LOREX®
VIEW YOUR WORLD®

NETWORK VIDEO SURVEILLANCE RECORDER

Instruction Manual

English Version 1.0

LOREX STRATUS CONNECTIVITY

VANTAGE

LNR300 netHD Series

www.lorextechnology.com

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REOLINK 1019

Thank you for purchasing the Lorex Network Video Surveillance Recorder.

This manual refers to the following models:

- LNR340 (4-channel)
- LNR380 (8-channel)
- LNR360 (16-channel)

For the latest online manual, downloads and product updates, and to learn about our complete line of accessory products, please visit our website at:

www.lorextechnology.com

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RICK OF ELECTRIC SHOCK DO NOT REMOVE COVER. NO USER SERVICABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the products ' enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF THE PLUG TO THE WIDE SLOT AND FULLY INSERT.

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NEED HELP?

CONTACT US FIRST

DO NOT RETURN THIS PRODUCT TO THE STORE

Please make sure to register your product at www.lorextechnology.com to receive product updates and technical support.

2 Easy Ways to Contact Us

Online:

Product Support is available 24/7 including product information, user manuals, quick start up guides and FAQ's at **www.lorextechnology.com/support**

For all other matters, visit **www.lorextechnology.com**

By Phone:

North America:

Customer Service (for warranty matters): **1-888-425-6739** (1-888-42-LOREX)

Tech Support (for technical/installation issues): **1-877-755-6739** (1-877-75-LOREX)

Mexico: **001-800-681-9263, 001-800-514-6739**

International: **+800-425-6739-0** (Example: From the UK, dial 00 instead of +)

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NO DEVUELVA ESTE PRODUCTO A LA TIENDA

Por favor, registre su producto en www.lorextechnology.com para recibir actualizaciones del producto y asistencia técnica.

Hay 2 maneras fáciles de comunicarse con nosotros:

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Apoyo al cliente está disponible 24/7, incluyendo información del producto, manuales para el usuario, guías de inicio rápido y preguntas más frecuentes en:
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Para todo lo demás, visite
www.lorextechnology.com

Por teléfono:

Norte América:
Atención al cliente (para asuntos de la garantía):
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Asistencia técnica (para asuntos técnicos o de instalación):
1-877-755-6739 (1-877-75-LOREX)

Mexico: **001-800-681-9263, 001-800-514-6739**

Internacional: **+800-425-6739-0**
(Ejemplo: Desde el Reino Unido, marque el 00 en lugar del +)

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À votre disposition 24/7, le soutien pour les produits comprend les renseignements sur les produits, guides d'utilisation, guides de départ rapide et FAQ :
www.lorextechnology.com/support

Pour toutes les autres questions,
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1-888-425-6739 (1-888-42-LOREX)
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Mexique : **001-800-681-9263, 001-800-514-6739**

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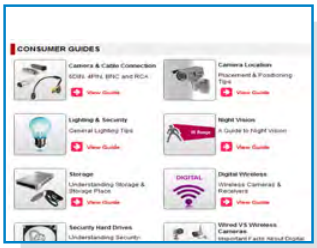
BEFORE YOU START

Please make sure to register your product at www.lorextechnology.com to receive product updates and technical support

THIS PRODUCT MAY REQUIRE PROFESSIONAL INSTALLATION

LOREX IS COMMITTED TO FULFILLING YOUR SECURITY NEEDS

- We have developed user friendly products and documentation. Please read the Quick Start Guide and User Manual before you install this product.



- Consumer Guides and Video Tutorials are available on our web site at **www.lorextechnology.com/support**

- If you require further installation assistance, please visit **www.lorextechnology.com/installation** or contact a professional installer.

- Please note that once the components of this product have been unsealed, you cannot return this product directly to the store without the original packaging.

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AVANT DE COMMENCER

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CE PRODUIT PEUT NÉCESSITER UNE INSTALLATION PROFESSIONNELLE

LOREX S'ENGAGE À RÉPONDRE À VOS BESOINS EN MATIÈRE DE SÉCURITÉ

- Nous avons conçu et développé une documentation et des produits extrêmement conviviaux. Veuillez lire le Guide de départ rapide et le Guide d'utilisation avant d'installer ce produit.
- Des guides pour consommateurs et des tutoriels vidéo vous sont offerts sur notre site Web : www.lorextechnology.com/support
- Si vous avez besoin de plus d'assistance pour l'installation de ce produit, veuillez visiter le site www.lorextechnology/installation ou communiquez avec un installateur professionnel.
- Veuillez prendre note que lorsque vous avez déballé les pièces et composantes de ce produit, vous ne pouvez pas retourner celui-ci directement au magasin sans son emballage original.

ANTES DE EMPEZAR

Cerciórese de por favor colocar su producto en www.lorextechnology.com para recibir actualizaciones y la información del producto y soporte técnico.

ESTE PRODUCTO PUEDE EXIGIR UNA INSTALACIÓN PROFESIONAL

LOREX SE COMPROMETE A SATISFACER SUS NECESIDADES EN SEGURIDAD

- Favor de leer la guía de instalación rápida y la guía del usuario antes de instalar este product.
- Puede conseguir las guías del consumidor y los cursos en enseñanza video sobre el Internet visitando www.lorextechnology.com/support
- Si necesita ayuda para la instalación, visite www.lorextechnology.com/installation o contacte un especialista en instalaciones.
- Favor de notar que una vez que los componentes de este producto han sido removidos del embalaje, no podrá devolver este producto directamente a la tienda.

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Important Safeguards

In addition to the careful attention devoted to quality standards in the manufacture process of your product, safety is a major factor in the design of every instrument. However, safety is your responsibility too. This sheet lists important information that will help to ensure your enjoyment and proper use of the product and accessory equipment. Please read them carefully before operating and using your product.

General Precautions

1. All warnings and instructions in this manual should be followed.
2. Remove the plug from the outlet before cleaning. Do not use liquid aerosol detergents. Use a water-dampened cloth for cleaning.
3. Do not use this product in humid or wet places.
4. Keep enough space around the product for ventilation. Slots and openings in the storage cabinet should not be blocked.
5. It is highly recommended to connect the product to a surge protector to protect from damage caused by electrical surges. It is also recommended to connect the product to an uninterruptible power supply (UPS), which has an internal battery that will keep the product running in the event of a power outage.

Installation

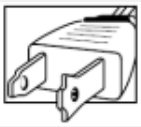
1. **Read and Follow Instructions** - All the safety and operating instructions should be read before the product is operated. Follow all operating instructions.

2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.

3. **Heed Warnings** - Comply with all warnings on the product and in the operating instructions.

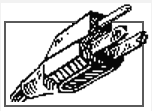
4. **Polarization** - Do not defeat the safety purpose of the polarized or grounding-type plug.

   A polarized plug has two blades with one wider than the other.

   A grounding type plug has two blades and a third grounding prong.

   The wide blade or the third prong are provided for your safety.

   If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

5. **Power Sources** - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your location, consult your video dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

6. **Overloading** - Do not overload wall outlets or extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard. Periodically examine the cord, and if its appearance indicates damage or deteriorated insulation, have it replaced by your service technician.

7. **Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

8. **Surge Protectors** - It is highly recommended that the product be connected to a surge protector. Doing so will protect the product from damage caused by power surges. Surge protectors should bear the UL listing mark or CSA certification mark.

9. **Uninterruptible Power Supplies (UPS)** - Because this product is designed for continuous, 24/7 operation, it is recommended that you connect the product to an uninterruptible power supply. An uninterruptible power supply has an internal battery that will keep the product running in the event of a power outage. Uninterruptible power supplies should bear the UL listing mark or CSA certification mark.

   Caution: Maintain electrical safety. Power line operated equipment or accessories connected to this product should bear the UL listing mark or CSA certification mark on the accessory itself and should not be modified so as to defeat the safety features. This will help avoid any potential hazard from electrical shock or fire. If in doubt, contact qualified service personnel.

Installation (Continued)

10. **Ventilation** - Slots and openings in the case are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the product manufacturer's instructions have been followed.

11. **Attachments** - Do not use attachments unless recommended by the product manufacturer as they may cause a hazard.

12. **Water and Moisture** - Do not use this product near water — for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, near a swimming pool and the like.

13. **Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

14. **Accessories** - Do not place this product on an unstable cart, stand, tripod, or table. The product may fall, causing serious damage to the product. Use this product only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions and use a mounting accessory recommended by the manufacturer.

15. **Camera Extension Cables** – Check the rating of your extension cable(s) to verify compliance with your local authority regulations prior to installation.

16. **Mounting** - The cameras provided with this system should be mounted only as instructed in this guide or the instructions that came with your cameras, using the provided mounting brackets.

17. **Camera Installation**- Cameras are not intended for submersion in water. Not all cameras can be installed outdoors. Check your camera environmental rating to confirm if they can be installed outdoors. When installing cameras outdoors, installation in a sheltered area is required.

Service

1. **Servicing** - Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

2. **Conditions Requiring Service** - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

   A. When the power supply cord or plug is damaged.

   B. If liquid has been spilled or objects have fallen into the product.

   C. If the product has been exposed to rain or water.

   D. If the product has been dropped or the cabinet has been damaged.

   E. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.

   F. When the product exhibits a distinct change in performance. This indicates a need for service.

7. **Replacement Parts** - When replacement parts are required, have the service technician verify that the replacements used have the same safety characteristics as the original parts. Use of replacements specified by the product manufacturer can prevent fire, electric shock, or other hazards.

8. **Safety Check** - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the product is in safe operating condition.

Use

1. **Cleaning** - Unplug the product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

2. **Product and Cart Combination** - When product is installed on a cart, product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

3. **Object and Liquid Entry** - Never push objects of any kind into this product through openings as they may touch dangerous voltage points or "short-out" parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

4. **Lightning** - For added protection of this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power line surges.

NOTICES

FCC/IC Notice:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment on and off), the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio or television technician for assistance

Modification:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.

Toute modification non approuvée explicitement par le fournisseur de licence de l'appareil peut entraîner l'annulation du droit de l'utilsateur à utiliser l'appareil.

RoHS:

This product is fully compliant with the European Union Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment ("RoHS") Directive (2002/95/EC). The RoHS directive prohibits the sale of electronic equipment containing certain hazardous substances such as lead, cadmium, mercury, and hexavalent chromium, PBB, and PBDE in the European Union.

This product has been certified and found to comply with the limits regulated by FCC, EMC, and LVD. Therefore, it is designated to provide reasonable protection against interference and will not cause interference with other appliance usage.

However, it is imperative that the user follows the guidelines in this manual to avoid improper usage, which may result in damage to the product, electrical shock and fire hazard injury.

In order to improve the features, functions, and quality of this product, the specifications are subject to change without notice from time to time.

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Product Information	**Specification Sheets**
User Manuals	**Software Upgrades**
Quick Start Guides	**Firmware Upgrades**

Features

Network Video Recorder Features

- FULL HD 1080P Resolution
- Real-time Recording 30fps per channel (4/8 @1080p, 16ch@720p)
- Recording speed @ 1080p (4/8/16 120/240/240fps)
- Simultaneous Playback and Live view on the same screen
- Selectable area Zoom during Live view and Playback
- Easy camera installation using Power over Ethernet (CAT5) cable
- 24/7 100% Duty Cycle Hard Disc Drive
- Expandable High Capacity Storage up to 8TB (max 2x4TB HDD)
- Mirror Hard Drive Recording - secure your recordings by backing up footage to an internal hard drive at the same time as recording to the primary hard drive[1]
- HDMI output resolution 1080p & VGA output for simple connection to HDTVs (HDMI cable included)
- Pentaplex operation - View, Record, Playback, Backup & Remotely control the system simultaneously

Connectivity Features[2]

- LOREX Stratus Solution - Quick & simple cloud connectivity
- Instant Mobile Viewing on compatible Smartphones[3]
- Dedicated iPad® and Android™ tablet apps with multi-channel live viewing and playback
- Lorex netHD Client Software:
  - PC (Microsoft Windows™ 8, 7) compatible using client software (included) & web browser
  - Mac remote client software (included) and Safari web browser
- Instant e-mail alerts with snap shot attachments

1. Mirror recording requires a second hard drive (not included) to be installed in the NVR. Mirrored hard drive must be as large or larger than the primary hard drive to backup all recordings.
2. Requires a high speed internet connection and a router (not included). An upload speed of 1Mbps is required for remote video access. Up to 3 devices may connect to the system at the same time.
3. Instant Mobile Viewing on iPad®, iPhone®, Android (version 2.3 & above). Mobile phone data plan is required (not included). Router port forwarding required. For the latest smart phone compatibility list check www.lorex-technology.com as new smart phone models become available in the market.

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TABLE OF CONTENTS

Getting Started 1
NVR Overview 2
Front Panel 2
4-Channel 2
8-Channel 2
16-Channel 3
Basic Setup 4
Step 1: Connect the Mouse 4
Step 2: Connect the Ethernet Cable 4
Step 3: Connect the Monitor 4
Step 4: Connect the Power Adapter and Power on the NVR 5
Step 5: Connect the IP Cameras 5
Option 1: Direct Connection to NVR (Recommended) 5
Option 2: Connect Cameras to Local Network 5
Step 6: Verify Camera Image 6
Step 7: Set the Time 6
Default System Password & Port Numbers 6
Quick Access to System Information 7
Camera Installation Tips 7
Installation Tips 7
Installing Cameras 7
Connecting Cameras over the Local Network 9
Connecting Cameras Over the Local Network on 16-Channel Models: 10
Connecting Cameras Over the Local Network on 4/8-Channel Models (Advanced): 11
Mouse Control 13
Remote Control 14
Using the Remote Control to Enter Text or Numbers 15
Using the On-Screen Display 16
Using the Camera Toolbar 16
Using Digital Zoom 16
Adjusting Camera Image Settings 17
Using the Quick Menu 17
Using the Virtual Keyboard 18
Setting the Date and Time 19
Configuring Daylight Savings Time (DST) 20
Using a NTP Server to set your System Time 21

Recording 22
Recording Modes 22
Recording Icons 22
Playback 23
Using Quick Playback 23
Using All-day Playback 23
Using the Playback Menu to Search for Recordings 24
Normal Search 24
Locking Video Files 25
Event Search 26
Tag Search 27
Using the On-Screen Playback Controls 29
Using the Playback Quick Menu 30
Using Digital Zoom in Playback Mode 30
Tagging Video Footage 31
Backing Up Video 32
Formatting the USB Drive 32
Using Quick Export 33
Using Search Export 34
Using Video Clip Backup 35
Playing Back Up Video Files 36
Using the Quick Player to Playback Video Files 36
Managing Passwords 38
Enabling/Disabling Passwords 38
Managing User Accounts 39
Changing the Admin Account Password 39
Adding Users 40
Configuring User Permissions 41
Deleting Users 41
Editing Users 41
Using the Main Menu 42
Manual 43
Selecting Manual or Scheduled Recording 43
HDD 44
General 44
Formatting the Hard Drive 44
Configuring Hard Drive Type or Group 45
Advanced 47
Configuring Recording Group Settings 47
HDD Detect 47
Setting S.M.A.R.T. Settings and Running S.M.A.R.T. Checks on the Hard Drive 47
Checking the Hard Drive for Errors 48
Overwrite 49

Enabling/Disabling Overwrite 49
Record 50
Schedule 50
Configuring the Recording Schedule 50
Recording Setup 51
Configuring Recording Resolution, Frame Rate, and Image Quality 51
Recommended Frame Rate and Bitrate per Number of Channels 52
Configuring the Pre-Record and Post-Record Times 52
Configuring Substream Settings 53
Holiday 54
Configuring Holidays 54
Camera 56
Camera 56
OSD 57
Configuring the On-Screen Display and Camera Name 57
Image 58
Configuring Camera Image Settings 58
Motion 58
Configuring Motion Detection Settings 58
Configuring Motion Detection Alarm Settings 59
Privacy Mask 61
Configuring Privacy Masks 61
Tamper-proof 62
Configuring Tamper-proof Alarms 62
Video Loss 64
Configuring Video Loss Alarm Settings 64
Configuration 66
General 66
Setting the Display Resolution 66
Setting the Mouse Pointer Speed 66
Enabling the Start Up Wizard 67
Configuring the Auto Logout Time 67
Pairing the Remote Control 68
Adjusting BNC Video Out Brightness (16-Channel Only) 68
Changing the Device Name 69
Network 69
Selecting Fixed IP or DHCP 69
Configuring Email Alerts 70
Configuring DDNS Settings 71
Changing System Ports 72
Live View 73
Configuring Dwell Times 73
Configuring the Layout of Channels 73
Warning 74
Configuring System Warnings 74

Maintenance 76
System Info 76
Viewing System Info 76
Log Information 76
Searching for System Logs 76
Exporting System Logs to USB 77
Import/Export 78
Saving Your System Configuration to USB 78
Loading a System Configuration from USB 79
Upgrade 79
Upgrading the System Firmware 79
Default 81
Resetting the System to Factory Default Settings 81
Shutdown 82
Connecting to Your NVR Over the Internet on PC or Mac 83
System Requirements 83
Step 1 of 3 Connect your NVR to your Router 84
Step 2 of 3: Obtain the NVR's Device ID 84
Step 3 of 3: Connect to the NVR over the Internet 84
Client Software for PC or Mac 87
Control Panel 87
Main View 88
Using Quick Playback Mode 91
Tagging Video Through Quick Playback 92
Downloading Tagged Video 92
Using All Files to View Manual Recordings and Downloaded Video Files 93
Using Pictures to View Screenshots 94
Video Player 95
Opening Backup Video Files 95
Video Player Controls 96
E-Map 96
E-Map Controls 98
Event Search 98
Event Search Controls 100
Downloading Event Video Files 100
Remote Playback 101
Remote Playback Controls 102
Downloading Video Files Using Remote Playback 103
Add Camera 105
Creating Camera Groups 105
Modifying Cameras or Camera Groups 106
Deleting Cameras or Camera Groups 106
Local Log Search 106
Backing up Logs 107

Account Management 107
Adding User Accounts 108
Modify User Accounts 109
Delete User Accounts: 109
Device Management 109
Modifying an NVR 110
Deleting an NVR 110
Configuring an NVR Through Device Management 110
Information 110
General 111
Camera 111
Network 112
User 113
Adding Users 113
Modifying Users 114
Deleting Users 114
HDD 115
File 115
Log 116
Holiday 116
Camera Settings 117
Adjusting Picture Settings 118
Configuring Video Quality 118
Configuring Camera Recording Schedules 119
Configuring the Camera Video Display (OSD) and Privacy Masks 121
Configuring Motion Detection Settings 124
Configuring Tampering Alarm Settings 126
Configuring Video Loss Alarms 127
PTZ Control (Not Supported) 129
Network Connection (Not Supported) 129
System Configuration 129
General 129
File 130
Alarm Sound 130
Email 131
Mobile Apps: Accessing your NVR Using a Mobile Device 132
Compatible Devices and Platforms 132
iPhone 132
Connecting to your NVR using an iPhone 132
Live View Interface 135
Taking Screenshots 135
Switching Cameras 135
Playback 136
Device List 137
Configuration 138
iPad 139
Connecting to your NVR using an iPad 139
Live View Interface 141

Taking Screenshots . . . 141
Playback . . . 141
Device List . . . 143
Deleting NVRs . . . 143
Modifying NVRs . . . 143
Local Config . . . 143
Android Phone . . . 144
Connecting to your System Using an Android Phone . . . 144
Live View Interface . . . 146
Taking Screenshots . . . 146
Switching Cameras . . . 147
Playback . . . 147
Device List . . . 148
Configuration . . . 149
Android Tablet . . . 150
Connecting to your System using an Android Tablet . . . 150
Live View . . . 152
Playback . . . 152
Device List . . . 153
Deleting NVRs . . . 154
Modifying NVRs . . . 154
Local Config . . . 154
Appendix A: System Specifications . . . 155
Appendix B: Installing or Replacing the Hard Drive . . . 156
Installing the Hard Drive . . . 156
Removing the Hard Drive . . . 158
Formatting the Hard Drive . . . 159
Appendix C: DDNS Setup (Advanced) . . . 160
System Requirements . . . 160
Accessing your NVR within a local network (LAN) . . . 161
Step 1 of 3: Connect your NVR to the Local Area Network . . . 161
Step 2 of 3: Obtain the NVR's Local IP Address . . . 161
Step 3 of 3: Connect to the NVR on the Local Area Network . . . 162
To connect to the NVR on the LAN using a PC: . . . 162
Accessing your NVR Remotely over the Internet . . . 163
Step 1 of 4: Port Forwarding . . . 164
Step 2 of 4: Create a DDNS Account . . . 164
Step 3 of 4: Enable DDNS on the NVR . . . 168
Step 4 of 4: Connect to the DDNS Address in the Client Software . . . 169
Appendix D: Connecting to your NVR Using a Web Browser . . . 170
Connecting to your NVR Using a DDNS or Local IP Address . . . 170
Connecting Using Internet Explorer . . . 170
Connecting Using Safari . . . 172
Connecting Using Chrome/Firefox . . . 172
Navigating the Web Browser Interface . . . 174

Web Browser Remote Playback 174
Troubleshooting 176

Getting Started

The system comes with the following components:

NVR (NETWORK VIDEO RECORDER)

POWER CABLE

ETHERNET CABLE

HDMI CABLE

REMOTE CONTROL
(may not be exactly as shown)

USB MOUSE

QUICKSTART GUIDES
DOCUMENTATION CD

HARD DRIVE SIZE, NUMBER OF CHANNELS, AND CAMERA CONFIGURATION MAY VARY BY MODEL. PLEASE REFER TO YOUR PACKAGE FOR SPECIFIC DETAILS.

CHECK YOUR PACKAGE TO CONFIRM THAT YOU HAVE RECEIVED THE COMPLETE SYSTEM, INCLUDING ALL COMPONENTS SHOWN ABOVE.

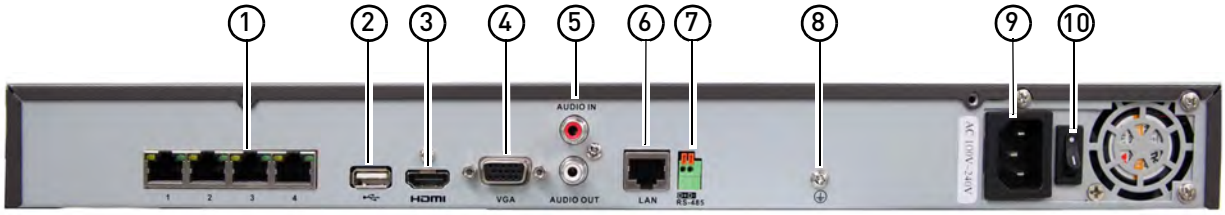
NVR Overview

Front Panel

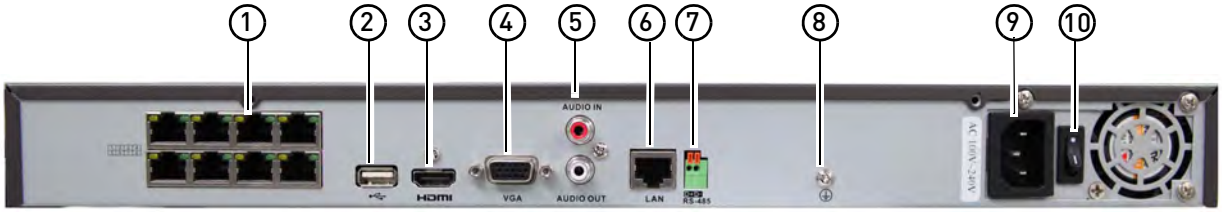
1 **LED Indicators:**
- **POWER:** Power LED.
- **HDD:** Recording status LED
- **NETWORK:** Network status LED.

2 **USB Port**: Connect a USB mouse (included) or USB flash drive (not included) for data backup or firmware updates.

4-Channel



8-Channel



1 **Camera In:** Connect IP cameras. Integrated PoE (Power Over Ethernet) ports provide power to cameras and video connection to NVR.

2 **USB Port:** Connect a USB mouse (included) or USB flash drive (not included) for data backup or firmware updates.

3 **HDMI Port:** Connect an HDTV or monitor to view the system interface.

4 **VGA Port:** Connect a VGA monitor to view the system interface.

5 **Audio IN/Audio OUT:** Connect a microphone (not included) and 1 audio output device (e.g. speakers; not included).

6 **LAN:** Connect a CAT5 RJ45 Ethernet cable for local and remote connectivity.

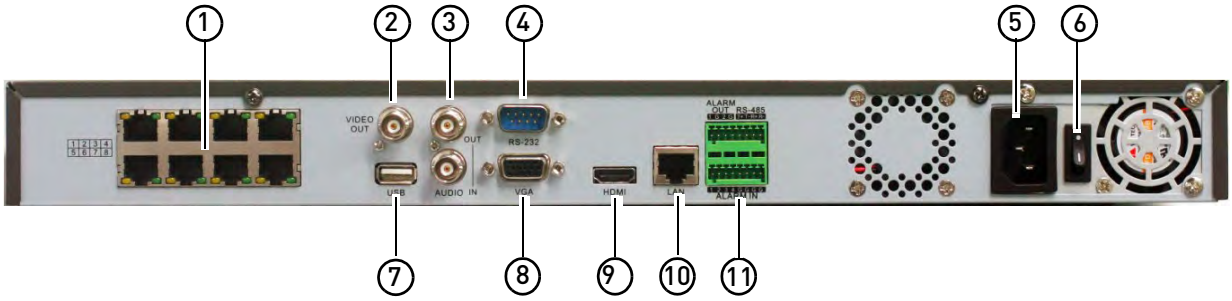
7 **RS485:** Not supported.

8 **Ground**

9 **Power Port:** Connect the included power cable.

10 **Power Switch:** Turns the NVR on / off.

16-Channel



1 **Camera In:** Connect IP cameras 1~8. Integrated PoE (Power Over Ethernet) ports provide power to cameras and video connection to NVR.

NOTE: To connect cameras 9~16, see "Connecting Cameras over the Local Network" on page 9.

2 **Video Out:** Outputs the live display to a secondary monitor using a BNC cable (not included).

NOTE: You cannot see the mouse or system menus via BNC. Use a BNC to RCA adapter (not included) to connect the NVR to RCA inputs (i.e. for a TV connection).

3 **Audio IN/Audio OUT:** Connect a microphone (not included) and 1 audio output device (e.g. speakers; not included).

4 **RS-232:** Service only; not supported.

5 **Power Port:** Connect the included power cable.

6 **Power Switch:** Turns the NVR on / off.

7 **USB Port:** Connect a USB mouse (included) or USB flash drive (not included) for data backup or firmware updates.

8 **VGA Port:** Connect a VGA monitor to view the system interface.

9 **HDMI Port:** Connect an HDTV or monitor to view the system interface.

10 **LAN:** Connect a CAT5 RJ45 Ethernet cable for local and remote connectivity.

11 **RS485/Alarm:** Not supported.

Basic Setup

Step 1: Connect the Mouse

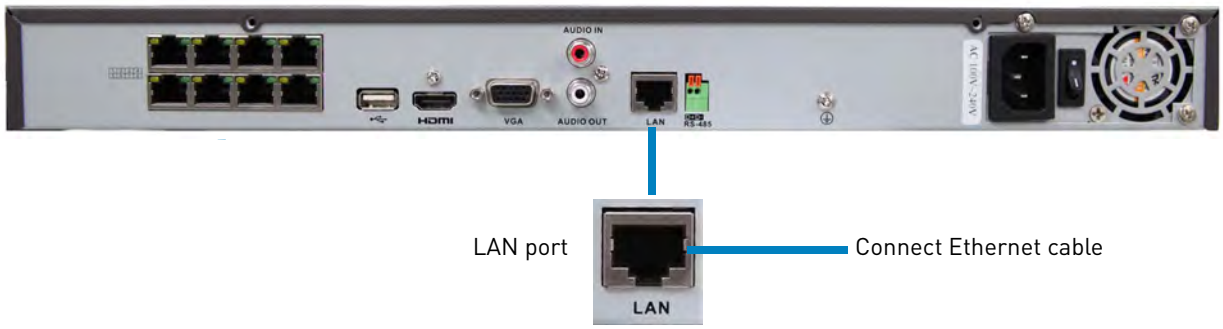
- Connect a USB mouse (included) to the **USB** port on the rear panel.

8-channel model shown

Step 2: Connect the Ethernet Cable

- Connect an Ethernet cable (included) to the **LAN** port on the rear panel. Connect the other end of the Ethernet cable to a router on your network.

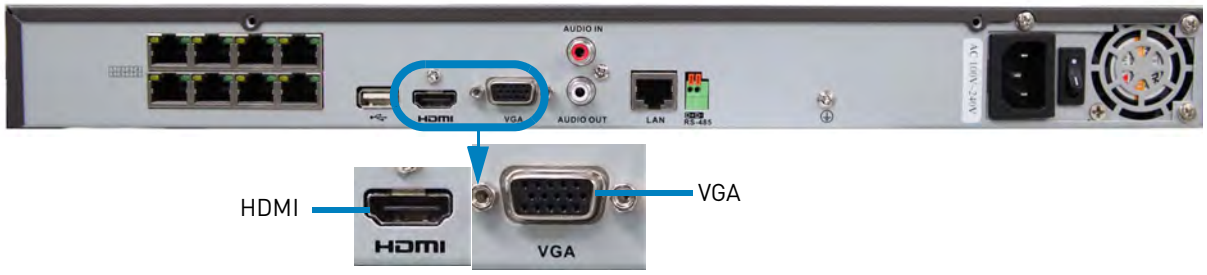
8-channel model shown



Step 3: Connect the Monitor

- Connect a HDMI cable (included) from the **HDMI** port to the TV or monitor (recommended) **OR**;
- Connect a VGA cable (not included) from the **VGA** port to the monitor.

8-channel model shown



Step 4: Connect the Power Adapter and Power on the NVR

- Connect the included power cable to the **Power** port. Connect the end of the power cable to a wall socket or a surge protector.
- Turn the power switch to **I** to turn on the NVR. At startup, the system performs a basic system check and runs an initial loading sequence. After a few moments, the system loads a live display view.

8-channel model shown

Step 5: Connect the IP Cameras

NOTE: Only Lorex IP cameras are supported with the NVR.

Option 1: Direct Connection to NVR (Recommended)

The NVR features integrated Power over Ethernet (PoE) ports, which allow you to connect cameras directly to the NVR.

Simply connect the IP cameras to the **PoE** ports on the rear panel of the NVR using Cat 5e or higher Ethernet cable, and the cameras will appear on the NVR without any additional configuration. The PoE ports will provide power to the cameras and facilitate the transmission of video data to the NVR.

8-channel model shown

Connect IP Cameras directly to PoE ports

NOTE: The cameras may take up to 1 minute to power on and show an image on the monitor after being connected to the NVR.

Option 2: Connect Cameras to Local Network

Since 16-channel models have only 8 PoE ports, you must connect channels 9~16 to the local network by connecting them to the same router as the NVR. For details, see "Connecting Cameras over the Local Network" on page 9.

Step 6: Verify Camera Image

- Verify the camera video quality before mounting the cameras to a permanent location.
- Mount the cameras under a sheltered location. Always verify the outdoor rating of your camera before installing it in a permanent location.

Step 7: Set the Time

- Set the system time and date for accurate video time stamps. Videos with inaccurate times may not be valid as surveillance evidence.
- For details on setting the system time, see "Setting the Date and Time" on page 19.

Default System Password & Port Numbers

By default, the system user name is **admin** and the password is **000000**. Passwords are enabled by default and are required to access menus. It is essential that you create your own password. For details, see "Managing Passwords" on page 38.

- The system requires a user name and password to log in to the system remotely using a computer or mobile device.
- After logging on remotely the first time, you will be asked to create a custom password for the system.

Local NVR and remote connectivity (LAN & Internet) user name and password:

- Username: **admin** / Password: **000000**

Default ports for DDNS remote access:

- Port **80** (HTTP port)
- Port **8000** (Client port)
- Port **1025** (Mobile port)

Lorex Stratus Connectivity

This system features the exclusive Lorex Stratus connectivity service. This is a cloud connectivity service that allows you to connect to your system over the Internet via a secure handshake with Lorex's Stratus servers. This means you can easily connect to your system without requiring any network configuration.

For details on setting up your system to connect to the Internet using the Stratus service:

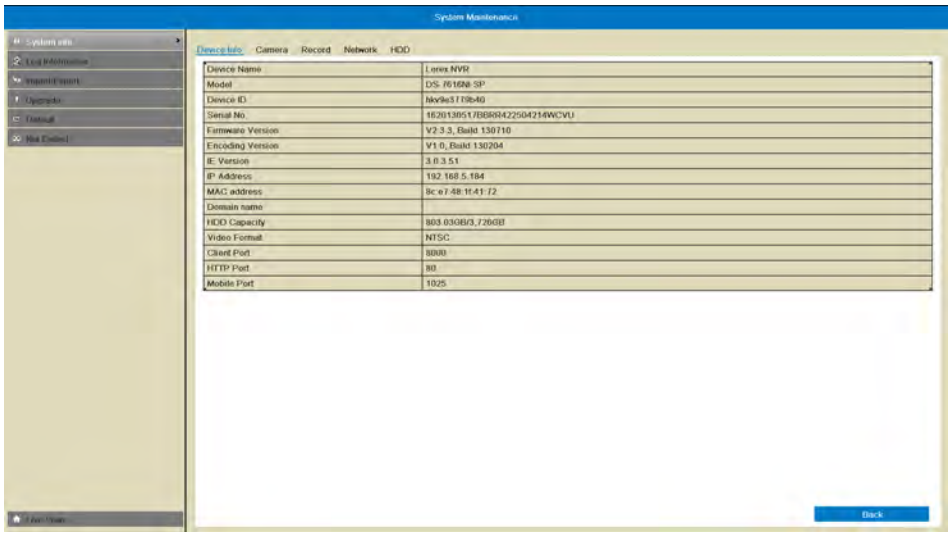
- See "Connecting to Your NVR Over the Internet on PC or Mac" on page 83.
  OR
- See "Mobile Apps: Accessing your NVR Using a Mobile Device" on page 132.

Connectivity using Lorex's free DDNS service is also available, but requires the ports listed above to be port forwarded on your router.

Quick Access to System Information

- To quickly open a window that displays vital system information, right-click and then click **Information**.

  OR, press the **INFO** button on the remote control.



Camera Installation Tips

ATTENTION: Cameras differ in terms of installation or mounting instructions. Please see the documentation that came with your camera(s) for specific installation instructions.

Test the cameras before permanent installation. Plan where you will route the wiring for the camera and where you will aim the camera.

Installation Tips

- Mount the camera where the lens is away from direct and intense sunlight.
- Plan your cable wiring so that it does not interfere with power lines or telephone lines.
- Ensure that the camera wiring is not exposed or easily cut.
- Mount the camera in an area that is visible, but out of reach.
- Avoid pointing the camera at a glass window to see outside, as this may result in a poor image caused by glare from indoor / outdoor lighting conditions.
- Adjust the camera angle so that it covers an area with high traffic.
- In "high-risk" locations, have multiple cameras point in the same area. This provides camera redundancy if a vandal attempts to damage the camera.

Installing Cameras

1 Mount the camera(s) to the desired mounting surface according to the instructions that came with the camera(s). Choose a firm mounting surface.

NOTE: If you wish to mount cameras to drywall, it is recommended to use drywall plugs (not included).

2 Adjust the camera stand to ensure that the camera has a satisfactory view of the area you would like to monitor. Stand configuration depends on the mounting surface you have chosen (see below for suggested stand configurations).

Table Mount

Wall Mount

Ceiling Mount

Camera model not be exactly as shown.

3 Connect a Cat5e or better Ethernet cable from the camera to the NVR. The NVR features integrated PoE (Power over Ethernet) ports that provide both power and data transmission to PoE-compatible cameras over the Ethernet cables.

NOTE: The cameras may take up to 1 minute to power on and show an image on the monitor after being connected to the NVR.

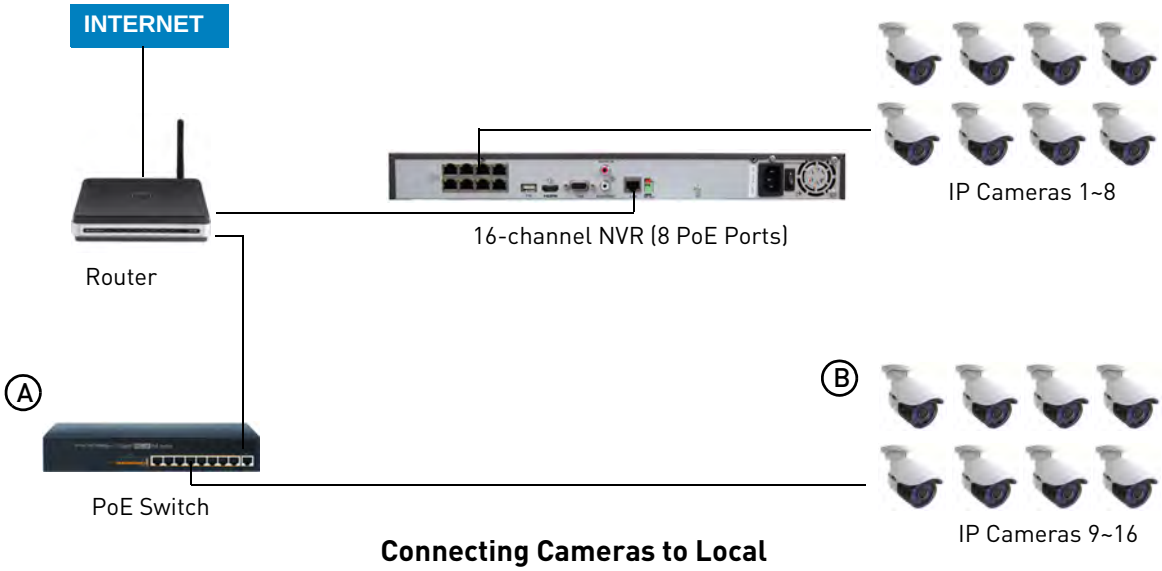
Connecting Cameras over the Local Network

You may also connect IP cameras to the same Local Area Network (LAN) as the NVR. This is accomplished by connected the cameras to the same router as the NVR. This type of installation is necessary to connect more than 8 cameras to 16-channel models, since they only have 8 PoE ports available to connect cameras directly to the NVR.

For these installations, an external PoE switch (sold separately) or 12V DC power adapter (not included) must be used to provide power to each IP camera. You also must add the cameras on the NVR before they will show a picture on the monitor or be recorded by the NVR. Follow the steps below to connect the cameras to the NVR over the LAN.

To connect cameras to your local network:

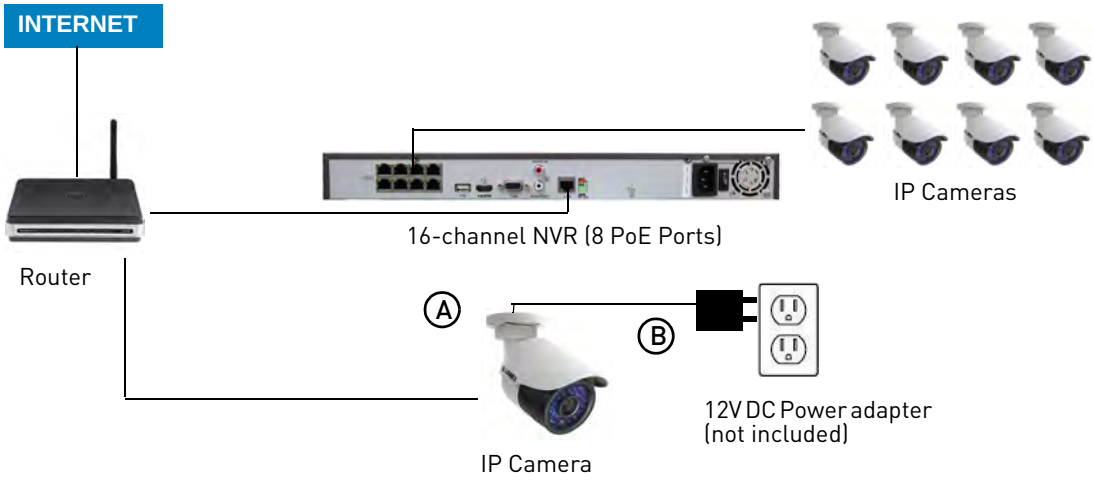
1 **A.** Connect an Ethernet cable from the LAN port* on an external PoE switch (Lorex model: ACCLPS281B, sold separately) to your router using a CAT5e or higher Ethernet cable. Connect the power cable to the PoE swtich and to a power outlet or surge protector.
B. Connect the IP cameras to ports 1~8* on the PoE switch using the Ethernet extension cables. The PoE switch will provide power and video transmission the same way your NVR does.



Connecting Cameras to Local Network using external PoE Switch

OR
A. Connect the cameras to a 12V DC power adapter (visit www.lorextechnology.com for compatible power adapters for your cameras.
B. Connect the camera to your router using a CAT5e or higher Ethernet cable.

* The terminology may vary depending on the model of your PoE switch. See the instructions for your specific PoE switch for details.



Connecting Cameras to Local Network using 12V DC power adapter

2 The steps to open the IP cameras on the NVR differs depending on the number of channels your NVR has. Follow the appropriate steps below.

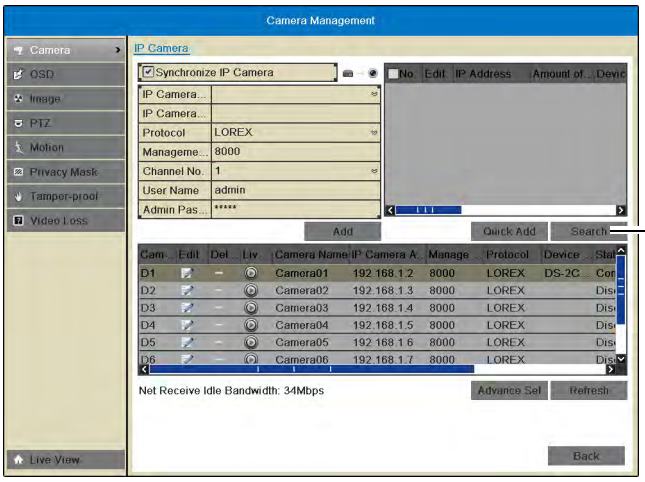
Connecting Cameras Over the Local Network on 16-Channel Models:

NOTE: These steps only apply to 16-channel models. To add cameras over the local network to a 4 or 8-channel NVR, see "Connecting Cameras Over the Local Network on 4/8-Channel Models (Advanced):" on page 11.

1 Right-click and click **Menu**. Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

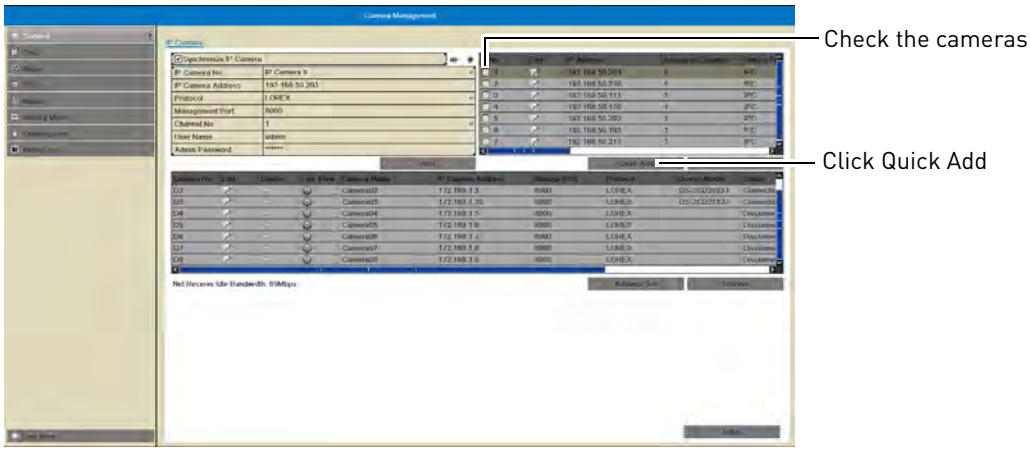
2 Click **Camera**.

3 Click **Search**. The NVR scans for IP cameras on your local network.



Click Search

4 Check the cameras you would like to add to the NVR and click **Quick Add**. Right-click repeatedly to return to live view.



NOTE: IP cameras connected to the local network may only be assigned to channels 9~16.

Connecting Cameras Over the Local Network on 4/8-Channel Models (Advanced):

Because all the channels are assigned to the PoE ports on 4/8-channel NVRs, you cannot add cameras to the NVR using the steps for 16-channel models. You must override the settings for the PoE channels to connect cameras over the local network.

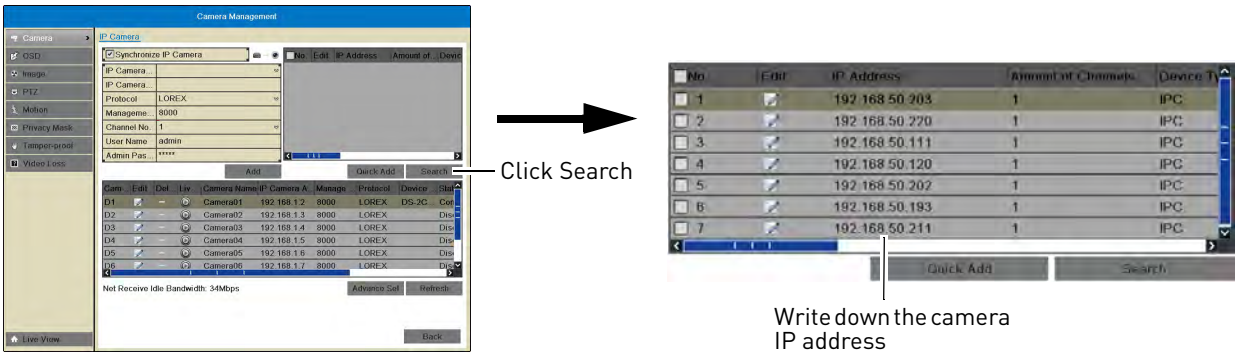
To connect cameras over the local network on 4/8-channel models:

1 Right-click and click **Menu**. Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

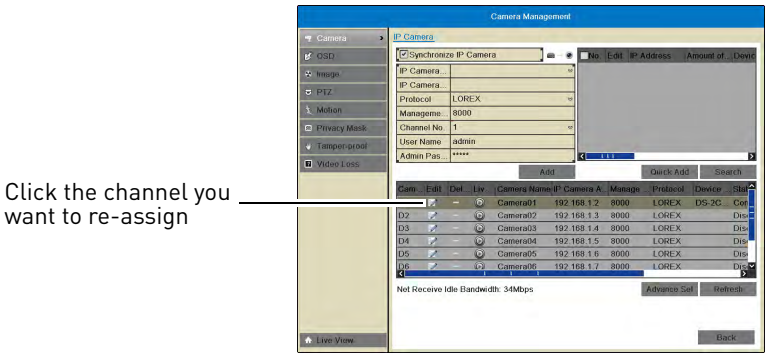
2 Click **Camera**.

3 Click **Search**. The NVR scans for IP cameras on your local network.

4 Write down the IP addresses of the camera(s) you would like to add.



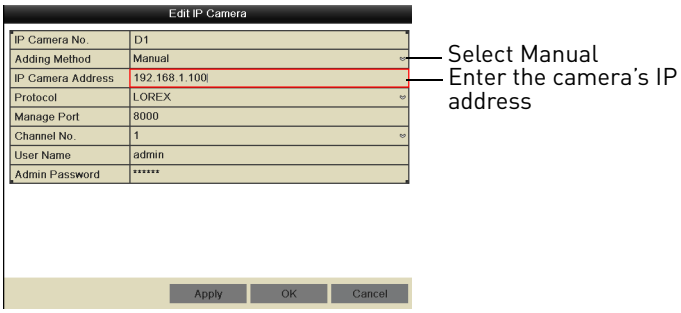
5 In the bottom portion of the screen, click on the channel you would like to assign to the camera.



NOTE: If a camera is connected to the corresponding PoE port, it will be disconnected. You can tell if a camera is connected to a given port because it will say Connected under the status column.

6 Under **Adding Method**, select **Manual**.

7 Under **IP Camera Address**, replace the existing address with the IP address of the camera you recorded in step 4.



8 Click **OK**.

9 Right-click repeatedly to return to live view. It make take a few seconds for the camera to appear.

NOTE: Performing the steps above disables the PoE port, and the NVR will not recognize if a camera is connected to the disabled port. If you wish to use the PoE port again, click on the channel and change Adding Method back to Plug and Play. Then return to live view and connect the new camera to the PoE port. It may take up to a minute for the camera to appear on the monitor.

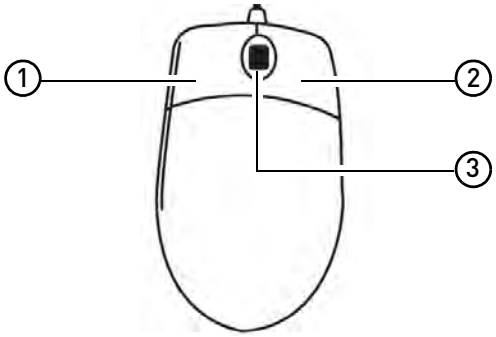
Mouse Control

The NVR is designed for mouse navigation. To use a USB mouse (included), connect the mouse to a **USB** port on the NVR.

8-channel model shown

Use the mouse buttons to perform the following:

1 **Left-Button**:
- Click to select a menu option.
- During live viewing, click on a camera to bring up the Camera Toolbar. See "Using the Camera Toolbar" on page 16.
- During live viewing in split-screen view, double-click on a channel to view the selected channel in full-screen; double-click the channel again to return to split-screen view.

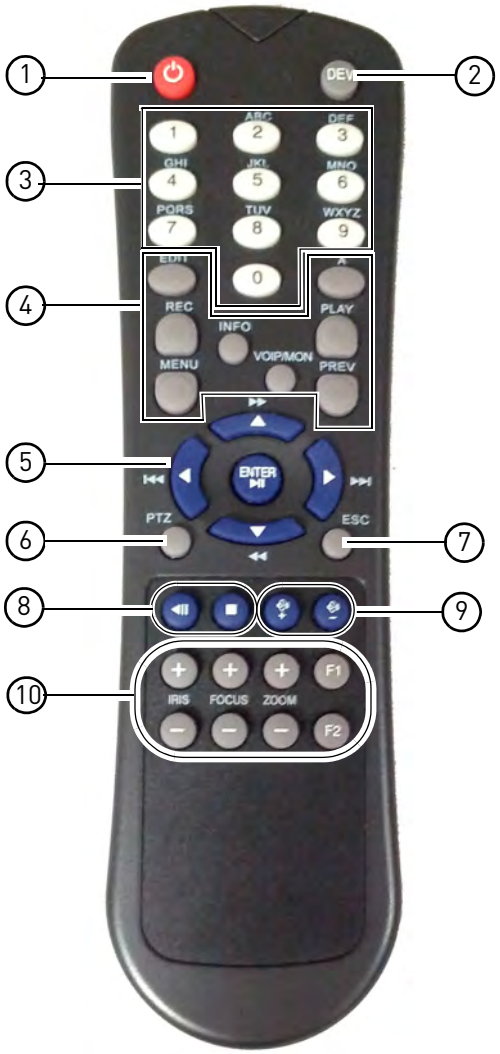


2 **Right-Button**:
- Click to open the Quick Menu. See "Using the Quick Menu" on page 17.
- In menus, use the right-button to go back / exit menus.

3 **Scroll-Wheel**:
- During live view, scroll up / down to change channel.
- Scroll up / down to adjust menu options.

Remote Control

You can also control the NVR using the included remote control.



1 **Power:** Press and hold to power off the NVR. Wait for the message that the NVR has shut down, then use the power switch to power off the NVR.

2 **DEV:** Use to pair the remote control with a specific NVR. For details, see "Pairing the Remote Control" on page 68.

3 **Number Keys:**
- In live view, press to select a channel.
- In menus, press to enter characters.

4 **Function Buttons:**
- **EDIT:** Press while a menu option is selected to enable numeric or text input. For details, see "Using the Remote Control to Enter Text or Numbers" on page 15.
- **REC:** Press to open the manual recording menu.
- **MENU:** Press to open the Main Menu.
- **INFO:** Press to view system information.
- **PLAY:** Press to open Playback mode.
- **A:** When Edit Mode is selected, press repeatedly to select keyboard types.
- **PREV:** In live view, press to select different split-screen views.
- **VOIP/MON:** Not supported.

5 **Navigation Cursors / Playback Controls**:
- Press to move the cursor in menus.
- **ENTER / ▶ II :** Press to enter menu selections. In Playback Mode, press to pause / play video. In live view, press to start / stop Sequence mode.
- **▶▶:** In Playback Mode, press to fast forward / increase fast forward speed.
- **◀◀** : In Playback Mode, press for slow playback. Press repeatedly to reduce playback speed.
- **|◀◀:** In Playback Mode, press to skip ahead 30 seconds.
- **▶▶|:** In Playback Mode, press to skip back 30 seconds.

6 **PTZ:** Not supported.

7 **ESC:** Press to go back / exit menus.

8 ◀ |: Not supported.

- ■: Not supported.

9 **Volume + / -:** Press to adjust volume.

NOTE: A microphone (not included) is required to use audio function.

10 **Miscellaneous:**

- **F2:** Select next tab in menu.
- **F1:** Not supported.
- **ZOOM + / -:** Not supported.
- **IRIS + / -:** Not supported.
- **FOCUS + / -:** Not supported.

Using the Remote Control to Enter Text or Numbers

The remote control can be used in menus to enter text or numeric entries.

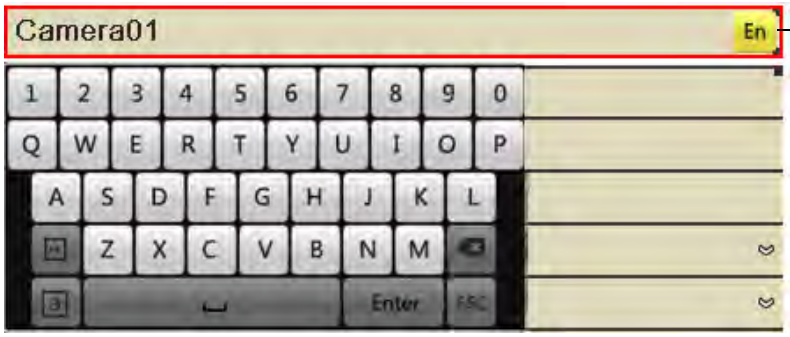
To use the remote control for text or numeric entry:

1 Use the arrow buttons to select a menu item that requires a text or numeric input.

2 Press **EDIT**.

3 Press the number keys to enter text or numbers. Press repeatedly to enter the letters printed above the button.

An icon shows the currently selected keyboard type.
To change the keyboard, press **A**. Available keyboards are:



Current keyboard type

- **En:** Lowercase English letters.
- **A:** Uppercase English letters.
- **123:** Numbers.
- **.,:** Special characters.

4 Press **Enter** to confirm your entry. You may now use the arrow buttons to move the menu cursor.

Using the On-Screen Display

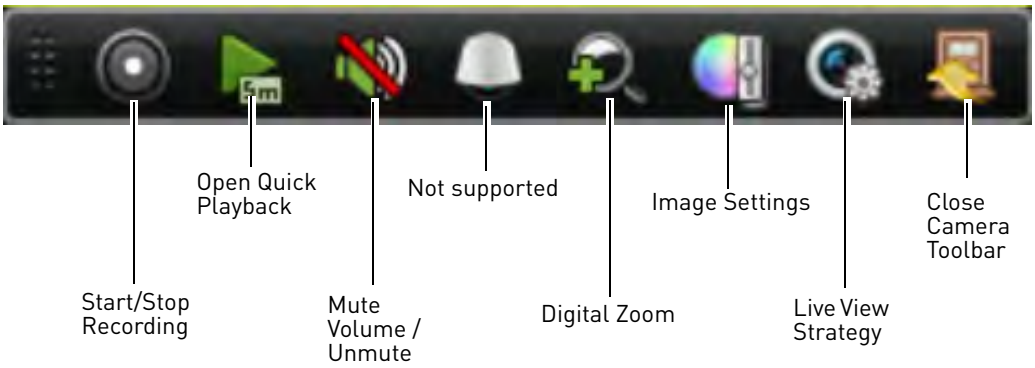
Use the system's graphical on-screen display to navigate menus and configure options and settings.

Using the Camera Toolbar

The Camera Toolbar allows you to quickly access key controls for each camera.

To use the Camera Toolbar:

1 In live view, click inside the camera to open the Camera Toolbar.



Using Digital Zoom

Zoom Mode allows you to zoom in on an image while viewing your cameras live. This can be useful if you want to get a closer look at a situation.

To use Digital Zoom:

1 If you are in split-screen click on the camera you would like to zoom in on to open the Camera Toolbar.

2 Click to open Digital Zoom. Digital Zoom opens to the default zoom level. The box in the bottom right-corner of the screen shows the entire image as seen by the camera.

3 To change the zoom area, click and drag inside the box in the lower right corner.

4 Right-click to exit Digital Zoom.

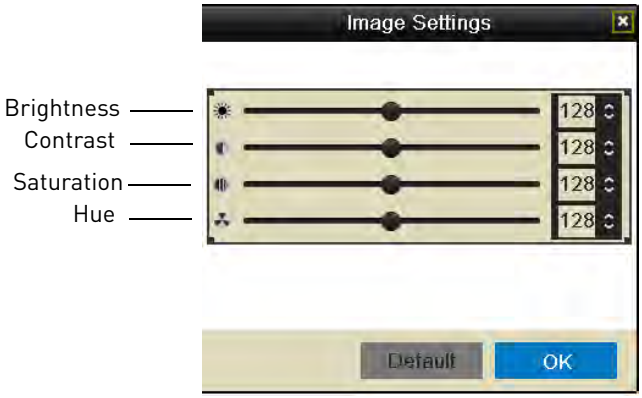
Adjusting Camera Image Settings

Use the Image Settings screen to adjust the color settings for your cameras.

To adjust the camera Image Settings:

1 Click inside the camera you would like to edit and click .

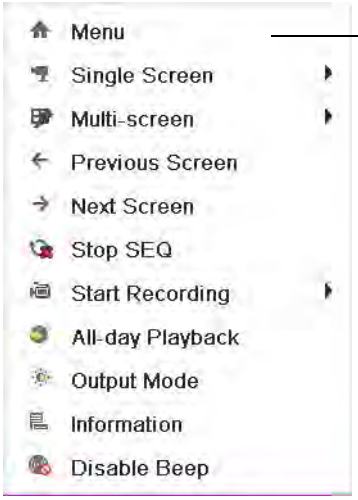
2 Use the sliders to adjust the **Brightness**, **Contrast**, **Saturation**, and **Hue**. Note that it may take a couple seconds for changes to occur.



3 Click **OK** to save changes.

Using the Quick Menu

The Quick Menu allows you to select display options on the monitor, use quick controls, and access the Main Menu for the NVR.



Right-click to open Quick Menu

To access the Quick Menu:

1 Right-click during live view to open the Quick Menu. The Quick Menu has the following options:

- **Menu:** Open the Main Menu. For details, see "Using the Main Menu" on page 42.

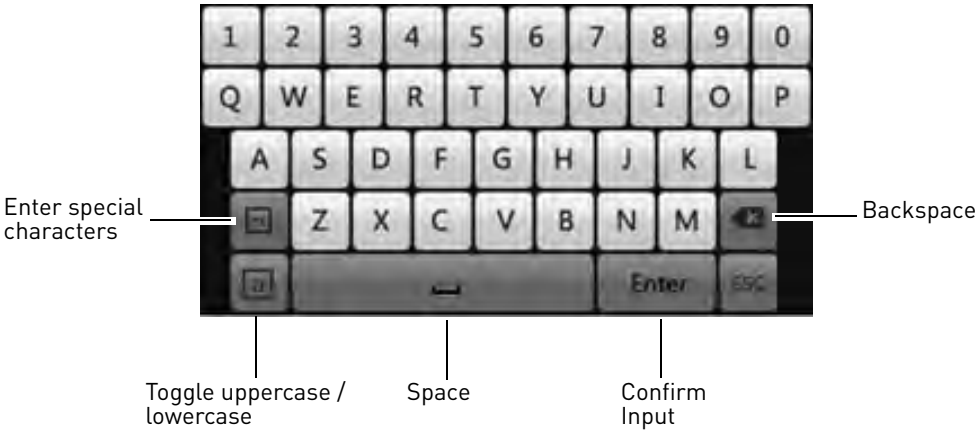
- **Single Screen:** Open a camera in full screen.
- **Multi-Screen:** Select a split-screen layout.
- **Previous Screen:** Select the previous channel or group of channels (e.g. if 2x2 Multi-Screen is selected, click Previous Screen to see the next 4 channels).
- **Next Screen:** Select the next channel or group of channels.
- **Start/Stop SEQ:** Start/stop Sequence Mode (NVR automatically changes channels every few seconds.
- **Start Recording:** Select **Continuous & Motion Record** to start 24/7 continuous and motion recording on all channels. Select **Motion Detection Record** to start 24/7 motion detection recording on all channels.
- **All-day Playback:** Open Playback Mode for the currently selected channel. For details, see "Using All-day Playback" on page 23.
- **Output Mode:** Click to adjust the color output mode for your monitor. Select the color output mode that looks best on your monitor: **Standard**, **Bright**, **Gentle**, or **Vivid**, and then click **OK**.
- **Information:** Click to access system information.
- **Disable Beep:** Disables the system beep for alarms until the next alarm occurs.

Using the Virtual Keyboard

You can input numeric or text values using the on-screen virtual keyboard. You will need to use the Virtual Keyboard when entering your User Name and Password.

To use the Virtual Keyboard:

1 Click on a menu option the requires text input.
- The Virtual Keyboard opens.



2 Enter your text entry and then press **Enter**.

Setting the Date and Time

It is highly recommended to set the date and time when first setting up your system.

Inaccurate time stamps may render your footage unusable for court evidence.

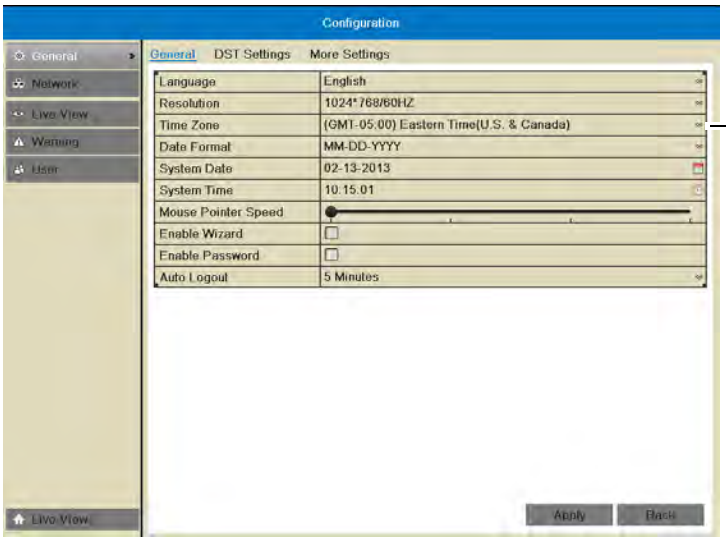
To set the date and time:

1 Right-click to open the Quick Menu and then click **Menu**.

2 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

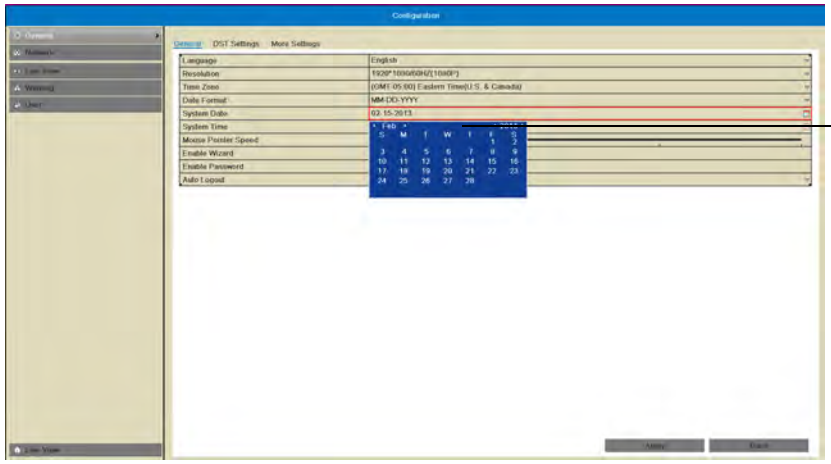
3 Click **Configuration.**

4 Under **Time Zone**, select your Time Zone.



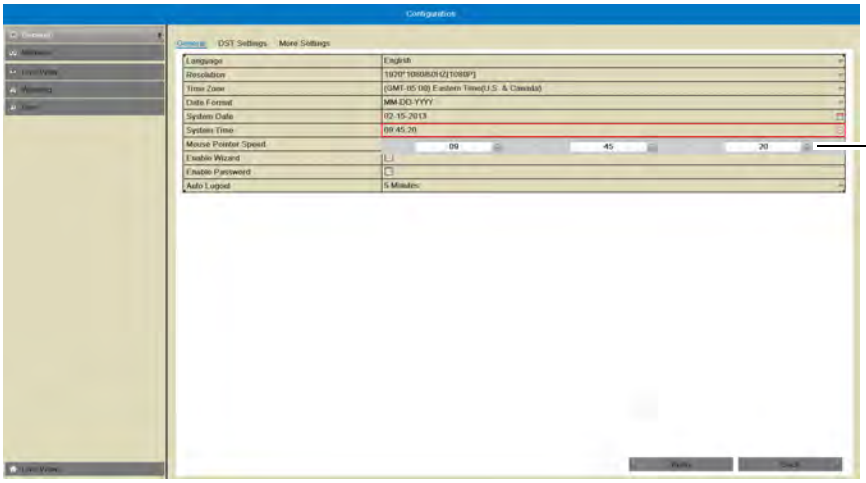
Select your Time Zone

5 Click **System Date** and then use the on-screen calendar to select the current date.



Click System Date and use the calendar to select the current date

6 Click **System Time** and then click the up and down buttons to set the time.



Click System Time and click up and down to set the time

7 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Configuring Daylight Savings Time (DST)

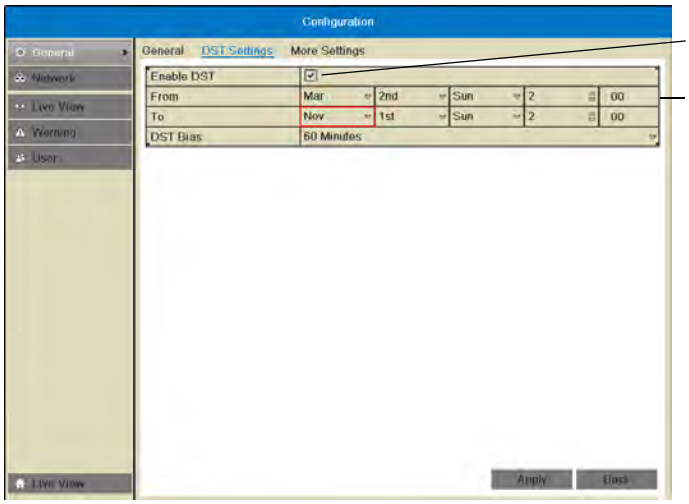
If your region observes Daylight Savings Time (DST), follow the instructions below to configure your NVR to automatically update the time when the clock updates.

To enable automatic DST adjustments:

1 Right-click to open the Quick Menu and then click **Menu**.

2 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

3 Click **Configuration** and then click the **DST Settings** tab.



Check Enable DST to use default DST settings

Check Auto DST Adjustment and select custom DST start and end times

4 Check **Enable DST** and configure the following:

- **From:** Select the start time for Daylight Savings.
- **To:** Select the end time for Daylight Savings
- **DST Bias:** Select the amount of time the clock changes when DST starts and ends.

5 Click **Apply** to save changes.

Using a NTP Server to set your System Time

A NTP (Network Time Protocol) server syncs your system time with an online time server. Lorex provides a free NTP service that allows your NVR to automatically update the time for Daylight Savings Time.

NOTE: A constant Internet connection is required to use the NTP feature.

To enable NTP:

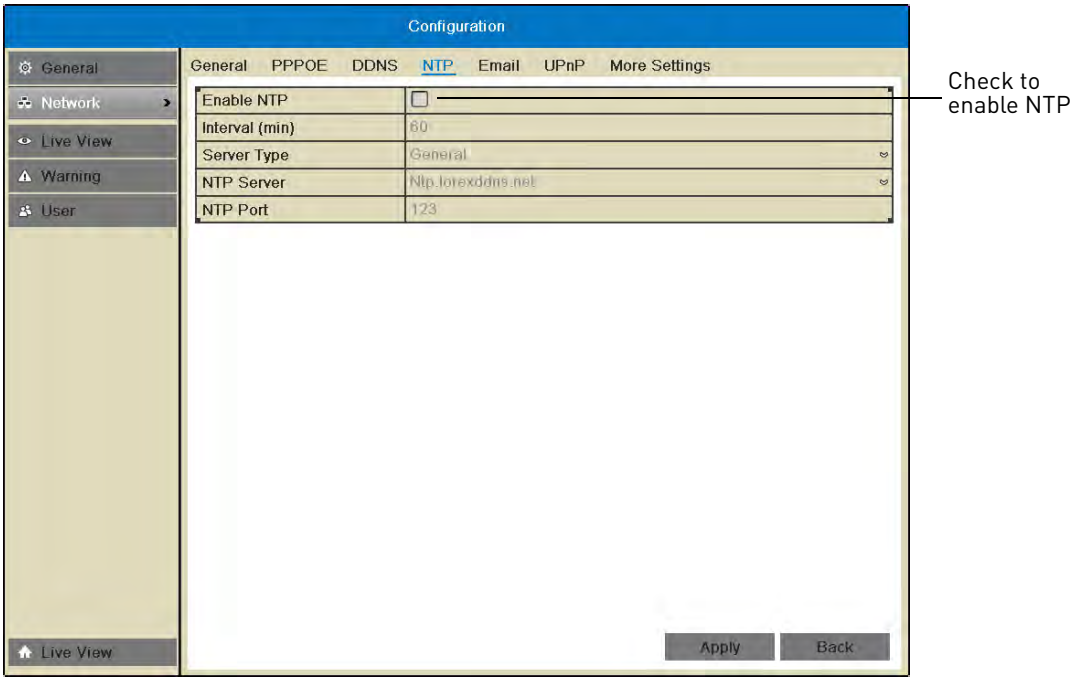
1 Before setting up NTP, select your time zone under **Menu→General→Time Zone** and click **Apply**.

2 Right-click to open the Quick Menu and click **Menu**.

3 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

4 Click **Configuration→Network→NTP**.

5 Check **Enable NTP**.



6 **(Optional—advanced)** Configure the following:

- **Interval (min):** Enter how often the NVR will access the NTP server to update the time.
- **Server Type:** Select **General** to use the default Lorex NTP server or select **Customize** to enter a custom server.
- **NTP Server:** Select the NTP server or enter the NTP server address.
- **NTP Port:** Enter the port number of the NTP server.

7 Click **Apply**. The NVR connects to the server and updates the time.

Recording

By default, the system is set to immediately record video from connected cameras in Continuous & Motion Recording Mode on a 24/7 schedule.

Recording Modes

The system supports the following recording modes:

- **Continuous & Motion Recording Mode:** The system will record continuously during all times included in the schedule. The system will mark motion events when any of the cameras detect motion.
- **Motion Detection Recording Mode:** The system will only record when motion is detected by the cameras.
- **Manual Recording Mode:** The system will record when manual recording is enabled. To enable/disable manual recording, click on the camera and then click .

Recording Icons

The following icons appear in **red** to indicate recording:

-

Recording—Continuous: Continuous recording is in progress.

-

Recording—Motion: Motion recording is in progress. Icon appears in **green** when motion is detected, but the NVR is not recording.

Playback

You can use the following options to view recorded video on the system.

Using Quick Playback

Quick Playback plays back footage from the last five minutes for the selected camera.

To use Quick Playback:

1 Click inside the camera you would like to playback and click .

2 Quick Playback mode opens. If you select Quick Playback from split-screen view, the other channels on screen will remain in live view, so you can keep monitoring your other cameras while accessing recorded footage.

NOTE: A message appears on screen if no footage is available for the selected camera in the last five minutes.

3 Use the Quick Playback controls. When finished, click **X** to exit Quick Playback.

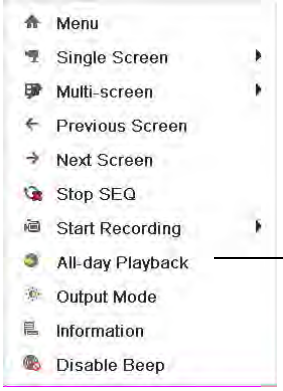
Quick Playback controls

Using All-day Playback

All-Day Playback opens footage from the last 24-hours for the selected camera.

To use All-Day Playback:

1 Right-click inside the camera you would like to playback and then click **All-day Playback**.



Right-click inside the camera you would like to playback and click All-day Playback

2 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**. Playback mode opens showing video for the previous 24 hours.

3 Use the on-screen playback controls. For details, see "Using the On-Screen Playback Controls" on page 29.

Using the Playback Menu to Search for Recordings

You can use the Playback menu to search for recordings on the system. You can search by time, by event type (e.g. motion), or by tags.

Normal Search

The Normal Search menu is used to search for video based on a specified start and end time.

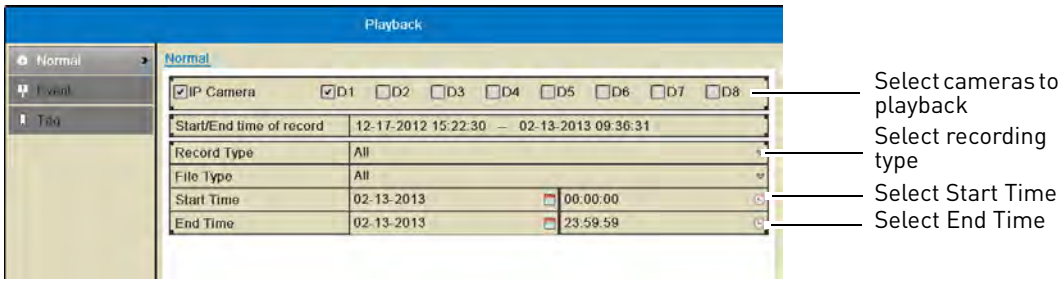
To search for video using a start and end time:

1 Right-click and then click **Menu**.

2 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

3 Click **Playback**.

4 Under **IP Camera**, check the cameras you would like to search for video. Check **IP Camera** to select/deselect all cameras.



5 Under **Record Type**, select the types of recording you would like to search for: **Continuous & Motion**, **Motion**, **Manual**, or **All**.

6 Under **Start Time**, select the start time for your search. Click inside the field on the left and use the calendar to select the start date. Click inside the field on the right and use the buttons to adjust the start time for playback. Click outside the field to confirm the time.

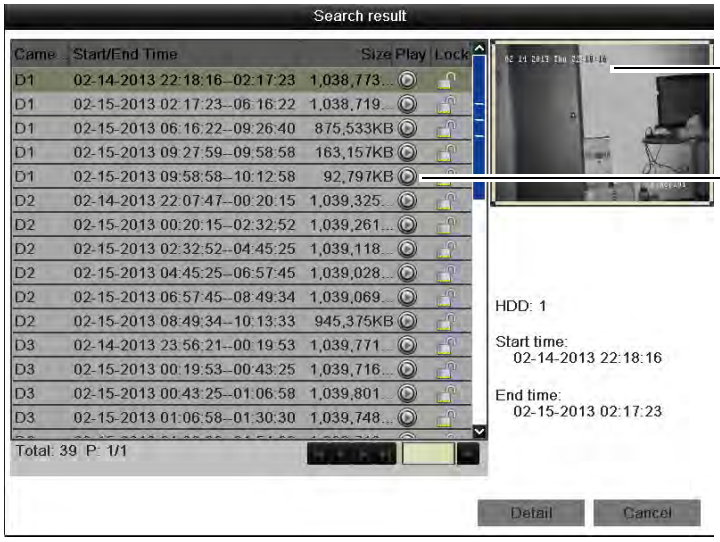
NOTE: If you right-click, it will exit the Normal Search menu.

7 Under **End Time**, select the end time for your search in the same way that you selected the Start Time.

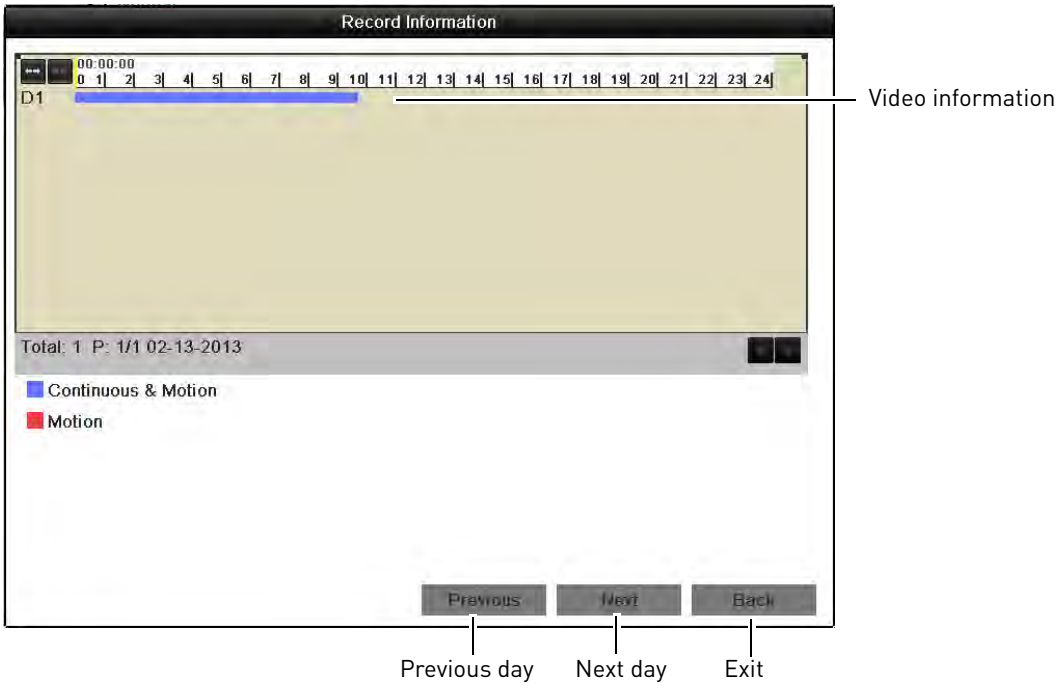
8 Select one of the following:

- Click **Playback** to start playback at the earliest available footage in your selected time range.

- Click **Search** to view a list of available footage in your time range.



- Click **Detail** to view a summary of available footage on the system, starting with the earliest day in your selected time range.



Locking Video Files

You can lock video files on the system to protect them from being overwritten when the hard drive is full.

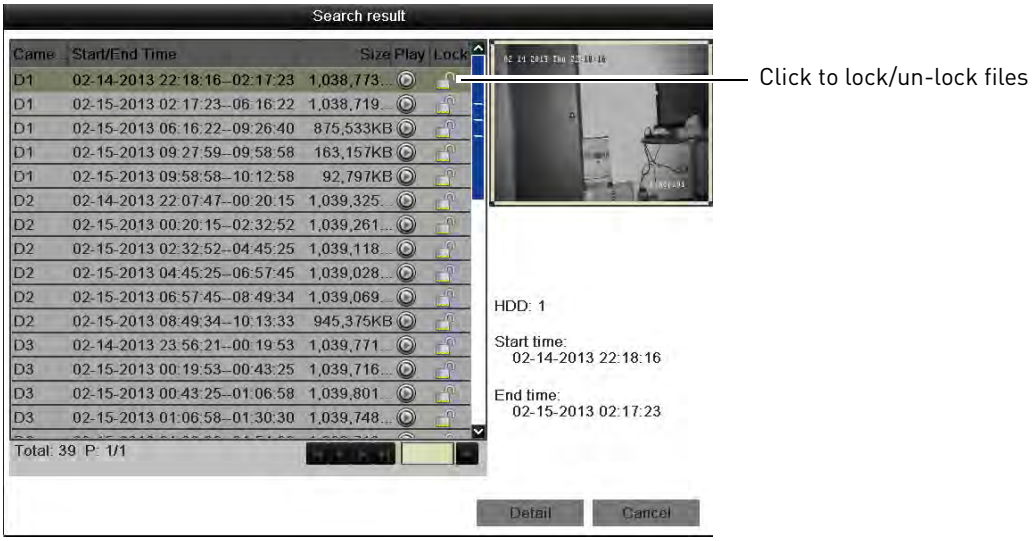
To lock video files:

1. Right-click and click **Menu**.
2. Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.
3. Click **Playback**.

4 Under **IP Camera**, check the cameras you would like to search for footage. Check/un-check **IP Camera** to select/deselect all cameras.

5 Configure the **Record Type**, **File Type**, **Start Time**, and **End Time** as needed and click **Search**. A list of files appears, based on your search.

6 Click to lock/un-lock files. Locked files will not be overwritten when the internal hard drive is full. Locked files are shown with a .



7 Click **Cancel** to exit. Changes are saved when exiting.

Event Search

The Event Search menu is used to search for video with motion recordings.

To search for video with motion recording enabled:

1 Right-click and then click **Menu**.

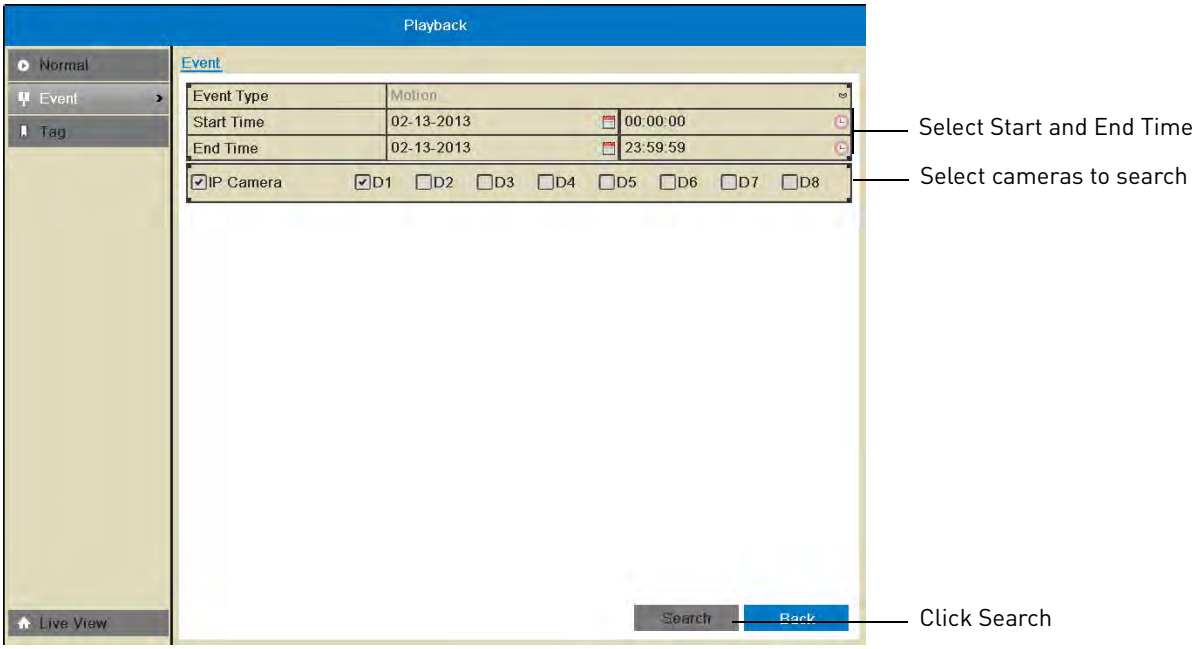
2 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

3 Click **Playback** and then **Event**.

4 Under **Start Time**, select the start time for your search. Click inside the field on the left and use the calendar to select the start date. Click inside the field on the right and use the buttons to adjust the start time for playback. Click outside the field to confirm the time.

5 Under **End Time**, select the end time for your search in the same way that you selected the Start Time.

6 Under **IP Camera**, check the cameras you would like to search for footage. Check/un-check **IP Camera** to select/deselect all cameras.



7 Click **Search**. Video with motion is listed. Click to playback a video file. Click **Cancel** to exit the search results.

Tag Search

The Tag Search menu is used to search for video with user created tags. For details on how to create tags, see "Tagging Video Footage" on page 31.

To search for video using tags:

1 Right-click and then click **Menu**.

2 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

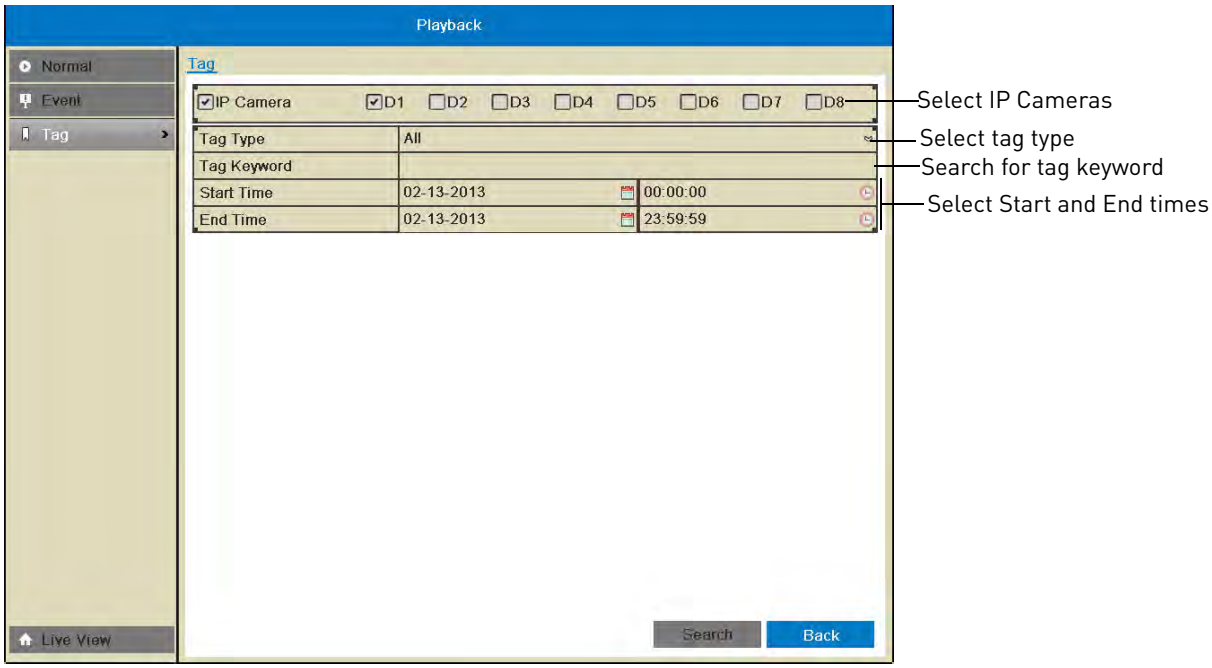
3 Click **Playback** then **Tag**.

4 Under **IP Camera**, check the cameras you would like to search for footage. Check/un-check **IP Camera** to select/deselect all cameras.

5 Under **Tag Type**, select all to search for all tags in the system. Select **Tag Keyword** to search for specific tags then enter the search query below (similar to a web search).

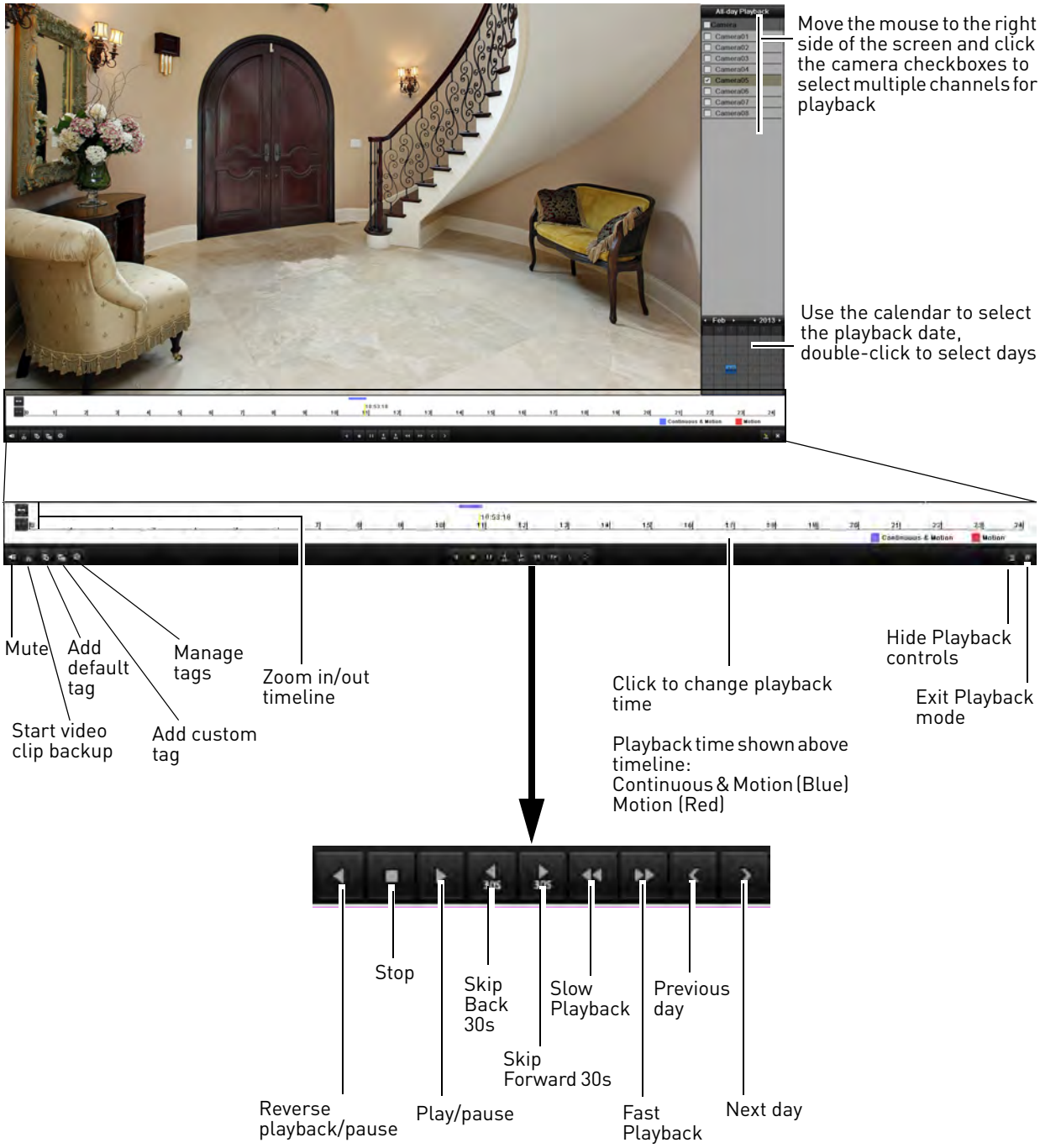
6 Under **Start Time**, select the start time for your search. Click inside the field on the left and use the calendar to select the start date. Click inside the field on the right and use the buttons to adjust the start time for playback. Click outside the field to confirm the time.

7 Under **End Time**, select the end time for your search in the same way that you selected the Start Time.



8 Click **Search** to search for video. Video with applicable tags is shown. Click to playback a video file, click to delete the tag, or click to edit a tag. Click **Cancel** to exit the search results.

Using the On-Screen Playback Controls

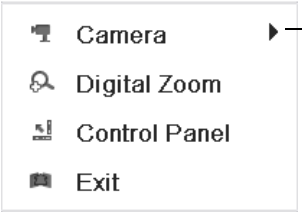


Using the Playback Quick Menu

The Playback Quick Menu allows you to select additional controls.

To access the Playback Quick Menu:

1 Right-click during Playback mode.



Right-click to open the Playback Quick Menu

The Playback Quick Menu contains the following options:

- **Camera:** Select the camera to view in Playback mode. Only available when one camera is selected.
- **Control Panel:** Show/hide playback controls.
- **Digital Zoom:** Open Digital Zoom mode to get a closer look at recorded footage.
- **Exit:** Exit Playback Mode.

Using Digital Zoom in Playback Mode

Use Digital Zoom in Playback mode to get a closer look at recorded footage.

To use Digital Zoom in Playback Mode:

1 Right-click to open the Playback Quick Menu and click **Digital Zoom**.

2 If you are viewing more than one camera, click inside the camera you would like to zoom in on. Otherwise, click on the screen to zoom in.

3 To change the zoom area, click and drag in the box in the lower right corner of the screen.

Click and drag in the box to change the zoom area

4 Right-click to exit Digital Zoom.

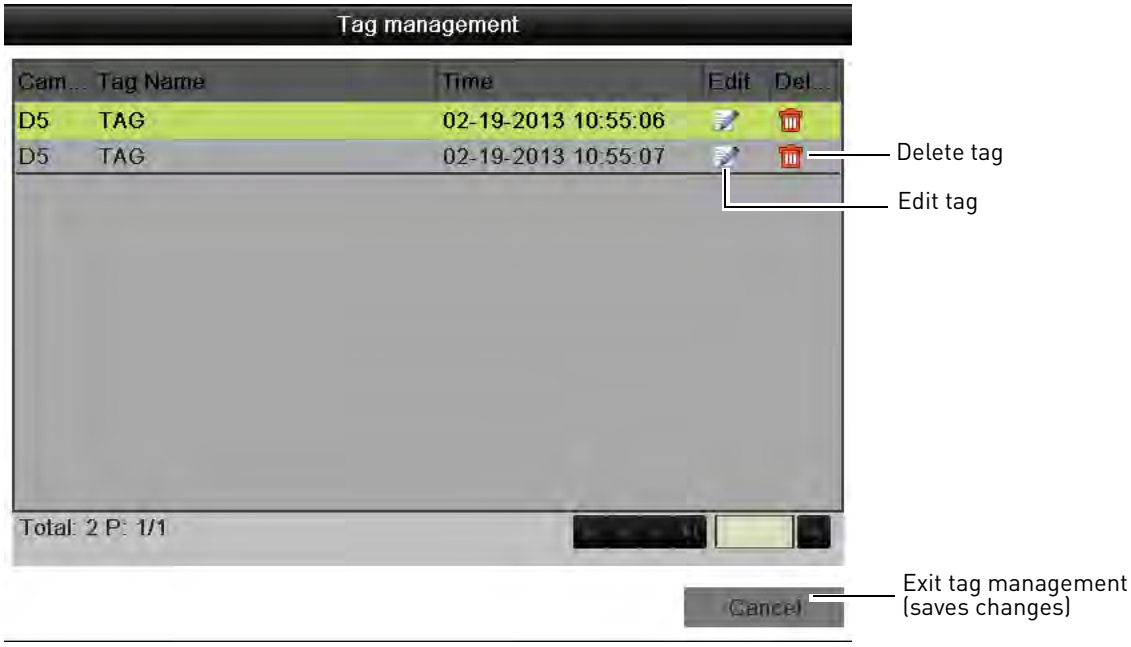
Tagging Video Footage

You can tag important moments in your video footage to keep track of events or people. For example, you can tag when deliveries arrive or you can tag when people appear in the video. You can use the Tag Search Menu to search for video using tags.

To tag video footage:

1 During Playback, select one of the following:

- Click to tag the current playback time with the default tag.
- Click to tag the current playback time with a custom tag. Enter a name for your custom tag and then click **OK** to confirm.
- Click to manage tags. Click to edit tags or click to delete tags. Click **Cancel** when finished.



2 To search for and playback video based on tags, see "Tag Search" on page 27.

Backing Up Video

You can back up video to a USB flash drive (not included) or USB external hard drive (not included) connected to the NVR.

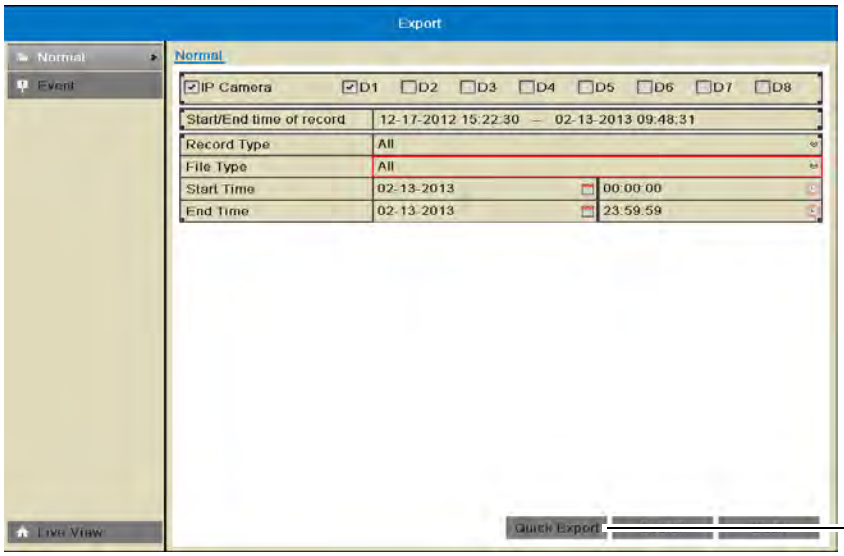
NOTE: It is recommended to format the USB flash drive or external hard drive before using it with the system. See below for details.

Formatting the USB Drive

ATTENTION: Formatting the USB flash drive or USB external hard drive will erase all data on the drive.

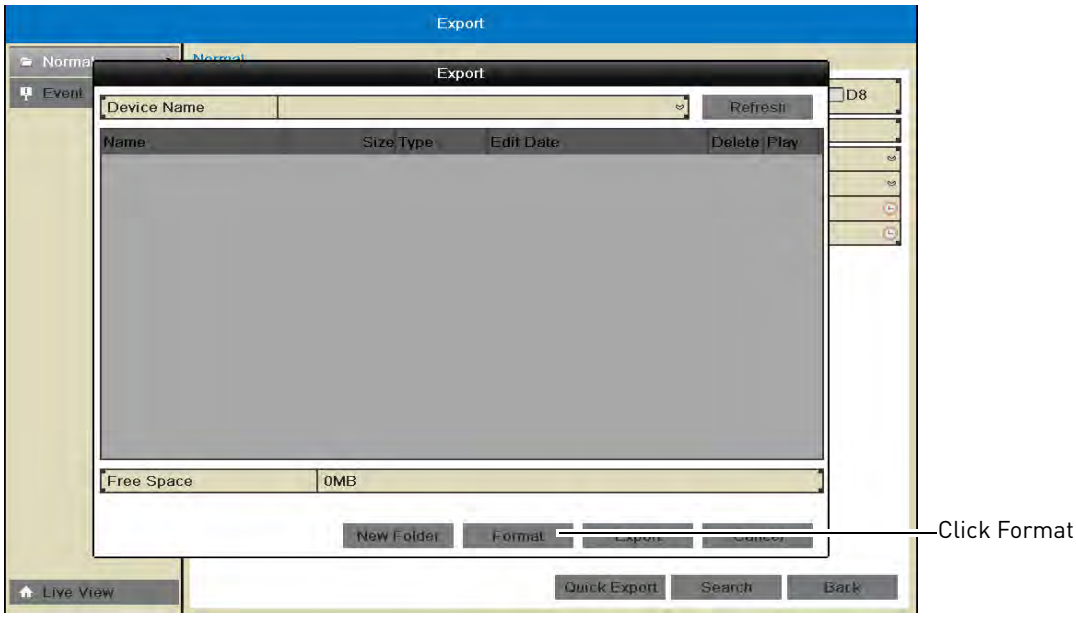
To format the USB drive or external hard drive:

1. Insert a USB flash drive (not included) or USB external hard drive (not included) into one of the **USB** ports on the NVR.
2. Right-click and click **Menu**.
3. Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.
4. Click **Export** then click **Quick Export**.



Click Quick Export

5 Click **Format**. Click **OK** to confirm. Wait for formatting to complete.



Using Quick Export

Quick Export allows you to quickly backup video if you know the exact times you would like to backup.

To use Quick Export:

1 Insert a USB flash drive (not included) or USB external hard drive (not included) into one of the **USB** ports on the NVR.

2 Right-click and click **Menu**.

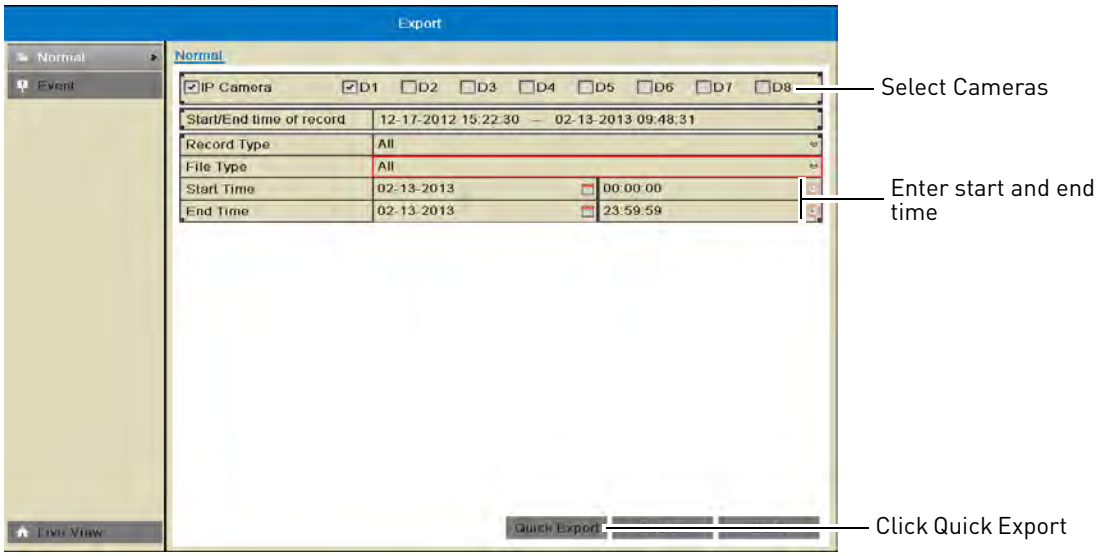
3 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

4 Click **Export**.

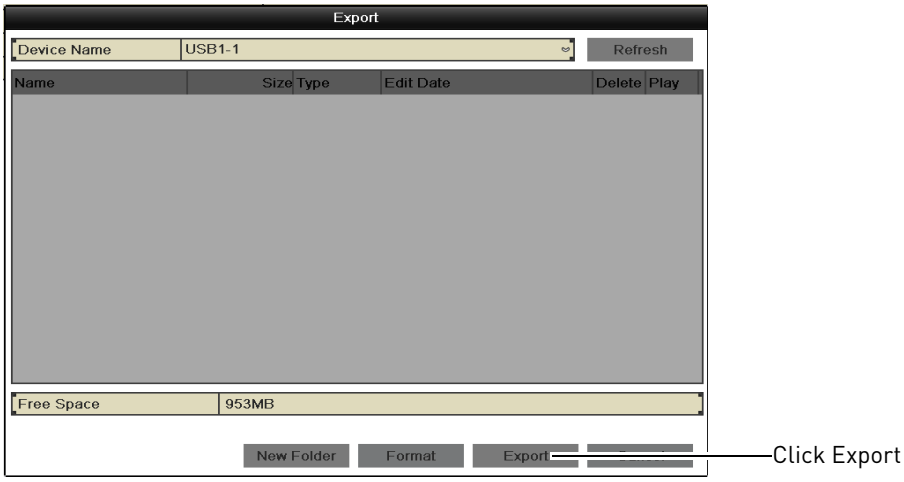
5 Configure the following:

- Under **IP Camera**, check the cameras you would like to backup. Check/un-check **IP Camera** to select/deselect all cameras.
- Under **Start Time**, select the time to start the backup.
- Under **End Time**, select the time to end the backup.

6 Click **Quick Export**.



7 Click **Export** to export all applicable video files.



NOTE: You must have enough storage space on your backup device to save the video.

8 Wait for the backup to complete and then click **OK**. To view backup files, see "Playing Back Up Video Files" on page 36.

Using Search Export

Use Search Export to search for video files to backup.

To use Search Export:

1 Insert a USB flash drive (not included) or USB external hard drive (not included) into one of the **USB** ports on the NVR.

2 Right-click and click **Menu**.

3 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

4 Click **Export**.

5 Under **IP Camera**, check the cameras you would like to backup. Check/un-check **IP Camera** to select/deselect all cameras.

6 Under **Record Type**, select the type of recordings to search for: **Continuous & Motion**, **Motion**, **Manual**, or **All**.

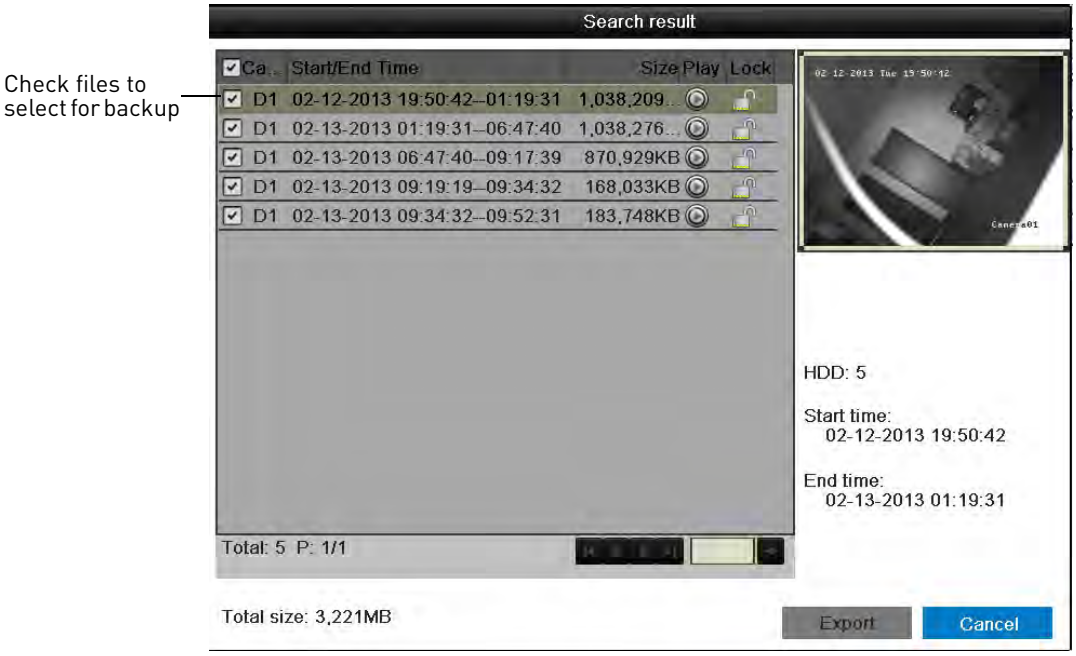
7 Under **File Type**, select **All**, **Unlocked**, or **Locked**.

8 Under **Start Time**, select the time to start the backup.

9 Under **End Time**, select the time to end the backup.

10 Click **Search**. A list of videos appears based on your search criteria.

11 Check the files you would like to backup. Check/un-check at the top of the list to select/deselect all files.



NOTE: You must have enough space on your USB drive to save all selected files. The total size of the files selected appears below the list.

12 Click **Export**. Then, click **Export**, enter the system password (default: **000000**), and click **OK**. Wait for the backup to complete.

Using Video Clip Backup

Video clip backup allows you to select a duration of video during playback mode and save it to a USB flash drive (not included).

To use Video Clip Backup:

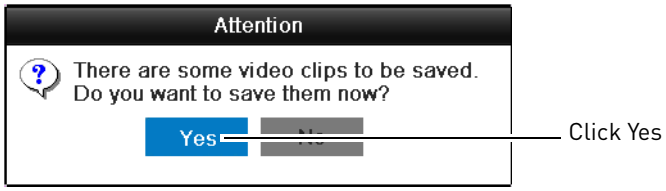
1 Insert a USB flash drive (not included) or USB external hard drive (not included) into one of the **USB** ports on the NVR.

2 From live viewing, right-click and then click **All-Day Playback**.

3 Enter the NVR's user name (default: **admin**) and password (default: **000000**) and click **OK**.

4 Click to when you want the video clip to start. Click when you want the video clip to end.

5 When you are done creating clips, right-click and click **Exit** to exit Playback mode. When you exit, you are prompted to save your video clips. Click **Yes**.



6 Click **Export** to begin backup. Enter the system password (default: **000000**) and click **OK** to begin backup. Wait for the backup to complete. To view backup files, see "Playing Back Up Video Files" on page 36.

Playing Back Up Video Files

On PC, a Quick Player is automatically saved to the USB thumb drive (not included) or external hard drive (not included) when backup files are saved. You may also use the client software to play back video files (see "Opening Backup Video Files" on page 95).

NOTE: To play backup video files on Mac, visit www.lorextechnology.com for details.

Using the Quick Player to Playback Video Files

NOTE: The Quick Player is PC-compatible only.

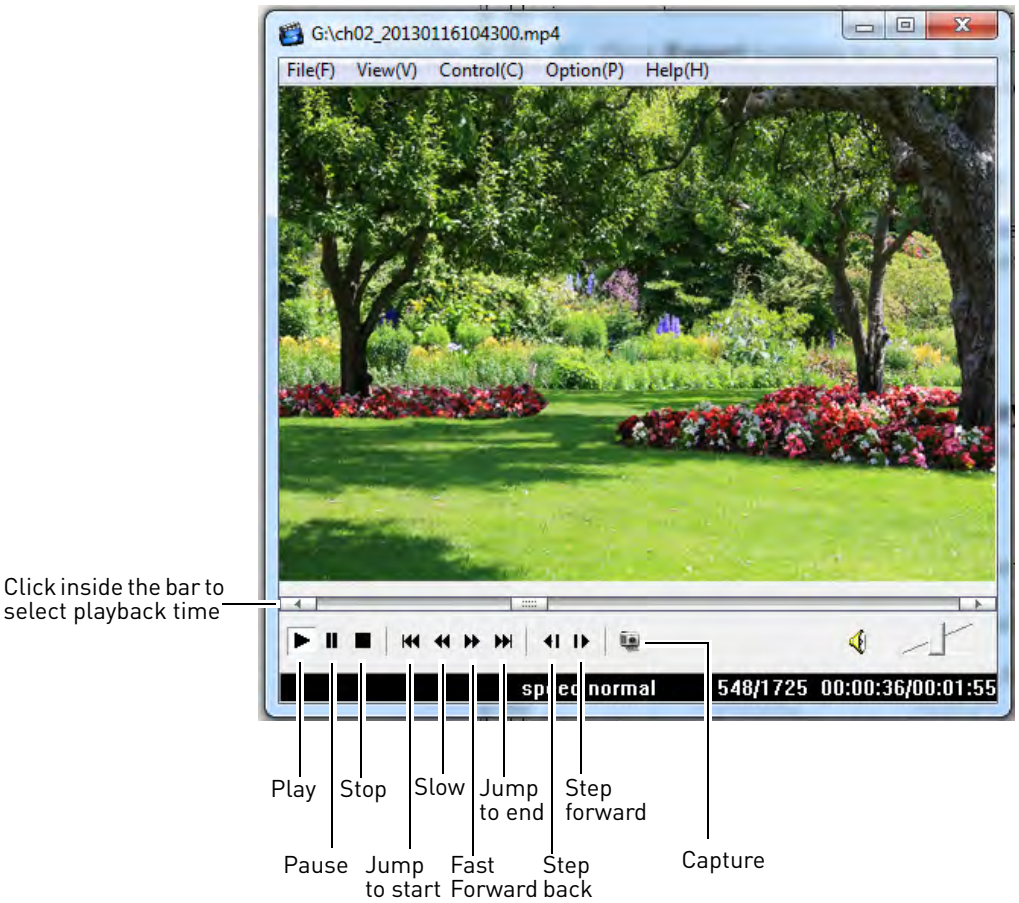
To use the Quick Player:

1 Connect the USB thumb drive (not included) or external hard drive (not included) to the computer.

2 Open the drive and double-click the **Player.exe** file.

3 Click **File→Open**. Select the video file and click **Open**.

4 Use the on-screen controls.



Managing Passwords

ATTENTION: By default, the system user name is **admin** and the password is **000000**. Passwords are enabled by default and are required to access the Main Menu.

The password is required to log into the system remotely using a computer or mobile device. You will be prompted to create a custom password after you connect for the first time.

When you first startup your system, you are technically logged in as the admin (system administrator) account. The system supports the following account types:

- **Admin**—system administrator: has full control of the system, and can change both administrator and user passwords and enable/disable password protection.
- **Operator**—user account: has limited access to the system. Access permissions for operator accounts can be customized by the admin account.

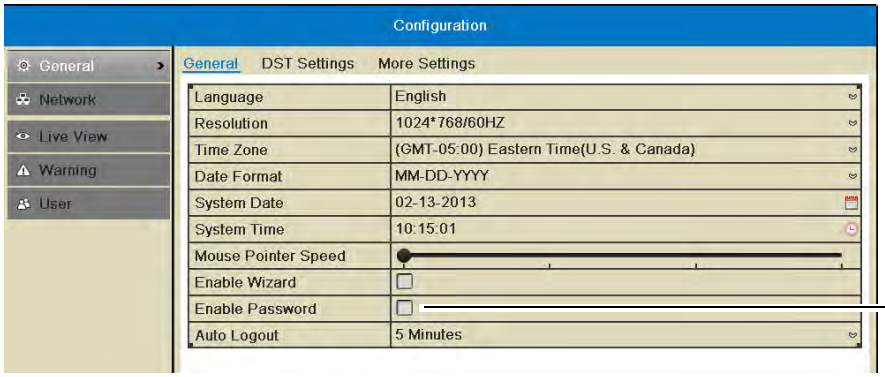
For security reasons, it is essential to create your own custom password.

Enabling/Disabling Passwords

When passwords are enabled, the system will require passwords to access playback or system menus.

To enable passwords:

1. Right-click and click **Menu**.
2. Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.
3. Click **Configuration.**
4. Check **Enable Password** to require passwords to access system menus or uncheck to disable passwords.



Check Enable Password to require passwords or uncheck to disable

5. Click **Apply**.

Managing User Accounts

Changing the Admin Account Password

For security, it is recommended to change the password for the admin account.

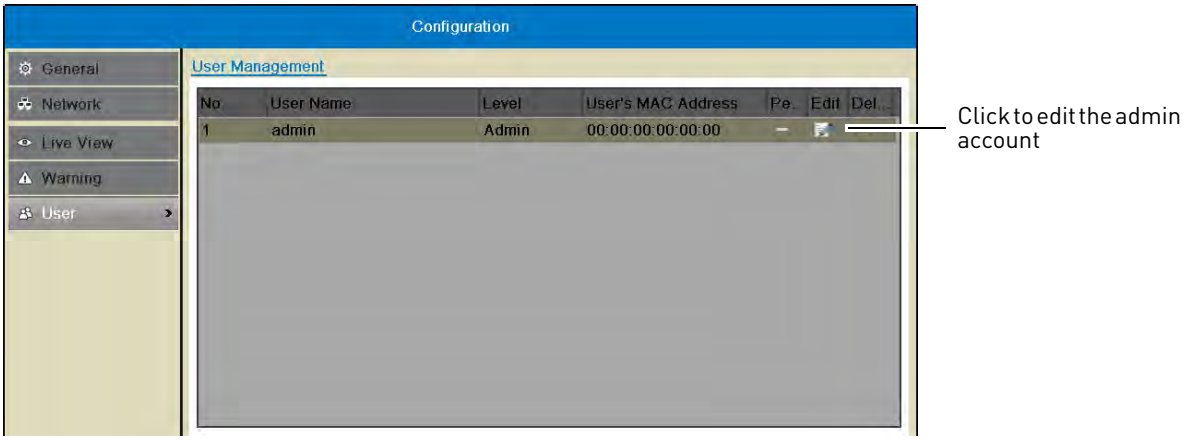
To change the admin account password:

1 Right-click and click **Menu**.

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→User**.

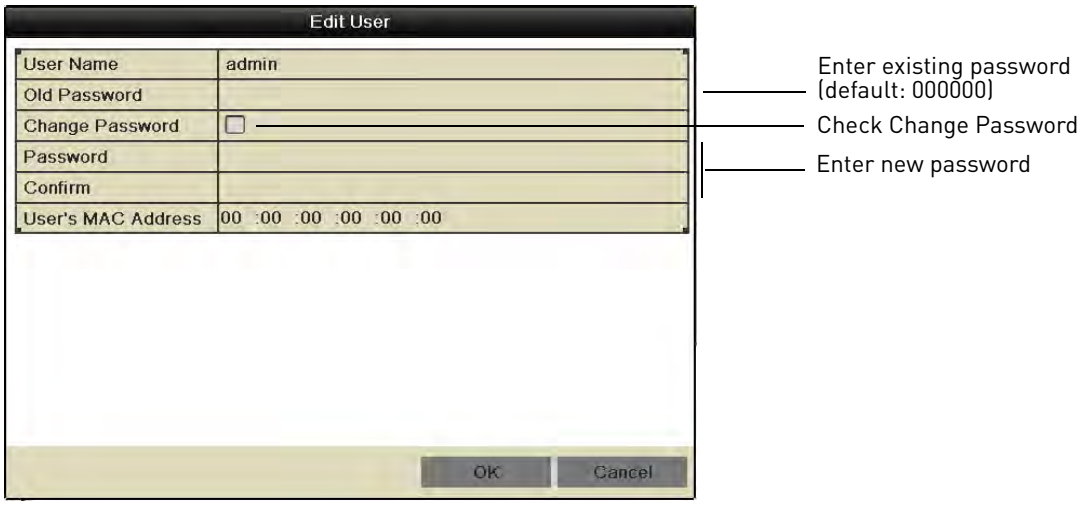
4 Click next to admin.



5 Under **Old Password**, enter the current admin password (default: **000000**).

6 Check **Change Password**.

7 Under **Password** and **Confirm**, enter the new admin password.



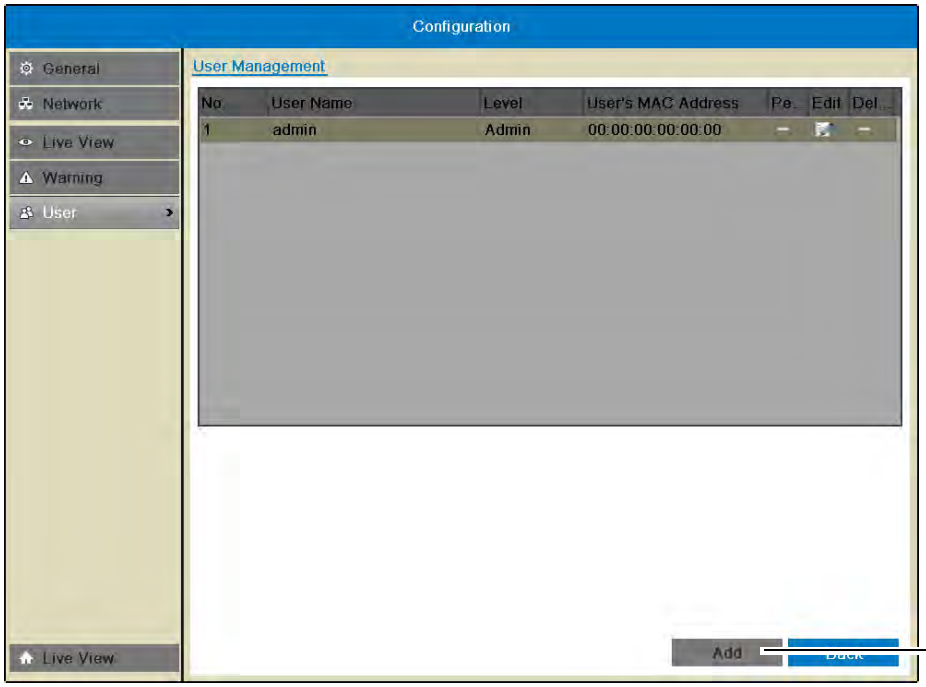
8 Click **OK** to save changes. Right-click repeatedly to return to live viewing.

Adding Users

You can allow multiple users to log in to the system. When adding different users, you can assign what menus they have access to. For example, you may want your friend to monitor your system while you are away, while not giving full access to your system.

To add a new user:

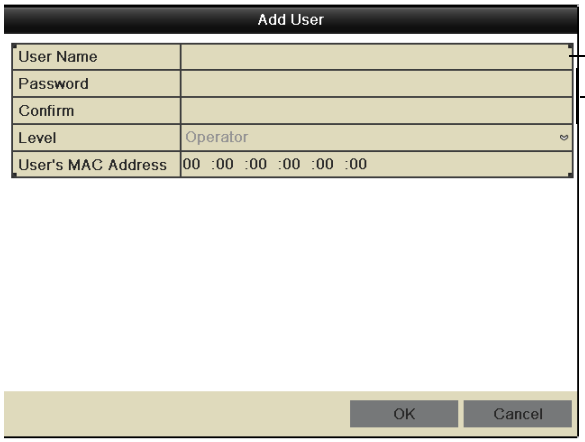
1. Right-click and click **Menu**.
2. Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.
3. Click **Configuration→User**.
4. Click **Add**. The Add User menu appears.



Click to add a new user account

5. Enter the desired **User Name** and **Password** for the user account. Re-enter the password under **Confirm**.

NOTE: Do **not** change the User's MAC Address field.



Enter User Name

Enter password

6 Click **OK** to save the user account.

Configuring User Permissions

You can customize the menus that each user account may access.

To configure user permissions:

1 Right-click and click **Menu**.

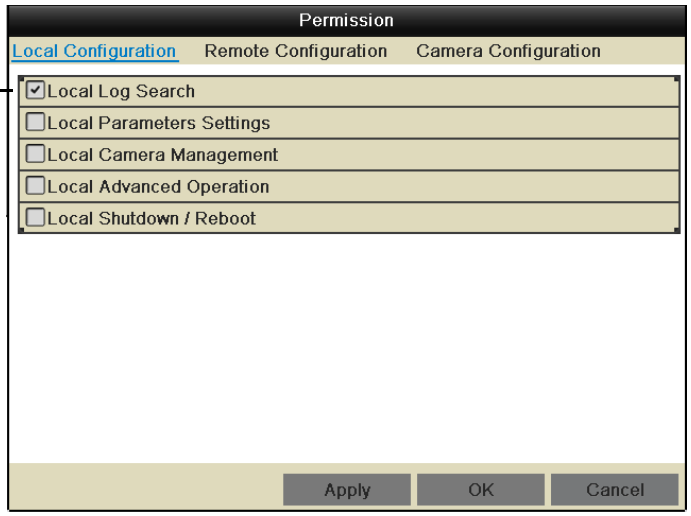
2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→User**.

4 Click next to the user account you would like to configure.

5 Check the permissions you would like to apply to the user.

Check permissions to apply to the user



6 Click **Apply** to save changes. Right-click repeatedly to return to live viewing.

Deleting Users

- In the User menu, click next to the user account you would like to delete. Click **Yes** to confirm.

Editing Users

The admin can edit the user name and password of user accounts.

To edit user accounts:

1 In the User menu, click next to the user account.

2 Update the **User Name** as needed.

3 Check **Change Password** to change the password. Enter the new password under **Password** and **Confirm**.

4 Click **OK** to save changes.

Using the Main Menu

To open the Main Menu:

- Right-click to open the Quick Menu and click **Menu**. Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

- **Playback:** Search and playback recorded video saved on the NVR. For details, see "Playback" on page 23.
- **Export:** Back up video files to a USB flash drive or external hard drive. For details, see "Backing Up Video" on page 32.
- **Manual:** Configure manual recording options. Select if cameras will use manual or scheduled recording.
- **HDD:** Format hard drives and configure hard drive settings.
- **Record:** Configure recording settings and schedule.
- **Camera:** Configure camera image, motion detection, and other settings.
- **Configuration:** Configure system and network settings.
- **Maintenance:** View system info and device logs. Update firmware, reset to factory default settings, and import/export system configuration.
- **Shutdown:** Log out, shutdown, or reboot the system.

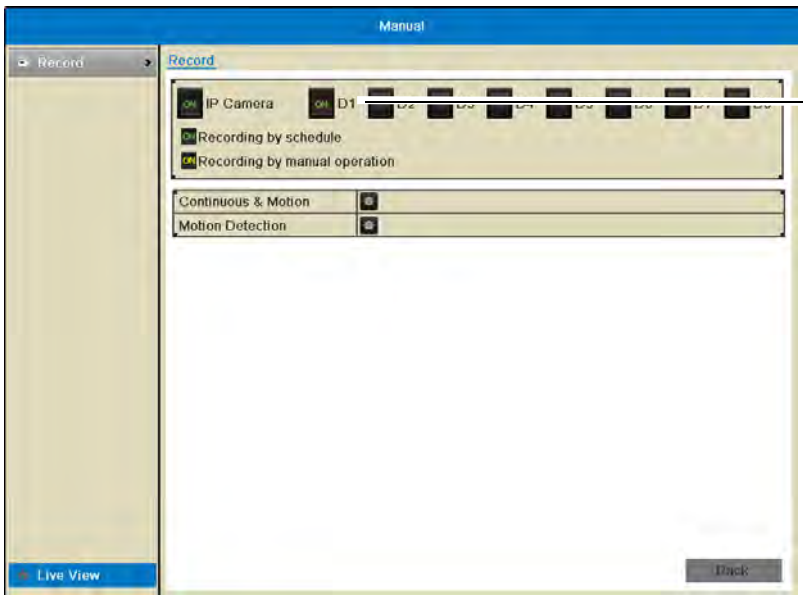
Manual

Configure manual recording options. Select if cameras will use manual or scheduled recording.

Selecting Manual or Scheduled Recording

You can select if your cameras will record according to the schedule or according to manual operation. For details on configuring the recording schedule, see "Configuring the Recording Schedule" on page 50.

To select Manual or Scheduled Recording:



1 Right-click and then click **Menu**.

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Manual**

4 Click next to each camera to select one of the following:
- **ON (Green):** Use Schedule settings to determine recording. For details, see "Schedule" on page 50.
- **ON (Yellow):** Record when manual recording is activated.
- **OFF:** Do not record.

5 Right-click repeatedly to return to live view.

HDD

Format hard drives and configure hard drive settings.

The HDD Menu contains the following sub-menus:

- General
- Advanced
- HDD Detect
- Overwrite

General

Formatting the Hard Drive

If you replace the hard drive or install a new hard drive in the system, you must format it before it can be used for recording.

To format the hard drive:

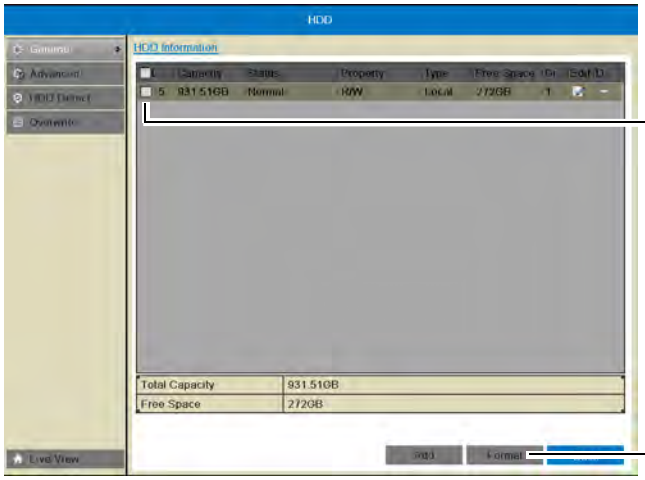
ATTENTION: Formatting the hard drive will erase all data on the drive.

1 Right-click and then click **Menu**.

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **HDD→General**

4 Check the hard drive that you would like to format.



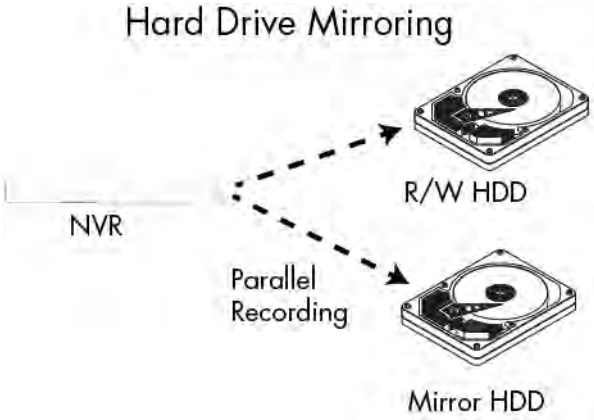
5 Click **Format**. Click **OK** to confirm. Wait for the formatting to complete. Right-click repeatedly to return to live view.

Configuring Hard Drive Type or Group

You can configure installed hard drives to perform the following functions:

- **R/W (Recording Hard Drive):** Normal recording hard drive.
- **Read-only:** Read-only hard drive. The NVR will not record to read-only hard drives.
- **Mirror:** Mirror hard drive. A mirror hard drive can be used to automatically backup video footage recorded to the recording hard drive. When a mirroring hard drive is installed, the NVR can be set to record cameras in parallel to both the recording hard drive and the mirror hard drive. This way, the footage is automatically backed up if the recording hard drive fails.

NOTE: Mirror hard drive must be as large or larger than primary hard drive to backup all recordings. Backup begins from when mirror hard drive is installed and configured.

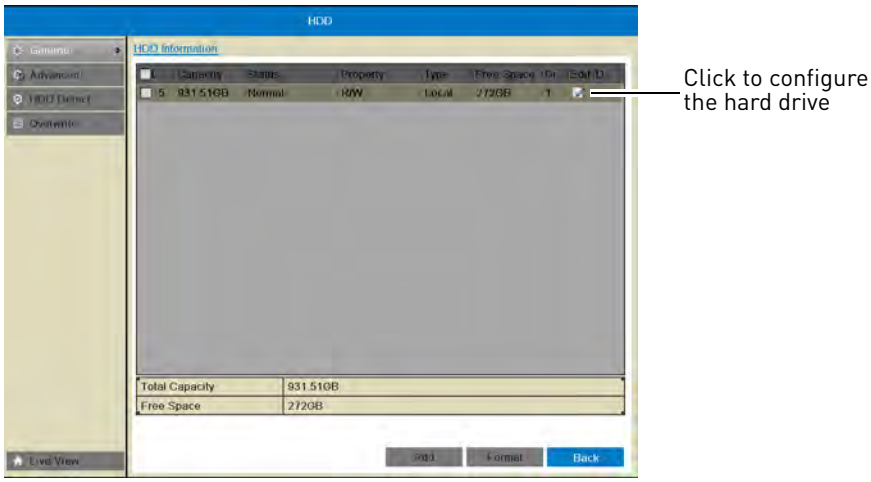


To configure hard drive types on the NVR:

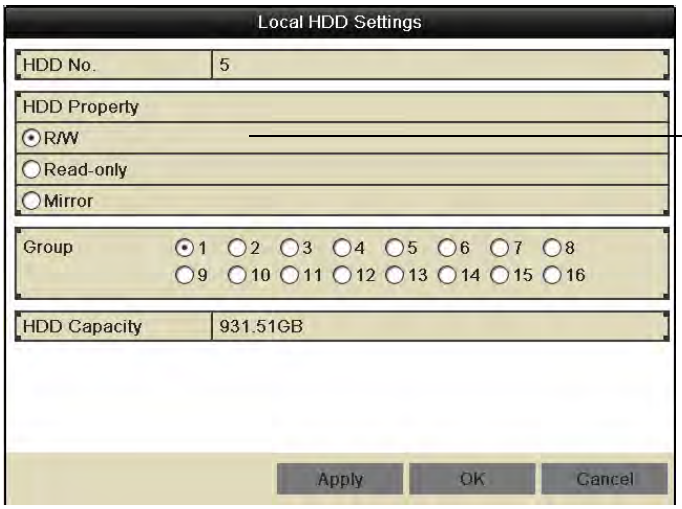
1. If you are configuring a hard drive to be a mirroring hard drive, **you must first format both the recording hard drive and mirroring hard drive** before you can set up hard drive mirroring. For instructions on how to format hard drives, see "Formatting the Hard Drive" on page 44.

2. Right-click and then click **HDD**.

3. Click on the hard drive you would like to configure.



4 Select the hard drive type to use for this hard drive: **R/W**, **Read-only**, or **Mirror**.



Select hard drive type

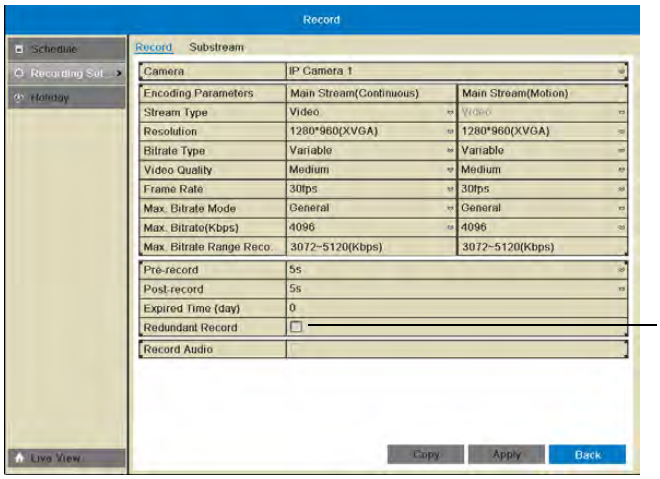
NOTE: You must have at least one R/W hard drive installed for the system to record.

5 (Optional) If you are configuring the hard drive as R/W, you may select a hard drive group under **Group**. Hard drive groups allow you to configure certain IP cameras to record to different hard drives. For details, see "Configuring Recording Group Settings" on page 47.

6 Click **OK** to save your changes. Right-click repeatedly to return to live view.

7 If you are configuring a mirror hard drive, you must now enable redundant recording in your cameras, to do so:

- Right-click and then click **Record→Recording Setup**.
- Under **Camera**, select the desired camera and check **Mirror Record** to enable redundant recording to the mirror hard drive.
- Repeat for any additional cameras or use **Copy** to copy redundant recording settings to all cameras.
- Click **Apply** to save changes. Right-click repeatedly to return to live view



Check to enable recording to the mirror hard drive

Advanced

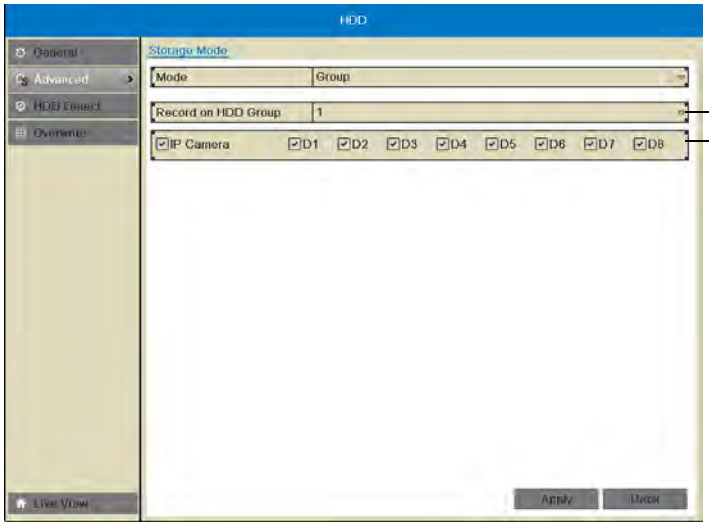
Configuring Recording Group Settings

Use recording group settings if you want to specify which hard drive group your cameras will record to.

NOTE: You must have a second hard drive (not included) installed to use recording group settings.

To configure recording group settings:

1. Right-click and then click **Menu**.
2. Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.
3. Click **HDD→Advanced**.
4. Under **Record on HDD Group**, select the hard drive group you would like to configure.



Select hard drive group

Select cameras to record to selected group

NOTE: To assign your hard drives to groups, see "Configuring Hard Drive Type or Group" on page 45.

5. Check the cameras you would like to record to the selected hard drive group.
6. Click **Apply** to save changes. Right-click repeatedly to return to live view.

HDD Detect

NOTE: The options in the HDD Detect sub-menu are for advanced users. It is recommended to leave all settings on their default values.

Setting S.M.A.R.T. Settings and Running S.M.A.R.T. Checks on the Hard Drive

The device supports S.M.A.R.T. and Bad Sector Detection. S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) is a monitoring system for hard drives that detects and reports potential reliability issues to help anticipate hard drive failure.

To set S.M.A.R.T. settings:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

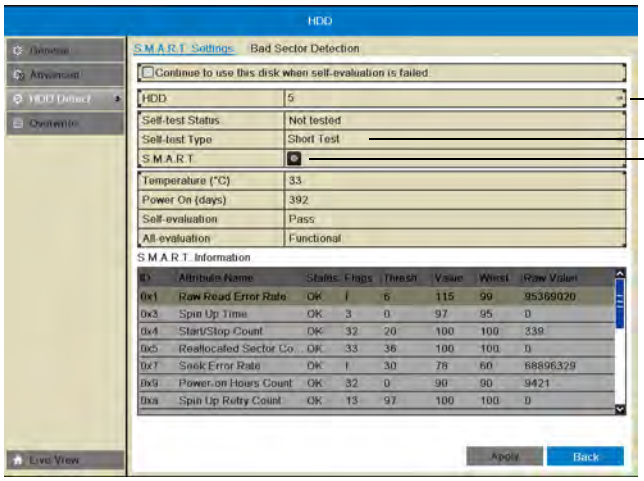
3 Click **HDD→HDD Detect**.

4 Under **HDD**, select the hard drive you would like to check.

NOTE: You can see the HDD No. of installed hard drives under the **HDD→General** sub-menu.

5 Under **Self-test Type**, select the type of S.M.A.R.T. test you would like to run.

6 Click next to **S.M.A.R.T**. to begin the S.M.A.R.T. test. Wait for the test to complete.



Checking the Hard Drive for Errors

The NVR can check the hard drive for errors or bad sectors.

To check the hard drive for errors:

1 Right-click and then click **Menu**.

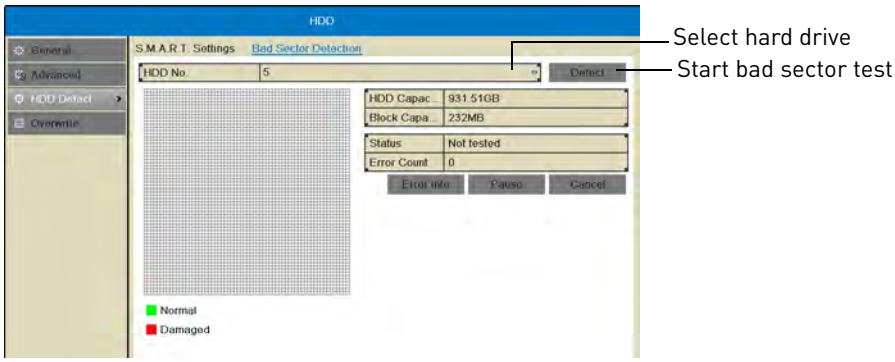
2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **HDD→HDD Detect→Bad Sector Detection**.

4 Under **HDD**, select the hard drive you would like to check.

NOTE: You can see the HDD numbers of installed hard drives under the **HDD→General** sub-menu.

5 Click **Detect** to begin the scan. The NVR will scan the hard drive for bad sectors and show the results in the chart. Green blocks are normal sectors, and red blocks are damaged sectors.



The hard drive scan may take up to a couple hours. If you exit the Bad Sector Detection sub-menu, the scan will be paused.

Overwrite

Enabling/Disabling Overwrite

Overwrite is enabled by default. When overwrite is enabled, the NVR will begin to overwrite the oldest video footage when the hard drive is full. If Overwrite is not enabled, the NVR will stop recording when the hard drive is full.

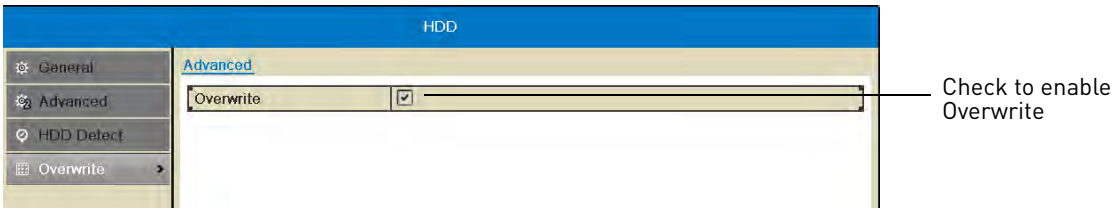
To enable/disable overwrite:

1 Right-click and then click **Menu**

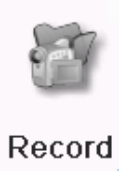
2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **HDD→Overwrite**.

4 Check **Overwrite** to enable overwrite or un-check to disable.



5 Click **Apply** to save your settings.



Record

Configure recording settings and schedule.

The Record menu contains the following sub-menus:

- Schedule
- Encoding Settings
- Holiday

Schedule

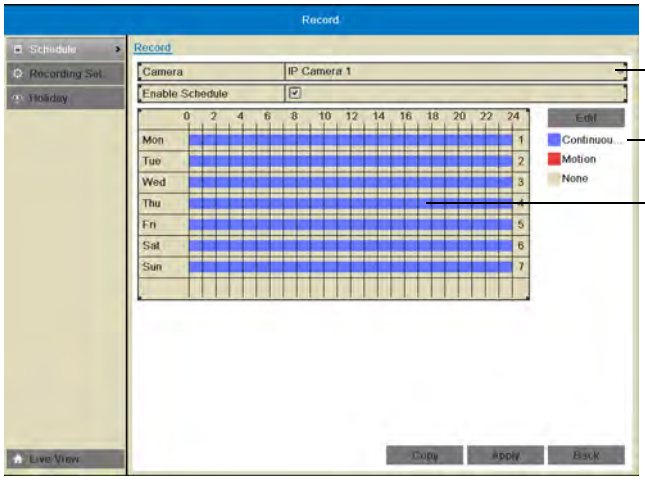
Configuring the Recording Schedule

Use the recording schedule to configure when cameras will use continuous or motion detection recording.

To configure the recording schedule:

1. Right-click and then click **Menu**.
2. Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.
3. Click **Record**.
4. Under **Camera**, select the camera you would like to configure.
5. Ensure **Enable Schedule** is checked.
6. Select the recording type to add to the schedule on the right side of the screen:
   - **Continuous & Motion:** Camera will record at all times and mark motion events.
   - **Motion (Motion Detection Recording only):** Camera will record when motion is detected only.
   - **None**: Camera will not record.

7 Click and drag inside the schedule to apply the currently selected recording type.



Select camera

Click to select a schedule type

Click and drag to add the recording type to the schedule

8 (Optional) To copy the schedule to other cameras, click **Copy**. Check cameras you would like to copy the schedule to. Check/un-check **IP Camera** to copy the schedule to all cameras. Click **OK** to copy the schedule.

9 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Recording Setup

Use the Recording Setup to configure recording and streaming parameters for your cameras such as the resolution, frame rate, network bandwidth, and event pre and post-recording durations.

The Encoding Settings are set separately for Continuous and Event (motion) recording. They may also be set for remote streaming to a computer or mobile device through the Substream tab.

Configuring Recording Resolution, Frame Rate, and Image Quality

The resolution, frame rate, and image quality can be set separately for each camera, as well as for continuous and motion recording.

To configure the recording resolution, frame rate, and image quality:

1 Right-click and then click **Menu**.

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

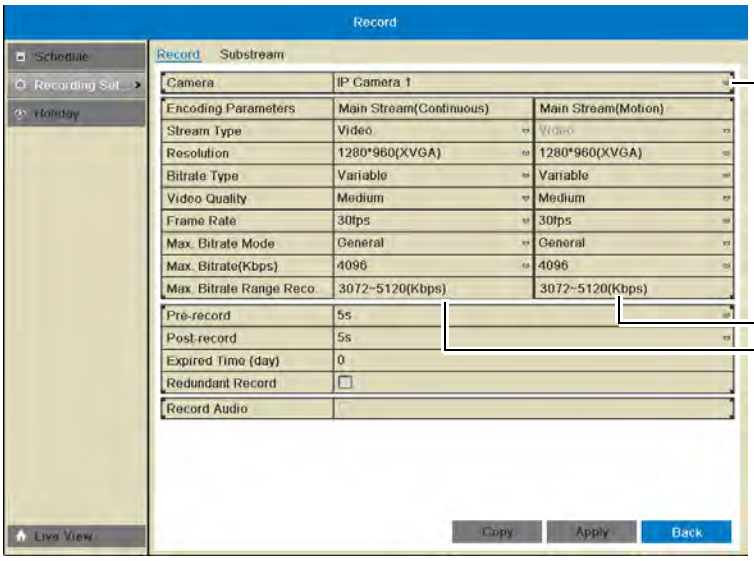
3 Click **Record→Recording Setup**.

4 Under **Camera**, select the camera you would like to configure.

5 Configure the following settings under **Mainstream (Continuous)** to set the parameters for continuous recording:

- Under **Resolution**, select the recording resolution of the camera: **1280*720 (720P)** or **1920*1080 (1080P)**.
- Under **Video Quality**, select the video quality from **Lowest** to **Highest**.

- Under **Frame Rate**, select the recording frame rate.
- Under **Max Bitrate**, select the bitrate that will be used for video streaming in Kbps. It is recommended to select a value within the range shown under **Max. Bitrate Range Recommended**.



6 Configure the above settings under **Mainstream (Motion)** to set the parameters for motion recording.

7 (Optional) Use the **Copy** button to copy the selected settings to other channels. A warning message may appear when copying settings to unconnected channels, but the NVR will copy settings to all connected channels.

8 Click **Apply** to save changes. Right-click repeatedly to return to live viewing.

NOTE: If you get a "Bandwidth Exceeded" message, it is because you have set the combined bitrate or framerate for all your cameras higher than the NVR can process. It is recommended to set the bitrate and framerate to the following settings, based on the number of channels your NVR has:

Recommended Frame Rate and Bitrate per Number of Channels

Number of Channels	Frame Rate (frames per second)	Bitrate (Kbps)
4 channels	30	8192
8 channels	30	4096
16 channels	15	3200

Configuring the Pre-Record and Post-Record Times

The NVR supports pre-recording to record video from before events (such as motion or video loss) occur. The Pre-Record time determines how long the NVR will record before an event occurs.

The Post-Record time determines how long the NVR will record after an event occurs.

To configure the Pre-Record and Post-Record times:

1 Right-click and then click **Menu**.

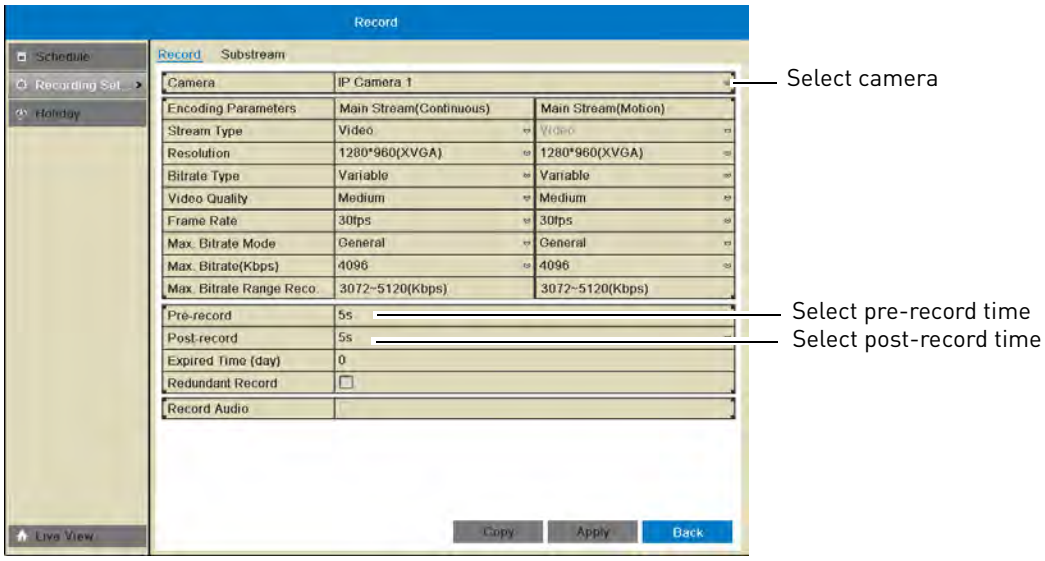
2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Record→Recording Setup**.

4 Under **Camera**, select the camera you would like to modify.

5 Under **Pre-record**, select the time the NVR will record before an event.

6 Under **Post-record**, select the time the NVR will record after an event.



7 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Configuring Substream Settings

Substream settings allow you to configure the video quality settings for streaming to a computer or mobile device. The substream allows you to conserve Internet bandwidth for connections over the LAN or Internet while still ensuring high quality recordings.

NOTE: Increasing the substream settings may affect the performance of the video stream, depending on bandwidth available.

To configure substream settings:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Record→Recording Setup→Substream**.

4 Under **Camera**, select the camera you would like to configure.

5 Under **Resolution**, select the resolution to use for streaming: **704*576(4CIF)**, **352*288(CIF)**, **320*240(QVGA)**.

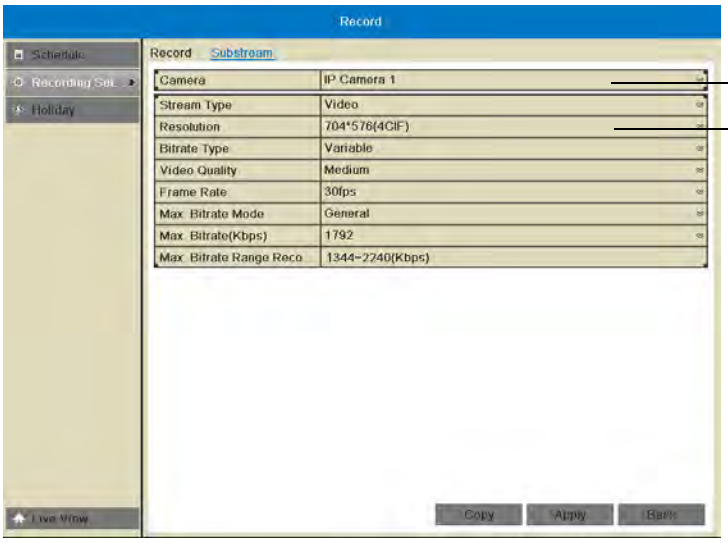
6 Under **Bitrate Type**, select **Variable** (recommended) for variable bitrate or **Constant** for constant bit rate.

- If you select Variable, select the **Video Quality** between **Highest** and **Lowest**.

7 Under **Frame Rate**, select the frame rate for streaming.

8 Under **Max. Bitrate Mode**, select **General** to use one of the pre-set options or **Customize** to manually enter the bitrate.

9 Under **Max Bitrate (Kbps)**, enter the desired bitrate in Kbps.



10 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Holiday

Configuring Holidays

You may set specific days or ranges of days as holidays. Holidays will have special recording settings that can be configured in the schedule.

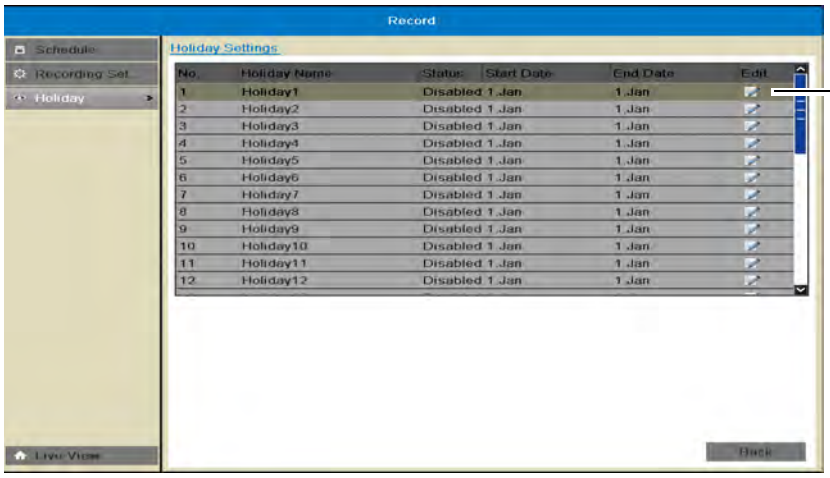
To configure holidays:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Record→Holiday**.

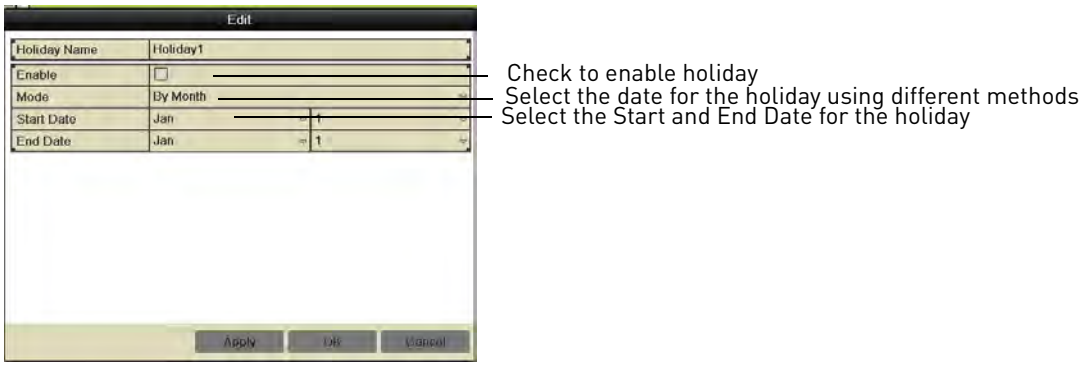
4 Click next to the holiday you would like to configure.



5 Check **Enable** to enable the holiday or un-check to disable.

6 Select the **Start Date** and **End Date** for the holiday. If you want the holiday to be one day only, select the same day for both Start Date and End Date.

- Use the **Mode** to select the date using different methods: **By Date** allows you to use a calendar to select the date, **By Month** uses drop-down menus, and **By Week** allows you to select the week and day of the week that will be used.



7 Click **OK** to save changes. Once you have enabled holidays, a Holiday line is added to the schedule. You must configure the schedule to record during holidays. For details, see "Configuring the Recording Schedule" on page 50.

Camera

Configure camera image and motion detection settings.

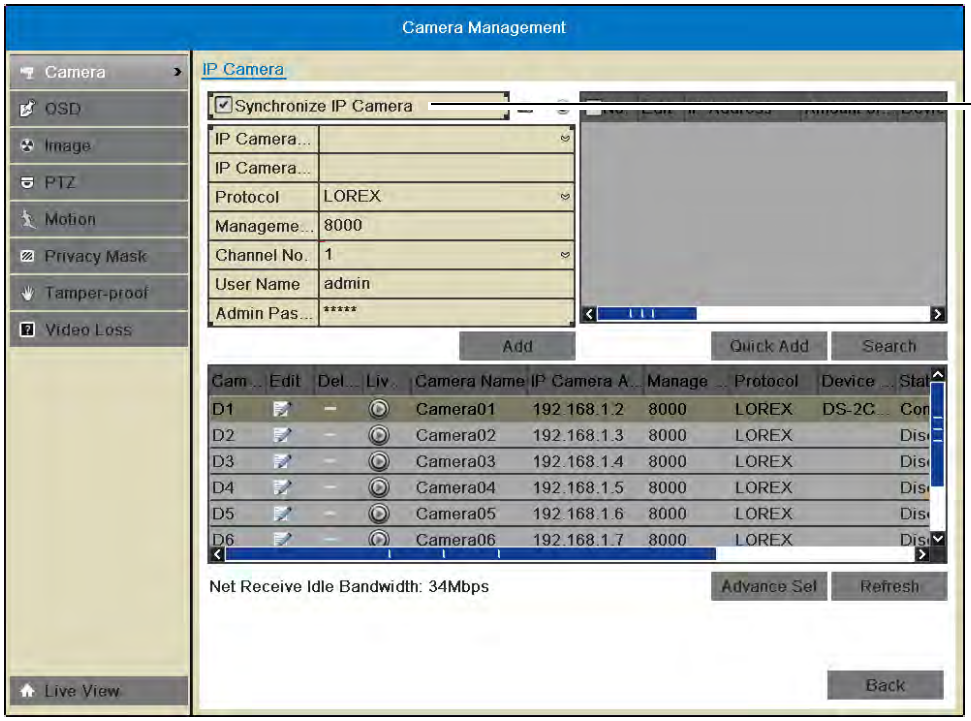
The Camera menu contains the following sub-menus:

- Camera
- OSD
- Image
- PTZ (not supported)
- Motion
- Privacy Mask
- Tamper-proof
- Video Loss

Camera

The Camera sub-menu (**Menu→Camera**) allows you to manage IP cameras connected over the LAN or PoE ports. For details on connecting IP cameras over the LAN, see "Connecting Cameras over the Local Network" on page 9.

NOTE: If you are having issues connecting your IP cameras to the NVR using the PoE ports, ensure **Synchronize IP Camera** is checked.



Ensure Syncronize IP camera is checked

OSD

The OSD sub-menu allows you to configure custom names for your cameras or configure the on-screen text shown for your cameras.

Configuring the On-Screen Display and Camera Name

You can customize the appearance of on-screen text.

To configure the on-screen display:

1 Right-click and click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Camera→OSD**.

4 Under **Camera**, select the camera you would like to modify.

5 Under **Camera Name**, enter the desired camera name.

6 Check **Display Name** to show the camera name.

7 Check **Display Date** to show the current date and time.

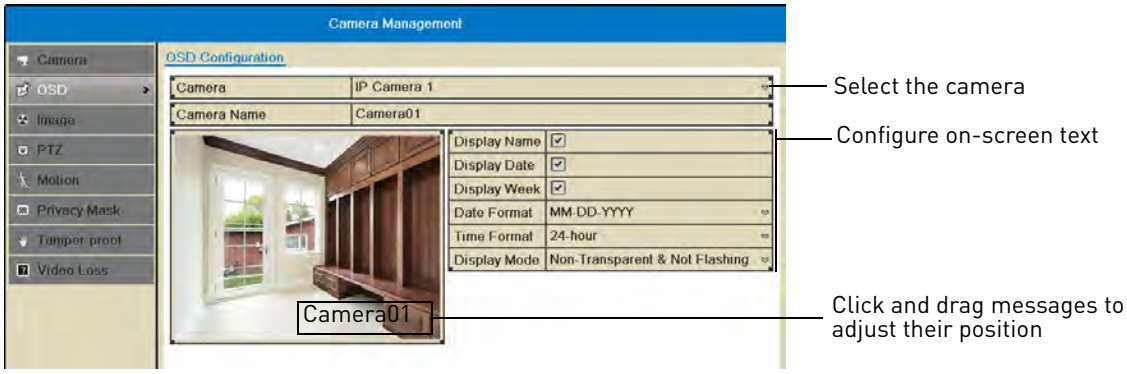
8 Check **Display Week** to show the day of the week in the date.

9 Under **Date Format**, select the desired date format.

10 Under **Time Format**, select **24-hour** or **12-hour** time.

11 Under **Display Mode**, select **Non-Transparent and Not Flashing** to have the on-screen text shown at all times, or select **Non-Transparent and Flashing** to have the on-screen text flash on the screen.

12 Click and drag the boxes in the image preview to change the position of the on-screen display text. The yellow box controls the position of the time and date, and the red box controls the position of the camera name.



NOTE: The position of the on-screen text will not update until you click Apply.

13 Click **Apply** to save your changes. Right-click repeatedly to return to live view.

Image

Configuring Camera Image Settings

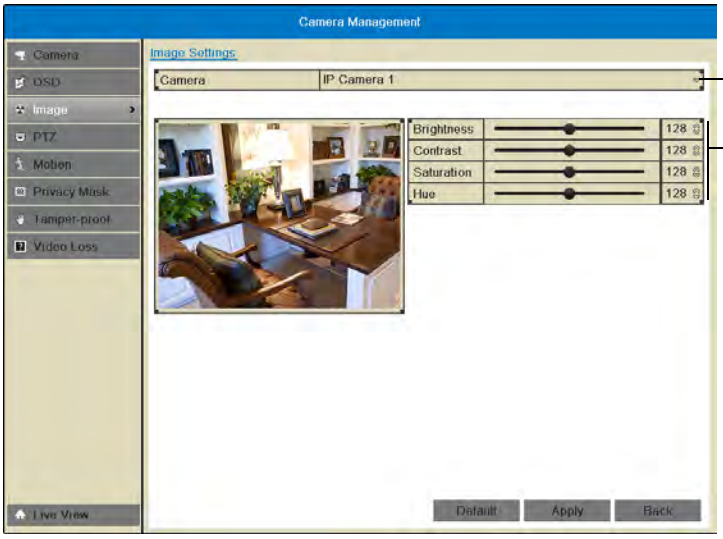
1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Camera→Image**.

4 Under **Camera**, select the camera you would like to adjust.

5 Use the sliders to adjust the **Brightness**, **Contrast**, **Saturation**, and **Hue**. Note that it may take a couple seconds for changes to occur.



Select camera

Adjust image settings

6 Click **Apply** to save changes.

Motion

Configuring Motion Detection Settings

By default, motion detection is enabled on all connected cameras. You can enable/disable cameras for motion detection.

You can also enable/disable parts of the image for motion detection. For example, you can disable motion detection where your camera overlooks a public street but enable motion detection to trigger when someone enters your driveway.

To configure motion detection settings:

1 Right-click and click **Menu.**

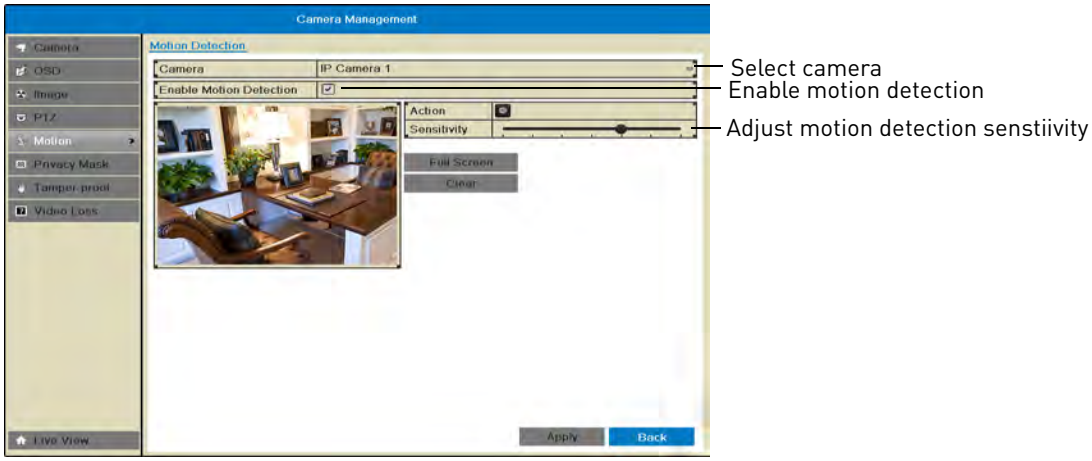
2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Camera→Motion**.

4 Under **Camera**, select the camera you would like to configure.

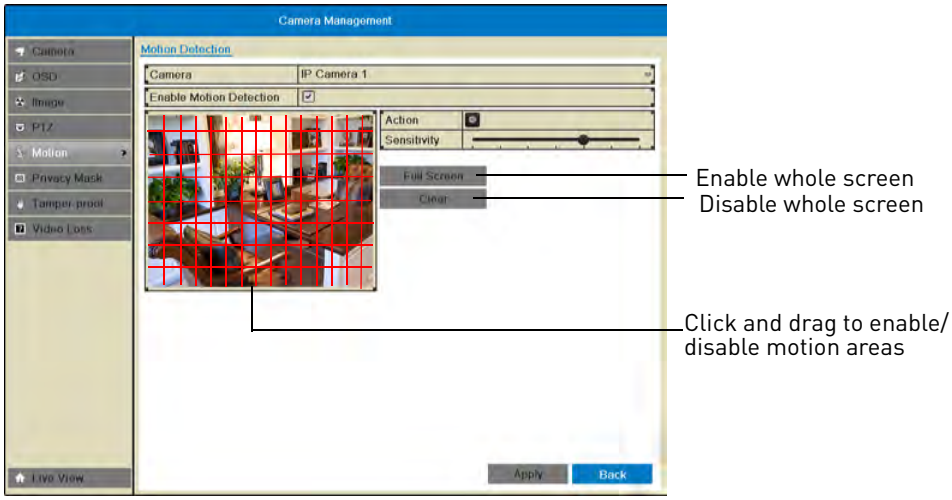
5 Check **Enable Motion Detection** to enable motion detection or un-check to disable.

6 Adjust the **Sensitivity** slider to configure motion detection sensitivity.



7 In the image area, configure motion detection areas:

- Areas where the grid is filled in are enabled for motion detection.
- Click and drag to enable/disable areas of the screen for motion detection.
- Click **Full Screen** to enable the entire area for motion detection.
- Click **Clear** to disable the entire area for motion detection.



8 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Configuring Motion Detection Alarm Settings

You can configure the alarm actions that occur when motion detection is triggered.

To configure motion detection alarm settings:

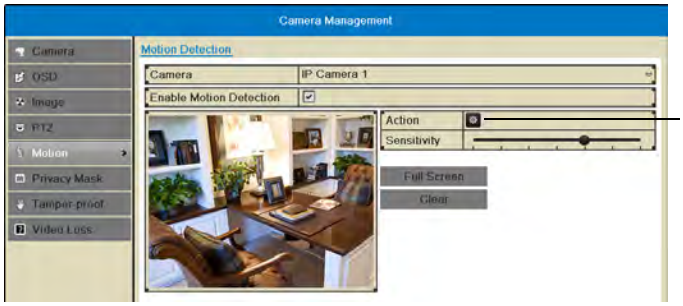
1 Right-click and click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Camera→Motion**.

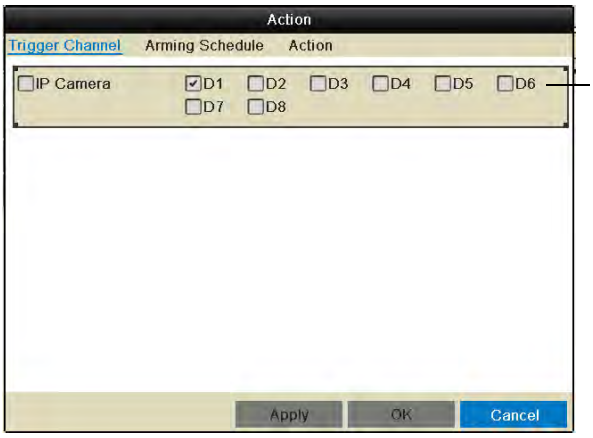
4 Under **Camera**, select the camera you would like to configure.

5 Click ⚙ under **Action** to open the Action menu.



Click to open the Action menu

6 In the **Trigger Channel** tab, select which channels that will start to record when motion detection is triggered on the selected channel. For example, if you want channels 1 and 2 to record when motion is detected on channel 1, select channel 1 and click ⚙, then check D1 and D2 in Trigger Channel.

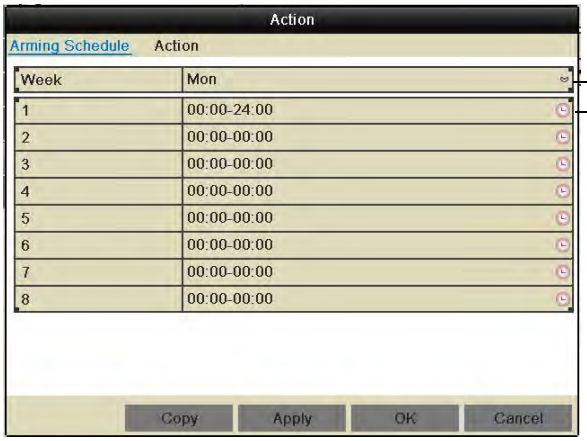


Check channels that will record when the selected channel detects motion

7 In the **Arming Schedule** tab, configure the times of day you would like motion detection to be enabled for the selected channel. By default, motion detection is enabled 24/7.

- Under **Week**, select the day of the week you would like to configure.
- Configure up to 8 time periods per day when motion detection will be enabled.

- Click **Copy** to copy the currently selected day's schedule to other days of the week.

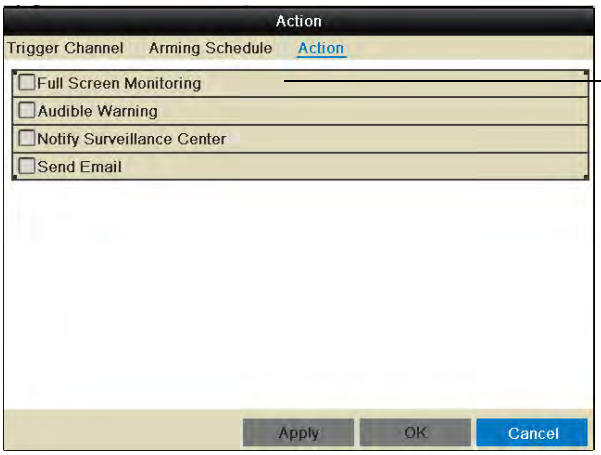


Select day of the week

Enter times when motion will be enabled

8 In the **Action** tab, check the alert actions that you want to occur when motion is detected on the selected channel.

- **Full Screen Monitoring:** The selected channel will open in full screen.
- **Audible Warning:** System will beep.
- **Notify Surveillance Center:** An alert will be sent to the client software.
- **Send Email:** An alert email will be sent. Note that you must set up email alerts before the system will send them. For details on email alerts, see "Configuring Email Alerts" on page 70.



Check alert actions

9 Click **Apply** to save changes. Click **OK**.

10 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Privacy Mask

Configuring Privacy Masks

A privacy mask allows you to block out portions of the image with a black square.

ATTENTION: Areas covered in privacy masks are not visible in recordings.

To configure privacy masks:

1 Right click and click **Menu**.

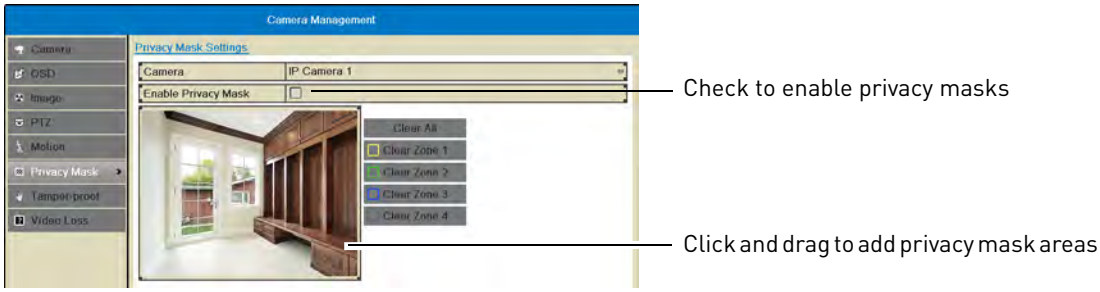
2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Camera→Privacy Mask**.

4 Under **Camera**, select the camera you would like to configure.

5 Check **Enable Privacy Mask** to enable privacy masks or un-check to disable.

6 Click and drag on the image to add privacy masks. You can configure up to 4 privacy masks per camera.



- Click the **Clear** buttons if you need to delete a privacy mask.

7 Click **Apply** to save changes.

Tamper-proof

Configuring Tamper-proof Alarms

Tamper-proof alarms occur if an intruder attempts to tamper with the camera by covering the lens.

To configure tamper-proof alarms:

1 Right click and click **Menu.**

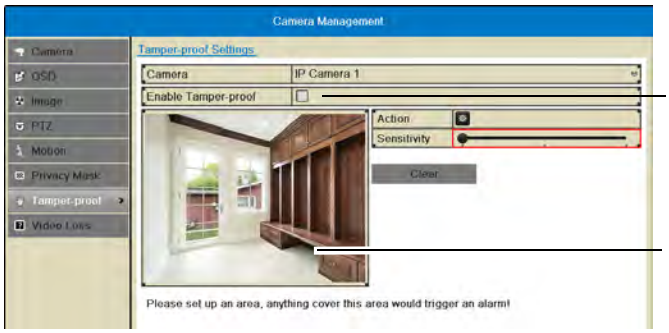
2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Camera→Tamper-proof**.

4 Under **Camera**, select the camera you would like to configure.

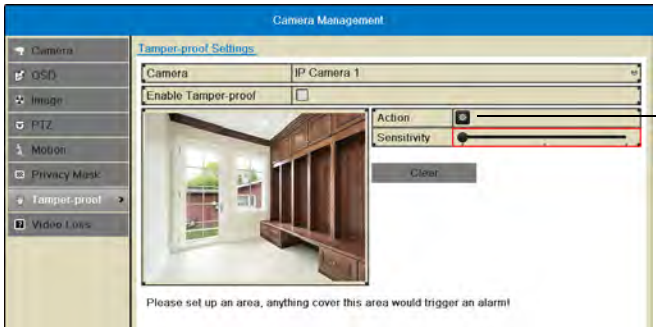
5 Check **Enable Tamper-proof** to enable tamper-proof alarms or un-check to disable.

6 Use the **Sensitivity** slider to select the sensitivity for tamper-proof alarms.



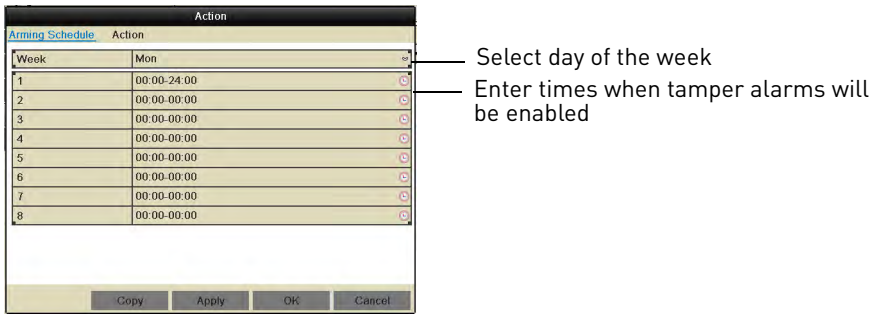
7 Click and drag inside the image to select the area where you would like to detect video tampering. It is recommended to place the area in the middle of the image.

8 Click ⚙ under **Action** to open the Action menu.



9 In the **Arming Schedule** tab, configure the times of day you would like tamper-proof alarms to be enabled for the selected camera.

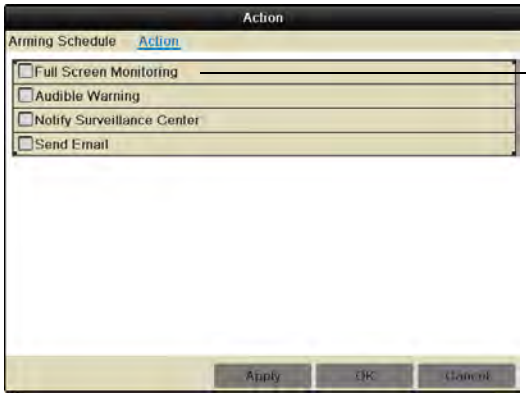
- Under **Week**, select the day of the week you would like to configure.
- Configure up to 8 time periods per day when motion detection will be enabled.
- Click **Copy** to copy the currently selected day's schedule to other days of the week.



10 In the **Action** tab, check the alert actions that you want to occur if the lens is covered on the selected channel.

- **Full Screen Monitoring:** The selected channel will open in full screen.
- **Audible Warning:** System will beep.
- **Notify Surveillance Center:** An alert will be sent to the client software.

- **Send Email:** An alert email will be sent. Note that you must set up email alerts before the system will send them. For details on email alerts, see "Configuring Email Alerts" on page 70.



Select tamper alarm alerts

11 Click **Apply** to save changes. Click **OK**.

12 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Video Loss

Configuring Video Loss Alarm Settings

Video Loss Alarms occur if the connection between the NVR and cameras is lost (for example, if the ethernet cable is disconnected).

To configure video loss alarms:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Camera→Video Loss**.

4 Under **Camera**, select the camera you would like to configure.

5 Check **Enable Video Loss Alarm** to enable video loss alarms or un-check to disable.

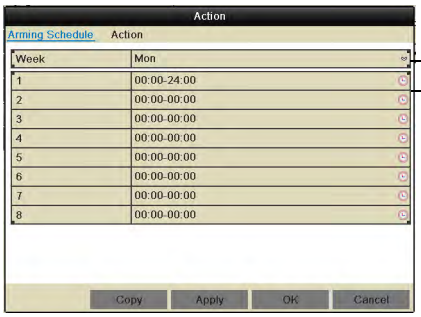
Check to enable video loss alarms

6 Click under **Action** to open the Action menu.

Click to open the Action menu

7 In the **Arming Schedule** tab, configure the times of day you would like video loss alarms to be enabled for the selected camera.

- Under **Week**, select the day of the week you would like to configure.
- Configure up to 8 time periods per day when motion detection will be enabled.
- Click **Copy** to copy the currently selected day's schedule to other days of the week.

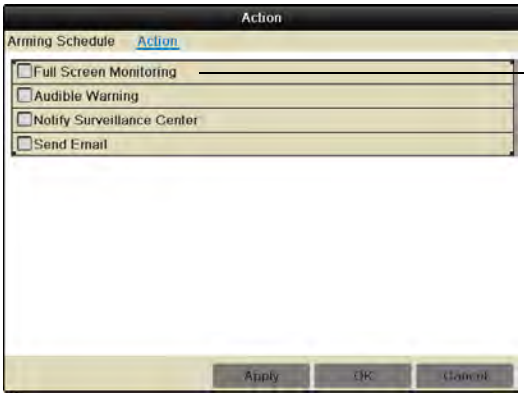


Select day of the week

Enter times when video loss alarms will be enabled

8 In the **Action** tab, check the alert actions that you want to occur if video loss occurs on the selected channel.

- **Full Screen Monitoring:** The selected channel will open in full screen.
- **Audible Warning:** System will beep.
- **Notify Surveillance Center:** An alert will be sent to the client software.
- **Send Email:** An alert email will be sent. Note that you must set up email alerts before the system will send them. For details on email alerts, see "Configuring Email Alerts" on page 70.



Select video loss alerts

9 Click **Apply** to save changes. Click **OK**.

10 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Configuration

Configure system and network settings.

The Configuration Menu contains the following sub-menus:

- General
- Network
- Live View
- Warning
- User

General

- For instructions on setting the date and time, see "Setting the Date and Time" on page 19.
- For instructions on enabling system passwords or configuring user accounts, see "Managing Passwords" on page 38.

Setting the Display Resolution

You can set the display resolution for your VGA or HDMI monitor.

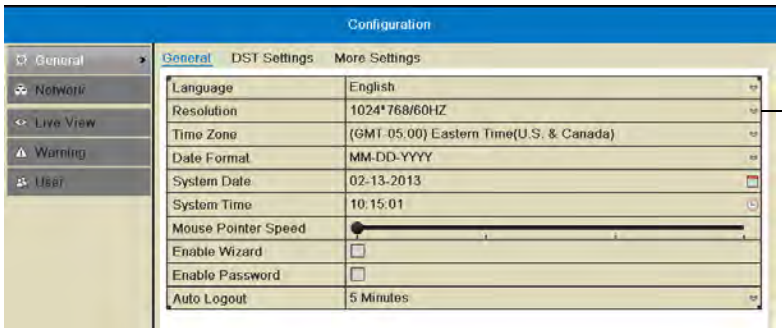
To set the display resolution:

1 Right-click and click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration**.

4 Under **Resolution**, select the correct resolution for your monitor.



Select the correct resolution for your monitor

5 Click **Apply** to save changes. The resolution will update. Click **OK** to confirm.

NOTE: If you do not click OK within 15 seconds, the resolution will reset to the previously selected setting.

Setting the Mouse Pointer Speed

1 Right-click and click **Menu→Configuration**.

2 Use the **Mouse Pointer Speed** slider to adjust how fast the mouse moves on screen.

3 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Enabling the Start Up Wizard

The Start Up Wizard is an optional wizard that helps you set up system settings when the NVR powers on.

To enable the Start Up Wizard:

1 Right-click and click **Menu**.

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration**.

4 Check **Enable Wizard** to enable the Start Up Wizard when the NVR powers on or un-check to disable.

5 Click **Apply** to save changes. Right-click repeatedly to return to live view. When the NVR starts up, the Start Up Wizard guides you through setting up key system settings.

Configuring the Auto Logout Time

The Auto Logout time determines how long menus will remain open while the system is idle.

If passwords are enabled, the user will also be logged out if the system is idle for the Auto Logout time.

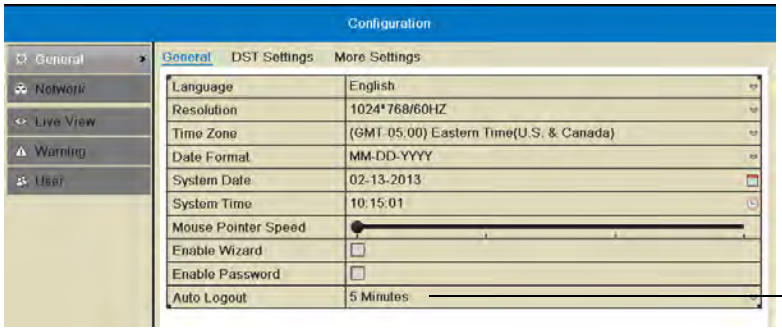
To configure the Auto Logout Time:

1 Right-click and click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration**.

4 Under **Auto Logout**, select the amount of time menus will remain open while the system is idle or select **Never** to disable auto logout.



Select the Auto Logout time

5 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Pairing the Remote Control

The remote control comes pre-paired to your NVR. If you have more than one NVR, you can pair the remote control to a specific NVR.

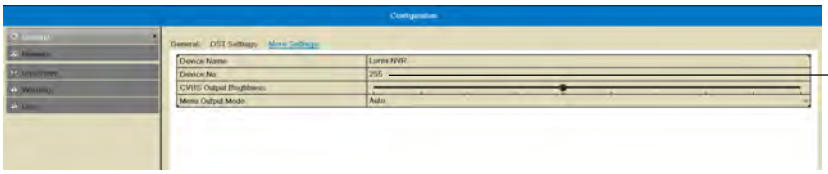
To pair the remote control to an NVR:

1 Right-click and then click **Menu**.

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→General→More Settings**.

4 Click **Device No.** and then enter a unique ID for your NVR.



Enter a unique ID number for you NVR

5 Click **Apply** to save changes. Right-click repeatedly to return to live view.

6 On the remote control, press **DEV**. Then, press the number you selected in step 3 and press **Enter**. Your remote control will now be paired with the NVR.

Adjusting BNC Video Out Brightness (16-Channel Only)

On the 16-channel model, you can adjust the brightness for a monitor connected to the Video Out (BNC) port.

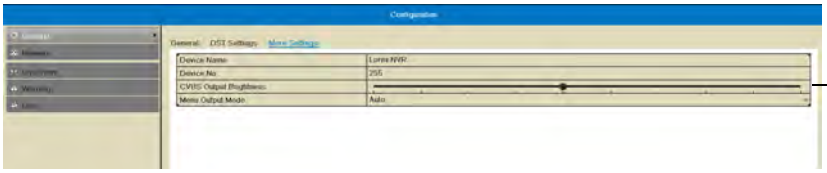
To adjust the video out brightness for the BNC monitor:

1 Right-click and then click **Menu**.

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→General→More Settings**.

4 Click inside **CVBS Output Brightness** to adjust the brightness of the BNC monitor.



5 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Changing the Device Name

The Device Name is the name of the system that appears in the System Information page. You may create a custom Device Name of your choice.

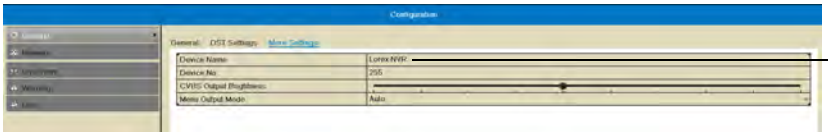
To change the Device Name:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→More Settings**.

4 Under **Device Name**, enter a name for your NVR. This can be anything of your choice (e.g. home, office, etc.).



5 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Network

Selecting Fixed IP or DHCP

The system is capable of operating in DHCP or fixed IP address modes.

To setup a fixed IP address or DHCP:

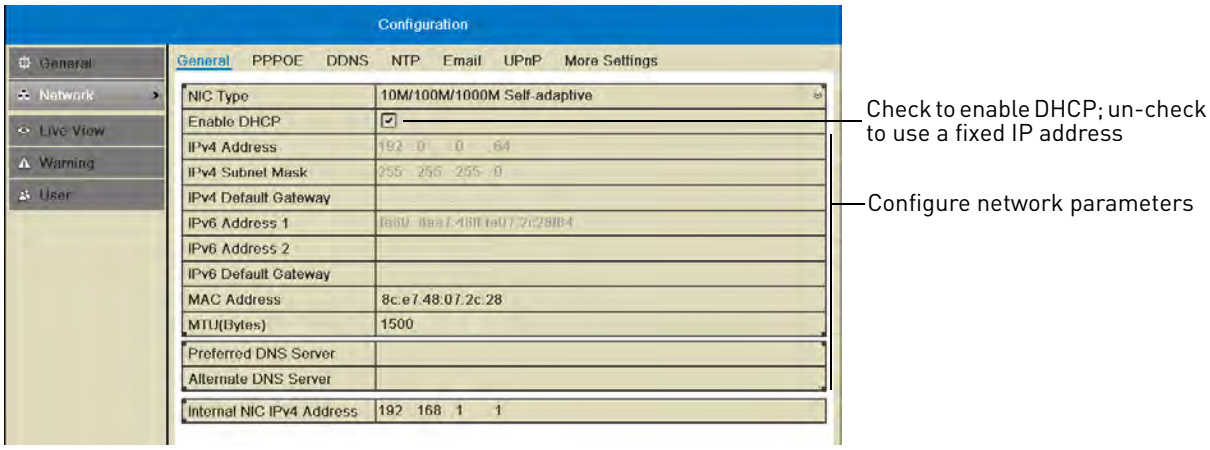
1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→Network**.

4 Check **Enable DHCP** to have the system automatically obtain an IP address from the router. Un-check Enable DHCP to assign a fixed IP address.

- If you un-check Enable DHCP, configure the **IPv4 Address**, **IPv4 Subnet Mask**, **IPv4 Default Gateway**, and **Preferred DNS Server**, and **Alternate DNS Server**.



5 Click **Apply** to save changes. The IP address information will be updated immediately. Right-click repeatedly to return to live view.

NOTE: If you have completed router port forwarding, you will need to re-configure your router to forward the newly selected IP address.

Configuring Email Alerts

You can configure the NVR to send you email alerts when an event occurs (for example, motion detection or video loss).

To configure email alerts:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→Network→Email**.

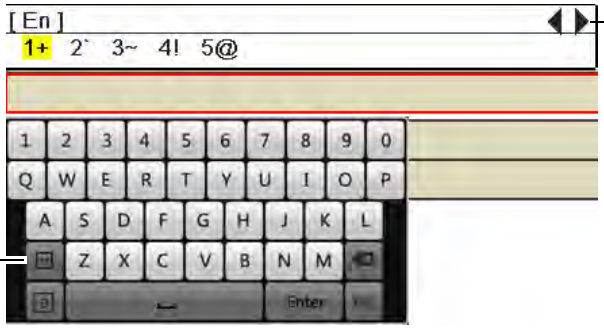
4 Configure the following:

- **Email:** Select **Default** (recommended) to use Lorex's default email server.

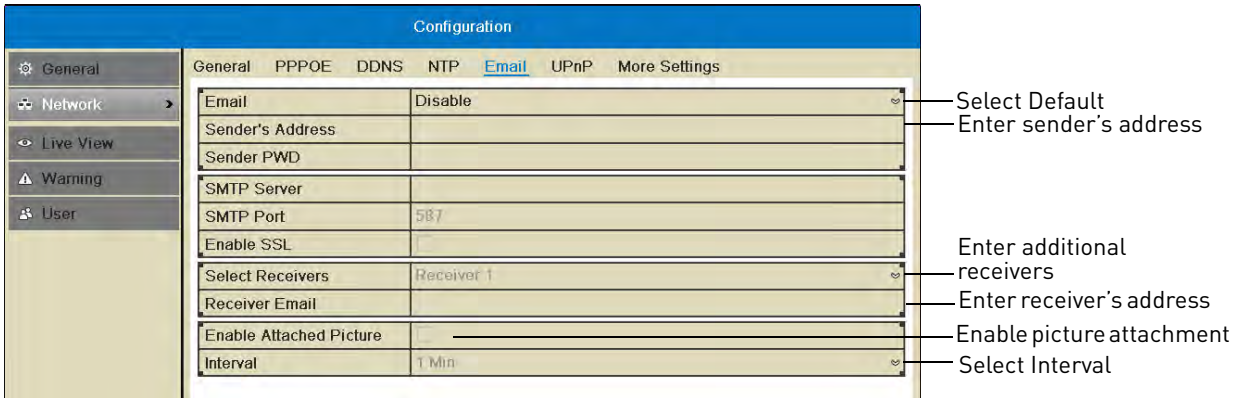
  OR (Advanced): Select **Enable** to use a custom email server. Configure the **SMTP Server** address, **SMTP Port**, and **Enable SSL** according to the server's settings.

- **Sender's Address:** Enter the sender's email address.

NOTE: To enter '@' or other special characters using the on-screen keyboard, click to bring up special characters. Click characters to input and click the arrows to view other characters.



- **Receiver Email:** Enter the email address that will receive alerts.
- **Select Receivers:** Use to enter additional email addresses that will receive alerts. Alerts may be sent to up to 3 addresses.
- **Enable Attached Picture:** Check to include an image attachment from the camera that triggered the alert.
- **Interval:** Select the interval the NVR will wait between sending out emails when events occur.



5 Click **Apply** to save your settings. Click **Test** to send a test email.

NOTE: Before the NVR will send out email alerts for motion detection, you must enable the Send Email action for each camera. See "Configuring Motion Detection Alarm Settings" on page 59.

Configuring DDNS Settings

Lorex DDNS is available as an optional connectivity option. Please see "Appendix C: DDNS Setup (Advanced)" on page 160 for details.

The primary connectivity option uses the Lorex Stratus service to connect to your system over the Internet without requiring port forwarding or DDNS registration. For details, see "Connecting to Your NVR Over the Internet on PC or Mac" on page 83.

To configure DDNS settings:

1 Right-click and then click **Menu.**

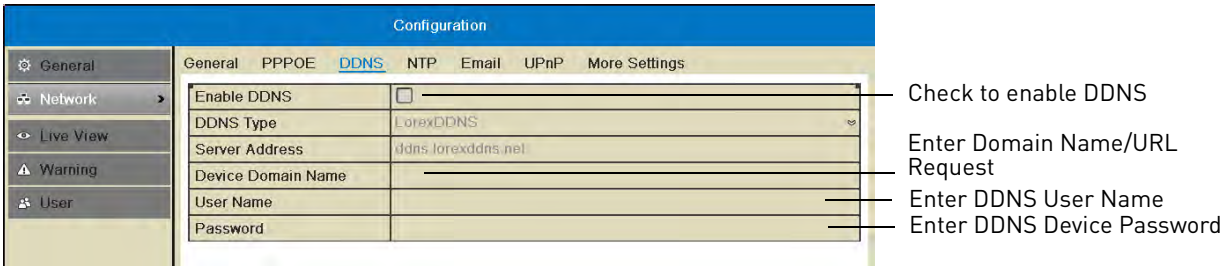
2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→Network→DDNS**.

4 Check **Enable DDNS**.

5 Configure the following:

- **DDNS Type:** Select **LorexDDNS**.
- **Device Domain Name:** Enter the **Domain Name/URL Request** you received in the confirmation email after you set up your DDNS account.
- **User Name:** Enter the **DDNS User Name** from the confirmation email.
- **Password:** Enter the **DDNS Device Password** from the confirmation email.



6 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Changing System Ports

The NVR's default Client Port is **8000**, the default HTTP Port is **80**, and the default Mobile Port is **1025**.

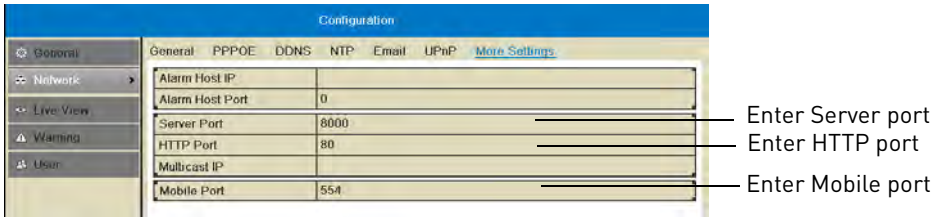
To change system ports:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→Network→More Settings**.

4 Configure the **Server Port**, **HTTP Port**, and **Mobile Port** as needed.



5 Click **Apply** to save changes. Right-click repeatedly to return to live view.

NOTE: If you have completed router port forwarding, you will need to re-configure your router to forward the newly selected ports.

Live View

Configuring Dwell Times

The Dwell Time refers to the amount of time channels or screens are shown before switching when Sequence Mode is activated.

The Full Screen Monitoring Dwell Time refers to the amount of time channels are shown in full screen after alarms occur, if Full Screen Monitoring is enabled.

To configure Dwell Times:

1 Right-click and then click **Menu.**

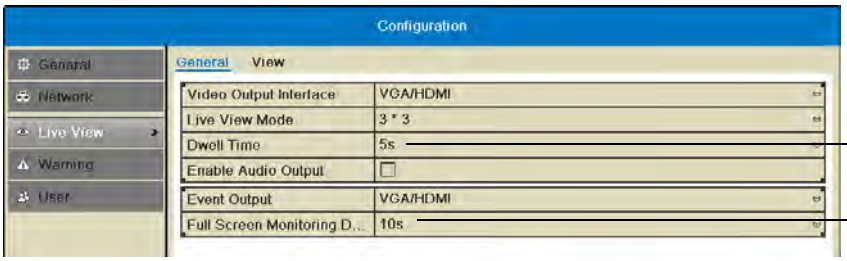
2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→Live View**.

4 Under **Dwell Time**, select the amount of time channels or screens are shown in Sequence mode before switching.

NOTE: If you select **No Switch**, you will not be able to activate Sequence mode.

5 Under **Full Screen Monitoring Dwell Time**, select the amount of time channels are shown in full screen after alarms occur.



NOTE: Alarms must be enabled with full screen monitoring must be enabled before cameras will be shown in full screen. If alarms occur simultaneously on multiple channels, each channel will be shown in full-screen for this long before switching to the next channel.

6 Click **Apply** to save your settings. Right-click repeatedly to return to live view.

Configuring the Layout of Channels

You can customize where channels will appear on screen.

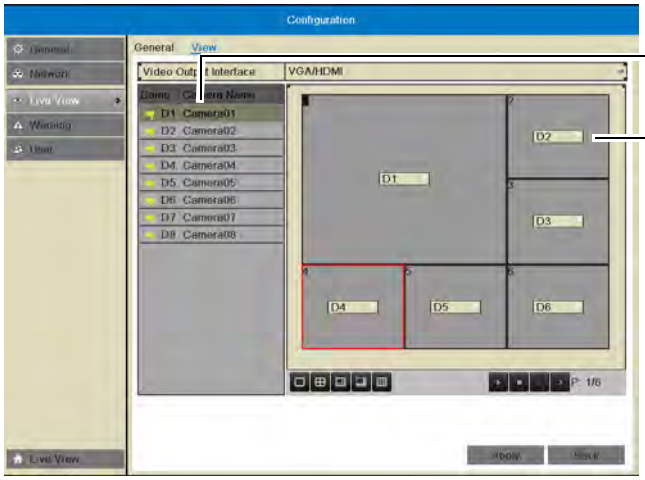
To configure the layout of channels:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Configuration→Live View→View**.

4 Click to select a different split-screen configuration.



Double-click to display a camera in the selected screen area

Click to select an area of the screen

5 Click inside the boxes to select an area of the screen. Double-click a camera to display it in the selected box. This camera will replace the camera previously shown in this area.

NOTE: You can not display a camera more than once on the screen.

6 Click ◀ ▶ to select different pages.

7 Click **Apply** to save changes. Right-click repeatedly to return to live view. When you select this split-screen configuration, the channels will be shown according to your arrangement.

Warning

Configuring System Warnings

You can configure the types of actions the system will take when errors occur.

To configure system warnings:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

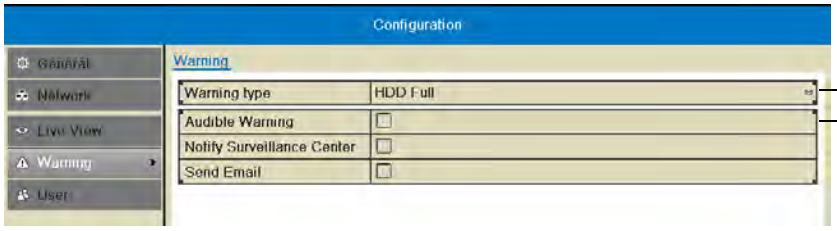
3 Click **Configuration→Warning**.

4 Under **Warning type**, select **All** to configure all warnings, or select one of the following types to configure:

- **HDD Full:** The hard drive is full.
- **Hard Drive Error:** Error encountered while writing to the hard drive or hard drive not formatted.
- **Network Disconnected:** NVR disconnected from network.
- **IP Conflicted:** IP address of camera or NVR duplicated.
- **Illegal Login:** Wrong user name or password entered.
- **Record Exception:** No space for saving recorded files.

5 Check the warning actions you would like the system to take when the condition for the selected warning type occurs.

- **Audible Warning:** The system buzzer will beep.
- **Notify Surveillance Center:** A warning is sent to the client software.
- **Send Email:** An alert email is sent. Note that email alerts must be enabled before emails are sent. For details on enabling email alerts, see "Configuring Email Alerts" on page 70.



6 Click **Apply** to save changes. Right-click repeatedly to exit all menus.

Maintenance

View system info and device logs. Update firmware, reset to factory default settings, and import/export system configuration.

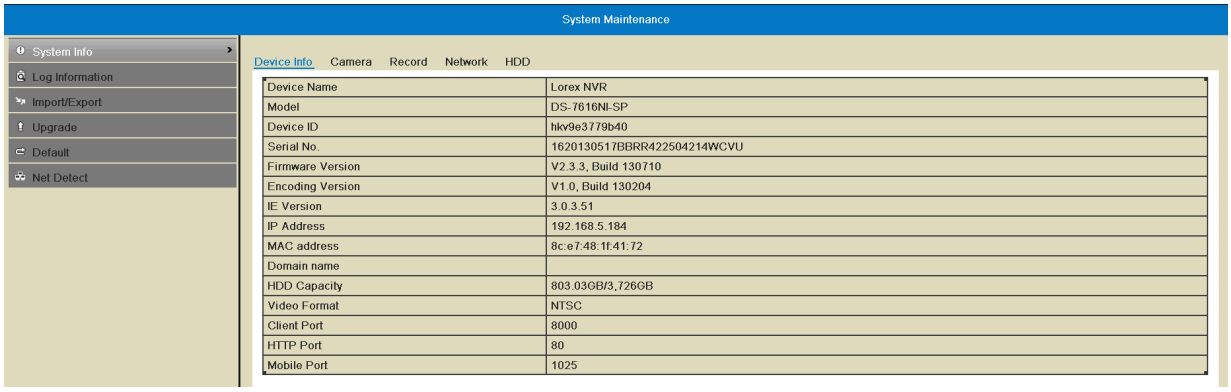
The Maintenance Menu contains the following sub-menus:

- System Info
- Log Information
- Import/Export
- Upgrade
- Default
- Net Detect

System Info

Viewing System Info

The System Info sub-menu shows detailed information about the system.



Device Name	Lorex NVR
Model	DS-7616NI-SP
Device ID	hkv9e3779b40
Serial No.	1620130517BBRR422504214WCVU
Firmware Version	V2.3.3, Build 130710
Encoding Version	V1.0, Build 130204
IE Version	3.0.3.51
IP Address	192.168.5.184
MAC address	8c:e7:48:1f:41:72
Domain name	
HDD Capacity	803.03GB/3,726GB
Video Format	NTSC
Client Port	8000
HTTP Port	80
Mobile Port	1025

To view detailed system information:

1 Right-click and click **Menu→Maintenance**. Click the tabs to view information on the following system components:

- **Device Info:** Shows an overview of key system info, such as the Device ID, IP address, MAC address, firmware version, and system ports.
- **Camera:** Shows information about connected cameras.
- **Record:** Shows the recording settings that are currently in use.
- **Network:** Shows detailed network information.
- **HDD:** Shows information about hard drives connected to the system.

Log Information

Searching for System Logs

System logs are recorded when events occur on the system. Logged events include

alarms, configuration changes, maintenance actions (such as the system powering on or off), and warnings (such as network or camera disconnection).

To search for system logs:

1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Maintenance→Log Information**.

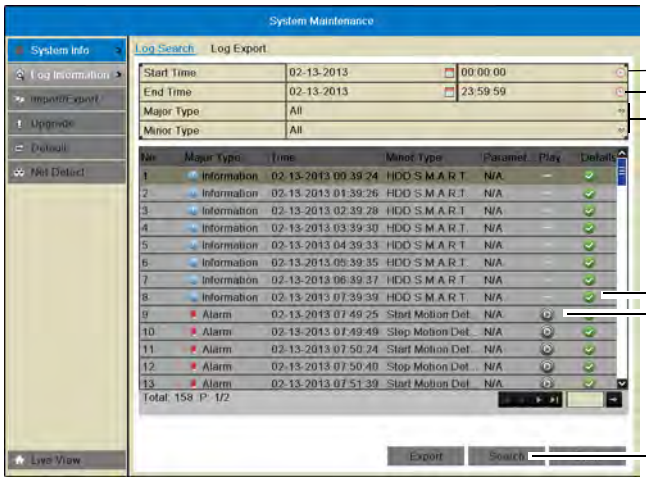
4 Under **Start Time** and **End Time**, select the start time and end time for your log search.

5 Under **Major Type**, select **All** to search for all system logs, or select a type of log to search for:

- **Alarm:** System alarms, such as motion detection and tamper-proof alarms.
- **Warning:** System warnings, such as a camera disconnection or hard drive errors.
- **Operation:** System operations, such as configuration changes.
- **Information:** System information logs.

6 Under **Minor Type**, select **All** to search for all system logs in the Major Type you have selected or select a specific type of log to search for.

7 Click **Search** to view a list of logs that match your criteria. Click to playback video related to the log or click to see details for the log entry.



Exporting System Logs to USB

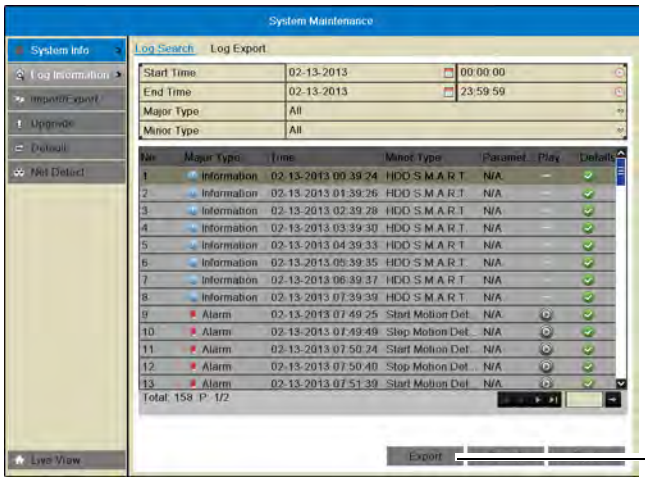
You can export system logs to the USB flash drive (not included) or external hard drive (not included).

To export system logs:

1 Connect a USB flash drive (not included) or external hard drive (not included) into one of the **USB** ports on the system.

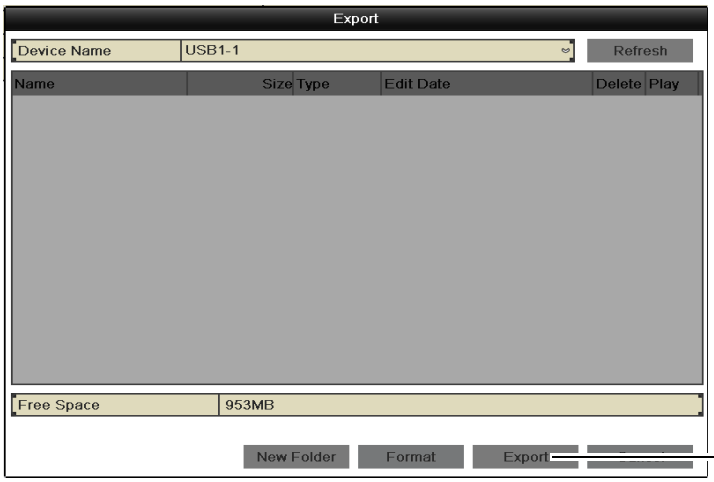
2 Perform a log search using the instructions in "Searching for System Logs" on page 76.

3 Click **Export**.



Click to export logs

4 Click **Export** again to export the list of system logs. Wait for the export to complete before disconnecting your USB flash drive or external hard drive.



Click Export

Import/Export

Saving Your System Configuration to USB

You can save your current system configuration to a USB flash drive (not included). This is useful if you want to backup your current settings.

NOTE: This function only saves settings created in system menus. It does not save or backup any video.

To save your system configuration to a USB flash drive:

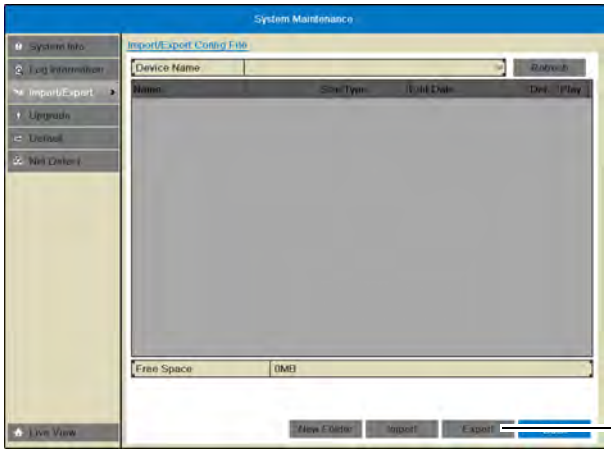
1 Connect a USB flash drive (not included) or external hard drive (not included) into one of the **USB** ports on the system.

2 Right-click and then click **Menu.**

3 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

4 Click **Maintenance→Import/Export**.

5 Click **Export**. Wait for the export to complete.



Loading a System Configuration from USB

1 Connect a USB flash drive (not included) or external hard drive (not included) with a saved configuration file into one of the **USB** ports on the system.

2 Right-click and then click **Menu.**

3 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

4 Click **Maintenance→Import/Export**.

5 Click the configuration file you would like to load, and then click **Import**. Click **Yes** to confirm. The system will reboot and then restart with the new settings.

Upgrade

Upgrading the System Firmware

Firmware upgrades can provide improved functionality to your NVR. Firmware upgrades can provide improved functionality to your NVR. When firmware upgrades become available, you will automatically be prompted to upgrade your system. **You must have the latest NVR firmware and client software or mobile apps to connect to the NVR over the Internet.**

You can manually check for firmware upgrades to download directly to the system from the Internet.

If your system does not have an Internet connection, you can upgrade the firmware using a USB thumb drive (not included). When firmware upgrades become available, you can download them for free from www.lorextechnology.com.

To manually check for firmware upgrades:

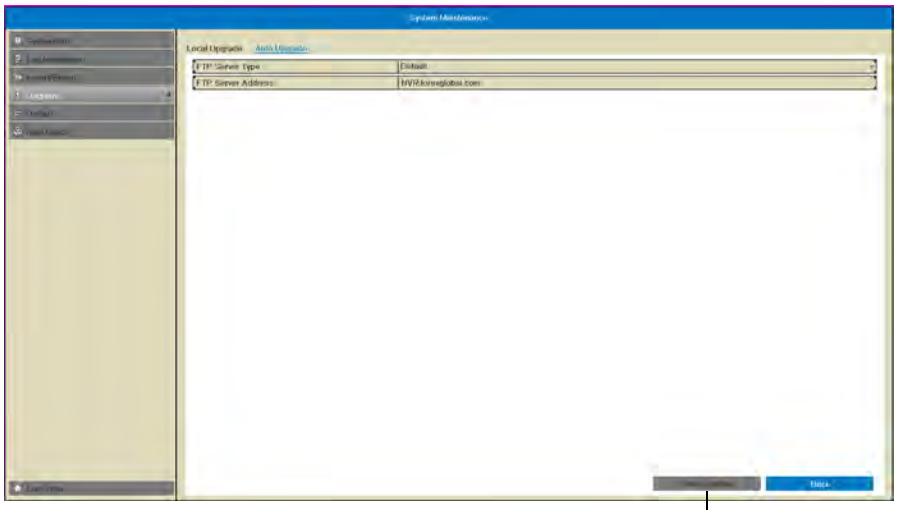
1 Right-click to open the Quick Menu and select **Menu**.

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Maintenance**. Then, click **Upgrade**.

4 Click the **Auto Upgrade** tab.

5 Click **Check Update**. The NVR will check online for a firmware upgrade. If a firmware upgrade is found, click **Yes** to upgrade the firmware.



Click Check Update

6 Wait for the firmware upgrade to complete. **Do not disconnect the power or remove the USB flash drive during the firmware upgrade.** The NVR will reboot once the firmware upgrade is completed.

To upgrade firmware using a USB drive:

1 In your web browser, visit www.lorextechnology.com and search for the model number of your NVR (check the label underneath your NVR for the model number). Download the free firmware upgrade if one is available.

2 Insert a blank USB flash drive (not included) into your computer. Extract the firmware file and copy it to the flash drive.

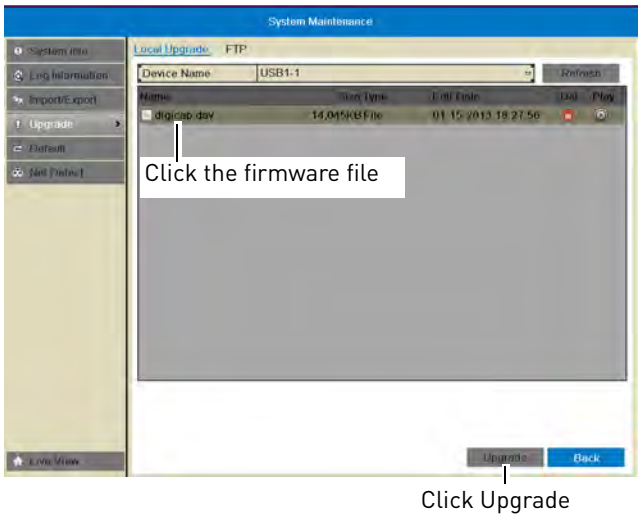
3 Insert the USB flash drive in one of the **USB** ports on the front or rear panel of the NVR.

4 Right-click to open the Quick Menu and select **Menu**.

5 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

6 Click **Maintenance**. Then, click **Upgrade**.

7 Click on the firmware file and click **Upgrade**.



8 Click **Yes** to confirm.

9 Wait for the firmware upgrade to complete. **Do not disconnect the power or remove the USB flash drive during the firmware upgrade.** The NVR will reboot once the firmware upgrade is completed.

Default

Resetting the System to Factory Default Settings

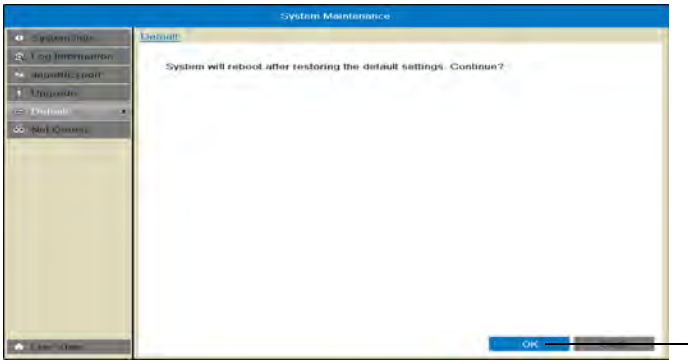
Restoring to factory default settings reverts any setting changes you have made to their original settings. This does not affect the recordings saved on the NVR.

To reset to factory default settings:

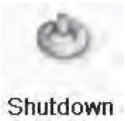
1 Right-click and then click **Menu.**

2 Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.

3 Click **Default** then click **OK**. The system will reboot and then restart with the factory default settings.



Click Ok to reset the NVR to factory default settings



Shutdown

The Shutdown menu allows you to log out, shutdown, or reboot the system.

The Shutdown menu has the following options:

- **Logout:** Click to log out the current active user.

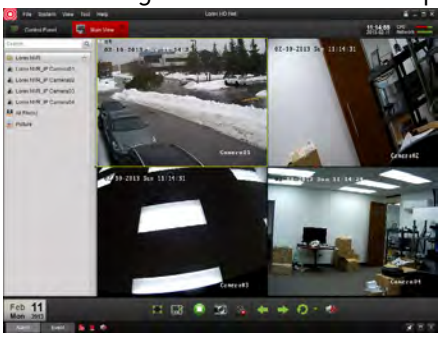
NOTE: If passwords are not activated on the system, clicking Logout will log out the admin account. You will need to enter the admin password (default: **000000**) to re-enter the menu.

- **Shutdown:** Click to shut down the system. The admin password (default: **000000**) is required. After shutdown is complete, turn the power switch to off to power off the NVR.
- **Reboot:** Click to restart the NVR.

Connecting to Your NVR Over the Internet on PC or Mac

This NVR features connectivity using the exclusive Lorex Stratus solution. This cloud-enabled service allows for Internet connectivity without requiring any network configuration. Up to 3 devices may connect to the system at the same time.

This section refers to Internet setup on PC or Mac, for smartphone/tablet setup, see "Mobile Apps: Accessing your NVR Using a Mobile Device" on page 132.



Client Software for PC/Mac

For details on navigating the client software, see "Client Software for PC or Mac" on

System Requirements

Prior to using Lorex Client Software, make sure your system meets or exceeds the following system requirements:

Description	Requirement
CPU	Core 2 Duo 3.0GHz
Operating System	Windows™ 8/7/Vista
Memory	2GB
Video	512 MB of video memory and above
Network (LAN)	10/100 BaseT Network
Network (WAN)	1 Mbps upstream High-speed Internet service is required to remotely connect to your system.

NOTE: If a user connects to the system remotely, there may be slow performance when accessing the system locally. This is normal, and not a malfunction.

For the latest compatibility list, check www.lorextechnology.com, as new software versions are released to the market.

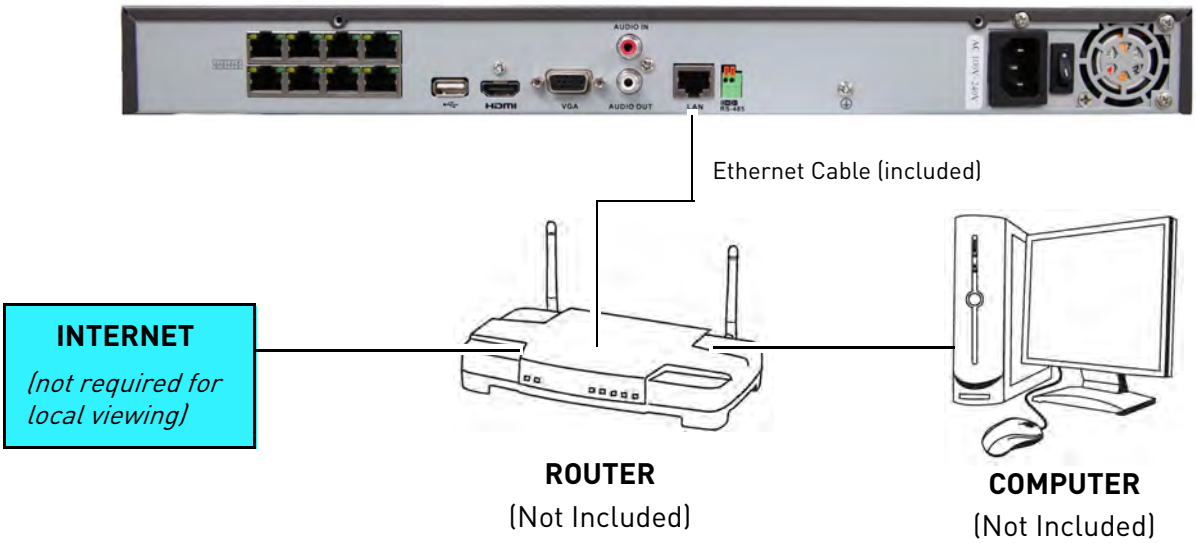
Step 1 of 3 Connect your NVR to your Router

1 Power off your NVR by turning the power switch to ●.

2 Connect an Ethernet cable (included) to the **LAN** port on the rear panel of the NVR. Connect the other end of the Ethernet cable to an empty LAN port (usually numbered 1~4) on your router.

3 Turn the power switch to **I** to power the NVR back on.

8-channel model shown



Step 2 of 3: Obtain the NVR's Device ID

The Device ID is a unique code that allows your system to handshake with the Lorex servers for connection over the Internet.

To find the Device ID:

1 Locate the QR code label on the top of the NVR.

2 Write down the **Device ID**.

Step 3 of 3: Connect to the NVR over the Internet

Follow the steps below to connect to your NVR over the Internet on PC or Mac.

NOTE: *Make sure to upgrade your NVR firmware and client software to the latest version.* You must have the latest NVR firmware and client software to connect to the NVR over the Internet.

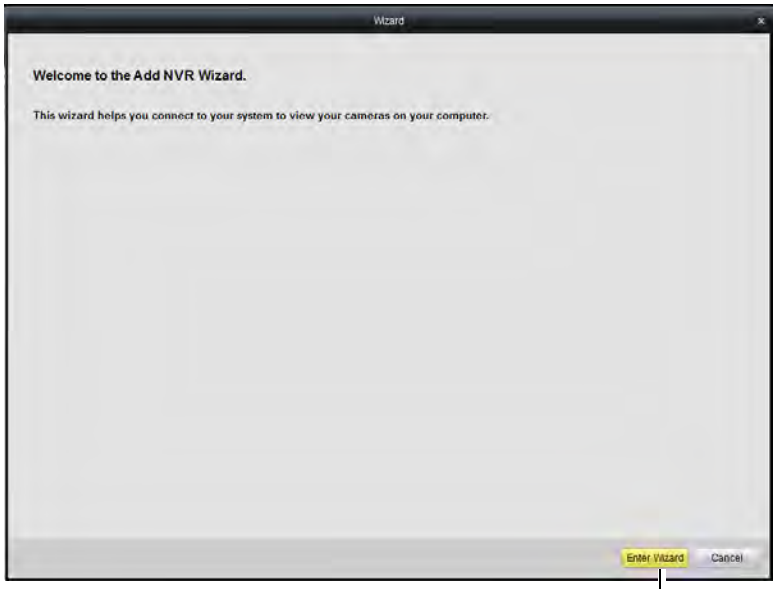
To connect to the NVR over the Internet:

1 Install the **Client Software for PC** or the **Client Software for Mac** from the CD or download the client software for free from www.lorextechnology.com.

2 Double-click the **Lorex netHD Stratus Client** icon from the desktop ( ). The client software opens to the Add NVR Wizard.

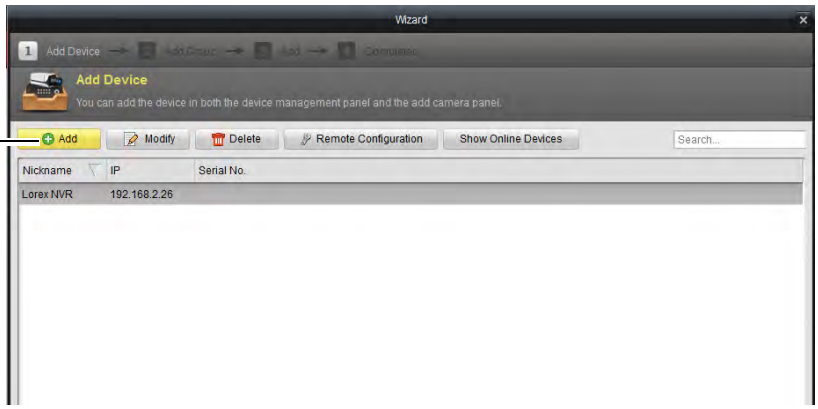
NOTE: If the Add NVR Wizard doesn't open, click **Help→Open Wizard**.

3 Click **Enter Wizard**.



Click Enter Wizard

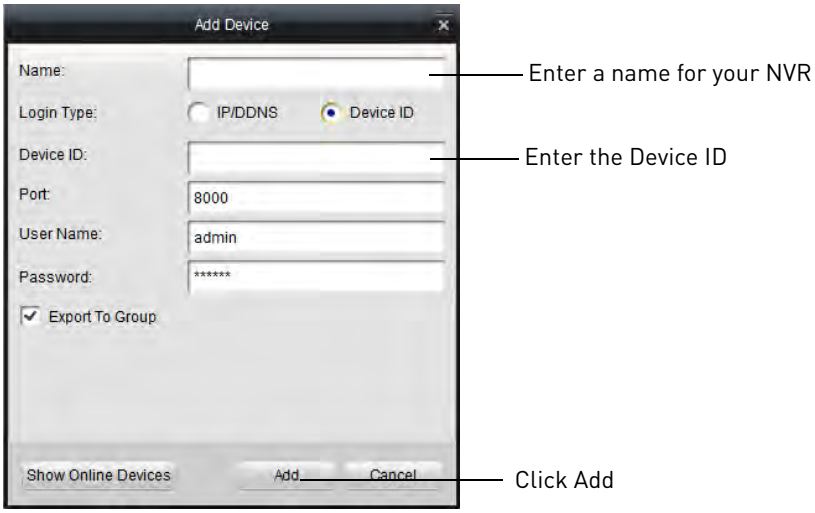
4 Click **Add**.



Click Add

5 Under **Name,** enter a name for your NVR of your choice (e.g. home or office).

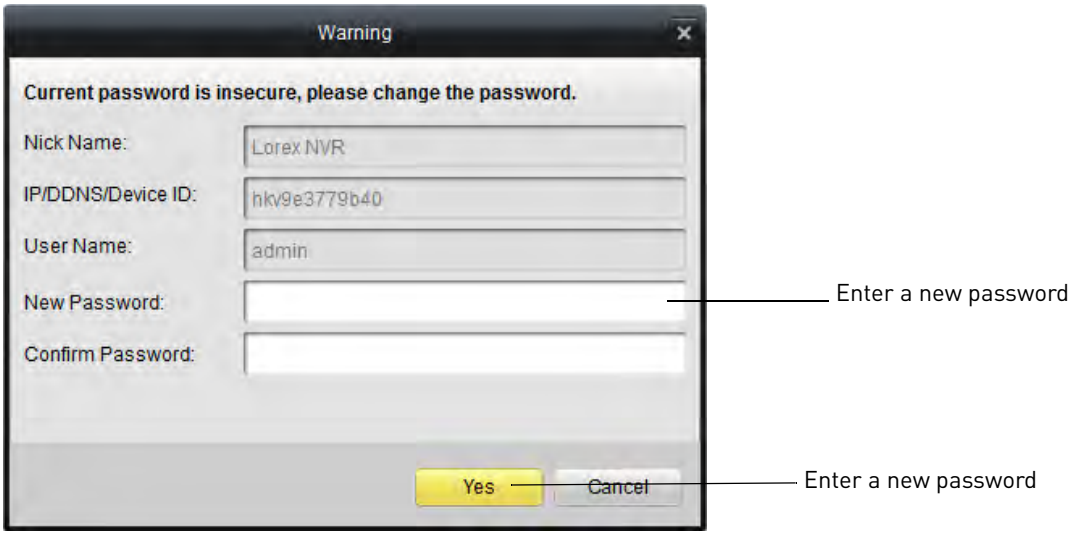
6 Under **Device ID**, enter the Device ID printed on the top panel of your NVR.



NOTE: If you have changed the Client Port, User Name, or Password from the defaults, you must update them to connect to the NVR.

7 Click **Add**.

8 If this is the first time connecting to the system, you will be prompted to change the password. Enter a new 6 character password and click **Yes**. This password will be used to connect to your system from now on.



9 Click **Next** 3 times, then click **Finished**.

10 The NVR opens in Main View and streams video from your cameras.

NOTE: If Main View does not open, click **Control Panel→Main View** to open the Main View menu. Then drag the NVR folder to the display area.

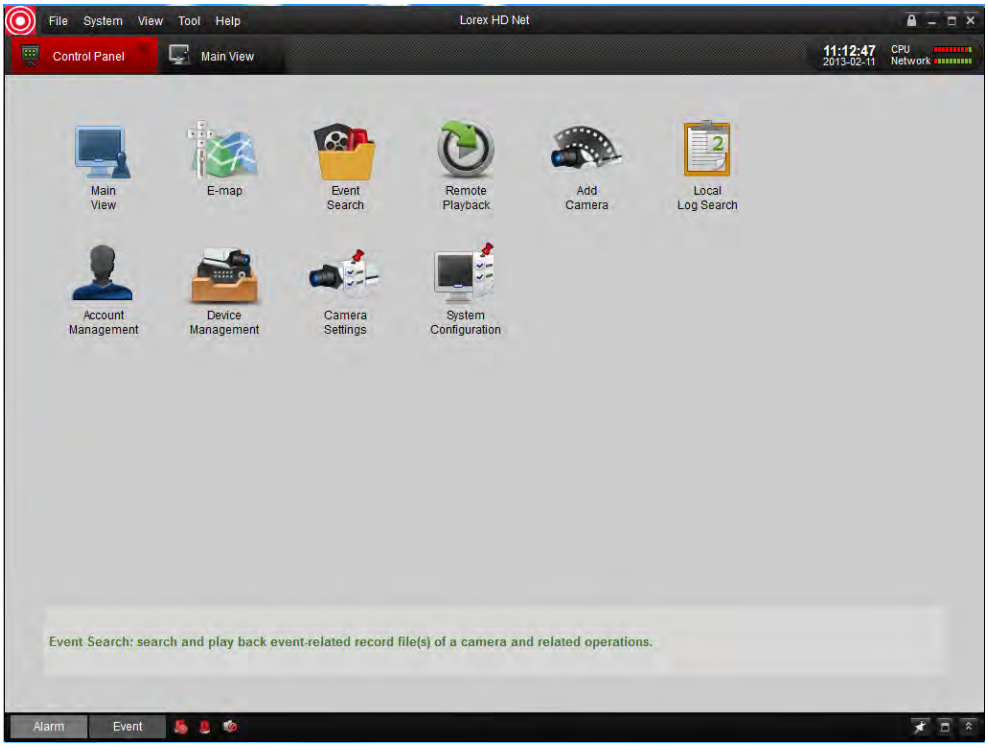
Client Software for PC or Mac

Lorex netHD Stratus Client allows you to connect to multiple NVRs and view up to 64 IP cameras on one screen.

NOTE: For details on connecting to your NVR over a local area network (LAN) or the Internet, see "Connecting to Your NVR Over the Internet on PC or Mac" on page 83.

Control Panel

You can access your NVRs, including live and recorded video and configuration through the Control Panel. You may return to the Control Panel at any time by clicking the Control Panel tab.



The menus available through the Control Panel are:

- **Main View:** View live video from your IP cameras. For details, see "Main View" on page 88.
- **E-Map:** E-Map allows you to visualize the position of your cameras against an image, such as a map or floor plan. For details, see "E-Map" on page 96.
- **Event Search:** Search for events on your NVRs. For details, see "Event Search" on page 98.
- **Remote Playback:** Playback recorded video from your NVR. For details, see "Remote Playback" on page 101.
- **Add Camera:** Manage camera groups. For details, see "Add Camera" on page 105.
- **Local Log Search:** Search for logs on your NVRs. For details, see "Local Log Search" on page 106.

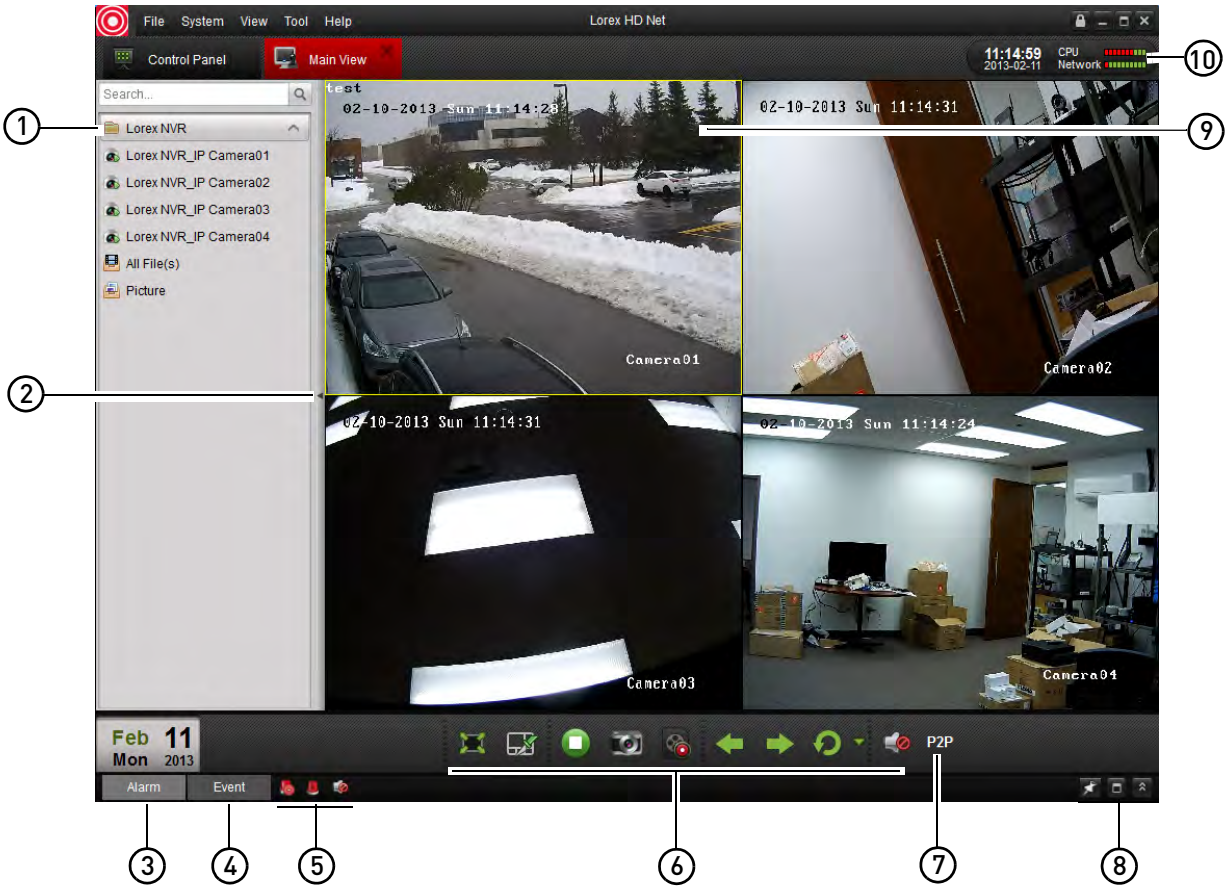
- **Account Management:** Configure user accounts and passwords for the client software. For details, see "Account Management" on page 107.
- **Device Management:** Add or remove NVRs from the client software. Remotely configure your NVRs. For details, see "Device Management" on page 109.
- **Camera Settings:** Configure camera settings. For details, see "Camera Settings" on page 117.
- **System Configuration:** Configure client software settings. For details, see "System Configuration" on page 129.

Main View

Main View allows you to view live video from your IP cameras.

To access Main View:

- From the Control Panel, click **Main View (** **)**.



1 **NVR/Camera List:** Shows a list of all NVRs/camera groups and cameras connected to the client software.

- NVRs or camera groups are shown with a icon.
  - Double click an NVR or camera group to open all the cameras connected to it.
  - Click / to expand/hide the cameras and options for the NVR or camera group.

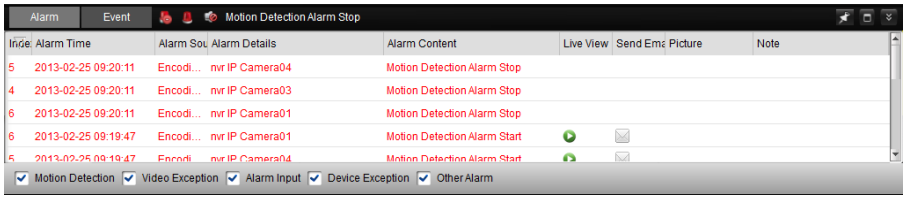
- Cameras are shown with one of the following icons:

	Camera online, but not selected in live view.
	Camera online and selected in live view.
	Manual recording is currently activated.
	Camera is offline (connection issue).

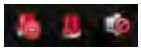
  - Click-and-drag cameras to the display grid to open them.
- **All Files:** Open Manual Recordings for this NVR or camera group. See "Using All Files to View Manual Recordings and Downloaded Video Files" on page 93.
- **Picture:** Open screenshots for this NVR or camera group. See "Using Pictures to View Screenshots" on page 94.

2 **Hide NVR/Camera List:** Click the arrow to hide/show the NVR/Camera List.

3 **Alarm:** Click to show the Alarm Panel. The Alarm Panel shows a list of system alarms and events, such as motion detection events. Note that you must enable Notify Surveillance Center to Receive notifications of motion events. For details, see "Configuring Motion Detection Alarm Settings" on page 59.



4 **Event:** Not supported.

5 **Alarm Actions:** 

- **Clear Alarms:** Click to clear all alarms from the list.
- **Enable Alarm Popup Window:** Click to have alarms appear in a popup window.
- **Enable Audio Alarms:** Click to have the Client Software play an alarm sound when alarms occur.

6 **Main View Toolbar:**

- **Full-Screen** : Click to open the display grid in full-screen. Press **ESC** to exit full-screen.
- **Select Layout** : Click to select a display grid layout.
- **Stop/Resume Live Display** : Click to stop camera streaming on all channels. Click again to resume camera streaming.
- **Screenshot** : Click to save a screenshot of the currently selected channel.

- **Manual Record** : Click to start/stop manually recording the currently selected channel.
- **Previous/Next** : Click to go to the previous or next camera or page when Sequence mode is enabled.
- **Sequence** : Click to start/stop Sequence mode.
- **Volume** : Click to control volume.

7 **Connection Status:** Shows the type of connection used.
- **P2P** (peer-to-peer) indicates that the video is streaming directly from the NVR to the computer running the Client Software.
- **RLY** (relay) indicates that the video is streaming through a Lorex video server. While relay mode is activated, the system will disconnect after 10 minutes of inactivity. Relay mode is only used when a direct connection cannot be made between the NVR and computer.

8 **Alarm Panel Controls:**
- **Auto-hide:** Click to enable/disable alarm panel auto-hide.
- **Maximize Alarm Panel:** Click to open the Alarm Panel in its own tab.
- **Show/hide Alarm Panel**

9 **Camera Display:** Click to select a channel. Hold the mouse over the channel to access the Camera Toolbar. The camera toolbar contains the following options:

Camera Toolbar

- **Capture** : Click to take a screenshot from the currently selected camera.
- **Manual Record** : Click to start/stop manual recording of the currently selected camera.
- : Not supported.
- **Digital Zoom** : Click to enable digital zoom mode. The cursor will change to a icon. Then, click and drag on the camera picture to zoom in. Click again to zoom out.
- : Not supported.
- **Camera Status** : Show the camera status menu.
- **Camera Settings** : Open the Camera Settings menu. See "Camera Settings" on page 117.
- **Stop Live Display** : Click to stop streaming the selected camera.
- **Quick Playback** : Click to open Quick Playback mode.
- **Mute audio** : Click to mute/unmute audio from the selected camera. Audio-enabled cameras required (not included).

10 **CPU and Network Status:** Shows the level of CPU and network use on your computer.

Using Quick Playback Mode

Quick Playback mode allows you to view recorded video from your cameras without leaving the Main View tab. You can also view recorded video from one camera while still viewing the rest of your cameras live.

To access Quick Playback Mode:

1 Click the camera you would like to playback and hold the mouse over the camera to open the Camera Toolbar.

2 Click to open Quick Playback mode.

3 Use the Quick Playback controls.

Tagging Video Through Quick Playback

You can add tags to video to mark key events. Tags created through Quick Playback are also saved in the NVR, so you can search for them using the NVR menus.

To tag video through Quick Playback:

- During Playback, click to add a default tag.

  OR

- Click to add a custom tag. Then, enter the tag name and click **Yes** to save.

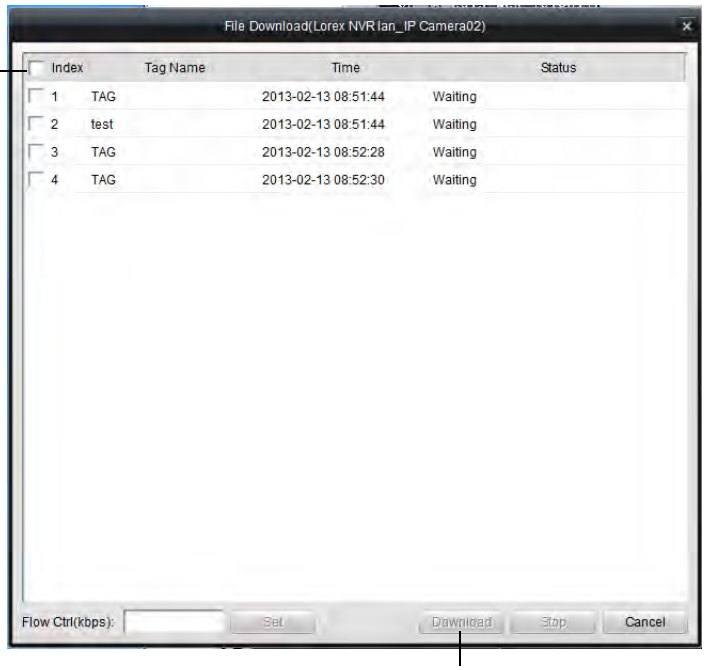
Downloading Tagged Video

You can download video marked with tags to your computer's hard drive.

To download tagged video:

1. Click to open the Download Tags menu.
2. Check the tags you would like to download then click **Download**. 1 minute video files are downloaded for each tag.

Check tags you would like to download



Click Download

- To view downloaded video files, click **All Files** in the NVR/Camera List. For details, see "Using All Files to View Manual Recordings and Downloaded Video Files" on page 93.

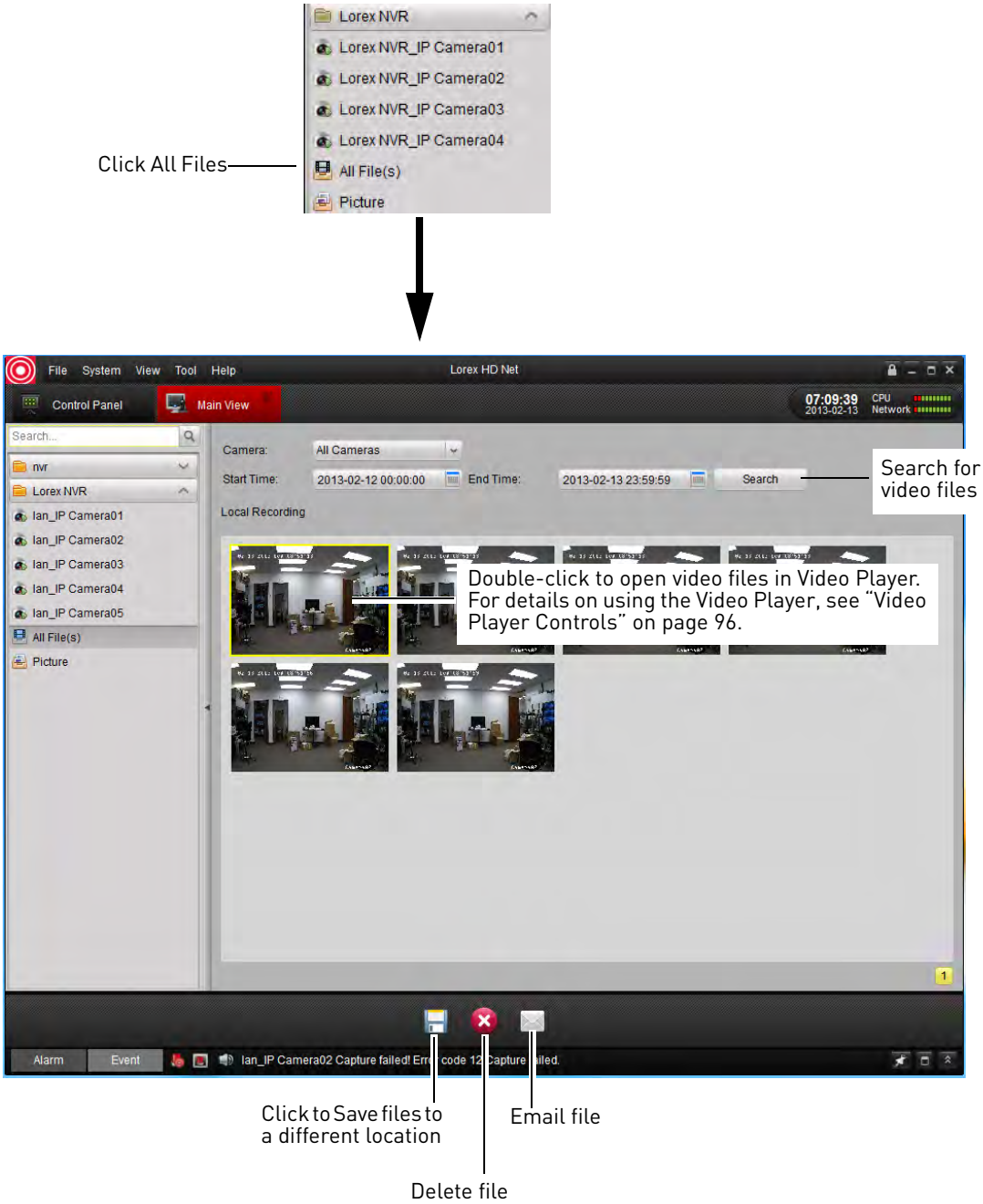
Using All Files to View Manual Recordings and Downloaded Video Files

Use the All Files option to access manual recordings and downloaded video files.

To use All Files to access manual recordings:

1 From Control Panel, click **Main View (** **)**.

2 In the NVR/Camera List, click **All Files**. A list of manual recordings and downloaded video files saved on your computer for this NVR opens.



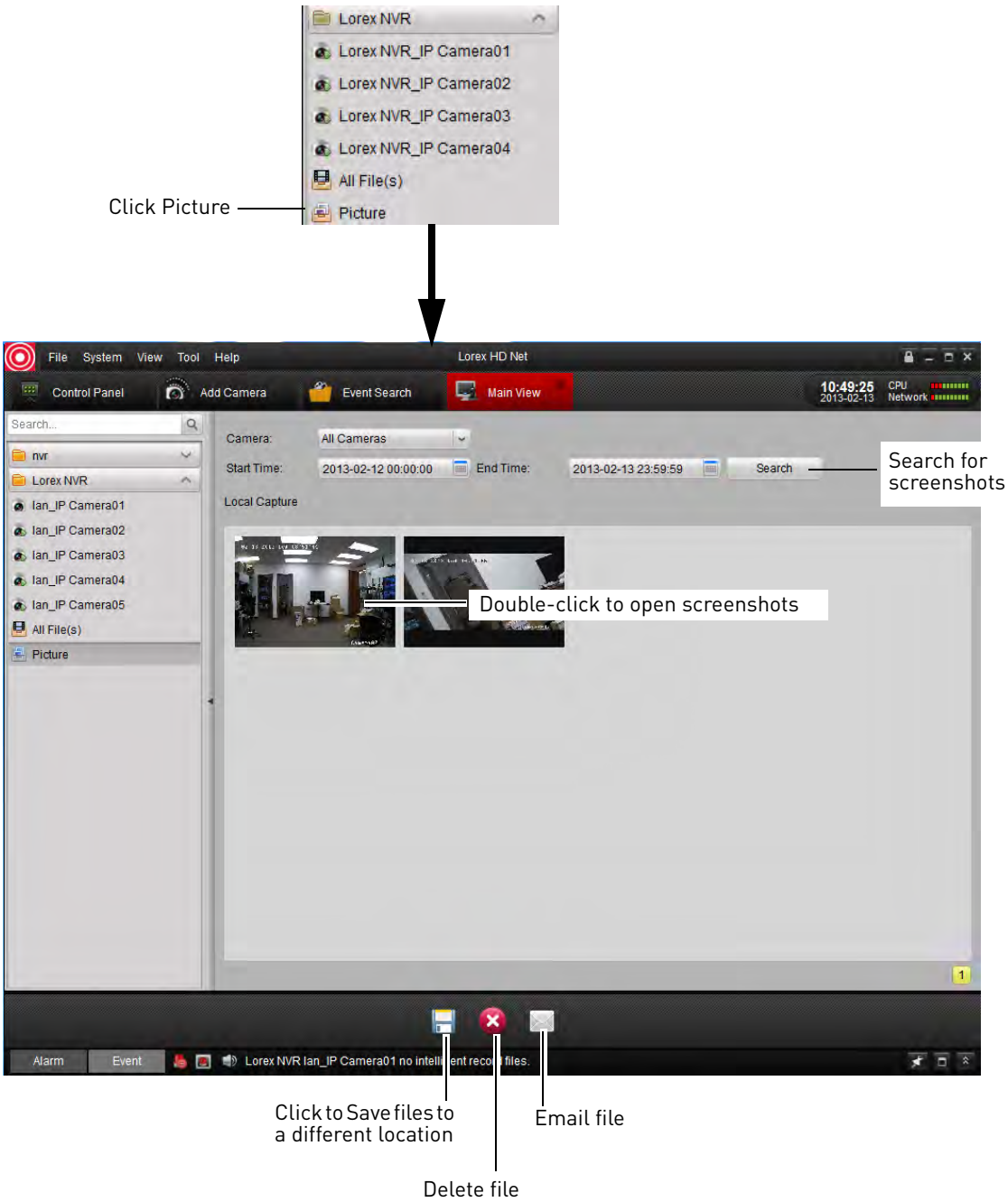
Using Pictures to View Screenshots

Use the Pictures option to view screenshots you have saved using the Client Software.

To access Pictures:

1 From Control Panel, click **Main View (** **)**.

2 In the NVR/Camera List, click **Picture**. A list of screenshots for your NVR opens.



Video Player

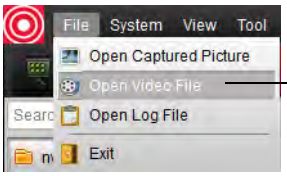
The Video Player allows you to open backup video files extracted from the NVR or to play manual recordings or downloaded video files.

Opening Backup Video Files

The client software can open backup video files extracted from the NVR. For details on extracting video files from the NVR, see "Backing Up Video" on page 32.

To open backup video files in the Client Software:

1 Click **File→Open Video File**. The Video Player opens.



Click File→Open Video File

2 Click . Then select your video file and click **Open**. It will begin playing back in the Video Player.

Click to open a video file

Video Player Controls

- To zoom in, click and click-and-drag. Click again to zoom out.

E-Map

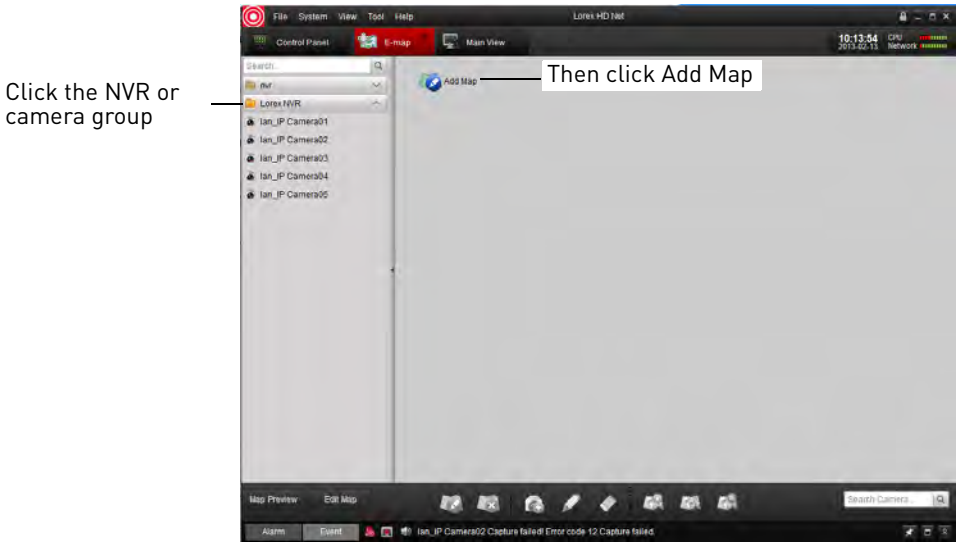
E-Map allows you to visualize the position of your cameras against an image, such as a map or floor plan. This is useful if you need to differentiate between cameras in similar looking areas.

To create an E-Map:

1 From the Control Panel, click **E-Map (**

).

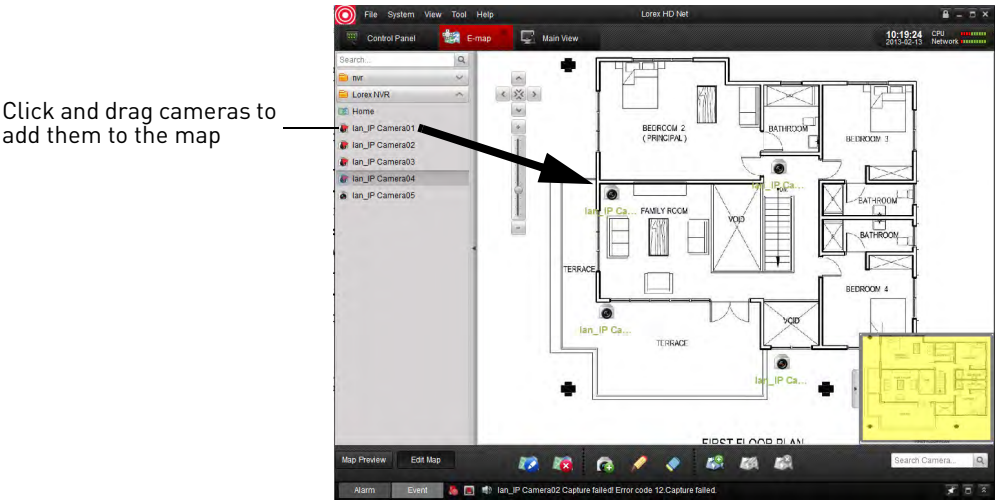
2 Click the NVR or camera group then click **Add Map**.



3 Enter the a name for the map. Click **...**, select an image file from your computer, and then click **Open**.

4 Click **Yes**.

5 Click-and-drag cameras to place them on the map.

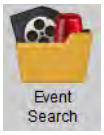


E-Map Controls

Event Search

Use the Event Search to search for motion events recorded on the NVR.

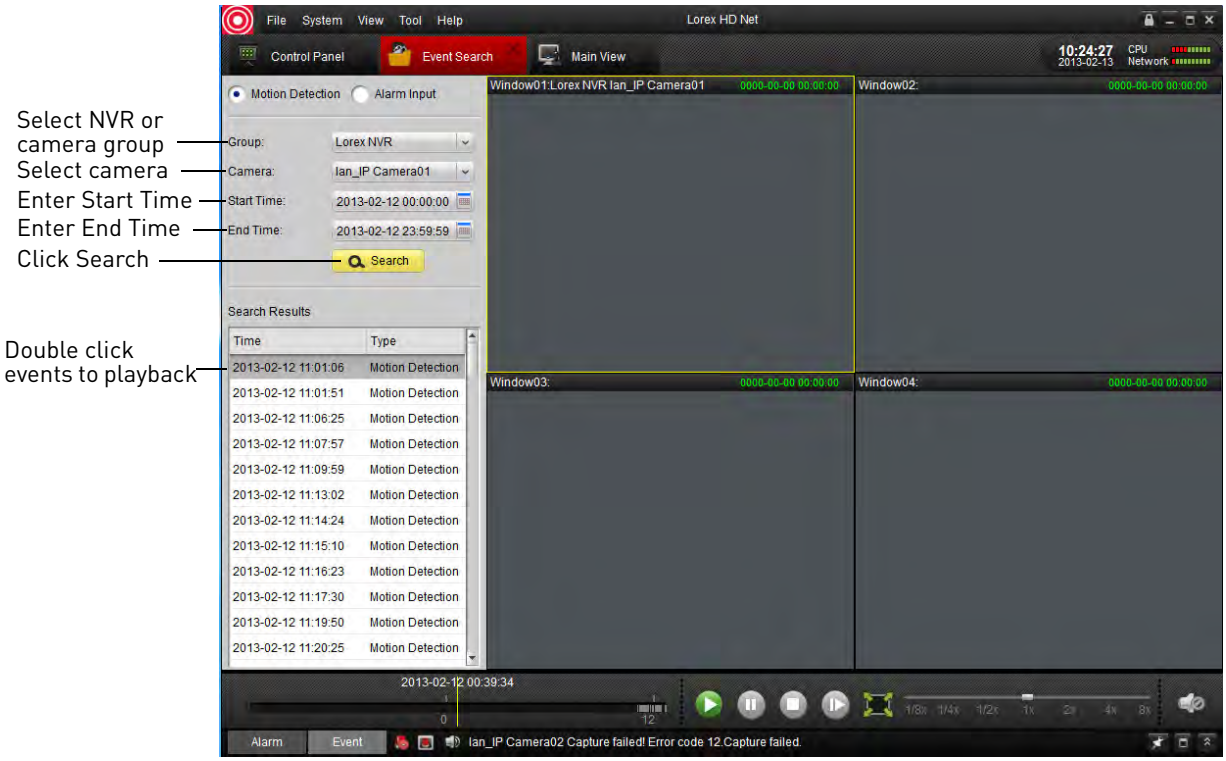
To use Event Search:

1 From Control Panel, click **Event Search (**  **)**.

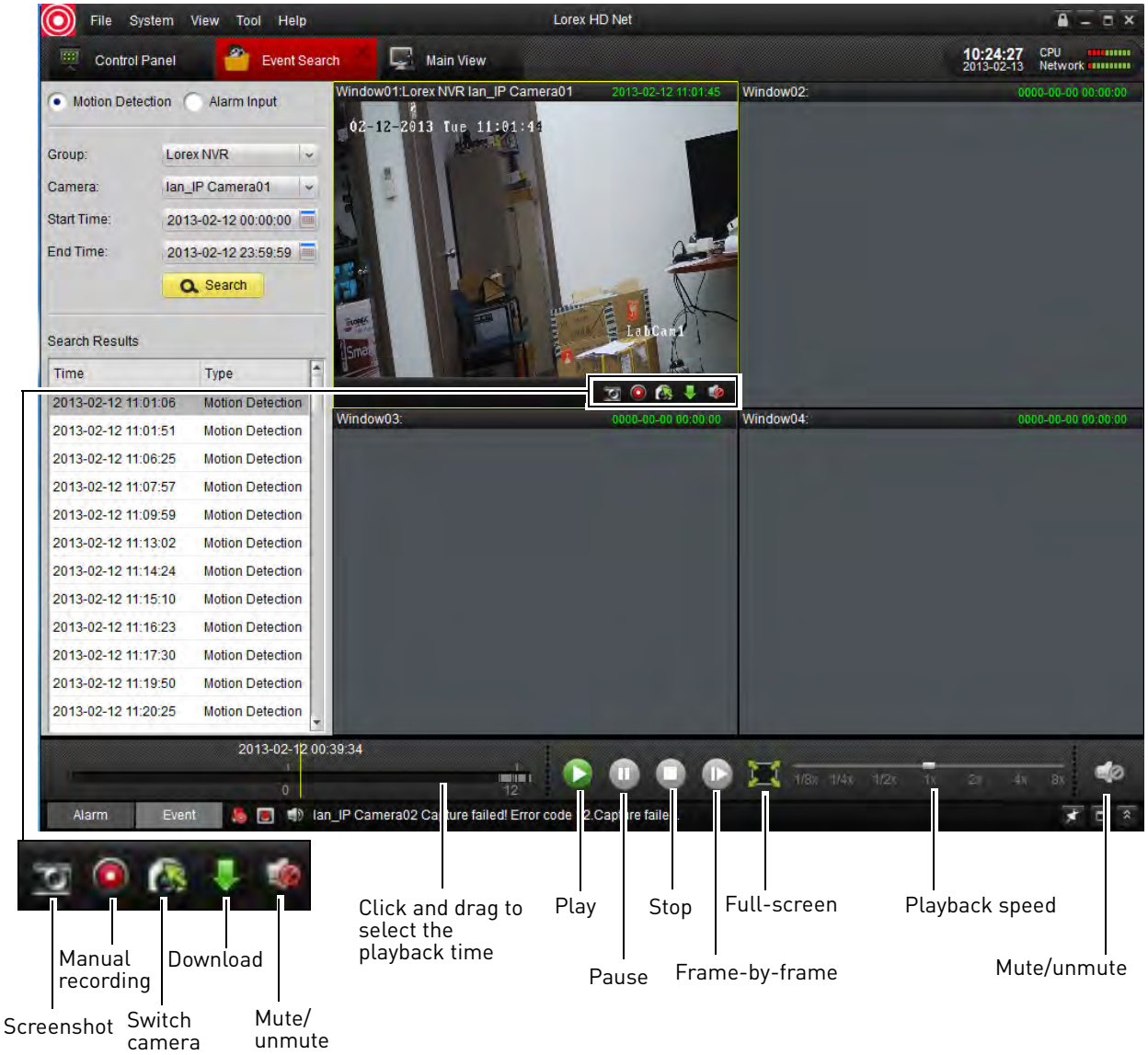
2 Perform the following to search for events:

- Under **Group**, select the NVR or Camera Group.
- Under **Camera**, select the camera you would like to search.
- Under **Start Time** and **End Time** enter the start time and end time for your search.

- Click **Search**. A list of relevant events appears. Double-click items in the list to playback footage from the event.



Event Search Controls



Downloading Event Video Files

You can download video from events directly to your computer's hard drive.

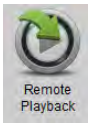
To download event video files:

1. Perform an event search.
2. Click a display area to select and hold the mouse over it to open the toolbar.
3. Click to open the Download Event Video Files menu.
4. Check video files and then click **Download**.
   - To open downloaded video files, see "Using All Files to View Manual Recordings and Downloaded Video Files" on page 93.

Remote Playback

Remote Playback allows you to view recorded video from your NVR on your computer.

To access Remote Playback:

1 From Control Panel, click Remote Playback (

).

2 Click ^ next to the NVR or camera group you would like to playback from.

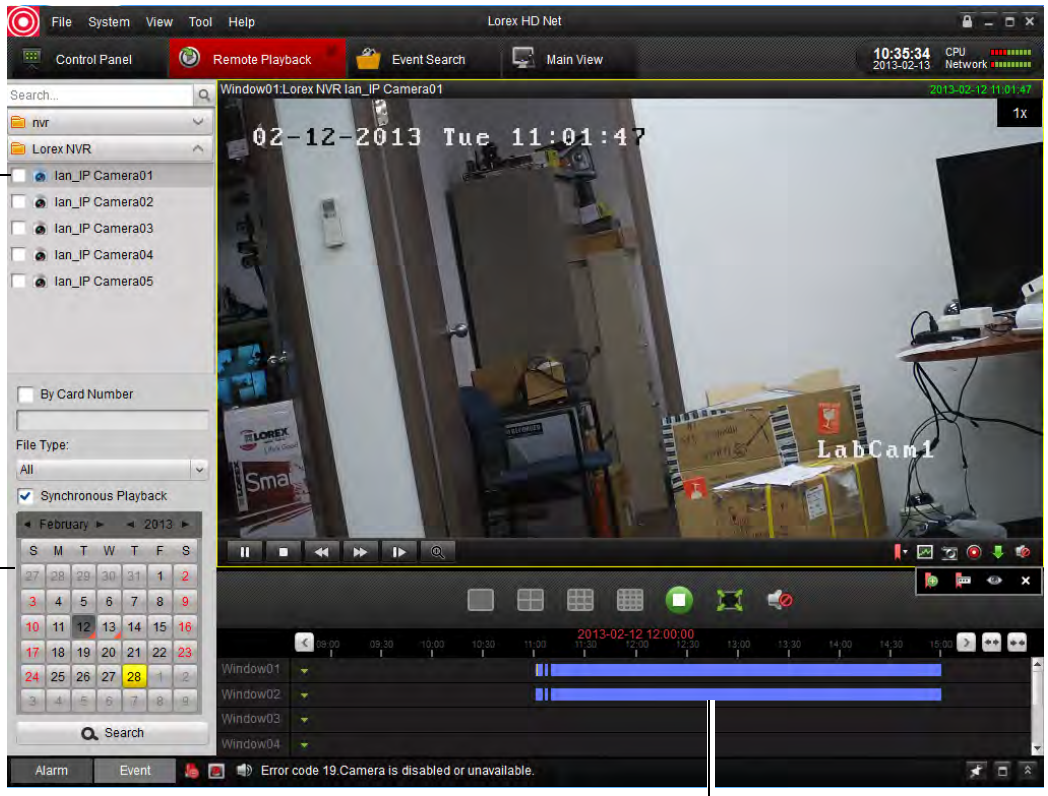
3 Check the cameras you would like to playback.

- **Optional:** Check **Synchronous Playback** to playback video from multiple channels at the same time.

4 In the calendar, select the day you would like to playback.

5 Click **Search**. The time bar shows video recorded on your NVR.

6 Double-click in the time bar to start playback at the selected time.

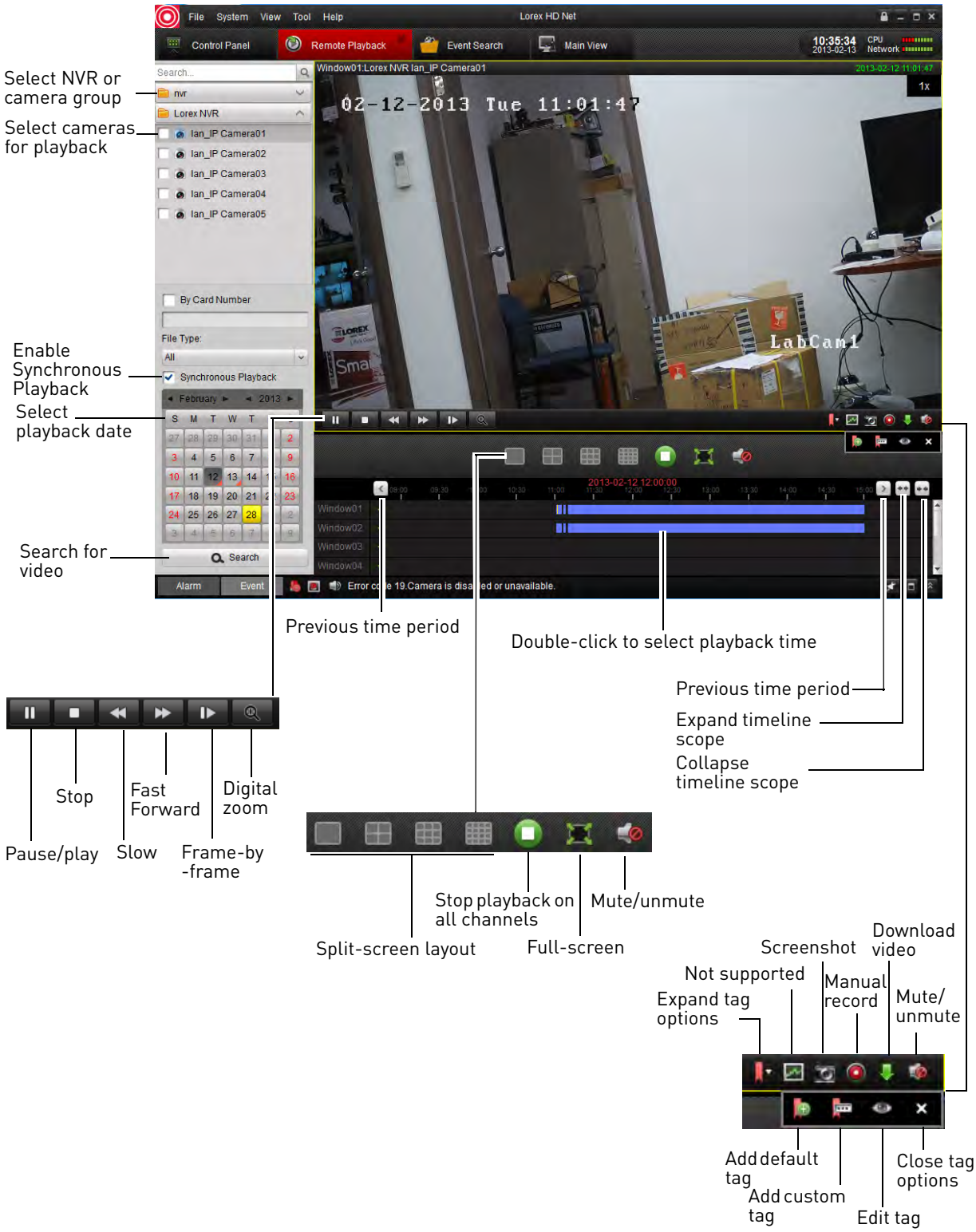


Check cameras to select for playback

Select the date in the calendar

Double-click to start playback

Remote Playback Controls



Downloading Video Files Using Remote Playback

You can download video files to your computer using Remote Playback in the following ways:

- Download entire packaged video files from the NVR.
- Download video based on a specified start and end time.
- Download tagged segments of video.

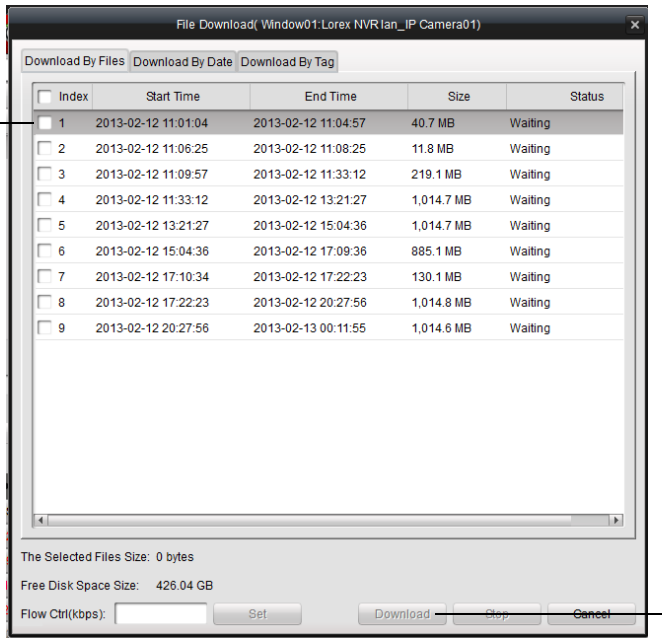
To download video files by file:

1 Click to open the download menu.

2 Click the **Download by Files** tab.

3 Check the files you would like to download and click **Download**. Wait for the files to download.

Check the video files you would like to download



Click Download

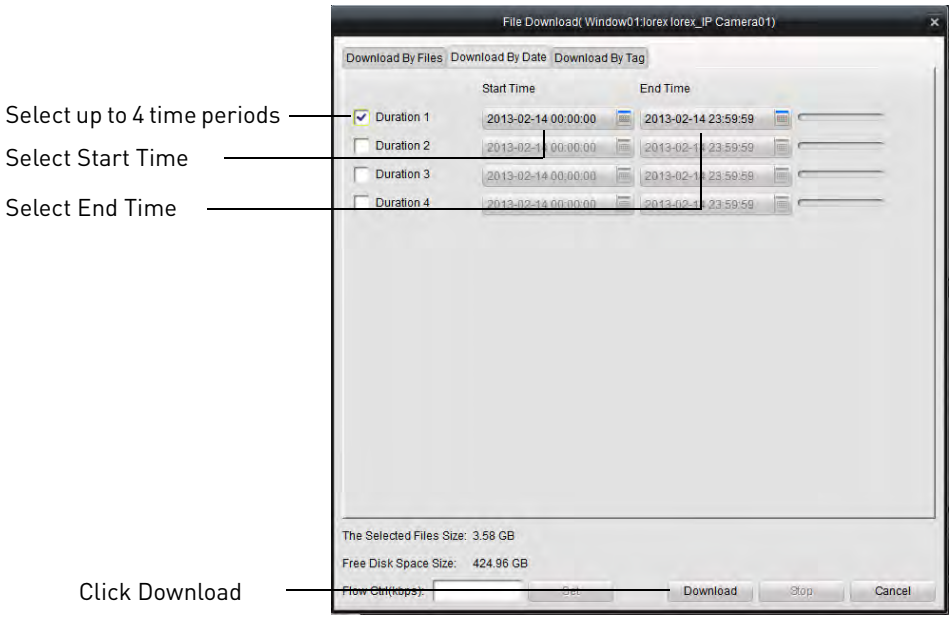
- To open downloaded video files, see "Using All Files to View Manual Recordings and Downloaded Video Files" on page 93.

To download video files based on a specified duration:

1 Click to open the download menu.

2 Click the **Download by Date** tab.

3 Check **Duration 1~4** to select up to 4 time periods to download.



4 Enter the **Start Time** and **End Time** for each selected duration.

5 Click **Download** to download the video files. Wait for the downloads to complete.

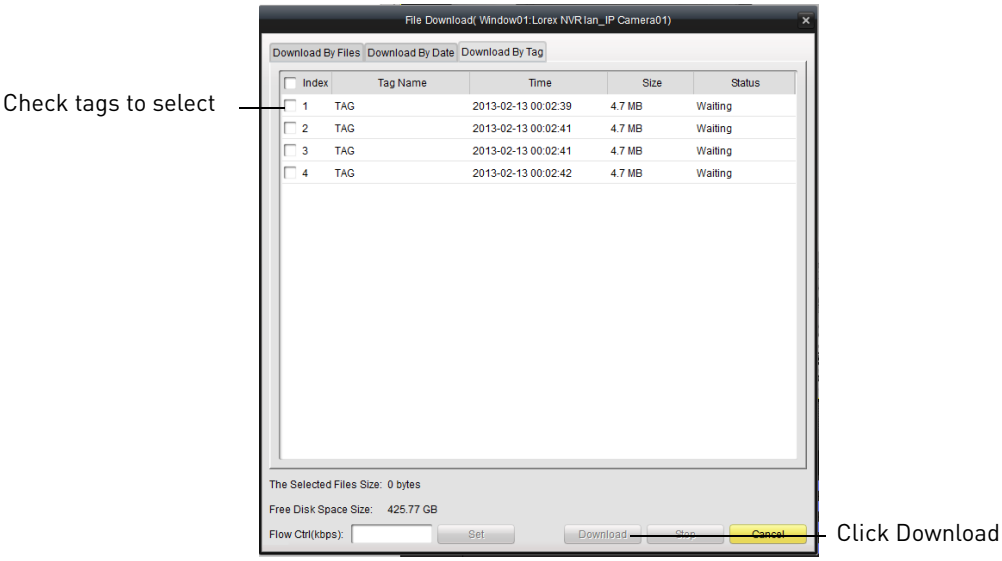
- To open downloaded video files, see "Using All Files to View Manual Recordings and Downloaded Video Files" on page 93.

To download files using tags:

1 Click to open the download menu.

2 Click the **Download by Tag** tab.

3 Check tags to download a 1 minute video clip from the tagged time.



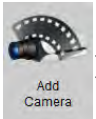
4 Click **Download** to download the video files. Wait for the download to complete.

- To open downloaded video files, see "Using All Files to View Manual Recordings and Downloaded Video Files" on page 93.

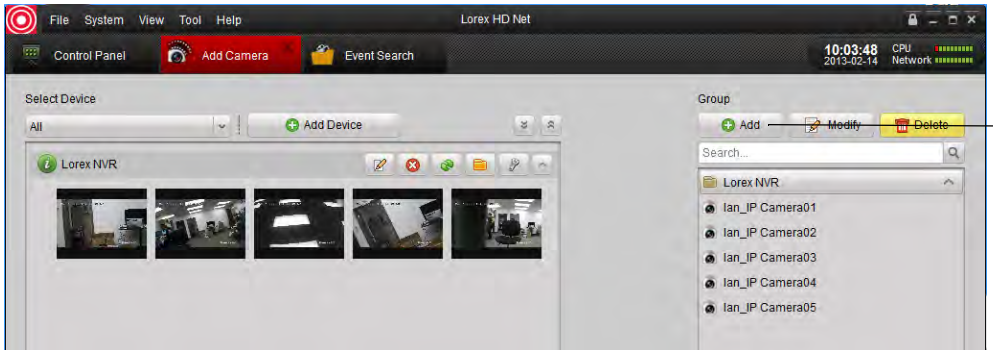
Add Camera

The Add Camera menu allows you to manage camera groups. When an NVR is added to the client software, by default a camera group is created for it that contains all connected cameras. Cameras from the same or different NVRs can be grouped together for simple management.

Creating Camera Groups

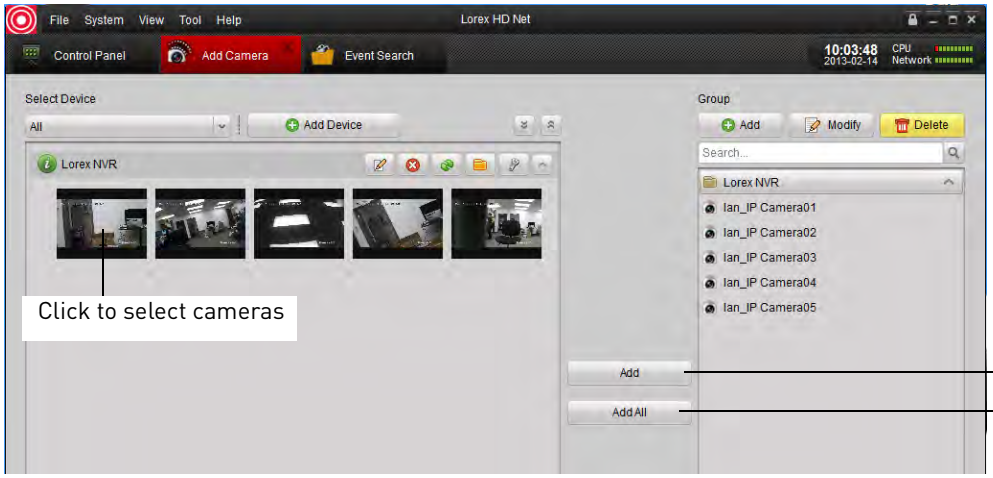
1 From the Control Panel, click **Add Camera (**  **)**.

2 Under Group, click **Add**.



3 Enter a name for your group and click **Yes**.

4 To add cameras to your camera group, expand NVRs on the left side by clicking . Then, click the cameras you would like to add and click **Add**. Or, click **Add All** to all cameras on all NVRs.

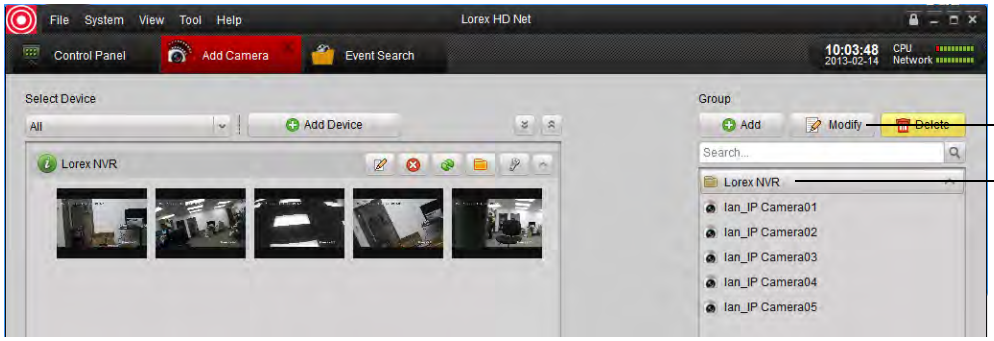


Modifying Cameras or Camera Groups

You can change the name of a camera or camera group that is used in the client software.

To modify a camera or camera group:

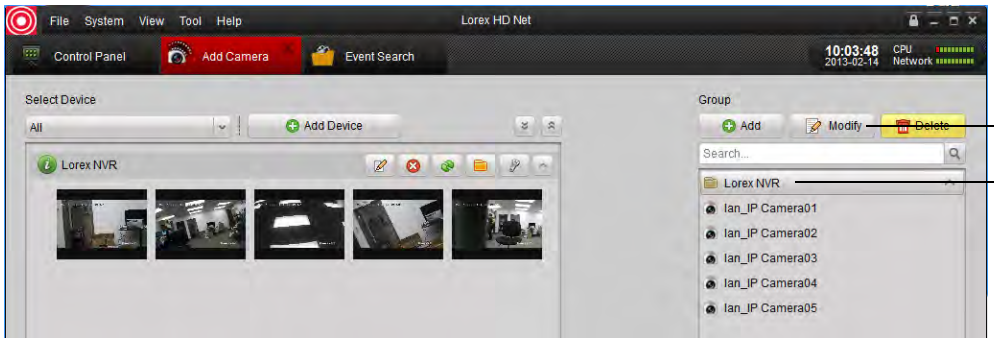
1 Click the camera or camera group on the left then click **Modify**.



2 Enter a new name for the camera or camera group and then click **Yes**.

Deleting Cameras or Camera Groups

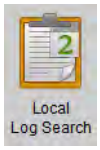
- Click the camera or camera group you would like to delete and click **Delete**. Click **Yes**



Local Log Search

The Local Log Search allows you to search for logs from your NVRs.

To search for logs:

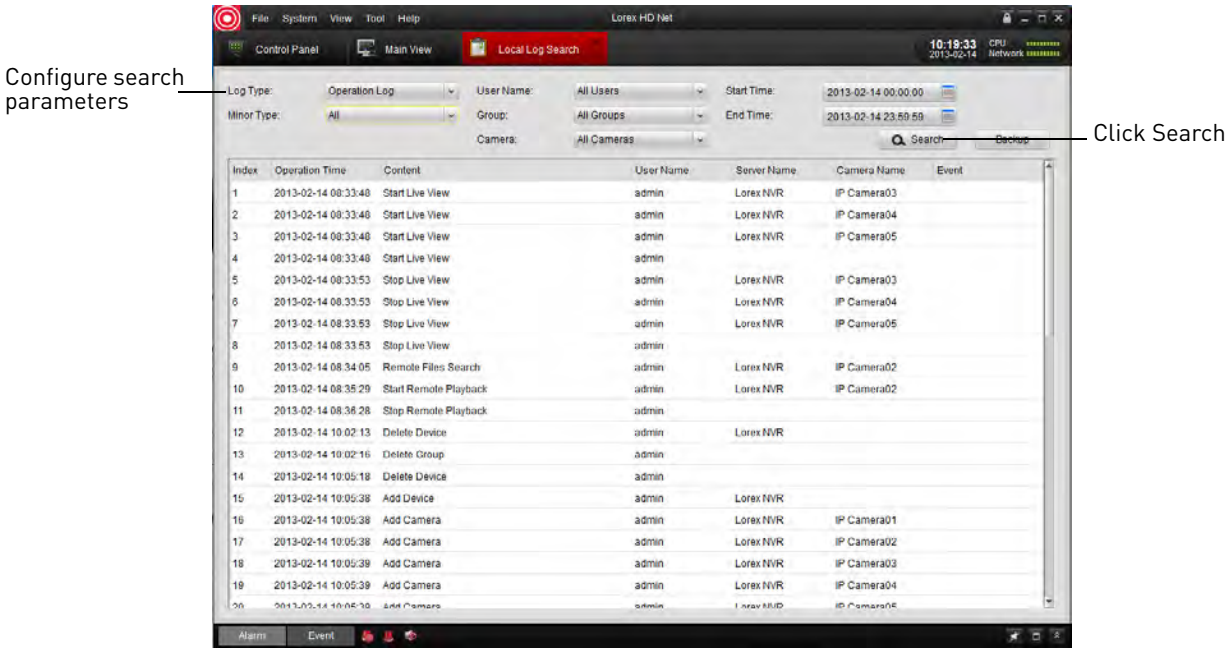
1 From the Control Panel, click **Local Log Search (**  **)**.

2 Configure the following search options:

- **Log Type:** Select **Alarm** for motion detection alarms and system warning logs, **Operation** for operations logs, such as configuration changes, or **System** for logs of user access to the system (e.g. log-ins and log-outs).
- **Minor Type:** Select **All** to search for all logs in the Log Type you have selected or select a specific type of log to search for.
- **User Name:** Select **All Users** to search for logs generated by all users or select a specific user to see logs generated by that user.

- **Group:** Select the NVR or camera group you would like to search for logs on or select **All Groups** to search for logs from all NVRs and camera groups.
- **Camera:** Select the camera you would like to search for logs from or select **All Cameras** to search for logs from all cameras.
- **Start Time/End Time:** Select the start and end time for your search.

3 Click **Search**. All logs that meet your search parameters appear in the list.



Backing up Logs

You can backup log search results to your computer hard drive.

To back up logs:

1 Perform a search using the steps above.

2 Click **Backup**.

3 Click **...** to select a download folder for your logs. Enter a file name and click **Save**.

Account Management

The Account Management menu allows you to create user accounts for the client software.

To enable password protection for the client software, see "General" on page 129.

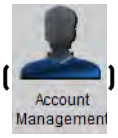
The client software has the following types of user accounts:

- **Super User:** The Super User account is logged in by default when you first run the client software. This is a unique account that has full control over all software and NVR functions. The Super User may add, modify, or delete any user account.

NOTE: The default user name for the Super User is **admin** and the default password is also **admin**.

- **Administrator:** Administrator accounts have access to all NVR and software functions by default. They may add, modify, or delete Operator accounts, but cannot change accounts of other administrators.
- **Operator:** The Operator is a standard user account. Operator accounts have only the NVR permissions they are given and cannot change software settings or change other user accounts. Operators may change their own password.

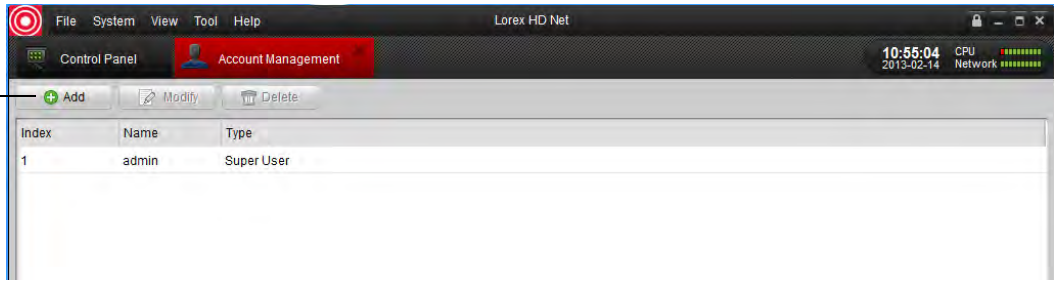
To access Account Management:

- From the Control Panel, click **Account Management (** 

).

Adding User Accounts

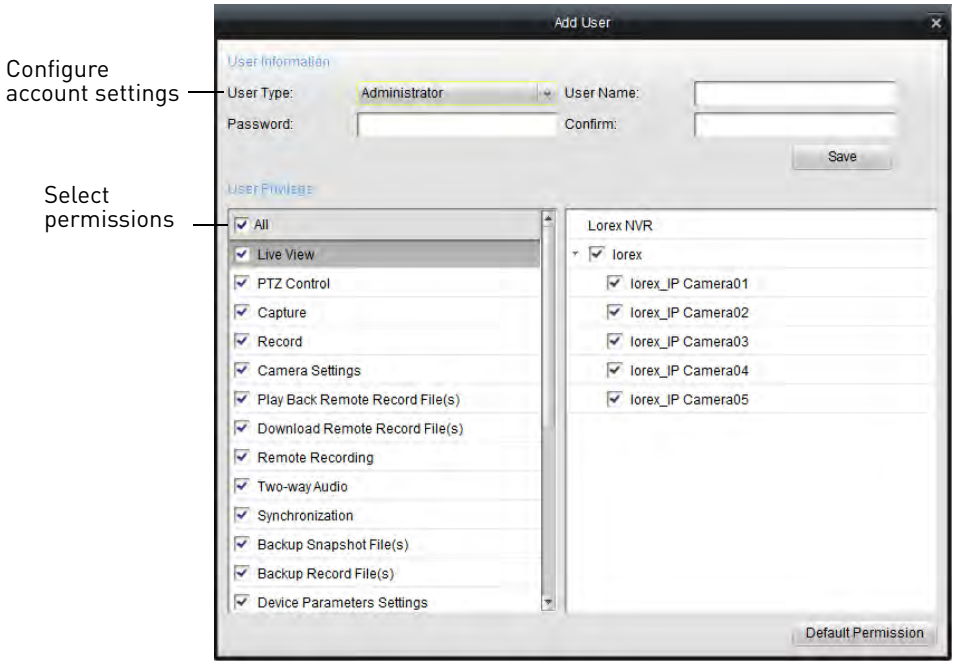
1 Click **Add**.



2 Configure the following:

- Under **User Type**, select **Administrator** or **Operator**.
- Under **Password**, enter a password for the user account. Repeat the password under **Confirm**.

- In the bottom area, check the permissions you would like to assign to the user account.



3 Click **Save** to create the user account.

Modify User Accounts

1 Click the account you would like to modify and then click **Modify**.

2 Edit the user account settings and permissions as needed and click **Save** when finished.

Delete User Accounts:

- Click the account you would like to delete and then click **Delete**.

Device Management

The Device Management menu allows you to add or remove NVRs from the client software. It also allows you to remotely configure your NVRs.

NOTE: For details on adding NVRs to the Client Software, see "Connecting to Your NVR Over the Internet on PC or Mac" on page 83.

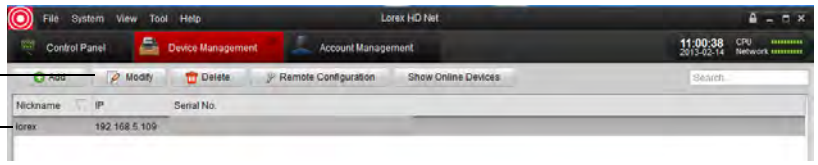
To access Device Management:

- From the Control Panel, click **Device Management (**

).

Modifying an NVR

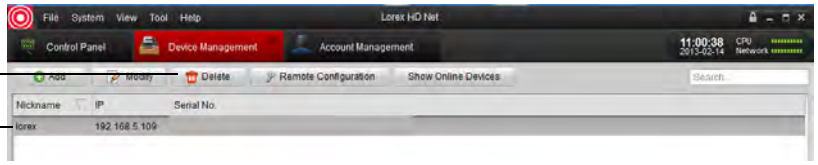
1 Click the NVR you would like to modify and click **Modify**.



2 Change the connection info as needed and click **Modify**.

Deleting an NVR

- Click the NVR you would like to delete and click **Delete**. Click **Yes** to confirm.



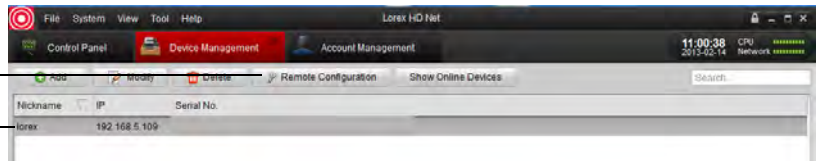
Configuring an NVR Through Device Management

You can configure your NVRs settings through the client software.

To configure NVR settings:

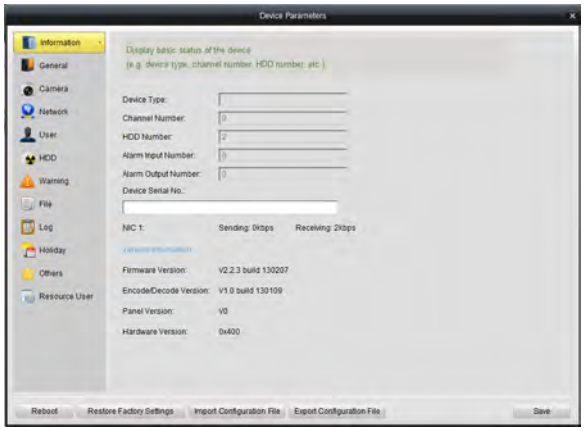
- From the Control Panel, click

.
- Click the NVR you would like to configure and click **Remote Configuration**. See below for details on available settings.



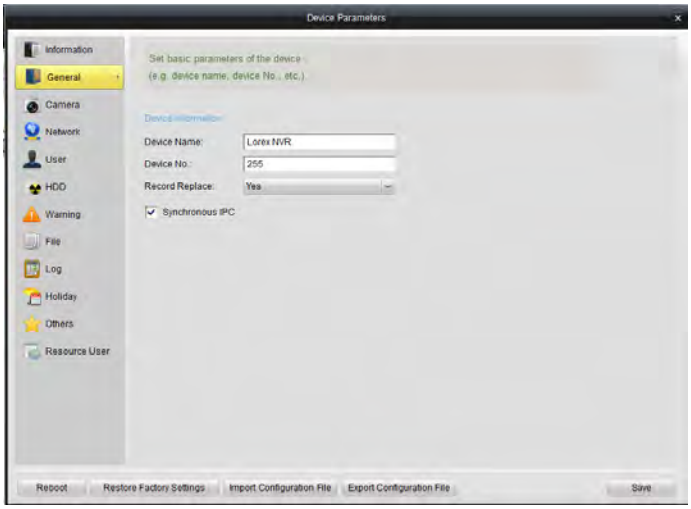
Information

The Information sub-menu shows system information about the NVR.



General

The General sub-menu allows you to configure general system settings.



To configure general settings:

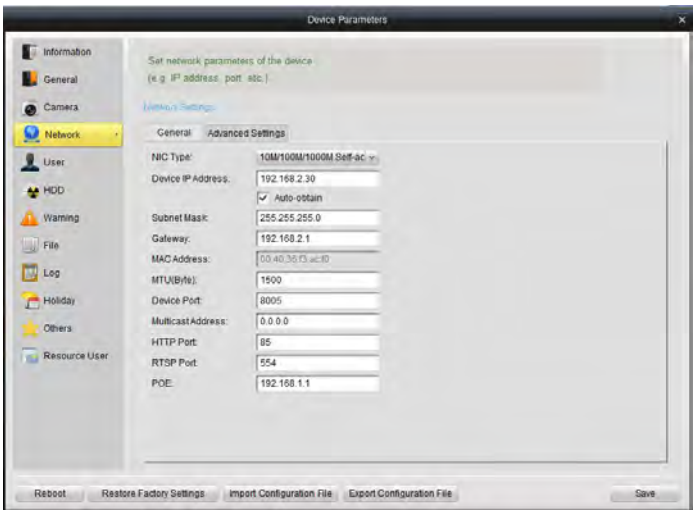
1 Configure the following:
- **Device Name:** Enter a name for your NVR.
- **Device No.:** Enter the ID for the remote control. For details, see "Pairing the Remote Control" on page 68.
- **Record Replace:** Select **Yes** to enable overwrite, or select **No** to disable overwrite.
- **Syncronous IPC:** Make sure this is checked.

2 Click **Save** to save changes.

Camera

NOTE: Do not change any settings in this sub-menu. To configure camera settings, see "Camera Settings" on page 117.

Network



The Network sub-menu allows you to configure networking settings. The Network sub-menu is divided into the following tabs:

The General tab allows you to configure the IP address of the NVR for fixed IP or DHCP mode. It also allows you to configure system port numbers.

The Advanced tab allows you to configure additional advanced networking settings.

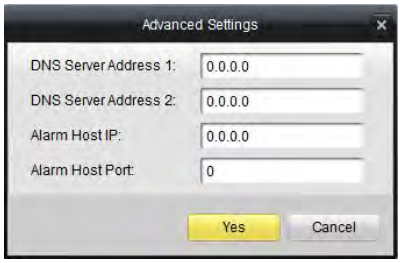
To configure your NVR's IP address for fixed IP or DHCP mode:

1 Select the **General** tab.

2 Check **Auto-obtain** to use DHCP mode and have the router automatically assign an IP address to the NVR. Un-check to use a fixed IP address to your NVR.

3 If you un-check Auto-obtain:

- Under **Device IP Address**, enter the IP address your NVR will use. Please note that additional configuration may be required on your router. See your router's user manual for details.
- Under **Subnet Mask**, enter the subnet mask.
- Under **Gateway**, enter the default gateway address.
- Click **Advanced Settings→Advanced Settings**. Under **DNS Server Address 1 & 2**, enter the DNS address and click **Yes**.



4 Click **Save**. Your NVR may restart.

NOTE: If you change the NVR's IP address and you have configured port forwarding, you will need to re-configure it using the newly selected IP address.

To configure your NVR's system ports:

1 Select the **General** tab.

2 Configure the following:

- **Device Port:** Enter the desired Client port (default: **8000**).
- **HTTP Port:** Enter the desired HTTP port (default: **80**).
- **RTSP Port:** Enter the desired Mobile port (default: **1025**).

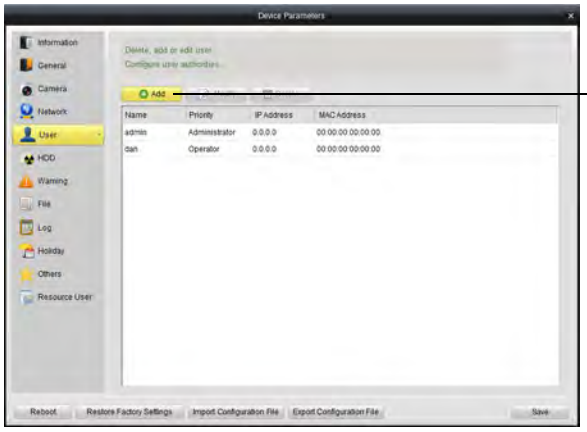
3 Click **Save** to save changes.

User

The User sub-menu allows you to configure user accounts on the NVR.

Adding Users

1 Click **Add**.



2 Under **User Name**, enter the user's account name.

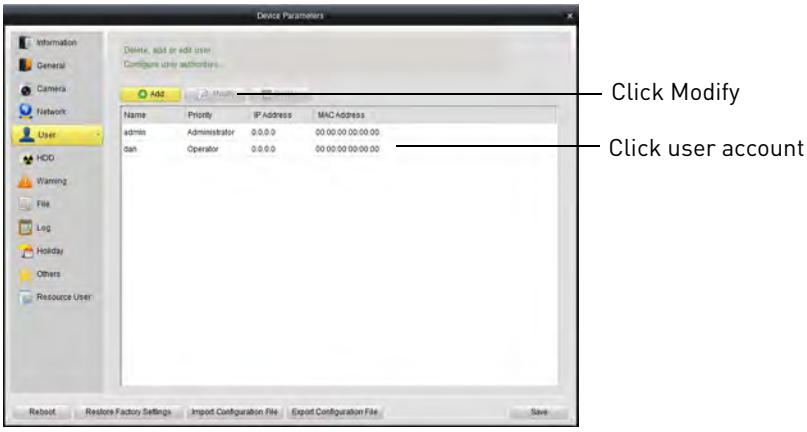
3 Under **Password** and **Confirm**, enter the user's password.

4 At the bottom of the screen, select permissions that will apply to the user account.

5 Click **Yes** to save the user account.

Modifying Users

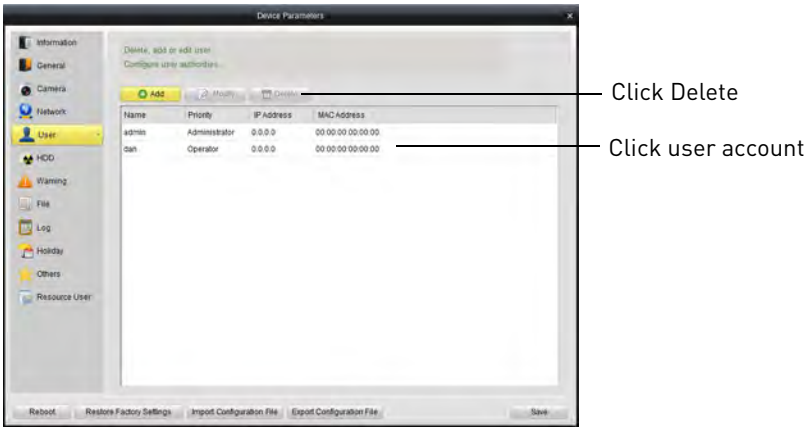
1 Click the user account and then click **Modify**.



2 Modify the account details as necessary and then click **Yes**.

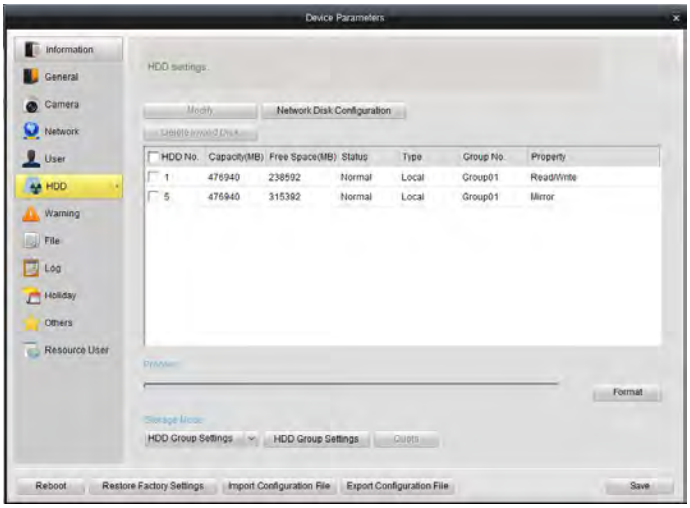
Deleting Users

- Click the user account you would like to delete and then click **Delete**. Click **Yes** to confirm.



HDD

The HDD sub-menu allows you to configure settings for hard drives installed in your NVR. For more information on available hard drive settings, see “HDD” on page 44.

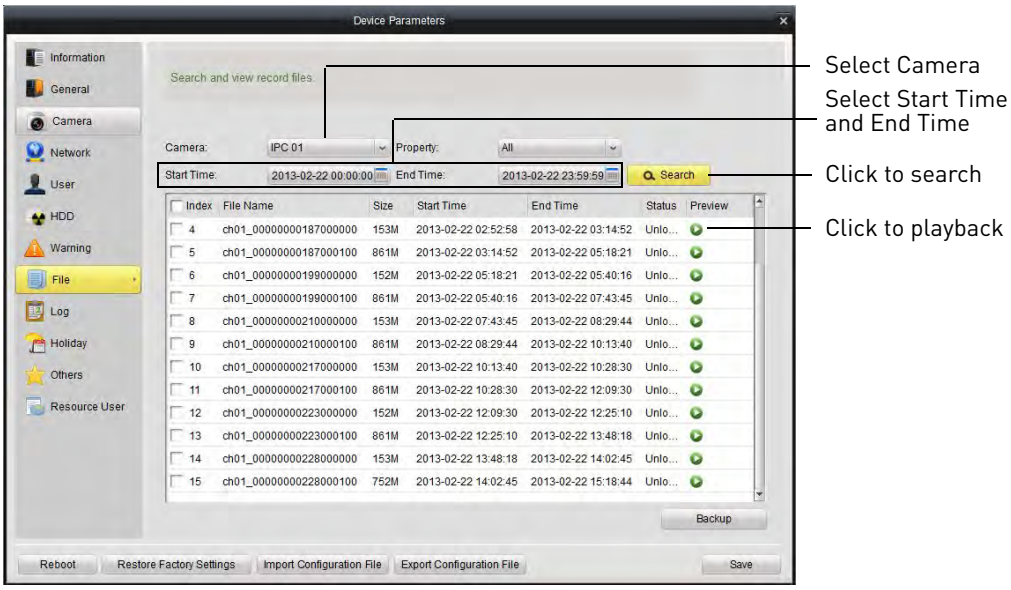


File

The File sub-menu allows you to search for video files on your NVR.

To search for video files on your NVR:

1. Under **Camera**, select the camera you would like to search.
2. Under **Start Time** and **End Time**, select the start and end times for your search.
3. Click **Search**.
4. Click ▶ to playback video files.

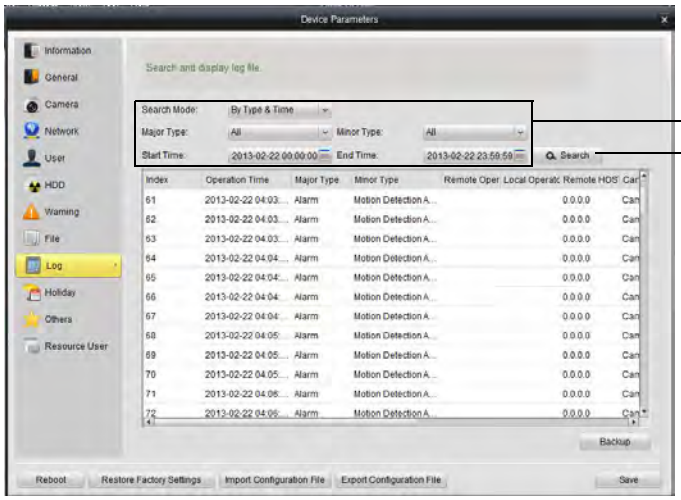


Log

The Log sub-menu allows you to search for system logs from your NVR.

To search for system logs:

- Select the search criteria and click **Search**.

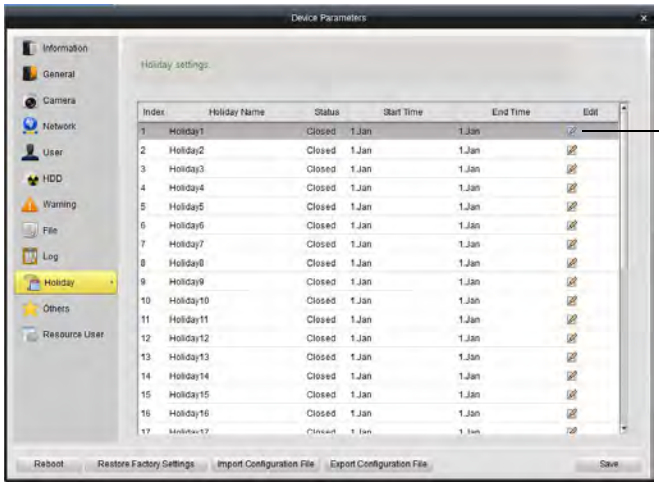


Holiday

The Holiday sub-menu allows you to mark days as holidays. Holidays receive a special recording schedule. For details, see “Configuring the Recording Schedule” on page 50.

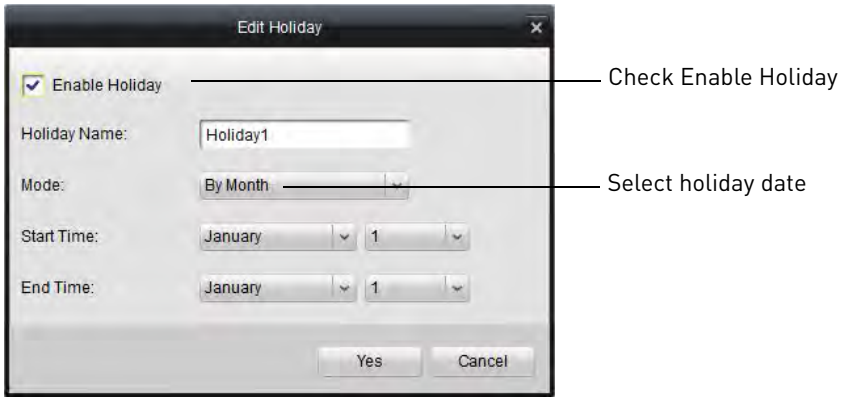
To select holidays:

1 Click next to the holiday you would like to configure.



2 Check **Enable Holiday**.

3 Select the date for the holiday.



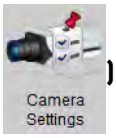
4 Click **Yes**.

5 Click **Save**.

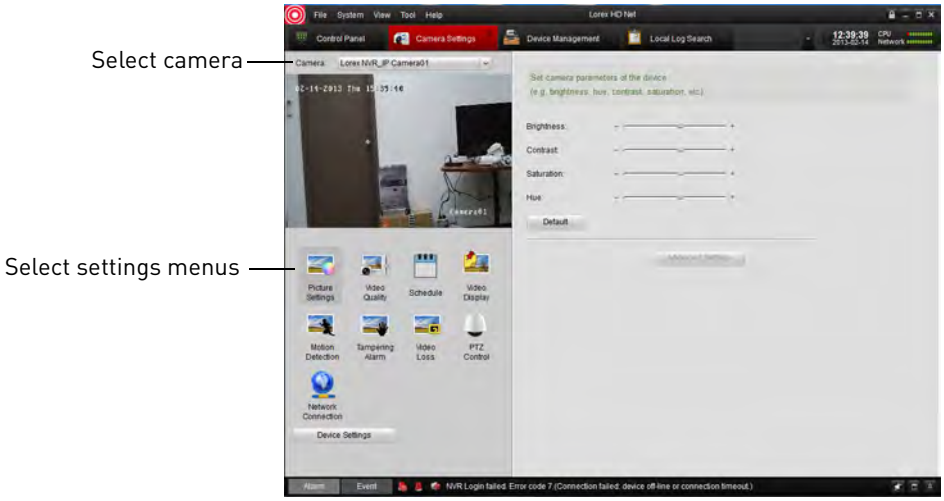
Camera Settings

The Camera Settings menu allows you to configure settings for connected cameras.

To access Camera Settings:

- From the Control Panel, click **Camera Settings (**  **)**.

- To configure cameras, select the camera under **Camera** and click the icons to select different menus.

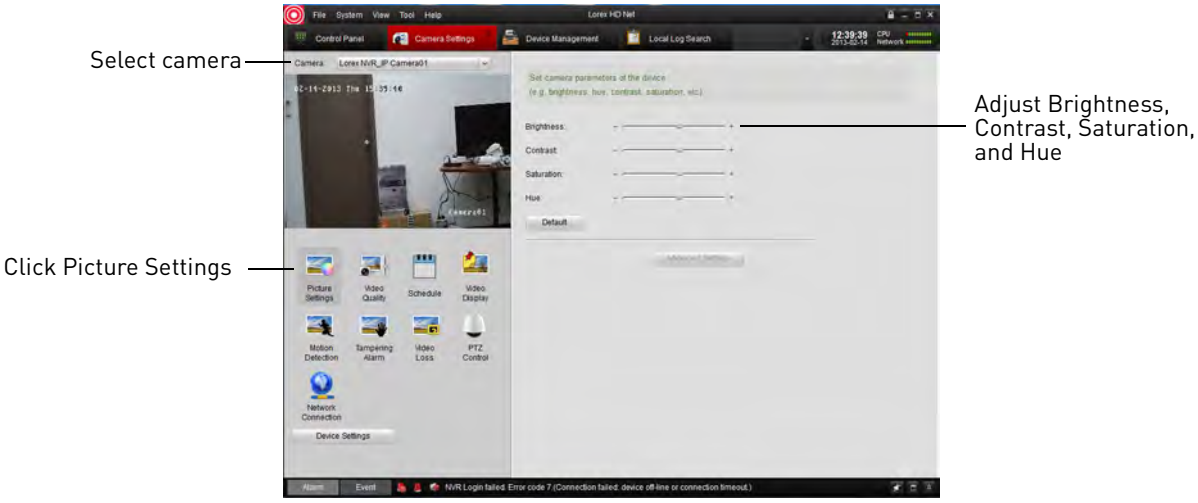


Adjusting Picture Settings

Picture Settings allows you to configure image settings for your cameras.

To configure image settings:

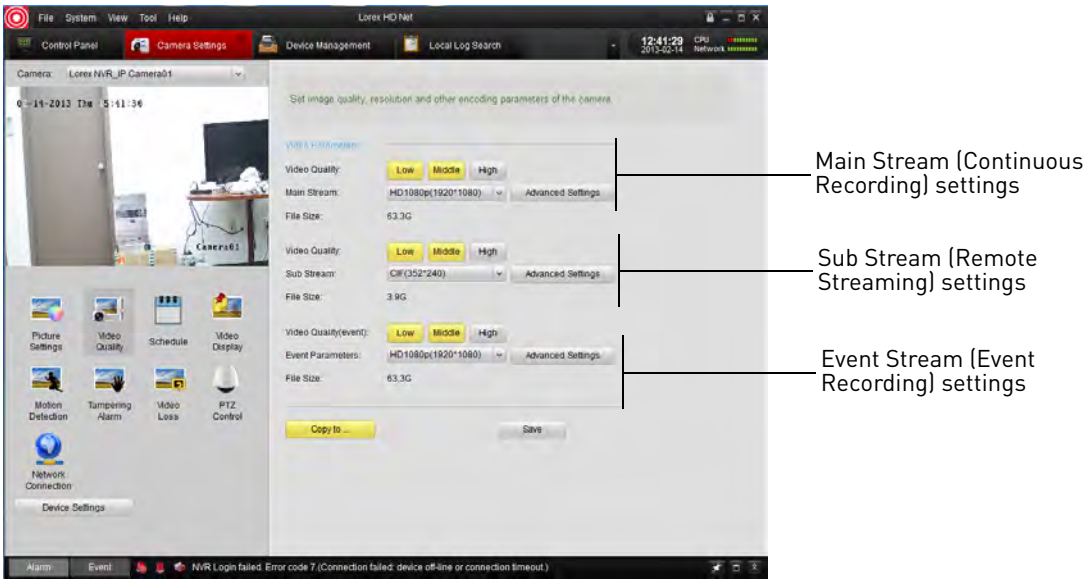
1. Under **Camera**, select the camera you would like to configure.
2. Click **Picture Settings**.
3. Adjust the **Brightness**, **Contrast**, **Saturation**, and **Hue** as needed.



Configuring Video Quality

Video Quality allows you to configure the resolution, frame rate, and other video quality settings

The Video Quality settings allows you to configure the settings for Continuous Recording (Main Stream), Event Recording (Event), and Sub Stream (for streaming to computers and mobile devices).



To configure video quality:

1 Under **Camera**, select the camera you would like to configure.

2 Click **Video Quality**.

3 Configure the settings for the Main Stream, Sub Stream, and Event Stream:

- **Video Quality:** Select **Low**, **Medium**, or **High** quality settings for each stream.
- **Main Stream/Sub Stream/Event Parameters:** Select the desired resolution for each stream.
- **Advanced Settings:** Allows you to adjust the frame rate, bitrate, and other advanced settings for each stream.

4 (Optional) Use the **Copy to** button to copy settings to other cameras.

5 Click **Save** to save changes.

Configuring Camera Recording Schedules

Use the recording schedule to configure when cameras will record continuously or using motion detection only.

To configure camera recording schedules:

1 Under **Camera**, select the camera you would like to configure.

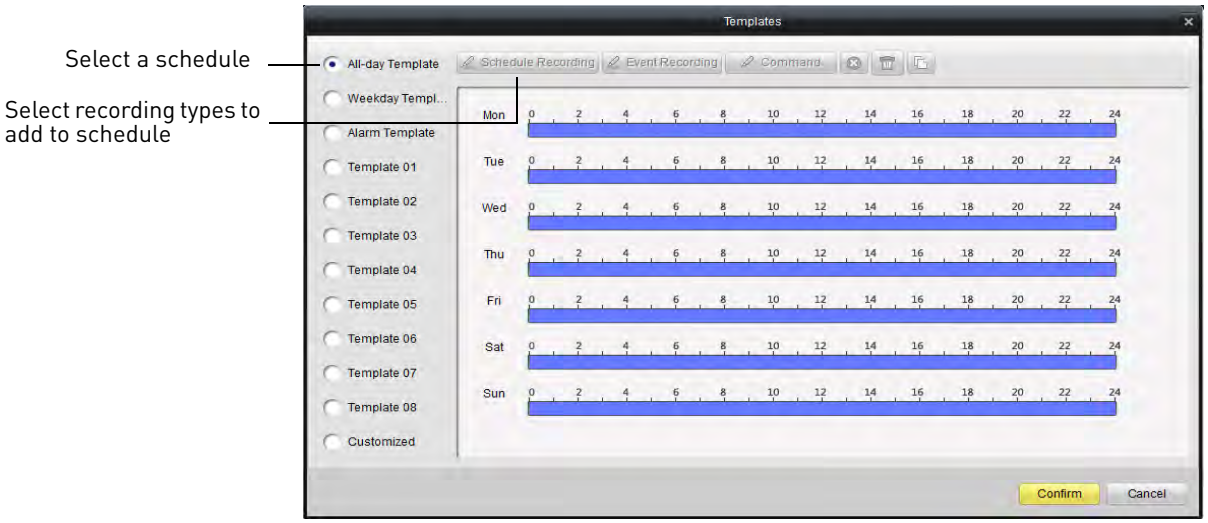
2 Click **Schedule**.

3 Check **Local Recording** to enable recording for the selected camera or un-check to disable.

4 By default, the recording schedule is set for Continuous & Motion Recording 24/7. To customize the recording schedule, click **All Day Template**. Select one of the following options.

- **All-day Template:** Enable Continuous & Motion Recording 24/7.
- **Weekday Template:** Enable Continuous & Motion Recording during working hours (9-5 Mon-Fri) only. **Do not record outside these hours.**
- **Alarm Template:** Enable Motion Recording only 24/7.
- Select one of the standard templates or select **Template01~08** and click **Edit** to create a custom template. Click the recording options at the top of the screen and click and drag

on each day to enable times for the selected recording type. Click **Save** when finished making changes.



- Click **Confirm** to save changes.

5 (Optional) Use the **Copy to** button to copy the schedule to other cameras.

6 Click **Save** to save changes.

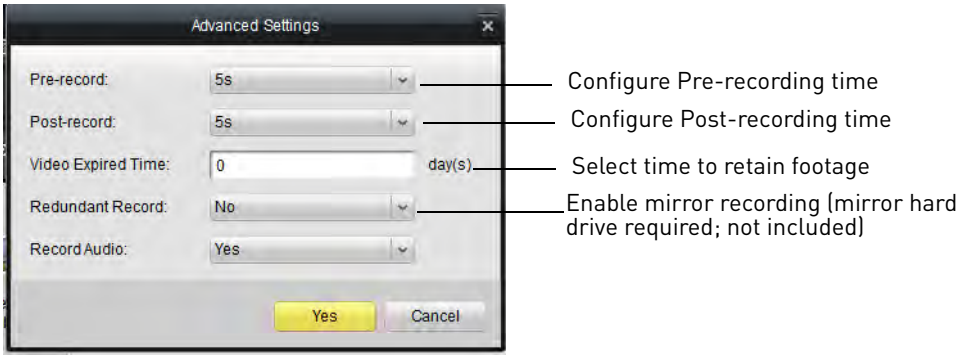
To configure advanced recording options:

1 Under **Camera**, select the camera you would like to configure.

2 Click **Schedule**.

3 Click **Advanced Settings**.

4 Configure the following:



- **Pre-record:** Select the duration the NVR will record before events.
- **Post-record:** Select the duration the NVR will record after events.
- **Video Expired Time:** Select the duration the NVR will retain recorded footage. Note that the hard drive must be large enough to keep footage for this duration.
- **Redundant Record:** Select **Yes** to enable the camera to record to the mirror hard drive (not included). You must have a mirror hard drive installed and configured to use this feature.

- **Record Audio:** Not supported.

5 Click **Yes** to confirm changes.

6 (Optional) Use the **Copy to** button to copy the schedule to other cameras.

7 Click **Save** to save changes.

Configuring the Camera Video Display (OSD) and Privacy Masks

The Video Display menu allows you to configure the text on the camera on-screen display (OSD). You may also customize the position of OSD text or configure Privacy Masks to block out areas of the screen from recording.

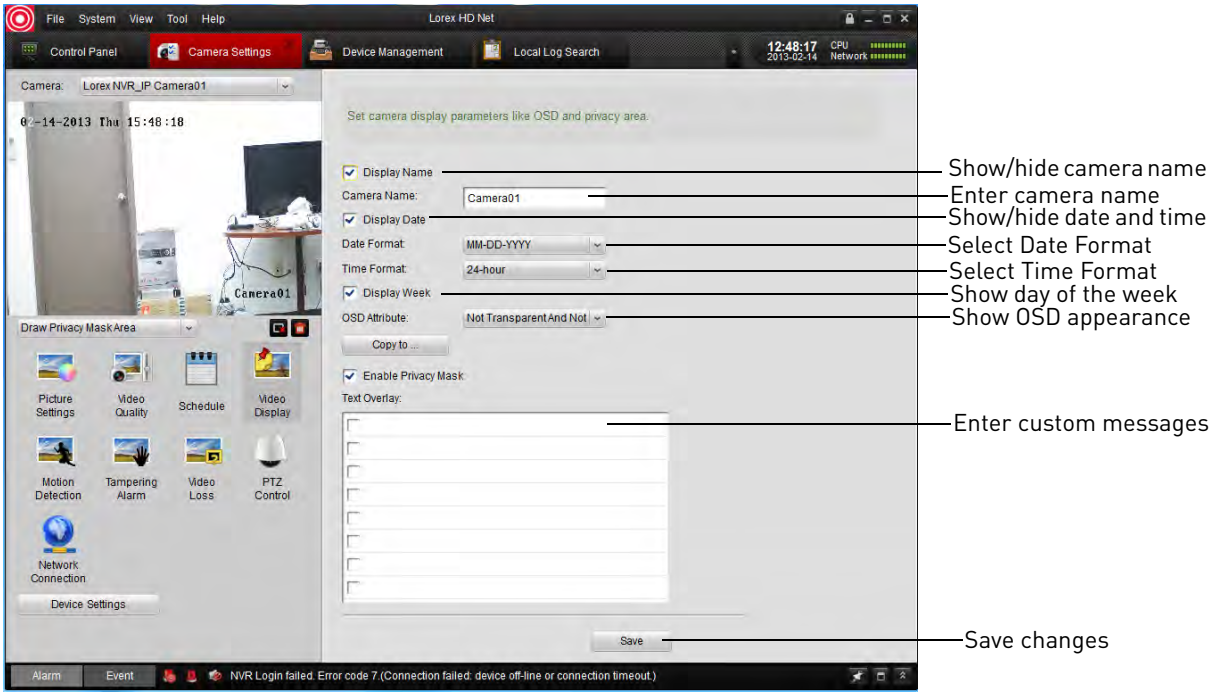
To configure the camera on-screen display:

1 Under **Camera**, select the camera you would like to configure.

2 Click **Video Display**.

3 Configure the following, as needed:
- Check **Display Name** to show the Camera Name on the monitor or un-check to hide the Camera Name.
- Under **Camera Name**, enter a custom name for the camera.
- Check **Display Date** to show the date and time on the monitor or un-check to hide.
- Under **Date Format**, select the desired date format: **MM-DD-YYYY**, **YYYY-MM-DD**, or **DD-MM-YYYY**.
- Under **Time Format**, select **12-hour** or **24-hour** time format.
- Check **Display Week** to show the day of the week in the time display.
- Under **OSD Attribute**, select the appearance of the OSD text.

- Under **Text Overlay**, you may enter custom messages to display on the monitor. Check entries to have them appear on the screen. They will appear on the monitor when you save changes.



4 (Optional) Use the **Copy to** button to copy your settings to other cameras.

5 Click **Save** to save changes.

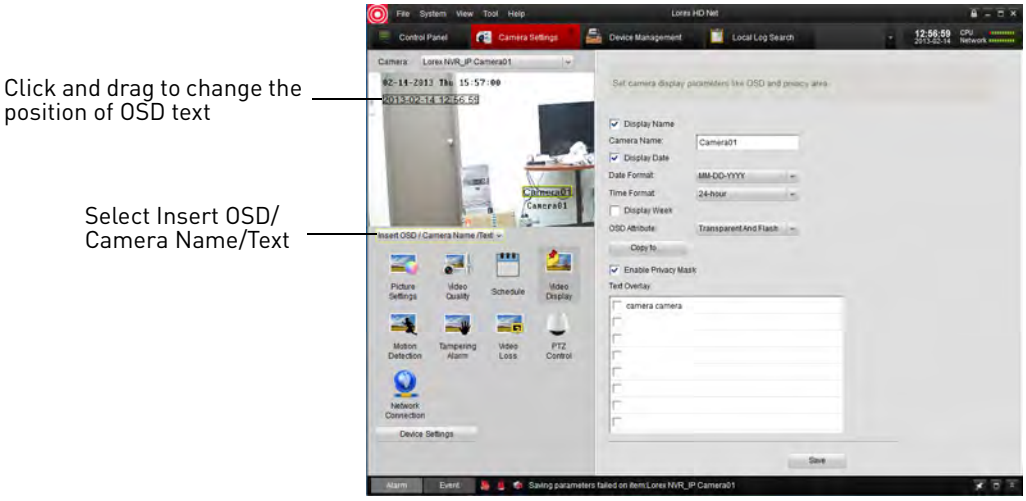
To change the position of OSD text:

1 Under **Camera**, select the camera you would like to configure.

2 Click **Video Display**.

3 Click the drop-down menu under the video display and select **Insert OSD/Camera Name/ Text**.

4 OSD messages are outlined. Click-and-drag messages to change their position.



5 Click **Save** to save changes.

To configure Privacy Areas:

ATTENTION: Areas covered in privacy masks are not visible in recordings.

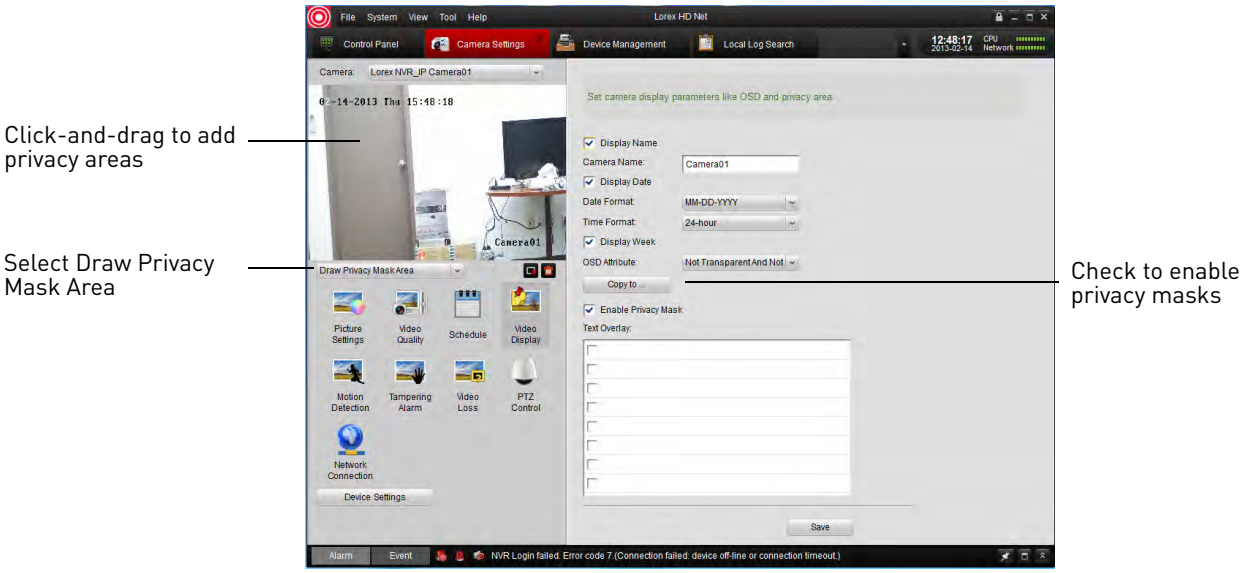
1 Under **Camera**, select the camera you would like to configure.

2 Click **Video Display**.

3 Check **Enable Privacy Mask** to enable privacy masks or un-check to disable.

4 Click the drop-down menu under the video display and select **Insert OSD/Camera Name/ Text**.

5 Click-and-drag in the video display to add privacy areas. Click to delete all privacy areas or click to delete the selected privacy area.



6 Click **Save** to save changes.

Configuring Motion Detection Settings

The Motion Detection menu allows you to configure motion detection settings for your cameras.

To configure motion detection settings:

1 Under **Camera**, select the camera you would like to configure.

2 Click **Motion Detection**.

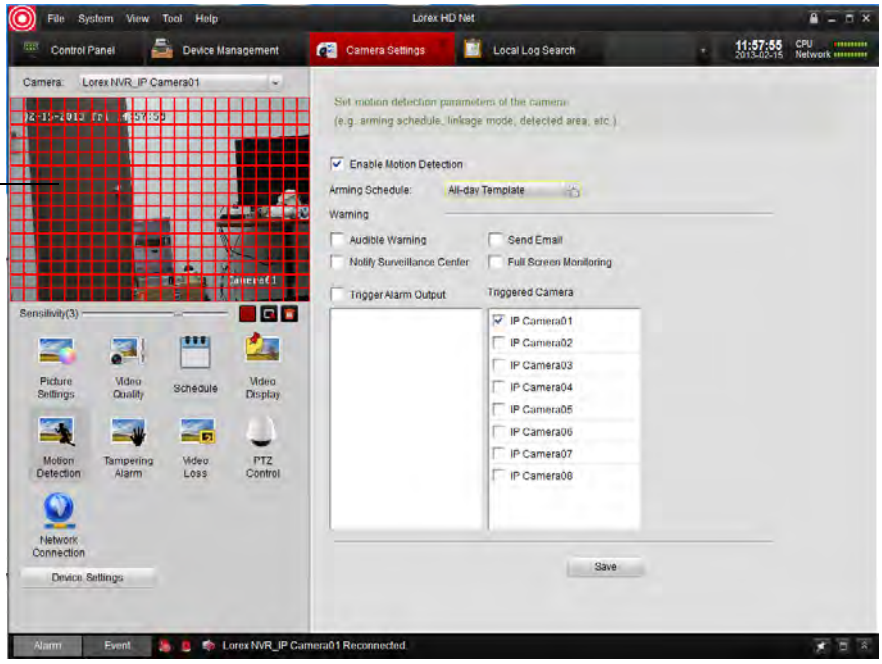
3 Check **Enable Motion Detection** to enable motion detection on the selected camera or un-check to disable.

4 To customize areas where motion detection is enabled:

- Click to clear all motion detection areas.
- Click-and-drag to enable sections of the screen for motion detection.
- Click to delete the selected section.

- Click to select the entire display area.

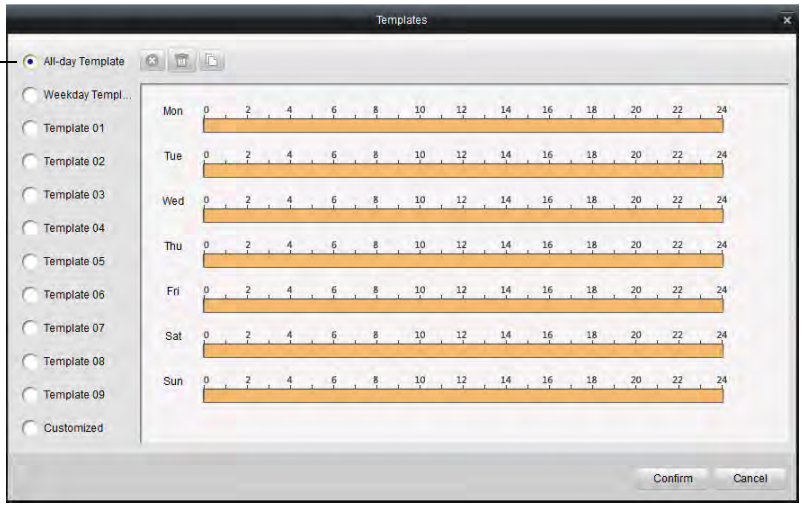
Configure motion detection areas



5 To change the motion detection sensitivity, adjust the **Sensitivity** slider.

6 By default, motion detection is enabled 24/7. If you want to configure times when motion detection is enabled, click **All Day Template**.

Select or customize motion schedule for the selected camera



- In the Templates menu, times when motion detection is enabled are shown as orange. Select one of the following:
  - **All-day Template:** Enable motion detection 24/7.
  - **Weekday Template:** Enable motion detection during working hours (9-5 Mon-Fri) only.

- Select one of the standard templates or select **Template01~08** and click **Edit** to create a custom template. Click and drag on each day to configure when motion detection is enabled. Click **Save** when finished making changes.

- Click **Confirm** to save changes to the schedule.

7 Under **Warning**, check to enable the following warnings when motion is detected:
- **Full Screen Monitoring:** The selected channel will open in full screen.
- **Audible Warning:** System will beep.
- **Notify Surveillance Center:** An alert will be sent to the client software.
- **Send Email:** An alert email will be sent. Note that you must set up email alerts. For details, see "Configuring Email Alerts" on page 70.

8 Under **Triggered Camera**, select which channels will start to record when motion detection is triggered on the selected channel.

9 Click **Save** to save changes.

Configuring Tampering Alarm Settings

The Tampering Alarm is activated if the camera lens is covered, for example if a vandal sprays paint on the camera.

To configure Tampering Alarm settings:

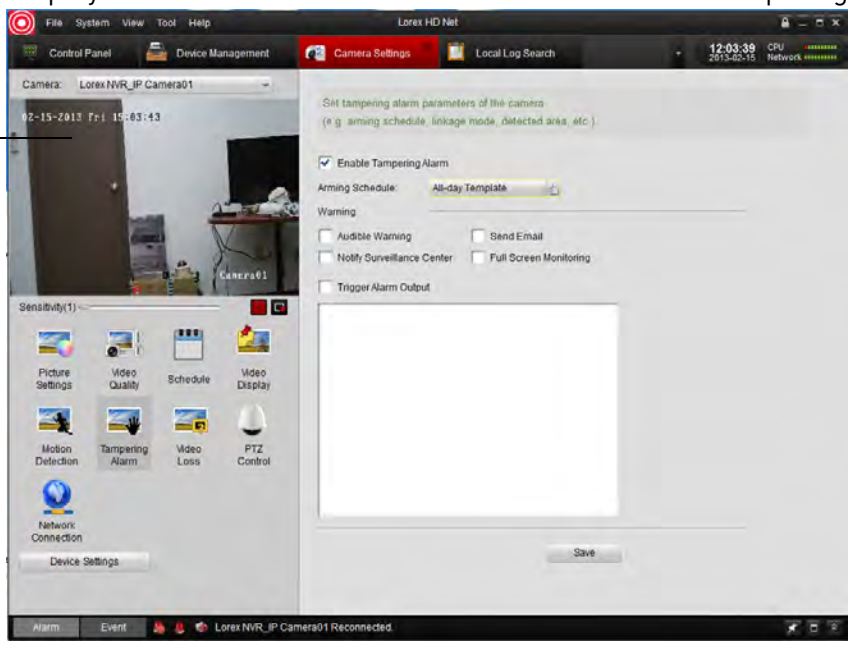
1 Under **Camera**, select the camera you would like to configure.

2 Click **Tampering Alarm**.

3 Check **Enable Tampering Alarm** to enable the Tampering Alarm on the selected camera or un-check to disable.

4 Click and drag in the video display area to enable areas the camera will watch for tampering.

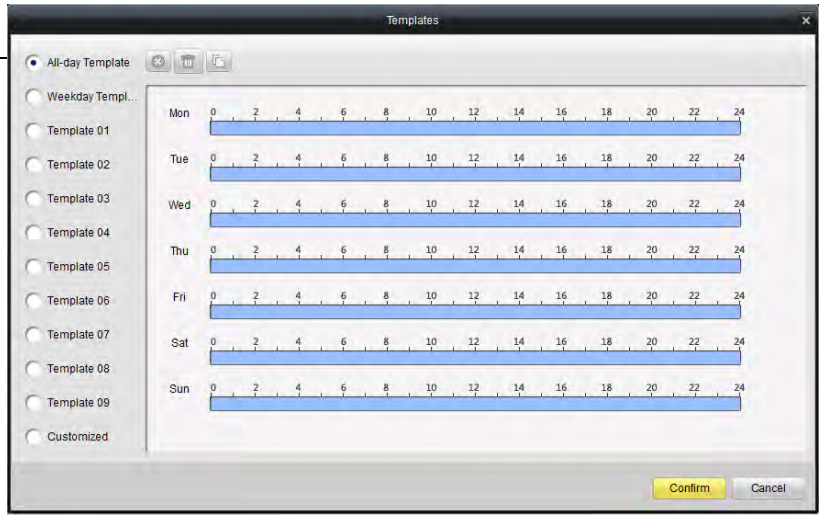
Click and drag to select Tampering Alarm areas



5 To change the Tampering Alarm sensitivity, adjust the **Sensitivity** slider.

6 When Tampering Alarms are enabled, they are enabled 24/7 by default. If you want to configure times when they are enabled, click **All Day Template**.

Select or customize Tampering Alarm schedule for the selected camera



- In the Templates menu, times when Tampering Alarms are enabled are shown as light blue. Select one of the following:
  - **All-day Template:** Enable Tampering Alarms 24/7.
  - **Weekday Template:** Enable Tampering Alarms during working hours (9-5 Mon-Fri) only.
  - Select one of the standard templates or select **Template01~08** and click **Edit** to create a custom template. Click and drag on each day to configure when motion detection is enabled. Click **Save** when finished making changes.
- Click **Confirm** to save changes to the schedule.

7 Under **Warning**, check to enable the following warnings when the Tampering Alarm is triggered:

- **Full Screen Monitoring:** The selected channel will open in full screen.
- **Audible Warning:** System will beep.
- **Notify Surveillance Center:** An alert will be sent to the client software.
- **Send Email:** An alert email will be sent. Note that you must set up email alerts.

8 Click **Save** to save changes.

Configuring Video Loss Alarms

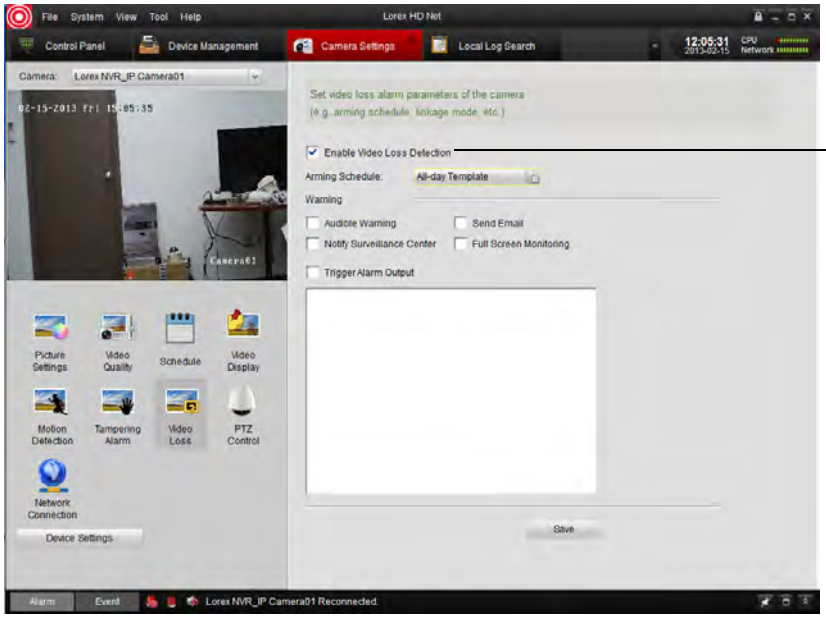
Video Loss Alarms occur if the connection between the NVR and cameras is lost (for example, if the ethernet cable is disconnected).

To configure Video Loss alarms:

1 Under **Camera**, select the camera you would like to configure.

2 Click **Video Loss**.

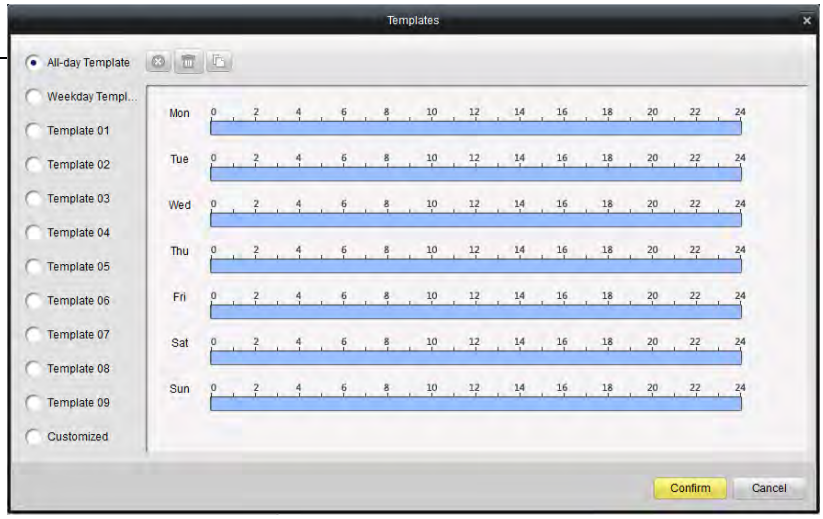
3 Check **Enable Video Loss Detection** to enable the Video Loss Alarms on the selected camera or un-check to disable.



Check to enable video loss alarms

4 When Video Loss alarms are enabled, they are enabled 24/7 by default. If you want to configure times when they are enabled, click **All Day Template**.

Select or customize Video Loss alarm schedule for the selected camera



- In the Templates menu, times when Video Loss alarms are enabled are shown as light blue. Select one of the following:
  - **All-day Template:** Enable Video Loss Alarms 24/7.
  - **Weekday Template:** Enable Video Loss Alarms during working hours (9-5 Mon-Fri) only.
  - Select one of the standard templates or select **Template01~08** and click **Edit** to create a custom template. Click and drag on each day to configure when video loss alarms are enabled. Click **Save** when finished making changes.
- Click **Confirm** to save changes to the schedule.

5 Under **Warning**, check to enable the following warnings when the Video Loss Alarm is triggered:
- **Full Screen Monitoring:** The selected channel will open in full screen.
- **Audible Warning:** System will beep.
- **Notify Surveillance Center:** An alert will be sent to the client software.
- **Send Email:** An alert email will be sent. Note that you must set up email alerts.

6 Click **Save** to save changes.

PTZ Control (Not Supported)

Network Connection (Not Supported)

System Configuration

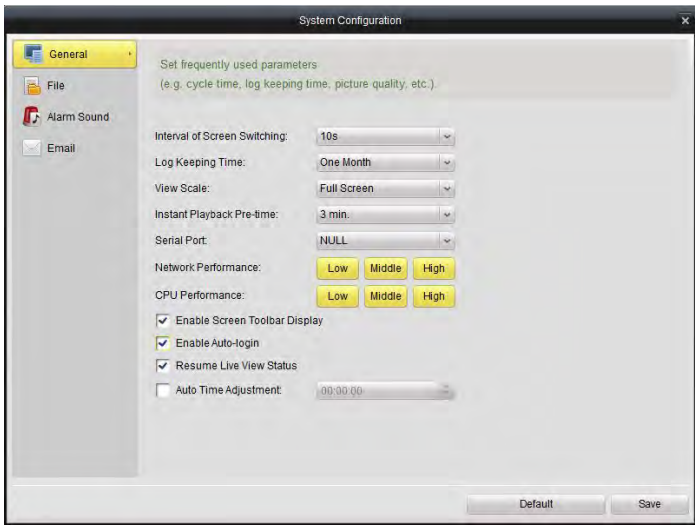
The System Configuration menu allows you to configure settings for the Client Software.

To access System Configuration:

- From the Control Panel, click **System Configuration (**

).

General



To configure General client options:

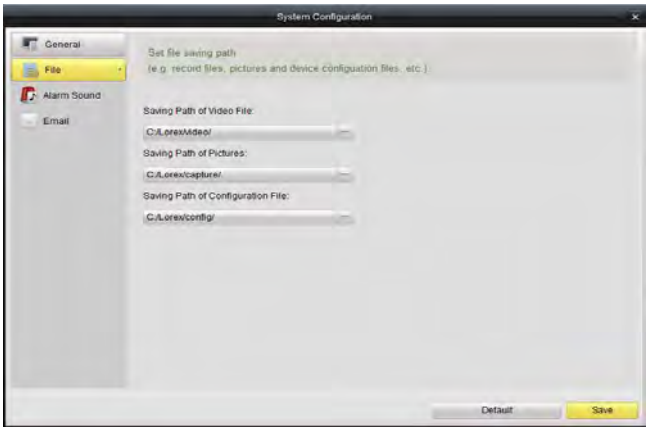
1 Configure the following:
- **Interval of Screen Switching:** Select the time channels will be shown in Main View before switching when Sequence mode is on.
- **Log Keeping Time:** Select the amount of time the client software will retain system logs.
- **View Scale:** Select the aspect ratio for your cameras: **Full-screen** (may cause image stretching), **4:3**, or **16:9**.
- **Network Performance:** Select **Low**, **Middle**, or **High**.
- **CPU Performance:** Select **Low**, **Middle**, or **High**.

- **Enable Auto Login:** Un-check to require a password to open the client software. Check to disable passwords.

NOTE: If this option is disabled, you should create your own password. If you do not create your own password and you close the client software, you must use the default user name and password to log back into the client software. The default user name for the client software is **admin** and the default password is **admin**.

2 Click **Save** to save changes.

File



The File sub-menu allows you to configure default save folders for screenshots and video files.

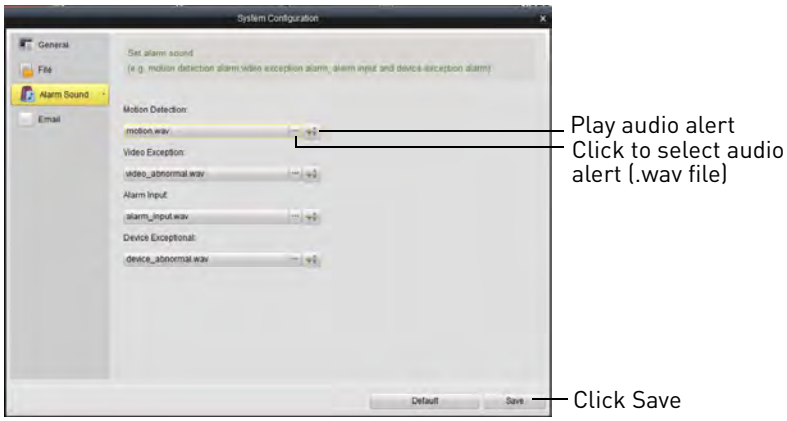
To configure save folders:

1 Click **...** under the folder you would like to configure and select the desired folder.

2 Click **Save** to save changes.

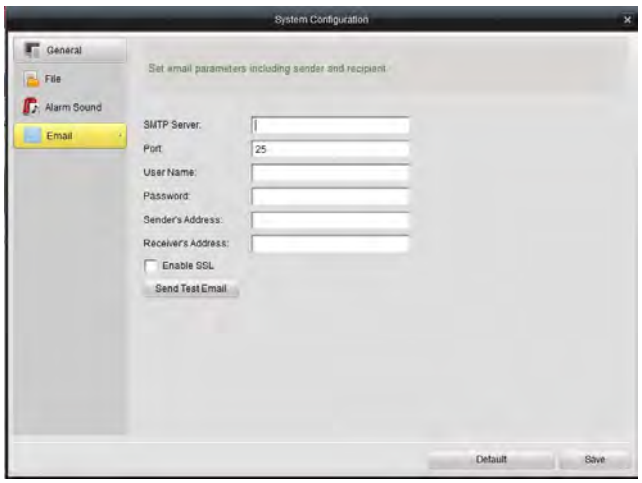
Alarm Sound

The Alarm Sound menu allows you to configure the audio alerts that will play when events occur. You may use any .wav file as your audio alerts.



Email

The Email sub-menu allows you to configure outgoing email settings for the client software. This allows you to send videos, pictures, or alert information using the client.



To configure client email settings:

NOTE: Contact your email service provider to determine the SMTP Server address, port, user name, password, or security settings.

1. Under **SMTP Server**, enter the address of your email server.
2. Under **Port**, enter the SMTP Server port number.
3. Under **User Name** and **Password**, enter the account name and password for the SMTP Server.
4. Under **Sender's Address**, enter the address that will be used to send out email alerts.
5. Under **Receiver's Address**, enter the address that will receive email alerts.
6. Check **Enable SSL** to enable secure authentication.
7. Click **Send Test Email** to send a test email to the receiver's address.
8. Click **Save** to save changes.

Mobile Apps: Accessing your NVR Using a Mobile Device

You can remotely view camera streams from your NVR on compatible mobile phones and tablets.

Compatible Devices and Platforms

Platform	Supported Versions and Devices	App Name	Get App From
iOS	iOS v. 4.0 and higher iPhone/iPod Touch iPad (1st generation and above)	Lorex netHD Stratus (iPhone) Lorex netHD Stratus Plus (iPad)	Apple App Store
Android	Android v. 2.3 and above (phones) / Android v. 3.2 and above (tablets)	Lorex netHD Stratus (Android phones) Lorex netHD Stratus Plus (Android tablets)	Google Play Store

For the latest device compatibility list, visit www.lorextechnology.com

iPhone

Use the **Lorex netHD Stratus** application to connect to your NVR on the iPhone.

Prerequisites

- iOS version 4.0 and above.
- An iTunes account (requires valid credit card number). Your credit card will not be billed when downloading the app.
- Connect your NVR to your router using an Ethernet cable (included).
- **Make sure to upgrade your NVR to the latest firmware version.** You must have the latest NVR firmware and mobile apps to connect to the NVR over the Internet.

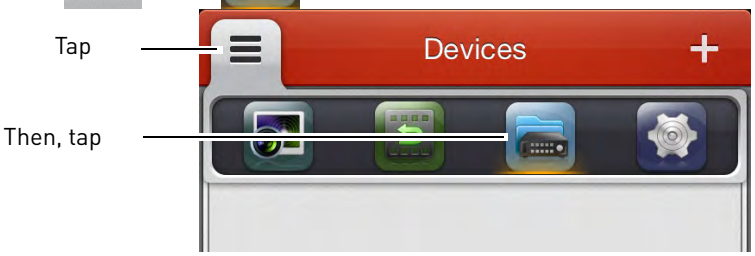
NOTE: For the latest device compatibility list, visit www.lorextechnology.com

Connecting to your NVR using an iPhone

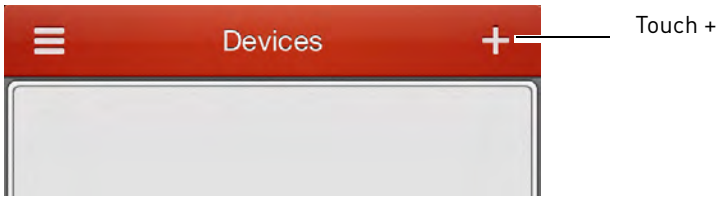
1 Download the free **Lorex netHD Stratus** app from the App Store.

2 Touch the **Lorex netHD Stratus** icon ( ).

3 Tap then .



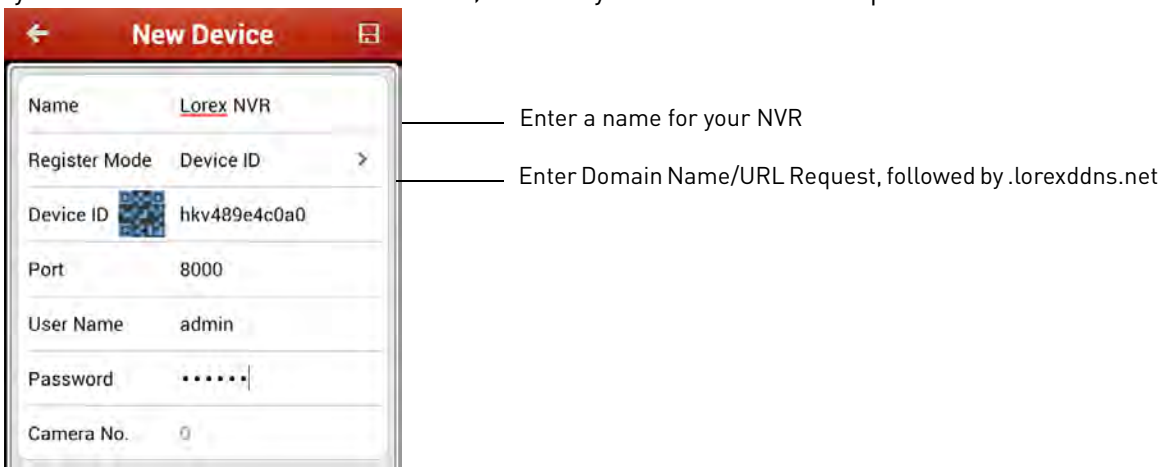
4 Touch **+**.



5 Under **Name**, enter a name for your NVR of your choice (e.g. home or office).

6 Press next to **Device ID** and then line up the QR code on the top of the NVR with the camera on your device.

OR,
If your device does not have a camera, manually enter the **Device ID** printed on the label.



NOTE: If you have changed the User Name, Password, or Client Port from the defaults, you will need to update them.

7 Tap . You will be prompted to change the NVR password.

8 Enter a new 6 character password for the NVR and then press **Confirm**.

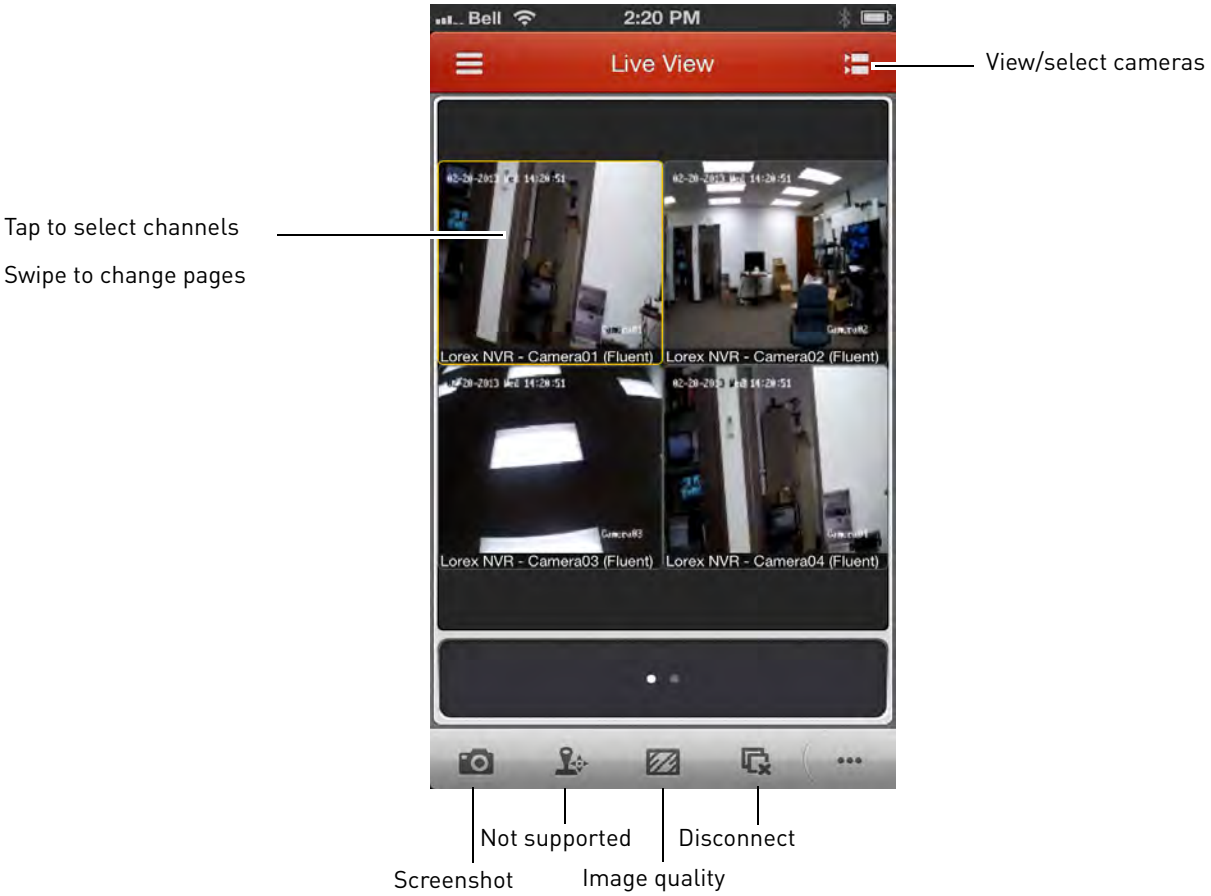
Enter a new 6 character password and then press Confirm

9 Tap **Start live view**. The app opens the Live View screens and shows video from your cameras.

Tap to view your cameras

Live View Interface

You can use Live View in landscape or portrait mode.



Taking Screenshots

1 Tap the camera you would like to take a screenshot of, then tap .

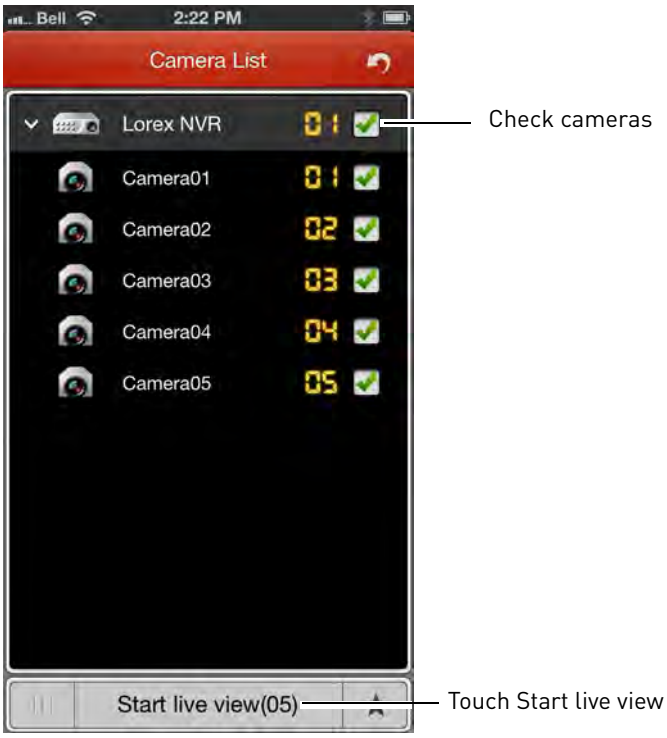
2 Tap **OK** to allow the app to save photos on your device.

- You can access screenshots using the Photos app.

Switching Cameras

1 Touch to access the Camera List.

2 Check the cameras you would like to view, then touch **Start live view**.



Playback

You can access video recorded on your NVR from your iPhone.

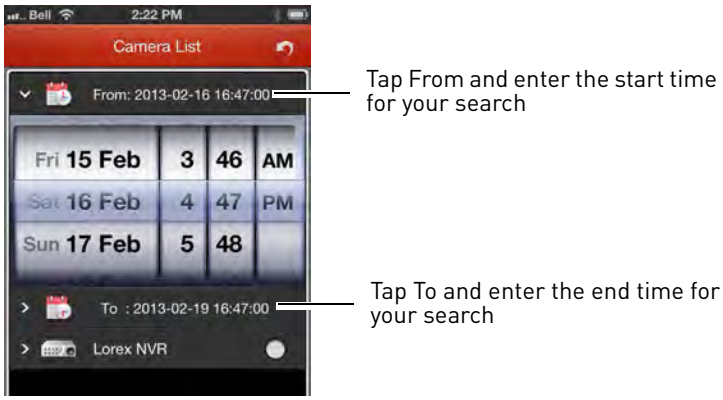
To access playback mode:

1 Touch then .

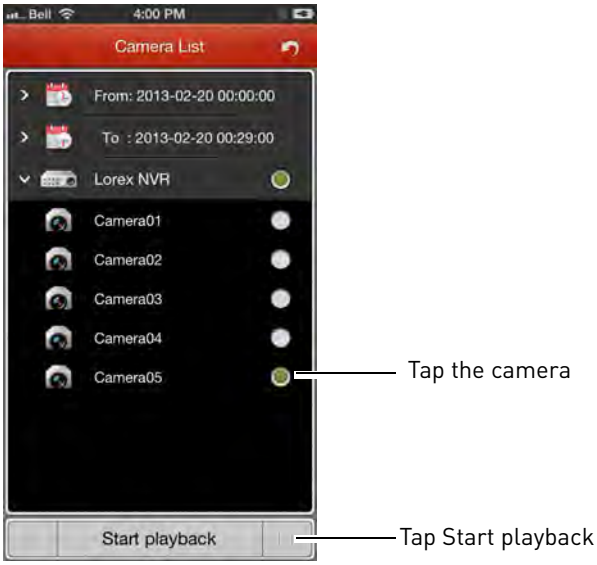
2 Touch to access the Camera List.

3 Tap **From** and use the sliders to enter the start time for your search.

4 Tap **To** and use the sliders to enter the end time for your search.



5 Tap the camera you would like to playback video from, and then touch **Start playback**.



6 Use the on-screen controls.

Device List

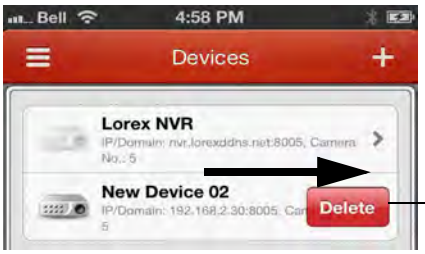
The Device List allows you to modify or delete NVR connection details.

To access Device List:

- Touch then .

To delete an NVR:

- Swipe the NVR from the left, and then tap **Delete**.



Swipe from the left then tap Delete

To modify an NVR:

1 Tap the NVR.

2 Tap .

3 Modify the connection details as needed and then tap .

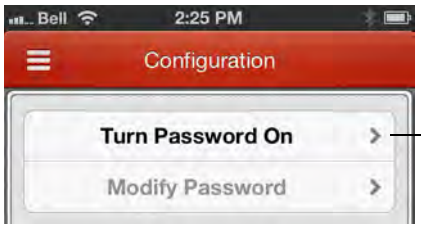
Configuration

Use the Configuration menu to enable password protection for the app or check for updates in the App store.

To enable passwords for the app:

1 Touch then .

2 Tap **Turn Password On**. Enter a password. The app will now ask for a password when you open it.



Tap Turn Password On

To check for software updates:

1 Touch then .

2 Tap Software Update to go to the App Store and check for updates.

Tap Software Update

iPad

Use the **Lorex netHD Stratus Plus** application to connect to your NVR on the iPad.

Prerequisites

- iOS version 4.0 and above.
- An iTunes account (requires valid credit card number). Your credit card will not be billed when downloading the app.
- Connect your NVR to your router using an Ethernet cable (included).
- **Make sure to upgrade your NVR to the latest firmware version.** You must have the latest NVR firmware and mobile apps to connect to the NVR over the Internet.

NOTE: For the latest device compatibility list, visit www.lorextechnology.com

Connecting to your NVR using an iPad

1 Download the free **Lorex netHD Stratus Plus** app from the App Store.

2 Touch the **Lorex netHD Stratus Plus** icon ( ).

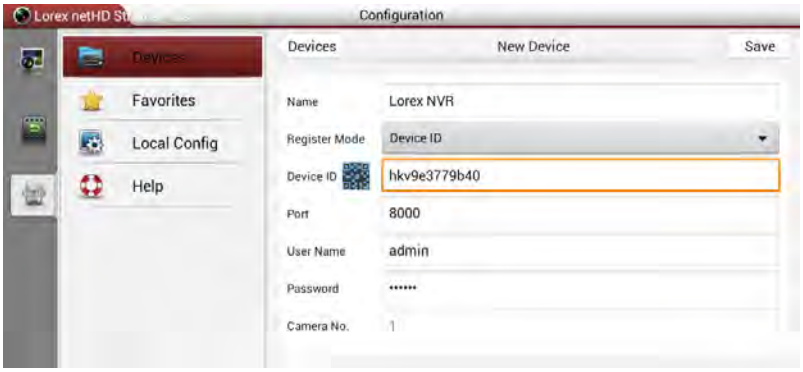
3 Touch .

4 Touch **+**.

5 Under **Name**, enter a name for your NVR of your choice (e.g. home or office).

6 Press next to **Device ID** and then line up the QR code on the top of the NVR with the camera on your device.

OR,
If your device does not have a camera, manually enter the **Device ID** printed on the label.



NOTE: If you have changed the User Name, Password, or Client Port from the defaults, you will need to update them.

7 Tap **Save**. You will be prompted to change the NVR password.

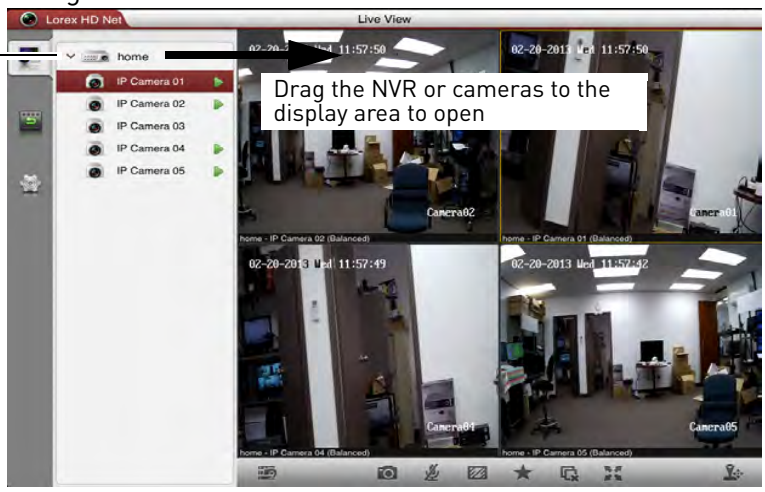
8 Enter a new 6 character password for the NVR and then press **Confirm**.

Enter a new 6 character password and then press Confirm

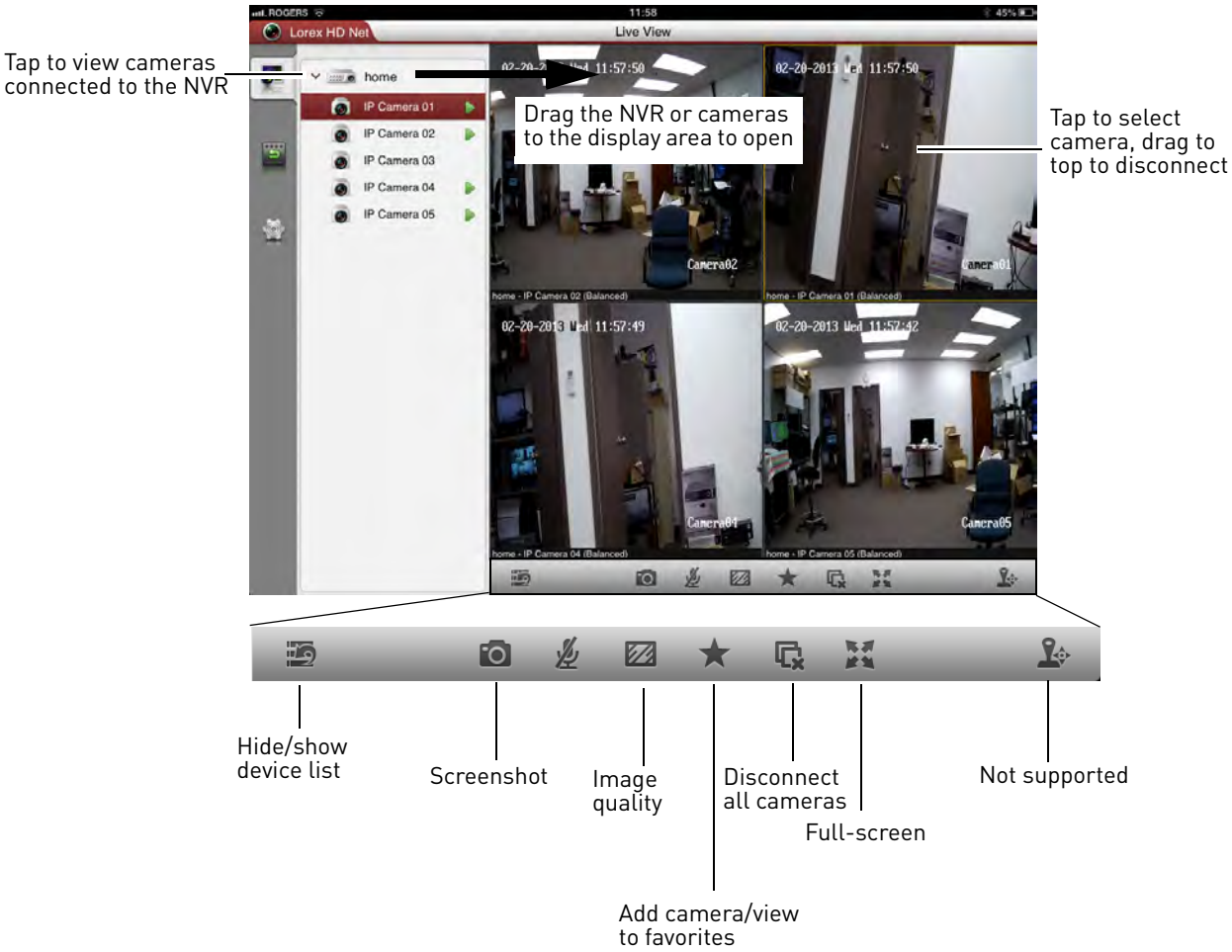
9 Tap to go to Live View.

10 Press and drag the NVR to the viewing area to open all connected cameras, or drag individual cameras to the viewing area to view them.

Tap to view cameras connected to the NVR



Live View Interface



Taking Screenshots

1 Tap the camera you would like to take a screenshot of, then tap .

2 Tap **OK** to allow the app to save photos on your device.
- You can access screenshots using the Photos app.

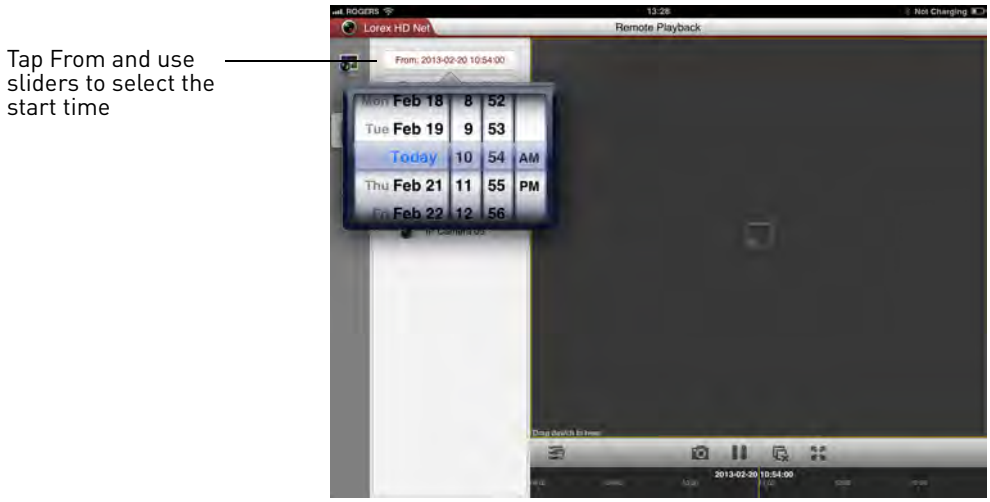
Playback

You can view recorded video from your NVR on your iPad.

To access playback mode:

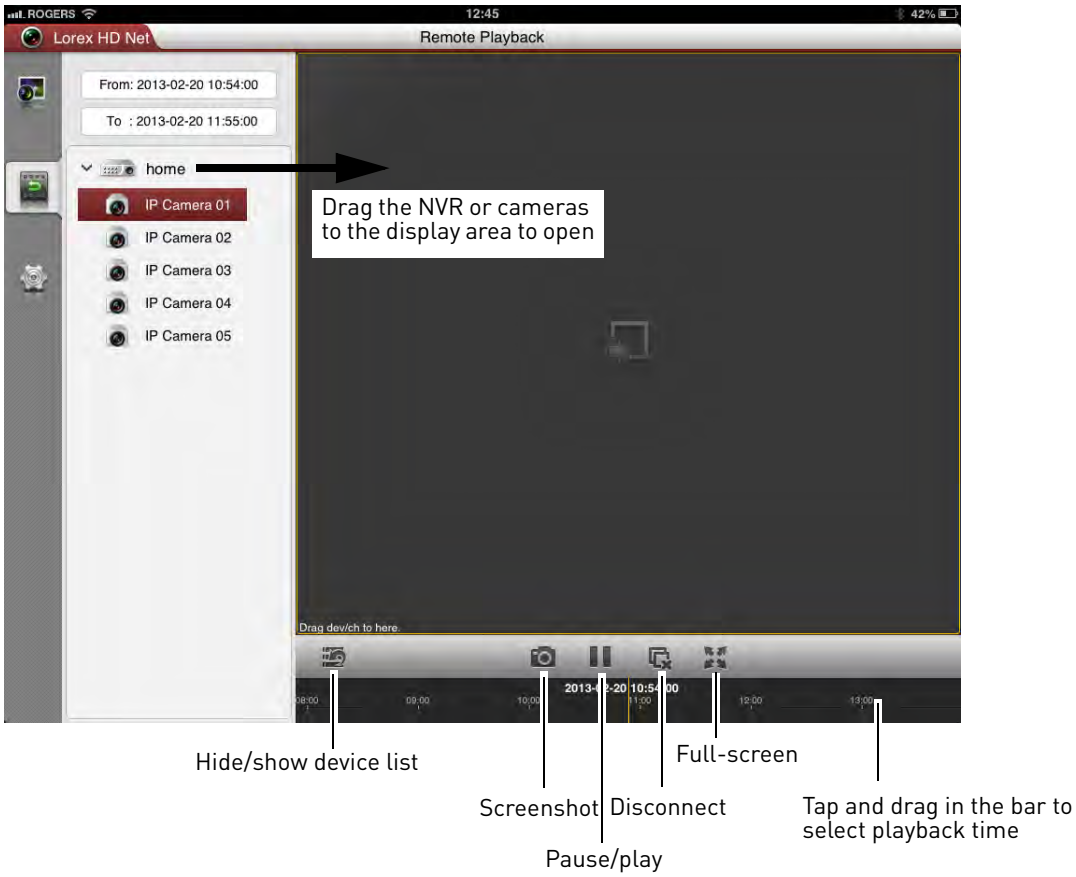
1 Touch .

2 Tap **From** and use the sliders to adjust the start time for your search.



3 Tap **To** and use the sliders to adjust the end time for your search.

4 Drag the NVR or camera to the display area to start playback. Use the on-screen controls.



Device List

Use the Device List to manage your NVRs.

To access Device List:

- Touch .

Deleting NVRs

- Swipe the NVR you would like to delete from the left and tap **Delete**. Tap **Confirm**.

Modifying NVRs

1 Tap next to the NVR you would like to edit.

2 Tap **Edit**. Modify the connection details as needed.

3 Tap **Save** to save changes.

Local Config

The Local Config menu allows you to enable passwords for the app.

To enable passwords for the app:

1 Tap then tap **Local Config**.

2 Slide **Password Protection** to **ON**.

Slide to ON to enable a password to access the app

3 Enter a password for the app and press **Confirm**. You will now be asked for your password when you open the app.

Android Phone

Use the **Lorex netHD Stratus** application to connect to your NVR on an Android smartphone.

There is a separate app for Android tablets to make better use of the larger screen size. For details, see "Android Tablet" on page 150.

NOTE: The instructions below may differ depending on the model of your Android device.

System requirements

- Android v. 2.3 and above.

NOTE: For the latest device compatibility list, visit www.lorextechnology.com

Connecting to your System Using an Android Phone

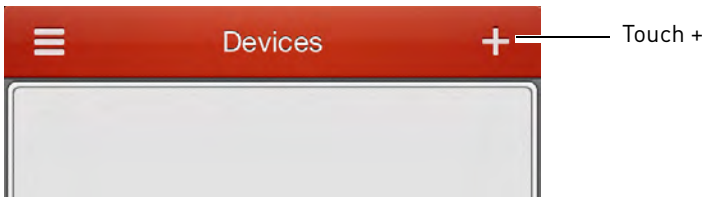
1 Download the **Lorex netHD Stratus** app for free from the Google Play Store.

NOTE: For support on downloading or installing Android apps, consult your Android device's user's manual or the manufacturer's support site.

2 Touch the **Lorex netHD Stratus** icon ( ).

3 Tap then .

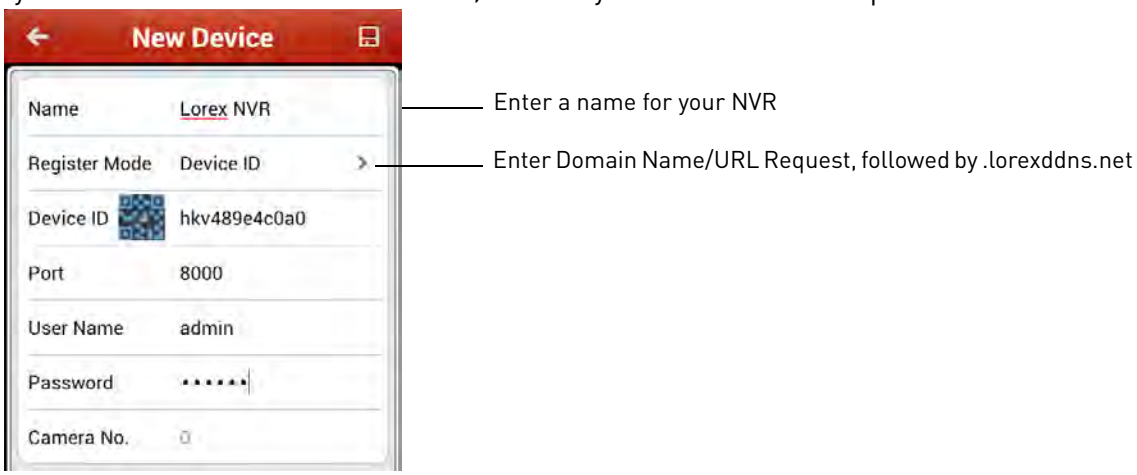
4 Touch **+**.



5 Under **Name**, enter a name for your NVR of your choice (e.g. home or office).

6 Press next to **Device ID** and then line up the QR code on the top of the NVR with the camera on your device.

OR,
If your device does not have a camera, manually enter the **Device ID** printed on the label.

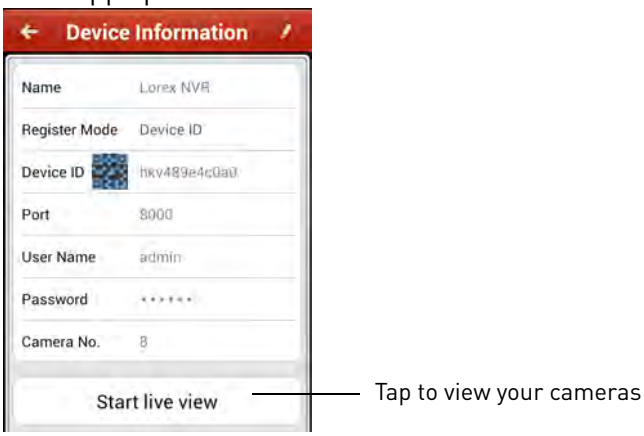


NOTE: If you have changed the User Name, Password, or Client Port from the defaults, you will need to update them.

7 Tap . You will be prompted to change the NVR password.

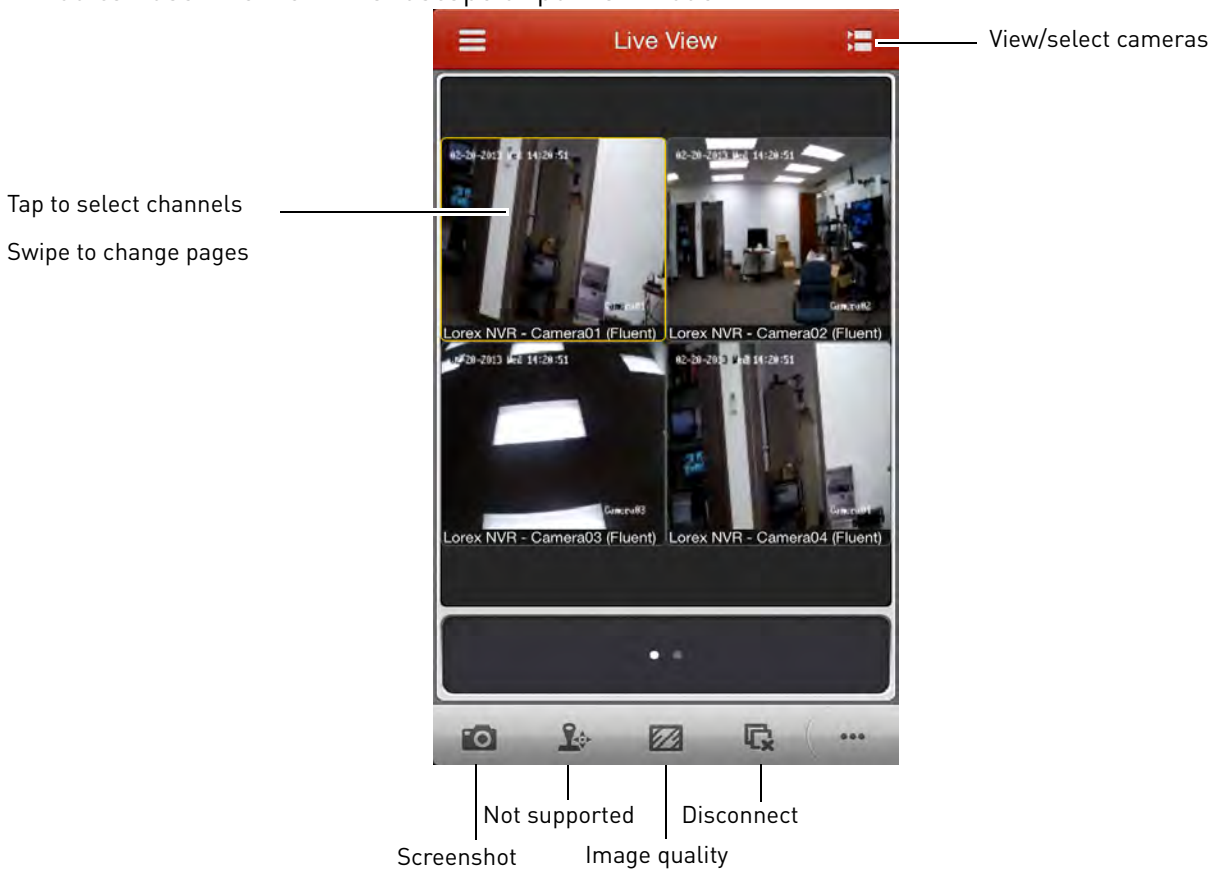
8 Enter a new 6 character password for the NVR and then press **Confirm**.

9 Tap **Start live view**. The app opens the Live View screens and shows video from your cameras.



Live View Interface

You can use Live View in landscape or portrait mode.



Taking Screenshots

1 Tap the camera you would like to take a screenshot of, then tap .

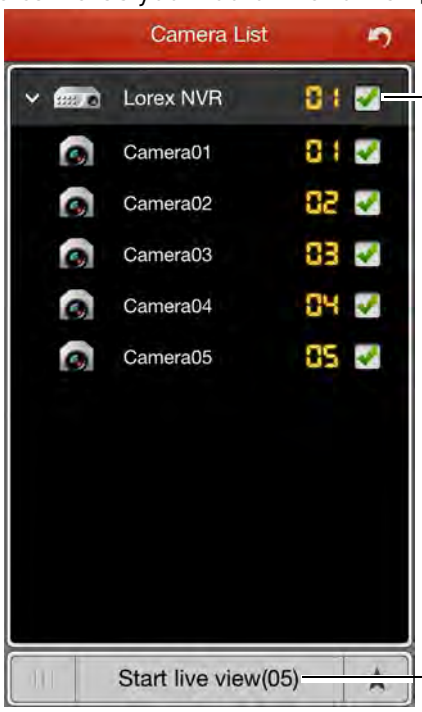
2 Tap **OK** to allow the app to save photos on your device.

- Screenshots are saved to */Lorex netHD/Picture*.

Switching Cameras

1 Touch to access the Camera List.

2 Check the cameras you would like to view, then touch **Start live view**.



Check cameras

Touch Start live view

Playback

You can access video recorded on your NVR from your phone.

To access playback mode:

1 Touch then .

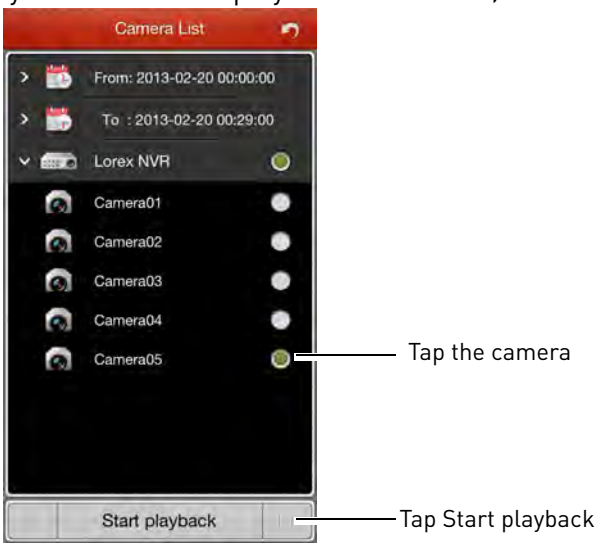
2 Touch to access the Camera List.

3 Tap **From** and use the sliders to enter the start time for your search.

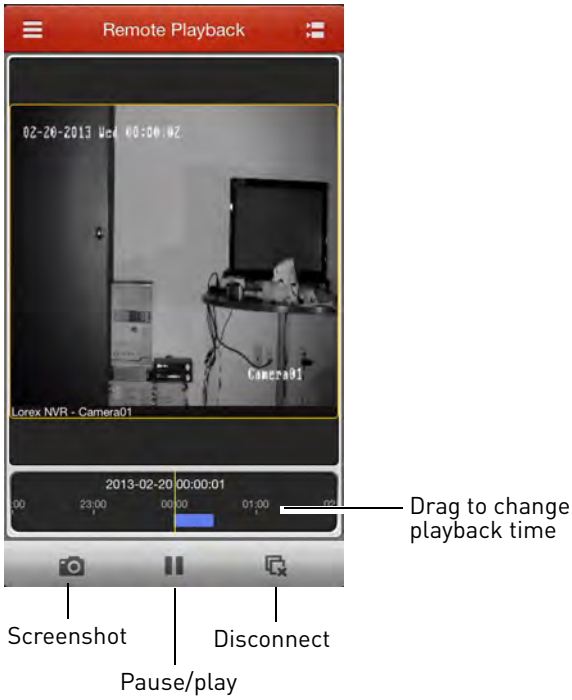
Tap From and enter the start time for your search

4 Tap **To** and use the sliders to enter the end time for your search.

5 Tap the camera you would like to playback video from, and then touch **Start playback**.



6 Use the on-screen controls.



Device List

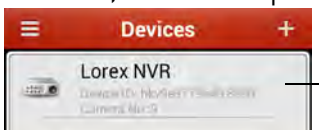
The Device List allows you to modify or delete NVR connection details.

To access Device List:

- Touch then .

To delete an NVR:

- Tap and hold the NVR, and then tap **Confirm**.



Press and hold, and then tap Confirm

To modify an NVR:

1 Tap the NVR.

2 Tap .

3 Modify the connection details as needed and then tap .

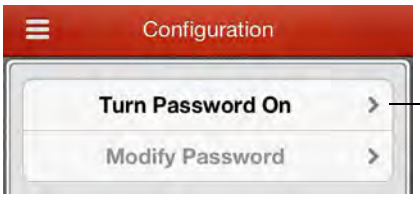
Configuration

Use the Configuration menu to enable password protection for the app or check for updates in the App store.

To enable passwords for the app:

1 Touch then .

2 Tap **Turn Password On**. Enter a password. The app will now ask for a password when you open it.



Tap Turn Password On

To check for software updates:

1 Touch then .

2 Tap **Software Update** to check for updates.

Tap Software Update

Android Tablet

Use the **Lorex netHD Stratus Plus** application to connect to your NVR on an Android tablet.

NOTE: The instructions below may differ depending on the model of your Android device.

System requirements

- Android v. 3.2 and above.

NOTE: For the latest device compatibility list, visit www.lorextechnology.com

Connecting to your System using an Android Tablet

1 Download the **Lorex netHD Stratus Plus** app for free from the Google Play Store.

NOTE: For support on downloading or installing Android apps, consult your Android device's user's manual or the manufacturer's support site.

2 Touch the **Lorex netHD Stratus Plus** icon ( ).

3 Touch .

4 Touch **+**.

5 Under **Name**, enter a name for your NVR of your choice (e.g. home or office).

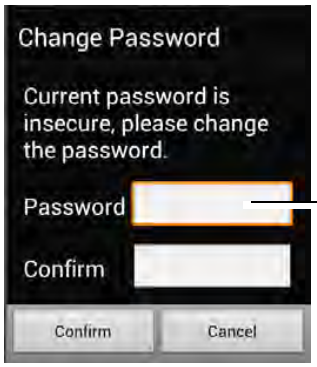
6 Press next to **Device ID** and then line up the QR code on the top of the NVR with the camera on your device.

OR,
If your device does not have a camera, manually enter the **Device ID** printed on the label.

NOTE: If you have changed the User Name, Password, or Client Port from the defaults, you will need to update them.

7 Tap **Save**.You will be prompted to change the NVR password.

8 Enter a new 6 character password for the NVR and then press **Confirm**.

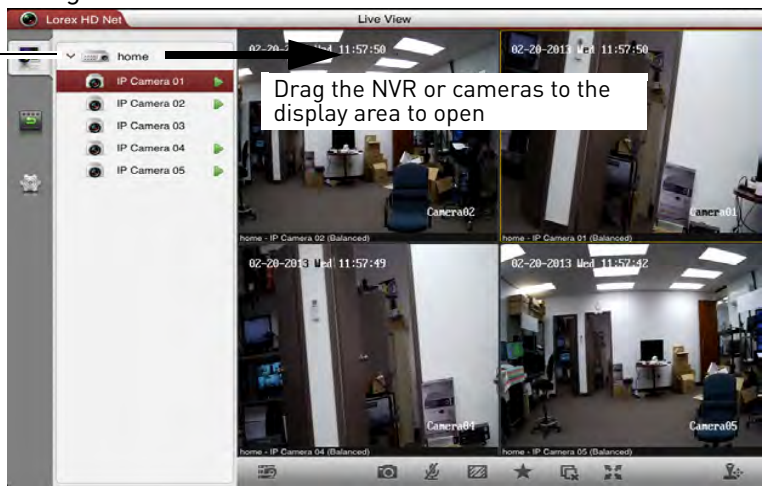


Enter a new 6 character password and then press Confirm

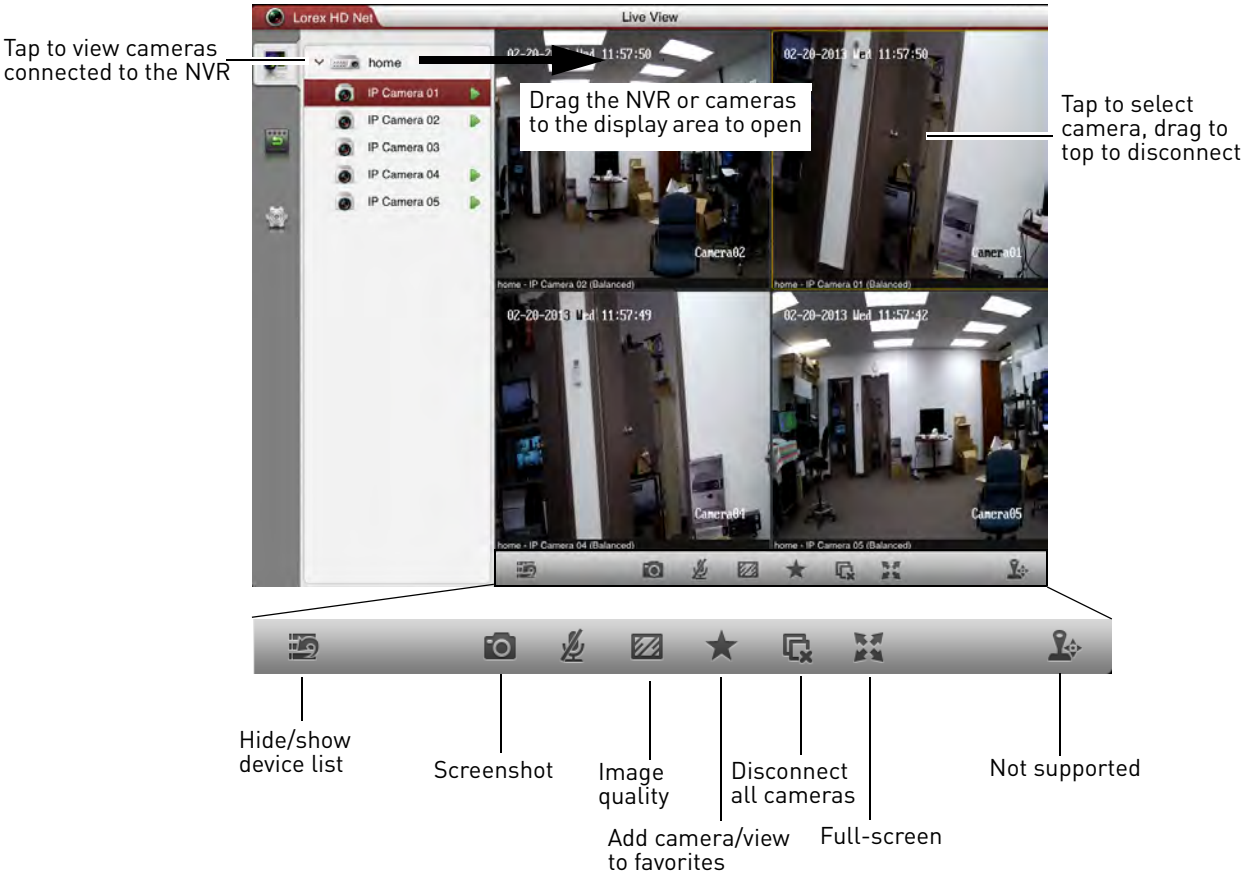
9 Tap to go to Live View.

10 Press and drag the NVR to the viewing area to open all connected cameras, or drag individual cameras to the viewing area to view them.

Tap to view cameras connected to the NVR



Live View



Playback

You can playback video recorded on your NVR from your Android tablet.

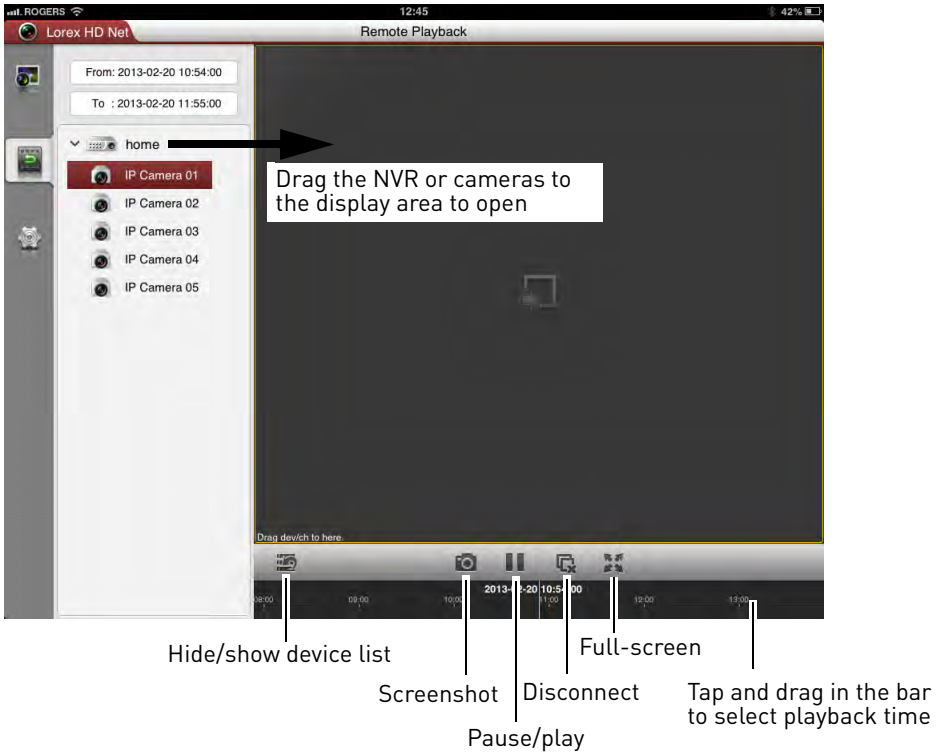
To access playback mode:

1 Touch .

2 Tap **From** and press **+** and **-** to adjust the start time for your search.

3 Tap **To** and use the sliders to adjust the end time for your search.

4 Drag the NVR or camera to the display area to start playback. Use the on-screen controls.



Device List

Use the Device List to manage your NVRs.

To access Device List:

- Touch .

Deleting NVRs

- Tap next to the NVR you would like to delete. Tap **Confirm**.

Modifying NVRs

1 Tap the NVR you would like to edit.

2 Tap **Edit**. Modify the connection details as needed.

3 Tap **Save** to save changes.

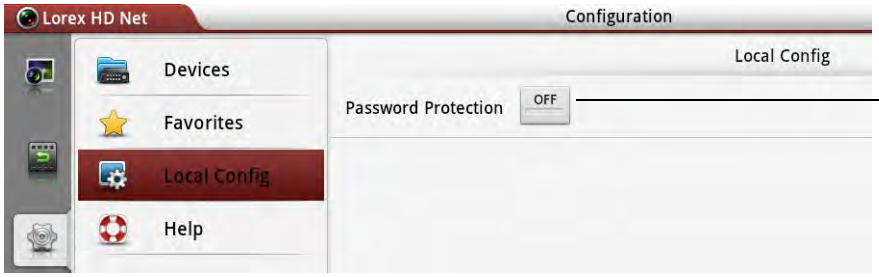
Local Config

The Local Config menu allows you to enable passwords for the app.

To enable passwords:

1 Touch then **Local Config**.

2 Tap the button next to **Password Protection**.



Press to enable a password to access the app

3 Enter a password and press **Confirm**. The app will now ask for a password when it opens.

Appendix A: System Specifications

SYSTEM	
Operating System	Linux (embedded)
Pentaplex	Simultaneous View, Record, Playback, Backup & Remote Monitoring
Number of Channels	4/8/16 Channels
INPUTS/OUTPUTS	
Video IN	4ch: 4ch PoE Video Input , 8/16ch: 8ch PoE Video Input
VGA Out	1-ch, resolution:1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 × 768 /60Hz
HDMI	1-ch, resolution:1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 × 768 /60Hz
Audio IN	1-ch, RCA (2.0 Vpp, 1kΩ)
Audio Out	1-ch, RCA (Linear, 1kΩ)
USB Port	2USB Interface; 1 at the back., 1 at the front
PTZ control	RS-485
DISPLAY	
Live Display	4ch: Up to 4, 8ch: Up to 8, 16ch: Up to 16
Live Display Speed	120 (4 ch)/ 240 (8 /16ch)
OSD	Configurable
System Navigation	USB Mouse, IR Remote Controller
Motion Area Setting	Adjustable grid (22 x 18)
Sensitivity levels	7
Firmware Upgrade	Via USB device and Network
Software Upgrade	Via Lorex website
User Authority	Configurable
Time Synchronization	Auto time sync by NTP server
RECORDING	
Audio Compression	G.711
Recording Resolution	1080P/720P
Recording Speed	4ch: 120fps @ 1080P, 8/16ch: 240fps @ 1080p
Recording Quality Control	6 levels
Recording Schedule	By hour, by day, by recording mode, by motion, by ch
Pre Recording	Max. 30 Secs
Post Recording	Max. 10 Minutes
Reliability	Watch-Dog, Auto-recovery after power failure
PLAYBACK	
4 Channel	Max 4ch
Playback Speed	Variable Max 8x
Playback Players	Backup Player, Client Software
Search	By time & event & tag
Log Search	Up to 2,000 lines for motion detected, configuration changes, connects/disconnects and video loss.
STORAGE & ARCHIVE	
Storage	4/8 /16ch: Up to 2 HDD's (SATA)
Maximum Capacity	4/8/16ch: Up to 8TB (2 x 4TB)
Backup Media	USB Flash Drive & USB HDD
Backup File Format	MP4

CONNECTIVITY	
Cloud Connection	Lorex Stratus Connectivity
Supported Operating Systems	**Windows**™ 7 , 8 **Mac** OSX Snow Leopard 10.6 or above
Browsers	Internet Explorer & Safari & Chrome & Firefox
Email notification	Text with picture attached
Smart Phone Compatibility[1]	Smart Phone & Tablet Compatibility: iPad®, iPhone®, Android Tablet (3.2 & above), Android phone (version 2.3 & above)
DDNS	Lorex DDNS, IPServer, DynDNS, PeanutHull, NO-IP
System Configuration	Full setup configuration over network
Ports	Programmable by User
Network Protocol	TCP/IP protocol, PPPoE, DHCP, DNS, DDNS, NTP, SMTP, NFS, UPnP
Network Interface	1 RJ45 10 /100 /1000 Mbps self-adaptive Ethernet interface, 4/8 independent 10 /100 Mbps PoE Ethernet interfaces
GENERAL	
Power Consumption	≤ 15 W (without hard disk)
Supply Voltage	100~240VAC, 47~63Hz, 3A
Unit Dimensions (W x D x H)	445 × 290 × 45mm
Unit Weight (KGs)	≤ 2 Kg (without hard disk)
Operating temperature	-10 ℃ ~ +55 ℃
Humidity	10 % ~ 90 %

As our products are subject to continuous improvement, Lorex Technology Inc. and its subsidiaries reserve the right to modify product design, specifications, and prices without notice and without incurring any obligation. *E&OE*

Appendix B: Installing or Replacing the Hard Drive

The system comes with a pre-installed 3.5" SATA hard drive. You can expand the system with up to two hard drives with a maximum capacity of **4TB** each (for a maximum storage space of **8TB**).

NOTE: It is recommended to use surveillance or security-certified hard drives, which are designed to be reliable over long periods of time while recording 24/7. Security-certified hard drives are available at www.lorextechnology.com

Installing the Hard Drive

Make sure that the power cable has been disconnected before changing the hard drive.

To install a hard drive:

1 Remove the screws from each side panel (x3) and the top of the rear panel (x2) of the cover.

Side panel screws

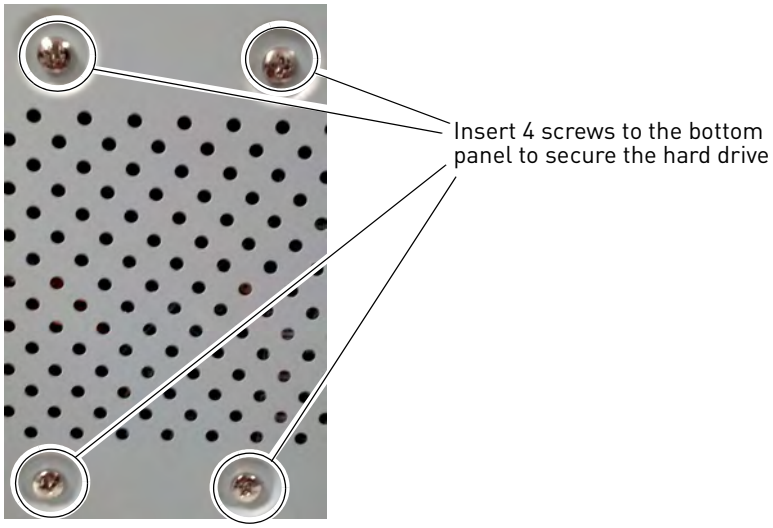
Rear panel screws

Do not remove the other screws on the rear panel.

2 Gently slide the cover away from the rear panel and lift off. Be careful of sharp edges.

3 Connect the power and data cables to the hard drive.

4 Turn the NVR over and insert 4 screws to secure the hard drive. **Make sure to hold the hard drive in place while turning the NVR to avoid damaging the NVR.**



5 Turn the NVR back over and replace the cover. Replace the side panel and rear panel screws.

Removing the Hard Drive

> ⚠ Make sure that the power cable has been disconnected before changing the hard drive.

To remove the hard drive:

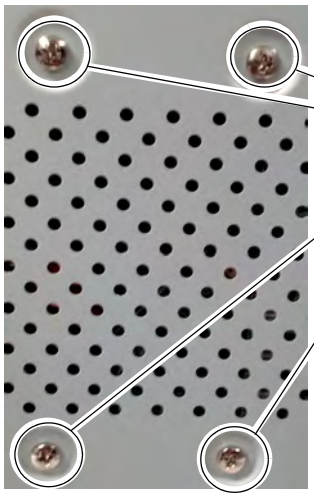
1. Remove the screws from the back (x2) and side panels.
2. Remove the screws from each side panel (x3) and the top of the rear panel (x2) of the cover.

Side panel screws

Rear panel screws

> ⚠ **Do not remove the other screws on the rear panel.**

3. Disconnect the power and data cables from the hard drive.
4. Turn the NVR over and remove the 4 hard drive screws. Remove the hard drive from the system. **Make sure to hold the hard drive in place while removing the screws to avoid damaging the NVR.**



Remove the screws to remove the hard drive

5. Turn the NVR back over and replace the cover. Replace the side panel and rear panel screws.

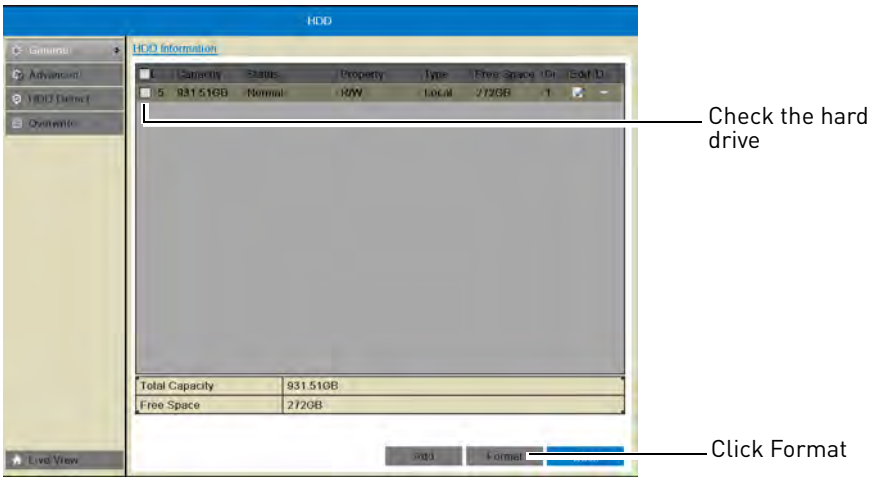
Formatting the Hard Drive

If you replace the pre-installed hard drive or install a new hard drive, it *must* be formatted in order to function properly with the system.

> **ATTENTION**: Formatting the HDD erases **all data** on the hard disk.
> **This step cannot be undone.**

To format the hard disk:

1. Right-click and then click **Menu.**
2. Enter the system user name (default: **admin**) and password (default: **000000**) and click **Yes**.
3. Click **HDD→General**.
4. Check the hard drive that you would like to format.

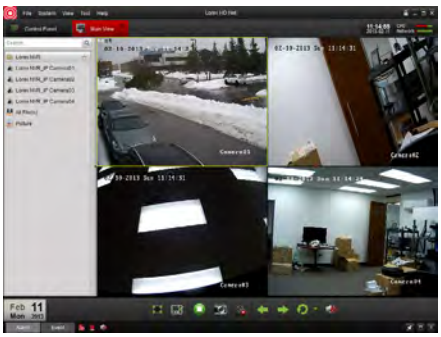


5. Click **Format**. Click **OK** to confirm. Wait for the formatting to complete. Right-click repeatedly to return to live view.

NOTE: You will notice that the size of the HDD and the free space are not the same. The system uses a portion of the disk space for the operating system and initialization. This is common in all security NVRs as well as computer hard drives.

Appendix C: DDNS Setup (Advanced)

Free Lorex DDNS service is available as an optional connectivity method to connect to your system over the Internet. DDNS Service is not required to connect to your NVR, since the system supports the new Lorex Stratus cloud connectivity solution. For details on setting up your system using Lorex Stratus, see "Connecting to Your NVR Over the Internet on PC or Mac" on page 83.



Client Software for PC

For details on navigating the client software, see "Client Software for PC or Mac" on page 87.

System Requirements

Prior to using Lorex Client Software, make sure your system meets or exceeds the following system requirements:

Description	Requirement
CPU	Core 2 Duo 3.0GHz
Operating System	Windows™ 8/7/Vista
Memory	2GB
Video	512 MB of video memory and above
Network (LAN)	10/100 BaseT Network
Network (WAN)	1 Mbps upstream High-speed Internet service is required to remotely connect to your system.

NOTE: If a user connects to the system remotely, there may be slow performance when accessing the system locally. This is normal, and not a malfunction.

For the latest compatibility list, check www.lorextechnology.com, as new software versions are released to the market.

Accessing your NVR within a local network (LAN)

You can connect to your NVR on the local area network (LAN). It is recommended to confirm connectivity over a local network before setting up your NVR for Internet connectivity.

NOTE: To complete the steps below, your computer must be on the same network as your NVR.

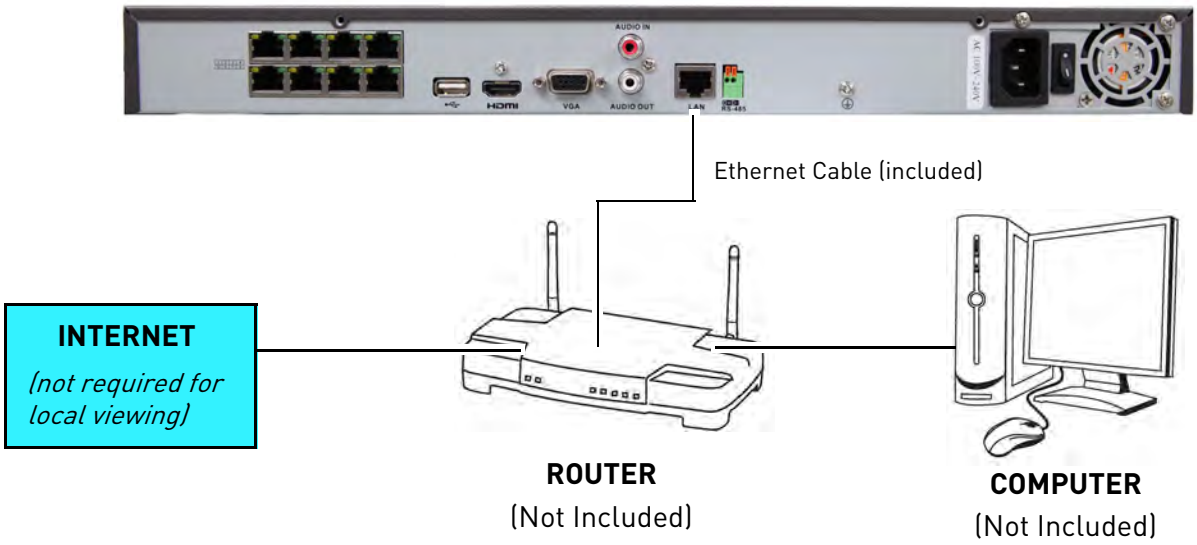
Step 1 of 3: Connect your NVR to the Local Area Network

1 Power off your NVR by turning the power switch to ●.

2 Connect an Ethernet cable (included) to the **LAN** port on the rear panel of the NVR. Connect the other end of the Ethernet cable to an empty LAN port (usually numbered 1~4) on your router.

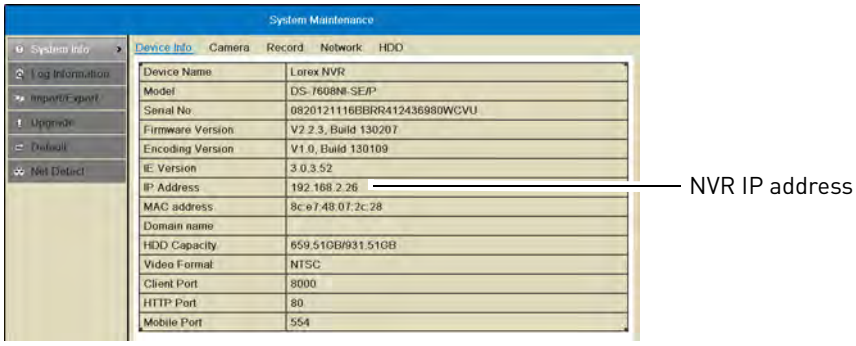
3 Turn the power switch to **I** to power the NVR back on.

8-channel model shown



Step 2 of 3: Obtain the NVR's Local IP Address

1 Right-click and select **Information** to open the System Information window.



2 Write down the **IP Address**.

Step 3 of 3: Connect to the NVR on the Local Area Network

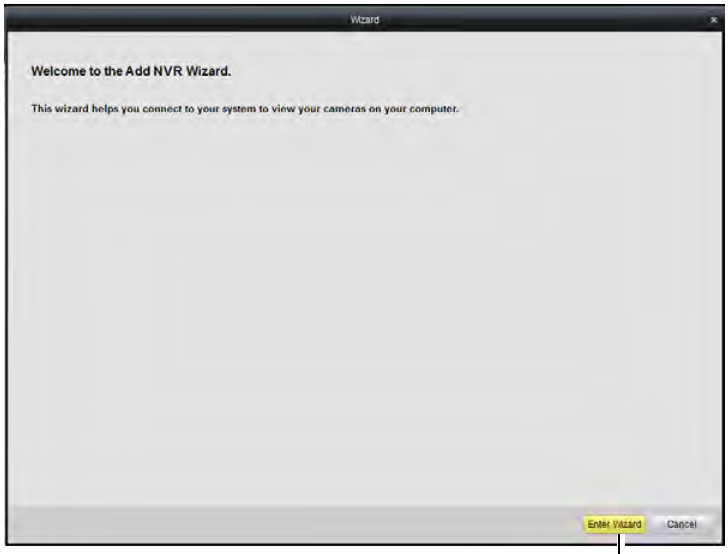
Follow the steps below to confirm connectivity over a local network on a PC.

To connect to the NVR on the LAN using a PC:

1 Install the **Client Software for PC** from the CD or download the client software for free from www.lorextechnology.com.

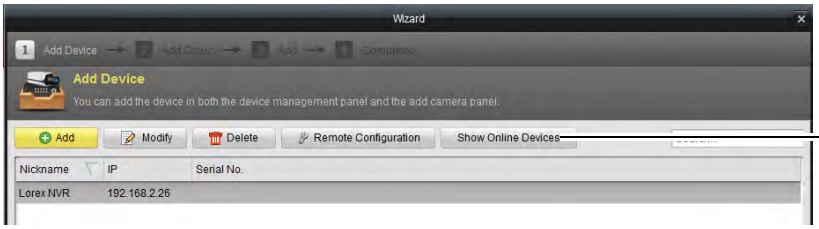
2 Double-click the **Lorex netHD Client** icon from the desktop ( ). The client software opens to the Add NVR Wizard.

3 Click **Enter Wizard**.



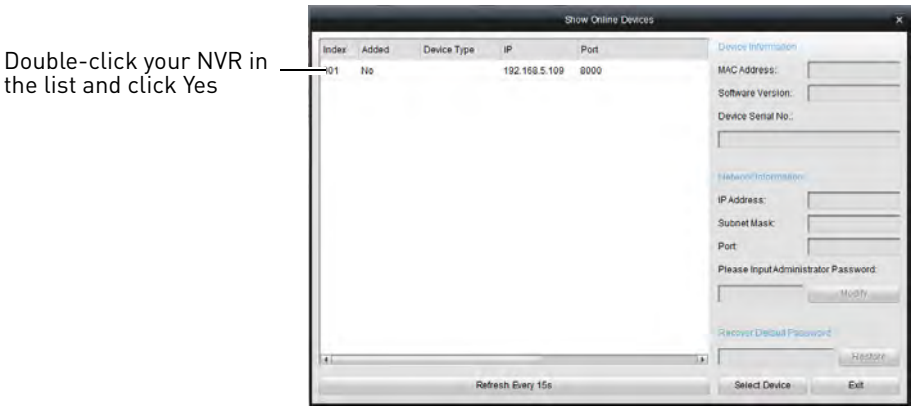
Click Enter Wizard

4 Click **Show Online Devices**. The client software scans for NVRs on your network.



Show Online Devices

5 Double-click your NVR in the list and click **Yes**. The Add Device screen opens and populates the NVR's IP Address, Port, User Name, and Password.

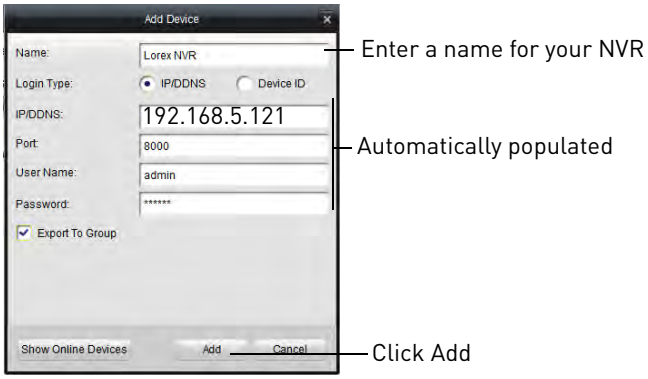


NOTE: If you have changed the User Name, Password, you must enter your new User Name and Password.

NOTE: If your NVR does not appear in the list, click **Exit→Add**. Then enter the IP Address you recorded previously under **IP/DDNS** and go to step 6.

6 Under **Nickname**, enter a name for your NVR of your choice (e.g. home, business, etc.).

7 Click **Add**.



8 If this is the first time connecting to your system, you will be prompted to change the password. Enter a custom 6 character password and then click **Yes**.

9 Click **Next** 3 times, then click **Finished** to complete the Wizard. The Client Software opens to Main View and streams live video from your cameras.

Accessing your NVR Remotely over the Internet

Setting up remote connectivity allows you to view your NVR from any computer or compatible mobile device with Internet access.

To set up remote connectivity with your NVR, you must:

1 Port forward the HTTP, Client, and Mobile ports (default: **80, 8000, and 1025**) on your router to your NVR's IP address.

2 Create a DDNS account.

3 Enable DDNS on the NVR.

4 Test the remote connection by connecting to the NVR's DDNS address.

Step 1 of 4: Port Forwarding

You **must** port forward the HTTP, Client, and Mobile ports (default: **80, 8000, and 1025**) on your router to your NVR's IP address before you can remotely connect to your system. There are several methods to port forward your router:

- Use the **Lorex Easy Connect Auto Port Forwarding Wizard** (PC only) to port forward the required ports (see www.lorextechnology.com for details).
- Manually port forward the required ports on your router to your NVR's IP address by following your router manufacturer's instructions. For more information on port forwarding, see the reference guides on www.lorextechnology.com.

NOTE: If the above ports are not forwarded on your router, you will not be able to access your system remotely.

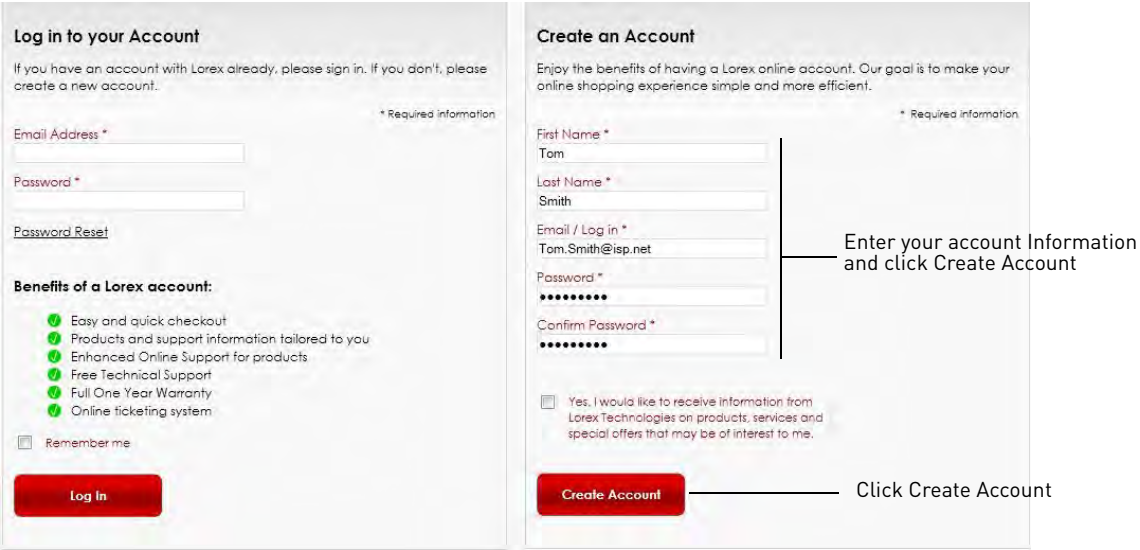
Step 2 of 4: Create a DDNS Account

Lorex offers a free DDNS service for use with your system. A DDNS account allows you to set up a web site address that points back to your local network. This allows you to connect to your system remotely. **You must create a DDNS account in the same network as your NVR.**

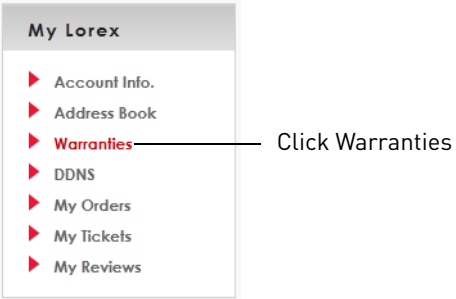
To setup your free Lorex DDNS account:

1 In your browser, go to http://www.lorexddns.net and click **Step 1**.

2 The My Lorex account login screen opens (if you are already logged in, skip to step 4). Create a new account or log into an existing account. To create a new account, fill in the required fields on the right and click **Create Account**.



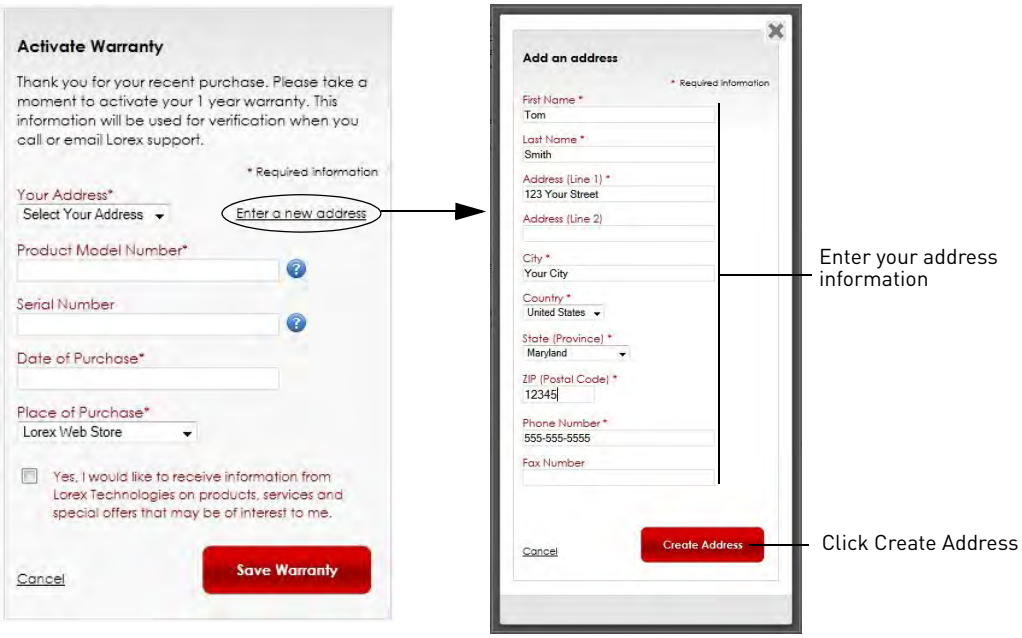
3 Click **Warranties** to register your product for warranty.



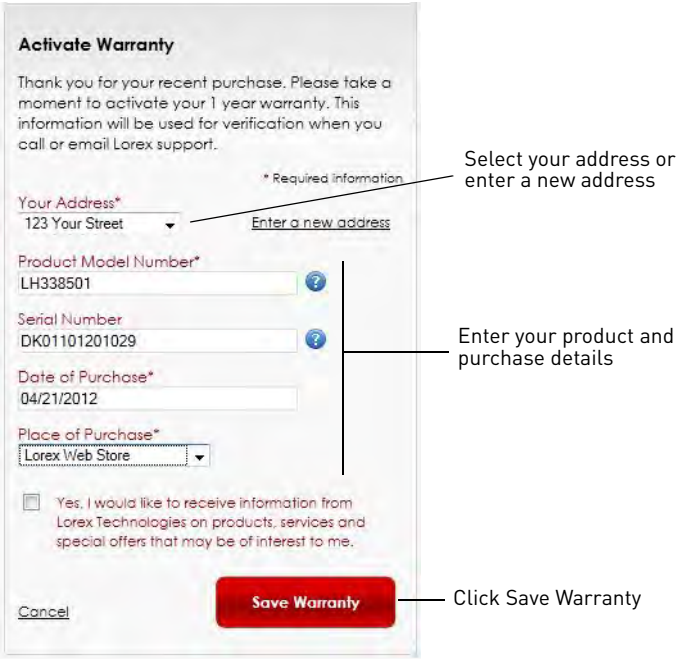
NOTE: Warranty registration is required to register for DDNS.

4 The Warranty page opens. Click **Activate Warranty** to register your product for warranty.

5 Under Your Address, select an address or click **Enter a New Address** to create a new address. Fill in your address information and click **Create Address**.

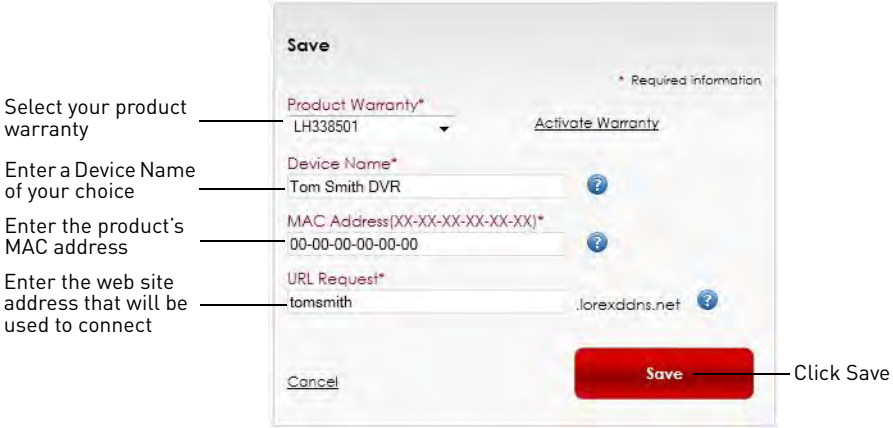


6 Fill in the warranty registration form with your product and purchase details. Check the sticker underneath your NVR for the Product Model Number and Serial Number. Click **Save Warranty**.

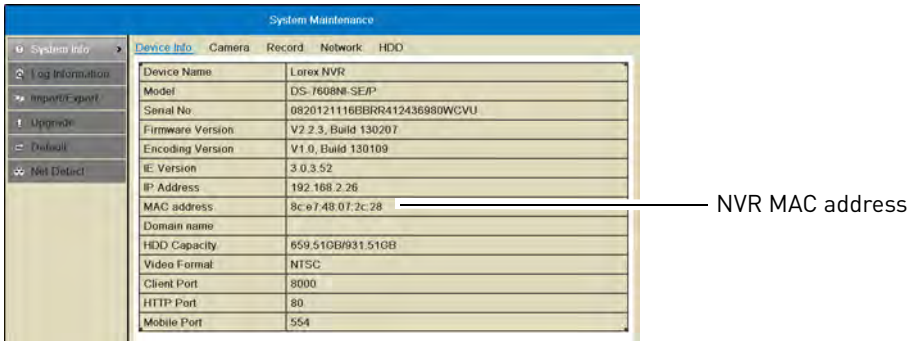


7 A page pops up to prompt you to register your product for Lorex DDNS. Click **Set Up a New DDNS**.

8 Configure the following:



- **Product Warranty:** Select the product warranty you created in the previous steps.
- **Device Name:** Enter a name for your device. You can enter your name, business name, or anything of your choice. This is used to identify this device in your list of activated DDNS accounts that appears anytime you visit the DDNS page.
- **MAC Address:** Enter the MAC address of your Lorex product. Right-click and select **Information** to find your MAC address. A MAC address is a permanent, unique 12-digit address used to identify a device on a network.



- **URL Request:** Enter the web site address that will be used to connect to your Lorex product. For example, if you enter *tomsmith*, the address to access your video will be *tomsmith.lorexddns.net*.

9 Click **Save** to register your product for DDNS. A confirmation email will be sent to the email address used to register for My Lorex.
You will need this information to enable remote access to your system. Record your information below:

Domain name/URL Request: _

DDNS User Name: _

Device DDNS password: _

Step 3 of 4: Enable DDNS on the NVR

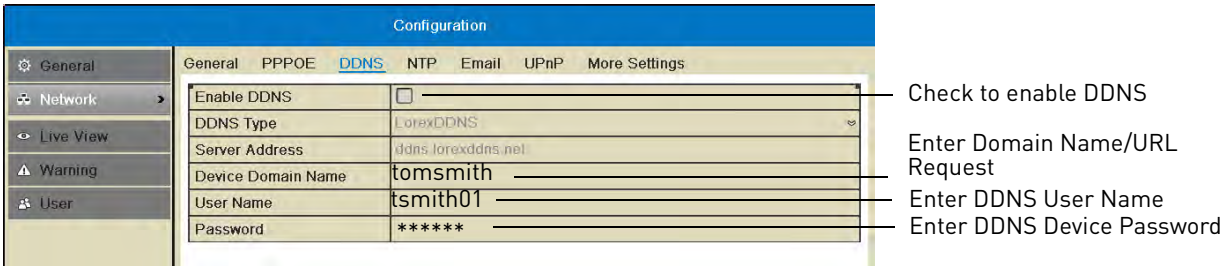
To enable DDNS on your NVR:

1 Right-click and then click **Menu→Configuration→Network→DDNS**.

2 Check **Enable DDNS**.

3 Configure the following:

- **DDNS Type:** Select **LorexDDNS**.
- **Device Domain Name:** Enter the **Domain Name/URL Request** you received in the confirmation email after you set up your DDNS account.
- **User Name:** Enter the **DDNS User Name** from the confirmation email.
- **Password:** Enter the **DDNS Device Password** from the confirmation email.



4 Click **Apply** to save changes. Right-click repeatedly to return to live view.

Step 4 of 4: Connect to the DDNS Address in the Client Software

NOTE: Please allow 10~15 minutes for the DDNS servers to update with your new DDNS address before attempting to connect.

Finally you must connect to the NVR's DDNS address. **You will use the DDNS address whenever you want to connect to your NVR over the Internet.**

To connect to the NVR's DDNS address:

1 Install the **Client Software for PC** on a remote computer, and double-click the desktop icon ( ) to open.

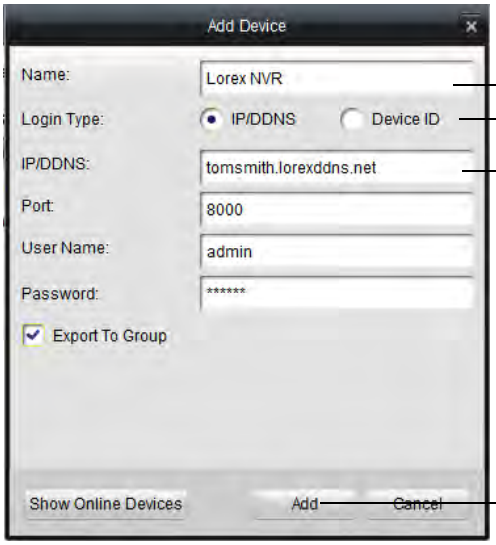
2 The Add NVR Wizard opens. Click **Enter Wizard**.

NOTE: If the Add NVR Wizard doesn't open, click **Help→Open Wizard**.

3 Click **Add**.

4 Configure the following:

- **Nickname:** Enter a name for your NVR of your choice (e.g. home or office).
- **Login Type:** Select **IP/DDNS**.
- **IP/DDNS:** Enter the **Domain Name/URL Request** from the confirmation email, followed by **.lorexddns.net**. For example, if your Domain Name/URL Request is *tomsmith*, enter *tomsmith.lorexddns.net*.



NOTE: If you have changed the Client Port, User Name, or Password from the defaults, you must update them to connect to the NVR.

5 Click **Add**.

6 Click **Next** 3 times, then click **Finished**. The NVR opens in Main View and streams video from your cameras.

NOTE: If Main View does not open, click **Control Panel→Main View** to open the Main View menu.

Appendix D: Connecting to your NVR Using a Web Browser

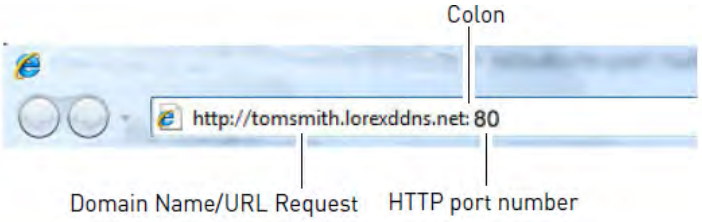
The NVR includes a built in web browser software. You can connect to your NVR in Internet Explorer 8 and above, Apple Safari, Mozilla Firefox, and Google Chrome.

NOTE: In order to connect to your NVR using a web browser, you must complete port forwarding and DDNS setup. Complete all the steps under "Appendix C: DDNS Setup (Advanced)" on page 160.

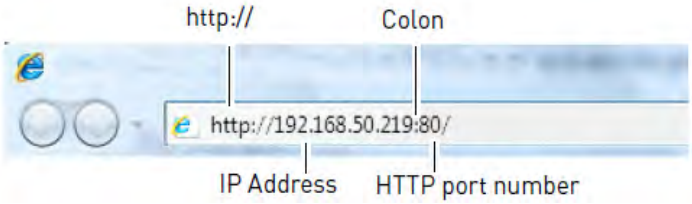
Connecting to your NVR Using a DDNS or Local IP Address

You must enter your NVR's DDNS or Local IP address in the address bar to connect using a web browser.

- A DDNS address is formatted **http://**, the **Domain Name/URL Request** you received in the email after registering for your DDNS account, followed by **.lorexddns.net**, **colon** (**:**), and the **HTTP port** of your NVR (e.g. *http://tomsmith.lorexddns.net:80*). A DDNS address is required to connect to your NVR over the Internet.



- The local IP address is formatted **http://**, the **IP address** (can be found by right-clicking and selecting **Information**), **colon** (**:**), and the **HTTP port** of your NVR (e.g. *http://192.168.50.219:80*). You may only connect to the local IP address of the NVR within your own local network.



Connecting Using Internet Explorer

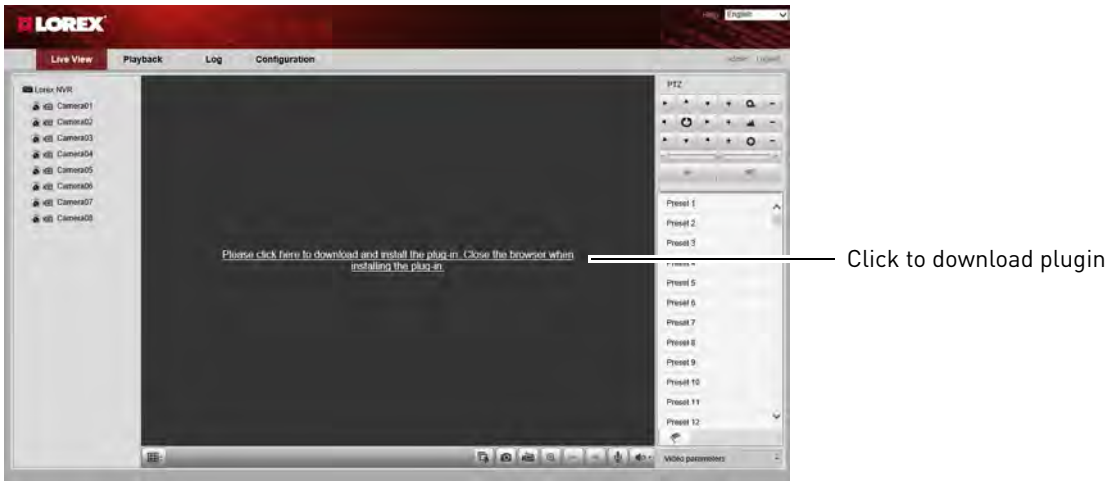
NOTE: The steps below describe how to connect to the NVR in Internet Explorer 9 or 10. The steps may vary for earlier versions of Internet Explorer.

1 Open Internet Explorer and enter the NVR's **DDNS address** or **local IP address** in the address bar. For details, see "Connecting to your NVR Using a DDNS or Local IP Address" on page 170.

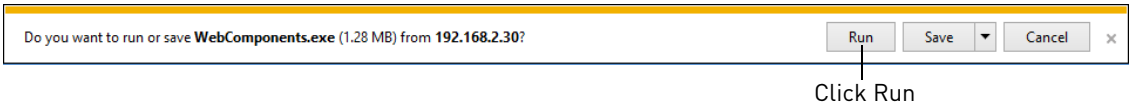
NOTE: It is recommended to select **Run as Administrator** when opening Internet Explorer. This will allow you to save screenshots and video files to your computer hard drive.

2 Enter the **User Name** and **Password** for the NVR and click **Login**. By default, the user name is **admin** and the password is **000000**.

3 The live viewing interface appears and prompts you to install a plug-in. Click the message to download.



4 An attention bar appears to ask you to install a web plug-in. Click **Run**. Follow the prompts to install the plug-in.



5 After installing the plug-in, restart Internet Explorer and re-enter the address for the NVR. Log in again if needed. Another attention bar appears, click **Allow** to allow Internet Explorer to run the plug-in.

6 The live viewing interface opens and streams live video from your cameras.

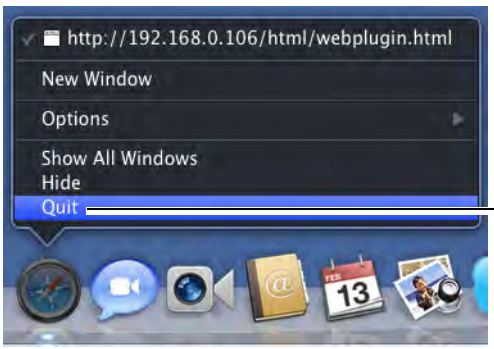
Connecting Using Safari

You must download plug-ins from www.lorextechnology.com to view your cameras in Apple Safari.

To connect to your NVR in Safari:

1 Download and install the **Safari Plug-in** from www.lorextechnology.com.

2 You must quit Safari to complete the installation. Hold right-click on the Safari icon in the Dock and select **Quit**.



3 Open Safari and enter the NVR's **DDNS address** or **local IP address** in the address bar. For details, see "Connecting to your NVR Using a DDNS or Local IP Address" on page 170.

4 Enter the **User Name** and **Password** for the NVR and click **Login**. By default, the user name is **admin** and the password is **000000**.

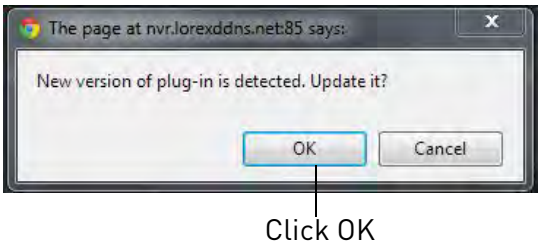
5 The live viewing interface opens and streams live video from your cameras.

Connecting Using Chrome/Firefox

1 Open Chrome or Firefox and enter the NVR's **DDNS address** or **local IP address** in the address bar. For details, see "Connecting to your NVR Using a DDNS or Local IP Address" on page 170.

2 Enter the **User Name** and **Password** for the NVR and click **Login**. By default, the user name is **admin** and the password is **000000**.

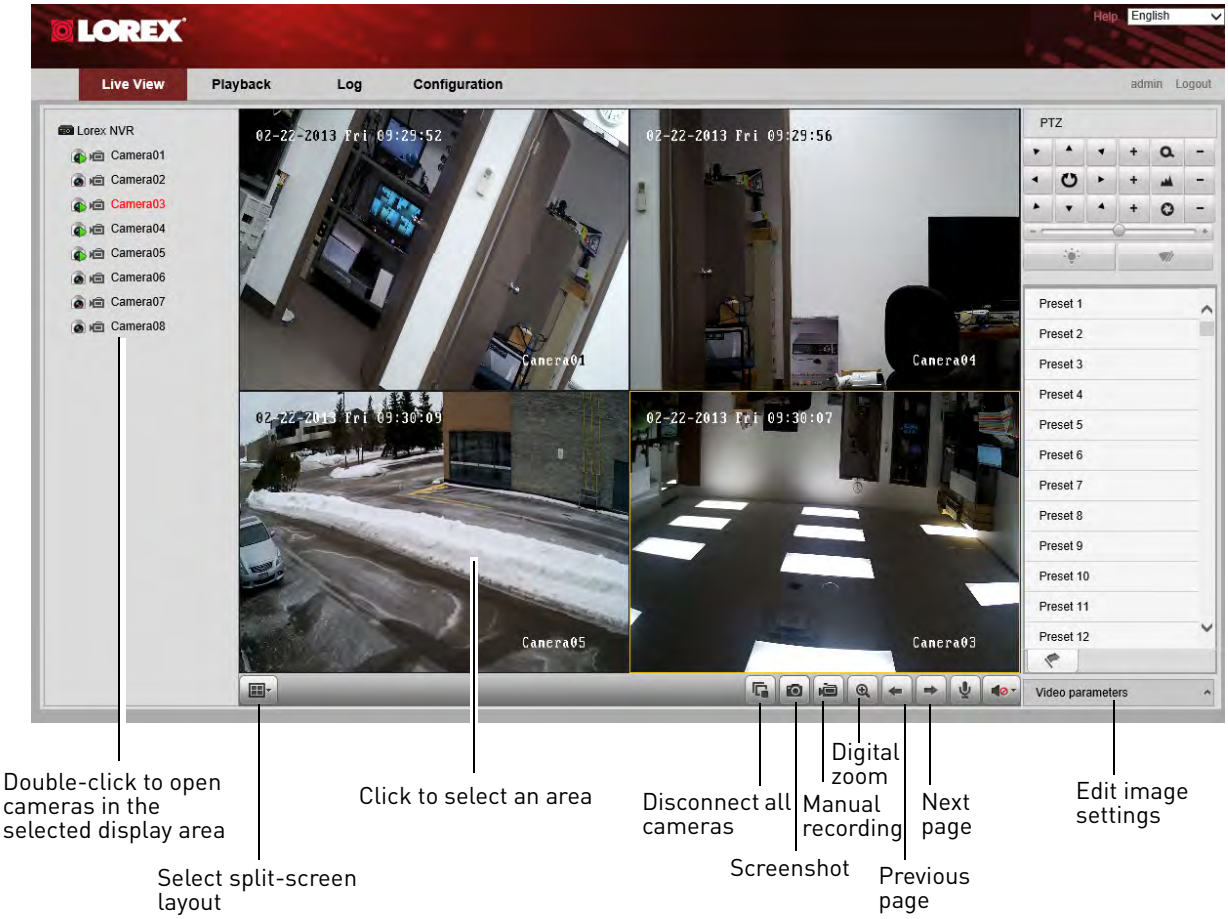
3 You are prompted to install a plug-in. Click **OK** to download the plug-in.



4 Install the plug-in and then restart your browser.

5 Re-enter the address for your NVR. Log in again if needed. The live viewing interface opens and streams live video from your cameras.

Navigating the Web Browser Interface



NOTE: To view or change where screenshots or manual recordings are saved, click **Configuration→Local Configuration**.

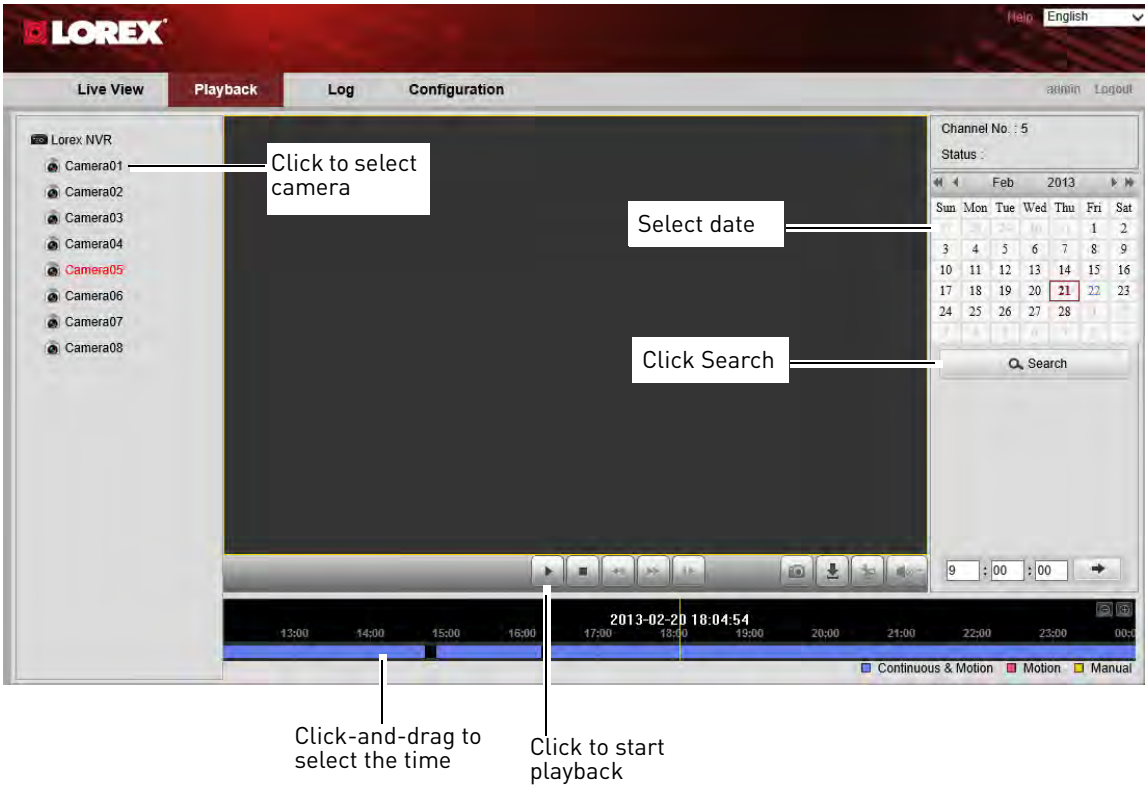
Web Browser Remote Playback

You can playback recorded files from your NVR on a web browser.

To access playback mode:

1. Click the **Playback** tab.
2. Click a camera to select.
3. Select the date you would like to playback in the calendar.
4. Click **Search**.
5. Click-and-drag the time bar to select the playback time.

6 Click ▶ to begin playback.



Troubleshooting

When a malfunction occurs, it may not be serious and can be corrected easily. The following describes the most common problems and solutions. Please refer to the following before calling Lorex Technical Support:

Error	Possible Causes	Solutions
• System is not receiving power, or is not powering up	• Power cable is loose or is unplugged	• Confirm that all cables are connected correctly • Confirm that the power cable is securely connected to the back of the unit
	• Power switch is set to OFF (•) position	• Confirm that the power switch is in the ON (I) position.

	• Cables are connected, but system is not receiving sufficient power	• Confirm that the system is powered on (LED indicators on the front should be ON)
		• If the unit is connected through a power bar or surge protector, try bypassing the bar and connecting the power directly to the wall outlet
		• Confirm that there is power at the outlet:
		  • Connect the power cable to another outlet
		  • Test the outlet with another device (such as a lamp or phone charger)

• Remote control is not detected	• Battery in the remote control is drained	• Install two fresh AAA alkaline batteries in the remote control
	• There are no batteries in the remote control	
• Hard drive is not detected by the system	• Hard drive cables are loose or not properly connected	• Remove the housing and check that hard drive cables are firmly connected
	• There is no hard drive in the system	• Open the housing and install a 3.5" SATA hard drive. For details, see "Appendix B: Installing or Replacing the Hard Drive" on page 156. Make sure to format the drive after installing.
• Hard drive is full and the unit is no longer recording	• Overwrite is not enabled	• Right-click and click Menu→HDD→Overwrite. Ensure Overwrite is checked and click Apply.
• There is no picture on monitor/TV after connecting it to the NVR	• Monitor/TV not detected by NVR	• Power off the monitor/TV and NVR. Power on the monitor/TV, and then power on the NVR
	• Input channel for NVR not selected on monitor/TV	• On the monitor/TV, select the input channel the NVR is connected to
	• Video cable is loose or has become disconnected	• Check the video cable connection to the NVR and monitor/TV

Troubleshooting (Continued)

Error	Possible Causes	Solutions
• Mouse not detected by system	• Mouse cable is not firmly connected to the system	• Firmly connect the mouse cable to the USB Mouse port on the front panel
	• Mouse is not connected to the system	
	• System needs to be reset	• Power off the system using the power switch. Firmly connect a USB mouse to one of the USB ports. Power the system back on.
• There is no picture on selected channels / camera picture is not being displayed	• Cameras may take up to 1 minute to power up after connection	• After connecting the camera to the NVR, wait up to 1 minute. If there is still no picture, follow the troubleshooting steps below.
	• Camera cables have become disconnected	• Check the Ethernet cable connection at the camera and system end • Disconnect and reconnect the cable at the system and at the camera • Try moving the camera to another channel or use another cable
	• Syncronize IP Camera is not checked or other NVR settings have been changed	• Right-click and then click Menu→Camera. Ensure Syncronize IP Camera is checked. • Reset the NVR to Factory Default Settings. Right-click and then click Menu→Maintenance→Default. Click OK to reset the NVR to factory default setting. **WARNING:** This will erase all configuration changes you have made to the system. It should be done as a last resort to ensure that no settings have been changed that may affect camera connectivity.
• The system beeps at startup		• The beep at startup is normal
• The system beeps during motion detection	• Motion detection is enabled and the alarm Audible Warnings are activated	• To disable the Audible Warnings for motion detection, see "Configuring Motion Detection Alarm Settings" on page 59.
• I am not receiving email notifications	• Email notification is disabled	• Ensure you have configured email notification. For details, see "Configuring Email Alerts" on page 70
	• Default setting is disabled, but you have not entered your own SMTP information	• If you want to use your own SMTP server, select the Enable box, and enter your SMTP Server address, Port, User name, and Password in the respective fields