Blackjack NVR SERIES POWERED BY DW Spectrum IPVMS

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

SIMPLY POWERFUL, POWERFULLY SIMPLE

BLADE — Up to 16 2.1MP Cameras (1080p True HD Resolution)

CUBE — Up to 64 2.1MP Cameras (1080p True HD Resolution)

E-RACK — Up to 128 2.1MP Cameras (1080p True HD Resolution)
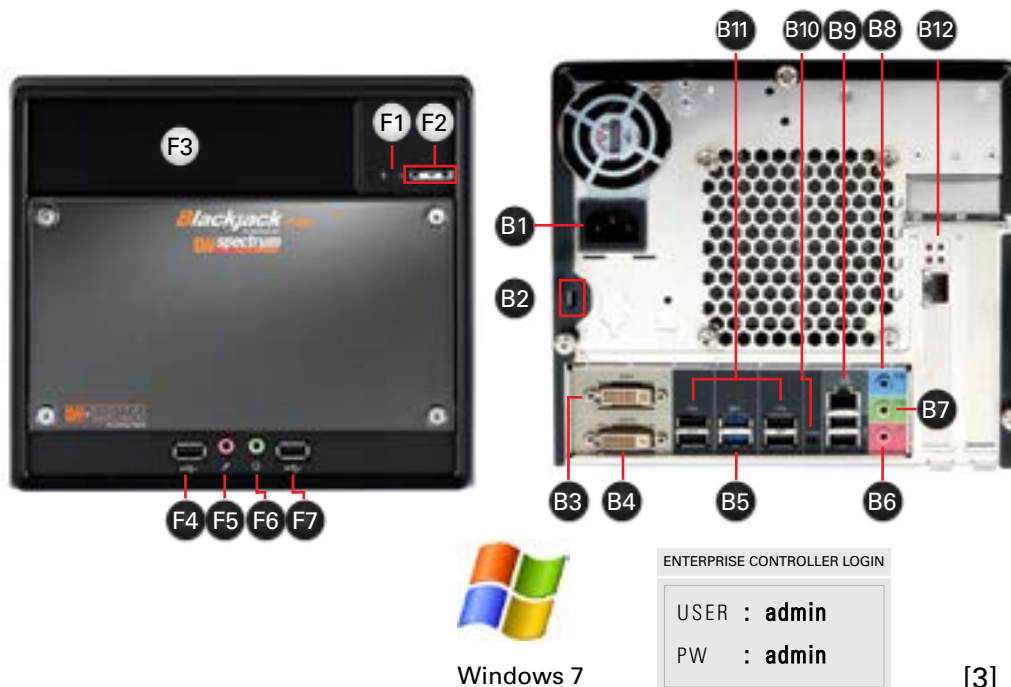
ERACK
BLADE
CUBE

Toll Free: 866.446.3595   Fax: 813.888.9262
www.digital-watchdog.com   sales@dwcc.tv

F1 HDD LED
F2 Power Button / Power LED
F3 5.25" Bay
F4 USB 2.0 Port
F5 Microphone
F6 Headphone
F7 USB 2.0 Port

B1 AC Power Socket
B2 Kensington Lock
B3 DVI-I Port (for Analog Monitor)
B4 DVI-D Port (for Digital Monitor)
B5 USB 3.0 Ports
B6 Microphone Jack
B7 Line-Out Jack
B8 Line-In Jack
B9 WAN & USB 2.0 Ports
B10 Clear CMOS Button
B11 USB 2.0 Ports
B12 LAN (Second Card)

BLACKJACK CUBE HARDWARE

SPECIFICATION

Max. Number of Cameras Supported (Recording)	Up to 64
Recording Performance	360Mbps*
Network	Gigabit(2x)
Video Compression	H. 264
Megapixel Recording	Up to 20 Megapixel
Multi-Camera Monitor	Up to 128 Channels
Advanced Motion Detection	Yes
Video Port	**DVI-I / DVI-D**
Local View	Yes
Storage Capacity	9TB(3x3TB HDD)
Hard Drive Interface	3.5" SATA, SSDx3
USB Ports	8xUSB 2.0
Warranty	5 years limited
Dimension	12.8"(L) x 8.5"(W) x 7.5"(H)

Windows 7

ENTERPRISE CONTROLLER LOGIN

USER : admin
PW : admin

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MULTI-SERVER SETUP

For applications where multiple servers are used and are being monitored from a single master location, you combine those servers as secondary Media Servers under one server assigned as the master Enterprise controller.

DW Spectrum Client 1
DW Spectrum Client 3
Enterprise Controller
Media Server 1   Media Server 2   Media Server 3
Cameras

DEFAULT PORTS

7001 : Enterprise Controller
7002 : Media Server
7004 : Proxy

Enterprise Controller should not be installed more than once in the same network

Multi-Site VMS - Combining Servers Into 1 Enterprise Contoller

① Select Your PRIMARY Enterprise Controller

② Find the IP and Port information

③ Attach the Media Servers to the Enterprise Controller:

1. Go to the PASSIVE Media Server (server you want to assign to the PRIMARY EC).
2. Right-click on the DW Spectrum tool bar at the bottom right-hand corner of the desktop, and select 'Settings'.
3. Enter the PRIMARY EC's Host address, ports, username and password. If the PASSIVE server is on the same network as the PRIMARY server, you can use the *Last Used Connection * drop down option to view all detected ECs in the network.
4. Press 'Test' to make sure the connection is properly setup.
5. Press 'OK'. System will prompt you to reboot the Media Server . Press 'OK' to continue.

④ Repeat for all other Media Servers in the same network

⑤ To login, enter the primary EC's IP adress, port*, and login information in your client software.

*NOTE: To view your Security System from a remote network, the PRIMARY EC's ports need to be forwarded in the router. Contact your Network Admin or Internet Service Provider for more information.

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CAMERA & E.C. AUTO-DISCOVERY

The client will auto-detect all Enterprise Controllers in the network

Otherwise, input IP address into the 'Host' box

Use the following default ID & password

USER : admin
PW : admin

After logging, all supported cameras on the network will automatically populate through the auto-discovery feature

Select 'Auto Login' to log to the server automatically every time the client software is launched.

LICENSE REGISTRATION

The Blackjack Servers come equipped with complimentary four (4) recording licenses.
In addition, any licenses purchased with the hardware will be found at the bottom of the Cube's hardware, as a sixteen- digit code that needs to be activated.

If your server has internet access-
1. Go to DW Menu Button > System Settings > Licenses.
2. Select 'Automatic Activation via Internet' from the drop-down options.
3. Input your sixteen-digit license key
4. Press 'Activate License'. The system will notify you if the activation was successful or not.
5. If your licenses have been registered successfully, they will appear under the Active Licenses table.
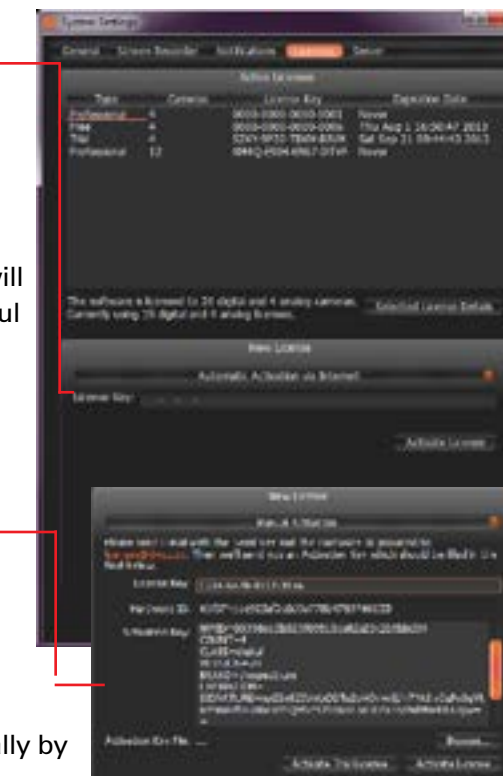
If you do NOT have internet access-
1. Go to DW Menu Button > System Settings > Licenses.
2. Select 'Manual Activation' from the drop-down options.
3. Copy your hardware ID. This information will be filled out automatically by your server.
4. E-mail your Hardware ID and your License Key to licenses@dwcc.tv. Please allow up to 48 hours for Digital Watchdog to reply.
5. Once provided with an Activation Key, Enter this information without altering it in the Activation Key space and press 'Activate Licenses'.

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CLIENT REQUIREMENTS

Monitor, keyboard and mouse must be purchased separately

Recommended Specs for Client:

WINDOWS   LINUX

Processor	Intel Core i5 or greater
Video Card	Intel HD Graphics 2500 (or higher) with 1GB Dedicated Memory
Resolution	1920 x 1080
RAM	4GB
NIC	10 / 100 / 1000 Base-T Ethernet
OS	Windows 7, Server 2008, Vista, Ubuntu 12.04 LTS or Newer

Network Requirements:

IEEE 802.3ab 1000BASE-T Gigabit Ethernet
Cameras and servers in the network must be completely isolated

NOTE: if you are not connecting to the Blackjack from within the same network, you may be required to perform port forwarding on your router to access the server. Contact your Network Administrator or Installer for additional information
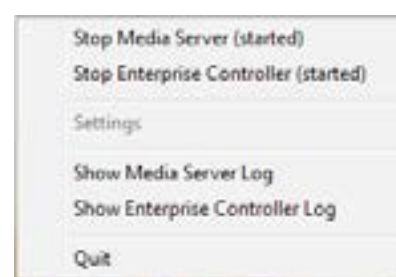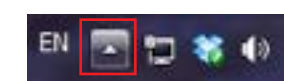
Mobile Access:

Web	Internet Explorer, Firefox, Opera, Chrome
Apps	Android OS, iOS Smart Phones and Tablets

BLACKJACK CUBE TRAY TOOL

If you have the Media Server and / or Enterprise Controller installed on your Windows station, you can control the server's connection to the Enterprise Controller, view server logs and start and stop the server from the DW Spectrum Tray Tool.
The Tray Tool is located at the bottom right-hand corner of the Cube's Desktop.
To access it:
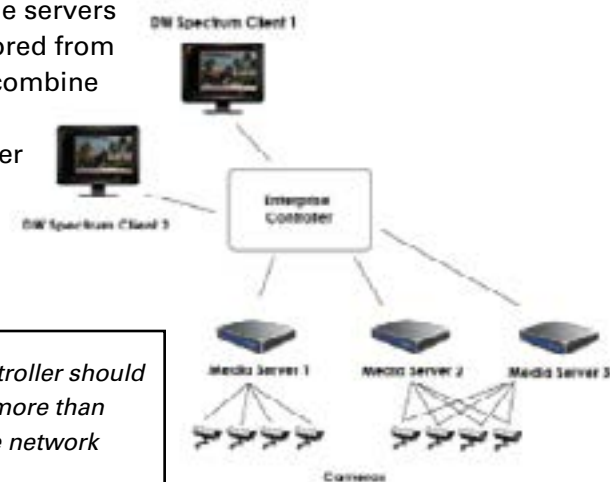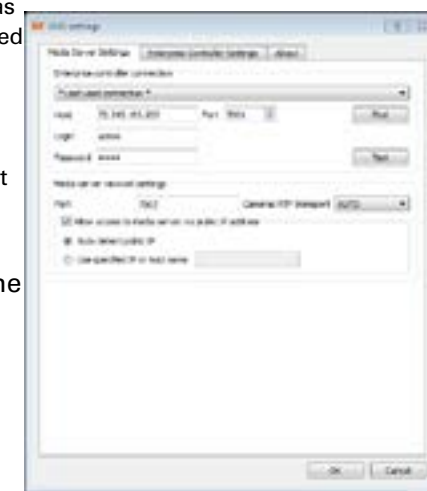1. Press the arrrow at the bottom right-hand corner of the desktop and click on the DW Spectrum icon.

2. Select one of the following options:
 a. Start/ Stop Media Server- Manually restart the Media Server.
 b. Start/ Stop Enterprise Controller- Manually restart the Enterprise Controller
 c. Settings- Open Server settings page, including: Meida Server Settings, Enterprise Controller Settings, and About Software information.
 d. Show Media Server Log- The system will open the Media Server's log report in a web browser page.
 e. Show Enterprise Controller Log- The system will open the Enterprise Controller's log report in a web browser page.
 f. Quit- Exit the Tray Tool options.
3. If 'settings' were selected, you can change the Media Server's EC connection, change the master admin username and passowrd, and change the server's ports as necessary.
Please consult your network administrator before changing any of the Blackjack Cube's settings.

EN

Stop Media Server (started)
Stop Enterprise Controller (started)
Settings
Show Media Server Log
Show Enterprise Controller Log
Quit
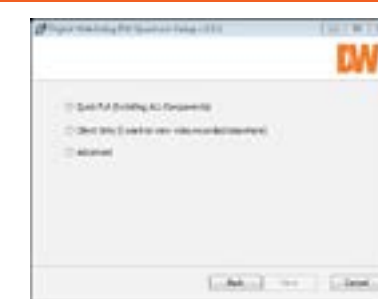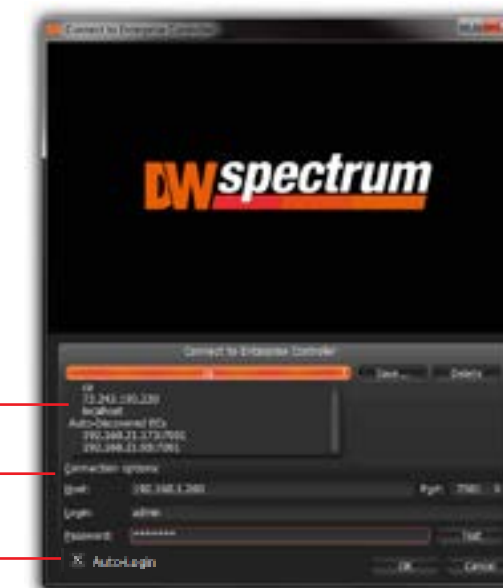

SOFTWARE INSTALLATION

To install the DW Spectrum full software package:
1. Download the installation file from Digital Watchdog's website at dwcc.tv.
2. Double-click on the installation file to run the installation wizard.
3. Select the installation option:
 a. Quick Full- install all three components
 b. Client Only- install only the DW Spectrum client.
 c. Advanced- manually select which components to install.
4. Enter the admin credentials and complete the installation.
5. If you are installing the Media Server only, enter the PRIMARY EC's IP Address, Port, and login information to attach the new Media Server to that Enterprise Controller.

The three components of the DW Spectrum software are:
1. Digital Watchdog DW Spectrum Client
(For viewing video recorded elsewhere)

2. Digital Watchdog Media Sever
(For recording local video using the PC)

3. Enterprise Controller
(For managing database)

Enterprise Controller should not be installed more than once in the same network

Advanced Installation:

Media Server Only Installation:

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MANUALLY ADDING CAMERAS

Cameras can also be manually added by right-clicking on the server icon and choosing the 'Add camera(s)' option

Monitor
Monitor in a New Tab
Monitor in a New Window
Rename
Add camera(s)...
Server Settings...

① Enter the camera's IP address, URL, or RTSP information

② Check to select a range

③ Enter log-in information

④ Click on the Scan button

⑤ Cameras will populate the list automatically

⑥ Click to add all selected cameras

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[2]

[4]

USER INTERFACE OVERVIEW

- Help Menu
- Login to Server
- Screen Recording Controls
- Panic Recording Controls (Record @ 30 fps)
- Layout Management
- Main Menu Button
- Server Health Monitoring
- Pop-up Notifications

- Camera Popup Preview
- Camera Options
- Live / Playback
- Time Navigation Bar Zoom
- Thumbnail Toggle Button
- Playback Controls
- Audio Controls
- Server / Camera Display Tree
- Calendar Search

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IMPORTANT! Before adjusting the camera's settings, check 'This is a Fisheye Camera' under Camera Settings > General.
Clicking on the De-Warp button will display the camera in three display options: 90° view with digital PTZ, panoramic 180°, and panoramic 360°. To alternate between views, left click on the right side of the display image.

- 90° View with PTZ Control
- 180° View with PTZ Control
- 360° View with PTZ Control

ADVANCED CAMERA OPERATIONS

ADVANCED PTZ

Clicking on the PTZ icon on the top-right corner of the window will bring up buttons for control

To zoom the camera: Use the + / - buttons to zoom the camera in or out.
To move the camera: Click and hold the circle in the middle of the PTZ controller and move it to where you want the camera to move to. For precise movement, left click on the are of the display you want the camera to move to.
To move + zoom the camera: Hold Left Mouse Button and draw the rectangle to zoom into.
To zoom out: double click anywhere on the screen.
To save a preset: move the camera to the position, right-click and select PTZ > Save Current Position. DW Spectrum supports 9 Presets.

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15 August 2013

Calendar Search
is enabled by clicking on the [CLND] on the bottom-right corner of the layout screen.
Select a desired date in Calendar.
To select multiple dates , use CTRL.
Select a desired hour in the upper part Calendar.

Alarm / Event Rules
allow you to setup unique rules and actions for events detected by the server such as motion detection, network loss, camera input trigger etc.
To configure Rules:
1. Select one of the existing rules or press the 'Add' button to create a new rule.
2. Modify the cameras or servers it applies to, and the action and target you want to take when the event occurs.
3. For advanced settings, press 'Advanced...' at the top right corner. This includes additional e-mail and sound settings as well as rule schedule setup. [13]

ADVANCED OPTIONS & SEARCH

Graphical HDD Health Monitoring
can be performed by dragging the server icon ( ) onto the layout view

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 fully 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 enabled on your camera.
	5. Try adding the camera manually.
	6. Try rebooting the server after installation. Please allow up to 30 seconds for the server map your network and detect all supported devices.
Videos are slow	1. Are you accessing the same cameras from multiple clients? (LAN & 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. *(Connectivity & compatibility issues can be resolved in new camera firmware)*
	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 can't 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.

Keyboard Shortcut Controls

Name	Hot keys	Description
New Layout	CTRL + t	Creates a new layout
Save Layout	CRTL + s	Saves the current layout
Close Layout	CRTL + w	Closes the current layout
Save Layout As	CTRL + ALT + s	Saves the current layout as a different name
Toggle Side Panel	F11	Shows / hides the side panel
Zoom In / Out	+ or -	Zooms in / out of the screen
Cell Spacing	CTRL + Wheel	Increases / decreases the cell spacing
Duplicate Item	CTRL + Drag	Duplicates any selected windows
Rotation	ALT + Drag	Rotates the target window
Coarse Rotation	CTRL + Rotate	Rotates the target window at 15° intervals
Panic Recording	CTRL + p	Starts / stops the panic record function
Screen Recording	ALT + r	Starts / stops the screen record function
Timeline Selection	[or]	Defines the start / end point of timeline selection
Toggle Recording Info	ALT + i	Shows / hides the recording information
Navigate Recording	z or x	Moves forward / backward between recorded chunks

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CAMERA VIEW WINDOW

- Indicates Recording Type
  - 🟢 Record Always
  - 🔴 Motion Only
  - 🟡 Motion + Low-Res Always
  - ⚪ Not Recording
- Camera Name
- Resolution
- FPS
- Bit rate
- Codec
- Server Time

DIAGNOSTICS LOGS

- Start/ End Dates
- Event Filter
- Camera/ Server Filter
- Action Filter
- Clear All Filters
- Open Evet/ Alarm Rules Setup Page
- Open Video from Event
- Refersh Search Results

The DW Spectrum Events Log allows you to monitor camera events, server errors, and network errors easy and fast. The results are based on the Alarm / Event Rules settings. If no Rules are active, only system issues will be saved.

You can filter the search results by:
1. Start and End Date – only events occurring during the set time are displayed.
2. Event type – displays a specific type of events only.
3. Camera – displays events for a specific camera.
4. Action type – specific events caused by certain types of actions are displayed

To select multiple rows from a table, drag the mouse, use CTRL + Click/Up/Down arrows, or Shift + Click/ Up/ Down arrows. Use CTRL + A to select all records.

To Export the log's data, select the desired rows, right-click and select Export.

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RECORDING SCHEDULE

Select cameras and go to "Camera Settings"

- Enable Cameras to Record
- Recording Menu
- Motion Menu
- Select All
- Click & Drag
- Pre & Post Recording (3 is recommended)
- Recording Type
- Copy Recording Settings to multiple cameras

USER ACCOUNTS

	ADMIN	CAMERA SETTINGS	PTZ CONTROLS	VIDEO ARCHIVES	EXPORT VIDEO	VIEW LIVE VIDEO
Administrator	●	●	●	●	●	●
Advanced		●	●	●	●	●
Viewer				●	●	●
Live Viewer						●

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MULTI-LEVEL MOTION MASKING

- 0 to 9 Sensitivity Settings (8 is default)
- Select camera area by clicking & dragging to apply sensitivity settings

ADVANCED MOTION DETECTION

- Selected area for motion detection
- Corresponding video for selected area
- Motion tracing

* Gray - Motion Mask
Areas marked gray will not capture motion

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Accessing DW Spectrum Log Files

From the DW Specturm Client Software:

- Right-click on the Server's name
- Choose Server Logs. The Media Server's Log will open in a web browser page.
- You can adjust the number of entries in the log by modifying the URL. To do so, change the value at the end of the URL stating 'lines=1000'. For examanple, 'lines=1' will reduce the log reoprt to a single line of data. 'lines=400' will display 400 lines of data.