

# **Spectrum** PROFESSIONAL

# Quick Start Guide



# Table of Contents

1.	Ove	erview	3						
2.	Par	t 1 - Initial Setup	4						
2.	1.	System Settings and Security	5						
2.	2.	Activate a License	6						
2.	3.	. Create a User / Share Access via DW Cloud							
2.	4.	. Create DW Cloud Account with 2FA / Log in to DW Cloud System							
2.	2.5. Connect DW Spectrum System to DW Cloud								
2.	6.	Configure the Storage Archive	. 12						
2.	7.	Add a Camera	. 15						
2.	8.	Enable Recording on a Camera	.16						
2.	9.	Enable Motion Detection and Create a Motion Mask	. 17						
3.	Par	t 2 - Using Basic Features	.19						
3.	.1.	Create a Layout	20						
3.	2.	Searching Through the Video Archive	20						
	3.2.1	Preview Search	20						
	3.2.2	2. Smart Motion Search	21						
	3.2.3								
3.	3.	Export Recorded Video	23						



# 1. Overview

This guide is split up into two parts:

- Part 1 Helps Administrators/Power Users get started with the initial setup and configuration of a DW Spectrum system.
- Part 2 Introduces users to the most frequently used basic features in the DW Spectrum.

For additional help, you can access the DW Spectrum User Manual embedded in the client software for detailed information about DW Spectrum technology, features, system setup, and configuration.



# 2. Part 1 - Initial Setup

Begin the setup and configuration process after installing the DW Spectrum Server and DW Spectrum Desktop client.

- 1. Launch the DW Spectrum Desktop Client and click on the **New Server** tile to begin the DW Spectrum Server setup process.
- 2. Click Setup New System.
- 3. Enter a name for your new DW Spectrum system.
- 4. Enter a password for the Owner account.

Important: This is the system's primary account (Owner) and cannot easily be changed once set. The default username is "admin," and it is the only account with super Power User privileges. The Owner is the only account that can assign Power Users.

5. Review the server's information and click Finish.





# 2.1. System Settings and Security

The settings below affect your entire DW Spectrum system. Assess each setting carefully before making any changes.

- 1. Open the *Main Menu* and click **System Administration**.
- 2. Toggle on/off the options under *System Settings* as needed:
  - Enable cameras and servers autodiscovery and automated camera status check

     The system continuously discovers new cameras and DW Spectrum Servers
     on the network and sends frequent discovery requests to cameras for status
     updates. If disabled, cameras must be added manually, and cameras will appear
     as if they were offline due to the lack of status updates.

Important: Multicasting must be enabled on your network for autodiscovery to work.

- Send anonymous usage and crash statistics to software developers Automatically sends anonymized data about the DW Spectrum system (e.g., cameras, server hardware, software version, crashes, etc.) to help improve DW Spectrum.
- *Allow System to optimize camera settings* Configures cameras to send two streams at the optimal resolution.
- *Custom language for mobile notifications* If desired, select a different language to be used for mobile notifications.
- 3. Click on the **Security** tab and toggle on/off the options as needed.

#### Data Protection

- Use only HTTPS to connect to cameras Ensures that DW Spectrum servers only connect to cameras using HTTPS, preventing management traffic between cameras and DW Spectrum servers from being intercepted and analyzed.
- Force servers to accept only encrypted connections Forces all servers in the DW Spectrum system to accept only secure HTTPS connections. This prevents API requests, the server Web Admin interface, and other data (user accounts, device access credentials, etc.) from being intercepted and analyzed.
- *Encrypt video traffic to desktop and mobile clients* Prevents your video streams (live and playback) from being intercepted and viewed.
- *Display watermark with username over video* Watermarks will be displayed over the live, archive, and exported videos for non-admin users only.



#### <u>User Activity</u>

- Enable audit trail Tracks and logs all user actions.
- *Limit session duration* If enabled, users will be automatically logged out if their session exceeds the specified duration.
- *Display servers in the tree for non-power users* Allows regular users to see available DW Spectrum servers in the Resource Tree.

#### Archive Encryption

DW Spectrum stores the recorded footage in a file system. It can be accessed and viewed by someone who has physical/network access to a Storage drive. Once enabled, this setting encrypts archive data to prevent it from being viewed outside of the DW Spectrum system (Desktop Client, Mobile Client, Web Admin, or Cloud Portal).



# 2.2. Activate a License

- 1. Open the *Main Menu* and click **System Administration**.
- 2. Go to the Licenses tab.
- 3. Enter the license key and click Activate License.



# 2.3. Create a User / Share Access via DW Cloud

User Management allows you to search for and modify users, set access types, and assign permission groups.

#### <u>Create a Local User</u>

- 1. Open the *Main Menu* and click **User Management**.
- 2. Click Add User.
- 3. Select the **Local** user type.
- 4. Enter credentials (Login, Name, Email, Password)
- 5. Select an Access level (Regular or Temporary)
- 6. Select a **Permission Group** (Power Users, Advanced Viewers, etc.) for the added user. Individual custom permissions can be set in the *Resources* and *Global Permissions* tabs.
- 7. Click the **Add User** button to complete the process. Authentication may be required.

#### Create a Cloud User / Share Access to a DW Cloud System

Existing DW Cloud users will receive an email stating that they now have access to your DW Spectrum system, while new users will receive an email that prompts the user to create a DW Cloud account to gain access to the shared system.

- 1. Open the *Main Menu* and click User Management.
- 2. Click Add User.
- 3. Select the **Cloud** user type.
- 4. Enter credentials (Login, Name, Email, Password)
- 5. Select an Access level (Regular or Temporary)
  - Temporary users receive a unique URL link that provides access to a System through either the desktop client or the web admin. The temporary user URL does not require a password and can be used by anyone.
- 6. Select a **Permission Group** (Power Users, Advanced Viewers, etc.) for the added user. Individual custom permissions can be set in the *Resources* and *Global Permissions* tabs.
- 7. Click the **Add User** button to complete the process. Authentication may be required.

**Note:** DW Cloud users can access a shared system by <u>logging into DW Spectrum</u> <u>Desktop or the DW Cloud portal</u>.



■ New Layout 1 × +	~				0	@digital-watchdog.com 👻 ? _	_ @ X
Contract to Another Server						L NOTIFICATIONS	A 🗏 🕅
Disconnext from Server							
New					IW New User - DW Spectrum Client		×
Open							
Start Screen Recording	Alt+R	Users Groups LDAP		2	New User		
System Administration							
User Management				All Users 🗸 🕂 Add User	Enabled user		
Local Settings		🗆 🖻 Login	Full Name Email	Groups Custom	Type 🛓 Local 🛆 Cloud		
Audit Trail							
Bookmark Log		dwtechwriter2@gmail.		mai Administrators			
Add		🗌 🤽 mackenzie@digital-w	Mackenzie I mackenzie@digit:		4 Full Name		
About							
User Manual							
Save Windows Configuration					Access Regular user with credentials	5	
Exit							
					Confirm Password		
					Allow insecure (digest) authentication		
					6 Permission Groups Select ~		
						Add User Cancel	
				OK Apply Cancel			

#### Create a Custom Group in the Desktop Client

System administrators and power users can use the desktop client to create, manage, and delete custom groups. Custom groups only grant permission to resources, while some Built-In Groups and Permissions also grant permission to change settings. Custom groups can be nested within other groups or contain Built-In Groups as members to inherit permissions.

- 1. Open Main Menu > User Management.
- 2. Select the *Groups* tab within the *System Administration* dialog.
- 3. Click the Add Group button to open the *New Group* dialog.
- 4. Enter the name of the new Group.
- 5. Enter an optional description of the Group.
- 6. Use the permissions group menu to select if the new group will be a member of any Built-In Groups and
- 7. Permissions or Custom Groups.
- 8. Click Add Group to create the group. Authentication may be required.



# 2.4. Create DW Cloud Account with 2FA / Log in to DW Cloud System

#### Create a DW Cloud Account

- 1. Open the DW Cloud account registration webpage.
- 2. Enter your registration information and click **Create Account**.
- 3. An activation email will be sent to you. Open the email and click **Activate Account**.

#### Log in to the DW Cloud Portal

The DW Cloud portal homepage displays tiles and each tile represents a cloudconnected system to which the user has access.

- 1. Open the DW Cloud portal homepage and click Log In.
- 2. Enter your DW Cloud account email and click **Next**.
- 3. Enter your DW Cloud account password and click Log In.
- 4. Click on a tile to access the following web pages for the selected system:
  - View Use the Resource Tree to view live and archived footage.
  - *Settings* Manage users, system and security settings, activate licenses, enable recording, create a motion mask, etc.
  - *Information* Use the Health Monitoring tool to check to see if the system is in good shape and displays information such as the performance of the system and if any errors have occurred.

#### Enable Two-Factor Authentication (2FA)

Prevents unauthorized access by requiring a verification code generated by a mobile authentication app when logging in to your DW Cloud account.

- 1. Install Google Authenticator, Microsoft Authenticator, or Duo Mobile on your mobile phone.
- 2. Open the DW Cloud portal homepage and log in to your account.
- 3. Open the account settings dropdown by clicking on your email at the top right and clicking **Security**.
- 4. Enable **Two-factor authentication** by checking the **Ask for verification code on** every login with the DW Cloud account.
- 5. Enter your DW Cloud account password.
- 6. Open the mobile authentication app and scan the QR code.
- 7. Enter the TOTP verification code generated by the mobile authentication app.
- 8. Click Verify to complete the setup process.



**Note**: For additional security, enable *Ask for verification code on every login with the DW Cloud account,* or generate single-use backup codes to keep somewhere safe that can be used to log in if you lose access to the mobile authentication app.

Log in to DW Cloud on DW Spectrum Desktop Client

- 1. Click the DW Cloud icon () on the Navigation Panel.
- 2. Enter your <u>DW Cloud account</u> email and click **Next**.
- 3. Enter your <u>DW Cloud account</u> password and click Log in.



# 2.5. Connect DW Spectrum System to DW Cloud

A DW Spectrum system connected to DW Cloud allows users to access all servers in the system without directly connecting to an individual server.

Additional benefits:

- Users logged in to their DW Cloud account on DW Spectrum Desktop can access any DW Spectrum system on the account without entering credentials.
- Easily share access to DW Cloud systems with new users, only requiring a user email for the invite.
- View and manage your DW Spectrum system from the DW Cloud portal.

To Connect a DW Spectrum System to DW Cloud

- 1. Open the *Main Menu* and click **System Administration**.
- 2. Go to the Cloud tab and click Connect System to Cloud.
- 3. Enter your <u>DW Cloud account</u> email and click **Next**.
- 4. Enter your <u>DW Cloud account</u> password and click Log in.

Important: If your firewall restricts most connections by default, be sure to allow the required FQDNs to prevent cloud connectivity issues.





# 2.6. Configure the Storage Archive

#### Add Storage

All accessible local and network drives should automatically be detected. Network drives can be added manually if not detected automatically.

- 1. Right-click on the server and click Server Settings.
- 2. Go to the Storage Management tab.
- 3. Click Add External Storage and enter the drive's location and credentials. Click OK.

= Q,~ £	Front × + ×		2				NOTIFICATIONS	? — ≶ ,∎	□ × ▲ ①
▲ Demo ▲ admin			Server Settings - Server DESKTOP-QQ General Storage Management		Backup	6		?	×
	Show Servers		Storage Locations	<u> </u>			5		
	Monitor		C:\HD Witness Media local D:\HD Witness Media local	Reserved Backup 🗸	953.3 GB 893.6 GB	Use to store analytics data		Œ	
	Monitor in New Tab Monitor in New Window		E:\HD Witness Media local	Main	7.3 TB	C Stores analytics data		•	
-	Rename	F2	Add External Storage	Reindex Archive	Reindex	Backup 🔇			
	Add Device		3						
	Add Proxied Web Page								
G	Cameras List by Server								
	Server Logs	<							
	Server Diagnostics								
	Server Web Page Server Settings		Server Web Page				ок Apply	Cancel	

#### Main and Backup Storage

- 4. Choose which drive should be the **Main** drive and which drive(s) should be used as its **Backup**.
- 5. To store analytics data, hover over the desired drive and click Use to store analytics data.

**Note:** It is not recommended to store analytics data on the Main drive as analytics data cannot be moved and takes up large amounts of space.

- 6. Click on the **Backup** button to access backup configuration settings.
  - A. Select the cameras to back up by toggling the switch on the right side. Toggle the New Added Devices option to automatically begin backing up a device once it has been added to the DW Spectrum system.
  - B. Use the **What to Backup** menu to select what aspect of the camera's archive should be backed up:
    - All archive



- Motion
- Objects
- Bookmarks
- Motion and Objects
- Motion and Bookmarks
- Objects and Bookmarks
- Motion, Bookmarks, and Objects

C. Use the **Quality** menu to select which streams to backup:

- All streams
- Low-res

D. If **Skip Current Queue** is clicked, the backup process will ignore existing footage and only backup recordings after that point.



- E. Click the **Bandwidth Limit** tab and select a bandwidth mode:
  - *No Limit* The entire archive will be backed up. Afterward, the server will continuously back up live streams.
  - *Fixed* The bandwidth remains a specified Mbit/s across all days and times.
  - *Scheduled* Backup is performed only during the selected days and hours. Fill in the cells of the schedule using the following options: *Unlimited, No backup,* and *Limited* (limit to a certain Mbit/s, but remember that too tight a bandwidth constraint can cause the entire backup to fail). Note that the footage will be backed up since the backup was completed the last time. If network bandwidth is insufficient, the backup may not be fully completed within the specified time frame. In this case, the date and time of the footage that was backed up will be indicated (Archive backup complete until...).





# 2.7. Add a Camera

Compatible devices will usually be detected automatically since autodiscovery is enabled by default, although sometimes devices will need to be searched for and added manually.

- 1. Right-click on the server and click Add Device.
- 2. In the **Known Address** tab, enter the camera location to search for the camera on the network. If needed, enter the port or authorization credentials and click **Scan**.
- 3. In the **Subnet Scan** tab, enter the subnet to search for the camera on the network. If needed, enter the port or authorization credentials and click **Scan**.

#### Authorization Credentials

Some cameras require authorization credentials before being able to access their stream. These cameras have a lock icon next to them in the Resource Tree.

- 1. Right-click on a camera and click **Camera Settings**.
- 2. In the General tab, click Edit Credentials.
- 3. Enter the login and password. Click **OK**.



## 2.8. Enable Recording on a Camera

- 1. Right-click on a camera and click **Camera Settings**.
- 2. Go to the **Recording** tab and enable the **Recording** option.
- 3. Select the recording schedule settings: dates/times, recording mode and type, FPS, and Quality. Click **OK**.

Default *Schedule Settings* are 30 FPS and Best quality. Lowering the *FPS* and *Quality* settings may improve the overall performance of the camera in DW Spectrum.

There are three recording types to choose from: Motion, Objects, or Motion & Objects. This selection will change the type of Recording Modes you may choose for scheduling.

#### Recording Modes

- *Record always* Records the stream all the time.
- *Motion Only / Objects Only / Motion & Objects Only* Records the stream only when motion, objects, or both are detected.
- Motion + Lo-Res / Objects + Lo-Res / Motion & Objects + Lo-Res Records the stream in low resolution all the time and high resolution only when motion, objects, or both are detected.
- Do Not Record



$\equiv$ New Layout* × + $\vee$	○ ? - □ ×
Q.∽ Search	Camera Settings - Traffic Cam - Client ? X
	General Recording Motion Dewarping Advanced Web Page Plugins Expert          2         Recording         Image: Recording Schedule (based on server time)
○ Crest       1         ○ Traffic Cam       Open         ○ Open in New Tab       Open in New Mindow         ○ Open in New Window       Create Group       Ctrl+G         ○ Ot       Create Group       Ctrl+G         ○ Delete       Del         Rename       F2         Check Camera Issues       Camera Rules	All       12AM       1AM       2AM       3AM       4AM       5AM       6AM       7AM       8AM       9AM       10AM       11AM       12PM       1PM       2PM       3PM       4PM       5PM       6PM       7PM       8PM       9PM       10PM       11PM         Sun       8B       Bst
Camera Settings	FPS       30       Image: Comparison of the compariso

2.9. Enable Motion Detection and Create a Motion Mask

- 1. Right-click on a camera and click **Camera Settings**.
- 2. Go to the **Recording** tab and enable the **Motion Detection** option.
- 3. Select a sensitivity level and click and drag on the video preview to create a motion mask over the desired area. Click **OK**.







# 3. Part 2 – Using Basic Features



- 1. Navigation Panel Access the *Main Menu*, create and organize layouts, log in to DW Cloud, and use the context-sensitive user manual.
- 2. Resource Tree Organize all servers, cameras, layouts, webpages, and other resources. Use *Keyword Search* to find resources quickly. Right-click on a resource and choose *Rename* to change its name.
- 3. Notification Panel Access the following tabs:
  - *Notifications* Displays important information about the system's state and triggered event rules.
  - *Motion* Displays detected motion events from cameras with recording enabled.
  - *Bookmarks* Displays bookmarks that were manually created or triggered by an event rule.
  - Events Displays triggered event rules.
  - *Objects* Displays detected objects from a plugin or camera analytics. Only visible when certain analytics are detected.
- 4. Timeline Playback controls are to the left (Play/Pause, Last/Next Frame, Last/Next Video Segment), and stream toggles are to the right (Live, Sync, Thumbnail, and Calendar). The recorded video appears as a solid green bar. If the *Motion* tab is open, motion recordings appear as red segments. If the Bookmarks tab is open, bookmarks appear as blue segments.



5. Viewing Grid – Displays up to 64 items (e.g., cameras, webpages, etc.). Items are easily adjustable (drag-and-drop to move) and can change dynamically in size depending on the number of items on the Viewing Grid.

### 3.1. Create a Layout

- 1. Click on the plus (+) icon on the Navigation Panel to create a new tab.
- 2. Drag and drop items onto the Viewing Grid and configure them to your needs.
- 3. Right-click on the newly created tab and click **Save Layout**.

### 3.2. Searching Through the Video Archive

Drag the position slider on the Timeline to select a segment of time. The position slider shows the time currently being displayed on the selected camera or all cameras on the Viewing Grid if the SYNC button is active. Zoom in or out of the Timeline to show smaller or larger time intervals using the mouse scroll wheel or the +/- buttons on the upper left portion of the Timeline.

#### 3.2.1. Preview Search

- 1. Select a camera on the Viewing Grid.
- 2. Click and drag the position slider on the Timeline to highlight the desired segment of the recorded video.
- 3. Right-click the highlighted segment and click **Preview Search**.





- 4. Your selected time segment will automatically be divided into several equal time segments. A new Layout will be created, and these smaller time segments will be displayed with thumbnails for each time segment.
- 5. Click on a Preview Search Thumbnail to see the corresponding archive time segment highlighted in the Timeline.
- 6. Preview Search thumbnails can be divided into smaller time segments by rightclicking on the desired thumbnail and choosing **Preview Search**. The smallest time segment that Preview Search will process thumbnails for is 10 seconds.



#### 3.2.2. Smart Motion Search

To search for motion events in the archive:

- 1. Go to the **Notification Panel** and click the **Motion** tab, or hover over a camera on the Viewing Grid and click the **Smart Motion Search** icon.
- 2. Apply the following filters:
  - *Area* (required) Click and drag over the camera to define the Smart Motion Search area. This limits the results to motion events that occurred within a specified zone of the camera's stream.
  - *Camera* (required) Limits the results to motion events from the selected camera.
  - *Time* (optional) Limits the results to motion events that occurred within the selected time interval: Last day, Last 7 days, Last 30 days, and Any time.



3. View the search results in the Notification Panel.





### 3.2.3. Calendar Search

Search for and view archive video by filtering via a camera's archive recording date/time:

- 1. Click on the *Calendar* icon to the right of the Timeline.
- 2. Select one or more dates to view recordings from that day.
- 3. Select one or more times to view recordings from that hour.

**Note:** Hold the CTRL key while selecting dates/times to choose more than one.



## 3.3. Export Recorded Video

- 1. Select a camera on the Viewing Grid.
- 2. Click and drag the position slider on the Timeline to highlight the desired segment of the recorded video.
- 3. Right-click the highlighted segment and click **Export Video**.
- 4. Select the file type and export location. Click Export.



