



**OnSSI** On-Net Surveillance Systems Inc.

# **NetDVR** Rev 4.6

**IP-Based Video Surveillance Management System**

**Quick-Start Guide**

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**Table of Contents**

INTRODUCTION..... 3

INSTALLING THE SOFTWARE ..... 3

RETRIEVING DEVICE LICENSE KEYS..... 3

IMPORTING DEVICE LICENSE KEYS ..... 4

SELECTING SOFTWARE MODE ..... 4

ADDING A DEVICE ..... 4

CONFIGURING THE MONITOR LAYOUT..... 5

ARCHIVE SETUP: ..... 5

CONFIGURING A CAMERA..... 6

VIDEO MOTION DETECTION SETTINGS..... 6

IMAGE SERVER ADMINISTRATOR (NETGUARD CLIENT) ..... 7

REMOTE ACCESS SERVERS..... 8

UNINSTALLING THE SOFTWARE ..... 8



## Introduction

With the purchase of ONSSI's **NetDVR** you have chosen an extremely powerful and intelligent surveillance solution.

This Quick Start Guide will explain how to install and set up the basic functions of the software. A manual covering all functionality is available on the software CD and on our website.

Please check our website [www.onssi.com](http://www.onssi.com) for updates to make sure you install the most recent version of our software and camera driver packs.

## Installing the Software

Please read the License Terms on the enclosed Product License Sheet before continue installation of your OnSSI software.

- If you are installing from a CDROM, run the autorun.exe file if it has not started automatically.
- If you downloaded the software from the web, run the NETDVRxxx.exe file from the location you downloaded the software.
- Click Install to install the NetDVR.
- Click Next to continue the installation.
- Please read and accept the License Agreement.
- Select Licensed Version option, and then click Next.
- Please type in your Serial Number (Software License Code) as listed on your Product License Sheet.
- Choose Installation Path, and then click Next.
- Select Program Folder for the ONSSI shortcuts, click Next.
- Select if you want to have shortcuts to be placed on the desktop (default is Yes), and if the HTTP/RealtimeFeed Servers should be added to the startup folder (default is No). Then click Next.
- Click *Finish* to complete the installation.



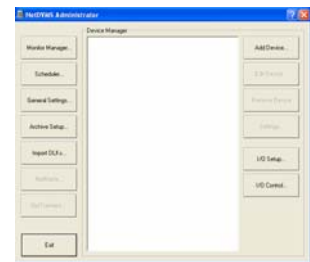
## Retrieving Device License Keys

For each device (IP network camera or IP network video server) to be installed in the NetDVR software, a Device License Key (DLK) must be obtained from On-Net Surveillance Systems.

- Locate your Software License Code.
- Gather all the MAC addresses of the devices to be licensed.
- The MAC address asked for is a 12 digit hexadecimal (numbers 0-9 and letters A-F) and is by some manufacturers referred to as a 'Serial Number'. The MAC address is often written on the device itself. If not, please refer to the device manual to learn how to find the MAC address.
- Go to <http://onssi.com/support/licensing.php>.
- Fill out the licensing form; please be sure to include your SLC and all your MAC addresses. To ensure a timely response, please also include your complete name, address and phone number.
- An email will be sent from support with your Device License Keys.

## Importing Device License Keys

- The DLKs received in the email from support can be typed in manually when adding each device to the NetDVR software.
- To avoid having to type in each DLK manually, save the file attached to the email on a location of your choosing - for example on a floppy disk.
- Open the NetDVR Administrator by selecting *Start, Programs, NetDVR, Administrator*, then click the *Import DLKs* button.
- Browse to the location where you have placed the .DLK file. Select the file, and then click *Open*.
- All Device License Keys from the file are now imported and do not need to be typed in manually.



## Selecting Software Mode

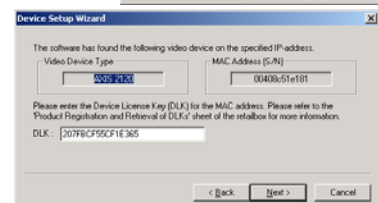
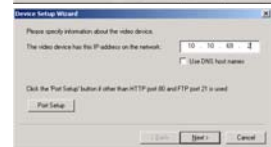
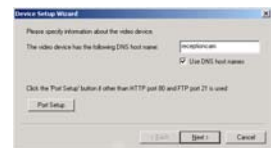
The NetDVR software runs in two modes:

- Console mode; when there IS a need to view live or playback video directly on the workstation screens. The video can also be accessed using the NetGuard or the NetDVR Web Server.
- Server mode; when there IS NO need to view live or playback video directly on the server running the software. All viewing is done via the NetGuard or the NetDVR web server. Running the software in 'server mode' greatly reduces the load on your server and is strongly advised if live video does not need to be viewed directly off of the server.

To enable 'server mode': in the NetDVR Administrator go to General Settings and check the 'disable screen update' box. If running in 'console mode' no changes to the software need to be made.

## Adding a Device

- Configure the IP address, password, etc. for the device as described by the manufacturer.
- Click the *Add Device...* button in the Administrator Main Window.
- Enter the device IP address or check the *Use DNS host names* check box and enter the DNS name for the device. Click *Next*.
- Type in the password for the Administrative user (usually root or admin). Leave the *Autodetect Device* option selected.
- When the device is detected, enter the Device License Key (DLK) for the device (if the DLKs have been imported the field is pre-filled with the correct DLK) and click *Next*. Please read the chapter *Retrieving Device License Keys* for details about DLKs.
- Assign a descriptive name to the device, and then click *Finish*.
- The device is now installed successfully.
- The name(s) of the camera(s) attached to the device can be changed by expanding the device, then click on the + icon, select the camera

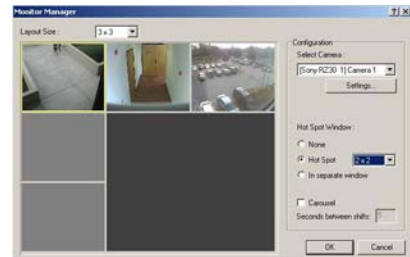


name, wait for a second, and then click on the camera name again.


- If the device is located behind a NAT enabled router, or a firewall, the port(s) used can be changed in the *Port Setup* dialog in the *Device Setup Wizard*. Remember to configure the router/firewall to map these ports to the ports and IP address used by the camera.

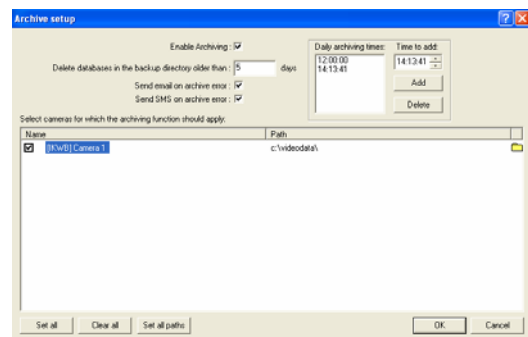
## Configuring the Monitor Layout

- Click on the *Monitor Manager...* button in the Administrator main window to setup the *Monitor* look and feel.
- Choose the *Layout Size* of the *Monitor*. Options are 1x1, 2x2, 3x3, etc. up to an 8x8 grid camera layout.
- Choose the desired *Hot Spot Window* functionality. The *Hot Spot* displays a selected camera in a larger view, and can be used for point-and-click *Pan/Tilt/Zoom* operations on some cameras. Possible *Hot Spot* options are:
  - *None* (no *Hot Spot* enabled; default).
  - *Hot Spot* (select *Monitor Layout* grid size for the *Hot Spot*).
  - *In Separate Window* (*Hot Spot* is a separate, floating window).
- Click on a camera position and select a camera in the *Select Camera* drop-down list. Select the next camera position and repeat until all the cameras are present in the *Monitor Layout*.



## Archive Setup:

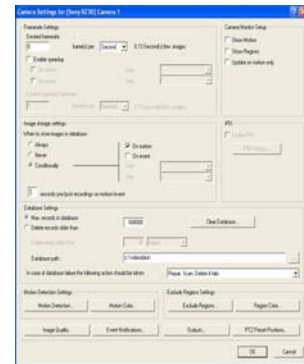
- The *Archive* feature enables the recordings to be kept as long as desired, limited only by the available hardware storage capacity.
- Click on the *Archive Setup...* button in the Administrator main window to set up the *Archiving* features.
- Click on the *Enable Archiving* button to enable *Archiving* and select the number of days to keep the databases (recordings).
- Select a time and use the *Add* and *Delete* buttons to modify the *Daily archiving times* list. Note, you can only set one archive time.
- Select the cameras that should be part of the *Archiving* procedure. Click on the *Set All* button to select all cameras.
- Choose the path for the *Archives* to be stored, either by entering it directly or by clicking on the browse icon  for each camera. The archives should be distributed across the available storage drives to maximize the load sharing and optimize performance.



- 💡 When archiving to a network drive, the daily databases still **MUST** be recorded to locally (i.e. directly) attached drives. The capacity of the local drives should be approximately two times the size of the space required by the daily databases.
- 💡 The *Storage Calculator* found in the Support section on the ONSSI website <http://onssi.com/support/nvr.php> can help determine the storage capacity required for your installation.

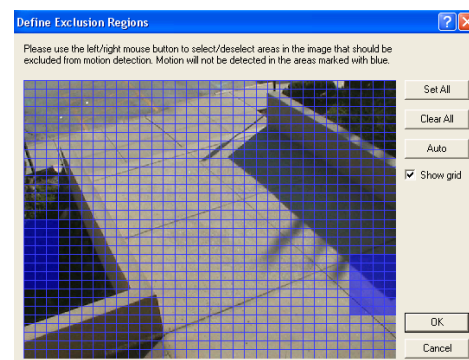
## Configuring a Camera

- Expand the device containing the camera to be configured.
- Select the camera and click on the *Settings...* button to open the *Camera Settings* dialog.
- Set the *Desired Framerate* in the *Framerate Settings* area. Lower frame rates = lower hard drive disk space used.
- Configure where to store the camera database in the *Database Settings* area. The path should be identical to the *Archive* path set for the camera (if this is not a network drive).
- Select your 'Database Settings', it is **strongly recommended** to leave the setting set to 'Max Records in Database = 600,000'. If you wish to store video for more then one day; use the archiving feature to accomplish this.
- Choose how the Monitor should react if the database becomes corrupted. Choose *Archive the databases* if the *Archiving* function is enabled. Default is *Attempt to repair the database*.
- Click on *Image Quality...* button to set up the image resolution and compression. Click on the *Preview Image* button to see the image quality and size (in KB). The menu may look slightly different on different camera models.



## Video Motion Detection Settings

- Click on the *Motion Detection...* button in the *Camera Settings* menu to adjust the VMD (Video Motion Detection) sensitivity.
- The *Noise Sensitivity* slider determines how much each pixel can change before it is regarded as a motion. The slider is most sensitive in its left position. The areas where motion is detected are highlighted in the picture.
- The *Motion Sensitivity* slider determines how many pixels must change in the image before it is detected as a motion. The sensitivity is indicated by the black vertical bar in the VMD Bar. When the detected motion is above this setting, the VMD Bar changes color from green to red to indicate a positive detection.



- 💡 If there are areas in the image that should be ignored by the Motion Detection (such as a tree swaying in the wind, an area which is irrelevant, or car lights / shadows appearing through a window), these areas can be excluded via the *Exclude Regions* dialog in the *Camera Settings* menu.


- Click on the *Auto* button to update the image.
- Click on the *Clear All* button to clear the auto-settings, and de-select the *Show Grid* option for a clearer view.
- Mark the area(s) to be excluded from the VMD. Left mouse button marks a grid pixel, right mouse button unmarks a grid pixel.
- The *Motion Settings* should always be re-adjusted after the *Exclusion Regions* have been defined or changed.

💡 The VMD settings should be adapted to the actual application for each camera, and should be verified under the different conditions applying for that position (day/night, windy conditions, etc.).

## Image Server Administrator (NetGuard Client)

- The *Image Server* service (called an *Engine*) is handling the NetGuard access to the *Monitor* databases.





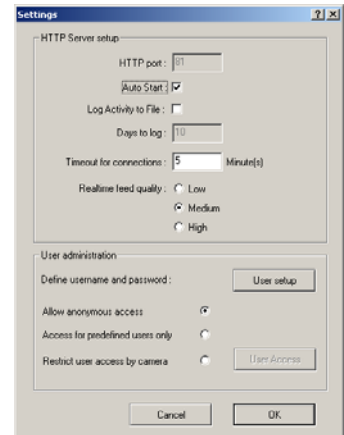
- Click on the  shortcut on the desktop to open the Image Server Administrator.
- If the Image Server should be accessed from the Internet or a different LAN via a router or firewall, the *Enable Outside Access* must be enabled. The outside (public IP or LAN Router) IP address and port must be specified in the *Outside IP Address* and *Outside Port* fields respectively.
- The router must be configured to forward requests to this address and port to the inside (local) server IP address and port.
- The user rights are defined in the *User Administration*. Click on the *User Setup* button to set up the users.
- The privileges of each user must be defined in the *User Access* dialog if restricted user access has been chosen.
- Set the days to keep the log file in the *Log Files* area.



💡 The *Image Server* runs as a service. Please check that the service is running if you cannot connect to the *Image Server*. The service will not start if another application or service is using the port specified in the *Image Server Administrator*.

## Remote Access Servers

- The *Remote Access Servers* are an alternative to the Image Server to obtain remote accessibility. This is facilitated by the *ONSSI Web Server* and the *ONSSI Realtimefeed Server*.
- Both servers can be started from the Start menu if they have not been added to the *Startup Folder* on installation.
- The *Web Server* handles navigation and still image viewing. Default port is 81.
- Click on  in the system tray to open the *Web Server* configuration dialog.
- Click the *Settings* button to start configuration.
- By default, the web server is set to allow access without entering a password (*Allow Anonymous Access*).
- Select *Access For Predefined Users Only* if you want to allow access only for known users.
- Click the *User Setup* button to define the users.
- To restrict which cameras each predefined user can access, select the *Restrict User Access by Camera* option.
- Click the *User Access* button to set up which cameras and options each user will have access to.
- Click on *Hide Window* to close down the *Web Server* window.
- The *Realtimefeed Server*  handles all streaming video. Once started, it does not need any configuration. Default port is 9513.
- To test the Remote Access functionality, type *http://localhost:81* in the Internet Explorer on the NetDVR Server PC.



## Uninstalling the Software

The ONSSI NetDVR software can be uninstalled as follows:

- Shut down the *HTTP* and *Realtimefeed Servers* if they are running.
- Open the *Add/Remove Programs* dialog in the Control Panel.
- Select the *ONSSI NetDVR* entry, and then click *Change/Remove*.
- If you want to keep your existing configuration and/or databases, make sure the *Remove Database Files* and *Remove Registry Settings* options are unchecked. Then click *OK*.
- Click *Finish* and close the *Add/Remove Programs* dialog and the Control Panel Window.

