLAYBACK, SETUP, MAINTENANCE, STATUS (selected), and HELP. The left sidebar shows Camera Status, Device Info (selected), System Log, NVR Log, and Logout.

DEVICE INFORMATION
This page displays the summary of your device.

LAN INFORMATION

IP Address: 192.168.0.180
Subnet Mask: 255.255.255.0
Gateway IP Address: 192.168.0.1
Mac Address: 00:08:09:04:09:55
DNS1: 192.168.0.1
DNS2:

DEVICE INFORMATION

Name: NVR-Home1F
System Temperature: 102 F / 39 C

UPS INFORMATION

Manufacturer: N/A
Product: N/A
Battery Charge: N/A
Status: N/A

HARD DRIVE INFORMATION

Total Drive(s): 1
Volume Name: Volume_1
Total Hard Drive Capacity: 156474 MB
Used Space: 124461 MB
Unused Space: 32012 MB

System Log

This page displays the system event list of your NVR. The **System Log** is different from the **NVR Log** as it includes the following items:

1. User login/logout
2. Modify/delete account
3. System restart
4. System reset to default
5. System firmware update

Product Page: DNS-726-4
Firmware Version: 1.00

D-Link

DNS-726-4
LIVE VIDEO
PLAYBACK
SETUP
MAINTENANCE
STATUS
HELP

- Camera Status
- Device Info
- System Log
- NVR Log
- Logout

SYSTEM LOG

The screen displays the system event list of your NVR.

LOG INFORMATION

<< 1 2 3 4 >>

Date	Time	Log
2008/10/06	09:37:05	admin login.
2008/10/06	09:37:41	admin login.
2008/10/06	10:15:45	admin logout.
2008/10/06	10:15:51	admin login.
2008/10/05	18:32:28	Modify RTC time to "2008/10/05 18:32:28"
2008/10/06	10:32:40	admin login.
2008/10/06	10:32:58	Modify admin password.
2008/10/06	10:33:09	admin logout.
2008/10/06	10:33:15	admin login.
2008/10/06	11:04:42	admin login.
2008/10/06	11:14:39	Created a operator account.
2008/10/06	11:18:05	System restore to factory default settings.
2008/10/05	19:19:40	Modify System time to "2008/10/05 19:19:40"
2008/10/05	19:20:03	Modify System time to "2008/10/05 19:20:03"
2008/10/05	19:21:24	admin login.

<< 1 2 3 4 >>

Helpful Hints..

The system log include following items which is different with NVR logs:

1. User login / logout
2. Create / modify / delete account
3. User password changed
4. Set system time
5. Fan fail
6. System restart
7. System reset to default
8. System update firmware

NVR Log

This NVR Log displays the event log information.

NVR Log: Displays the NVR log information such as stop recording or NVR system start.

NVR Event Log: Displays the event log information such as motion detection or lost camera connection.

Product Page: DNS-726-4 Firmware Version: 1.00

D-Link

DNS-726-4 // LIVE VIDEO PLAYBACK SETUP MAINTENANCE STATUS HELP

Camera Status
Device Info
System Log
NVR Log
Logout

NVR LOG

The screen displays the system event list of your NVR.

NVR LOG INFORMATION

20080908 Query

<< 1 >>

Date	Time	Log
2008-09-08	16:30:35	Start always recording
2008-09-08	15:57:18	NVS System Started
2008-09-08	15:04:49	NVS System Started

<< 1 >>

NVR EVENT LOG INFORMATION

20080908 Query

<< 1 >>

Date	Time	Log
2008-09-08	16:22:50	Camera 1 detected motion

<< 1 >>

Helpful Hints..

The following list briefly describes the NVR Event list items:

NVR Log: Displays the log information of NVR, for example stop recording or NVR system start.

NVR Event Log: Displays the event log information, for example motion detection or when a camera connection is lost.

Help

The NVR Help page provides a list of support topics.

Product Page: DNS-726-4 Firmware Version: 1.10

D-Link

DNS-726-4	LIVE VIDEO	PLAYBACK	SETUP	MAINTENANCE	STATUS	HELP
<ul style="list-style-type: none"> Menu Live Video Playback Setup Maintenance Status Logout 	<div style="background-color: #e67e22; color: white; padding: 2px;">HELP MENU</div> <ul style="list-style-type: none"> Live Video Playback Setup Maintenance Status 					
	<div style="background-color: #34495e; color: white; padding: 2px;">LIVE VIDEO</div> <ul style="list-style-type: none"> Live Video 					
	<div style="background-color: #34495e; color: white; padding: 2px;">PLAYBACK</div> <ul style="list-style-type: none"> Playback 					
	<div style="background-color: #34495e; color: white; padding: 2px;">SETUP</div> <ul style="list-style-type: none"> Wizard Network Setup Camera Search Camera Setup Audio and Video Live & Playback Setup Recording Schedule Auto-Backup Setup Event Setup E-Mail Setup Dynamic DNS Time and Date Setup 					
	<div style="background-color: #34495e; color: white; padding: 2px;">MAINTENANCE</div> <ul style="list-style-type: none"> User Management RAID Backup and Restore Firmware Update 					
	<div style="background-color: #34495e; color: white; padding: 2px;">STATUS</div> <ul style="list-style-type: none"> Camera Status Device Info System Log NVR log 					

Live Video

This section will enable you to configure and view the live video from your network cameras.

Setup Live View

Step 1: Click the **LIVE VIDEO** button at the top of the menu.

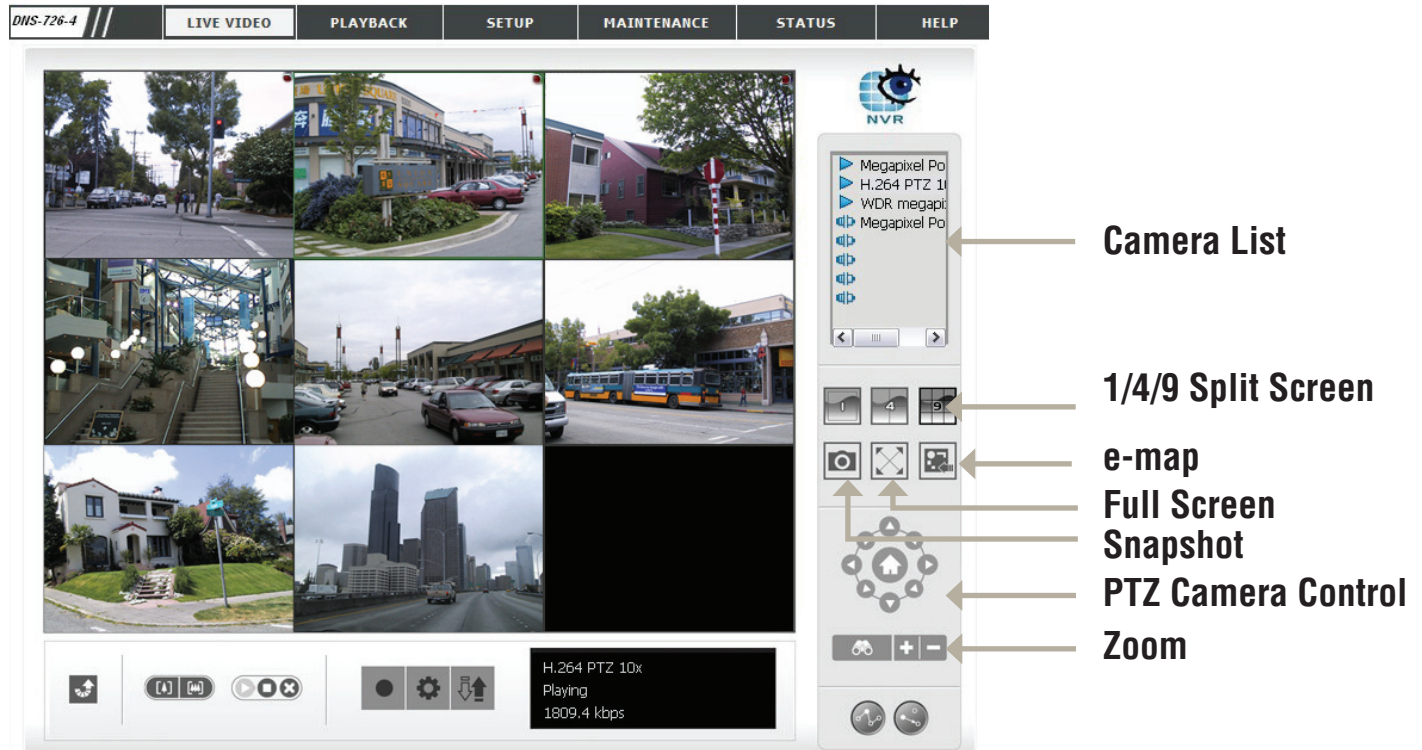
Step 2: Select a camera(s) from the camera list on the right and then drag it to the location to where you wish the image to be displayed.

Step 3: Users can change the video display position by drag it to another position.

Note

1. The selected video will be marked with a green line.
2. Right clicking on the video will show the option to **Toggle to Full Screen**. Press the ESC button on the keyboard to return to normal display.
3. If the camera supports audio, users can check **Enable Audio** from the right click menu and listen to live audio of this channel.
4. If the camera supports PTZ, users can control the selected camera from the PTZ panel. Users can also right click on the video and check **Enable Move** to control the PTZ function directly. Please note that when **Enable Move** is checked, the video will be marked with a red outline. This indicates that another camera cannot be adjusted until the PTZ function has been deactivated.





Single/Quad Split Screen:

User can choose to view a single camera or 4 cameras at a time.

Snapshot:

Select the snapshot function to capture a specific video image immediately.

Full Screen:

Select to display the video with full screen. Press **ESC** button on the keyboard to return to normal display.

e-map:

Display your emap file. Max. size 20KBytes of BMP and JPG file.

PTZ Camera Control:

You may control the camera view by utilizing the PTZ camera control panel to adjust the camera's view. This is only available with cameras that support the PTZ function.

Zoom:

Click the + or - button to zoom in or zoom out. This option is only available with cameras that support the optical zoom function.



Digital Zoom

Play/Stop/Drop

Manual Record / Setup / Remote I/O

Preset

Information Window

Preset: Click the **Set** button to set a preset position for a camera with PTZ support. Users can give the specified position a name and store it in the preset position list. Click the **Go** button to go to the preset position. This is only available with cameras that support the PTZ function.

Digital Zoom: Click the icon to digitally zoom in or out. Any camera can use this function.

Play/Stop/Drop: Select a camera/ video and click this button to play/stop/disconnect a particular channel.

Information Window: Display video information including camera name, video status, and bit rate for a selected channel.

Remote I/O: Utilize I/O device function remotely. User can remotely adjust the external output device by turning it on or off.

Manual Record: Press this button to recording instantly. Press again to stop manual recording mode. When manual recording mode start, schedule record mode will be overwritten until manual record stop.

Setup: Setup the OSD options.

Playback

This feature allows you to search and playback the recorded video.

Play the Recorded Video

Step 1: Be sure that you have set the schedule/recording event first.

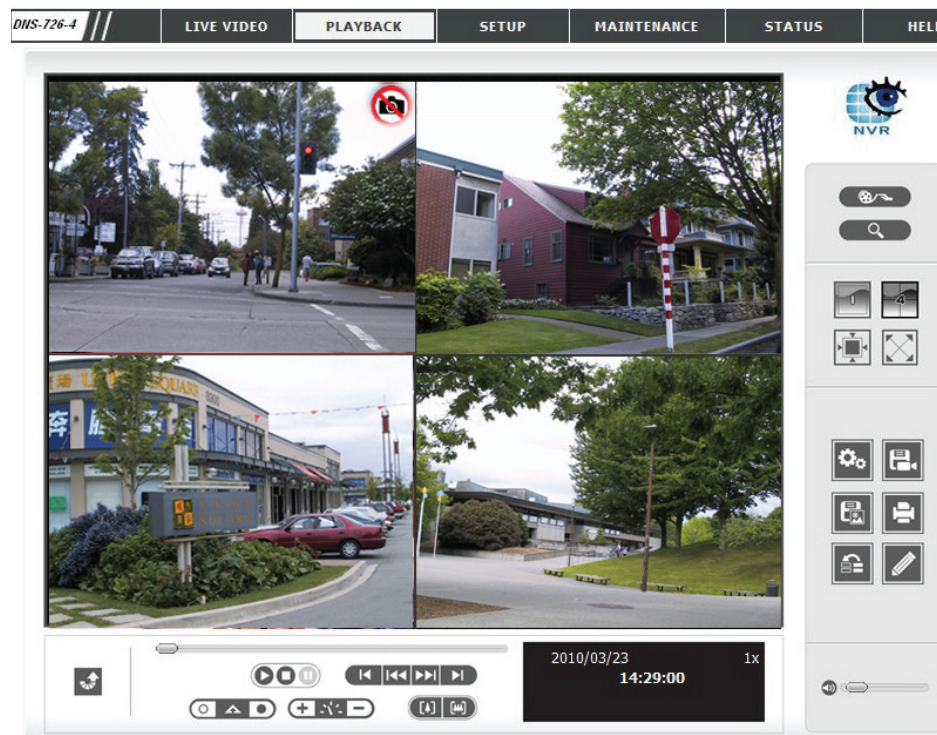
Step 2: Click the **PLAYBACK** tab at the top of the menu.

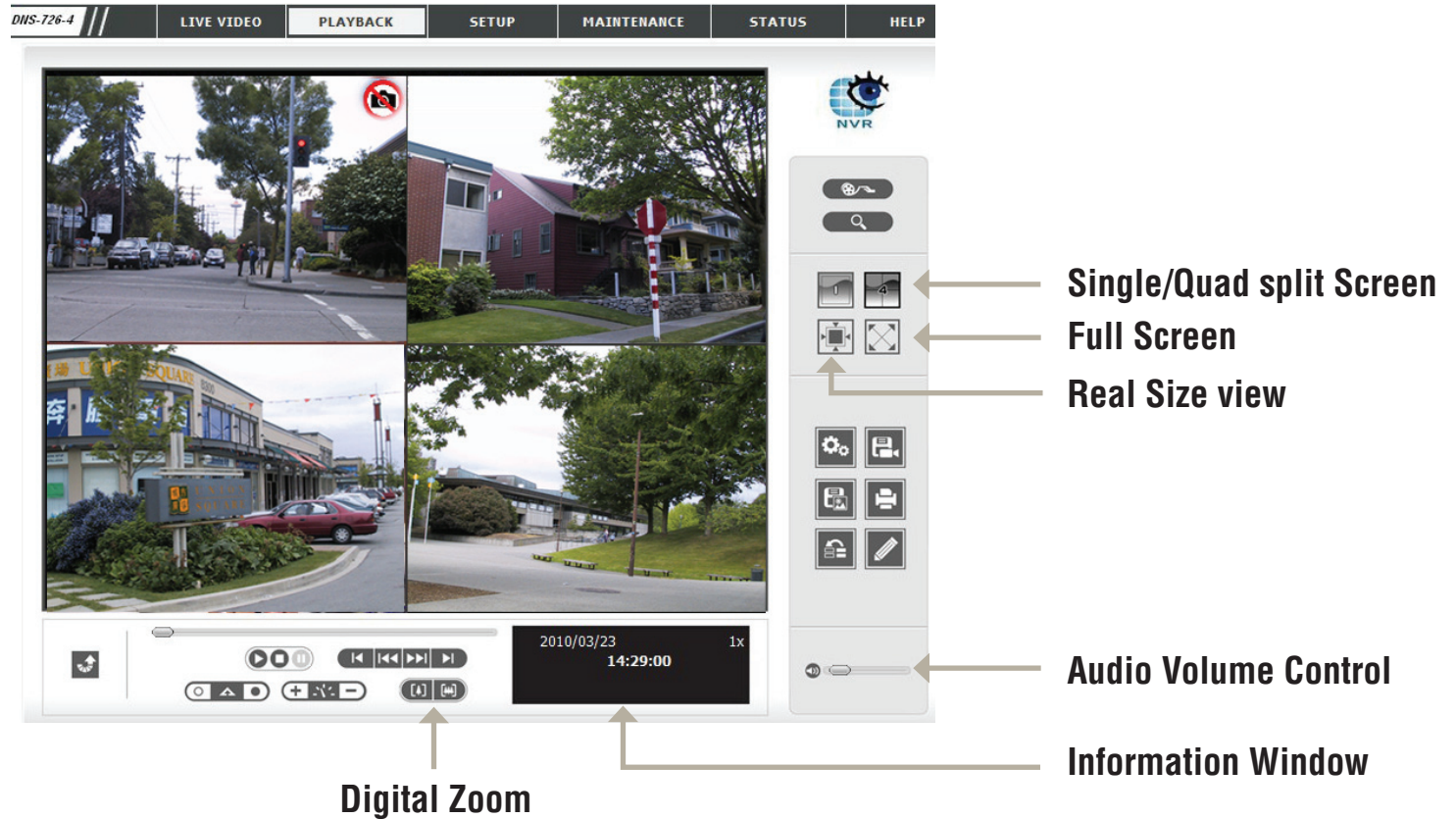
Step 3: Click the **Open Record** button.

Step 4: The **Record Display Window** will show information about the available video clips. Select the date you would like to find the video records.

Step 5: Highlight the video records that you would like to review.

Step 6: Click the **OK** button.





Single/Quad split Screen:

User may view a single camera or 4 cameras at a time. The **DNS-722-4** only supports 1 camera playback.

Full Screen:

Select to display the video with full screen. Press the **ESC** key on the keyboard to return to normal display.

Information Window:

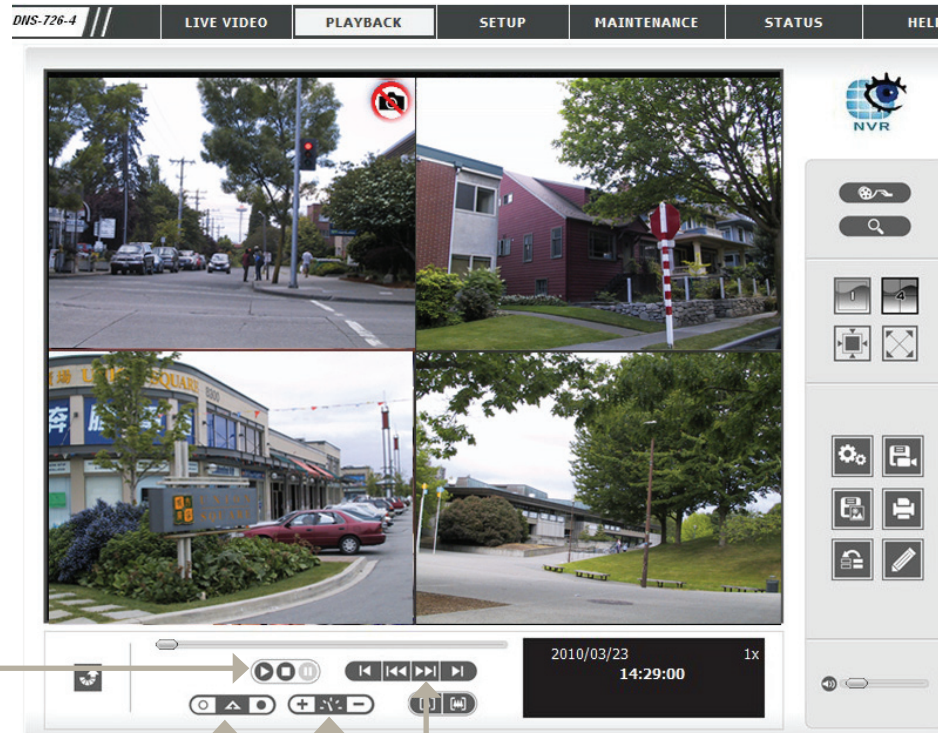
Display video date and time, cue in/ out points, time and speed.

Audio Volume Control :

Adjust the sound level.

Digital Zoom:

Click the icon to digitally zoom in or out. Every camera can use this function.



Play/Stop/Pause

Cue In/Cue Out

Speed

**Step Forward/Reverse Fast
Forward/Reverse**

Play/Stop/Pause: Select a camera/ video and click this button to play/stop/pause a particular channel.

Speed: Click the + or - button to increase or decrease the playback speed.

Cue In/Cue out: Click the **Cue In** or **Cue Out** button to set the period for Save Video.

Step Forward/Reverse: Click to pause the playback and move to next frame or last frame.

Fast Forward/Reverse: Click to pause the playback and move to next minute or last minute.

Open Record and Setting

Click the **Open Record** button to access the Date-Time Panel and select the video records which you would like to review.

Record Display

Calendar View: Recordings are displayed as a calendar.

List Control: Recordings are displayed as a list.

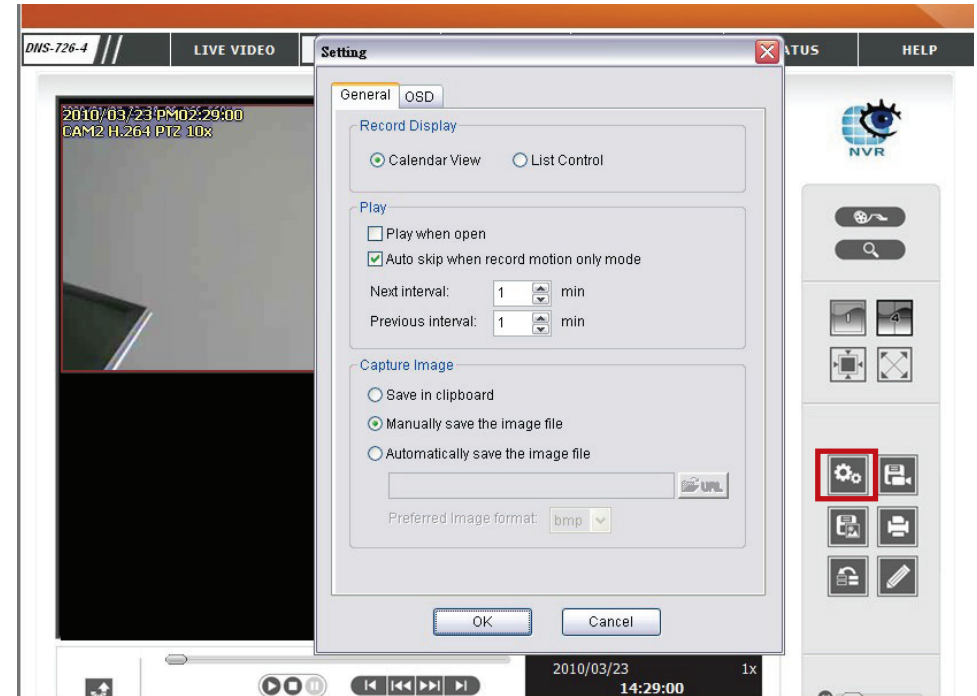
Play

Play when open: When selecting this option, the system will start playing the video clip whenever a record is withdrawn.

Auto skip when record motion only mode: Check the option to set up the system to automatically skip to the points where motion is recorded.

Next Interval: Set the interval for the video to go forward when you click the **Forward** button on the control panel.

Previous Interval: Set the interval for the video to go back when you click the **Reverse** button on the control panel.

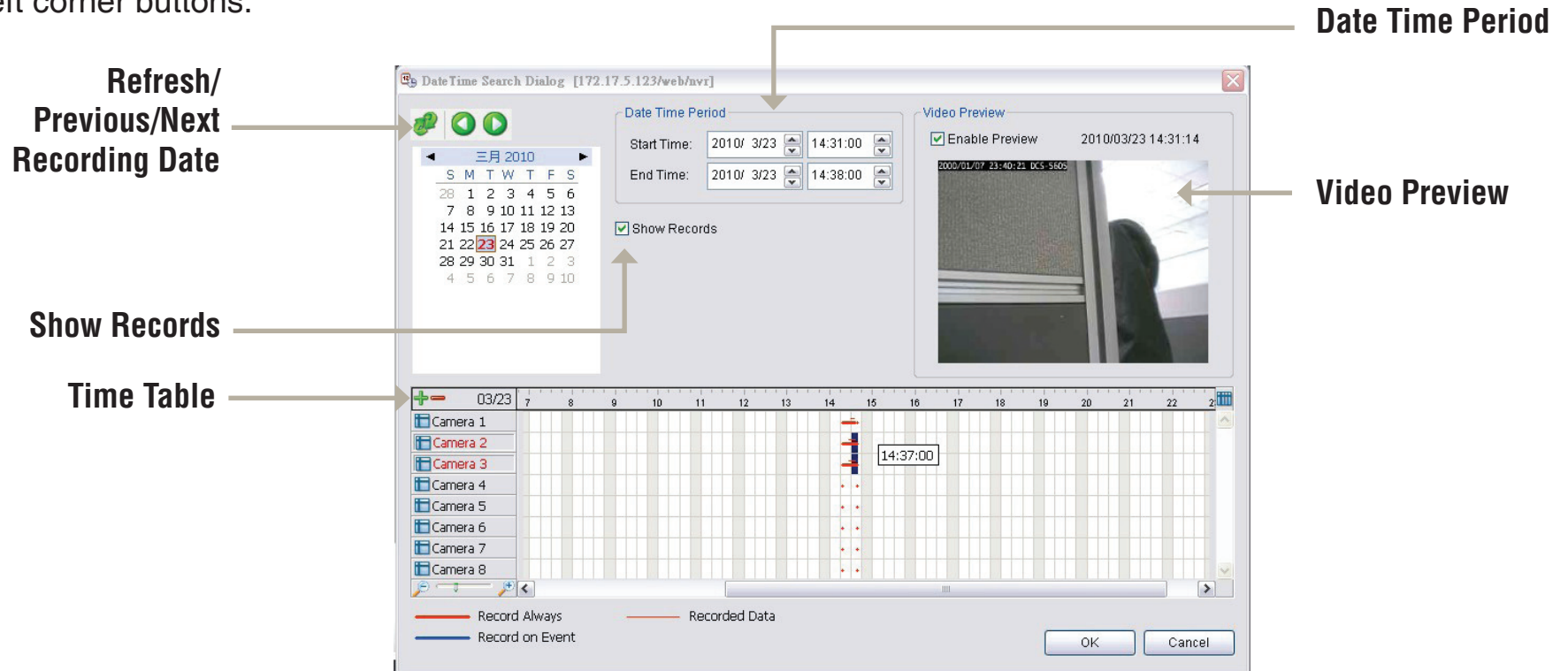


Capture Image

- Save in Clipboard:** The image will be saved in the clipboard and can be pasted to other applications.
- Manually save the image file:** You can manually select where you would like to save the image, name the saved file, and choose the desired format for the image.
- Automatically save the image file:** By pre-setting a path/URL and the image format, the system will automatically save the image accordingly when you click the **Save Image** button in the control panel.

Search the Recorded Video to Playback

Users can refresh the **Date Time Search Dialog Window** or go to the previous or next recording date by pressing the upper left corner buttons.



Record Display Window: Display the available recorded video records.

Date Time Period: Select the start and end points that indicate the time period you would like to view.

Video Preview: Check the **Enable Preview** option to view the selected video.

Time Table (pre-set recording schedule): Click the icon “+” to select all channels, or click the icon “–” to deselect all channels. The scale bar can be used to modify the scale of the time table. There are two recording modes: **Record Always** and **Record on Event**. The timetable will display these two modes in different colors.

Show Records: Displays the recording data in a timetable.

- Step 1: From the **Record Display Window** at the top left of the **Date Time Panel**, select the date you would like to search the record from. The red lines shown on the timetable indicate available recorded video records.
- Step 2: Use color bars to differentiate recording types from each other. This will help you select video clips.
- Step 3: Highlight the video clip you would like to review by left-clicking and dragging the time period. You may also utilize the **Start Time** and **End Time** in the **Date Time Period Section** after choosing the camera. The scale of the timetable can be modified using the icon at the bottom left corner.
- Step 4: Select the **Enable Preview** option to get the preview of the video you select.
- Step 5: Click the camera name to select the cameras you would like to play back.
- Step 6: Click the **OK** button to begin playback.

Note

*The Record Display Window can be shown in (a) calendar view or (b) list control view. To modify the settings of the record display window, click the **Setting** button at the right of the page.*

Smart Search from the Recorded Video (Pro version only)

Users can refresh the **Date Time Search Dialog Window** or go to the previous or next recording date by pressing the upper left corner buttons.

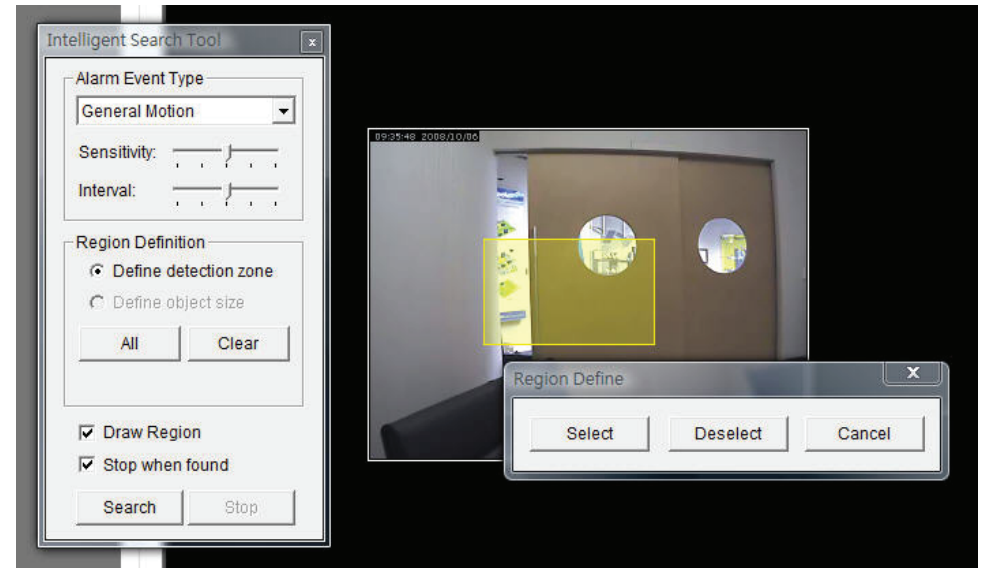
After opening the recorded video, click the **Search Mode** button to obtain the **Intelligent Search Tool** panel. You can search unusual events during the recording period.

There are 5 types of unusual events: **General Motion**, **Foreign Object**, **Missing Object**, **Lose Focus**, and **Camera Occlusion**.

General Motion

Detect all movements in the defined area.

1. Define a detection zone by clicking and dragging to draw an area on the image. You may define more than one zone by repeating this step.
2. Modify the sensitivity setting by adjusting the slider control. Moving the slider toward the right will increase the sensitivity level, which means a relatively small movement will trigger the alarm.
3. Set the interval. Moving the slider toward right will increase time interval so that the alarm will only be triggered when the movement lasts longer.
4. Select the **Stop when found** option. If unchecked, the search tool will list all the events it found, instead of stopping at the moment the event found.
5. Click the **Search** button.



Foreign Object

Alarm triggers when any additional object appears in the defined area on the screen.

1. Define detection zone by clicking and dragging to draw an area on the image.
2. Modify the sensitivity setting.
3. Set the Interval.
4. Select the **Stop when found** option. If unchecked, the search tool will list all the events it found, instead of stopping at the moment the event is found.
5. Click the **Search** button.

Missing Object

Alarm triggers when the selected object is removed from the defined area on the screen.

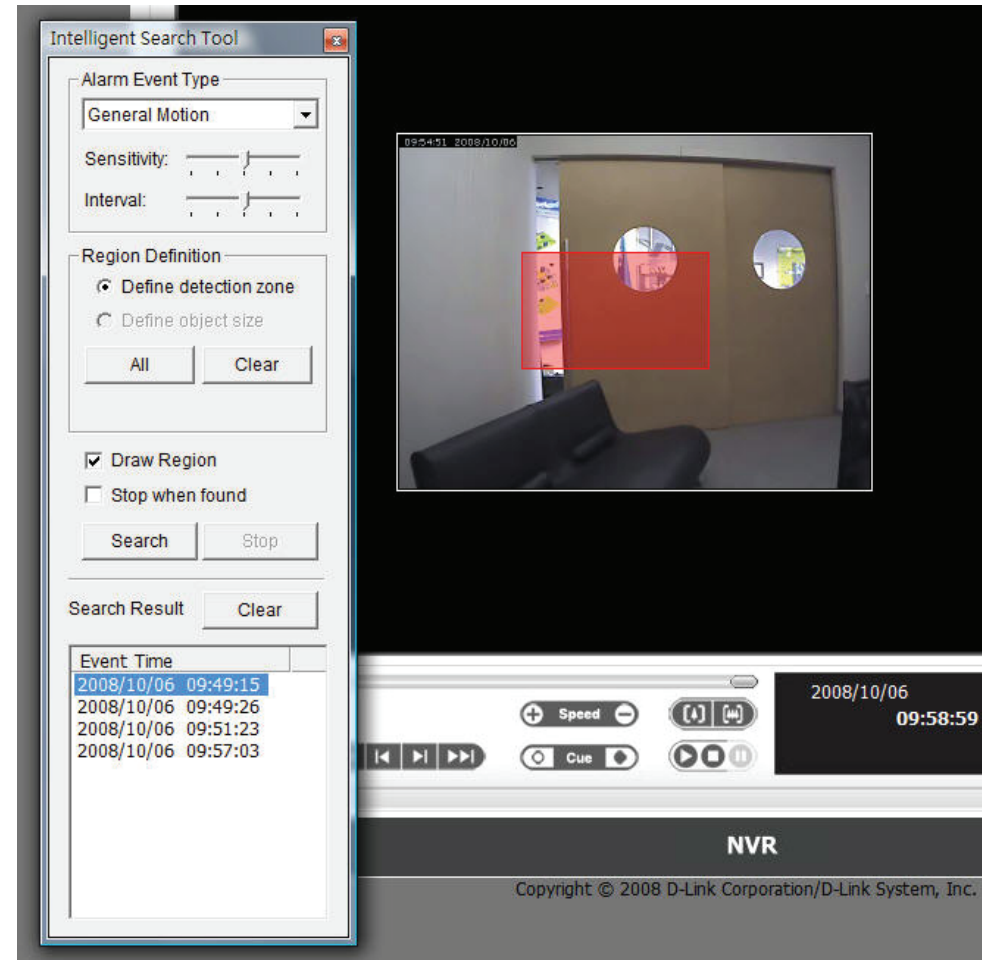
1. Define detection object by clicking and dragging to draw an area on the image.
2. Modify the sensitivity setting.
3. Set the Interval.
4. Check the **Stop when found** option. If unchecked, the search tool will list all the events it found, instead of stopping at the moment the event found.
5. Click the **Search** button.

Lose Focus

The system will inform you when the camera(s) loses focus.

Camera Occlusion

Alarm triggers when the camera is blocked.



Recorded Video Enhancement

During playback, users can click the **Enhancement** button to enable post processing of the selected video.

General Setting

Apply active channel: The settings will be only applied to the selected channel.

Apply all channels: The settings will be only applied to those currently shown on the screen.

Filter Setting

Visibility: Select this option and adjust the gamma to change the luminance.

Sharpen: Select this option to activate the function. Move the slider control to the right to sharpen the image, to the left to soften it.

Brightness: Select this option and move the slider control to the right or left to make the image brighter or dimmer.

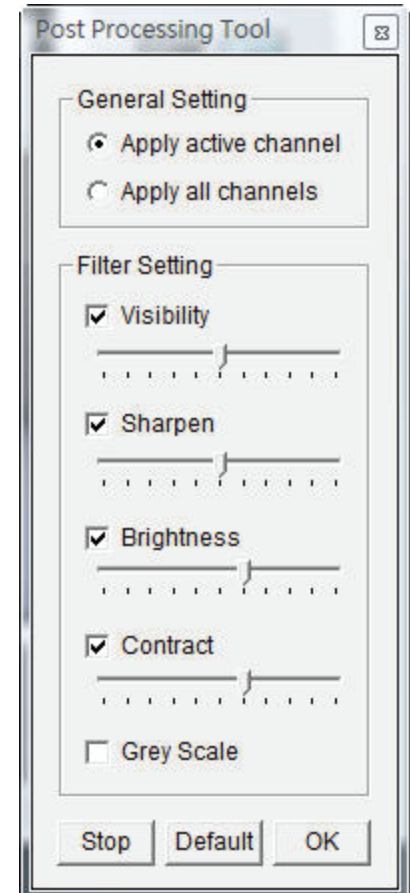
Contrast: Select this option and move the slider control to the right or left to increase or decrease the contrast.

Greyscale: Select this option to display the image in black and white.

Stop: Stop the enhancement function and close the enhancement tool. (The system will reset to the default settings automatically.)

Default: Reset settings to their defaults.

OK: Apply the modifications.



Save Video

Step 1: During playback, users can choose the camera where they would like to save a video clip.

Step 2: Set the cue in and cue out points; the cue in and cue out time will be shown on the information window. Then click the **Save Video** button.

Step 3: Choose the folder where you would like to save the file.

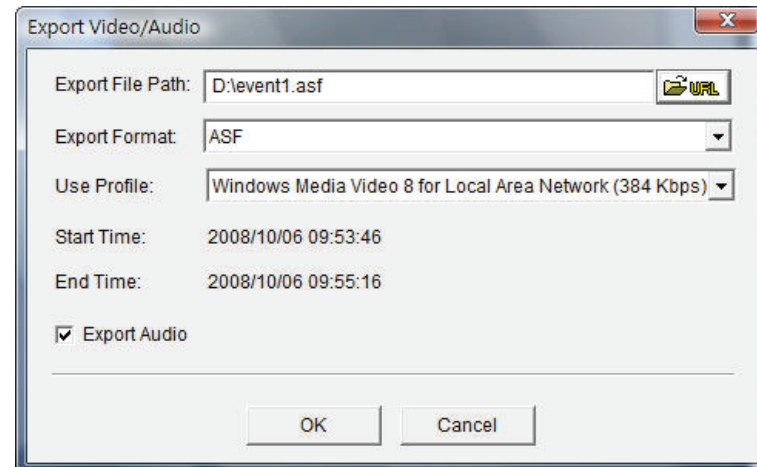
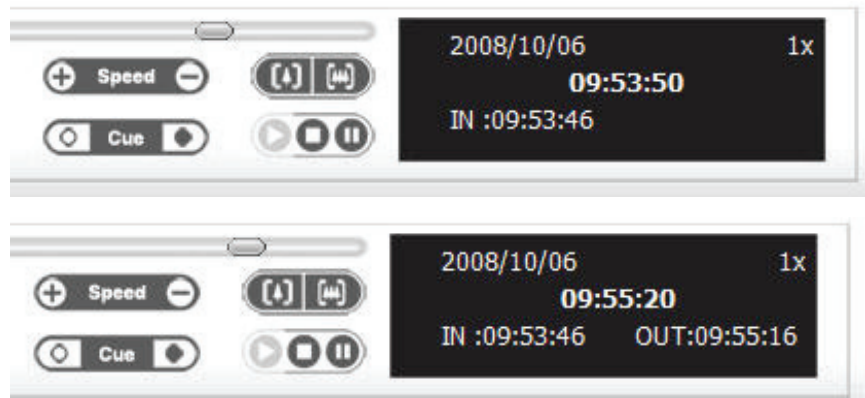
Step 4: Input the file name and click the **Save** button.

Step 5: Choose the export format.

Step 6: Choose the use profile.

Step 7: Select the **Export Audio** option if the video has audio and you would like to export with the video.

Step 8: Click the **OK** button.



Note

The .asf format is recommended for exporting video. The .avi format will have a higher frame rate but will not include a timestamp.

Save Image

Step 1: During playback, users can choose to save an image from a selected camera.

Step 2: Click the **Save Image** button when the desired image is shown on the screen.

Step 3: Choose the folder where you would like to save the file to.

Step 4: Choose the desired image format (BMP or JPEG).

Step 5: Input the file name.

Step 6: Click the **Save** button.

Note

*You may skip step 3 by pre-selecting a folder and format for images. See the “**Setting**” option for more details.*

Print Image

Step 1: During playback, user can choose to print a selected image.

Step 2: Click the **Print** button when the desired image is shown on the screen.

Step 3: Select desired print settings.

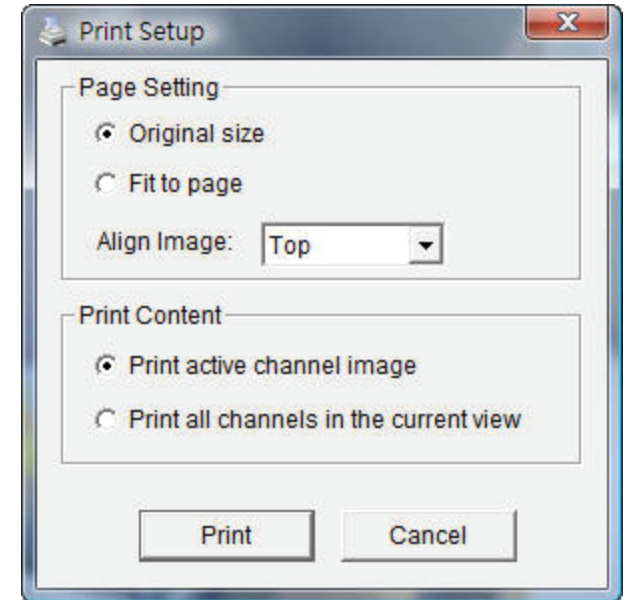
Page Setting

Print in original size: Select this option to have the image print in original size.

Fit the page: Select this option to fit the image to the page.

Align Image: Align the top, center or bottom.

Print Content: Print the image from currently selected channel or all the channels shown on the screen.



Step 4: Click the **Print** button.

Backup the Recorded Video

Unlike the Save Video function, the Backup function will save all the recorded videos during the time period you select, instead of a single video clip.

Step 1: Use **Open Record to** select the desired data.

Step 2: Click the **Backup** button.

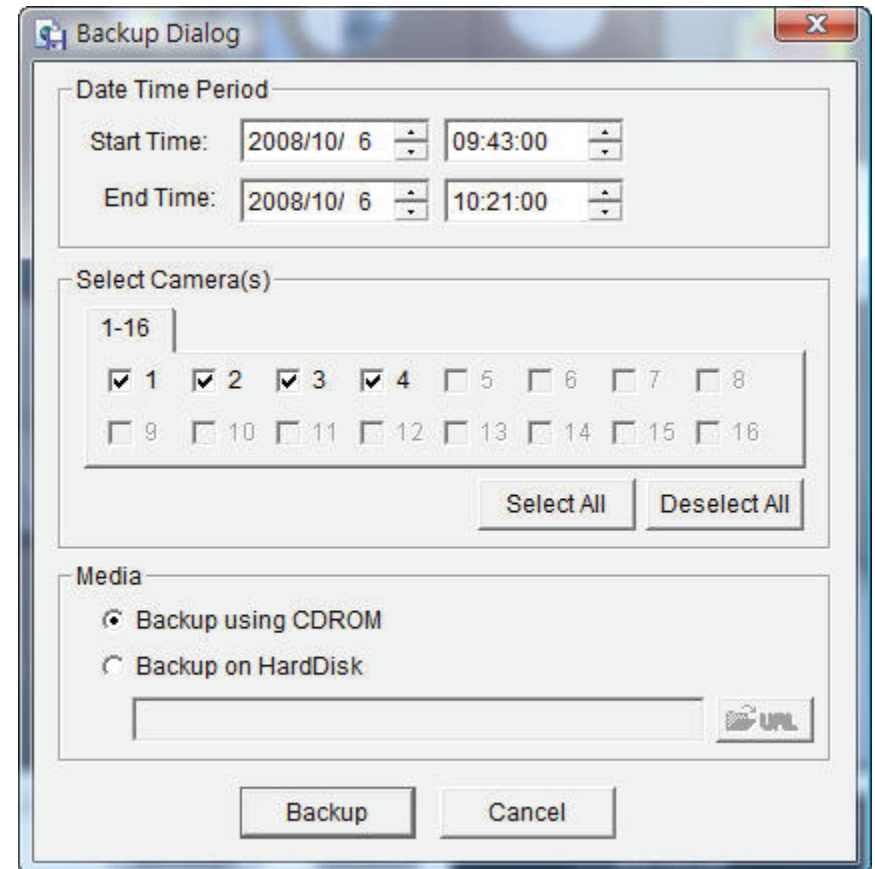
Step 3: Set the **Start Time** and **End Time** that you would like to backup.

Step 4: Select the cameras that you would like to backup.

Step 5: Select the directory where you would like to backup the data to.

Step 6: Click the **Backup** button.

The system will then begin backup process automatically.



Multi-NVR Viewer Application

Step 1: Please insert the product CD.

Step 2: Install the **Live View** application from CD.

Step 3: Run “**Live View**” application from the Start -> Programs -> D-Link -> Multi-NVR Viewer

PTZ Camera Control: Control the camera view by utilizing the PTZ camera control panel to adjust the camera’s view. This is only available with cameras that support the PTZ function.

Zoom: Click the + or - button to zoom in or zoom out the view.

Minimize: Minimize the Remote Live Viewer window.

Exit: Shut down the application.

Digital Zoom: Click the icon to digitally zoom in or out.

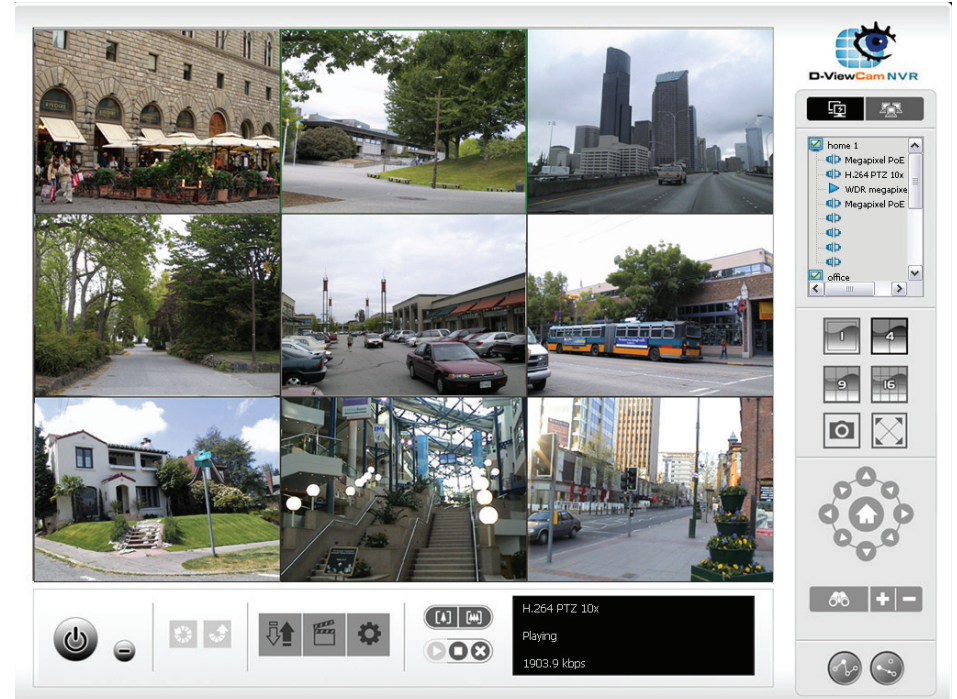
Play / Stop / Drop: Select the camera/video and click this button to play/stop/disconnect a particular channel.

Information Display Window: Display video information including server name, video current status, and bit rate for a selected channel.

Playback: View playback video remotely.

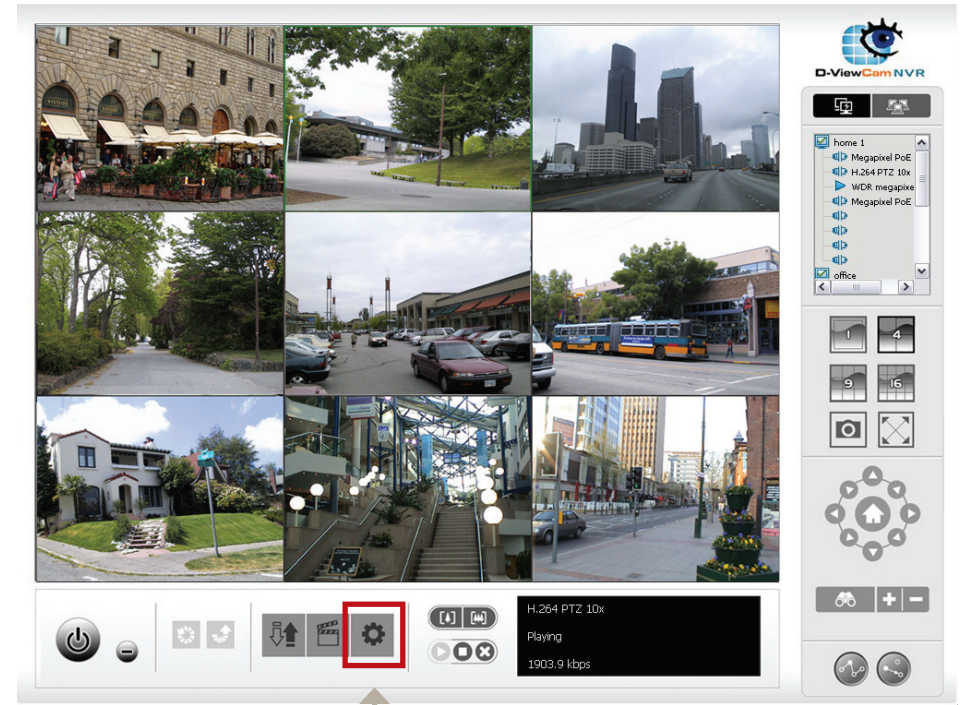
Snapshot: Select the snapshot function to capture a specific video image immediately.

Remote I/O: Users can remotely adjust the external I/O device.



Set Connections to the Units

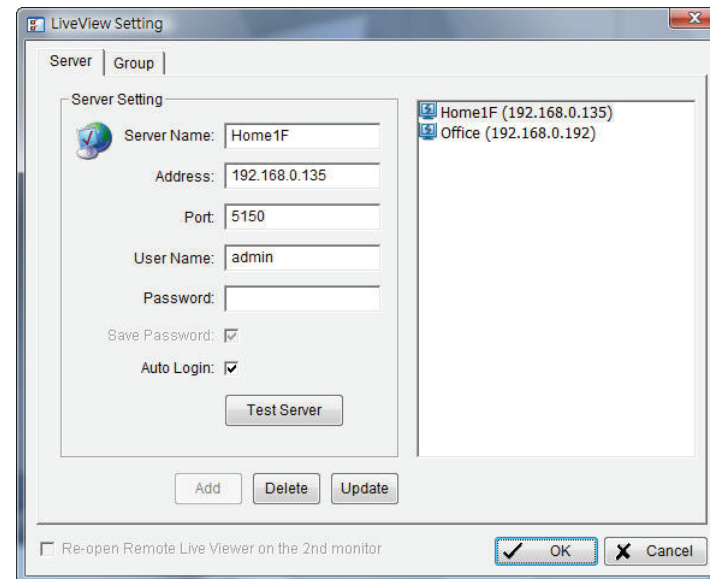
- Step 1: Click the **Site Setup** button.
- Step 2: Input the unit name.
- Step 3: Input the IP address.
- Step 4: Modify the port if necessary.
- Step 5: Input the user name.
- Step 6: Input the password.
- Step 7: Check the **Save Password/ Auto Login** option.
- Step 8: Click the **Test Server** button to test the connection between the local application and the remote unit.
- Step 8: Click the **Add** button to add this unit into your remote server list.
- Step 9: Click the **OK** button.



Site Setup

Set Groups for Cameras

- Step 1: Click the **Group** tab.
- Step 2: Log in to all the servers that contain the camera(s) you would like to put into group(s).
- Step 3: Click the **Insert** button to create a new group.
- Step 4: Name this group.
- Step 5: Highlight the camera(s) that you would like to add into this group and then click the <- button.
- Step 6: Repeat step 4 to establish the group.
- Step 7: Repeat step 1 through 6 to establish other groups.
- Step 8: Click the **OK** button.



Delete/Rename Groups for Cameras

Step 1: Click the **Site Setup** button.

Step 2: Click the **Group** tab.

Step 3: Click the group which you would like to modify.

Step 4: Click the **Delete** or **Rename** button to remove or rename that group.

Step 5: Repeat step 2 through 3 to modify other groups.

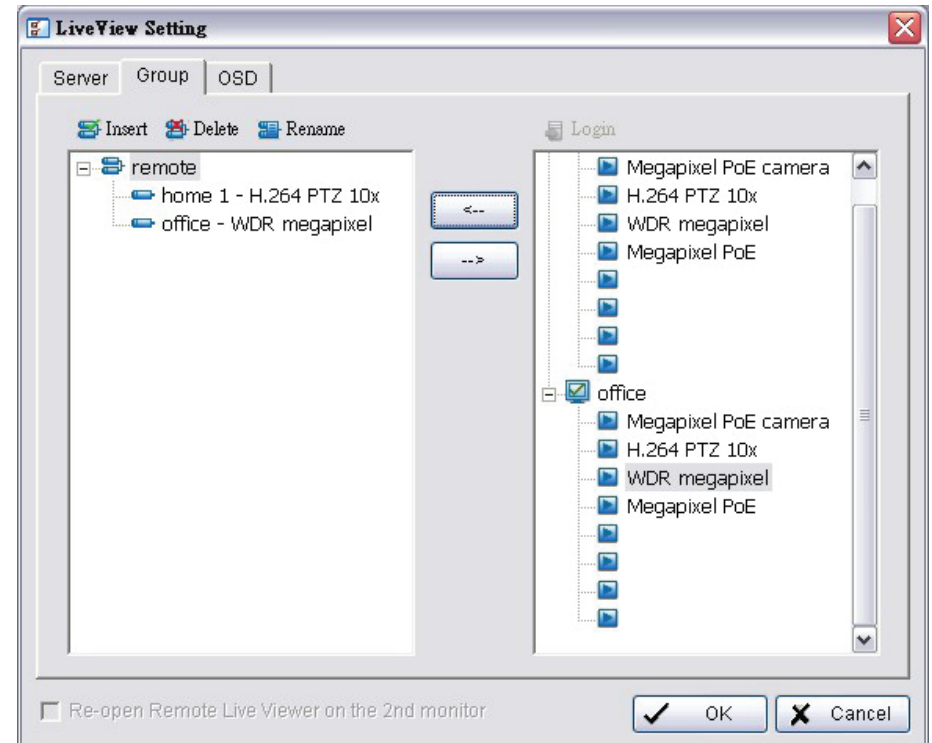
Step 6: Click the **OK** button.

Setup Remote Live View through Application

Step 1: Click the unit you wish to access in your remote server list.

Step 2: Click the **Log In** button to access your unit.

Step 3: Select the camera(s) from the camera list on the right, and then drag it to where you wish the image to be displayed.



Playback Manager Application

Step 1: Please insert the product CD.

Step 2: Install the **Playback** application from CD.

Step 3: Run "**Playback**" application from the Start -> Programs -> D-Link -> Playback Manager

The Playback System control panel is similar to the playback panel in Internet Explorer. See page 57-58 for more details about those buttons.

Single/Quad Split Screen: Users can select to view a single camera or 4 cameras at a time. Basic version only supports 1 camera playback.

Full Screen: Select to display the video with full screen. Press ESC button on the keyboard to return to normal display.

Information Window: Display video date and time, cue in/out points, time and speed.

Audio Volume Control : Adjust the sound level.

Digital Zoom: Click the icon to digital zoom in or digital zoom out the view. Every camera can use this function.

Play/Stop/Pause: Select a camera/video and click this button to play/stop/pause a particular channel.

Speed: Click the + or - button to increase or decrease the playback speed.



Remote Server

Cue in/Cue out: Click the Cue In or Cue Out button to set the time period for Save Video.

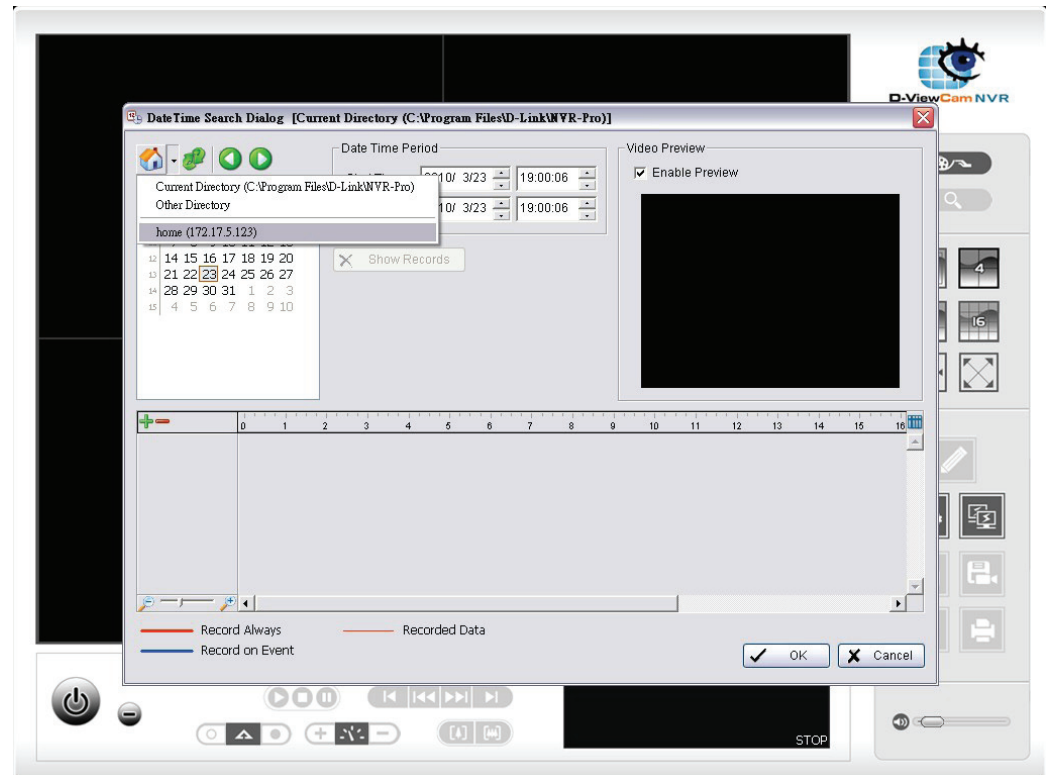
Step forward/Reverse: Click to pause the playback and move to next frame or last frame.

Fast forward/Reverse: Click to pause the playback and move to next minute or last minute.

Set Connections to the Units

- Step 1: Click the **Remote Server** button.
- Step 2: Input the name of your unit.
- Step 3: Input the IP address of that unit.
- Step 4: Modify the port if necessary.
- Step 5: Input the user name.
- Step 6: Input the password.
- Step 7: Check the **Save Password** option.
- Step 8: Click the **Test Server** button to test the connection between the local application and the remote unit.
- Step 9: Click the **Add** button to add this unit into the remote server list.
- Step 10: Click the **OK** button.

The Search, Playback, Smart Search, Video Enhancement, Print Image, Save Video, Save Image, Backup functions are the same as the steps in the Internet Explorer, please see page 60-68.



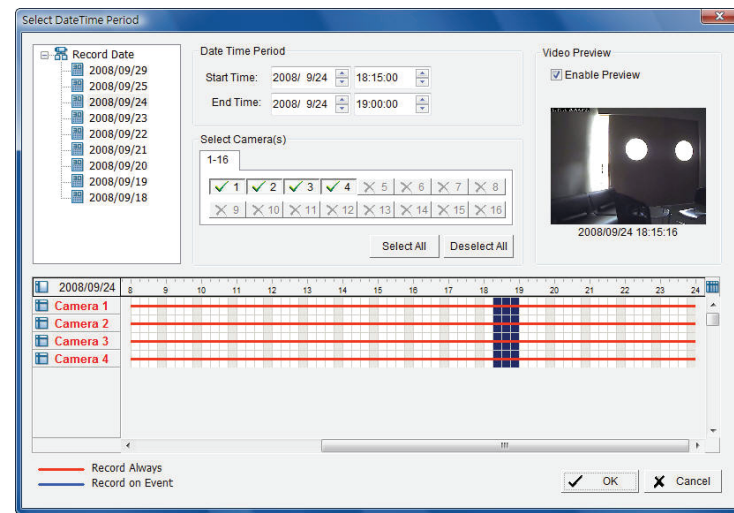
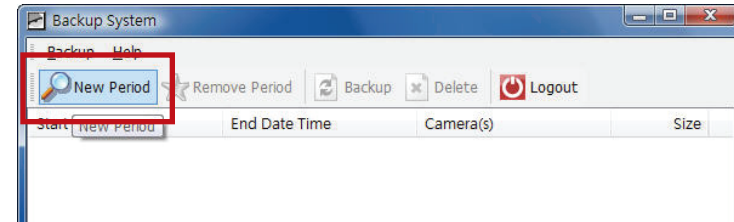
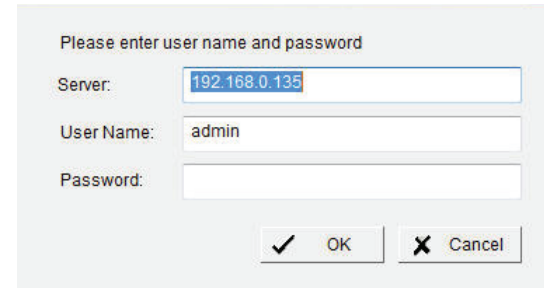
Backup and File Manager Application

- Step 1: Please insert the product CD.
- Step 2: Install the **Backup** application from CD.
- Step 3: Run “Playback” application from the Start -> Programs -> D-Link -> Backup and File Manager

Backup the Recorded Video through Application

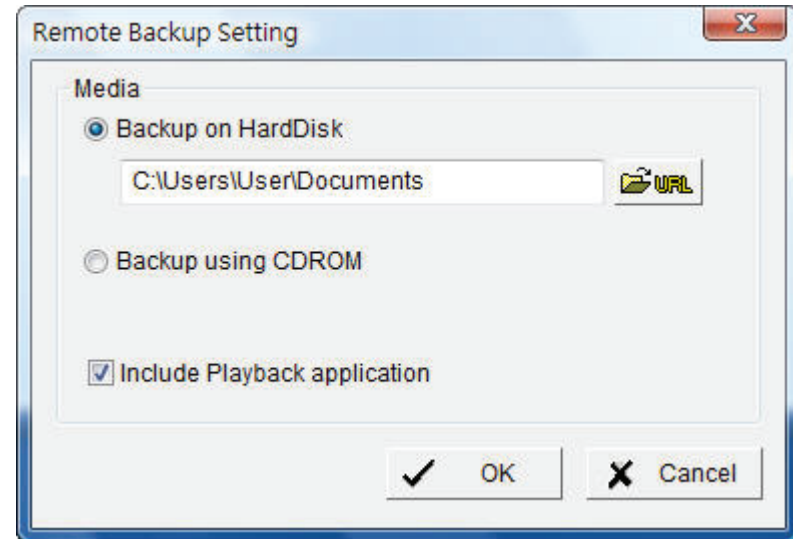
In addition to the ways mentioned in the previous chapters, you can apply the application to backup your files.

- Step 1: Input the IP address of your unit.
- Step 2: Input the user name.
- Step 3: Input the password.
- Step 4: Click the **OK** button.
- Step 5: Click the **New Period** button.
- Step 6: Select the record date.
- Step 7: Set the **Start Time** and **End Time** you would like to backup (or highlight the video records that you would like to backup).
- Step 8: Select the cameras you would like to backup.
- Step 9: Click the **OK** button.
- Step 10: Select the time slot which you would like to backup.
- Step 11: Click the **Backup** button.
- Step 12: Select the location where you would like to save the backup data.



Step 13: Check the **Include Playback application** option, which will add **Playback** application into the backup folder.

Step 14: Click the **OK** button.



Delete the Recorded Video

Step 1: Explorer (insert “\” plus the IP address of your unit).

Step 2: Use the administrator’s ID and password to login. You may also use a user’s ID who has the “delete data” privilege.

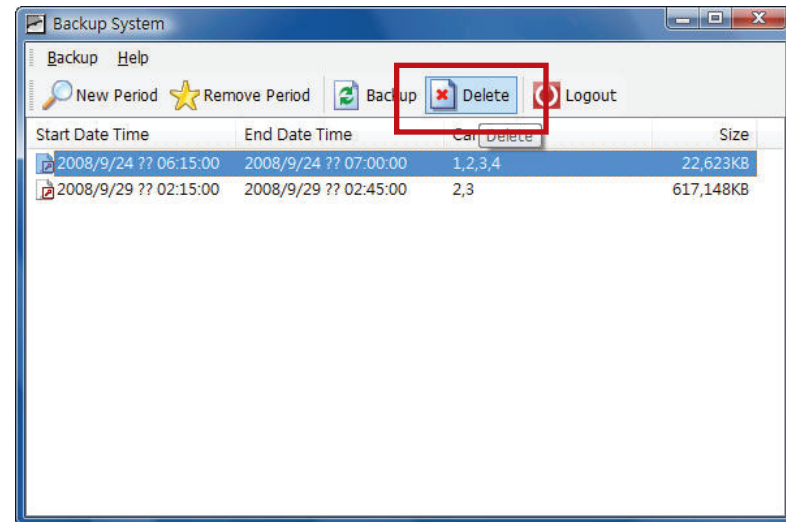
Step 3: Open the “videodata” folder.

Step 4: Select the dated folder which you would like to delete.

Step 5: Delete the entire folder.

Caution

In order to keep the system stable, do not delete the recorded data of the day in which you do the delete process.



Troubleshooting

Check the System Status LED

The system status LED reports the condition of the enclosure fan and power supply:

Solid Blue: NVR is functioning normally

Blinking Blue: NVR is shutting down

If your unit is configured to work with a UPS, it will continue to run for a while after a power supply failure.

Check Disk Status LEDs

The disk status LEDs report the condition of the disk drives:

These lights will be solid BLUE when drives are connected but inactive.

The lights will blink when the drives are being accessed, formatted or synchronized.

They will illuminate AMBER if a drive has failed.

Replace a Failed Disk Drive

If a disk drive fails, the Disk Status LED will turn amber. If the disk drive belongs to a RAID Volume, the Volume will go Critical or Offline.

Replace the failed disk drive with a new disk drive of the same or slightly greater capacity. Please make sure you have powered down the unit.

Step 1: Open the unit's front cover.

Step 2: Pull out the failed disk drive.

Step 3: Install a new disk drive into the slot.

If the failed drive belonged to a RAID Volume, the RAID Volume will begin rebuilding as soon as the new drive is installed. During the rebuild, the Disk Status LED will blink. If the replacement drive is free, i.e. not assigned to a RAID Volume or as a spare, the Disk Status LED remains dark after you install the new drive.

Check RAID Volume Status

Click the Status -> Device Info tab from the menu.

Respond to a Critical RAID Volume

How the unit responds to a critical RAID Volume depends on the RAID level of your Volume and whether you have a spare drive available:

For **RAID 1** Volumes, if a spare drive is available, the RAID Volume will begin rebuilding itself automatically.

For **RAID 1** Volumes, when no spare drive is available, you must replace the failed disk drive. The RAID Volume will begin rebuilding itself when you install the new disk drive.

RAID 0 Volumes go offline after a disk drive failure. A **RAID 0** volume cannot be rebuilt. All data on the volume will be lost.

Check Enclosure Status

Step 1: Click **System/Device Info** button from the main menu.

Step 2: If CPU temperature is above specification:

Be sure there is adequate air flow around the device.

Be sure that the ambient temperature is below 35°C (95°F).

Step 3: Check the fan speed.

If the fan speed is below 1800 RPM, contact Technical Support.

If any power status item is out-of-specification, contact Technical Support.

Restore the Default Administrator's Password

If you forget the password, you can reset the password for “admin” to the default password: **<empty>**. Press and hold the reset button for 5 seconds until the Power LED flashes three times. The Administrator password will now be blank.

Caution

When you reset or recover your unit, sometimes it will cause data corruption. Backup your recorded data before resetting your unit.

Install ActiveX

If you cannot see the complete page of the system when using Internet Explorer, the ActiveX installation process may not be complete.

Step 1: Click the **Live View/Playback** button on the top right.

Step 2: The browser will ask whether to install ActiveX.

Step 3: Click the upper bar to begin the installation process.

Step 4: Click the **Install** button to complete the process.

Upgrade Process When Applying Windows Vista

Windows Vista limits the authority of some users, which cause the system to reject a connection through Windows Explorer. In this condition, you must change the settings of Vista first.

Step 1: Go to Start -> Control Panel.

Step 2: Select Administrative Tools.

Step 3: Select Local Security Policy/Security Options.

Step 4: Select "Network security: LAN Manager authentication level".

Step 5: From the drop-down menu, choose "Send LM & HTLM – use NTLMv2 session security if negotiated".

Step 6: Click the **OK** button.

Cannot Playback When Applying Windows 2000

1. Check whether Windows Media Player is installed.
2. If Media Player is installed, verify that it is version 9 or later.

Cannot Login to the Unit through Internet Explorer

1. Check the settings of your anti-virus software.
2. Adjust the settings of or disable anti-virus software.

Choose a RAID Level

There are several issues to consider when choosing the RAID level. The following summarizes some advantages, disadvantages and applications for each choice.

RAID 0

Advantage

- Implements a striped disk RAID Volume, the data is broken down into blocks and each block is written to a separate disk drive
- I/O performance is greatly improved by spreading the I/O load across many channels and drives
- No parity calculation overhead is involved

Disadvantage

- Not a true RAID because it is not fault tolerant
- The failure of just one drive will result in all data in an RAID Volume being lost
- Should not be used in mission critical environments

RAID 1

Advantage

- Simplest RAID storage subsystem design
- Can increase read performance by processing data requests in parallel since the same data resides on two different drives

Disadvantage

- Very high disk overhead - uses only 50% of total capacity

Replacing or Adding a New Hard Drive

It is recommended that you backup your important files before replacing or adding a new hard drive to the NVR.

Replacing a Hard Drive:

Please make sure the power is off before replacing a hard drive. After you have installed the new drive, turn on the NVR and then connect to the Web UI. The NVR will prompt you to format the new drive (Standard, RAID 1 mode) or both drives (JBOD, RAID 0 mode).

Adding a New Hard Drive:

The NVR is able to work with one single hard drive under Standard mode. Please make sure the power is off before installing a second hard drive.

After you have installed the new drive, turn on the NVR and then connect to the Web UI. The NVR will prompt you to format the new drive.

Note: Formatting a hard drive will erase the data stored on the hard drive. Please backup important data before formatting a hard drive.

Technical Specifications

Firmware Specification

OS

- + Linux

CAMERAS SUPPORT

- + DNS-722-4: Supports all D-Link network cameras. Includes support for auto-discovery, and up to 1.3 megapixel resolution.
- + DNS-726-4: Supports known-brand network cameras including D-Link, Axis, Panasonic, Sony, Mobotix, Arecont, IQinVision, Cisco and ACTi. Specific feature support depends on software.

RECORDING PERFORMANCE

- + Up to 120 fps at D1 / 240 fps at CIF for 8 channel

CAMERA SEARCH

- + UPnP

AUDIO & VIDEO RECORDING

- + Synchronized Audio & video recording.

COMPRESSION FORMAT

- + H.264, MPEG-4, M-JPEG (depend on the Network cameras)

VIDEO SETTING

- + Resolution, quality, frame rate, enable audio, go to camera interface

RECORDING TYPE

- + DNS-722-4: record by schedule, manual record and event-based recording (Motion detection from camera)
- + DNS-726-4: record by schedule, manual and event (DI trigger, motion detection from camera)

REMOTE LIVE VIEW

- + Supported via IE remote live viewer
- + Maximum 8 simultaneous channels

REMOTE LIVE VIEW CONTROL

- + Live view, preset/go, patrol, focus, PTZ functions, snapshot, remote IO (DNS-726-4 only), full screen, digital zoom

REMOTE PLAYBACK

- + Supported via IE and NVR client
- + Playback system with timeline GUI, search by event, area, cameras, date and time
- + DNS-722-4: IE & NVR client support 1 channel playback
- + DNS-726-4: IE & NVR client support 4 channel simultaneous playback, and intelligent search by general motion, missing object.
- + Digital zoom in to specific area

REMOTE PLAYBACK CONTROL

- + Playback with normal, fast forward/rewind and step forward/rewind
- + Smart Search (DNS-726-4 only)
 - Intelligent detection function: General Motion, Missing Object, Foreign Object, Camera Occlusion, Lose Focus

OVERWRITE RECORDING

- + Auto recycling when disk storage is full

FILE EXPORT

- + Export videos to “AVI” or “ASF” file
- + Export Images to “BMP” or “JPG” file

USER ACCOUNT

- + Additional accounts can be created to allow user access to the system, and specify authorization for the camera channels, PTZ, etc.

DDNS

- + D-Link DDNS server support

SYSTEM TIME

- + Set the system time (D-Link NTP, Input time, Sync with computer, Daylight Saving Time)

REMOTE BACKUP

- + Remote software can backup raw data to redundant storage
- + Auto backup the video of previous day to FTP server

SYSTEM STATUS

- + Camera status, System status
- + Still picture EMAP support

NETWORK SERVICE PROTOCOLS

- + IPV4, ARP, TCP, UDP, ICMP
- + DHCP Client
- + NTP Client (D-Link)
- + DNS Client
- + DDNS Client (D-Link)
- + SMTP Client
- + HTTP Server
- + PPPoE
- + UPnP
- + IP filtering

USER INTERFACE

- + HTTP Web browser - Internet Explorer v6 or later (32 bit OS only)
- + NVR Search Utility

Hardware Specification

STANDARDS

- + IEEE 802.3/u/z
- + Auto MDI/MDI-X
- + SATA I, II.

HARD DISK¹

- + Hard Disk control & manage via PC
- + Reformat Disk
- + RAID 0
- + RAID 1²
- + JBOD

TWO RESET MODES

- + Reset firmware GUI button
- + HW reset button (press over 5 seconds)

FLASH ROM

- + 32MB

RAM

- + 128MB DDR

NIC

- + Gigabit Ethernet LAN port (10/100/1000 Mbps)

I/O PORTS

- + RJ45 port x1
- + DC-in jack x1
- + USB port for UPS status update (optional)

POWER ADAPTER

- + DC12V/3A, DC5V/3A

RESET BUTTON

- + Reset to factory default

SECURITY

- + Front panel lock
- + Device lock hole

POWER CONSUMPTION

- + Max. power consumption: 23.59W
- + Standby state max. power consumption: 7.26W

DIMENSION (WXDXH)

- + 198 (W) x 104 (D) x 132 (H) mm (7.8 x 4.1 x 5.2 inches)

WEIGHT

- + 1.23 kg (2.7 lbs)

OPERATING TEMPERATURE

- + Operating: 0° to 55° C (32° to 131° F)
- + Storage: -20° to 70° C (-4° to 158° F)

HUMIDITY

- + Operating: 5% to 90% (non-condensing)

PACKAGE CONTENTS

- + 2-Bay NVR
- + Power Adapter
- + Ethernet Cable

- + Quick Installation Guide
- + Power Cable Holder
- + Keys
- + CD-ROM with:
 - Software
 - Product Documentation

Remark 1: An external SATA drive is required to store or share files. (Not included.)

Remark 2: RAID1 mirroring requires the use of two internal SATA drives. To avoid data incompatibility in RAID 1 operation, use identical SATA drives from the same manufacturer. Formatted drive capacity for RAID 1 operation is dependant on the drive capacity of the lowest-sized drive. Some older generation SATA drives may not be compatible. For a list of SATA drives that have been tested to work with the DNS-722-4/DNS-726-4, visit the D-Link support web site.