DW DIGITAL WATCHDOG
Complete Surveillance Solutions

Quick Start Guide

Blackjack® X-RACK

Servers Powered by DW Spectrum® IPVMS

State of the art hyper-optimized video management platform designed for ease, speed and efficiency.

Blackjack® X-RACK — Up to 1200Mbps.

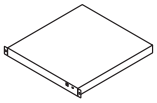
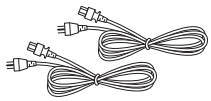
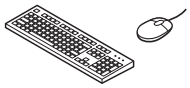
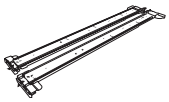
DW-BJX2U

DW-BJX2U

Default login information for the server's OS

Username: **dwuser**	Password: **Dw5pectrum**

WHAT'S IN THE BOX

X-RACK Server		1 Set	Power Cable		2 Set	Keyboard and Mouse		1 Set
Quick Start Guide		1 Set	Rail kit		1 Set			

NOTE: Download All Your Support Materials and Tools in One Place

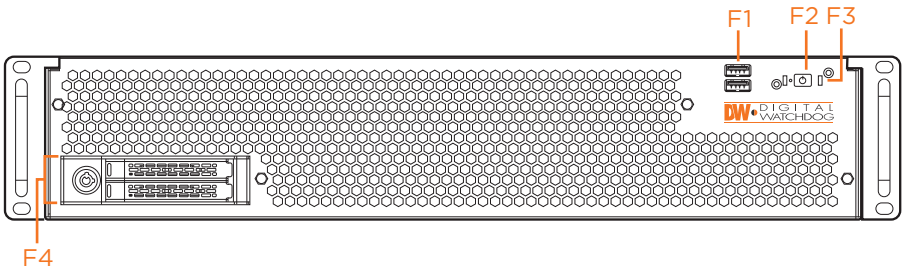
1. Go to: **http://www.digital-watchdog.com/support-download/**
2. Search your product by entering the part number in the '**Search by Product**' search bar. Results for applicable part numbers will populate automatically based on the part number you enter.
3. Click '**Search**'. All supported materials, including manuals, Quick Start Guides (QSG), software and firmware will appear in the results.

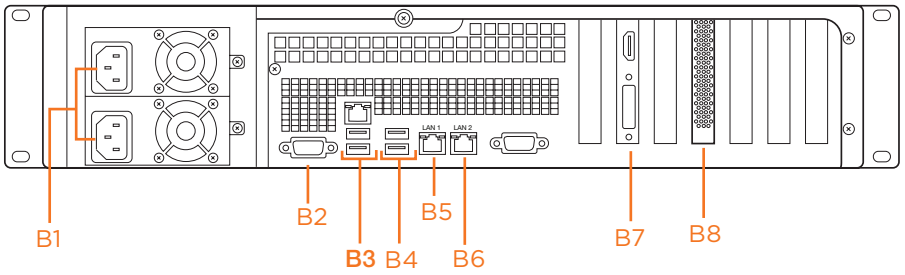
Attention: This document is intended to serve as a quick reference for initial set-up.
See the DW Spectrum full manual for more information on features and functionality.

Blackjack® X-RACK

Servers Powered by DW Spectrum® IPVMS

BLACKJACK X-RACK HARDWARE





F1	2x USB 2.0 Ports
F2	Power Button
F3	HDD Status LED
F4	Removable SSDs

B1	Power Input
B2	Serial Port
B3	2 x USB 2.0 Ports
B4	2 x USB 3.0 Ports
B5	10Gbps Ethernet Port (LAN1)
B6	10Gbps Ethernet Port (LAN2)
B7	HDMI Port, DVI Port*
B8	RAID Controller

Default Login Information for the server's OS

Username: **dwuser**	Password: **Dw5pectrum**

NOTE The local video outputs should be used for configuring the DW Spectrum® and cameras, not for viewing cameras running on a DW Spectrum® client.

SPECIFICATIONS X-RACK

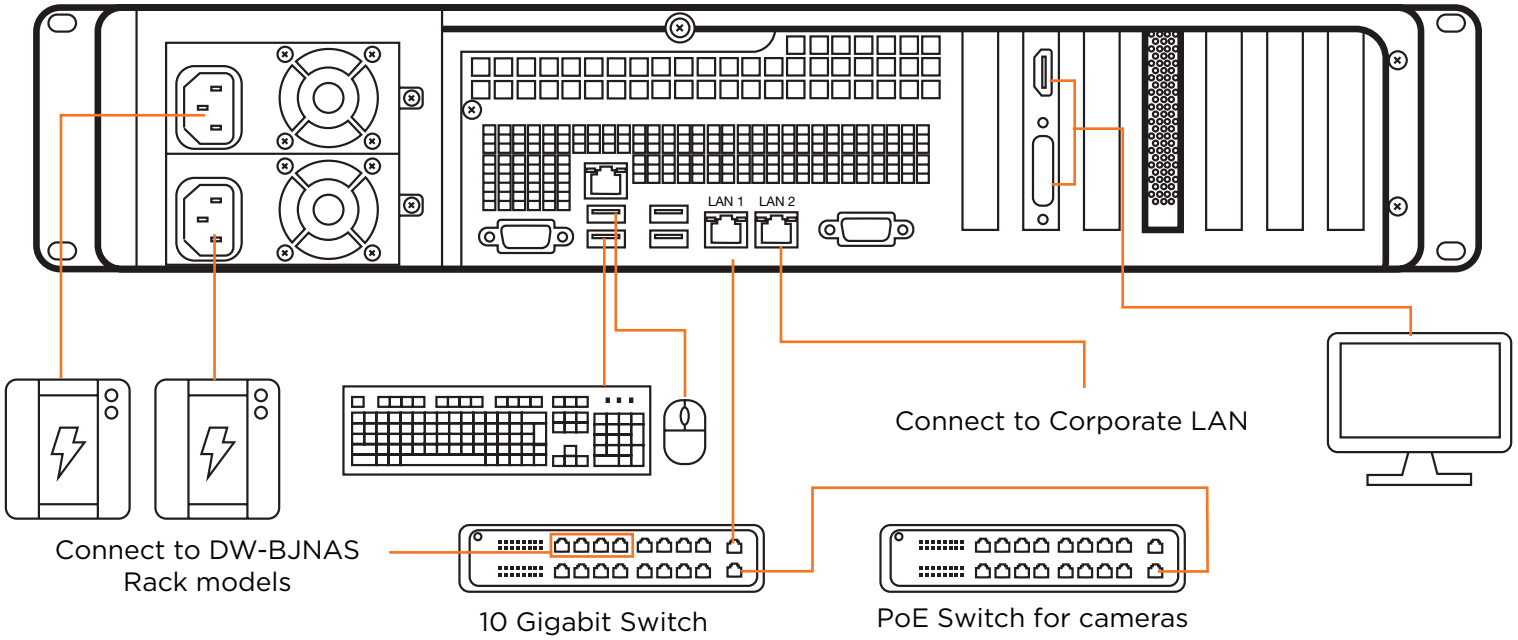
PART NUMBER		DW-BJX2U
Included IP licenses		8
Form factor		2U rack mount
Operating system		Windows Server®
	OS on SSD	2x SSD (RAID1 mirrored), hot-swappable bays with lock
CPU		Intel Xeon® Processor with 8 Cores
Memory		32GB DDR4 ECC
		Option: DW-MEM32GX - 32GB(2x 16GB) memory upgrade Kit*
Ethernet port		2 x 10Gigabit Ethernet (RJ45)**
		Option: DW-R10NIC - secondary 10Gbps RJ45 port*
System	Max video storage rate (Mbps)	1200Mbps**
Storage	Max. DW-BJNAS RACK Connection	4 (up to 560TB)
Video-out	Outputs	True HD and DVI output. For initial configuration and server management
	Resolution	HD 1080p
Preloaded VMS software		DW Spectrum® IPVMS Server
Remote clients		Cross platform - Windows®, Linux Ubuntu® and Mac®
Mobile apps		iOS® and Android®
Keyboard and mouse		Included
Rail kit		Included (4 post static)
Power supply		Dual 380W Redundant***
Operating temperature (ambient room temperature)		50°F-80°F (10°C-27°C)
Operating humidity		20-60% RH
Dimension (WxDxH)		17.29" x 21.93" x 3.46" (439.3 x 557.1 x 88 mm)
Warranty		5 year

* Available at initial order only
** Require 10Gb network switch
*** A separate UPS for each power supply is recommended
Specifications and components mentioned are subject to change without notice.

SETTING UP THE X-RACK

STEP 1: Connect Peripherals, power and network

1. Connect a monitor, USB keyboard, USB mouse and network cables as illustrated in the diagram below. Connect LAN1(B6) first to configure NAS devices and cameras first. Then configure local network later.
   * LAN1 should be connected to a 10Gigabit switch port.
2. Connect the server to an appropriate power source.
   * It is recommended to use an uninterrupted power supply (UPS) system of 1500VA or higher.
3. Turn on the server if the server does not turn on automatically.
   (Press the Power Button on the front of the X-RACK. F2 on the diagram).
   * Connecting the power cable to the live power source may turn on the server automatically

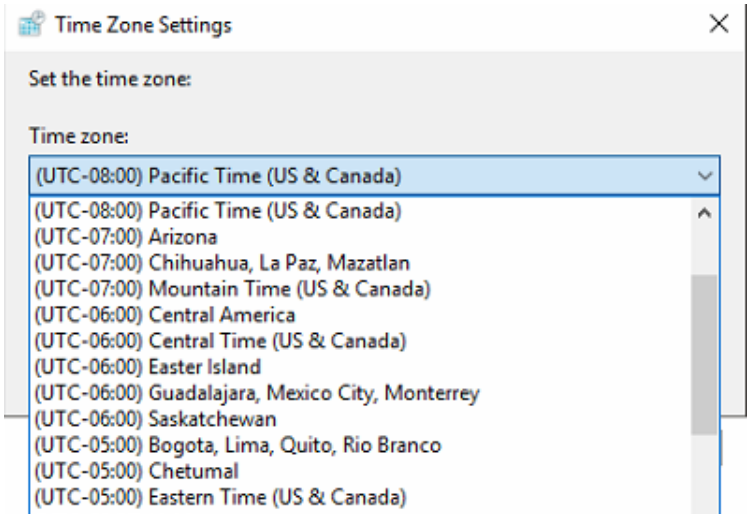


STEP 2: Configure Date and Time

Windows

1. Double click Date and Time icon on the Desktop.
2. Change Time zone if not correct

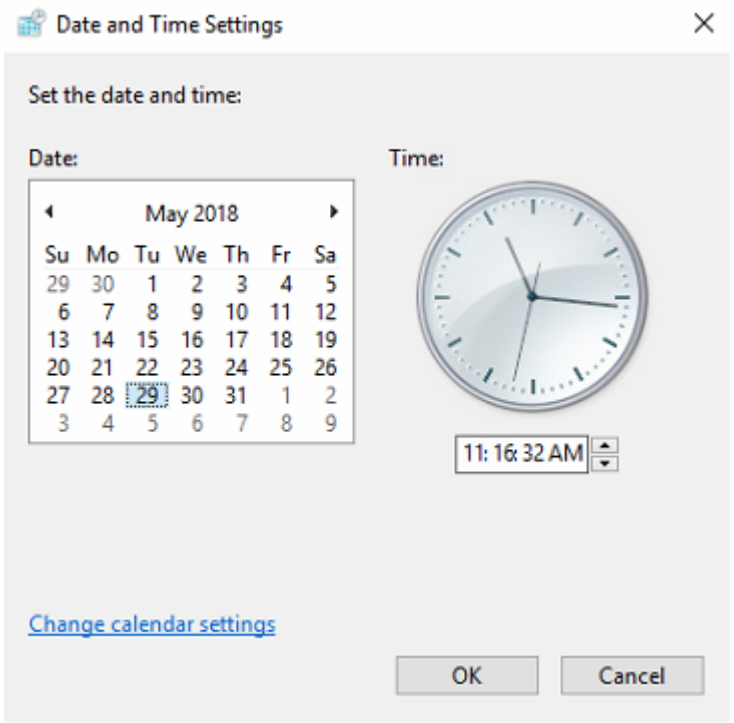
(default is UTC-08:00 Pacific Time)



Press OK after selecting the correct Time zone.

Click “Change date and time...” to update the date and time if they are not correct.

* Verify the Time zone before updating the date and time. Time may show 2 or 3 hours off due to incorrect Time zone.



Press OK after adjusting to the correct date and/or time.

4. Press OK to close Date and Time when done.

STEP 3: Configure Network

Please have the following information ready before starting the network configuration.

	NAS and Camera Network	Local Network (LAN)
IP Address		
Subnet Mask / Netmask		
Default Gateway / Gateway	Not Applicable	
DNS Servers	Not Applicable	

* NAS & Camera Network and Local Network cannot be on the same network.

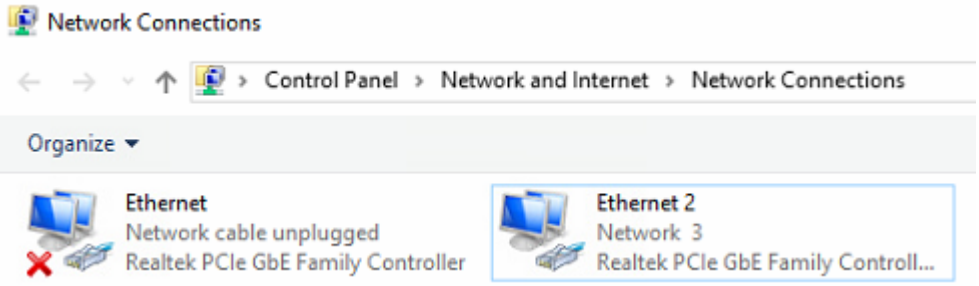
NOTE The Blackjack X-RACK's network settings are set to DHCP as default.

NOTE If you are not sure what information to enter, contact your Network Administrator or Internet Service Provider for the information.

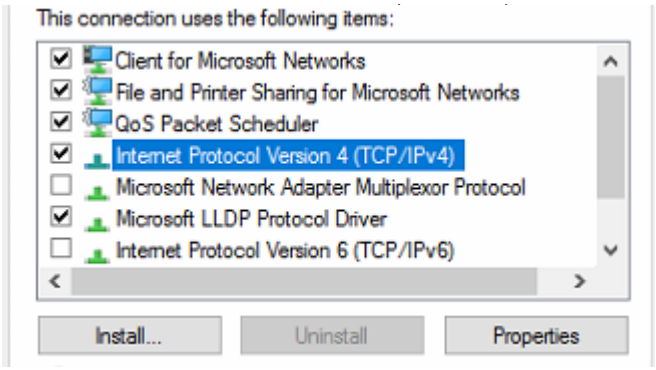
Windows

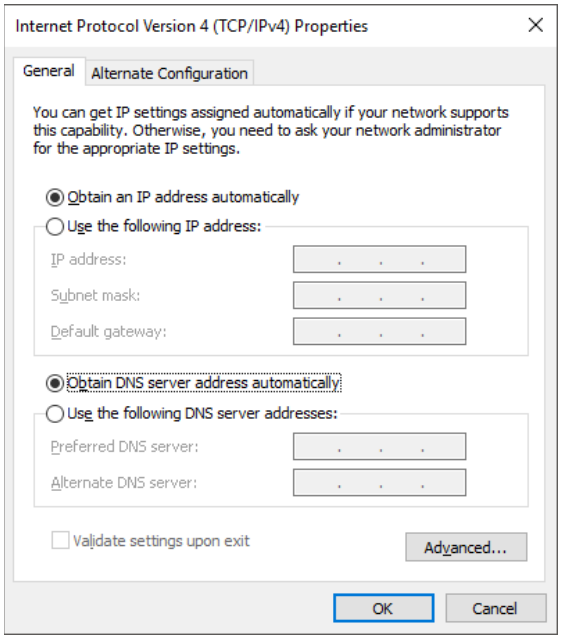
1. Double click Network Connections on the Desktop

2. Right click on the Ethernet with cable connected and click Properties.



3. Click Internet Protocol Version 4 (TCP/IPv4) and click Properties

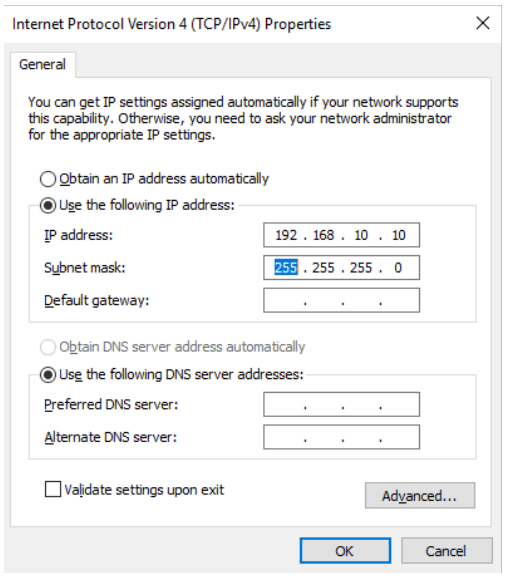




4. Select “Use the following IP address” (Use the following DNS server addresses will be selected automatically).

5. Enter IP address and Subnet mask of the NAS and camera network. (do not enter anything for the Default gateway, Preferred
DNS server and Alternate DNS server.

NOTE DW-BJNAS should be installed on the same network (LAN1) as the security cameras and NOT placed on the corporate LAN (LAN2).

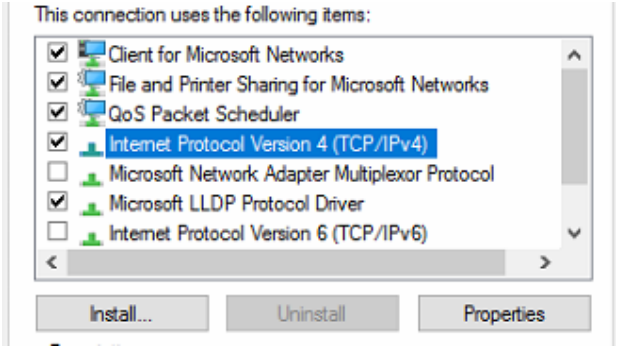


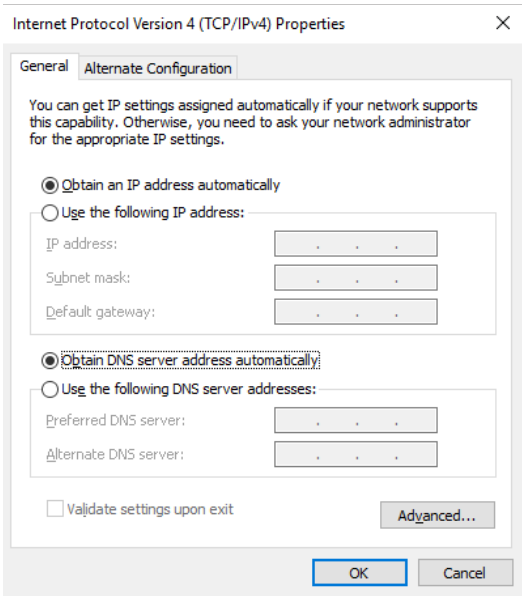
6. Click OK to close then click Close to go back to Network Connections.

Configuring Local Network(LAN2)

7. Right click on the other Ethernet, the one with network cable unplugged, and click Properties.

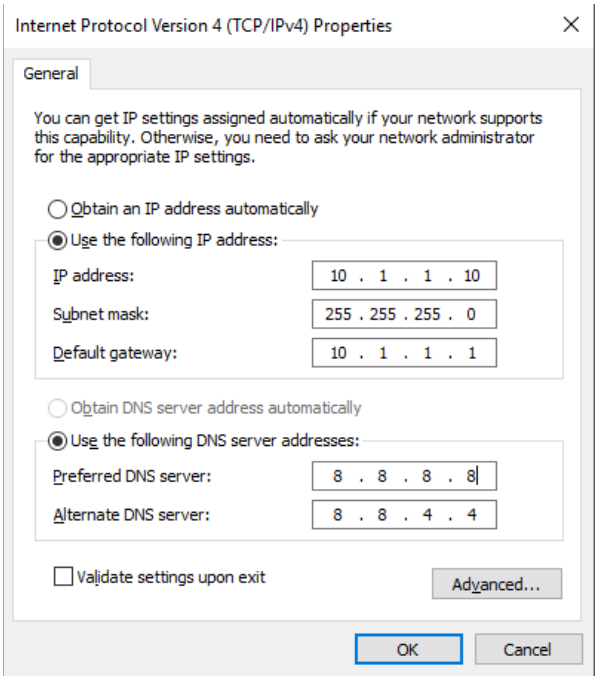
8. Click Internet Protocol Version 4 (TCP/IPv4) and click Properties.



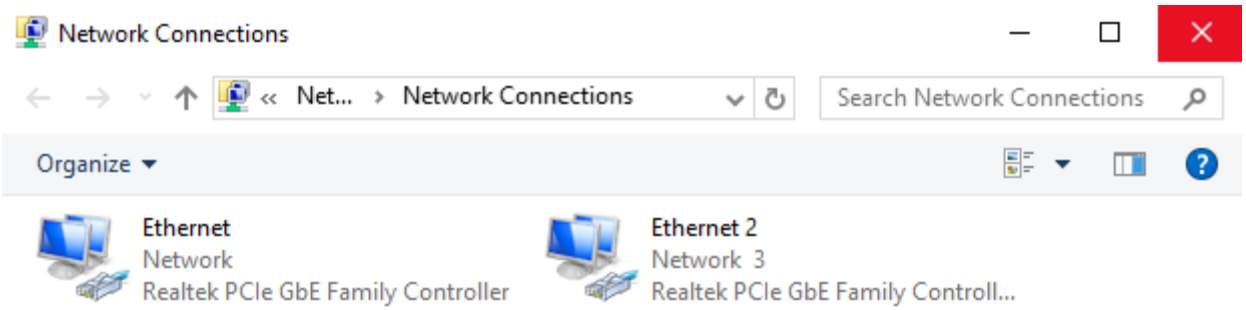


9. Select Use the following IP address (Use the following DNS server addresses will be selected automatically)
10. Enter IP address and Subnet mask of the camera network.

* Consult with your IT department if you do not know what IP address to use.

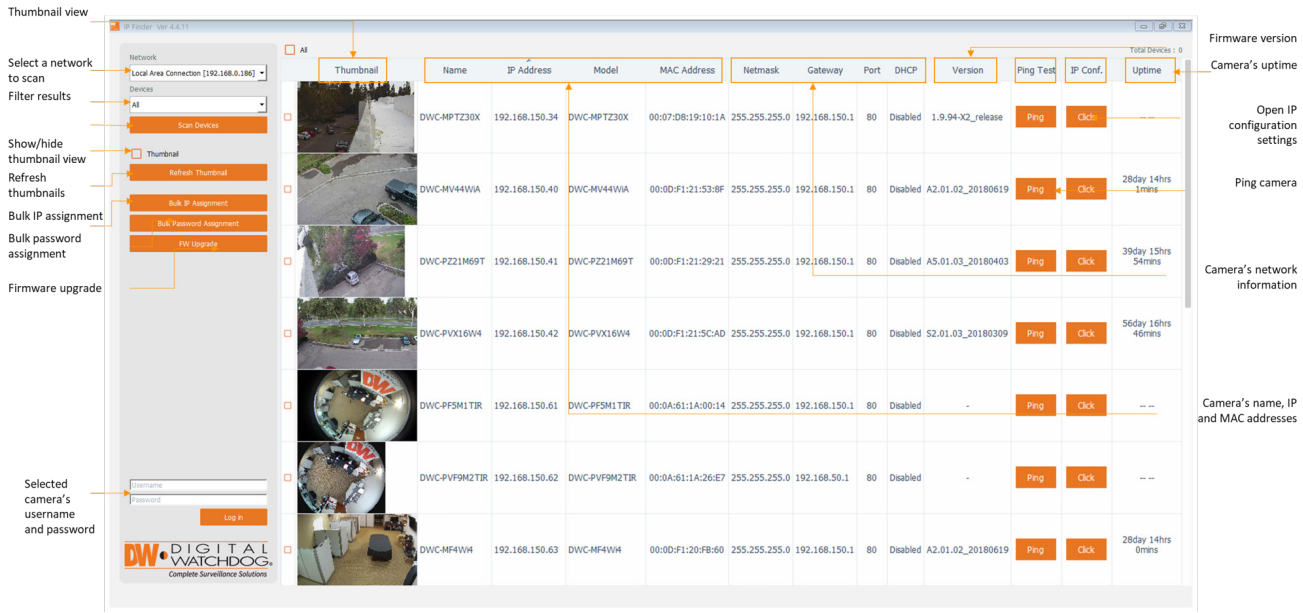


11. Click OK to close then click Close to go back to Network Connections.
12. Connect a network cable to the Ethernet port B7 on the diagram (page 2) to the switch on the local network" please change B7 to B6.
13. Close the Network Connections by clicking X on the upper right corner of Network Connections.



Connect DW-BJ8NASxTR/DW-BJ16NASxTR using DW IP Finder

Follow the QSG accompanied with the Blackjack NAS Rack models to properly connect to the network.

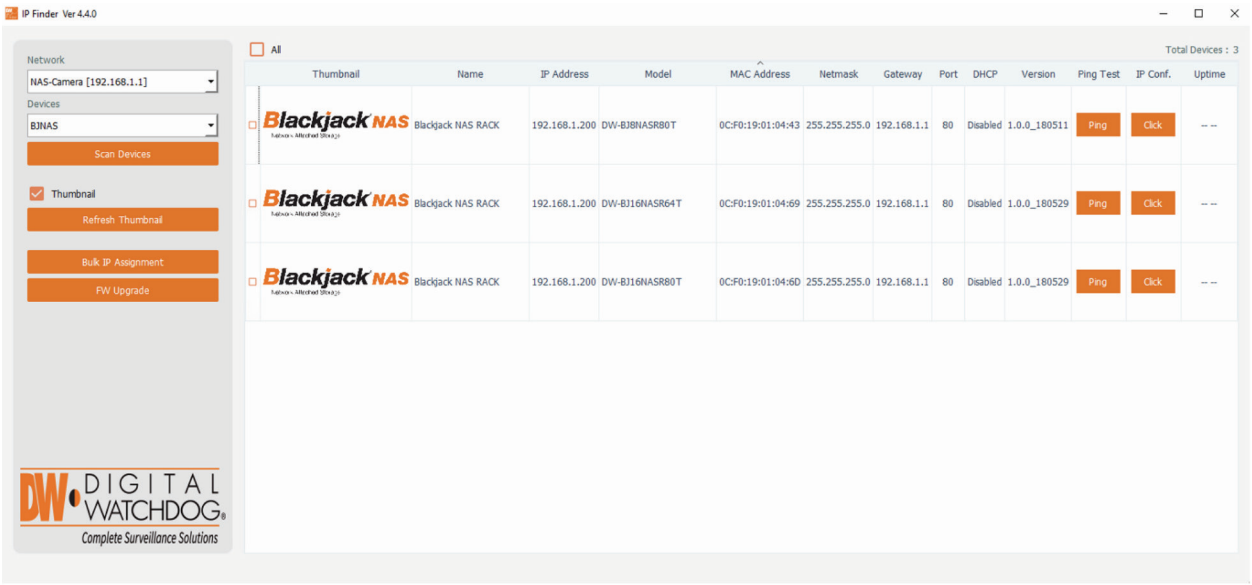


DWIP Finder v4.4.11 is shown.

1. From the Windows based Blackjack® server or Client or any Windows® PC, open DW IP Finder™ by double clicking on the DW IP Finder™ icon on the Desktop or click on DW IP Finder™ from Start Menu > All Programs > DW IP Finder.
2. If the DW IP Finder™ is not installed or not the latest version, download and install from http://digital-watchdog.com/support.
   - Under Software, select DW IP Finder™ from the dropdown list.
   - Then go to downloads section and expand software/firmware.
   - Click on the download icon to download the DW IP Finder™.
   - Then install the DW IP Finder™ by following the installation wizard.

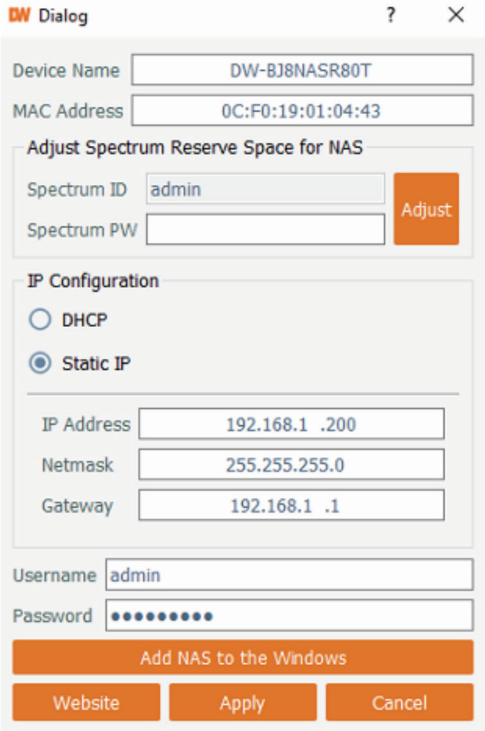
   * Requires DW IP Finder™ 4.3.17 or later version.

3. When the DW IP Finder™ is opened, change the device to BJNAS and click Scan Devices to scan for the Blackjack NAS models on the network.
4. If any of the the Blackjack®NAS are not listed, change the Network by clicking the drop down and select another network if exist. Then click Scan Devices to scan the network for the Blackjack® NAS.
5. Find the Blackjack® NAS from the list, then either double click on the Blackjack NAS logo or click on the under the IP Conf column.



* Available at time of initial order only / ** UPS Recommended

6. From the Device Settings, enter IP Address, Netmask and Gateway then click Apply to save changes.



NOTE The DW-BJNAS should be configured using a Static IP address. If the IP Address will be obtained using a DHCP service, confirm the address has been reserved and will not expire.

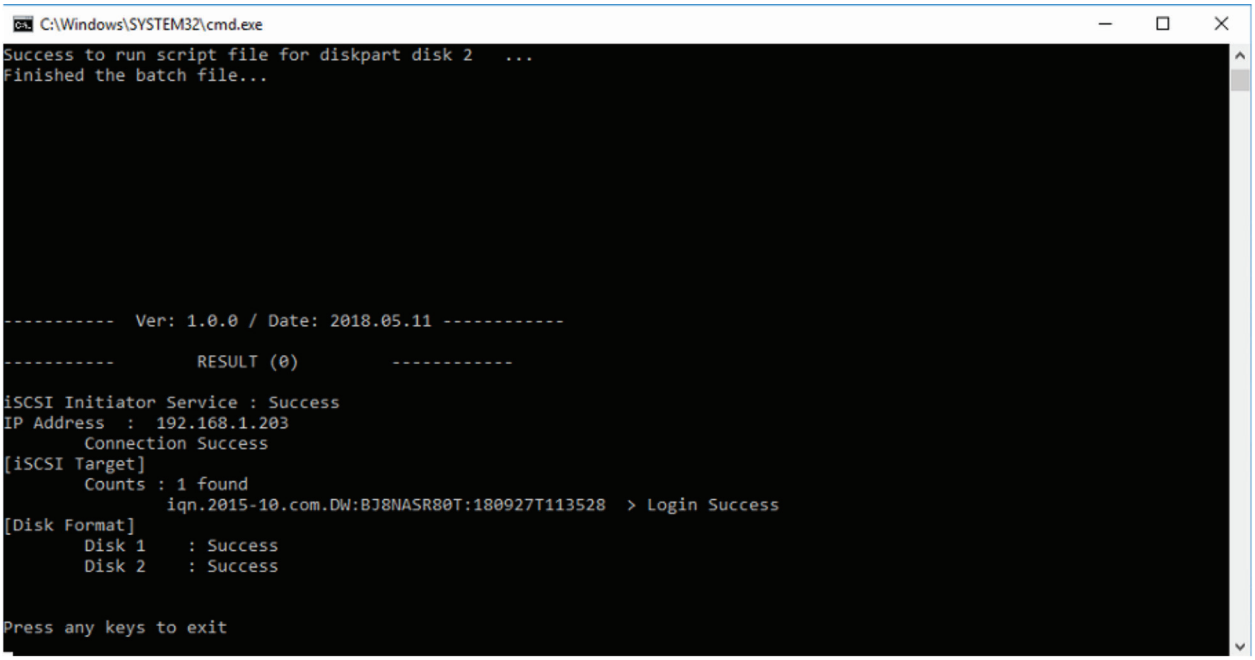
7. From the main DW IP Finder, click Scan Devices to update the list with new IP address.

8. Find the Blackjack® NAS from the list, then either double click on the Blackjack NAS logo or click on the under the IP Conf column.

9. Click Add NAS to the Windows to add to the server. Script will run and add volumes to the Windows.

When completed without errors, “Success” will be displayed for Disk 1 and Disk 2. Click any key on the keyboard to close the

CMD window.



If you have another Blackjack NAS Rack, repeat 5 ~ 9.

10. Close DW IP Finder if no other devices to configure.

11. Reboot the server.

Spectrum Client (only use for initial configuration and maintenance)

Windows

WINDOWS-BASED SOFTWARE MANUAL LAUNCH

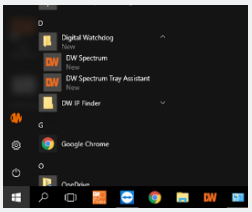
To launch the DW Spectrum® Software on the Windows-Based P-RACK:

O**PTION 1:** Double-click the DW Spectrum® desktop icon.

DW Spectrum

OR

OPTION 2: Go to ‘Start’ on the bottom left and select DW Spectrum® in the Digital Watchdog folder



* Available at time of initial order only / ** UPS Recommended

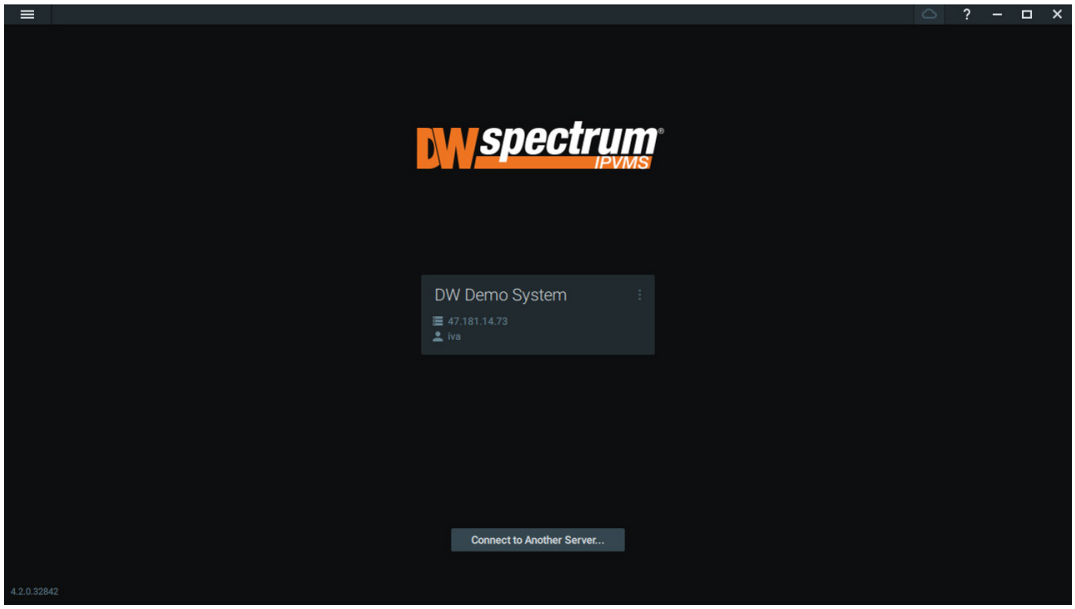
SETTING UP DW SPECTRUM® MEDIA SERVER

Login : admin
Password: admin12345

STEP 1: **Initial run from Blackjack® server**

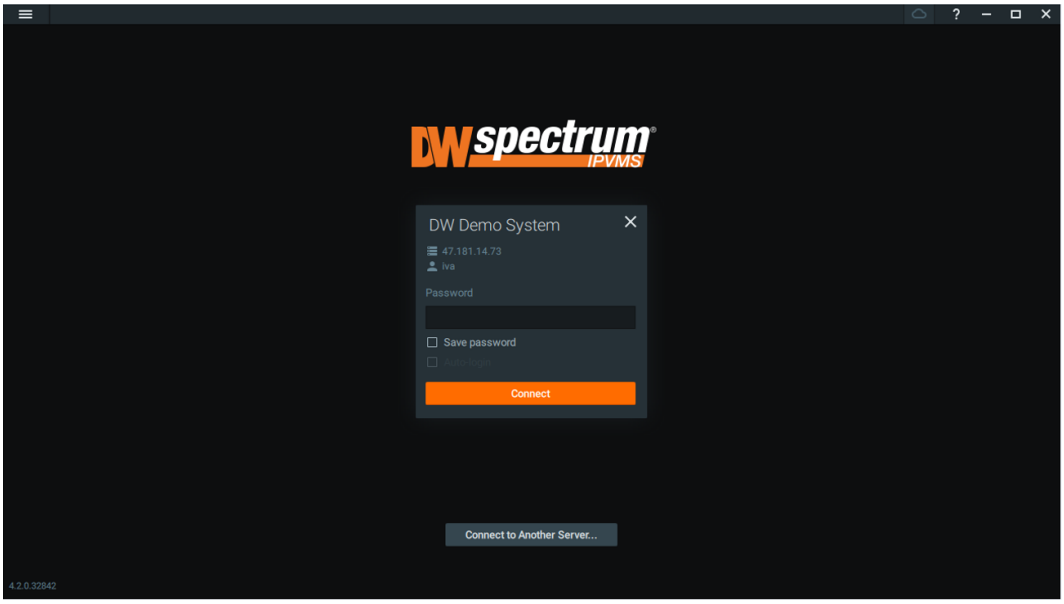
1. Open DW Spectrum® Client by double click on the DW Spectrum icon

2. Click on the preconfigured server.



3. Enter password and click connect.

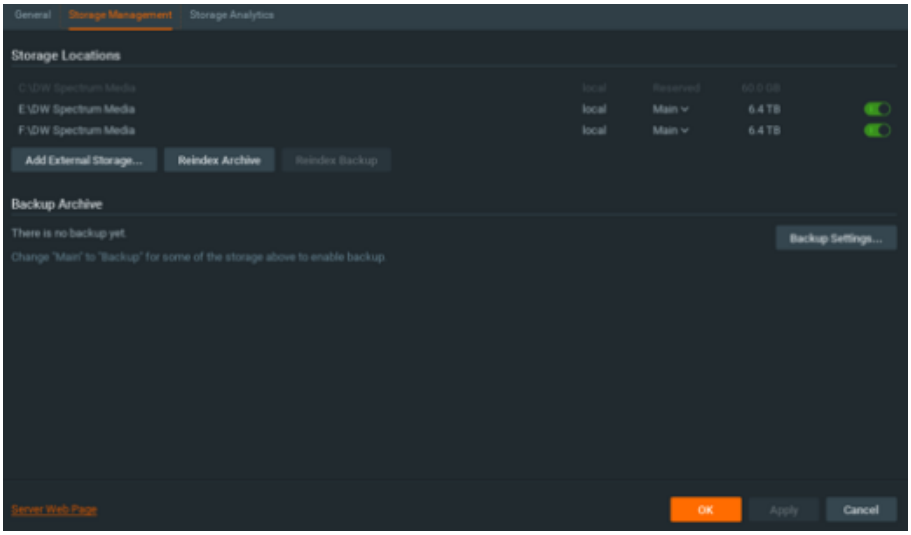
* Default password : admin12345 (case sensitive)



STEP 2: Mange Storage Location

1. Right click the server name listed on the Resources then click Server Settings.

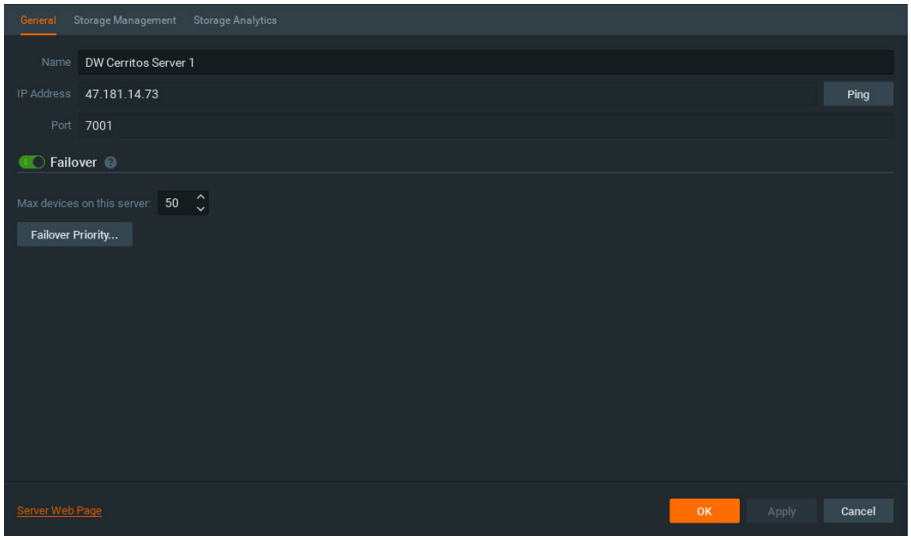
2. Go to the Storage Management
3. Click the toggle buttons on the right side for each drives added if they are not activated.(It should be Green when activated)
4. Click “OK”.



STEP 3: To rename the server

1. Right click on the server name listed on the Resources then click Server Settings.

2. Go to General tab, then type in the new server name in the Name field and click OK.

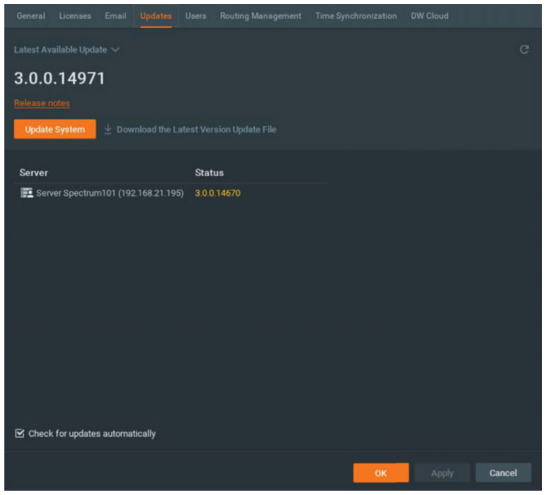


* Available at time of initial order only / ** UPS Recommended

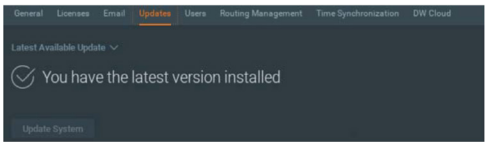
STEP 4: To check for update

1. Click on the menubutton on the top left of the screen, then click System Administration.

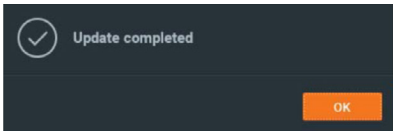
2. Go to Updates tab. Click Update System if turned orange.



* If you are on the latest version, it will say “You have the latest version installed” and the Update System button will be greyed out.



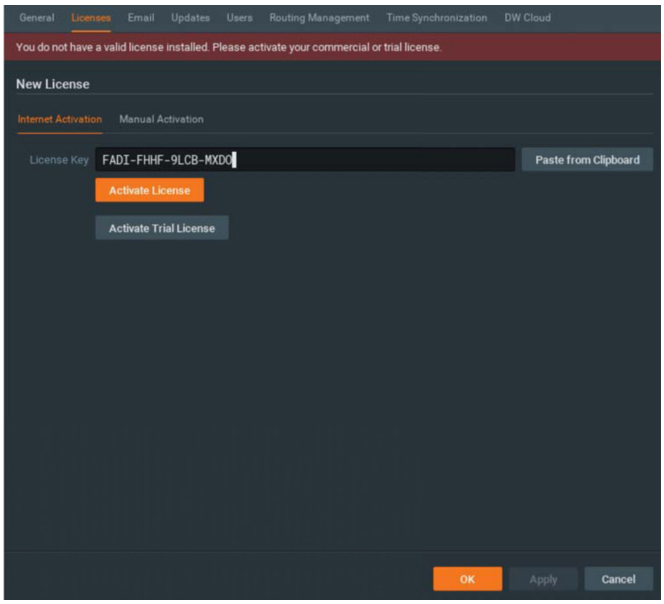
3. Click OK when update is completed.



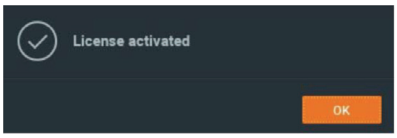
* Available at time of initial order only / ** UPS Recommended

STEP 5: Enter License

1. Go to System Administration then click License tab.
2. Enter License Key then click Activate License button. (Internet connection required)
   * Click on Activate Trial License if you have not purchased the valid license.



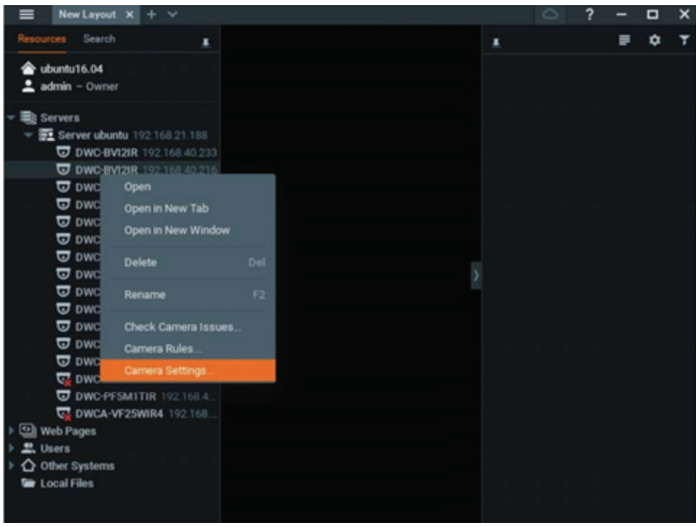
3. Click OK to when the License is activated.



STEP 6: Configure recording

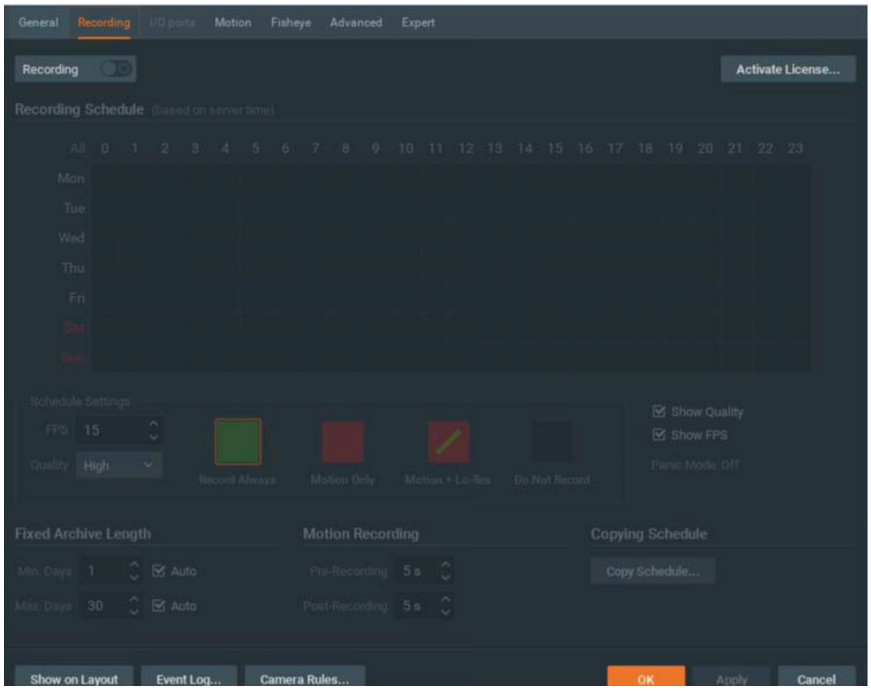
* cameras will be automatically populated under the server's resource tree if the cameras and the server's IP addresses are properly configured.

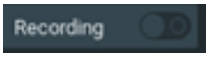
1.Right click on the camera to setup recording, then click Camera Settings.

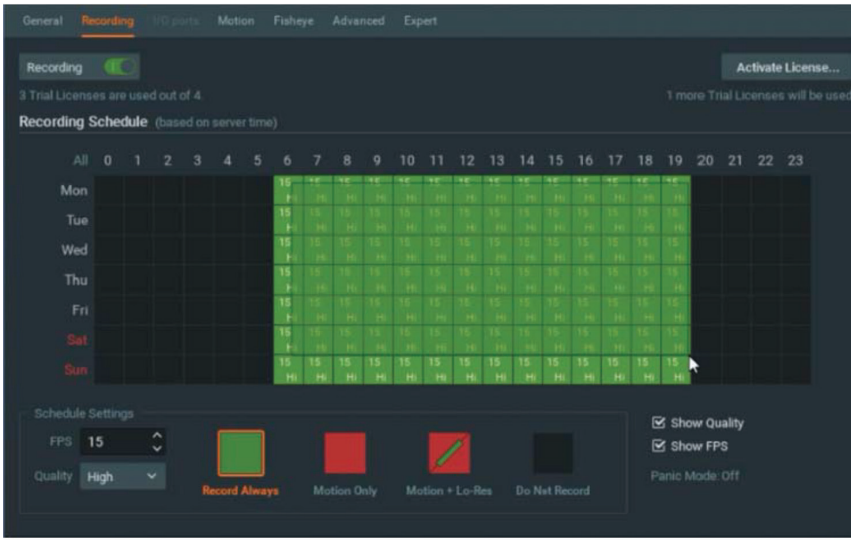


* Available at time of initial order only / ** UPS Recommended

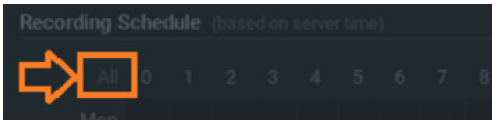
2. Go to Recordings tab.

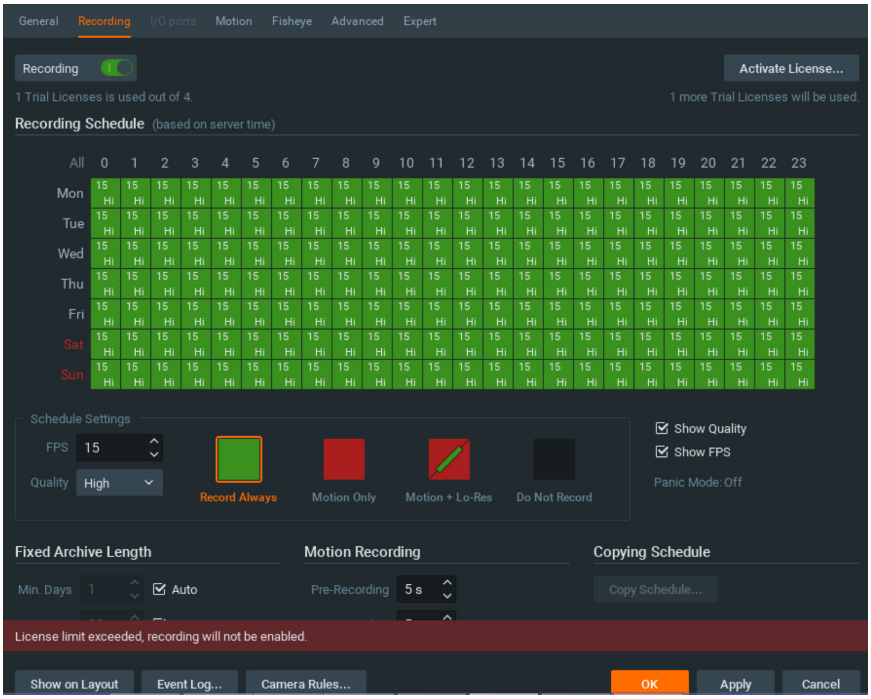


3. Click  to turn on recording.
4. Configure Schedule Settings for Quality, FPS and Recording Type.
5. Click and drag mouse over the Recording Schedule to assign the recording setting.

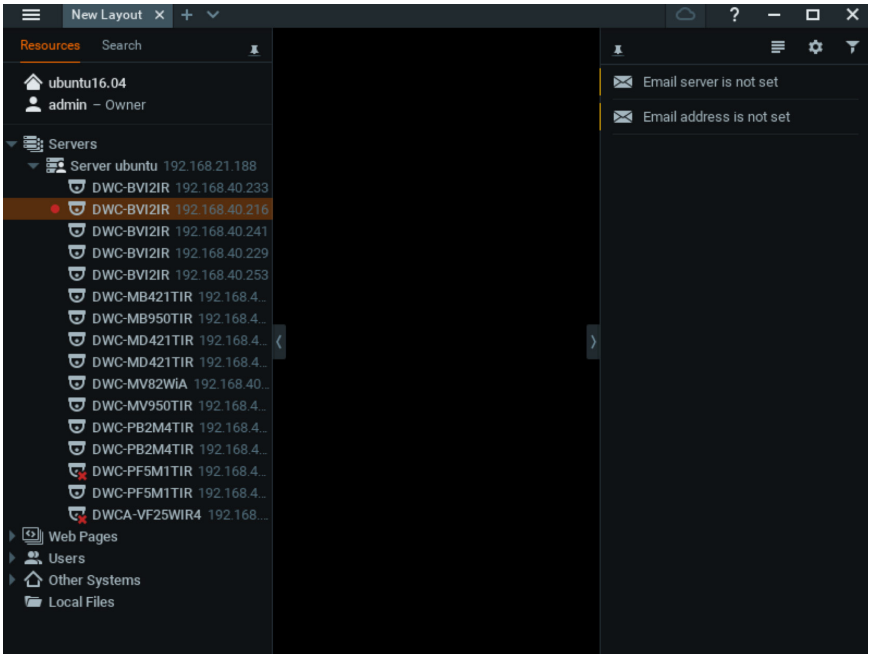


* Click on All to apply to the all schedules.





6. Red dot will appear next to the camera when the recording is started.



TROUBLESHOOTING TIPS

Problem	Possible solutions
My camera does not auto-discover	1. Is the camera in the same LAN network as the media server? 2. Is your camera compatible with DW Spectrum®? (Refer to our website for full list of supported cameras.) 3. Is the camera updated to its latest firmware? 4. If your camera is integrated with DW Spectrum® via ONVIF, make sure ONVIF is enabled on your camera. 5. Try adding the camera manually. 6. Try rebooting the server after installation. Allow up to 2 minutes for the server to map your network and detect all supported devices.
Videos are slow	1. Are you accessing the same cameras from multiple clients? (LAN and WAN) 2. Do you have a Gigabit network? Check your network speed.
My camera appears disconnected	1. Under camera settings, make sure the user name and password are correct. 2. Under the camera settings, use the 'Ping' button to make sure the camera is connected to the network properly. 3. If you can connect to the camera's web viewer, try rebooting the camera and/or restore it to factory default. 4. Make sure your camera is using the latest firmware available. 5. Make sure that the camera is connected to the same network as the server. 6. If you are connecting to a camera that is integrated with DW Spectrum® via the ONVIF protocol (see list), make sure ONVIF is enabled. 7. Make sure your user has permissions to view that specific camera.
I cannot get playback video from my camera	1. Do you have network connection between client and server (in case server and client are not on the same machine)? 2. Make sure your user has playback viewing permissions for the selected channel. 3. Make sure the camera is set to a recording mode that would provide recorded video for the selected time and environment. 4. On the server side, check the media server log to make sure the camera you are trying to watch has not been unexpectedly disconnected.
I get an 'unauthorized' message on my camera	1. Make sure the camera's user name and password are properly entered in the camera's general information under the camera settings menu. 2. If necessary, try rebooting the camera to apply the camera's user name and password.

DW SPECTRUM SYSTEM REQUIREMENTS

Recommended specs for the full client

	Single-monitor DW Spectrum workstation	Dual-monitor DW Spectrum workstation	Quad-monitor DW Spectrum workstation
Processor	Intel i5 8th gen or AMD Ryzen 5 3000 Quad-Core or better	Intel i7 8th gen or AMD Ryzen 7 3000 Quad-Core or better	Intel i9 or AMD Ryzen 9 Quad-Core or better
Video card	Intel HD Graphics onboard GPU or better	Intel HD Graphics onboard GPU or better	GeForce GTX 1650 or better
RAM	8 GB DDR3 1600 MHz or better	16 GB DDR3 1600 MHz or better	32 GB or better
NIC	1Gbps or better	2 x 1 Gbit or better	2 x 1 Gbit or better
Storage	Dedicated SSD or NVME disk for the OS, 128 GB or larger	Dedicated SSD or NVME disk for the OS, 128 GB or larger	Dedicated SSD or NVME disk for the OS, 128 GB or larger
OS supported	Microsoft Windows OS • Windows 8 – Released: October 2012 | EoS: 01/2023 • Windows 8.1 – Released: October 2013 | EoS: 01/2023 • Windows 10 – Released: July 2015 • Windows Server 2012 – Released: August 2012 | EoS: 10/2023 • Windows Server 2012 R2 – Released: October 2013 | EoS: 10/2023 • Windows Server 2016 – Released: October 2016 | EoS: 01/2027 • Windows Server 2019 – Released: October 2018 | EoS: 01/2029		
	Ubuntu (Debian-based Linux) OS Ubuntu 16.04 LTS "Xenial Xerus" – Released: April 2016 | EoS: 04/2024 Ubuntu 18.04 LTS "Bionic Beaver" – Released: April 2018 | EoS: 04/2028		
	Macintosh OS • macOS 10.14 "Mojave" – Released: September 2018 • macOS 10.15 "Catalina" – Released: October 2019 • macOS 11.0, 11.1, 11.2 "Big Sur" – Released: November 2020 **NOTE: DW Spectrum IPVMS for macOS is only supported by the DW Spectrum Client.		

* Except Storage Server version

Important: OS not listed will be not be supported by DW® Tech Support

Tel: +1 (866) 446-3595
Fax: (813) 888-9262

DW DIGITAL WATCHDOG®
Complete Surveillance Solutions

www.digital-watchdog.com
sales@digital-watchdog.com

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