# Wisenet WAVE
# Quick Start Guide

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## Overview

This guide is split up into two parts:
- **Part 1** – Helps administrators get started with the initial setup and configuration of a Wisenet WAVE system.
- **Part 2** – Introduces users to the most frequently used basic features in the Wisenet WAVE.

For additional help beyond this guide, you can access the Wisenet WAVE User Manual for detailed information about Wisenet WAVE technology, features, system setup, and configuration.

## Part 1 – Initial Setup

Begin the setup and configuration process after installing Wisenet WAVE Server and Wisenet WAVE Desktop.

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

    **Important:** This is the system's primary account and cannot easily be changed once set. The default username is "admin", and it is the only account with super administrator privileges.
5. View the server's information and click **Finish**.

## System Settings and Security

The settings below affect your entire Wisenet WAVE 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 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 system (e.g. cameras, server hardware, software version, crashes, etc.) to help improve Wisenet WAVE.
    - **Allow System to optimize camera settings** – Configures cameras to send two streams at the optimal resolution.
3. Toggle on/off the options under *Security* as needed:
    - **Enable audit trail** – Tracks and logs all user actions.
    - **Allow only secure connections** – Forces all servers in the 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** – If enabled, prevents your video streams (live and playback) from being intercepted and viewed.

- Limit session duration – If enabled, users will be automatically logged out if their session exceeds the specified duration.
- **Display watermark with username over video** – If enabled, watermarks will be displayed over live, archive, and exported videos for non-admin users only.



## 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**.

## Create a User / Share Access via WAVE Sync

User Management allows you to search for and modify users and create custom roles.

Create a Local User

1. Open the *Main Menu* and click **User Management**.
2. Click **New User**.
3. Select the **Local** user type.
4. Enter credentials and select a role. Click **OK**.

Create a Cloud User / Share Access to a WAVE Sync System

1. Open the *Main Menu* and click **User Management**.
2. Click **New User**.
3. Select the **Cloud** user type.
4. Enter an email address and select a role. Click **OK**.
5. Existing WAVE Sync users will receive an email stating that they now have access to your Wisenet WAVE system, while new users will receive an email that prompts the user to create a WAVE Sync account to gain access to the shared system.

 **Note:** WAVE Sync users can access a shared system by logging into Wisenet WAVE Desktop or the WAVE Sync portal 8.

## Connect a Wisenet WAVE System to WAVE Sync

A Wisenet WAVE system connected to WAVE Sync allows users to access all servers in the system without directly connecting to an individual server.

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

1. Open the *Main Menu* and click **System Administration**.
2. Go to the **Cloud** tab and click **Connect System to Cloud**.
3. Enter your WAVE Sync account ⌐8⌐ login and click **OK**.

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



## 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**.

### Main and Backup Storage
4. Choose which drive should be the **Main** drive and which drive(s) should be used as its **Backup**.
5. Click **Backup Settings**.
6. Configure the backup mode and backup quality, and select which cameras to back up.

   There are three backup modes:
   - **On Demand** – The backup begins only if the user presses **Start Backup Now** and continues until completion (once all previous data is backed up) or cancellation.
   - **Realtime** – The footage will be written to the main and backup storage simultaneously as it is being recorded.

- **By Schedule** – The backup occurs on specific days of the week and at specific hours.

Analytics Data Storage

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.

7. To store analytics data, hover over the desired drive and click **Use to store analytics data**.



# 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. 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. 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**.

## 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, FPS, and Quality. Click **OK**.

There are three recording modes:

- **Record always** – Records the stream all the time.
- **Motion only** – Records the stream only when motion is detected.
- **Motion + Low-res** – Records the stream in low resolution all the time and high resolution only when motion is detected.

## 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**.



## Part 2 – Using Basic Features



1. **Navigation Panel** – Access the Main Menu, create and organize layouts, log in to WAVE Sync, 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:
   o Notifications – Displays important information about the system's state and triggered event rules.
   o Motion – Displays detected motion events from cameras with recording enabled.
   o Bookmarks – Displays bookmarks that were manually created or triggered by an event rule.
   o Events – Displays triggered event rules.
   o Objects – Displays detected objects from 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).

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.

## 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**.

## 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.

## 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 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 right-clicking on the desired thumbnail and choosing **Preview Search**. The smallest time segment that Preview Search will process thumbnails for is 10 seconds.

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:
   o *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.
   o *Camera* (required) – Limits the results to motion events from the selected camera.
   o *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.



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.



# 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 recorded video.
3. Right-click the highlighted segment and click **Export Video**.
4. Select the file type and export location. Click **Export**.



# Create a WAVE Sync Account / Log in to a WAVE Sync System

Create a WAVE Sync Account
1. Open the WAVE Sync 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 WAVE Sync Portal

The WAVE Sync portal homepage displays tiles, and each tile represents a cloud-connected system to which the user has access.

1. Open the WAVE Sync portal homepage and click **Log In**.
2. Enter your WAVE Sync account credentials and click **Log In**.
3. Click on a tile to access the following webpages for the selected system:
   o **View** – Use the Resource Tree to view live and archive footage.
   o **Settings** – Manage users, system and security settings, activate licenses, enable recording, create a motion mask, etc.
   o **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.

Log in to WAVE Sync on Wisenet WAVE Desktop

1. Click the WAVE Sync icon on the Navigation Panel.
2. Enter your email and password. Click **Log in**.