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SECTION 1
Overview

The ALIBI Central Management System (ACMS) V3.1 client software is a versatile video management software for monitoring and control of several ALIBI DVRs, NVRs and IP cameras from a single platform. It provides several features, including real-time live view, video recording, remote search and playback, etc. With the flexible distributed structure and easy-to-use operations, ACMS can be easily applied to medium and small scale surveillance projects.

ACMS includes three major components:

- **ACMS Client**: The core component for the software package manages devices and other components of ACMS. It provides the management, playback, preview, E-map function and other functions.
- **ACMS Stream Media Server**: The Stream Media Server is used to forward real-time video and audio streams from Alibi devices to multiple clients instead of streaming live view video directly from the device to the clients. This server reduces the processing load on the device. This server can be installed when the ACMS Client is installed.
- **ACMS Storage Server**: The storage server is a software application that functions as an NVR installed on the PC. It is used to record files and pictures (captures), and for backup. This server can be installed when the ACMS Client is installed.

Typical implementation topologies for the ACMS client in a surveillance system are shown below.
SECTION 1: OVERVIEW

1.1 Features

General

- Application in local area network and wide area network
- E-map function
- User permission management
- Embedded web server supporting web browsing function
- Create a password to activate the device
- Support Counting, Road Traffic and VCA Search for Picture

Network

- Encoding devices, decoding devices, storage server, stream media server, third-party encoding devices, video wall controller, transcoder, super NVR connectable
- NTP protocol for time synchronization
- Search the active online devices
- Adding devices by IP Server; batch importing encoding devices
- Generating QR code for encoding devices
- Two-way audio and broadcast function

Live View

- View settings and instant playback
- Main/auxiliary screen live view
- Support up to 64-window division for standard screen, and 48-window division for the wide screen
- Custom window division configurable
- Disconnect background videos in single live view
- Set shortcuts for PC keyboard to conveniently access the commonly used actions.
- More channels for simultaneous HD live view under 64-bit operation system

Video Wall

- Create a Video Wall using the ALI-NVR71128R recorder. The Video Wall can support up to six monitors.
- Configure Video Wall monitors with up to 4K resolution
- Add multiple video streams to any Video Wall monitor
- Expand video streams to seamlessly cover more than one adjacent monitor
- Create up to four different Video Wall configurations.

PTZ Control

- Remote PTZ control, preset, patrol and pattern settings
• 3D positioning, auxiliary focus and wiper function
• Display analog speed dome’s local menu via PTZ control panel

**Alarm Management**

• Camera Linkage and multiple linkage actions supported
• Device arming and alarm output control
• Alarm configuration for camera event, alarm input and device exception
• Combined alarm, Mixed-traffic Detection alarm and CVR alarm supported
• Search and export the linked pictures of alarm logs

**Record**

• Remote manual recording supported
• Record schedule for continuous recording, event recording and command recording
• Store alarm pictures on storage server
• Quota ratio of record, picture and additional information configurable for the storage server
• Record file overwritten and expired record file deleting

**Playback**

• Local and remote playback
• Instant playback, normal playback, event playback, ATM playback and VCA playback; up to 16 channel synchronous playback supported
• Filter the searched video files by the advanced attributes during VCA playback

**Backup**

• Download record files to PC
• Export record files via remote configuration
• Log search and backup
• Import and export the configuration file

### 1.2 ACMS Control Panel

The ACMS Control Panel provides a launch pad for all ACMS component modules. Click the module you want to launch.
SECTION 1: OVERVIEW

ACMS Client Control Panel with Operations and Control page 1

Operation and Control

ACMS modules
Recently used module icons
System utilization links
Window controls

Menus

Enable/disable audio
Enable/disable alarm triggered pop-up image
Enable/clear info

Operation and Control page 1

Control Panel - Operations and Control page 2
1.2.1 Menus

The ACMS Client Menu controls the overall system and provide quick access to common tasks.

<table>
<thead>
<tr>
<th>Menu item</th>
<th>Submenu</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>File</td>
<td>Open Image File</td>
<td>Search and view the captured pictures stored on local PC</td>
</tr>
<tr>
<td>File</td>
<td>Open Video File</td>
<td>Search and view the video files recorded on local PC</td>
</tr>
<tr>
<td>File</td>
<td>Open Log File</td>
<td>View the backup log files</td>
</tr>
<tr>
<td>File</td>
<td>Exit</td>
<td>Logoff and close the ACMS client software window</td>
</tr>
<tr>
<td>System</td>
<td>Lock</td>
<td>Lock screen operations; log in the client again to unlock</td>
</tr>
<tr>
<td>System</td>
<td>Switch User</td>
<td>Switch the login user</td>
</tr>
<tr>
<td>System</td>
<td>Import System Config File</td>
<td>Import client configuration file from your computer</td>
</tr>
<tr>
<td>System</td>
<td>Export System Config File</td>
<td>Export client configuration file to your computer</td>
</tr>
<tr>
<td>System</td>
<td>Auto Backup</td>
<td>Perform a weekly backup. You can set the day, time and path to the backup file</td>
</tr>
<tr>
<td>View</td>
<td>1024*768</td>
<td>Set window size to 1024*768 pixels</td>
</tr>
<tr>
<td>View</td>
<td>1280*1024</td>
<td>Set window size to 1280*1024 pixels</td>
</tr>
<tr>
<td>View</td>
<td>1440*900</td>
<td>Set window size to 1440*900 pixels</td>
</tr>
<tr>
<td>View</td>
<td>1680*1050</td>
<td>Set window size to 1680*1050 pixels</td>
</tr>
<tr>
<td>View</td>
<td>Maximize</td>
<td>Set window size to full screen</td>
</tr>
<tr>
<td>View</td>
<td>Control Panel</td>
<td>Enter Control Panel interface</td>
</tr>
<tr>
<td>View</td>
<td>Main View</td>
<td>Open Main View page</td>
</tr>
<tr>
<td>View</td>
<td>Remote Playback</td>
<td>Open Remote Playback page</td>
</tr>
<tr>
<td>View</td>
<td>Video Wall</td>
<td>Opens Video Wall configuration screen</td>
</tr>
<tr>
<td>View</td>
<td>E-map</td>
<td>Open E-map page</td>
</tr>
<tr>
<td>View</td>
<td>Auxiliary Screen Preview</td>
<td>Open Auxiliary Screen Preview window</td>
</tr>
</tbody>
</table>
## SECTION 1: OVERVIEW

<table>
<thead>
<tr>
<th>Menu Item</th>
<th>Submenu</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tool</strong></td>
<td>Device Management</td>
<td>Open the Device Management module</td>
</tr>
<tr>
<td></td>
<td>Event Management</td>
<td>Open the Event Management module</td>
</tr>
<tr>
<td></td>
<td>Storage Schedule</td>
<td>Open the Storage Schedule module</td>
</tr>
<tr>
<td></td>
<td>Account Management</td>
<td>Open the Account Management module</td>
</tr>
<tr>
<td></td>
<td>Log Search</td>
<td>Open the Log Search module</td>
</tr>
<tr>
<td></td>
<td>System Configuration</td>
<td>Open the System Configuration module</td>
</tr>
<tr>
<td></td>
<td>Broadcast</td>
<td>Select camera to start broadcasting</td>
</tr>
<tr>
<td></td>
<td>Device Arming Control</td>
<td>Set the arming status of devices</td>
</tr>
<tr>
<td></td>
<td>Alarm Output Control</td>
<td>Turn on/off the alarm output</td>
</tr>
<tr>
<td></td>
<td>Batch Wiper Control</td>
<td>Batch starting or stopping the wipers of the devices.</td>
</tr>
<tr>
<td></td>
<td>Batch Time Sync</td>
<td>Batch time synchronization of the devices.</td>
</tr>
<tr>
<td></td>
<td>Player</td>
<td>Open the player to play the video files</td>
</tr>
<tr>
<td></td>
<td>Message Queue</td>
<td>Display the information of Email message to be sent</td>
</tr>
<tr>
<td><strong>Help</strong></td>
<td>Open Video Wizard</td>
<td>Open the guide for the client configuration</td>
</tr>
<tr>
<td></td>
<td>Open Video Wall Wizard</td>
<td>Open the guide for configuring a video wall</td>
</tr>
<tr>
<td></td>
<td>About</td>
<td>View the basic information of the client software</td>
</tr>
<tr>
<td></td>
<td>Language</td>
<td>Select the language (English) for the client software. Restart the ACMS client to activate the settings.</td>
</tr>
</tbody>
</table>

### 1.2.2 ACMS Modules

The ACMS client software includes the following function modules. These modules are accessible through the ACMS Client control panel, and through the ACMS Client Menu.

<table>
<thead>
<tr>
<th>Module</th>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main View</td>
<td>![Icon]</td>
<td>This module provides live view of network cameras and video encoders, and supports some basic operations such as picture capturing, recording, PTZ control, etc.</td>
</tr>
<tr>
<td>Remote Playback</td>
<td>![Icon]</td>
<td>This module provides the search, playback and export of record files.</td>
</tr>
<tr>
<td>Video Wall</td>
<td>![Icon]</td>
<td>This module can provide a multi-monitor display of a high number of live video streams. This feature requires the Alibi ALI-NVR71128R recorder.</td>
</tr>
<tr>
<td>E-map</td>
<td>![Icon]</td>
<td>This module provides the display and management of E-maps, alarm inputs, hot regions and hot spots.</td>
</tr>
<tr>
<td>Heat Map</td>
<td>![Icon]</td>
<td>The Heat Map module provides the display of the heat map statistics.</td>
</tr>
</tbody>
</table>
## SECTION 1: OVERVIEW

<table>
<thead>
<tr>
<th>Module</th>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counting</td>
<td><img src="image" alt="Counting icon" /></td>
<td>The People Counting module provides the display of the people counting statistics.</td>
</tr>
<tr>
<td>Alarm Event</td>
<td><img src="image" alt="Alarm icon" /></td>
<td>This module displays alarm and event information.</td>
</tr>
<tr>
<td>Device Management</td>
<td><img src="image" alt="Device icon" /></td>
<td>This module provides the adding, modifying and deleting of different devices and the devices can be imported into groups for management.</td>
</tr>
<tr>
<td>Event Management</td>
<td><img src="image" alt="Event icon" /></td>
<td>This module provides the settings of arming schedule, alarm linkage actions and other parameters for different events.</td>
</tr>
<tr>
<td>Record Schedule</td>
<td><img src="image" alt="Record icon" /></td>
<td>This module provides the schedule settings for recording.</td>
</tr>
<tr>
<td>Account Management</td>
<td><img src="image" alt="Account icon" /></td>
<td>This module provides the adding, modifying and deleting of user accounts and different permissions can be assigned for different users.</td>
</tr>
<tr>
<td>Log Search</td>
<td><img src="image" alt="Log icon" /></td>
<td>This module provides the query of system log files and the log files can be filtered by different types.</td>
</tr>
<tr>
<td>System Configuration</td>
<td><img src="image" alt="System icon" /></td>
<td>This module provides the configuration of general parameters, file saving paths, alarm sounds and other system settings.</td>
</tr>
</tbody>
</table>

The function modules are easily accessed by clicking the navigation buttons on the control panel or by selecting the function module from the View or Tool menu.

You can check the information, including current user, network usage, CPU usage, memory usage and time, in the upper-right corner of the main page.

### 1.2.3 Window footer icons

Base bar icons appear along the bottom of the Control Panel screen. They function as described in the table below.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Label</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Alert icon" /></td>
<td>Alert</td>
<td>When flashing, a new alarm is present.</td>
</tr>
<tr>
<td><img src="image" alt="Clear Info icon" /></td>
<td>Clear Info</td>
<td>Clear the information of alarms and events displayed on the list.</td>
</tr>
<tr>
<td><img src="image" alt="Enable/Disable Alarm Triggered Pop-up Image icon" /></td>
<td>Enable/Disable Alarm Triggered Pop-up Image</td>
<td>Click to enable/disable image pop-up when alarms occur.</td>
</tr>
<tr>
<td><img src="image" alt="Enable/Disable Audio icon" /></td>
<td>Enable/Disable Audio</td>
<td>Click to enable/disable the audio warning for the alarm.</td>
</tr>
<tr>
<td><img src="image" alt="Auto Hide/Lock icon" /></td>
<td>Auto Hide/Lock</td>
<td>Click to hide automatically/lock the Alarms and Events panel.</td>
</tr>
<tr>
<td><img src="image" alt="Maximize icon" /></td>
<td>Maximize</td>
<td>Maximize the Alarms and Events panel in a new tab page.</td>
</tr>
<tr>
<td><img src="image" alt="Show/Hide icon" /></td>
<td>Show/Hide</td>
<td>Click to show/hide the Alarms and Events panel.</td>
</tr>
</tbody>
</table>
SECTION 1: OVERVIEW

Show/Hide alarms

The Show/Hide alarms icons open/close a log message list that pops up from the bottom of the window. Two kinds of log messages can be displayed:

- **Alarms** (see below): Shows the recent alarms detected by the devices monitored by the ACMS.
- **Events**: Event information related to ACMS functions.

The Event option displays the recent system events (see above). Additional log information is available through the Log Search module. Click the Maximize icon to open a full page of Event or Alarm messages.
1.3 ACMS Capacities

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Encoding Device</td>
<td>Up to 256 encoding devices supported</td>
<td>Up to 256 groups supported</td>
<td></td>
</tr>
<tr>
<td>Channel</td>
<td>Group</td>
<td>Up to 64 channels can be imported to each group; Up to 1024 channels can be imported to all groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Server</td>
<td>Channel</td>
<td>Up to 64 channels can be imported to each group; Up to 1024 channels can be imported to all groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stream Media Server</td>
<td>Storage Server</td>
<td>Up to 16 storage servers supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decoding Device</td>
<td>Storage Server</td>
<td>Up to 16 stream media servers supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live View</td>
<td>Decoding Device</td>
<td>Up to 64 decoding devices supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auxiliary Screen Preview</td>
<td>Live View</td>
<td>Up to 64 channels live view supported at a time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User</td>
<td>Auxiliary Screen Preview</td>
<td>Up to 4 auxiliary screens supported for live view</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playback</td>
<td>User</td>
<td>Up to 50 users and one super user supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-map</td>
<td>Playback</td>
<td>Up to 16 channels playback supported at a time; Up to 4 channels synchronous playback supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Download</td>
<td>E-map</td>
<td>Up to 256 E-maps can be added</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Server</td>
<td>Download</td>
<td>Up to 16 channels downloading supported at a time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video Wall</td>
<td>Storage Server</td>
<td>Up to 32 users supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Record Performance</td>
<td>Video Wall</td>
<td>Up to 64 channels × 2 Mbps supported at a time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOD Performance</td>
<td>Video Wall decoders</td>
<td>Up to 64 channels × 2 Mbps supported at a time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACM Client</td>
<td>Display windows</td>
<td>No limit for the amount of ACMS connected to the storage server</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stream Media Server</td>
<td>ACM Client</td>
<td>No limit for the amount of ACMS connected to the storage server</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incoming /outgoing stream</td>
<td>ACM Client</td>
<td>No limit for the amount of ACMS connected to the storage server</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video Wall</td>
<td>Display windows</td>
<td>Up to 100 display windows per video wall (10 × 10 array).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 1.3.1 Recommended configurations

<table>
<thead>
<tr>
<th>PC Configuration / Bitrate (single P-frame)</th>
<th>Maximum Number of Live View Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CPU: Intel Core i7-2600 3.40GHz</td>
</tr>
<tr>
<td></td>
<td>Memory: 3GB</td>
</tr>
<tr>
<td></td>
<td>Graphic Card: AMD Radeon HD 6700</td>
</tr>
<tr>
<td></td>
<td>Series</td>
</tr>
<tr>
<td></td>
<td>Operating System: Windows 7 (64-bit)</td>
</tr>
<tr>
<td>(352*288)<em>768K</em>25</td>
<td>64</td>
</tr>
<tr>
<td>(704*576)<em>2M</em>25</td>
<td>48</td>
</tr>
<tr>
<td>(1280*720)<em>6M</em>25</td>
<td>21</td>
</tr>
<tr>
<td>(1280*960)<em>6M</em>25</td>
<td>19</td>
</tr>
<tr>
<td>(1600*1200)<em>9M</em>25</td>
<td>12</td>
</tr>
<tr>
<td>(1920*1080)<em>10M</em>25</td>
<td>9</td>
</tr>
<tr>
<td>(2048*1536)<em>7M</em>12</td>
<td>11</td>
</tr>
<tr>
<td>(2560*1920)<em>9M</em>6</td>
<td>11</td>
</tr>
</tbody>
</table>

The recommended configuration for 64-bit operation system:

<table>
<thead>
<tr>
<th>PC Configuration Bitrate</th>
<th>Maximum Number of Live View Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CPU: Intel Core i7-4770K</td>
</tr>
<tr>
<td></td>
<td>CPU: E3-1230 V3</td>
</tr>
<tr>
<td></td>
<td>CPU: Intel Core i5-4590 3.3GHz</td>
</tr>
<tr>
<td></td>
<td>CPU: AMD FX™-8350 Eight-Core Processor 4GHz</td>
</tr>
<tr>
<td></td>
<td>CPU: Intel Core i3-2100</td>
</tr>
<tr>
<td>CIF<em>512K</em>25</td>
<td>64</td>
</tr>
<tr>
<td>VGA<em>1.25M</em>25</td>
<td>51</td>
</tr>
<tr>
<td>4CIF<em>1.5M</em>25</td>
<td>59</td>
</tr>
<tr>
<td>WD1<em>2M</em>25</td>
<td>41</td>
</tr>
<tr>
<td>HD720P<em>2M</em>25</td>
<td>28</td>
</tr>
<tr>
<td>1080P<em>4M</em>25</td>
<td>13</td>
</tr>
<tr>
<td>(2048*1536)<em>4M</em>20</td>
<td>11</td>
</tr>
<tr>
<td>(2688*1520)<em>6.5M</em>20</td>
<td>11</td>
</tr>
<tr>
<td>(2560*1920)<em>9M</em>25</td>
<td>6</td>
</tr>
<tr>
<td>(3072*2048)<em>10M</em>24</td>
<td>5</td>
</tr>
</tbody>
</table>

Data shown above are for reference only.
SECTION 2
ACMS 3.1 Installation

ACMS is available for download through the Alibi website and/or your Alibi provider website. It can be installed in two ways: 1) as a new installation, and 2) as an update to an earlier version of ACMS. The update installation will retain the ACMS configuration setup in the previous release.

2.1 System requirements

For smooth and stable performance, ensure that the computer(s) where you install ACMS and the Storage and Streaming Media servers meet the software and minimum hardware requirements shown in the table below. Installing the ACMS client on one computer, and the Storage and Streaming Media Servers on other computers can improve the overall performance of ACMS.

<table>
<thead>
<tr>
<th>System requirement</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Intel® Pentium® IV 3.0 GHz or above</td>
</tr>
<tr>
<td>Memory</td>
<td>1 GB or more</td>
</tr>
<tr>
<td>Video card</td>
<td>ATI® RADEON® X700 Series or above</td>
</tr>
<tr>
<td>GPU</td>
<td>256MB or more</td>
</tr>
</tbody>
</table>

**NOTE** 64-bit operating systems listed above must support 32-bit applications.

2.2 ACMS new installation

Use the following procedure to install the ACMS components. For medium-scale surveillance systems, each component must be installed on a different computer to ensure smooth and stable performance of the application. In the example shown here for a very small surveillance system, all three components were installed on the same computer.

1. Obtain the ACMS V3.1 software installation file (ACMS.exe). You can download it from the Alibi website and/or from your Alibi vendor website.

2. Open the ACMS installer file on your computer. An InstallShield Wizard Setup window will open.
3. In the ACMS InstallShield Wizard windows shown below, select the ACMS component(s) you want to install. For medium scale surveillance systems or larger, each component should be installed on a different computer to ensure the best performance.

   ![ACMS InstallShield Wizard](image1)
   ![ACMS InstallShield Wizard](image2)

   In this example for a relatively small number of monitored devices, all three components were installed on the same computer.

   **NOTE** If a Windows Security Alert window opens for StreamServerApp.exe, click Allow access.

4. To install the software in a location other than the default Destination Folder, click the Browse button to select the location you prefer, and then click Next to continue.

5. In the Ready to Install .. window, click Next to continue.
6. In the Setup Type window above, check the boxes for the icons you want to create for your desktop, and then click Next. An option is listed for each component you are installing.

7. ACMS requires the Win10Pcap library (for Windows 10) to execute properly on a Windows 10 system. If Win10Pcap is not installed on a Windows 10 computer, or WinCap is installed on an older OS, take the appropriate action in the following screens to install the correct version. Normally, click Next to continue.

8. In the License Agreement window, read the license agreement carefully, and then click I Agree if you will abide by the requirements of the license, and then click Next to continue. Otherwise click Cancel to abort the installation.
9. In the Win10Pcap destination screen, setup the location where Win10Pcap should be installed, and then click Next. Click Next again in the following window to install the library.

10. After the setup wizard completes the Win10Pcap install, click Finish to close the window. Also, click Finish in the installShield ACMS Complete window.

The installation of the ACMS components you were installing is now complete. The icons shown below will appear on the desktop if you chose to install them during the installation.

ACMS desktop icons: ACMS Client, ACMS Storage Server, ACMS Stream Media Server

2.2.1 ACMS Client initial setup - using the Wizard

If you installed ACMS Client, perform the following to initialize the component.
1. Start up ACMS client by clicking the desktop icon (if present), or the link in the Start menu. An initialization window will open.

2. Next, the window Register Administrator window will open. You must create a Super User ID and Password and register that with the application.

   a. In the **Super User** field, enter a username. The username cannot contain any of the following characters: /\:*?"<>|.

   b. Enter a password in the **Password** and **Confirm Password** fields. The Password must be no less than six characters long. Bars under the **Password** field indicate the password strength. Always use a strong password (3 bars are green). Record your username and password for use later.

   ![Register Administrator Window](image)

   ![Register Administrator Window](image)

   **WARNING**

   Record your password and save in a secure place. The **Super User** password cannot be recovered.

   c. Check the box for **Enable Auto-login** to log in automatically. Use this feature only if the computer is secure (not available for unauthorized use).

   d. Click **Register** to create your Super User credentials. A subsequent Super User login will require these credentials. The **Control Panel** will open, and then by default, **Wizard** window will open.
SECTION 2: ACMS 3.1 INSTALLATION

Use the Wizard to discover devices on your network, and add them to the ACMS for monitoring and management.

**Wizard – Device and Storage Schedule Configuration**

**NOTE** The following example of using the Wizard provides an abbreviated form of the overall process. Use it as a framework for setting up your system with the Wizard.
3. In the Wizard window shown above, you can add devices and servers to the client ACMS Client. Note that the list of online devices is shown at the bottom of the screen. To add a device, click on the device to highlight it, and then click the **Add to Client** button. (You can also click **Add All** to quickly add all on-line devices.) The device will appear in the Devices for Management list.

4. In the **Device to Management** list, click on the device you added, and then click the **Add to Client** button. In the **Add** window, enter the appropriate information in the fields that are empty. Some fields are automatically populated from the device information shown in the list below. Fields in the Add window include:

   **Nickname:** Enter a name for the device.

   **Address:** Enter the IP address of the device. The IP address of the device is usually obtained automatically in this mode.

   **Port:** Enter the port number for the device. The default port number is 8000.

   **User Name:** Enter the device administrative username.

   **Password:** Enter the password associated with the username on the line above.

   a. Check the box for **Export to Group** to create a group of devices. Devices in a group are easier to manage for live view, playback, and other operations. All the channels of the device will be imported to the corresponding group by default. See “Wizard — Group Management” on page 19.
In the example shown below for cameras, a **Nickname**, and the administrator **User Name** and **Password** for the ALI-NVR3008P were entered.

5. After completing the information in the Add window, click the **Add** button to add the device to the ACMS Client.

6. Repeat the three steps above to add additional devices. The screen below shows an NVR and camera were added.
NOTE

In the Device for Management list, ensure that the device serial number is shown, and the device status icon for Net Status is green. If it is not, a connectivity problem may exist. Click on the device to highlight it, click Remote Configuration, and then adjust the network parameters as required.

Wizard – Group Management

The devices added to the ACMS Client can be organized associated in groups for a convenient management. You can open a live view, play back record files, and perform other operations of the device through the group.

7. After adding devices to the ACMS Client, click the Next button at the bottom of the window to advance the Wizard. The Group Management window will open.

8. To create a group, click the Add Group icon (see above), enter the Group Name in the field, and then click OK.
9. To add cameras (Encoding Channels) to the group you created, click Encoding Channel in the Resources list, and the click the Import button.

The Import window includes these icons:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Label</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>![View]</td>
<td>View</td>
<td>View the encoding channel in list view.</td>
</tr>
<tr>
<td>![Thumbnail View]</td>
<td>Thumbnail View</td>
<td>View the encoding channel in thumbnail view.</td>
</tr>
<tr>
<td>![Refresh]</td>
<td>Refresh</td>
<td>Refresh the information of added encoding channels.</td>
</tr>
<tr>
<td>![Import to group]</td>
<td>Import to group</td>
<td>Create a group by device name and import the device to group.</td>
</tr>
<tr>
<td>![Collapse/Expand]</td>
<td>Collapse/Expand</td>
<td>Collapse/Expand the thumbnails of encoding channels.</td>
</tr>
</tbody>
</table>

10. In the right frame, highlight the group you want to import devices to.

11. Click Import All, or click on a device you want to add, and click Import. You can select multiple devices to import after selecting the first device by holding down the Ctrl Key and clicking on the device. When a device is selected, it is surrounded by a yellow frame. You can import up to 64 cameras to one group.
After encoding channels are imported, they appear in the list on the right under the group name.

![Import window](image)

**NOTE**  
In the Import window, click the *Alarm Input* tab to import alarms to a group.

12. Click the icon in the upper right corner to return to the Group Management window. After devices are added to the group, they appear in the Group Management window.
13. To add alarm inputs to the group, click **Alarm Input** in the **Resources** column under the group name, and then click the **Import** button.

14. As with adding Encoding Channels, click **Import All**, or select the alarm inputs you want to add to the list, and then click **Import**.
15. Click the icon in the upper right corner to return to the Group Management window. After devices are added to the group, they appear in the Group Management window.

16. In the Group Management window, click the Next button at the bottom of the window to open the Record Schedule window.

**Wizard – Record Schedule**

When the video storage devices are the HDDs, Net HDDs, SD/SDHC cards on the local device, or the remote storage server, you can set the record schedule for the cameras for the continuous, alarm triggered or command triggered recording. The record files can be searched for through remote playback.

**NOTE** Newly installed storage devices must be formatted before they can be used.

17. In the Record Schedule window:
a. Select (highlight) the device in the left column for which you want to setup a record schedule. In the example above, **IP Camera1_NVR-75.8** was selected.

b. Click the **Record Schedule** checkbox.

c. Open the drop-down list and select a schedule template during which recordings will be made. Each template provides a $24 \times 7$ schedule. Notice that some schedule templates are pre-configured. You can, however, create custom templates with custom names tailored for your system.

d. To customize a schedule template, click the **Edit** button to the right after selecting a schedule. The Template Management window will open. To edit the template:
i. In the template list on the left, highlight the name of the template you chose, and then type in a new name. In the example above, **Off-shift** was entered.

ii. Click one of the three buttons at the top (**Schedule Recording**, or **Event Recording**) to select the recording mode. **NOTE**: Command triggered recording is not supported by the ACMS.

Using the mouse, drag it across the area of a day timeline where you want to apply that recording mode. If you clicked **Schedule Recording** in step ii above, the timeline in that area will be marked olive green. If you selected **Event Recording**, the timeline in that area will be colored tan. You can combine different recording modes on the same schedule (see the example above). Timeline segments where recording modes are assigned cannot overlap.

**NOTES:**
1. To delete the template you configured, click the trash can icon at the top of the window.
2. To copy an segment of the timeline where you assigned a recording mode, click the segment to select it (it will be surrounded by a dashed line), and then click the icon to the right of the trash can icon. In the pop-up window, select the days you want to copy the segment to, and click **OK**.
3. To shift a segment of the timeline where you assigned a recording mode to an earlier or later position, click the segment to select it (it will be surrounded by a dashed line), and then drag the segment left or right to move it.
4. To lengthen or shorten the segment of the timeline where you assigned a recording mode, click the segment to select it (it will be surrounded by a dashed line), and then position the mouse pointer at either end of the segment (the cursor will change to a short line with arrowheads at both ends). Drag the end of the segment left or right to change the length.
5. To delete an area of the timeline where you assigned a recording mode, click the area to select it (it will be surrounded by a dashed line), and then click the icon to the left of the trash can icon.

iii. Click the **OK** button at the bottom of the window to save your customized template.
SECTION 2: ACMS 3.1 INSTALLATION

e. Click the Advanced Settings button to the right of the template Edit button. The Advanced Settings window may show different options depending on the device being configured.

f. In the Advanced Settings window, change the values for each field appropriately, and then click OK.
   * Pre-record: Normally used for the event triggered recordings, this option specifies the length of video to record before the event happens.
   * Post-record: Normally used for the event triggered recordings, this option specifies the length of video to after before the event happens.
   * Keep Record Files For: The time for keeping the record files in the storage device, after which the files are deleted. Record files are saved permanently when the value is set as 0.
   * Redundant Record: Save the video files in the R/W HDD and in the redundant HDD.
   * Record Audio: Record the video files with audio.
   * Video Stream: Select the stream type for recording (Main Stream, Sub Stream, etc.).

g. Similar to setting up the record schedule, set the Capture schedule for the device, and then click the Advanced Settings button for Capture. An example is shown below.

h. Repeat the sub-steps a through g above for other devices.
18. When done assigning a recording schedule to each device or group, click the **Finished** button at the bottom of the window. A live view window will open.

### 2.3 ACMS update installation

ACMS 3.1 can be installed as an update to an ACMS 3.0 installation. Use the following procedure to perform the update.

1. Backup the system logs and configuration files:
   
   a. Backup the system log files, if needed. See “14.3 Backing up Log Files” on page 184.
   
   b. Setup the location where the system configuration file is stored. See “3.2.4 File system configuration parameters” on page 36.
   
   c. Backup the system configuration file:
      
      i. Open the **System** drop down list on the screen header.
      
      ![System drop down list](image)
      
      ii. Select **Export System Config File**, and then follow the on-screen instructions to complete the operation.

2. Obtain the ACMS V3.1 software installation file (ACMS.exe). You can download it from the [AlibiSecurity.com/Resources](https://www.AlibiSecurity.com/Resources) website or from your product vendor.

3. On the computer where the update will be applied, ensure that ACMS and any ACMS servers are not running.

4. Execute (Run) the ACMS 3.1 installer file, ACMS.exe.
5. In the InstallShield Wizard window, click Next to continue.

6. Allow the installation to advance. In the Win10Pcap, click Next to continue.

7. In the End-User License Agreement screen for Win10PCap, read the license thoroughly. If you accept the terms of the agreement, check the appropriate box, and then click Next.

8. In the following screen, choose where to install Win10Pcap, click Next, and then click Install.
9. Allow the Win10Pcap installation to complete, click **Finish**, and then click **Finish** in the InstallShield Update Complete window.

10. Restart the ACMS Storage Server, Stream Media Server, and Client normally. The password for ACMS 3.1 is your same password used in the ACMS 3.0.
SECTION 3
ACMS Client Initial System Setup

3.1 Account management

During the initial login to the ACMS Client, a Super Administrator account is created. Up to 50 user accounts can be added to the ACMS client. These accounts can be one of two types:

- **Administrator**: The administrator account has all permissions by default. It can modify the passwords and permissions of all operator accounts, and its own account.
- **Operator**: The operator account, by default, has no permissions. Its permissions must be assigned manually. An operator can only modify the password of its own account.

All user accounts can be edited. Also, all accounts, except for the Super Administrator account, can be deleted.

3.1.1 Adding a User

1. Click the Account Management ( icon, or open the Menu drop down list and then click Tool | Account Management.
2. Click **Add User** to open the Add User dialog menu, and then do the following:

   ![Add User dialog menu](image)

   a. Open the **User Type** drop-down list, and then select either **Administrator** or **Operator**. In the window shown above, Operator was selected. Administrator user types initially have all options enabled.

   b. Enter a username in the **User Name** field, and then enter a password in the **Password** and **Confirm Password** fields. The bars under the Password field indicate the strength of the password. Always create a strong password. Strong passwords are rated with three green bars.

   c. In the left frame of the window, check (or un-check) the boxes to assign the permissions to the new user. You can click **Default Permission** to restore the default permissions to this user. For the Operator User Type, no permissions are initially granted.

   d. To customize the permissions assigned to the user, check the select box for the permission you want to assign to the user, and then check or uncheck the boxes in the in the device list on the right to enable or disable the permission on that device.

   **NOTE** The user account you registered to initially log in is setup as the super administrator.

   A user name cannot contain any of the following characters: / : * ? “ < > | .

   The password must contain at least 6 characters.
3.1.2 Managing a user account

After a user account is created, you can edit or delete the information of the user accounts.

To edit the information of the user:

1. Click in the ACMS Client control panel, click the Account Management (user icon), or open the Menu drop down list and then click Tool | Account Management.
2. Click (highlight) the entry in the account list for the user you want to edit, then click the Edit User button at the top of the window.
3. Change the options in the account window as needed, and then click Save.

To delete a user account:

1. Click in the ACMS Client control panel, click the Account Management (user icon), or open the Menu drop down list and then click Tool | Account Management.
2. Click (highlight) the entry in the account list for the user you want to edit, then click the Delete User button at the top of the window.
3.2 System Configuration

The System Configuration module includes eight sub-menus:

- **General**: The General menu includes frequently-used parameters, including the log expired time, view scale, etc.
- **Live View and Playback**: Use this menu to set up how Main View and Playback function. You can choose how multiple downloaded video files are delivered, how video files are played, etc.
- **Image**: Use this menu to configure the image parameters for the ACMS. There are selectable options such as Auto-change Stream Type between Main and Substream, Hardware decoding for GPU usage, VCA rules, etc.
- **File**: The video files from manual recording, the captured pictures and the system configuration files are stored on the local PC. Location of these files is selected using the File sub-menu.
- **Toolbar**: The Main View and Playback screens have a toolbar that includes stop, snapshot, record, digital zoom, etc. You can customize what icons you want in the toolbar from this menu.
- **Alarm Sound**: When an alarm, such as motion detection, video exception, etc., is triggered, the client can be configured to play an audio file. You can select the audio file that is played.
- **Email**: An Email notification can be sent when an alarm occurs. To send Email, the settings of the Email sub-menu must be configured.

3.2.1 General system configuration parameters

1. In the ACMS Client control panel, click the System Configuration icon ( ), or open the Menu drop down list and then click **Tool | System Configuration**. By default, the **General** sub-menu opens.

2. Select the options in the General menu as needed, and then click **Save**. A description of options are shown in the following table.
SECTION 3: ACMS CLIENT INITIAL SYSTEM SETUP

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Expired Time</td>
<td>The time for keeping the log files, once exceeded, the files will be deleted.</td>
</tr>
<tr>
<td>Network Performance</td>
<td>The current network conditions. You can select either Normal, Better or Best.</td>
</tr>
<tr>
<td>Maximum Mode:</td>
<td>Open the drop down list and select either Maximize or Full Screen. In Maximize mode, the screen is maximized and the taskbar will appear. In Full Screen mode, the screen will be displayed in full-screen.</td>
</tr>
<tr>
<td>Enable Auto-login</td>
<td>Log in the client software automatically.</td>
</tr>
<tr>
<td>Pop up security prompt when the</td>
<td>If the default password of the added device has not been changed, the prompt will pop up for notification.</td>
</tr>
<tr>
<td>default password is used</td>
<td></td>
</tr>
<tr>
<td>Enable Alarm Triggered Pop-up</td>
<td>If enabled, the live image of a camera along with all alarm information appears when an event is triggered.</td>
</tr>
<tr>
<td>Image</td>
<td></td>
</tr>
<tr>
<td>Pop-up Alarm Image for minimized</td>
<td>If the Alarm Pop Up is enabled and when the ACMS is minimized in the Windows tray, this feature will cause an image to open.</td>
</tr>
<tr>
<td>Client When Alarm Triggered Pop-up Image Enabled</td>
<td></td>
</tr>
<tr>
<td>Pop-up Error Message When Email</td>
<td>A message will appear in the lower right corner of the display when email notification in ACMS is not setup and the initial connection to a device occurs.</td>
</tr>
<tr>
<td>settings Are Empty</td>
<td></td>
</tr>
<tr>
<td>Auto Time Adjustment</td>
<td>Adjust the time automatically at a specified time point.</td>
</tr>
<tr>
<td>Enable Keyboard and Joystick</td>
<td>Allows use of a keyboard and joystick to enter commands. You can set the shortcuts of PC keyboard and USB joystick to get quick and convenient access to the commonly used actions.</td>
</tr>
</tbody>
</table>

3.2.2 Live View and Playback

1. In the ACMS Client control panel, click the System Configuration icon ( ), or open the Menu drop down list and then click Tool | System Configuration.

2. In the left frame, click Live View and Playback.
### Parameters Descriptions

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picture Format</td>
<td>Select either BMP or JPEG format for capture files.</td>
</tr>
<tr>
<td>Merge Downloaded Video Files</td>
<td>When selected, merges multiple files for download into a single file. You can select from 1GB, 2GB, or 4GB file sizes.</td>
</tr>
<tr>
<td>Search Video File Stored in...</td>
<td>Determines where ACMS will search for recorded video. The default is for a Storage Server and Device.</td>
</tr>
<tr>
<td>Pre-Play for</td>
<td>Set the pre-play time for event playback. Default is 30 seconds.</td>
</tr>
<tr>
<td>Enable Screen Toolbar Display</td>
<td>When a video frame is selected, this option enables a toolbar to appear at the bottom of the frame.</td>
</tr>
<tr>
<td>Prioritize Playback of Video Files</td>
<td>Play back the video files recorded on the storage server. Otherwise, play back the video files recorded on the local device.</td>
</tr>
<tr>
<td>on Storage Server</td>
<td></td>
</tr>
<tr>
<td>Resume Latest Live View Status</td>
<td>The ACMS will automatically connect and resume the last Main View configuration that was active before the program was shut down.</td>
</tr>
<tr>
<td>After Restart</td>
<td></td>
</tr>
<tr>
<td>Disconnect Background Videos in</td>
<td>In multiple-window division mode, double-click a live video to display it in 1-window division mode, and the other live videos will be stopped for saving the resource.</td>
</tr>
<tr>
<td>Single Live View</td>
<td></td>
</tr>
<tr>
<td>Enable Wheel for Zoom</td>
<td>Enable to use the mouse wheel for zoom in or out of the video in PTZ mode, or for zoom in or restore video in digital zoom mode.</td>
</tr>
<tr>
<td>Skip Unconcerned Video during VCA</td>
<td>Video that has no VCA event occurs will be skipped during playback</td>
</tr>
<tr>
<td>Playback</td>
<td></td>
</tr>
</tbody>
</table>

#### 3.2.3 Image configuration parameters

1. In the ACMS Client control panel, click the System Configuration icon ( ), or open the Menu drop down list and then click Tool | System Configuration.

2. In the left frame, click Image.

3. Set the display scale and view performance for the ACMS client as follows:
## SECTION 3: ACMS CLIENT INITIAL SYSTEM SETUP

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>View Scale</td>
<td>The view scale of the video in live view or playback. Open the drop down list and select either Full Screen, 4:3, 16:9 or Original Resolution.</td>
</tr>
<tr>
<td>Play Performance</td>
<td>Open the drop down list and select either Shortest Delay or Self-adaptive. Shortest Delay produces quick playback at the expense of quality. Self Adaptive balances quality and playback speed depending on bandwidth availability.</td>
</tr>
<tr>
<td>Auto-change Stream Type</td>
<td>Change the video stream (main stream or sub-stream) automatically in live view according to the size of the display window.</td>
</tr>
<tr>
<td>Hardware Decoding Preferred</td>
<td>Enables 64-bit GPU decoding for graphics cards. This feature reduces the overall CPU load which allows the ACMS to display more concurrent streams at higher resolutions.</td>
</tr>
<tr>
<td>Enable Highlight</td>
<td>Mark the detected objects with green rectangles in live view and playback.</td>
</tr>
<tr>
<td>Display Transaction Information</td>
<td>Display the transaction information in the live view.</td>
</tr>
<tr>
<td>VCA Rule</td>
<td>Display the VCA (Video Content Analysis) Rule in the live view.</td>
</tr>
<tr>
<td>Enable Frame Extracting for High-speed Playback</td>
<td>When enabled, fast forward playback may extract frames to all the fast forward to function at a faster rate. When this feature is disabled, playing back video at high-speed (fast forward 8x and above) provides more fluent video with more detail.</td>
</tr>
<tr>
<td>Display temperature on Captured Picture</td>
<td>When enabled, the camera will indicates temperatures on the images it captures. Requires a camera with a thermal capture features.</td>
</tr>
</tbody>
</table>

4. Click **Save** to retain your settings.

### 3.2.4 File system configuration parameters

1. In the ACMS Client control panel, click the System Configuration icon ( ), or open the Menu drop down list and then click **Tool | System Configuration**.

2. In the left frame, click **File**.

3. For each file type (Video, Pictures, Configuration), click the ellipsis (browse) icon to the right of each path, and then browse to the location where the associated files should be saved.

4. Click **Save** to retain your settings.
3.2.5 Toolbar configuration for Live View and Playback

I use this menu to select which hot key icons are appear in the tool bar when a camera is selected in the Main Video display during live view or playback.

1. In the ACMS Client control panel, click the System Configuration icon ( ), or open the Menu drop down list and then click Tool | System Configuration.

2. In the left frame, click Toolbar.

3. Select the hot key icons you want to appear on the toolbar.

3.2.6 Keyboard and joystick shortcuts

1. In the ACMS Client control panel, click the System Configuration icon ( ), or open the Menu drop down list and then click Tool | System Configuration.

2. In the left frame, click Keyboard and Joystick Shortcuts.
3. If you are using a PTZ control keyboard (joystick) for PTZ camera control, select the COM port from the drop-down if applicable.

4. To change a keyboard shortcut of USB joystick control, double-click the item field under the PC Keyboard or USB Joystick column.

5. Select the compound keys operation or USB joystick operation from the drop-down list.

6. Click **Save** to retain your settings.

### 3.2.7 Alarm Sound settings

1. In the ACMS Client control panel, click the System Configuration icon ( ), or open the Menu drop down list and then click **Tool | System Configuration**.

2. In the left frame, click **Alarm Sound**.
3. For each type of alarm, click the ellipsis (browse) icon to the right, and then select the sound byte you want to play when the alarm occurs. The ACMS Client can only play .wav file types when alarms occur. You can listen to the file play by clicking the play icon (icon to the right of the ellipsis icon).

4. Click Save to retain your settings.

3.2.8 Email settings

5. In the ACMS Client control panel, click the System Configuration icon ( ), or open the Menu drop down list and then click Tool | System Configuration.

6. In the left frame, click Email.
7. In the Email menu, enter the following parameters:

   **Server Authentication:**

   **SMTP Server:** Enter the SMTP Server address.

   **Port:** Enter the communication port of Email service. The default port number is 25.

   **User Name:** Enter the user name of the sender Email address. **Password:** Enter the password of the sender Email address.

   **Sender Address:** Enter the Email address of the sender.

   **Receiver 1 - 3:** Enter the Email addresses of the receivers. You can include up to 3 email receivers.

8. Check the **Enable SSL** box if required by your email service provider. SSL increases the security of your email.

9. To test your email settings, click **Send Test Email** to send an email to the our receivers.

10. After your email settings are functioning properly, click **Save** to retain your settings.
SECTION 4

Using the Stream Media Server

One stream media server can distribute up to 64 video streams to up to 200 clients (ACMS viewers). The video streams (cameras) you want to stream through the SMS must first be added to the ACMS, and then configured to stream through the SMS.

4.1 Adding the Stream Media Server to the ACMS Client

Each ACMS Client can stream video for viewing from up to 16 different stream media servers (SMS). Also, you can forward the video through a Stream Media Server installed on another PC. Before you can activate the SMS in the ACMS client, it must be running on a PC on the network (or the local PC).

1. In the ACMS Client control panel, open the Device Management module (click ), and then click the Device tab.

2. Click Add New Device Type.

3. Check the enable box for Stream Media Server, and then click OK.

4. In the left frame, click on Stream Media Server, and then click the Add button.
5. In the Add window (left screen, default), enter an appropriate name in the Nickname field, and then enter the SMS server IP address in the IP address field (see above). The default port number is 554. If the server running on a different port, at the IP address, edit the Port field. To add an SMS by IP range (right screen above), select the IP Segment option on the top line, enter the Start IP and End IP address range where the SMS server(s) are configured.

6. Click Add to add the server to the ACMS client.

7. In the display shown above, click the SMS you added, and then click Configure.

8. In the Settings window, check the boxes for the devices you want to monitor through the SMS.
4.2 Using the Stream Media Server to forward video streams

You can stream video through the Stream Media Server (SMS) to the ACMS Client to watch in the Live View window. To receive a video stream from a camera through a stream media server, the cameras must first be added to the ACMS and configured to stream through the SMS.

1. On the PC where the SMS is installed, open the Stream Media Server by double-clicking the icon on the desktop icon or link in the Start menu.

   ![Stream Media Server Window]

   In the SMS window shown above, entries in the data field list indicate clients that opened (“Enter”) and closed (“Exit”) video streaming through the server.

2. Click the Configure icon at the top of the window.

   ![Configure Window]

3. In the Configure window, select the startup options for the server. Note that both options autostart the server. If you selected the Auto-login operating system option, enter valid credentials for the computer the SMS server is installed on.
SECTION 5: USING THE STORAGE SERVER

4. Click **OK** to retain your settings.

5. Open the ACMS Client Live View page and start the live view of the cameras again. You can check the channel number of the video stream forwarded through or sent from the stream media server.

Note that the SMS now shows 6 video streams opened by the ACMS Client.
### SECTION 5: USING THE STORAGE SERVER

![Stream Media Server Table]

<table>
<thead>
<tr>
<th>Operation</th>
<th>Client IP</th>
<th>Client Port</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter</td>
<td>192.168.3.60</td>
<td>50087</td>
<td>2017-07-11 14:50:42</td>
</tr>
<tr>
<td>Enter</td>
<td>192.168.3.50</td>
<td>50095</td>
<td>2017-07-11 14:50:42</td>
</tr>
<tr>
<td>Enter</td>
<td>192.168.3.60</td>
<td>50102</td>
<td>2017-07-11 14:50:42</td>
</tr>
<tr>
<td>Enter</td>
<td>192.168.3.50</td>
<td>50109</td>
<td>2017-07-11 14:50:43</td>
</tr>
<tr>
<td>Enter</td>
<td>192.168.3.60</td>
<td>50116</td>
<td>2017-07-11 14:50:43</td>
</tr>
<tr>
<td>Enter</td>
<td>192.168.3.50</td>
<td>50123</td>
<td>2017-07-11 14:50:43</td>
</tr>
</tbody>
</table>
SECTION 5
Using the Storage Server

The storage server performs as a separate storage device installed on the PC. The record files can be searched for remote playback.

5.1 Adding the Storage Server to the ACMS Client

The storage space on a storage server should be a disk partition or drive with at least 500 GB. The storage area (partition) must be reformatted through the ACMS Client before it can be used. Formatting does erase all data on the storage device.

1. In the ACMS Client control panel, open the **Device Management** module (click ![Device Management](image)). In this screen:

![Device Management](image)

2. Locate and click on the **STORAGE-SERVER** device (installed during installation) you want to add in the Online Device list, and then click the **Add to Client** button. The Add window will open.
3. In the Add window:
   a. Enter an appropriate identifier for the server in the Nickname field. In the example above, the Nickname will be SS-3.60.
   b. In the User Name field, enter the username that was configured for the storage server. The default User Name is admin.
   c. In the Password field, enter the username that was configured for the storage server. The default Password is 12345.
   d. Click Add to add the server to the ACMS.

4. Verify that the Net Status icon in the Devices for Management frame show a for the SS you added. This icon indicates that the addition was successful.

   If the icon appears as , the addition was not successful. Hover the mouse pointer over the icon to open a balloon window to show reason for the faulty status, and then take appropriate action to resolve the problem.

5. After a successful addition of the Storage Server, click the entry in the Devices for Management frame to highlight it, and then click the Remote Configuration button.

   A screen similar to that shown below will open.
6. In the Remote Configuration window, open the **System | Time** menu, and then select the time zone you prefer to use from the drop-down list. Click **Save** to save your settings. You can also use NTP to synchronize the time of the server.

If changes were made to this menu, click **Save**.

7. Open the **System | User** menu, and then click on the **Admin User Name**.

8. Click **Modify**, and then:
   
   a. Change the password from the default password to a **Strong** password. Strong passwords are indicated by three green under the password field.
b. Click **Save** to retain the new settings.

9. Open the **Storage | General** menu:

   a. In the screen below, determine the HDD to use for storage, and then check the associated select box. In the example here, HDD F is selected.
b. If the HDD Status is “Unformatted”, click Format to format the drive for use. When the format operation is complete, the status will change to “Normal”. When the format operation completes successfully, an information window will open. Click OK to close the window. The status will change to “Normal”.

c. In the fields at the bottom of the menu, select the percentage of the disk to be used for video recordings (Quota Ratio For Record), select the percentage of the disk to be used for capture files (Quota Ratio For Picture), and the percentage of space reserved for other data (Quota Ratio For Additional). The percentages must add to 100%.

d. Click Save.
SECTION 6
Main View

Main View features include:

- Multi-screens for main view and screen can be separated by dragging the tab
- Picture capture and real-time recording in Main View mode
- Instant playback function enables the quick switch between Main View and playback
- Digital Zoom and cycling Main View channels (tour)
- Channels management by Group
- Easy configuration of brightness, contrast, saturation and hue parameters
- Record file and captured picture management
- Two-way audio
- Control PTZ cameras
- Display status of supervisory place

Use the Main View module to view live video from cameras added to the ACMS. To open the Main View module, click the ( ) icon in the Control Panel, or click the Menu icon in the upper left corner and select System | Main View.
Window header and footer

Icons in the Main View header and footer are similar in all ACMS modules. Refer to “1.2 ACMS Control Panel” on page 3 for more information.

Main View toolbar icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Label</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="icon.png" alt="Set View" /></td>
<td>Set View</td>
<td>Set the screen layout mode and save the new settings for the current view.</td>
</tr>
<tr>
<td><img src="icon.png" alt="Save View as" /></td>
<td>Save View as</td>
<td>Save the current view as another new view</td>
</tr>
<tr>
<td><img src="icon.png" alt="Stop Live View" /></td>
<td>Stop Live View</td>
<td>Stop the live view of all cameras.</td>
</tr>
<tr>
<td><img src="icon.png" alt="Mute/Audio On" /></td>
<td>Mute/Audio On</td>
<td>Turn off/on the audio in live view.</td>
</tr>
<tr>
<td><img src="icon.png" alt="Resume/Pause Auto-switch" /></td>
<td>Resume/Pause Auto-switch</td>
<td>Click to resume/pause the auto-switch in live view.</td>
</tr>
<tr>
<td><img src="icon.png" alt="Show /Hide the Menu" /></td>
<td>Show /Hide the Menu</td>
<td>Show/Hide the configuration menu of auto-switch. Click again to hide.</td>
</tr>
<tr>
<td><img src="icon.png" alt="Previous" /></td>
<td>Previous</td>
<td>Go for live view of the previous page.</td>
</tr>
<tr>
<td><img src="icon.png" alt="Next" /></td>
<td>Next</td>
<td>Go for live view of the next page.</td>
</tr>
<tr>
<td><img src="icon.png" alt="Window division" /></td>
<td>Window division</td>
<td>Set the window division.</td>
</tr>
<tr>
<td><img src="icon.png" alt="Full Screen" /></td>
<td>Full Screen</td>
<td>Display the live view in full screen mode. Press ESC to exit.</td>
</tr>
</tbody>
</table>

Main View Management Menu

Right-click on Main View video to open the Main View Management Menu. This menu provides a list of links to the basic operations available for a device in the Main View window. The device must support the device operations being performed.
Main View Management menu

<table>
<thead>
<tr>
<th>Item</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop Live View</td>
<td>Stop the live view in the display window.</td>
</tr>
<tr>
<td>Capture</td>
<td>Capture a picture of the live view video frame.</td>
</tr>
<tr>
<td>Other Capture Modes</td>
<td>Opens a submenu to 1) Print Captured Picture, 2) Send Email, or 3)Custom Capture (allows renaming the capture file).</td>
</tr>
<tr>
<td>Start/Stop Recording</td>
<td>Start/Stop the manual recording. The record file is stored in the PC.</td>
</tr>
<tr>
<td>Open Window PTZ Control</td>
<td>Enable PTZ control function on the display window. Click again to disable the function.</td>
</tr>
<tr>
<td>Open Digital Zoom</td>
<td>Enable the digital zoom function. Click again to disable the function.</td>
</tr>
<tr>
<td>Switch to Instant Playback</td>
<td>Opens a submenu where you can select the playback time between 30 seconds and 10 minutes.</td>
</tr>
<tr>
<td>Fire Source Information</td>
<td>Opens a submenu to 1) Display Fire Source Region, 2) Display Max. Temperature, 3) Locate Max. Temperature Region, or 4) Display Fire Source Target. This feature is available for use with fire detection equipment associated with the ACMS.</td>
</tr>
<tr>
<td>Start/Stop Two-way Audio</td>
<td>Click to start/stop the two-way audio of the camera in Main View frame. You can select either of three channels (camera must support two-way audio).</td>
</tr>
<tr>
<td>Enable/Disable Audio</td>
<td>Click to enable/disable the audio in live view.</td>
</tr>
<tr>
<td>Camera Status</td>
<td>Display the status of the camera in live view, including the record status, signal status, connection number, etc.</td>
</tr>
<tr>
<td>Remote Configuration</td>
<td>Open the remote configuration page of the camera selected.</td>
</tr>
<tr>
<td>Synchronization</td>
<td>Time synchronize the device clock with the PC running the ACMS client software.</td>
</tr>
<tr>
<td>Show Temperature Information</td>
<td>Displays temperature detected by the device. The device must support this feature.</td>
</tr>
<tr>
<td>Fisheye Expansion</td>
<td>Enter the fisheye expansion mode. Only available when the device is a fisheye camera.</td>
</tr>
<tr>
<td>Master-slave Linkage</td>
<td>This feature is used with a PTZ camera and a nearby box/bullet/fisheye camera that supports this feature. It is used to locate or track a target.</td>
</tr>
<tr>
<td>Start Speed Dome Linkage</td>
<td>Click to start/stop locating or tracking the target according to your command. Only available when the device is fisheye camera.</td>
</tr>
<tr>
<td>Full Screen</td>
<td>Display the live view in full screen mode. Click the icon again to exit.</td>
</tr>
</tbody>
</table>

6.1 Basic Operations in Main View

6.1.1 Starting and Stopping the Main View

Starting Main View for One Camera

1. Open the Main View module: click the icon in the Control Panel, or click the Menu icon in the upper left corner and select System | Main View.
2. Click the Set View icon in Main View toolbar, then click the screen Layout icon and select the screen layout mode for Main View. See the Main View toolbar icons above.
SECTION 6: MAIN VIEW

3. Click-and-drag the camera to the display window, or double-click the camera name after selecting the display window to start the Main View.

**NOTE** You can click-and-drag the video of the camera in Main View to another display window if needed.

Starting Main View for Camera Group

1. Open the Main View module: click the icon in the Control Panel, or click the Menu icon in the upper left corner and select **System | Main View**.

2. Click-and-drag the group to the display window, or double-click the group name to start the Main View.

**NOTE** The display window will open either 1, 4, 9, or 16 viewing frames to support the number of video channels in the group.

Starting Main View in Default View Mode

Video of the cameras added to the ACMS can be displayed in single- or multi-view modes. You can select either of the four frequently-used default view modes: 1-Screen, 4-Screen, 9-Screen and 16-Screen.

1. Open the Main View module: click the icon in the Control Panel, or click the Menu icon in the upper left corner and select **System | Main View**.

2. Click the icon “plus” icon ( ) to expand the **Default View** list.

3. Click on the default view mode you prefer, and then click the **Start Cycle** icon associated with the view mode. Video of the cameras channels added to the display will be shown in a sequence in the view mode you selected.

**NOTE** Right-click the current default view name on the list and click **Save View As**, and you can save the default view as a custom view.
Starting Main View in Custom View Mode

The view mode can also be customized for the video Main View.

1. Open the Main View module: click the 🗿️ icon in the Control Panel, or click the Menu icon in the upper left corner and select System | Main View.

2. Click the icon “plus” icon (+) to expand the Default View list.

3. Click-and-drag the cameras or group to the display window, or double-click the cameras or groups name in custom view mode to start the Main View if additional video channels must be included.

4. Click the Save View As icon in the taskbar at the bottom of the window. In the Save View As pop-up window, enter the view name, and then click Save. The new view entry will appear in the list under Custom Views.

To edit the view, delete the view, save the view, or save the view as a new name, hover the mouse pointer over the Custom View name and then select the appropriate option.

**NOTE**
SECTION 6: LIVE VIEW

Stopping the Main View

1. In the Main View display, select the display window. When a window is selected, it has a light blue border.

2. Click the stop icon ( ) that appears in the upper-right corner of the video frame when the mouse pointer is over the display window, or right click on the video frame and then click Stop Main View in the Main View Management Menu.

6.1.2 Auto-switch in Main View

Camera Auto-switch

In Auto-switch mode, the video channels in the same group will switch automatically in the selected video frame.

1. Open the Main View module: click the icon in the Control Panel, or click the Menu icon in the upper left corner and select System | Main View.

2. Select a display window for camera auto-switch.

3. Click the Set Cycle Time icon on the toolbar, and then select the switching interval you prefer.

4. Select a group, and then click the Start Cycle icon on the group entry.
You can click the icon in the same position to pause or resume camera auto-switch.

**Single View Auto-switch**

The video of all the cameras on the camera list will switch automatically in a selected default view in single view auto-switch.

1. Open the Main View module: click the icon in the Control Panel, or click the Menu icon in the upper left corner and select **System | Main View**.

2. Click the **Set Cycle Time** icon on the toolbar, and then select the switching interval you prefer. (See **Camera Auto-switch** above.)

3. In the **Views** list, select a default view mode, and then click the **Start Cycle** icon on the display mode line.

![Start Cycle icon](image)

You can click the icon in the same position to pause or resume the single view auto-switch.

**Multi-view Auto-switch**

The custom views will switch automatically in multi-view auto-switch. The custom view must be added before proceeding. See **Starting Main View in Custom View Mode** for more information.

1. Open the Main View module: click the icon in the Control Panel, or click the Menu icon in the upper left corner and select **System | Main View**.

2. Click the **Set Cycle Time** icon on the toolbar, and then select the switching interval you prefer. (See **Camera Auto-switch** above.)

3. In the **Views** list, click **Custom Views**, and then click the **Start Cycle** icon on right side of the line.
6.1.3 PTZ Control in Main View

The ACMS provides PTZ control for cameras with pan/tilt/zoom functionality. You can set the preset, patrol and pattern for the cameras on the PTZ Control panel.

**NOTE**
Due to the large variation of RS-485 protocols and analog PTZ cameras, some features of the PTZ controls in the DVR may not function as expected. To access and use all features of your PTZ camera, Observint Technologies recommends at an external PTZ controller device, compatible with your camera, be used to perform PTZ operations.

1. Open the Main View module: click the **Start Cycle** icon in the Control Panel, or click the Menu icon in the upper left corner and select **System | Main View**.

2. Click the **Expand** icon on the PTZ entry in the left frame to open the PTZ Control panel.
Configuring the Preset

A preset is a predefined image position which contains information of pan, tilt, focus and other parameters. To create a preset:

1. On the PTZ Control panel, click the **Preset** tab.
2. Click the direction buttons on the PTZ control panel to point the camera to the desired view.
3. Click a PTZ preset number from the preset list and click the **Add/Edit Preset** button. The window shown below will open.

![Add Preset Window](image)

4. Enter the name of the preset in the **Name** field, and then click **OK**.
   - To call a preset that was configured, double-click on the preset, or select the preset in the list and then click the **Call Preset** icon.
   - To modify a preset, select the preset in the list, and then click the **Add/Edit Preset** icon.
   - To delete a preset, select the preset from the list and click the **Delete** icon.

Configuring the Pattern

A pattern is a memorized, repeating series of pan, tilt, zoom, and preset functions. Only one pattern can be configured. A newly-defined pattern will overwrite the previous one. Perform the following steps to add a pattern:
1. Click the **Pattern** tab to open the PTZ pattern configuration panel.

2. Open the **Pattern Number** drop-down list and select a pattern number.

3. Click the **Start Recording Pattern** icon to start recording of this pattern path.

4. Use the direction buttons to control the PTZ movement.

5. Click the **Stop Recording Pattern** icon to stop recording this pattern.
   - Click the **Call Pattern** icon to command the camera to move in the pattern.
   - To stop the pattern motion, click the **Stop Calling Pattern** icon.

### Configuring the Patrol

A patrol is a scanning track specified by a group of user-defined Presets, with the scanning speed between two presets and the dwell time at the preset separately configurable. To create a patrol, at least two presets must be configured. Up to 16 patrols can be configured. To configure and call a patrol:

1. Click the **Patrol** tab to open the PTZ Patrol configuration panel.
2. Select a Path number from the drop-down list.

3. Click the Add Preset icon to add a preset to the patrol and set the dwell time and patrol speed for the preset. The preset dwell time can be set to 1~255 seconds, and the patrol speed can be set to level 1 ~ 40.

4. Repeat the above operation to add additional presets to the patrol.

5. Click the Edit Patrol icon to edit or delete a preset in the patrol path.
   - Click the Call Patrol icon to call a patrol.
   - Click the Stop Calling Patrol icon to stop the patrol.

### 6.1.4 Manual Recording and Capture

Each Main View display frame includes icons to perform captures and start and stop recording, and switch to instant playback.
SECTION 6: LIVE VIEW

Manual Recording in Main View

Manual Recording function allows you to record live video on the Main View window manually. Recordings are stored in the path specified in the System Configuration interface.

1. In the Main View window, move the mouse pointer to the live video channel display to show the toolbar (see above).

2. Click the Start Recording icon in the toolbar of the video channel display, or right-click on the live video channel to open Main View Management Menu and then select the manual recording option. The Start Recording icon will change to a Stop Recording icon.

3. Click the Stop Recording icon to stop the manual recording. If the recording process was successful, a small window will open briefly in the lower right corner of the screen showing path to the file that was recorded.

![Capture Start recording (or Stop Recording) Switch to Instant Playback](image)

Click the hyperlink in the window to open the directory where the video file was saved.

Viewing Local Record Files

1. Click the Menu icon in the upper-left corner of the ACMS window, and then select File | Open Video File to open the Browse Record Files window.
For steps 2 through 6 below, refer to the screens shown above.

2. Select the camera to be searched from the Camera Group list.

3. Click the calendar icon in the Start Time field to select the beginning of a time frame when a recording(s) was made.

4. Click the calendar icon in the End Time field to select the end of a time frame when a recording(s) was made.

5. Click Search. The video files recorded between the start time and end time will be displayed.
   - Select the video file, and click Delete. You can delete the video file.
   - Select the video file, and click Email Linkage. You can send an Email notification with the selected video file attached. (To send an Email notification, the Email settings must be previously configured.)
   - Select the video file, and click Save as. You can save a new copy of the video file.

6. To play a recording, double-click the video file thumbnail. The Player window will open and play the file. Playback motion controls are provided in the window.
SECTION 6: LIVE VIEW

Player window icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Label</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CIF/4CIF</td>
<td>Display the video in CIF/4CIF resolution.</td>
</tr>
<tr>
<td></td>
<td>Full Screen</td>
<td>Display the local playback page in full screen mode.</td>
</tr>
<tr>
<td></td>
<td>Close</td>
<td>Close the local playback page of the record files.</td>
</tr>
<tr>
<td></td>
<td>Pause/Play</td>
<td>Pause/Start the playback of the record files.</td>
</tr>
<tr>
<td></td>
<td>Stop</td>
<td>Stop the playback of the record files.</td>
</tr>
<tr>
<td></td>
<td>Speed</td>
<td>Set the playback speed.</td>
</tr>
<tr>
<td></td>
<td>Single Frame</td>
<td>Play back the record files frame by frame.</td>
</tr>
<tr>
<td></td>
<td>Digital Zoom</td>
<td>Enable the digital zoom function. Click again to disable.</td>
</tr>
<tr>
<td></td>
<td>Enable/Disable Audio</td>
<td>Click to enable/disable the audio in the local playback.</td>
</tr>
<tr>
<td></td>
<td>Capture</td>
<td>Capture the picture in the playback process.</td>
</tr>
</tbody>
</table>

Capturing a Picture in Main View

Use this feature to capture an instantaneous image of the video displayed in a Main View video channel. The captured images are stored in the path specified in the System Configuration interface.

1. In the Main View window, move the mouse pointer to the live video channel display to show the toolbar (see above).

2. Click the Capture icon in the toolbar of the video channel display, or right-click on the live video channel to open Main View Management Menu and then select the Capture option. If the capture process was successful, a small window will open briefly in the lower right corner of the screen showing path to the file that was recorded.
Click the hyperlink in the window to open the directory where the capture file is saved.

Viewing Captured Pictures

The pictures captured in Main View are stored in the PC running the software. You can view the captured pictures if needed.

1. Click the Menu icon in the upper-left corner of the ACMS window, and then select File | Open Captured Picture to open the Open Captured Picture browse window.
For steps 2 through 6 below, refer to the screen shown above.

2. Select the camera to be searched from the Camera Group list.

3. Click the calendar icon in the **Start Time** field to select the beginning of a time frame when a recording(s) was made.

4. Click the calendar icon in the **End Time** field to select the end of a time frame when a recording(s) was made.

5. Click **Search**. The video files recorded between the start time and end time will be displayed.

6. To play the video file, double-click the picture thumbnail.

### 6.1.5 Instant Playback

The Instant Playback feature is used to playback the previous 30 seconds, or 1, 3, 5, 8, or 10 minutes of recorded video for the video channel selected. The recording is played back instantly on the Main View window. The video file must be recorded on the storage devices, such as the SD/SDHC card, HDD in a DVR, NVR, Network Cameras, etc., or on a storage server. The Main View display will continue after the instant playback ends or is stopped.

1. In the Main View window, move the mouse pointer to the live video channel display to show the toolbar.
SECTION 6: LIVE VIEW

2. Click the **Switch to Instant Playback** icon in the toolbar, and then select either 30 sec, 1 min, 3 min, 5 min, 8 min, and 10 min, the length previous video to playback. For example, if a playback of 3 min is selected and the current time is 09:30:00, the instant playback play the video recorded from 09:27:00 to 09:30:00. You can also start an instant playback through the right-click pop-up menu.

### Playback controls

<table>
<thead>
<tr>
<th>Icon</th>
<th>Label</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>❮</td>
<td>Reverse Playback</td>
<td>Play back the record file reversely.</td>
</tr>
<tr>
<td>▏</td>
<td>Pause/Start Playback</td>
<td>Pause / Start the playback of the record files.</td>
</tr>
<tr>
<td>▷</td>
<td>Stop Playback</td>
<td>Stop the playback of all cameras.</td>
</tr>
<tr>
<td>❮</td>
<td>Speed Down / Up</td>
<td>Decrease / Increase the play speed of the instant playback.</td>
</tr>
<tr>
<td>▶</td>
<td>Single Frame</td>
<td>Play back the record files frame by frame forward or reverse.</td>
</tr>
</tbody>
</table>

3. Click the **Switch to Instant Playback** icon again to stop the playback and return to Main View.
Other Functions in Main View

The right-click menu provides additional features in Main View:

- **Auxiliary Screen Preview**: The live video can be displayed on up to three auxiliary screens for the convenient preview of multiple monitoring scenes.

- **Digital Zoom**: To use the digital zoom feature, click the **Open Digital Zoom** from option in the Main View Management Menu, and then hold down the left mouse button and drag diagonally across the video window to form a rectangle. Release the mouse button to expand the selected portion of the video. To close this feature, open the Main View Management Menu and select **Close Digital Zoom**.

- **Two-way Audio**: Two-way audio function enables listening to audio from the camera in real time and use the audio output feature of the camera. This feature can be used with only one camera at a time.

- **Camera Status**: Use this feature to display the camera status, including the recording status, signal status, connection number, etc. for the selected camera. The status information refreshes every 10 seconds.

- **Synchronization**: The synchronization function provides a way to synchronize the live video clock with the PC running ACMS client.

### 6.1.6 Master-slave Linkage (to be provided)
SECTION 7
Device Management

Device Management module features include:

- Supports Alibi DVRs, IP Cameras and NVRs (Encoding Devices)
- Adding and deleting device and remote device parameters configuration
- Search the active on-line devices
- Device adding by domain name

Device Management module is also used to associate Streaming Media Servers and Storage Servers with the ACMS. For information about associating these servers, see the following:

- For the Streaming Media Server, refer to “SECTION 4 Using the Stream Media Server” on page 41.
- For the Storage Server, refer to “SECTION 5 Using the Storage Server” on page 46.

7.1 Adding the Encoding Device

After installing the ACMS Client, devices including network cameras, video encoders, DVRs, and NVRs can be added to the client for the remote configuration and management.

The ACMS Client includes a feature to add offline devices. Check the select box Add Offline Device, and then enter the required information and the device channel count, and then click Add. When the offline device comes online, the ACMS will connect to it automatically. When using this feature:

- The devices will be displayed on the device list for management after added successfully. You can check the resource usage, HDD status, recording status, etc. of the devices in the list.
- Click Refresh All to refresh the information of all added devices. You can also search for the device by name.
- Select the device from the list, click Modify/Delete, and then modify the information of the selected device or delete it.
- Select device from the list, click Remote Config, and then configure device if needed.

Perform the following steps to add an encoding device to the ACMS Client:

1. On the ACMS Control panel, click the icon, or click Tools | Device Management to open the Device Management module.
SECTION 7: DEVICE MANAGEMENT

2. Click the **Server** tab, and then click the **Encoding Device** to enter Encoding Device Adding interface (see above).

3. Select the encoding device you want to add in one of the following ways:
   - By detecting the online devices, see “7.1.1 Adding Online Devices” on page 70.
   - By specifying the device IP address, see “7.1.2 Adding Devices Manually” on page 72.
   - By specifying an IP segment, see “7.1.3 Adding Devices by IP Segment” on page 73.
   - By DDNS, see “7.1.4 Adding Devices by Guarding Vision” on page 73.

### 7.1.1 Adding Online Devices

The **Device Management | Server | Encoding Device** window lists all active online devices that are in the same local subnet as ACMS Client. Click the **Refresh Every 15s** button to refresh the list.

1. Select the devices to be added from the list.

2. Click **Add Device** to open the device adding dialog box.
3. Check the **Add Offline Device** select box if applicable.

4. Enter the required information (see above):
   - **Nickname**: Edit an appropriate name for the device.
   - **Address**: Enter the IP address of the device. The IP address of the device is obtained automatically in this mode.
   - **Port**: Enter the device port number. The default value is 8000.
   - **User Name**: Enter the device administrative user name.
   - **Password**: Enter the user name password.

5. You can check the select box for Export to Group to create a group by the device name. All the channels of the device will be imported to the corresponding group by default.

6. Click **Add** to add the device.
SECTION 7: DEVICE MANAGEMENT

NOTE
To add all online devices to the ACMS, click Add All, enter the user name and password.
Click Modify Net info, to change the network configuration settings of a selected device.
Click Restore Default Password to restore the default password to the device selected in the list.

7.1.2 Adding Devices Manually

In the Device Management | Server | Encoding Device window:

1. Click Add Device to open the device adding dialog box.

2. Select IP/Domain as the adding mode.

3. Check the Add Offline Device select box if applicable.

4. Enter the following information:
   - Nickname: Edit an appropriate name for the device.
   - Address: Enter the IP address of the device. The IP address of the device is obtained automatically in this mode.
   - Port: Enter the device port number. The default value is 8000.
   - User Name: Enter the device administrative user name.
   - Password: Enter the user name password.

5. You can check the select box for Export to Group to create a group by the device name. All the channels of the device will be imported to the corresponding group by default.

6. Click Add to add the device.
7.1.3 Adding Devices by IP Segment

In the Device Management | Server | Encoding Device window:

1. Click **Add Device** to open the device adding dialog box.

2. Select **IP Segment** as the adding mode.

3. Check the **Add Offline Device** select box if applicable.

4. Enter the following information:
   - **Start IP**: Input a start IP address.
   - **End IP**: Input an end IP address in the same network segment with the start IP.
   - **Port**: Enter the device port number. The default value is 8000.
   - **User Name**: Enter the device administrative user name.
   - **Password**: Enter the user name password.

5. You can check the select box for **Export to Group** to create a group by the device name. All the channels of the device will be imported to the corresponding group by default.

6. Click **Add** to add the device with an IP address between the start IP and end IP.

7.1.4 Adding Devices by Guarding Vision

In the Device Management | Server | Encoding Device window:

1. Click **Add Device** to open the device adding dialog box.
2. Select **Guarding Vision** as the adding mode.

![Image of device management interface]

3. Click on the **Adding Mode option** you prefer. In the example above, Single Adding was selected.

4. Enter the following information:
   - **Guarding Vision Account Name**: Enter the account name of your Guarding Vision account.
   - **Guarding Vision Password**: Enter the password for the account name.

5. Click **Get Device List**. A listing of the devices you added to your account will appear in the window like that shown below.

![Device list interface]

6. Check the box(es) for the device(s) you want to add, and enter the administrator username and password for the device in the fields below.

7. Click **Add**.
7.1.5 Adding Devices by Batch Import

The devices can be added to the software in batch by inputting the device information in the pre-defined CSV file. In the **Device Management | Server | Encoding Device** window:

1. Click **Add** to open the device adding dialog box.

2. Select **Batch Import** as the adding mode.

3. Click **Export Template** and then save the template (CSV file) on your PC.

4. Open the Template file in a spreadsheet application (Microsoft® Excel®, LibreOffice Calc, etc.). The example below shows the .csv file opened in Microsoft Excel.

5. In the CSV file template, select the Import, Separator options and Other Options you prefer, and then click OK to open an editable CSV file. In editable template, use the following guidelines to create an entry for each device you want to add:

   - **Nickname**: Enter a name for the device.
SECTION 7: DEVICE MANAGEMENT

Adding Mode: Enter either 0 or 6, whichever is applicable. “0” indicates that the device is added by IP address or domain name; “6” indicates that the device is added via Guarding Vision Domain.

Address: Enter the address of the device. If the adding mode is “0”, enter the IP address or domain name of the device, etc.

Port: Enter the device port number. The default port number is 8000.

Device Information: If the adding mode is “0”, this field is not required; if the adding mode is “6”, enter the device serial number. See “Add device to Guarding Vision” on page 84 to determine the device S/N.

User Name: Enter the device user name. By default, the user name is admin.

Password: Enter the password for the User Name. The password strength of the device can be checked by the software. For your privacy, we strongly recommend changing the password to something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

Add Offline Device: Enter “1” to enable adding the offline device. ACMS will automatically connect to it when the device comes online. Enter “0” to disable this feature.

Export to Group: Enter “1” to create a group by the device name (nickname). All channels of the device will be imported to the corresponding group by default. Enter “0” to disable this feature.

Channel Number: If you entered “1” for Add Offline Device, enter the channel number of the device. If you entered “0” for Add Offline Device, this field is not required.

Alarm Input Number: If you entered “1” for Add Offline Device, enter the alarm input number of the device. If you entered “0” for Add Offline Device, this field is not required.

6. Save the template file.

7. In the batch Add window, click the Browse (ellipsis) button, and then select the template file you edited.

8. Click Add to import the devices.

7.2 Group Management

The devices added to the ACMS can be associated in groups for convenient management in Main View, Playback, and other operations. Devices must be added to the ACMS before associating them in a group. Perform the following steps to enter the Group Management interface:

1. Open the Device Management window.

2. Click the Group tab to enter the group management interface.

3. Click the Add Group icon to open the Add Group dialog box.
4. Enter a group name in the Name field, or check the select box to Create Group by Device Name to use the name of the device for the Group Name.

5. Click **OK** to add the new group to the group list.
SECTION 7: DEVICE MANAGEMENT

7.2.1 Importing an Encoding Device to a Group

Up to 64 cameras can be imported to one group.

1. Open the Device Management window.

2. Click the Group tab, and then click the name of the group you want to import devices to. Groups are listed in the left frame.

   ![Device Management Window]

   **NOTE** In the window shown above, you can create a new group by clicking the plus (+) icon on the “Group” list title bar on the right side of the window.

3. Click the Import button to open the Import | Encoding Channel window.

   ![Import | Encoding Channel Window]

   Icons in the window shown above are defined in the table below.
SECTION 7: DEVICE MANAGEMENT

### Icon Label Function

<table>
<thead>
<tr>
<th>Icon</th>
<th>Label</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="View" /></td>
<td>View</td>
<td>View the encoding channel in list view.</td>
</tr>
<tr>
<td><img src="image" alt="Thumbnail View" /></td>
<td>Thumbnail View</td>
<td>View the encoding channel in thumbnail view.</td>
</tr>
<tr>
<td><img src="image" alt="Refresh" /></td>
<td>Refresh</td>
<td>Refresh the latest information of added encoding channels.</td>
</tr>
<tr>
<td><img src="image" alt="Import" /></td>
<td>Import</td>
<td>Create a group by device name and import the device to group.</td>
</tr>
<tr>
<td><img src="image" alt="Collapse/Expand" /></td>
<td>Collapse/Expand</td>
<td>Collapse/Expand the thumbnails of encoding channels.</td>
</tr>
</tbody>
</table>

4. Select the thumbnails/names of the encoding channels in the thumbnail/list view. When selected, the thumbnail has a yellow border. You can select additional thumbnails using Ctrl + click command.

5. Click **Import** to import the selected encoding channels to the group. (Click **Import All** to import all the encoding channels to the group selected).

![Image of Import window](image)

6. Click the close icon ( ✗ ) in the upper right corner to close the **Import** window.

### 7.2.2 Modifying the Group/Channel

You can easily modify a Group or Encoding Channel name. To modify a Group name:

1. Open the **Device Management** window.

2. Click the **Group** tab, and then double-click the name of the group you want to rename. In the example shown below, the group **B Gates North** was selected.
3. Edit the Name field as needed.

4. Click OK to save the new settings.

7.2.3 Removing Channels from the Group

To delete an encoding channel from a group:

1. Open the Device Management window.

2. Click the Group tab, and then click the name of the group from which you want to delete an encoding channel.

3. Click the Import button to open the Import | Encoding Channel window.
4. In the right frame, find the group you want to remove the channel from, and then click the + icon before the name to open the list of channels in the group, if necessary (see above).

5. In the group list, click the encoding channel you want to remove, and then click the x icon to the right to remove it.

6. Click the close icon (X) in the upper right corner to close the Import window.

### 7.2.4 Deleting a Group

To delete a group:

1. Open the Device Management window.

2. Click the Group tab, and then click, to select the group you want to delete.

3. To delete the group, click the X icon to the right of the group name.
7.3 Using Guarding Vision Platform Access with ACMS

If you previously created a Guarding Vision account and added devices to it through the Alibi Witness smartphone app or other methods, you can login to your account with ACMS and automatically import those devices into ACMS for monitoring. Also, you can add additional devices to your account with ACMS, and automatically access those devices with Alibi Witness, too.

If you don't have a Guarding Vision account, you can create (Register) one with ACMS or Alibi Witness.

7.3.1 Setup Guarding Vision access in ACMS

To use Guarding Vision in ACMS, you must first create a Guarding Vision device type:

1. Open the Device Management module.
2. In the left frame, click the option to Add New Device Type.

   a. Check the box for Guarding Vision Device, and then click OK. The new entry Guarding Vision Device will appear in the left frame.
3. Click the entry **Guarding Vision Device** in the left frame.

### Login to Guarding Vision

1. If you **do not have** a Guarding Vision account, do the following:
   a. Click the **Register** button shown in the screen above.
   
   ![Register Guarding Vision Account](image)

   b. In the registration form, enter:
      * Guarding Vision Account name
      * Password of your choice. Reenter the password in the Confirm field. (**NOTE:** Save your account name and password in a location where it can be easily retrieved.)
      * Your email address.

   c. Enter the cryptic Verification Code in the field to the left.

   d. Click the **Get Verification Code** button, and then check your email for the code Guarding Vision sent to you.

   e. Enter the Verification Code sent to you in the field at the bottom of the form, and then click **Register**.
SECTION 7: DEVICE MANAGEMENT

2. If you have a Guarding Vision account, do the following:

   a. Click the Login button shown in the screen above.

   b. In the Login window, enter your account name and password, and then click the Login button. If you previously added devices to your Guarding Vision account, these devices will automatically appear in the Devices for Management list.

   ![Login screenshot]

   In the example shown here, the ALI-NVR5216P listed above was previously added to this account.

Add device to Guarding Vision

To add a device through ACMS to your Guarding Vision account, you must determine the device serial number, and create a unique verification code for the device. Go the following:

1. To determine the serial number you need to add the device to ACMS, you must access the basic device information. You can see this information either by logging into the device across a network, or opening the system information firmware screen on the local system console. An ALI-QVR4016H recorder was selected in this example.
a. If you login to the device across a network, open the Configuration | System Settings screen.

b. The device serial number for ACMS is contained in the Serial No. field. In the example above, it is 611260479. Record this number for use later.

2. To enable Guarding Vision for this device:

   a. Open the Configuration | Network | Advanced Settings screen, and then click the Platform Access tab.

   b. Click the Enable select box to check it.

   c. Enter a verification code of your choice in the Verification Code field. Follow the recommendations on the screen. Record this code for use later.
d. Click Save. If your verification code was accepted, a Success message will briefly appear.

3. In the ACMS Guarding Vision device screen:
   a. Click the Add button.

   ![Device Management Screen]

   b. In the pop-up Add Device window, enter the Serial Number for the device you determined in Step 1 above.
   c. In the Verification Code field, enter the Verification Code that was accepted in Step 2 above.
   d. Click OK to save these settings. An entry for the ALI-QVR4016H recorder will now appear in the list. See below.

   ![Device Management Screen]

   e. Click the Logout button to log out of your Guarding Vision account, and then click Login and log back in. Video from the cameras attached to the device you added can now be viewed in the ACMS Main View window.
SECTION 8

Storage Schedule and Remote Playback

When the video storage devices are the HDDs, Net HDDs, SD/SDHC cards on the local device, or the remote storage server connected, you can set the record schedule for the cameras for continuous, alarm triggered or command triggered recording. Recordings can be searched for playback through the ACMS. Remote Playback features include:

- Search for recordings by channel, time
- Search for recordings by event (all camera events, alarm input, motion detection, VCA [Line crossing, Intrusion], custom event) and POS (Point of Sale) register data
- Fast forward play and single frame play
- Resume function for disconnected video channels
- Filter the search result by record types
- Locate precisely with processing bar
- Multi-screen playback simultaneously; capture pictures during playback
- Download data during playback
- Clip record file during playback
- Volume control during playback
- Smart searching for the event recording during playback

![Typical Remote Playback window](image)
SECTION 8: REMOTE RECORD SCHEDULE AND PLAYBACK

8.1 Remote recording

The video files can be recorded on the HDDs, Net HDDs, SD/SDHC cards on the local device, or the storage server connected.

8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras

Some devices, including the DVRs, NVRs, and Network Cameras, can provide their own storage components (such as an HDDs, Net HDDs and SD/SDHC cards) for recordings. These devices can be configured to save recordings to their embedded storage using the Remote Configuration menus.

In the Remote Recording menu shown above, Local recording and its recording schedule refers to recordings that are saved on the ACMS PC. The location of these recordings and captures is specified in the System Configuration menus.

Storage Server Recording refers to recordings that are saved on a Storage Server (component of ACMS) that is added to the ACMS client. Storage Server devices must be formatted before use. Go to the Remote Config.. menu of the Storage Server, click Storage | General, select the HDD or SD/SDHC card, and then click Format to initialize the selected storage device.

1. On the ACMS Control panel, click the Record Schedule icon ( ), or click Tools | Storage Schedule to open the Record Schedule window.

2. Select (highlight) the device in the left column for which you want to setup a record schedule. In the example above, IP Camera3_NVR-75.8 was selected. (See above.)

3. Open the drop-down list and the select a schedule template during which recordings will be made. Each template provides a 24×7 schedule. Notice that some schedule templates are pre-configured. You can, however, create custom templates with custom names tailored for your system. Up to 8 time periods can be setup for each day in the record schedule.
To customize a schedule template, click the **Edit** button to the right after selecting a schedule. The Template Management window will open. To edit the template:

- Click one of the three buttons at the top (**Schedule Recording**, **Event Recording** or **Command**) to select the recording mode. **NOTE**: Command triggered recording is not supported by the ACMS.

Using the mouse, drag it across the area of a day timeline where you want to apply that recording mode. If you clicked **Schedule Recording** in the sub-step above, the timeline in that area will be marked olive green. Timeline segments where recording modes are assigned cannot overlap.

- **Schedule Recording** periods on the GUI are shown in blue.
- **Event Recording** periods on the GUI are shown in brown.
- **Command Recording** periods on the GUI are shown in green.
d. In the template list on the left, highlight the name of the template you chose, and then enter a new name. In the example above, Off-shift was entered.

NOTES:
1. To delete the template you configured, select the template, and then click the trash can icon at the top of the window.
2. To copy a segment of the timeline where you assigned a recording mode, click the segment to select it (it will be surrounded by a dashed line), and then click the icon to the right of the trash can icon. In the pop-up window, select the days you want to copy the segment to, and click OK.
3. To shift an segment of the timeline where you assigned a recording mode to an earlier or later position, click the segment to select it (it will be surrounded by a dashed line), and then drag the segment left or right to move it.
4. To lengthen or shorten the segment of the timeline where you assigned a recording mode, click the segment to select it (it will be surrounded by a dashed line), and then position the mouse pointer at either end of the segment (the cursor will change to a short line with arrowheads at both ends). Drag the end of the segment left or right to change the length.
5. To delete an area of the timeline where you assigned a recording mode, click the area to select it (it will be surrounded by a dashed line), and then click the icon to the left of the trash can icon.
e. Click the OK button at the bottom of the window to save your customized template.

f. Click the Advanced Settings button to the right of the template Edit button.

![Advanced Settings window]

- **Pre-record**: Normally used for the event triggered recordings, this option specifies the length of video to record before the event happens.
- **Post-record**: Normally used for the event triggered recordings, this option specifies the length of video to after before the event happens.
- **Keep Record Files For**: The time in days, for keeping the record files in the storage device. After that, the files are deleted. Record files are saved permanently when the value is set as 0.
- **Redundant Record**: Save the video files in the R/W HDD and in the redundant HDD.
- **Record Audio**: Record the video files with audio.
- **Video Stream**: Select the stream type for recording (Main Stream, Sub Stream, etc.).

g. In the Advanced Settings window, change the values for each field appropriately, and then click OK.

4. In the Storage Schedule window, click Save to retain your settings.

5. When done assigning a recording schedule to each device or group, click the Finished button at the bottom of the window. A live view window will open.

### 8.1.2 Recording on Storage Server

A storage server can perform as a NVR installed on the PC. Recordings can be stored on the storage server, and later searched and retrieved for remote playback.

The storage server application software must be installed on the ACMS PC or another PC accessible though the local LAN. To install a Storage Server, refer to “2.2 ACMS new installation” on page 11 or “5.1 Adding the Storage Server to the ACMS Client” on page 46.
SECTION 8: REMOTE RECORD SCHEDULE AND PLAYBACK

Configuring Storage Server Record Schedule

On the ACMS Control panel, click the Record Schedule icon (📅), or click Tools | Record Schedule to open the Record Schedule window.

1. Select (highlight) the device in the left column for which you want to setup a record schedule. In the example above, IP Camera3_NVR-75.8 was selected. (See above.)

2. Click the checkbox for either Local Recording or Storage Server Recording. In the example above, Storage Server Recording was checked.

3. Open the drop-down list to the right of the Storage Server select entry, and then click the storage server you want to use.

   a. Click the Storage Server Management button to make changes to add additional storage servers, if needed.
4. In the Storage Schedule window, click **Save** to retain your settings. A blue confirmation window will open in the lower right corner of the monitor to show the status of your schedule configuration.

### 8.2 Remote Playback

Recordings stored on the local device or the storage server can be searched by custom view, camera or triggering event, and then played back. The ACMS includes the following types of Remote Playback based on search criteria:

- **Normal Playback**: You can specify a time range (up to 7 days) of recordings to play back, and then open the camera(s) or group into the viewing frame. A list of recordings (by time stamp) that meets the criteria will appear in the right frame. Remote Playback will start playing the first file in the list. Double click another entry in the list to play that file, or playback by double-clicking on a mark in the timeline when a recording was made.

- **Event Playback**: Recordings triggered by an event, such as motion detection, VCA detection or behavior analysis, can be searched for. The device must support the trigger that started the recording.

- **Synchronous Playback**: In this playback mode, recordings from up to 16 cameras can be displayed in a time synchronized manner.

- **VCA Playback**: You can apply a VCA rule for VCA Search, Intrusion and Line Crossing to the searched record files and find the videos in which condition occurs. This function helps to search out the video that you may be more concerned, mark it with red color and the playback speed of the concerned video and unconcerned video can be customized.

To open the Playback window, open the Control Panel, and then click the **Remote Playback** icon ( ![Remote Playback Icon](image.png)). A typical Remote Playback window is shown below.
SECTION 8: REMOTE RECORD SCHEDULE AND PLAYBACK

8.2.1 Normal Playback

In normal playback (default) can specify a time range (up to 7 days) of recordings to play back, and then open the camera(s) or group into the viewing frame. A list of recordings (by time stamp) that meets the criteria will appear in the right frame. Remote Playback will start playing the first file in the list. Double click another entry in the list to play that file, or playback by double-clicking on a mark in the timeline when a recording was made.

Searching Record Files for Normal Playback

1. Open the Control Panel window, and then click the Record Playback icon ( ) to open the Remote Playback window.

2. In the left frame, click on the calendar icon and use the GUI to set a beginning and end data and time to search for video files. The range cannot exceed 7 days. Marks in the corner of the a day indicate that recording(s) exist for that day. If a date range is not selected, Remote Playback will search the previous 7 days for recordings made by the camera(s) selected in the next steps.

* Color marks on the timeline indicate when why the recording was made. Red indicates it is an event initiated recording, blue indicates a Scheduled recording, green indicates it is a command initiated recording.
3. Click the **Screen Divisions** icon in the playback controls bar and then select the type of screen divisions needed to play back the number of camera(s) recordings you want to watch. You can play recordings of up to 16 cameras simultaneously. In this example, one screen division was selected.

4. In the left frame, click the expand icon on the NVR or Group entry to open the list devices configured in the ACMS.

5. In the **Cameras** list, double-click on the camera you want to view recordings from. You can also drag the camera to a viewing pane. A list of recordings made during calendar search range selected above will appear in the right frame and the first recording in the list will begin to play.

You can play other recordings in either of two ways:

- **Playback by file list**: Select the recording from the search result list, and then click the green icon play icon (▶) in the list entry. You can also just double-click on the recording entry in the file list.
- **Playback by Timeline**: Drag the timeline left or right, and then click on a colored bar to start playing the recording at that point.
In this screen you can:

- Drag the timeline left or right, and then click on a colored bar to start playing the recording at that point.
- Click on any entry in the list of recordings to play that file.
- Hide the list of recordings by clicking the icon.
- Use playback controls to Stop Playback Pause/Start Playback, Single Frame (Play back the record files frame by frame), previous event, next event, change the playback speed - forward and reverse.
- Click the Tag icon to tag the file.
- Adjust volume or mute audio.
- Right click on a viewing frame to open a menu of options. See below.
SECTION 8: REMOTE RECORD SCHEDULE AND PLAYBACK

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse Play</td>
<td>Play in reverse.</td>
</tr>
<tr>
<td>Pause</td>
<td>Pause playback.</td>
</tr>
<tr>
<td>Stop</td>
<td>Stop the playback.</td>
</tr>
<tr>
<td>Slow Forward</td>
<td>Play forward at 1/2 speed</td>
</tr>
<tr>
<td>Single Frame</td>
<td>Move forward one frame.</td>
</tr>
<tr>
<td>Open Digital Zoom</td>
<td>Enable the digital zoom function. Drag the mouse across the portion of the video you want to zoom in on. Click this option again to Close Digital Zoom.</td>
</tr>
<tr>
<td>Show Temperature Information</td>
<td>For a thermal camera, click to show or hide the temperature.</td>
</tr>
<tr>
<td>Tag Control</td>
<td>Add default (default tag name: TAG) or custom tag (customized tag name) for the video file to mark the important video point. You can also edit the tag or go to the tag position conveniently.</td>
</tr>
<tr>
<td>Transcoding Playback</td>
<td>Opens a menu to change the Resolution, Bitrate and Frame Rate of the video being played. This option is available when the video playback is paused.</td>
</tr>
<tr>
<td>Accurate Positioning</td>
<td>Set the accurate time point to play back the record file.</td>
</tr>
<tr>
<td>Capture</td>
<td>Capture the picture in the playback process.</td>
</tr>
<tr>
<td>Other Capture Modes</td>
<td>Presents options to Print Captured Picture, Send Email and Custom Capture.</td>
</tr>
<tr>
<td>Start Recording</td>
<td>Start/Stop the manual recording. The record file is stored in the PC.</td>
</tr>
<tr>
<td>Download</td>
<td>Download the record files of the camera and the record files are stored in the PC. You can select to download by file or by date.</td>
</tr>
<tr>
<td>Enable Audio</td>
<td>Click to enable/disable the audio in playback.</td>
</tr>
<tr>
<td>Fisheye Expansion</td>
<td>Enter the fisheye playback mode. Full Screen Display the playback in full-screen mode. Click the icon again to exit.</td>
</tr>
<tr>
<td>Full Screen</td>
<td>Display the playback in full-screen mode. Click the icon again to exit.</td>
</tr>
</tbody>
</table>

8.2.2 Synchronous Playback

In synchronous playback of two or more cameras, the video playback of all cameras is synchronized, i.e., all video playback in the display window shows video that occurred at the same time. In asynchronous mode, the video playback of multiple cameras can be controlled such that video playback of individual cameras can be stopped and restarted while the others continue to play (or are stopped). An Synchronous/Asynchronous icons on the playback toolbar controls when camera video is played synchronously or asynchronously.

1. Start a normal Remote Playback of two or more cameras. See “8.2.1 Normal Playback” on page 94.
2. Click the Synchronous Playback icon ( ) in the toolbar. The recordings are played back synchronously.
3. To disable the synchronous playback, click the Synchronous Playback icon again.
8.2.3 Event Playback

Recordings triggered by an event, such as Motion Detection or VCA Detection, can be searched for and played using Event Playback. The event recording being must be supported and configured in the device being searched.

Searching Recordings for Event Playback

Remote Playback can report and play both Motion Detection events and VCA Detected events that initiate recording.

1. In the Control Panel window, click the Remote Playback icon ( ) to open the Remote Playback window.

2. Select a camera and begin normal playback (see “8.2.1 Normal Playback” on page 94 above).

3. Click the Event icon ( ). By default, a calendar search is performed for Motion Detection events. If these events are found, they are listed in the right frame, and the first entry in the list will begin to play. To retrieve VCA Detection event recordings, open the drop-down list under the calendar line and then select this type of event.
Motion Detection or VCA Detections

In this screen you can:

- Hover the mouse pointer over an entry in the list to show more information (metadata) about the recording (see above).
- Double-click any entry in the list to play the recording.
- Click on the calendar icon in the right frame to change the time range of the search. You can only search across 7 days at one time. Set the **Start** date and time, the **End** date and time, and then click **OK**.
SECTION 8: REMOTE RECORD SCHEDULE AND PLAYBACK

— Open the drop-down list under the Calendar icon and then select VCA Detection to search for recordings triggered by VCA detected events. Note: The camera must have VCA capability and be configured to record a VCA detected event.

— Playback by File List: Select the recording from the search result list, and then click the icon play icon ( ▶️ ) in the toolbar or double-click on the recording to play.

— Playback by Timeline: The timeline indicates when recordings were made for the camera by using colored blocks. Different types of recordings colored differently. Click on the timeline to play back the video of the specific time.

— Click the + and − icons on the timeline to expand and contract the time scale.

— Click the download icon to copy the file to the ACMS Client PC.

8.2.4 VCA Playback

You can setup a VCA rule to the searched record files and find the video in which a VCA event occurs. The event can including VCA Search, Intrusion or Line Crossing.

• VCA Search: Get all the related motion detection events that occurred in the pre-defined region.

• Intrusion Detection: Detect whether there are people, vehicles and other moving objects intruding into the pre-defined region.

• Line Crossing Detection: Bidirectionally detect people, vehicles and other moving objects that cross a virtual line.

Intrusion Detection and Line Crossing Detection are similar to VCA search, except that additional Advanced Search options are available.

1. In the Control Panel window, click the Remote Playback icon ( ▶️ ) to open the Remote Playback window.

2. Select a camera and begin normal playback (see “8.2.1 Normal Playback” on page 94 above).
3. Click the **VCA** icon ( ). By default, a calendar search is performed for Motion Detection events. If these events are found, they are listed in the right frame, and the first entry in the list will begin to play.

4. In the VCA screen, open the VCA drop down list, and then select the type of search you want to make. **VCA Search** is selected by default.

5. Click the **Calendar** icon, and then select the date and time range in which to perform the search.
For VCA Search type:

a. To select an area in which to perform the search, click the Draw Area icon ( ) and drag the mouse across the area you want to search in, or click the All Regions icon to select the entire video area.

In the example below, the Draw Area icon was selected and an area of the screen was chosen.
b. Select the Sensitivity for the search using the slider near the Search button.

c. Click **Search**. Results will appear in the right frame.
d. Click on any result listed in the right frame to play that video.

6. Select the VCA Type, draw the detection region. Set the sensitivity as needed.

8.2.5 Fisheye camera playback

During Remote Playback, Fisheye cameras offer several different surveillance views of their environment. These views may include:

- **Fisheye**: In Fisheye view mode, the whole wide-angle view of the camera is displayed. This view mode is called Fisheye because it approximates the vision of a fish’s convex eye. The lens produces curvilinear images of a large area, while distorting the perspective and angles of objects in the image.

- **Panorama / Dual-180° Panorama / 360° Panorama**: In the Panorama view mode, the distorted fisheye image is transformed to normal perspective image by some calibration methods.

- **PTZ**: The PTZ view is the close-up view of some defined area in the Fisheye view or Panorama view, and it supports the electronic PTZ function (e-PTZ). Each PTZ view is marked on the Fisheye view and Panorama view with a specific navigation box. You can drag the navigation box on the Fisheye view or Panorama view to adjust the PTZ view, or drag the PTZ view to adjust the view to the desired angle.

Some view options depend on how the camera is mounted. After you select the mounting type of the device (see below), the expansion mode options will be listed.
SECTION 8: REMOTE RECORD SCHEDULE AND PLAYBACK

To access fisheye camera views in Playback:

1. Open the fisheye camera in a playback viewing frame.

2. Right click the view frame, and then select Fisheye Expansion from the pop-up menu.

3. Fisheye Expansion opens a new playback window. Screen display options during playback are selected by clicking on the graphic icons in the left panel. Choose the view you want to watch.

   In the example below, the icon chosen superimposes red, blue and green dynamic symbols in the upper left screen. You can drag the symbols within the screen to change the view it represents in the other three screens.
Use the playback controls at the bottom of the window to playback recorded video from the camera. Playback icons are defined below.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Label</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>◀</td>
<td>Reverse Playback</td>
<td>Play back the record file from end toward beginning.</td>
</tr>
<tr>
<td>■</td>
<td>Pause/Start Playback</td>
<td>Pause/Start the playback of the record files.</td>
</tr>
<tr>
<td>◁</td>
<td>Single Frame Reverse</td>
<td>Play back the previous frame of recording.</td>
</tr>
<tr>
<td>▶</td>
<td>Single Frame Forward</td>
<td>Play back the next frame of recording.</td>
</tr>
<tr>
<td>◀▶</td>
<td>Slow / Fast Forward</td>
<td>Decrease / increase the playback speed.</td>
</tr>
<tr>
<td>◆</td>
<td>Volume</td>
<td>Click to turn on/off the audio and adjust the audio volume.</td>
</tr>
<tr>
<td>◀▶</td>
<td>Full screen</td>
<td>Display the video playback in full-screen mode. Press ESC to exit.</td>
</tr>
</tbody>
</table>
SECTION 9
Event Management

In ACMS Client software, rules can be set up to trigger actions. For example, when motion is detected, recording begins, an audible warning appears, or other linkage actions can occur. Event management includes three categories: Camera Events, Alarm Input, and Exception.

Click the Event Management icon on the control panel, or click Menu | Tool | Event Management to open the Event Management window.

Depending on the capability of your cameras and recorders, you can configure the monitoring of and linkage actions for devices that sense the following event types:

- Motion Detection
- Video Tampering Detection
- PIR
- Video Loss
- Audio Exception Detection
- Defocus Detection
- Face Detection
- Line Crossing Detection
- Intrusion Detection
- Region Entrance Detection
- Unattended Baggage Detection
- Object Removal Detection
- Scene Change Detection
SECTION 9: EVENT MANAGEMENT

NOTE VCA Event Types are configurable only for cameras and recorders that support those VCA events.

9.1 Camera Events

9.1.1 Configuring Motion Detection Alarm

A motion detection alarm is triggered when the client software detects motion within its defined area. The linkage actions, including alarm output, channel record and client action can be configured.

1. Open the Event Management window, and then click Camera Event tab.

2. In the Camera Group, select the camera to be configured.

3. Open the Select Event Type drop-down list (at the top of the window), and then select Motion Detection as the event type.

4. Check the Enable select box to monitor the device for motion detection.
5. Check the Enable Dynamic Analysis select box to monitor the device for motion detection and highlight areas in the live view window where motion is detected. **NOTE**: This feature is enabled by the Enable Highlight option in the System Configuration tab Image menu.

6. Select the Arming Schedule template from the drop-down list:
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

7. In the Trigger Camera field, open the drop down list and then select the cameras that will perform actions when the event occurs.

8. In the Arming Region, select the area to monitor for motion detection by either dragging the mouse diagonally across the arming region (see below), or clicking the All Regions icon to the right of the viewing frame. The grid represents a segment that is monitored for motion detection. When the segment appears filled, motion was detected in that segment. Adjust the Sensitivity slider on the right to increase (up) or decrease (down) as needed.
9. Using the mouse, drag a rectangle across the segments where motion sensing is not needed. The grid in those regions will disappear. Click the All Regions icon beneath the Sensitivity slider to reset the motion sensing region to full screen, or click the trash can (Delete All) icon to clear all motion sensing.

10. Check the select boxes below the Arming Region to activate the linkage actions. See the table below.

<table>
<thead>
<tr>
<th>Linkage Actions</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger Alarm Output</td>
<td>Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.</td>
</tr>
<tr>
<td>Trigger Channel Record</td>
<td>Start the recording of the selected cameras when alarm is triggered.</td>
</tr>
<tr>
<td>Trigger Client Action</td>
<td>Check this option to select all linkage actions.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
</tr>
<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The image with alarm information pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

11. To connect these linkage options to other devices, click the Copy to .. button, select the items you want to copy and the devices you want to copy them to, and then click OK.
12. Click **Save** to save the settings.

### 9.1.2 Configuring Video Tampering Detection

A tampering alarm is triggered when the camera is covered and the monitoring area cannot be viewed. The linkage actions, including alarm output and client action can be set.

1. Open the **Event Management** window, and then click **Camera Event** tab.

2. In the **Camera Group**, select the camera to be configured. Video from the camera will appear in the **Arming Region** frame.

3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Video Tampering Detection Alarm** as the event type.

4. Check the **Enable** select box to enable tampering detection.
5. Select the **Arming Schedule** template from the drop-down list:

   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

6. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs.
7. By default, the **Arming Region** is fully selected. You can clear the selection by clicking the lower icon to the right of the viewing screen, and then dragging the mouse pointer diagonally across the area where tampering is to be sensed.

8. Check the select boxes below the Arming Region to activate the linkage actions. See the table below.

<table>
<thead>
<tr>
<th>Linkage Actions</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger Alarm Output</td>
<td>Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.</td>
</tr>
<tr>
<td>Trigger Client Action</td>
<td>Check this option to select all linkage actions.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
</tr>
<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image of the triggered camera pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

9. To copy these linkage options to other devices, click the **Copy to ..** button, select the items you want to copy and the devices you want to copy them to, and then click **OK**.
10. Click **Save** to save the settings. You can also use the **Copy to** feature to copy this setup to other cameras.

### 9.1.3 Configuring PIR events

At the time of this printing, Alibi cameras do not support PIR events.

### 9.1.4 Configuring Video Loss Alarm events

When the video signal from a camera cannot be detected, a video loss alarm will be triggered. The linkage actions, including alarm output and client action can be configured.

1. Open the **Event Management** window, and then click **Camera Event** tab.
2. In the **Camera Group**, select the camera to be configured.
3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Video Loss** as the event type.
4. Check the **Enable** select box to enable video loss detection.
5. Select the **Arming Schedule** template from the drop-down list
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

6. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs. An image or video from the triggered camera will pop up or be displayed on the Video Wall when video loss alarm occurs.
7. Check the select boxes below the Trigger Camera line to activate the linkage actions. See the table below.

<table>
<thead>
<tr>
<th>Linkage Actions</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger Alarm Output</td>
<td>Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.</td>
</tr>
<tr>
<td>Trigger Client Action</td>
<td>Check this option to select all linkage actions.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
</tr>
<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image of the triggered camera pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

8. To copy these linkage options to other devices, click the Copy to .. button, select the items you want to copy and the devices you want to copy them to, and then click OK.
9. Click **Save** to save the settings.

### 9.1.5 Configuring Audio Exception events

Audio Exception can detect abnormal sounds, such as the silence detection, environment noise detection, and current noise detection. The device being monitored must support an audio input and Audio Exception reporting.

This configuration can trigger an event based on:

- **Sensitivity:** Range [1–100], the smaller the value the more severe the change should be to trigger the detection.
- **Sound Intensity Threshold:** Range [1–100]. This feature can detect the sound in the environment. The louder the normal environment sound level, the higher the value should be.
- **Sudden Decrease in Sound Level:** Range [1–100]. Enabling the Sudden Decrease of Sound Intensity can detect the sudden drop of the sound intensity, which can be abnormal or silent. For example, an electric generator makes loud noise when it is working, but if the sound drops suddenly, there may be a problem with the device.

To use this feature:

1. Open the **Event Management** window, and then click **Camera Event** tab.
2. In the **Camera Group**, select the camera to be configured.
3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Audio Exception** as the event type.
4. Check the select box for **Enable Audio Loss Detection** to use this feature.

5. Check the select box for **Sudden Increase of Sound Intensity Detection** to use this feature. If you selected this feature, adjust the following:
   a. **Set the detection sensitivity and threshold for sound steep rise. Sensitivity**: Range: 1 .. 100. The smaller the value is, the more severe the change must be to trigger the detection.
   b. **Sound Intensity Threshold**: Range: 1 .. 100. This option can filter the sound in the environment. The louder the sound, the higher the value should be. Adjust this value with consideration of the actual ambient sound level.

6. Check the select box for **Sudden Decrease of Sound Intensity Detection** to use this feature. If you selected this feature, adjust the following:
   a. **Sensitivity**: Range: 1 .. 100. Set the detection sensitivity for a steep drop in volume.

7. Click **Save** to retain your settings.

8. Select the **Arming Schedule** template from the drop-down list:
   - **All-day Template**: for all-day continuous arming.
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

9. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs or Open the **Trigger Camera** drop-down list to select the triggered camera. An image or video from the triggered camera will pop up or be displayed on the Video Wall when video loss alarm occurs.
10. Check the select boxes below the Trigger Camera line to activate the linkage actions. See the table below.

<table>
<thead>
<tr>
<th>Linkage Actions</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger Alarm Output</td>
<td>Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.</td>
</tr>
<tr>
<td>Trigger Channel Record</td>
<td>Start the recording of the selected cameras when alarm is triggered.</td>
</tr>
<tr>
<td>Trigger Channel Action</td>
<td>Select all options in this list.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
</tr>
<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image of the triggered camera pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

11. To copy these linkage options to other devices, click the **Copy to ..** button, select the items you want to copy and the devices you want to copy them to, and then click **OK**.
12. Click **Save** to save the settings.

### 9.1.6 Configuring Defocus Detection events

Image blur caused by lens defocusing can be used to trigger several different alarm actions. To use this feature:

1. Open the **Event Management** window, and then click **Camera Event** tab.

2. In the **Camera Group**, select the camera to be configured.

3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Defocus Detection** as the event type.
4. Check the **Enable** select box to use this feature.

5. Select the **Sensitivity** using the slider. (Range: 0 .. 100). This adjustment requires testing to set the appropriate level.

6. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs or Open the **Trigger Camera** drop-down list to select the triggered camera. An image or video from the triggered camera will pop up or be displayed on the Video Wall when video loss alarm occurs.
7. In the **Linkage Actions** section, select the actions you want to perform when Defocus is detected. See the table below.

<table>
<thead>
<tr>
<th>Linkage Actions</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm Output</td>
<td>Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.</td>
</tr>
<tr>
<td>Trigger Client Action</td>
<td>Check this option to select all linkage actions.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
</tr>
<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image of the triggered camera pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

8. Click **Save** to save the settings.

9. To copy these linkage options to other devices, click the **Copy to ..** button, select the items you want to copy and the devices you want to copy them to, and then click **OK**.
9.1.7 Configuring Face Detection events

Cameras capable of Face Detection can be used to trigger several actions when this kind of event occurs. To use this feature:

1. Open the Event Management window, and then click Camera Event tab.
2. In the Camera Group, select the camera to be configured.
3. Open the Select Event Type drop-down list (at the top of the window), and then select Face Detection as the event type.
4. Check the **Enable** select box to use this feature.

5. Select the **Arming Schedule** template from the drop-down list:
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

6. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs or Open the **Trigger Camera** drop-down list to select the triggered camera. An image or video from the triggered camera will pop up or be displayed on the Video Wall when video loss alarm occurs.

7. Adjust the **Sensitivity** slider to set the detection sensitivity (range: 1 .. 5). The higher the sensitivity number, the more frequently facial recognition is reported. This setting may require testing.

8. Check the **Enable Dynamic Analysis** select box to monitor the device for face detection and highlight areas in the live view window where a face is detected. **NOTE**: This feature is enabled by the **Enable Highlight** option in the **System Configuration** tab **Image** menu.

9. In the **Linkage Actions** section, select the actions you want to perform when a face is detected. See the table below.
SECTION 9: EVENT MANAGEMENT

<table>
<thead>
<tr>
<th>Linkage Actions</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger Alarm Output</td>
<td>Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.</td>
</tr>
<tr>
<td>Trigger Channel Record</td>
<td>Start the recording of the selected cameras when alarm is triggered.</td>
</tr>
<tr>
<td>Trigger Client Action</td>
<td>Check this option to select all linkage actions.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
</tr>
<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image of the triggered camera pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

10. Click **Save** to save the settings.

11. To copy these detection settings to other devices, click the **Copy to** button, select the items you want to copy and the devices you want to copy them to, and then click **OK**.

9.1.8 Configuring Intrusion Detection events

Intrusion detection detects people, vehicles or other objects which enter and loiter in a pre-defined virtual area of the field of view. Certain actions can be performed when an intrusion alarm is triggered. To use this feature:

1. Open the **Event Management** window, and then click **Camera Event** tab.

2. In the **Camera Group**, select the camera to be configured.

3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Intrusion Detection** as the event type.
4. Check the Enable select box to use this feature.

5. Select the Arming Schedule template from the drop-down list:
   - All-day Template: for all-day continuous arming
   - Weekday Template: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - Template 01-09: fixed templates for special schedules. You can edit the templates if needed.
   - Custom: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

6. In the Trigger Camera field, open the drop down list and then select the cameras that will perform actions when the event occurs or Open the Trigger Camera drop-down list to select the triggered camera. An image or video from the triggered camera will pop up or be displayed on the Video Wall when video loss alarm occurs.
7. Open the **Region** drop down list, and then select a number (1 .. 4) to assign to the intrusion region you want define.

8. Set the **Percentage**: Range 1 .. 100. Percentage defines the ratio of the in-zone part of the object which can trigger the alarm. For example, if the percentage is set to 50, an object that fills at least 50% of the zone can trigger an alarm.

9. Set the **Trigger Time Threshold**: Range [0-10s], the threshold for the time of the object loitering in the region. If you set the value to 0, an alarm is triggered immediately after the object enters the region.

10. Click the **Draw Area** button.

11. In the live view window, create a virtual intrusion region by clicking on, in a circular manner, the four corners of a quadrangle that define the corners of the intrusion region. A green quadrangle will appear in the image with a number indicating the region number.
**SECTION 9: EVENT MANAGEMENT**

12. Set the **Sensitivity** as needed to detect an intrusion. The value of the sensitivity represents the size of the object which can trigger an alarm. The higher the value, the smaller the object that can trigger an alarm. Range 1 .. 100.

13. Click **Save**.

14. To check your settings, move some objects into the intrusion area, and then monitor the log to verify that it was detected. If it wasn’t, adjust the parameters as needed and try again.

15. Repeat steps 6 thru 12 above to create additional intrusion regions as needed. You can create up to 4 different intrusion regions.

16. In the **Linkage Actions** section, select the actions you want to perform when a face is detected. See the table below.

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<td>Trigger Client Action</td>
<td>Check this option to select all linkage actions.</td>
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<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image of the triggered camera pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

17. Click **Save** to save the settings.

### 9.1.9 Configuring Line Crossing Detection events

A Line Crossing detection alarm is triggered when the client software detects motion crossing a virtual line configured on the video image. The alarm can be configured to detect motion from only one side of the line to the other (A --> B), vice-versa (B --> A), or in either direction (A <--> B). The linkage actions, including alarm output, channel record and client action can be selected.

1. Open the **Event Management** window, and then click **Camera Event** tab.
2. In the **Camera Group**, select the camera to be configured.

3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Line Crossing Detection** as the event type.

4. Check the **Enable** select box to monitor the device for motion detection.

5. Select the **Arming Schedule** template from the drop-down list:
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

6. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs.
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7. Click the **Draw** line button to the right of the video frame, and then drag the mouse cursor across the video frame where you want to sense for motion crossing. A green line will appear with a number tag. You can **Select** and **Delete** the line, and then click **Draw** again to create a new virtual line if needed.

8. Open the **Virtual Line Direction** drop down list, and then select the direction of motion across the line you want to sense for.

9. Check the select boxes below the Arming Region to activate the linkage actions. See the table below.
### Linkage Actions Descriptions

<table>
<thead>
<tr>
<th>Linkage Actions</th>
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<tbody>
<tr>
<td>Trigger Alarm Output</td>
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</tr>
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<td>Trigger Channel Record</td>
<td>Start the recording of the selected cameras when alarm is triggered.</td>
</tr>
<tr>
<td>Trigger Client Action</td>
<td>Check this option to select all linkage actions.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
</tr>
<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image with alarm information pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

10. Click **Save** to retain your settings.

#### 9.1.10 Configuring Object Removal Detection events

Object removal detection detects when an object, such as an exhibit on display, is removed from the pre-defined region of the field of view. A series of actions can be taken when the alarm is triggered.

1. Open the **Event Management** window, and then click **Camera Event** tab.
2. In the **Camera Group**, select the camera to be configured.

3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Object Removal Detection** as the event type.

4. Check the **Enable** select box to monitor the device for motion detection.

5. Select the **Arming Schedule** template from the drop-down list:
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

6. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs.

7. Open the **Region ID** drop-down list, and then select the region number for the detection region you want to monitor. You can create up to 4 regions in the image.

8. Set the **Trigger Time Threshold** (time in seconds): Click-and-drag the slider to set the threshold time from 5 .. 3600 s. If something is removed from the region for longer than the Threshold setting, an alarm can be triggered.
9. Click the **Draw Area** button to the right of the video frame, and then create a virtual region by clicking on, in a circular manner, the four corners of a quadrangle that define the corners of the region. A green quadrangle will appear in the image with a number indicating the region number. You can click the **Select** button to drag the quadrangle to another part of the live view image. Also, you can click **Delete** to remove the region you defined.

![Draw Area, Select, Delete buttons]

10. Click-and-drag the **Sensitivity** slider to set the detection sensitivity. Range 1 .. 100. The value of the sensitivity represents the size of the object which can trigger an alarm. The higher the value, the smaller the object that can trigger an alarm.

11. Check the select boxes below the Arming Region to activate the linkage actions. See the table below.

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<tr>
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<td>Start the recording of the selected cameras when alarm is triggered.</td>
</tr>
<tr>
<td>Trigger Client Action</td>
<td>Check this option to select all linkage actions.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
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<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image with alarm information pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

12. Click **Save** to retain your settings.

### 9.1.11 Configuring Region Entrance Detection events

Region entrance detection detects people, vehicles or other objects which enter a pre-defined virtual region in the field of view. Certain actions can be taken when the alarm is triggered.

1. Open the **Event Management** window, and then click **Camera Event** tab.
2. In the **Camera Group**, select the camera to be configured.

3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Region Entrance Detection** as the event type.

4. Check the **Enable** select box to monitor the device for entrance detection.

5. Select the **Arming Schedule** template from the drop-down list:
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

6. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs.
7. Open the **Region ID** drop-down list, and then select the region number for the detection region you want to monitor. You can create up to 4 regions in the image.

8. Click the **Draw Area** button to the right of the video frame, and then create a virtual region by clicking on, in a circular manner, the four corners of a quadrangle that define the corners of the region. A green quadrangle will appear in the image with a number indicating the region number. You can click the **Select** button to drag the quadrangle to another part of the live view image. Also, you can click **Delete** to remove the region you defined.

9. Click-and-drag the **Sensitivity** slider to set the detection sensitivity. Range 1 .. 100. The value of the sensitivity represents the size of the object which can trigger an alarm. The higher the value, the smaller the object that can trigger an alarm.

10. Check the select boxes below the Arming Region to activate the linkage actions. See the table below.
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</tr>
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<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The image with alarm information pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

11. Click **Save** to retain your settings.

### 9.1.12 Configuring Region Exiting Detection events

Region exiting detection detects people, vehicles or other objects which leave a pre-defined virtual region in the field of view. Certain actions can be taken when the alarm is triggered.

1. Open the **Event Management** window, and then click **Camera Event** tab.
2. In the **Camera Group**, select the camera to be configured.

3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Region Exiting Detection** as the event type.

4. Check the **Enable** select box to monitor the device for exiting detection.

5. Select the **Arming Schedule** template from the drop-down list:
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

6. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs.

7. Open the **Region ID** drop-down list, and then select the region number for the detection region you want to monitor. You can create up to 4 regions in the image.

8. Click the **Draw Area** button to the right of the video frame, and then create a virtual region by clicking on, in a circular manner, the four corners of a quadrangle that define the corners of the region. A green quadrangle will appear in the image with a number indicating the region number. You can click the **Select** button to drag the quadrangle to another part of the live view image. Also, you can click **Delete** to remove the region you defined.
9. Click-and-drag the Sensitivity slider to set the detection sensitivity. Range 1 .. 100. The value of the sensitivity represents the size of the object which can trigger an alarm. The higher the value, the smaller the object that can trigger an alarm.

10. Check the select boxes below the Arming Region to activate the linkage actions. See the table below.

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<td>Email Linkage</td>
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<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The image with alarm information pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

11. Click Save to retain your settings.

### 9.1.13 Configuring Scene Change Detection events

Scene change detection senses a change of surveillance environment affected by the external factors, such as the intentional rotation of the camera. When these events occur, specific actions can be performed.

1. Open the Event Management window, and then click Camera Event tab.
2. In the **Camera Group**, select the camera to be configured.

3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Scene Change Detection** as the event type.

4. Check the **Enable** select box to monitor the device for exiting detection.

5. Adjust the **Sensitivity** slider to set the detection sensitivity (range: 1 .. 100). The higher the sensitivity number, the more easily a scene change is recognized. This setting may require testing.

6. Select the **Arming Schedule** template from the drop-down list:
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

7. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs.
8. Check the select boxes below the Arming Region to activate the linkage actions. See the table below.

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</tr>
</tbody>
</table>

9. Click **Save** to retain your settings.

10. To copy these detection settings to other devices, click the **Copy to ..** button, select the items you want to copy and the devices you want to copy them to, and then click **OK**.
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9.1.14 Configuring Unattended Baggage Detection events

Unattended baggage detection can detect when objects such as baggage, a purse, dangerous materials, etc. are left in the pre-defined region of the field of view. A series of actions can be taken when the alarm is triggered.

1. Open the Event Management window, and then click Camera Event tab.
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2. In the **Camera Group**, select the camera to be configured.

3. Open the **Select Event Type** drop-down list (at the top of the window), and then select **Unattended Baggage Detection** as the event type.

3. Check the **Enable** select box to monitor the device for baggage detection.

4. Select the **Arming Schedule** template from the drop-down list:
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

5. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs.

6. Open the **Region ID** drop-down list, and then select the region number for the detection region you want to monitor. You can create up to 4 regions in the image.

7. Set the **Trigger Time Threshold**: Range [5 .. 3600 s], the threshold for the time of the object loitering in the region.

8. Click the **Draw Area** button to the right of the video frame, and then create a virtual region by clicking on, in a circular manner, the four corners of a quadrangle that define the corners of the region. A green quadrangle will appear in the image.
with a number indicating the region number. You can click the Select button to drag the quadrangle to another part of the live view image. Also, you can click Delete to remove the region you defined.

9. Click-and-drag the Sensitivity slider to set the detection sensitivity. Range 1 .. 100. The value of the sensitivity represents the size of the object which can trigger an alarm. The higher the value, the smaller the object that can trigger an alarm.

10. Check the select boxes below the Arming Region to activate the linkage actions. See the table below.

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<td>Email Linkage</td>
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<tr>
<td>Alarm on E-map</td>
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</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image with alarm information pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

11. Click Save to retain your settings.

### 9.2 Configuring Alarm Input Linkage

When a device’s alarm input port receives a signal from an external alarm device, such as smoke detector, doorbell, etc., the alarm input linkage actions are triggered for notification.

1. Open the Event Management window, and then click Alarm Input tab.

2. In the Device Group list, select the alarm input channel to be configured.
3. Check the **Enable** select box to enable the input alarm.

![Image](image_url)

4. In the **Alarm Name** field, enter a descriptive name for the alarm.

5. Select the **Alarm Status** (Normally Open or Normally Closed) according to the alarm input device.

6. Select the **Arming Schedule** template from the drop-down list:
   - **All-day Template**: for all-day continuous arming
   - **Weekday Template**: for working-hours continuous arming from 8:00 AM to 8:00 PM
   - **Template 01-09**: fixed templates for special schedules. You can edit the templates if needed.
   - **Custom**: can be customized as needed

   To customize an arming schedule, see Configuring Arming Schedule Template. See “8.1.1 Recording on Storage Devices on the DVRs, NVRs, or Network Cameras” on page 88. Up to four (4) time periods can be set for each day in an arming schedule template.

7. In the **Trigger Camera** field, open the drop down list and then select the cameras that will perform actions when the event occurs.
8. Check the select boxes to activate the linkage actions. See the table below.

<table>
<thead>
<tr>
<th>Linkage Actions</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm Output</td>
<td>Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.</td>
</tr>
<tr>
<td>Trigger Channel Record</td>
<td>Start the recording of the selected cameras when alarm is triggered.</td>
</tr>
<tr>
<td>Other Linkages</td>
<td>Check this option to select all linkage actions.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
</tr>
<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
<tr>
<td>Alarm on E-map</td>
<td>Display the alarm information on the E-map.</td>
</tr>
<tr>
<td>Alarm Triggered Pop-up Image</td>
<td>The Image with alarm information pops up when alarm is triggered.</td>
</tr>
</tbody>
</table>

9. To copy these linkage actions to other alarm input configurations, click the **Copy to ..** button, select the items you want to copy and the alarm inputs you want to copy them to, and then click **OK**.
SECTION 9: EVENT MANAGEMENT

10. Click Save to save the settings.

9.3 Configuring Device Exception Linkage

Use the Exception feature to configure the ACMS to trigger actions when the device experiences some abnormal condition. Exceptions being monitored depend on the device.

1. Open the Event Management window, and then click Device Exception tab.

2. In the Device Group list, select the device to be configured. Recorders and cameras may have different Exception Type options. The following screen is for an Alibi recorder.

**NOTE** ALI-NVR71128 series recorders can also be monitored for a Hot Spare Exception.

The following screen shows the Exception Type options for a camera.
3. Open the **Exception Type** drop down list and select the device exception type. Note that recorders can be monitored for several different exception conditions.

4. Check the **Enable** select box.

5. In the Linkage Actions section, check the select boxes to activate the actions you want to perform. See the table below.

<table>
<thead>
<tr>
<th>Linkage Actions</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger Alarm Output</td>
<td>Enable the alarm output function. Select the alarm output port and the external device connected to the port can be controlled.</td>
</tr>
<tr>
<td>Other Linkages</td>
<td>Check this option to select all linkage actions.</td>
</tr>
<tr>
<td>Audible Warning</td>
<td>The client software gives an audible warning when alarm is triggered.</td>
</tr>
<tr>
<td>Email Linkage</td>
<td>Send an Email notification of the alarm information to one or more receivers.</td>
</tr>
</tbody>
</table>

6. To copy these linkage actions to other devices, click the **Copy to ..** button, select the items you want to copy and the devices you want to copy them to, and then click **OK**.

7. Click **Save** to save the settings.
9.4 Viewing Alarm and Event Information

Recent alarms and events information can be displayed on most app windows. Click the Show icon in the window footer to display a short list of recent alarms.

Using this feature you can:

- Enable / disable the display of alarm types by checking / un-checking the select boxes in the footer.
- Play recorded video associated with an alarm by clicking the Play icon in the Live View column.
- Send an email associated with the alarm by clicking the mail icon in the Send Email column. The Email feature must be configured to send use this option.
- Click the Event button to list recent events logged by the ACMS.

- Click the Maximize icon to display a full screen of Events or Alarms.
Enable/disable Alarm Triggered Popup Image
Clear info
Enable/mute Audio
SECTION 10

**e-Map Features**

The E-map function gives a visual overview of the locations and distributions of the installed cameras and alarm input devices. You can get the live view of the cameras on the map, and you will get a notification message from the map when alarm is triggered. E-map features include:

- Graphical high-level view of operations
- Parent map and child map function to link maps;
- Locate camera position by dragging channel icon.
- Alarm information and event image display on the map.

To open the E-map window, click the **E-map** icon ( ) in the Control Panel window, or click the **Menu** icon in the upper left corner of the ACMS window, and then select **View** | **E-map**.

![Typical E-map display with cameras and alarm sensors](image)

**10.1 Adding an E-map**

To add the parent map to an E-map display do the following. The parent map is used to locate hot spots and hot regions.
1. Click the E-map icon ( ) in the Control Panel window, or click the Menu icon in the upper left corner of the ACMS window, and then select View | E-map to open the E-map page.

2. In the right frame, select the group of devices you want to add to the map.

3. Click the Add Map icon in the upper left corner of the Map Display area to open the map adding dialog box.

4. In the E-Map Info window, enter a descriptive name in the Map Name field, and then click the browse button to select the path to the map. The picture file of the map can be in .PNG, .JPG or .BMP format, and only one map can be added to a group.

5. Click OK to save the settings.
The map is displayed in the map display area. Use the mouse wheel to zoom in or zoom out on the map. You can click-and-drag the yellow window in the lower-right corner or use the direction buttons and zoom bar to adjust the map area for view.

After adding the map, the E-map toolbar shows active icons.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Label</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Modify Map" /></td>
<td>Modify Map</td>
<td>Modify the map information, including the map name and file path.</td>
</tr>
<tr>
<td><img src="image" alt="Delete Map" /></td>
<td>Delete Map</td>
<td>Delete the current map.</td>
</tr>
<tr>
<td><img src="image" alt="Add Camera" /></td>
<td>Add Camera</td>
<td>Add a camera as the hot spot on the map.</td>
</tr>
<tr>
<td><img src="image" alt="Add Alarm Input" /></td>
<td>Add Alarm Input</td>
<td>Add an alarm input sensor as the hot spot on the map.</td>
</tr>
<tr>
<td><img src="image" alt="Add Hot Region" /></td>
<td>Add Hot Region</td>
<td>Add a map as the hot region on the current map.</td>
</tr>
<tr>
<td><img src="image" alt="Modify" /></td>
<td>Modify</td>
<td>Modify the information of the selected hot spot or hot region.</td>
</tr>
<tr>
<td><img src="image" alt="Delete" /></td>
<td>Delete</td>
<td>Delete the selected hot spot or hot region.</td>
</tr>
<tr>
<td><img src="image" alt="Clear Alarm Info" /></td>
<td>Clear Alarm Info</td>
<td>Clear the alarm information displayed on the map.  (This icon is shown in Map Preview mode.)</td>
</tr>
<tr>
<td><img src="image" alt="Back to Parent Map" /></td>
<td>Back to Parent Map</td>
<td>Go back to the parent map.  (This icon is shown in Map Preview mode.)</td>
</tr>
</tbody>
</table>
6. At the left end of the toolbar, click the **Edit Map** or **Map Preview** button to enter the map editing mode or map preview mode, if needed.

### 10.2 The Hot Spot Function

A Hot Spot is a camera video streams and alarm input that is located on the map. They enable you to see the live view and alarm information from those surveillance devices.

#### 10.2.1 Adding Hot Spots

To add a Hot Spot:

1. Click the **Edit Map** button in the lower left corner of the screen to enter the map editing mode.
2. Click on the device (camera, recorder, etc) in the left frame that you want to add.
3. Click the **Add Camera** icon in the toolbar to open the **Add Hot Spot** dialog box.
4. Check the select boxes of the cameras to be added (see above).
5. Click **OK** to add the cameras to the map as hot spots and save the settings. Note that the camera icons in the group list change from a camera icon to a “checked” camera icon.

**NOTE** You can also click-and-drag camera icons from the group list directly to the map to add hot spots.
6. Click-and-drag the camera icons to the locations where they exist on the map.

7. To modify the label on a camera and the camera icon, click on the camera icon, and then click the Modify icon in the toolbar. You can also right-click on the camera icon, and then select Modify from the pop-up list.

a. Enter a short descriptive name in the Hot Spot Name field.

b. Open the Hot Spot Color drop-down list and select a color for the name. Note that in the example shown above, the default green color was replaced by a more visible black color.

c. Open the Hot Spot Icon drop-down list and select an icon for the camera.
d. Click OK to save your settings and close the Modify Hot Spot menu.

e. Repeat sub-steps a through d above for other hot spot icons you want to modify.

Adding Alarm Inputs as Hot Spots

1. Click the Edit Map button in the E-map toolbar to enter the map editing mode.

2. Click the Add Alarm Input icon in the toolbar to open the Add Hot Spot dialog box.

3. Check the select boxes of the alarm inputs to be added (see above).

4. Click OK to add the alarm inputs to the map as hot spots and save the settings. Note that the alarm input icons in the group list change to a “checked” alarm input icon.
SECTION 10: e-MAP FEATURES

You can also click-and-drag alarm input icons from the group list directly to the map to add hot spots.

5. Click-and-drag the alarm input icons to the locations where they exist on the map.

6. To modify the label on a alarm input and the associated icon, click on the alarm input icon, and then click the Modify icon in the toolbar. You can also right-click on the alarm input icon, and then select Modify from the pop-up list.

   a. Enter a short descriptive name in the Hot Spot Name field.

   b. Open the Hot Spot Color drop-down list and select a color for the name. Not that in the example shown above, the default green color was replaced by a more visible black color.

   c. Open the Hot Spot Icon drop-down list and select an icon for the camera.
10.2.2 Previewing Hot Spots

1. Click the Map Preview button in the E-map toolbar to enter the map preview mode.

2. Double-click the camera hot spot to open a live view of the camera.

3. If there is any alarm triggered, an blinking alarm icon will appear near the hot spot. Click the alarm icon to show the alarm type and triggering time.
NOTE To display the alarm information on the map, the Alarm on E-map functional must be set as an alarm linkage action.

10.3 Using the Hot Region function

The hot region function links a map to another map. When you add a map to another map as a hot region, an icon of the link to the added map is shown on the main map. The added map is called child map while the map to which you add the hot region is the parent map. A map can only be added as the hot region once.

10.3.1 Add a Hot Region

The map that will become the child map must be previously added to another device group. Each device can include, at most, one map.

1. Click the Edit Map button in the E-map toolbar to enter the edit map mode.

2. In the left frame, select the parent map.

3. Click the Add Hot Region icon in the toolbar to open the Add Hot Region dialog box.

4. Select the map in the list to be added as the child map. (See above.) In this dialog, you can also edit the name for the child map, select a color for the label, and change the icon using the drop-down lists.

5. Click OK to save the settings. The child map icons are added on the parent map as the hot regions.

6. Drag the child map icon to the a location on the parent map that is applicable to what it shows.
SECTION 10: E-Map Features

10.3.2 Modify a Hot Region

You can modify the information of the hot regions on the parent map, including the name, the color, the icon, etc.

1. Click the **Edit Map** button in the E-map toolbar to enter the edit map mode.

2. Select the hot region icon on the parent map and then click the Modify icon in the toolbar, or double-click the hot region icon to open the **Modify Hot Region** dialog box.

   a. Enter a short descriptive name in the **Hot Region Name** field.

   b. Open the **Hot Region Color** drop-down list and select a color for the name. Note that in the example shown above, the default green color was replaced by a more visible black color.

   c. Open the **Hot Region Icon** drop-down list and select an icon for the camera.

   d. Click **OK** to save your settings and close the **Modify Hot Region** menu.
10.3.3 Previewsing Hot Regions

Hot spots can also be added to hot regions.

1. Click the **Map Preview** button in the E-map toolbar to enter the map preview mode.

2. Click the hot region icon to open the linked child map.

3. Click the **Edit Map** button in the toolbar.

4. Click the **Add Camera Hot Spot** or the **Add Alarm Input Hot Spot** icon in the toolbar.
5. Click **OK** to add the cameras to the map as hot spots and save the settings. Note that the camera icons in the group list change from a camera icon to a “checked” camera icon.

**NOTE** You can also click-and-drag camera icons from the group list directly to the map to add hot spots.

6. Click-and-drag the camera icons to the locations where they exist on the map.

7. To modify the label on a camera and the camera icon, click on the camera icon, and then click the **Modify** icon in the toolbar. You can also right-click on the camera icon, and then select **Modify** from the pop-up list.

   a. Enter a short descriptive name in the **Hot Spot Name** field.

   b. Open the **Hot Spot Color** drop-down list and select a color for the name.
c. Open the **Hot Spot Icon** drop-down list and select an icon for the camera.

d. Click **OK** to save your settings and close the **Modify Hot Spot** menu.
SECTION 11
Counting

The ACMS Counting feature is used to retrieve statistics from a camera that is capable of and configured to accumulate counts of people or objects that cross a virtual plane. The camera must have internal storage, usually provided by an SD card.

NOTE The camera used to accumulate count data cannot be configured to use video content analytics (VCA) capabilities.

To open the Counting window, click the Counting icon in the Control Panel window.

11.1 View Counts

1. In the Condition column, select (check the boxes for) the camera(s) that were configured to accumulate counting data. In the example above, NP-75.19 was selected. You can also use the Search box to quickly find the camera in the device list.

2. In the left column under Report Type, open the drop-down list and then select the kind of report you want to generate. Options include Daily, Weekly, Monthly, and Annual Report.
SECTION 11: COUNTING

3. Open the next drop-down list, and then select one of the following options (depending on your system, all options may not be available):
   - **Multi-camera in One Period**: Multiple cameras can be selected for retrieving count statistics across one time period.
   - **Multi-group in One Period**: Multiple groups can be selected for retrieving count statistics across one time period.
   - **One Camera in Multi-period**: One camera can be selected for retrieving count statistics across two time periods.
   - **One Group in Multi-period**: One group can be selected for retrieving count statistics across two time periods.

4. Open the next drop-down list and then select either:
   - **Enter**: The people/objects entering will be counted.
   - **Exit**: The people/objects exiting will be counted.
   - **Enter and Exit**: Both people/objects entering and exiting will be counted. When this data is graphed, different colors are used to indicate which are “enter” and which are “exit” counts.

5. Open the **Destination 1** and **Destination 2** GUIs and click on the dates that you want to retrieve data for.

6. Click **Search** to generate a report. A histogram (default) will appear in the data frame, with numerical data listed below.
In this screen, you can:

- Click the Line Chart icon, Histogram icon, or Export.
SECTION 11: COUNTING

11.2 Export Counting statistics

To export your search results:

1. Click the Export icon to save the Search data. A destination browser window will open. Search data is saved in CSV format.

![Exporting CSV file](image)

2. Browse to the directory where you want to save the data, and then enter a File name for the search result data.

3. Click Save.

To display the search result (.csv) file

1. Use Windows Explorer to browse to the location where you saved the file.

2. Open the file in an application that displays CSV files (such as MS Excel® or OpenOffice Calc).
SECTION 12
Heat Map

The ACMS Heat Map feature is used to retrieve statistics from a camera that is capable of and configured to accumulate heat mapping data and display it graphically. The heat map function of the camera is used to analyze the visit times and dwell time of customers in a configured area of the field of view.

The camera must have internal storage, usually provided by an SD card. Also, the camera must be added to the ACMS as an Encoding Device.

To open the Heat Map window, click the Heat Map icon ( ) in the Control Panel window.

1. In the Camera column, select (check the box for) the camera that was configured to accumulate heat map data. In the example above, IPU_0.201 was selected. You can also use the Search box to quickly find the camera in the device list.

2. In the left column under Report Type, open the drop-down list and then select the kind of report you want to generate. Options include Daily, Weekly, Monthly, and Annual Report.

3. Open the Start Time GUI and click on the date that you want retrieve data from.
SECTION 12: HEAT MAP

4. Click **Generate Heat Map** to view the report. A Chart graph will appear in the data frame.

You can also view a **Picture** view version of the heat map. Click the Picture icon in the upper-right corner of the data frame. Colors superimposed on the image represent the level of activity in that area.
5. Click the Export icon to save the data from your Generate... operation.
SECTION 13
Video Wall

The Video Wall module provides the video decoding functionality for the display of many cameras across up to 6 monitors. At this time, only the Alibi ALI-NVR71128R network video recorder supports the video wall feature.

To create a Video Wall device in the ACMS:

1. Ensure that an ALI-NVR71128R device is added to the ACMS for monitoring.
2. Open the Control Panel screen, and then click the Video Wall icon.
3. Click Add New Device Type, select Decoding Device, and then click OK. The Video Wall module will display on the control panel.

Click the Video Wall icon ( ) icon on the control panel, or click View | Video Wall to open the Video Wall page.
13.1 Adding the Encoding Device

The ALI-NVR71128R recorder can decode encoding devices for display on the video wall. Encoding devices can be added within the video wall screen, through the Device Management screen, or through the Video Wizard. To add an encoding device from the Video Wall screen, do the following:

1. In the Camera list, click the (plus) icon to activate the adding device window.

2. Select the adding mode and configure the corresponding settings for the device.

3. Enter the appropriate information in the fields, and then click Add. The device will be listed in the Camera frame.

2. Select the adding mode and configure the corresponding settings for the device.

3. Enter the appropriate information in the fields, and then click Add. The device will be listed in the Camera frame.

13.2 Adding the Decoding Device

To decode the video of the encoding device and display the decoded video on the Video Wall, the decoding device needs to be added to the client. ACMS supports the ALI-NVR71128R recorder.

1. Click Enter Video Wall Config to open the decoding device and video wall configuration interface.

2. In the Decoding Output area, click the plus icon to activate the Quick Adding of Decoding Device window.
3. Set the device type as Decode. Select the adding mode and configure the corresponding settings for the device.

13.3 Configuring Video Wall Settings

After the encoding device and decoding device have been added, the parameters of Video Wall must be configured for video to display. When configuring a Video Wall:

- You can create up to 4 video walls in the ACMS client.
- You can display up to 100 encoding devices in a video wall.
- The video wall array can have a row number and column number range of 1 .. 10 (maximum 10 x 10 array).

13.3.1 Create, Edit, Delete Video Wall

A default video wall view with the window division of 4x4 is provided by default. You can edit the default video wall or add a new video wall if needed.

1. In the Video Wall screen, click Enter Video Wall Config to open the decoding device and video wall configuration interface.

Create Video Wall

You can create a video wall of up to six screens, one for each of the outputs of the decoding device decoder board. To Add a video wall:

1. Right-click the video wall and select Add Video Wall, or click the (plus) icon to activate the Add Video Wall window.
2. Enter the name, row number, column number and proportion of the video wall.

3. Open the View Scale drop-down list and select an aspect ratio of the monitor.

4. Click Add. A tab for the wall you created will appear on the Video Wall screen.

**Edit a Video Wall**

To Edit a video wall:

1. Right-click the video wall and select Modify Video Wall to edit it.
2. In the pop-up window, you can edit the name, row number, column number and proportion of the video wall. You can also drag your mouse across the GUI to set a different video wall array size.

**Delete a Video Wall**

To delete the video wall, right-click the video wall and select Delete Video Wall, or click the icon of the video wall tab.

**13.3.2 Linking Decoding Output to a Video Wall**

You can associate a decoder output with any panel in the video wall array you created. Note that the decoder outputs have different monitor resolution options:

- **HDMI 1, HDMI 3, HDMI 5**: Supports monitor resolutions XGA, 720P, SXGA, 1080P
- **HDMI 2, HDMI 4, HDMI 6**: Supports monitor resolutions XGA, 720P, SXGA, 1080P, 2560x1440, 3840x2160 (30 Hz), 3840x2160 (60 Hz)

To associate a decoder output to a monitor in the video wall display:

1. In the Video Wall screen, click **Enter Video Wall Config** to open the decoding device and video wall configuration interface. If you just created a Video Wall, you are at the correct mode.

2. In the left panel, expand the decoder by clicking the plus ( ) icon for the decoder device (ALI-NVR71128R) to show the list of decoder outputs.

3. Drag a decoder output to a panel in the video wall array you created. In the example below, HDMI1 through HDMI4 were linked to different panels in the 2x2 video wall.
4. In the Decoding Output (left) panel, click the plus icon before the decoding device to list the video wall outputs (HDMI 1 .. HDMI 6).

5. For each decoder output you are using, right click on the decoder output, or the panel linked to that output, and select **Decoder Output Configuration**. A **Modify Decoder Output** menu will open.

6. In the menu you can change the monitor resolution, and the brightness, contrast and saturation to improve the image on the monitor.

7. If you check the box **Batch Configuration**, you can copy your settings to other decoder outputs to copy the settings to. See the example to the right.

8. Click **OK** to save the settings.

9. Set each Decoder Output configuration as needed.
13.3.3 Displaying camera video on the Video Wall

You can place the images from multiple encoding devices (cameras) on each screen of a video wall, and you can place an image on a screen and scale it down to cover part of a screen or scale it up to span adjacent screens. To add encoding devices to the a video wall:

1. In the Video Wall Configuration mode, click the Back to Operation Page button.

2. In the Operations Page, click the plus (+) icon for the device you want to display video from.

3. Drag the encoder output (video stream) from an encoding device into a decoder panel. The image will appear on the monitor attached to the decoder board HDMI output. In the example here, because the panel in the upper right corner was linked to decoder board HDMI 1, the image will appear on the monitor attached to HDMI 1.
a. On the Operations Page, you can:
* Resize the video stream in the decoder panel by clicking on the video, and then dragging a corner to a different size.
* Drag the video stream to a different position in the video wall
* Drag different video stream to the same decoder panel or other panels
* Double-click on a video stream to expand it to full screen (of the Video Wall decoder). Double click on it again to return to normal.
* Add the same video stream to a different panel
* delete a video stream from the video wall by clicking on the stream, then clicking the close icon (x) in the upper right corner.

b. For each video stream, you can right click on the stream to open a pop-up window. **NOTE:** Options may be different for different encoders.

* **Stop / Start Decoding:** Stop / Start the decoding
* **Refresh:** Reread the stream, update the display
* **Decoding Channel Status:** View the status of the decoding channel, such as decoding status, stream type.
  Selecting this option opens the following information window
SECTION 13: VIDEO WALL

* **Stick on Top**: Move the video stream to the top of other streams that cover it.
* **Stick at Bottom**: Move the video stream behind other streams that cover it.
* **Lock**: Lock the window to disable the roaming function. A “padlock” icon will appear in the upper right corner of the stream.

c. To see a preview screen of any video stream, click on the stream to select it, and then click the icon (▶) along the right edge of the screen. An expanded view of the video stream will appear in the window. See below.
In the preview screen (see above), you can:

- See the VCA configured virtual objects applied to the screen. For instance, you can see the boundaries of an intrusion region, a line-crossing virtual plane, etc.
- Click the **Capture** icon to save a snapshot of the video stream
- Click the **Record** icon to start or stop recording a clip of the video.
SECTION 14

Log Management

Log files in ACMS are stored on the local PC. There are two types of log files:

- **Client logs**: Client logs refer to the log files of the ACMS client and are stored on the local PC.
- **Server logs**: Server logs refer to the log files of the connected devices and are stored on the local device.

Log files can be searched for symptom and failure analysis. Log search includes these features:

- Client log query
- Remote device log query and backup;
- Backup client logs
- View log files

To open the Log Search window, click the Log Search icon ( ) in the Control Panel window, or click the Menu icon in the upper left corner of the ACMS window, and then select Tool | Log Search.
14.1 Searching Log Files

1. Click the Log Search icon ( ) in the Control Panel window, or click the Menu icon in the upper left corner of the ACMS window, and then select Tool | Log Search to open the Log Search window (see above).

2. In the upper left corner of the window, select either Client Logs or Server Logs.

3. If you selected Server Logs, click to highlight the item in the Servers list for which you want to search logs.

4. Click the calendar icon in the Start Time field to set the beginning of time range for the search.
   a. In the calendar display, pick the start date of the search for the log search. Notice that you can change the month displayed by clicking the  and  icons.
   b. In the time field, click the entry for hours, minutes and seconds, and then select the value from the pop-up menu.

5. Click the calendar icon in the End Time field. Set the end time as described in the previous step.

6. Click Search. The log files between the start time and end time will be displayed on the list. In the example below, not that 1567 Client log entries were found between start time and end time, and these entries are displayed across 112 pages in the Log Search window.
To display a different page of the search result, enter the page number in the Page field in lower right corner of the window and then click Go, or click the ➔ button.

**NOTE**
Up to 36000 logs entries can be displayed from a single search. If the search exceeds 36000 entries, narrow the time range of the search or filter the search by keyword or condition. See “11.2 Export Counting statistics” on page 166.

### 14.2 Filtering Log Files
After searched out successfully, the log files can be filtered by the keyword or condition, and thus you can find the logs as you want.

1. In the Log Search window, click the Log Filter button, if necessary, to open the log filter criteria menu. By default, the log filter menu is open. You can close the menu by the ▲ icon at the base of the menu.

2. In the filter menu, select either Filter by Keyword or Filter by Condition.
SECTION 14: LOG MANAGEMENT

a. If you selected **Filter by Keyword**, enter a search keyword in the text field.

b. If you selected **Filter by Condition**, open the drop down lists below to select the filter condition criteria. For additional options, click the **More** button to open the Search Log Filter window. This window is different for Client logs and Server logs.

![More Filter Conditions Client Log Filter (left) and Server Log Filter (right)](image)

3. Select the filter entries as needed, and then click **OK**.

4. Click **Filter** to display log entries that match the filtering criterion.

![Server Log Search with Filter by Condition](image)

You can also search for log entries by Keyword. In the following example, **Filter by Keyword** was selected with the keyword *Lost*. **NOTE**: The keyword searched for in the log entry is capitalized, the keyword must be capitalized.
14.3 Backing up Log Files

The log files, including the client logs and server logs, can be exported for backup. Backed up logs are saved in .XML format.

1. Create a search result for the log file entries you want to backup. See “11.2 Export Counting statistics” on page 166 and “11.2 Export Counting statistics” on page 166 above.

2. Click the Backup Log button to open the Backup Log dialog box.

3. In the Backup Log dialog box, click the browse icon to select a path to the directory where the backup file will be saved and specify the file name.

4. Click Backup to write the log file to the directory.

5. To open the backed up log file:
a. Click the **Menu** icon in the upper left corner of the window, and then select **File | Open Log File**.

b. Click the browse icon in the upper right corner, and then find and select the backed up log file you want to open.

c. Click **Open**.
APPENDIX A  Troubleshooting

Live View

Problem: Failed to get the live view of a certain device.

Possible Reasons
- Unstable network or the network performance is not good enough.
- The device is offline.
- Too many accesses to the remote device cause the load of the device too high.
- The current user has no permission for live view.
- The version of the client software is below the needed version.
- Insufficient PC Specifications

Solutions
- Check network status and disable other not in use process on your PC.
- Check the device network status.
- Restart the device, or disable other remote access to the device.
- Log in with admin user credentials and try again.
- Download and install the latest version of the client software.
- Check the PC requirements chart to confirm system capabilities and limitations. See “1.3.1 Recommended configurations” on page 10.

Recording

Problem: Local recording and remote recording are confused.

Solutions:
- The local recording in this manual refers to the recording which stores the record files on the HDDs, SD/SDHC cards of the local device.
- The remote recording refers to the recording action commanded by the client on the remote device side.

Playback

Problem: Failed to download the record files or the downloading speed is too slow.

Possible Reasons
- Unstable network or the network is slow.
- The network interface card (NIC) type is not compatible.
- Too many active connections (accesses) to the remote device.
- The current user lacks permission to playback video.
- The client software version is incompatible.
Solutions

- Check network status. Close unnecessary processes on your PC.
- Connect the PC running the client directly to the device to check the compatibility of the NIC card.
- Restart the device, or disable other remote access to the device.
- Log in with admin user credentials and try again.
- Download and install the latest version of the client software.