

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)
* not shown

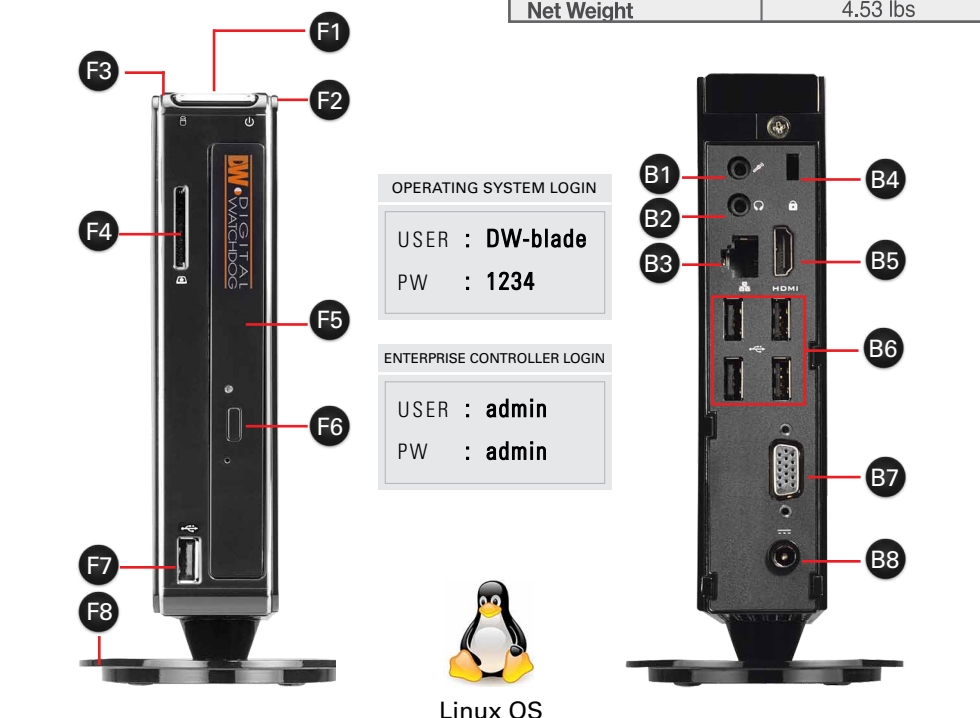


Toll Free: 866.446.3595 Fax: 813.888.9262
www.digital-watchdog.com sales@dwcc.tv

- F1 Power Button
- F2 Power Status LED
- F3 HDD Status LED
- F4 SD Card Reader
- F5 ODD / Second HDD (optional)
- F6 ODD Eject Button
- F7 USB 2.0 Port
- F8 Vertical Stand

BLACKJACK BLADE HARDWARE

SPECIFICATION	
Max. Number of Cameras Supported (Recording)	Up to 16
Recording Performance	176Mbps*
Network	Gigabit(1x)
Video Compression	H. 264
Megapixel Recording	Up to 20 Megapixel
Multi-Server Monitor	Up to 128 Channels
Advanced Motion Detection	Yes
Video Port	VGA / HDMI
Local View	No
OS	Linux
Storage Capacity	2 TB(2x1TB HDD)
Hard Drive Interface	2.5" SATA, SSDx2
USB Ports	5xUSB 2.0
Warranty	3 years
Dimension	10"(L)x1.6"(W)x6.4"(H)
Net Weight	4.53 lbs

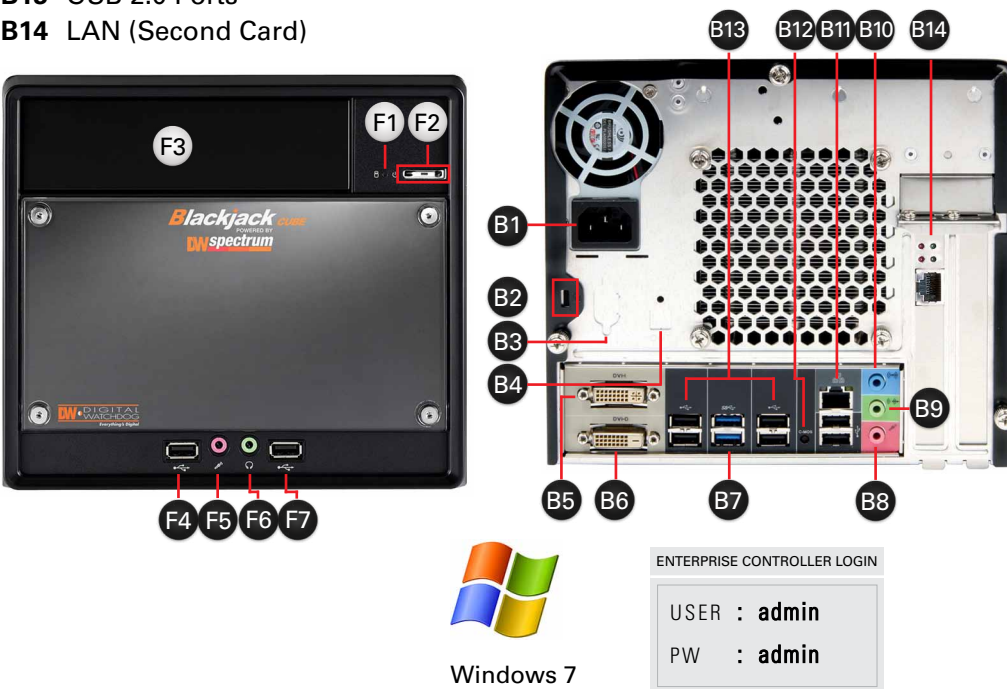


- F1 HDD LED
- F2 Power Button / Power LED
- F3 5.25" Bay
- F4 USB 2.0 Port
- F5 Microphone
- F6 Headphone
- F7 USB 2.0 Port

BLACKJACK CUBE HARDWARE

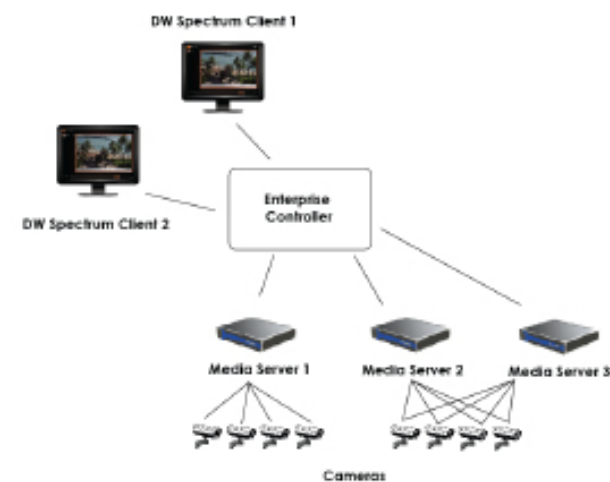
SPECIFICATION	
Max. Number of Cameras Supported (Recording)	Up to 64
Recording Performance	360Mbps*
Network	Gigabit(2x)
Video Compression	H. 264
Megapixel Recording	Up to 20 Megapixel
Multi-Server Monitor	Up to 128 Channels
Advanced Motion Detection	Yes
Video Port	DVI/HDMI
Local View	Yes
Storage Capacity	9TB(3x3TB HDD)
Hard Drive Interface	3.5" SATA, SSDx3
USB Ports	8xUSB 2.0
Warranty	5 years limited
Dimension	12.8"(L)x8.5"(W)x7.5"(H)

- B1 AC Power Socket
- B2 Kensington Lock
- B3 Serial Port Perforation (optional)
- B4 SPDIF Out Port (optional)
- B5 DVI-I Port (for HDMI)
- B6 DVI-D Port (for analog)
- B7 USB 3.0 Ports
- B8 Microphone Jack
- B9 Line-Out Jack
- B10 Line-In Jack
- B11 WAN & USB 2.0 Ports
- B12 Clear CMOS Button
- B13 USB 2.0 Ports
- B14 LAN (Second Card)



- 1 Select Your Primary Enterprise Controller
- 2 Find the IP and Port information
- 3 Attach the servers to the Enterprise Controller (see below)
- 4 Repeat for all other servers in the same network
- 5 Enter primary EC's IP address, port, and login information to enable live view

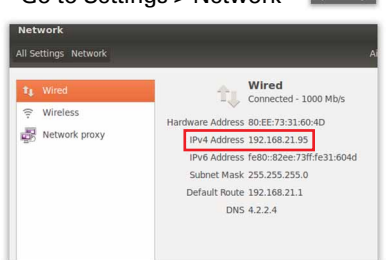
SYSTEM ARCHITECTURE



Locating your IP address on Windows and Linux

On Linux:

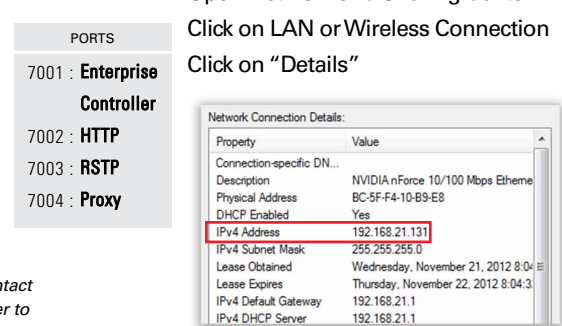
Go to Settings > Network



To view your cameras outside the network, contact your network admin or internet service provider to port-forward your system
Visit <http://www.portforward.com/> for additional information

On Windows:

Open Network and Sharing Center
Click on LAN or Wireless Connection
Click on "Details"



Multi-Site VMS - Combining Servers Into 1 Enterprise Contoller

On Cube:

Connecting to the Primary EC will allow all Media Servers to be shown on the Camera Display Tree. If those servers are located on the same network, you can assign cameras to each server by dragging and dropping.

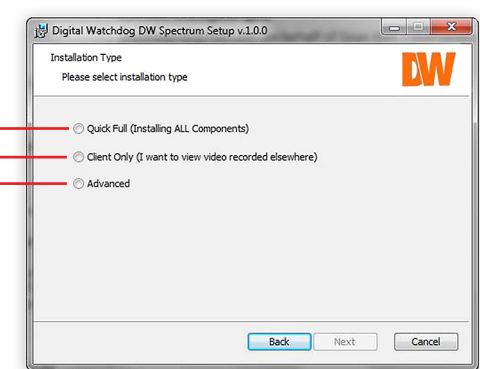


On Blade:

1. Go to the PASSIVE Media Server (Server with only the Media Server on it)
2. Save the Media Server installation file in an accessible folder
3. Right-click on the Media Server installation file and select 'Open with UBUNTU Software Center'
4. Press 'reinstall'
5. Enter user credentials (default admin)
6. When asked to forward EC address, enter the PRIMARY Server's IP Address instead of Local Host.
7. If necessary, adjust default port, user and password

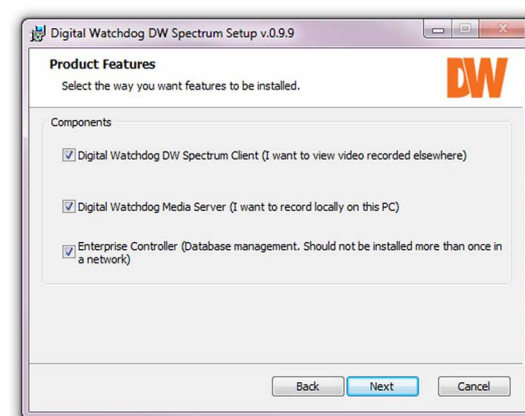
SOFTWARE INSTALLATION

When installing, you may choose to install all three components of the software (Client, Media Server, and Enterprise Controller) by choosing the 'Quick Full' option



If an Enterprise Controller already exists within the network, you can choose to install only the client

Or you can choose which components you wish to install by choosing the 'Advanced' option



The three components of the DW Spectrum software are:

1. Digital Watchdog DW Spectrum Client (For viewing video recorded elsewhere)
2. Digital Watchdog Media Server (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

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

Otherwise, input IP address into the 'Host' box

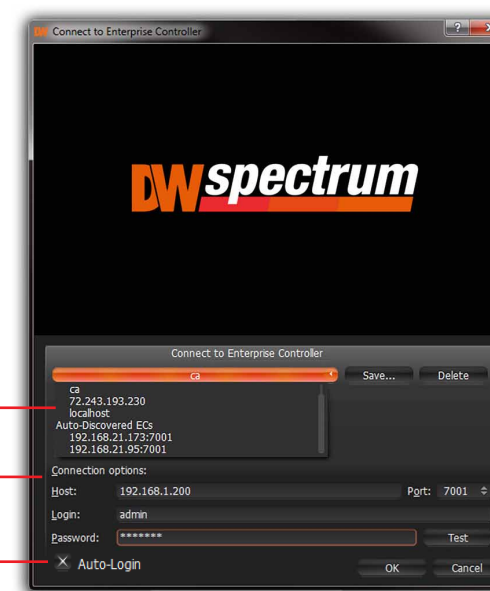
Use the following default ID & password

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.

CAMERA & E.C. AUTO-DISCOVERY

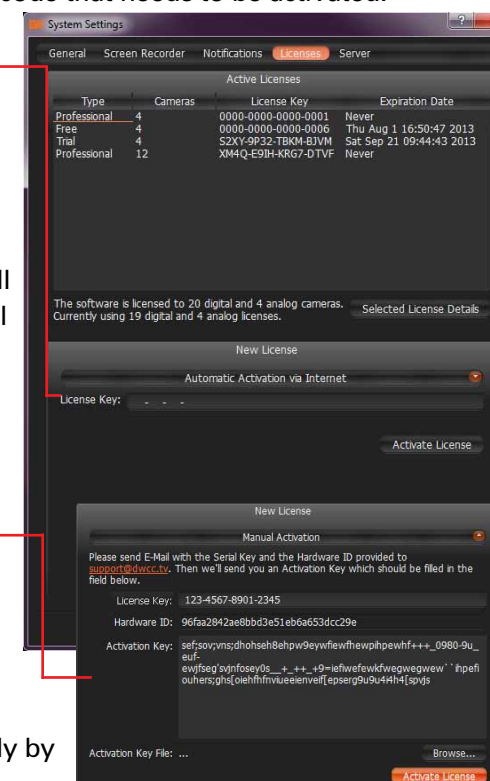


LICENSE REGISTRATION

The Blackjack Servers come equipped with complimentary four (4) free recording licenses that needs to be activated. In addition, any licenses purchased with the hardware will be found at the bottom of the Blade'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 support@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'.

[7]

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, XP, Ubuntu 12.04 LTS or Newer	

Network Requirements:

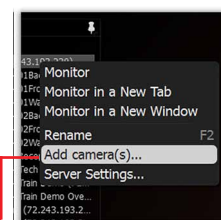
IEEE 802.3ab 1000BASE-T Gigabit Ethernet
* Cameras and servers in the network must be completely isolated

* 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, Safari, Opera, Chrome
Apps	Android OS

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



MANUALLY ADDING CAMERAS

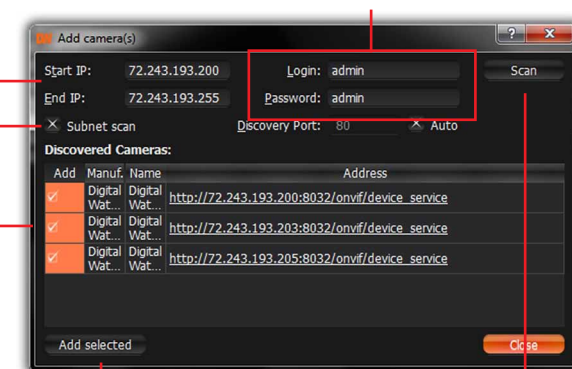
1 Enter the camera's IP address, URL, or RTSP information

2 Check to select a range

5 Cameras will populate the list automatically

6 Click to add all selected cameras

3 Enter log-in information



4 Click on the Scan button

USER INTERFACE OVERVIEW

- Help Menu
- Server Status
- 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
- Time Navigation Bar Zoom
- Time Navigation Controls
- Server / Camera Display Tree
- Live / Playback
- Thumbnail Toggle Button
- Audio Controls
- Calendar Search

ADVANCED CAMERA OPERATIONS

DW Spectrum provides a dewarping feature to be able to view Hemispheric 360° Cameras. 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 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.

ADVANCED OPTIONS & SEARCH

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. To select multiple hours, CTRL.

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

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.

TROUBLESHOOTING TIPS

Problem	Possible Solutions
My camera does not auto-discover	<ol style="list-style-type: none"> 1. Is the camera in the same LAN network as the Enterprise Controller? 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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.

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
- Open Video from Event
- Open Event/ Alarm Rules Setup Page
- Refresh Search Results

RECORDING SCHEDULE

- Select cameras and go to "Camera Settings"
- Enable Cameras to Record
- Recording Menu
- Motion Menu
- Copy Recording Settings to multiple cameras

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

MULTI-LEVEL MOTION MASKING

ADVANCED MOTION DETECTION

- 0 to 9 Sensitivity Settings (8 is default)
- Select camera area by clicking & dragging to apply sensitivity settings
- Selected area for motion detection
- Corresponding video for selected area
- Motion tracing
- * Gray - Motion Mask
- Areas marked gray will not capture motion

USER ACCOUNTS

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

Accessing DW Spectrum Log Files

From the DW Spectrum 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 example, "lines=1" will reduce the log report to a single line of data. "lines=400" will display 400 lines of data.

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