



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

Blackjack[®] Tower[™] mid-size servers — Up to 360Mbps



Default Login Information for DW Spectrum® IPVMS

Username: admin Password: admin12345

WHAT'S IN THE BOX						
Blackjack Tower™ server	/er™ 1		Keyboard and mouse	O	1 set	
Quick start guide		1	Power cable		1	

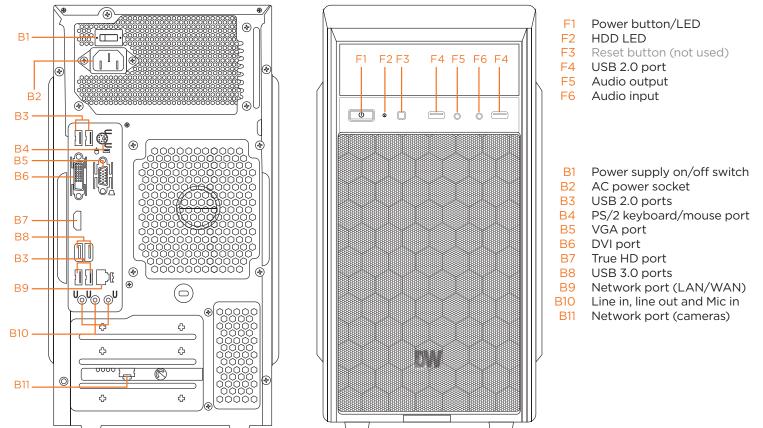
NOTE: Download all your support materials and tools in one place.

- 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 setup. See the DW Spectrum[®] full manual for more information on features and functionality.



BLACKJACK[®] TOWER[™] MID-SIZE



Default login information for preinstalled DW Spectrum® IPVMS

Username: admin	Password: admin12345
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SPECIFICATIONS

PART NUMBER		DW-BJST51xxT				
Included IP licenses		4				
Form fact	or	Mid-size tower				
Operating	system	Windows* 10 OS				
CPU		Intel i5 processor				
Memory		16GB				
Ethernet p	port	2 x 1G Ethernet				
System	Max video storage rate (Mbps)	360Mbps				
	Maximum HDD	3 x HDD				
Storage	Maximum storage	18TB				
	USB interface	Yes				
Video	Outputs	1 x true HD, 1 x DVI, 1 x VGA, maximum 1 display output at a time				
video	Video card	On-board Intel Graphics				
Pre-loade	d VMS software	DW Spectrum* IPVMS				
Remote cl	ients and mobile apps	Cross-platform - Windows*, Linux Ubuntu* and Mac*, iOS* and Android*				
Keyboard	and mouse	Included				
Power supply		400W**				
Operating temperature and humidity		41°F-104°F (5°C-40°C), 20-90% RH				
Dimensior	n(WxDxH)	7.46" x 15.7" x 14.21" (189.52 x 398.8 x 631.02 mm)				
Warranty		5 year limited				

Quick Start Guide

SETTING UP THE SERVER

STEP 1: Connect external devices, power and network.

1. Connect a monitor, USB keyboard, USB mouse and network cable to one of the Ethernet ports (B11 on the diagram). Configure the camera's network first, then configure the server's local network.

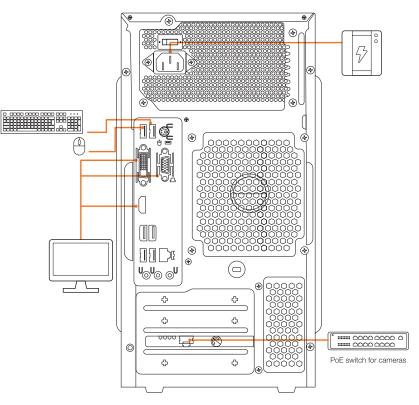
2. Connect the server to an appropriate power source. It is recommended to use a UPS system.

* 750VA or higher is recommended.

3. Power up the server if the server does not turn on automatically by pressing the power button on the front of the server. (F1 on the diagram).

* Connecting the power cable to the live power source may turn on the server automatically.

* The power on/off switch must have the '-' pressed down.



STEP 2: Configure date and time Windows®

- 1. Double-click on the date and time icon on the desktop.
- 2. Change time zone if it is not correct

the desktop. Time

Date and

(default is UTC-08:00 Pacific Time).

📸 Time Zone Settings	×
Set the time zone:	
Time zone:	
(UTC-08:00) Pacific Time (US & Canada)	~
(UTC-08:00) Pacific Time (US & Canada) (UTC-07:00) Arizona (UTC-07:00) Chihuahua, La Paz, Mazatlan (UTC-07:00) Mountain Time (US & Canada) (UTC-06:00) Central America (UTC-06:00) Central Time (US & Canada) (UTC-06:00) Easter Island (UTC-06:00) Guadalajara, Mexico City, Monterrey (UTC-06:00) Saskatchewan (UTC-05:00) Bogota, Lima, Quito, Rio Branco (UTC-05:00) Chetumal (UTC-05:00) Chetumal	

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 an incorrect time zone.



💣 Da	ate ar	nd Ti	ime S	ettin	ıgs			×	
Set ti	ne da	te ar	nd tir	ne:					
Date:							Time:		
4		м	ay 20	18		•	N. T. Y.		
Su 29 6 13 20 27 3	30 7 14 21	1 8 15 22		3	Fr 4 11 18 25 1 8	Sa 5 12 19 26 2 9	11:16:32 AM ÷		
<u>Char</u>	ige ci	alen	dar se	ettin	gs		OK Cancel		

Press OK after adjusting to the correct date and/or time. 4. Press OK to close the date and time when done.

STEP 3: Configure network

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

	Camera network	Local network (LAN)
IP address		
Subnet mask / Netmask		
Default gateway / Gateway	Not applicable	
DNS servers	Not applicable	

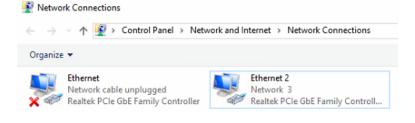
* The camera network and local network cannot be on the same network.

NOTE The Blackjack[®] server's network settings are set to DHCP as default.

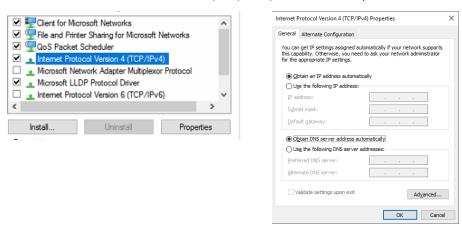
NOTE If you are not sure what information to enter, contact your Network Administrator or Internet Service Provider for the information.

Windows[®]

- Network Connections
- 1. Double click on the "Network Connections" on the desktop.
- 2. Right-click on "Ethernet with cable connected" and click "Properties".



3. Select "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 the IP address and Subnet mask of the camera network. (Do not enter anything for the default gateway, preferred DNS server and alternate DNS server.

NOTE It must be the same network as the cameras and must not be the same network as the local network. Contact your network administrator for more information.

Internet Protocol Version 4 (TCP/IPv4)	Properties	\times
General		
You can get IP settings assigned auton this capability. Otherwise, you need to for the appropriate IP settings.		
O Obtain an IP address automatical	у	
Use the following IP address:		
IP address:	192 . 168 . 10 . 10	
Subnet mask:	255 . 255 . 255 . 0	
Default gateway:		
Obtain DNS server address autom	atically	
• Use the following DNS server add	resses:	
Preferred DNS server:		
Alternate DNS server:		
Vajidate settings upon exit	Ad <u>v</u> anced	
	OK Cancel	

6. Click OK to close then click close to go back to network connections.

Local Network

- 7. Right-click on the other Ethernet, the one with network cable unplugged, and click "Properties".
- 8. Select "Internet Protocol Version 4 (TCP/IPv4)" and click "Properties".

This connection uses the following items:						
Client for Microsoft Networks		^				
🗹 🏪 File and Printer Sharing for Microsoft Networks						
QoS Packet Scheduler						
Internet Protocol Version 4 (TCP/IPv4)	Internet Protocol Version 4 (TCP/IPv4)					
Microsoft Network Adapter Multiplexor Protocol						
Microsoft LLDP Protocol Driver						
Internet Protocol Version 6 (TCP/IPv6)		~				
< >						
Install Uninstall Properties						



Internet F	Protocol Version 4 (TCP/IPv4	4) Prop	ertie	s			×
General	Alternate Configuration						
this cap	n get IP settings assigned auto ability. Otherwise, you need t appropriate IP settings.						
<u>ی</u> (otain an IP address automatica	ally					
	e the following IP address: —						
ĮP ad	ldress:				1.		
Sybr	iet mask:						
Defa	ult gateway:		1				
	otain DNS server address auto	matica	ly				
OUs	e the following DNS server ad	dresse	s:				
Prefe	erred DNS server:						
Alter	nate DNS server:						
V	alidate settings upon exit				Ady	vanced	
				ОК		Cancel	

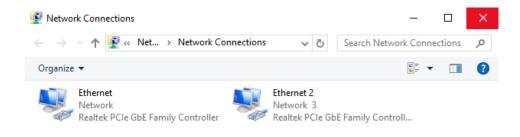
9. Select "Use the following IP address" (Use the following DNS server addresses will be selected automatically).10. Enter the IP address and subnet mask of the camera network.

Internet Protocol Version 4 (TCP/IPv4) Properties						
General						
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.						
ODbtain an IP address automatical	ly					
• Use the following IP address:		- 1				
IP address:	10 . 1 . 1 . 10					
Subnet mask:	255 . 255 . 255 . 0					
Default gateway:	10 . 1 . 1 . 1					
Obtain DNS server address auton	natically					
• Use the following DNS server add	resses:	- 1				
Preferred DNS server:	8.8.8.8					
Alternate DNS server:	8.8.4.4					
Validate settings upon exit	Ad <u>v</u> anced					
	OK Cance	I				

11. Click OK to close then click close to go back to network connections.

12. Connect a network cable to the Ethernet port B9 on the diagram (page 2) to the switch on the local network.

13. Close the network connections dialog.



Quick Start Guide

CONFIGURE CAMERAS USING DW[®] IP FINDER™

Refer to the camera's QSG to configure any DW[®] IP camera's IP address using DW[®] IP finder[™].

DW Spectrum® IPVMS client

\square	WINDOWS-BASED SOFTWARE MANU To launch the DW Spectrum® software on the W			
Windows	OPTION 1: Double-click the DW Spectrum® desktop icon.	OR	OPTION 2: Go to 'Start' on the bottom left and select DW Spectrum [®] in the Digital Watchdog folder	

SETTING UP DW SPECTRUM® MEDIA SERVER

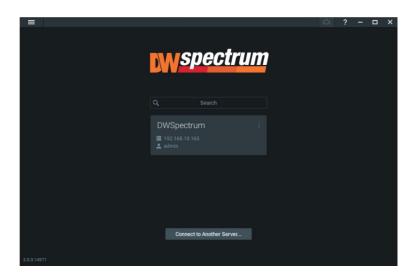
Login: **admin** Password: **admin12345**

STEP 1: Initial run from the Blackjack' server

1. Open the DW Spectrum' client by double click on the DW Spectrum' icon.



2. Click on the pre-configured server.



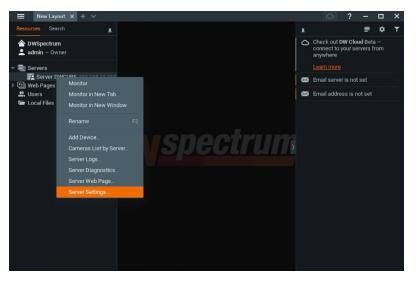


- 3. Enter the password and click connect.
 - * Default password: admin12345 (case sensitive).

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	N spectru	Ш				
	DWSpectrum	×				
	= 192.168.10.163					
	•••••					
	Save password					
	Connect					
6						
	Connect to Another Server					
3.0.0.14971						
G.M.G. 1997 1						

STEP 2: To rename the server

1. Right-click on the server name listed on the resources then click server settings.



2. Go to the general tab and enter the new server name in the name field. Click OK.

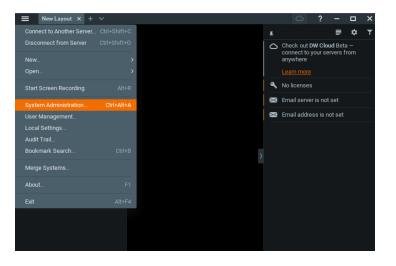
General	Storage Management Storage Analytics		
			_
	Server Spectrum101		
	192.168.21.195	Ping	
	7001		
🕕 Faile	over (server will take cameras automatically from offline servers)		
		OK Analy Canad	

STEP 3: To check for updates

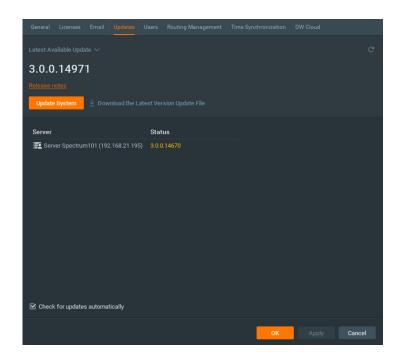
1. Click on the menu

E

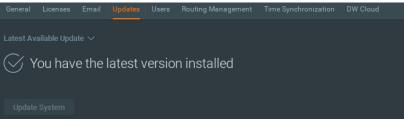
then click "System Administration".



2. Go to the updates tab. If the system requires updating, click on the update system button.

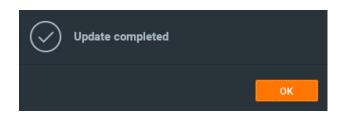


* If you are on the latest version, it will say "You have the latest version installed" and the Update System button will be disabled.





3. Click OK when the update is completed.

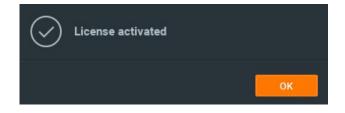


STEP 4: Enter and activate licenses

- 1. Go to the system administration window and click on the license tab.
- 2. Enter the license key and click "Activate License". An Internet connection is required.
 - * Click on "Activate Trial License" if you have not purchased a valid license key.

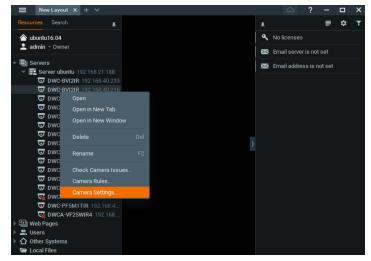
General Licer	ises Email	Updates Us	ers Routing Manage	ment Time Synchro	onization DV	V Cloud	
You do not have	a valid license	installed. Pleas	e activate your comme	ercial or trial license.			
New License							
Internet Activatio	on Manual A						
License Key	FADI-FHHF	-9LCB-MXDO				Paste fro	n Clipboard
	Activate Li	cense					
	Activate Tr	ial License					
					ОК		Cancel

3. Click OK when the license key is activated.



STEP 5: Configure recording

1. Right-click on a camera in the resource tree to setup recording. Click on camera settings from the context menu.



2. Go to the recordings tab.

General	Recordi	ng	l/O po	rts	Motic	'n					ert									
Recording	a ()																Ad	tivate	Licen	se
Recordin																				
Recording																				
ek.																				
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π																				
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Max. Days																				
01														_		_				
Show of	n Layout		Even	t Log.		Ca	amera	ı Rule	s						ОК		Apply		Car	ncel

3. Click Recording (

to turn on recording.

- 4. Configure the camera's schedule settings for quality, FPS and recording type.
- 5. Click and drag the mouse over the recording schedule to apply the settings to multiple days and times.

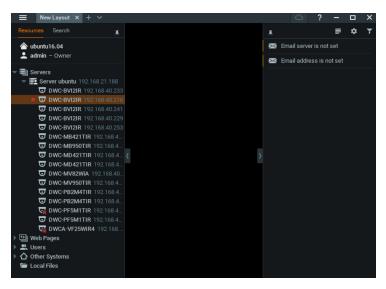
General Re	cordin	19	1/0 pc	rts	Motio	n Fis	iheye	Adva	nced	Exp	pert												
																						tivate	
Recording	Scher	lule																					
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																		5	🖞 Sho		ality		
FPS 1			¢																3 Sho				
				0.		lways									lot Re								



* Click "All" to apply the recording settings to the entire schedule.

Reco	rdi	ng	Sci	hed	lule	e ()	bas	ed (on s	ierv	ier 1	time	e)												
	К	Al	1														8								
		lan																							
General R	ecordi	ng	l/O po	rts	Moti	on	Fishe	/e	Advar	iced	Exp	ert													
Recording																							tivate	Licens	
Recording	Sche	dule																							
	0 15	1	2	3 15	4 15	5 15	6 15	7 15	8 15	9 15	10 15	11 15	12 15	13 15	14 15	15 15	16 15	17 15	18 15	19 15	20 15	21 15	22 15	23 15	
Mon	15 Hi 15																								
Tue Wed	Hi 15																								
vved Thu	Hi 15	Ні 15	Hi 15	Hi 15	Hi 15	Ні 15	Hi 15	Ні 15	Hi 15	Ні 15	Hi 15	Hi 15	Hi 15	Ні 15	Hi 15	Hi 15	Hi 15	Ні 15							
	Hi 15 Hi	Hi 15 Hi	Ні 15 Ні	Hi 15 Hi	Hi 15 Hi	Hi 15 Hi	Hi 15 Hi	ні 15 Ні	ні 15 ні	Hi 15 Hi	Hi 15 Hi	Hi 15 Hi	Hi 15 Hi	ні 15 ні	Hi 15 Hi	Hi 15 Hi	Hi 15 Hi	Ні 15 Ні	Hi 15 Hi	Hi 15 Hi	Hi 15 Hi	Hi 15 Hi	Hi 15 Hi	Hi 15 Hi	
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			⊠ A	uto							5 s	¢													
License limit	excee	eded, i	record	ling w	ill not	be er	nablec					î													
Show on L	ayout		Ever	nt Log		C	amera	Rule	s										ОК			Apply		Can	cel

6. A red dot will appear next to the camera in the resource tree once recording is started.

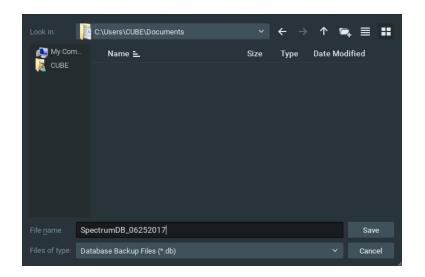


STEP 6: Backup database

1. Go to the system administration window and click on the general tab.

General Licenses					
DWSpectru	m 🖍				
Ŷ	₽ <u></u>	ବ ବ ବ 	<u>ه</u>		\Box
Event Rules	Event Log	Camera List	Audit Trail	Health Monitoring	Bookmarks
System Settings					
🗹 Enable cameras and	d servers auto discov	ery			
🗹 Enable audit trail					
Send anonymous us	sage and crash statis	tics to software develo	pers (recommend		
Allow System to opt	imize camera setting	s (recommended)			
Backup and Restore					
Create Backup	Restore from Bac	kup			
				OK Appl	y Cancel

- 2. Click "Create Backup...".
- 3. Navigate to the folder you want to save the database and enter a name for the backup file. Click "Save".
 * It is strongly recommended to backup your data to external storage media as well.



NOTE More information and instructions are available in the DW Spectrum® IPVMS user manual.

TROUBLESHOOTING TIPS

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

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	Tested operating systems	 Windows Server 2008 R2, 2012, 2012 Ubuntu LTS: 16.04, 18.04, 20.04. MAC OS X 10.14: "Mojave", 10.15 "Cat 		
	Operating system no longer supported		(See the reference for upgrade instruct upported (Only 2008 R2 is supported).	ion).

* Except Storage Server version

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

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