



Ocularis Client User Manual

Version 5.8

October, 2019

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1 About This Guide

This document describes how to use Ocularis Client.

1.1 Related Documentation

Related documents are listed below.

Table 1-1: Related Documents

| Document Name | Version | File Type | Date |
|-----------------------------|---------|-----------|--------------|
| Ocularis 5.8 Release Notes | 5.8 | PDF | October 2019 |
| Ocularis Viewer User Manual | 5.8 | PDF | October 2019 |
| Ocularis Mobile User Guide | 5.8 | PDF | October 2019 |
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| Add-on Documentation | | | |
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2 Introduction

Ocularis Client is a feature-rich IP video client/controller that allows users to:

- Monitor live video from an unlimited number of cameras at multiple sites, with instant-investigation capabilities.
- Easily access and investigate alerts, generated by both motion detection and external systems.
- Send and receive automated push-live-video of alerts.
- Export video clips and still images for further event handling or as court evidence.
- To handle alerts received and organize into incident cases using a graphical Alert Manager interface
- Be alerted to events with Blank Screen Monitoring
- Bookmark exported video clips for sharing and easy retrieval
- Use Map displays to visibly manage campus and security environments
- Monitor the surveillance system in command centers with Video Wall support
- Never lose sight of a scene with Critical Camera Failover

Ocularis Client supports the following languages:

English
Arabic-Modern Standard
Simplified Chinese
Dutch
Finnish
French
German
Hebrew
Italian
Japanese
Korean
Portuguese
Russian
Spanish
Swedish

3 Installation and Login

3.1 Minimum System Requirements

Ocularis Client is available as a 64-bit application.

The minimum system requirements for all Ocularis components may be found on the Qognify website: <http://onssi.com/hardware-recommendations/>

3.2 Installation

Typically, Ocularis Client software is installed on each operator computer by accessing an installation web page on the Ocularis Base server. The Ocularis Client may be installed on any number of computers as it is free of charge. Refer to the *Ocularis Installation and Licensing Guide* for detailed instructions on installing Ocularis Client. Ocularis Client has the ability to prompt users to download and install an updated version upon successful login. See [Log Off vs. Shut Down](#)


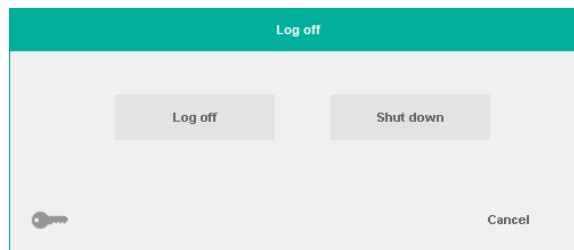
Users can manually log off or shut down Ocularis Client by clicking the log off application control in the menu bar. 

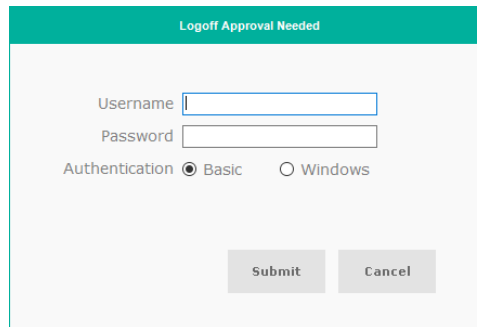
Figure 8 Log Off Ocularis Client



Choose **Log off** if you want to return to the Ocularis Client log in screen. This may be helpful to the next person who needs to log in. Choose **Shut down** to close Ocularis Client completely. Click **Cancel** to close the dialog and remain in Ocularis Client.

3.3 Logoff Approval Needed

Certain users may not have the privilege to log off manually by themselves. This is controlled by administrators. If this user clicks the log off icon, a Logoff Approval Needed screen appears. Similar to the Dual Authorization feature, this requires someone with administrator rights to log the user out of Ocularis Client.

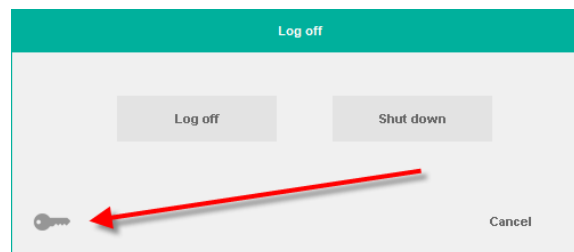
Figure 9 Logoff Approval NeededA dialog box titled "Logoff Approval Needed" with a teal header. It contains two input fields: "Username" and "Password". Below these is an "Authentication" section with two radio buttons: "Basic" (selected) and "Windows". At the bottom are two buttons: "Submit" and "Cancel".

Once adequate credentials are entered, the user is presented with the standard Log off screen and can continue to log off or shut down.

3.4 Change Password

If granted the permission to do so, Basic users may change their own password at any time. This is done via the **Log off** dialog.

1. To change your password, click the **Log Off** application control on the menu bar.
2. Click the 'key' icon.

Figure 10 Manually Change Password

The Change Password dialog appears. (see Figure 2)

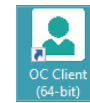
3. Enter your **Current Password**.
4. Enter your **New Password** (between 4 and 31 characters).
5. Re-enter your password.
6. Click **Change Password**.

Automatic Update of Ocularis Client Software on page 11 for more information.

3.5 Logging in with the Ocularis Client

The login procedure to gain access to *Ocularis* is very simple.

1. Launch the *Ocularis Client* application from the desktop icon.
2. Alternatively, you may choose *Start* → *All Programs* → *OnSSI* → *Ocularis Client*.



A login window will appear.

3. Enter your login information, as follows:

Figure 1 Ocularis Client Login

The Ocularis Client Login window is displayed. It has a light gray background with a teal vertical bar on the left. At the top left is the 'Qognify' logo. In the center is the 'OCULARIS Client Login' logo, which includes a teal speech bubble icon with a white 'Q'. Below the logo are four input fields: 'Username', 'Password', 'Server' (a dropdown menu), and 'Authentication' (a dropdown menu with 'Basic' selected). Below these fields are two checkboxes: 'Remember Login' and 'Auto Login'. At the bottom right are two buttons: 'Log In' and 'Cancel'. The version 'v5.0 (5.0.0.770)' is printed in small text at the bottom right.

- **Username and Password:**

Obtain a username and password from your system administrator. A user account and password is required to gain access to system video.

- **Server:**

Enter the Server IP address or hostname for the Ocularis Base server as provided to you by your system administrator.

Note:

If your system administrator changed the default port to use for the Base (default is 80) you may have to include more information in the server field. Use the format:

IP ADDRESS:PORT#

Where:

IP ADDRESS is the address of the Base computer

Port # is the port number assigned by the system administrator

- **Authentication:**

Choose Basic or Windows, as instructed by your system administrator.

- **Store Last Login:**

All fields on the login page (User Name, Password, Server IP address and Authentication method) will be saved to facilitate easy entry upon subsequent logins.

- **Auto-Login:**

When the application is launched, this checkbox allows the system to automatically launch the *Ocularis Client* and logs in to the preconfigured server.

To disable Auto-Login, once you successfully launch the *Ocularis Client*, select 'Log off' from the menu bar and choose 'Log off'. The login screen will appear; uncheck the Auto-Login box and log in again. You will be prompted to log in the next time the application is started.

- **Version of software**

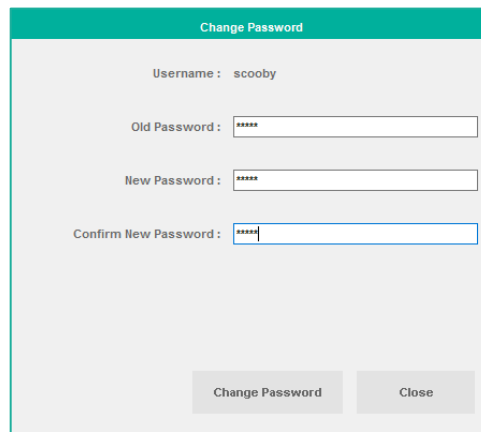
The lower right portion of the login dialog displays the version and build of the Ocularis Client application.

Click **Login**.

3.5.1.1 Change Password First Time Login

The first time a Basic user logs in, there will be a prompt to change the password.

Figure 2 Change Password

A screenshot of a 'Change Password' dialog box. The dialog has a teal header bar with the title 'Change Password'. Below the header, the text 'Username : scooby' is displayed. There are three input fields: 'Old Password :', 'New Password :', and 'Confirm New Password :'. Each field contains five asterisks (*****). At the bottom of the dialog, there are two buttons: 'Change Password' and 'Close'.

- **Old Password:**
Enter the password provided to you by the system administrator.
- **New Password:**
Enter the desired new password between 4 and 31 characters.
- **Confirm New Password:**
Re-enter the new password.

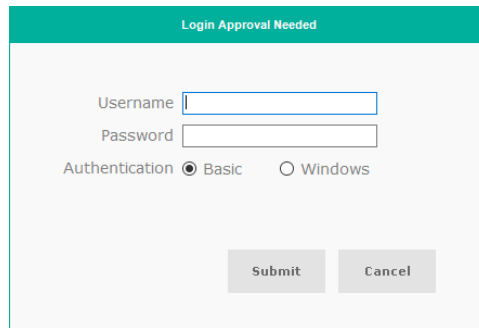
Click **Change Password**. If you click **Close**, the system will not let you log in until you change your password.

Passwords do not expire. You may change your password at any time. See Change Password on page 12.

3.5.1.2 Dual Authorization

If, after you've clicked the **Log In** button, you see this screen:

Figure 3 Login Approval Needed



it means that you must get approval from another Ocularis user in order to obtain system access.

In certain cases, system administrators may want to restrict users access to Ocularis video. They may, however, want to allow access on a case-by-case basis. In this instance, the system administrator can set the user's account to 'Deny' the privilege to log in to Ocularis Client'.

You must have another user with the privilege 'Login to Ocularis Client' set to 'Allow' enter their own account credentials in order for you to gain access. This is called the "Four Eyes Principle".

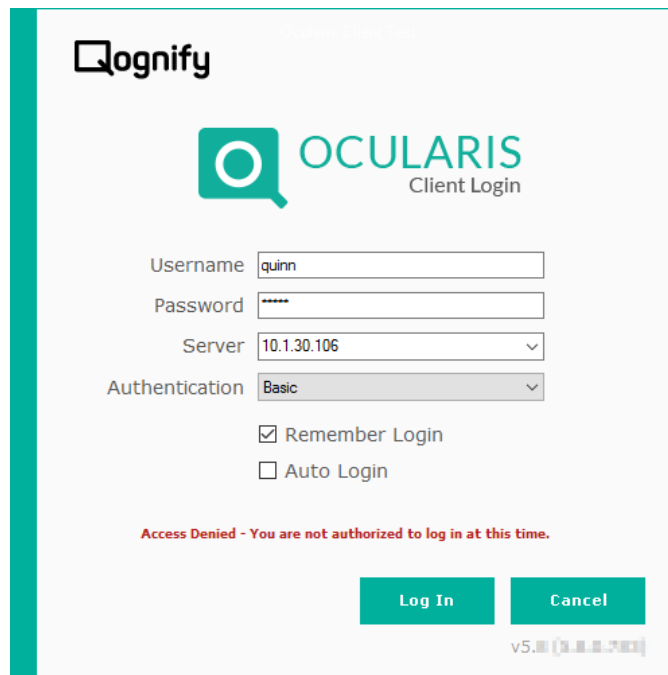
A record of the approval login will be registered in the Audit Log. The approving user must either be an administrator (i.e. a member of the Administrators group) or a member of the same user group as the original person logging in.

3.6 Login Schedules

By default, when an Ocularis user is created, the account may access the application 24 / 7 / 365. However, an administrator may decide to limit the schedule for which a user can log into the system. This configuration is done by a group or standard administrator user for each user group.

3.6.1 Access During Unapproved Times

If you attempt to login to Ocularis outside of your approved schedule, you will see a message indicating this.

Figure 4 Access Denied

The image shows the Ocularis Client Login window. At the top left is the Qognify logo. In the center is the Ocularis Client Login logo. Below the logo are input fields for Username (quinn), Password (masked with asterisks), Server (10.1.30.106), and Authentication (Basic). There are checkboxes for Remember Login and Auto Login. A red message at the bottom states: "Access Denied - You are not authorized to log in at this time." At the bottom right are Log In and Cancel buttons. The version number v5.0 (1.0.0.782) is displayed at the bottom right.

3.6.2 Automatic Log Off

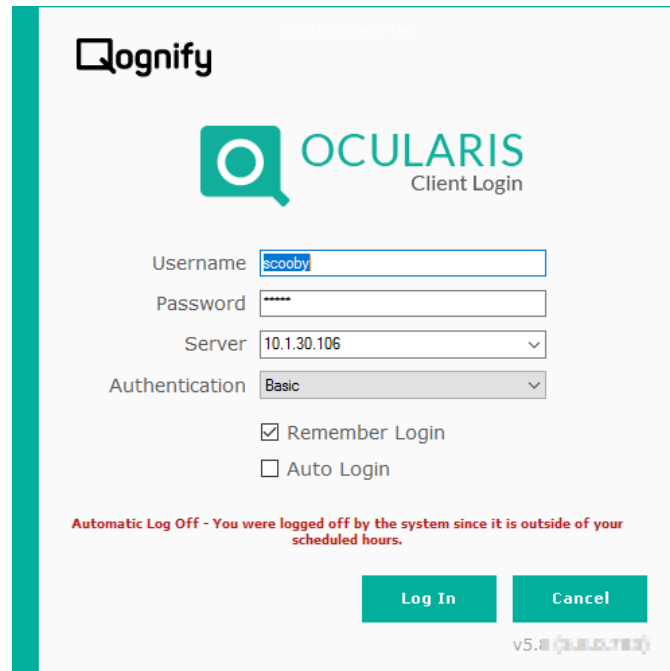
If you are logged in but approaching the end of your approved log in time, you'll see a warning message in Ocularis Client:

Figure 5 Automatic Log Off Message

Click OK to clear the message. If you do not log off manually, you will see the message again at the one minute mark and a countdown timer will appear. When the clock runs out, your account is logged off.

Figure 6 Countdown Timer

When the time runs out, you are logged off and returned to the Ocularis Client log in screen with the message: 'Automatic Log Off – You were logged off by the system since it is outside of your scheduled hours.'

Figure 7 Automatic Log Off Message

3.7 Ocularis Client Version

In addition to the login screen, you may also obtain the build and version number from inside the application.

To view the version number of the installed Ocularis Client software, from the menu bar, select *Views → About Ocularis Client*.

3.8 Log Off vs. Shut Down


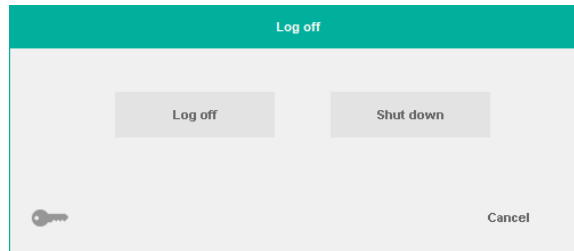
Users can manually log off or shut down Ocularis Client by clicking the log off application control in the menu bar. 

Figure 8 Log Off Ocularis Client

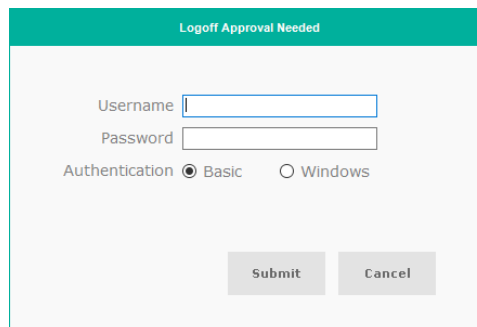


Choose **Log off** if you want to return to the Ocularis Client log in screen. This may be helpful to the next person who needs to log in. Choose **Shut down** to close Ocularis Client completely. Click **Cancel** to close the dialog and remain in Ocularis Client.

3.8.1 Logoff Approval Needed

Certain users may not have the privilege to log off manually by themselves. This is controlled by administrators. If this user clicks the log off icon, a Logoff Approval Needed screen appears. Similar to the Dual Authorization feature, this requires someone with administrator rights to log the user out of Ocularis Client.

Figure 9 Logoff Approval Needed

A form titled "Logoff Approval Needed" with a teal header. It contains fields for "Username" and "Password". Below these is an "Authentication" section with two radio buttons: "Basic" (selected) and "Windows". At the bottom are "Submit" and "Cancel" buttons.

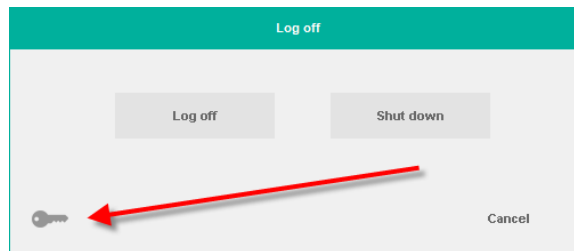
Once adequate credentials are entered, the user is presented with the standard Log off screen and can continue to log off or shut down.

3.9 Change Password

If granted the permission to do so, Basic users may change their own password at any time. This is done via the **Log off** dialog.

1. To change your password, click the **Log Off** application control on the menu bar.
2. Click the 'key' icon.

Figure 10 Manually Change Password



The Change Password dialog appears. (see Figure 2)

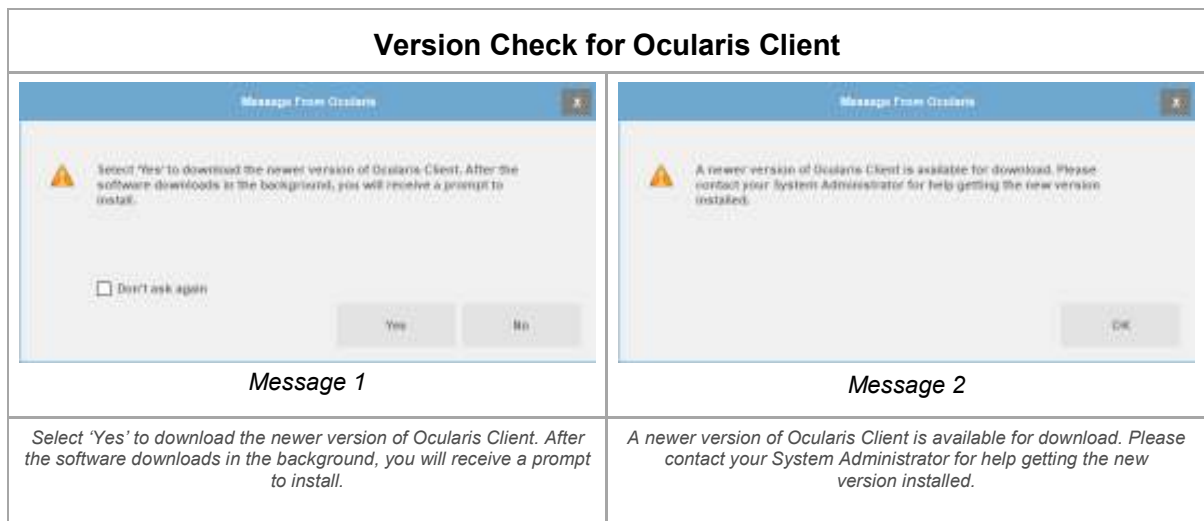
3. Enter your **Current Password**.
4. Enter your **New Password** (between 4 and 31 characters).
5. Re-enter your password.
6. Click **Change Password**.

3.10 Automatic Update of Ocularis Client Software

Since version Ocularis v5.4, the system can perform a version check during upgrades. Certain conditions must be met in order for this to happen:

- The Ocularis version you are upgrading from is v5.3 SP1 or later.
- You must have an Administrator level Windows account on the PC used.
- This feature must be enabled in *Ocularis Administrator* by a system administrator.
- The Ocularis Client software on your PC is older than the Ocularis Client software available on the server.

If these conditions are met and your system administrator has updated the server, you will see one of the following messages when you log in:



Message 1

If you see Message 1, you can:

Click **No** to delay the upgrade at this time. The next time you login to Ocularis Client, you'll get this message again. It will keep appearing until you upgrade or click the 'Don't ask again' checkbox.

Click **Yes** to download the installation files from the Ocularis Base server. Ocularis Client will launch and the files are downloaded in the background. This may take several minutes based on your network bandwidth. When the download is complete, you'll see the message:

Figure 11 Download Newer Version Ocularis Client



Upgrade Downloaded Message

Click **No** to avoid software installation at this time. The software may be manually installed at a later time by launching Ocularis Client x64.exe from

`c:\Program Data\OnSSI\OcularisClient.`

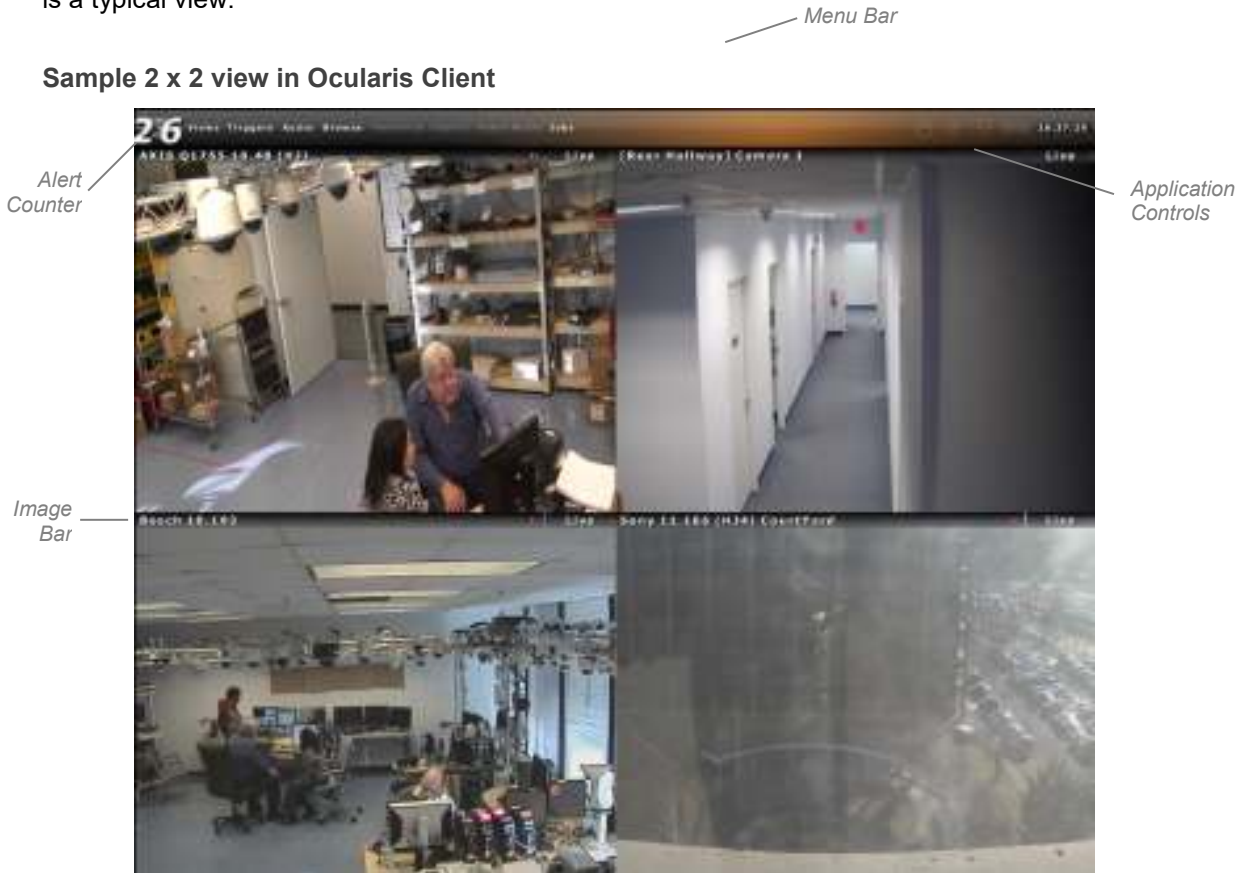
Click **Yes** to close Ocularis Client and start the upgrade process. Once the software is updated, the updated login screen appears. Proceed with the log in process with the updated software.

Message 2

If you see Message 2, it means that you do not have access rights to install software on your computer. However, this message is to let you know that there is a newer version of Ocularis Client available. You may wish to contact your system administrator so that he or she can upgrade to the new version for you.

4 Ocularis Client Interface

When you successfully log in, you will see the screen from the prior log in session. The following is a typical view:



The items shown on the screen above apply to most installations. Differences and descriptions are noted throughout this document.

Moving clockwise from the upper left is the '**Alert Counter**'. This feature displays the number of configured events that have occurred since the last login.









At the top of the screen is the '**Menu Bar**' containing the primary menu functions of Ocularis Client. This bar will dynamically change based upon the mode of the application. If '**Auto-Hide**' is enabled, and the mouse is positioned over content in the section below it, the '**Menu Bar**' will disappear, providing more screen real estate for camera views. When the mouse pointer is moved to the top of the screen, the '**Menu Bar**' reappears.


The right-most portion of the Menu Bar is devoted to the '[Application Controls](#)'. These functions control various aspects of *Ocularis Client*. More information on Application Controls can be found below.

In the case of a view, the top portion of the 'view pane' is called the 'Image Bar'. This bar displays information specific to the video stream shown within it. More information on the Image Bar can be found on page 32.

4.1 Application Controls

The upper right portion of the Menu Bar contains functions known as 'Application Controls'. These functions are defined as follows:

| Control | Graphic/Icon |
|---|--|
| Log off ; click this icon to log off (switch users) or to Shut Down (Exit) Ocularis Client software. |  |
| Setup : This icon is only available when the user has the ability to create their own views or is logged directly into the recording component (NVR). It is used to create or modify views. |  |
| Online Help : click this icon to launch the Ocularis Client online help file. You need Adobe Reader to view the file. |  |
| Minimize : click this icon to minimize <i>Ocularis Client</i> on the current monitor. The ability to minimize the application is controlled by the system administrator. If your account does not have the privilege to minimize, you will see this icon:  |  |
| Memory Indicator : hover the mouse cursor over this icon to receive information on the current memory allocation. More details on page 17. |  |
| Clock : Current time of the Ocularis Client shown in 24 hour format. |  |
| EC Status : if the Ocularis Event Coordinator Service on the Ocularis Base machine stops, an additional icon will appear in the Application Control section on all logged in Ocularis Client screens. |  |

| Control | Graphic/Icon |
|--|--|
| Go to Previous/Next View: once at least 2 views are open, you can navigate between views that have been accessed in the current session (similar to a back or forward button on a browser). |  |

4.1.1 Memory Indicator

Ocularis components are offered in 64-bit applications. The information below applies to the older 32-bit version.

You can determine the amount of memory that Ocularis Client is using by positioning the mouse pointer over the 'Memory Indicator' icon. For instance, an 8 x 8 view streaming high resolution video will use significantly more memory than a 2 x 2 view. Items shown are defined as:

Working Set: The amount of RAM memory that is being used by Ocularis Client. A warning message will appear when a set limit of memory used is reached when running an older 32-bit Ocularis Client.

The default for 32-bit operating systems is 1.9GB (for older versions).

For 64-bit operating systems the default is 3 GB (3,072 MB).

Virtual Memory: The total amount of memory that Ocularis is accessing at the current moment (includes memory that is shared with other parts of the system). A warning message will appear when a set limit of memory used is reached when running a 32-bit Ocularis Client. The default for 32-bit operating systems is 1.9GB (for older versions). For 64-bit operating systems the default is 3 GB (3,072 MB).

GPU: Graphical Processing Units or Texture Memory that is left; GPUs are a measure of the graphics accelerator found on the video card. A warning message will appear when 80% GPU is reached. Should a memory warning message appear, click 'OK'. The warning message should remain dormant for at least 5 minutes to allow you to modify the view. If desired, click the 'Do not show this message again' checkbox to prevent further message notices for the current session.

4.1.1.1 Modifying the Default Memory Limit

To modify the upper limits of the working set and GPUs, create an ASCII file on the c: drive called:
`c:\onssimem.txt`

Add one line which includes the working set limit following by a comma and then the GPU limit.
The units are in MB (megabytes).

For example: `1536,100`

where the 1536 represents 1.5 GB (or 1,536 MB) limit for the working set memory and 100 represents 100 MB of Texture Memory.

You can disable the warning completely by entering a number above 3000 (such as 4000).

5 Views

5.1 Views and View Groups

In *Ocularis Client*, cameras are displayed within Views. A view can contain up to 64 cameras. Multiple views can be configured, and displayed simultaneously across multiple monitors.

5.2 View Elements

Refer to the graphic below. Different panes within a view can be set to display video in one of the following modes:

- **Camera panes:**
Any camera from a connected recorder can be displayed within a camera pane. Upon interaction, Interactive Overlay Controls will appear, including controls for playback and optical and digital PTZ (when applicable).
- **Carousel panes:**
Cameras can be displayed in sequence, configured by order and dwell time. Carousel views also display all playback and PTZ controls, as well as controls for previous/next camera and pause/resume carousel.
- **Web pages and images:**
Web pages and images can be included in views as auxiliary resources.
- **Push Video panes:**
One or more Push Video panes can be configured to allow for peer-to-peer push video.
- **Blank Screen panes** (not shown):
One or more panes can be configured to receive event driven alert video.
- **Hotspot pane** (not shown):
Usually configured in a large pane, the hotspot will display video by clicking on a camera, alert or carousel pane. Once sent to the hotspot, the original and the hotspot displays can be controlled independently.

Figure 12 View Elements

6 Live Monitoring with Quick Review

6.1 Displaying Views

To display a view in *Ocularis Client*:

1. Click 'Views' on the menu bar.
2. Select the desired View Group / Folder to expand the list of views; continue to expand folders and subfolders until you reach the desired view.
3. Click on the desired view name. Depending on your system's settings, it may take a few seconds until all panes are populated.

Figure 13 Live Monitoring Window



6.2 Displaying Cameras Within A View

As you expand view folders from within the Views menu, you can see a list of cameras contained within that view.

Figure 14 Cameras in View List



In the sample above, you can see that there are four cameras in the 'Lab View (1+3)' view.

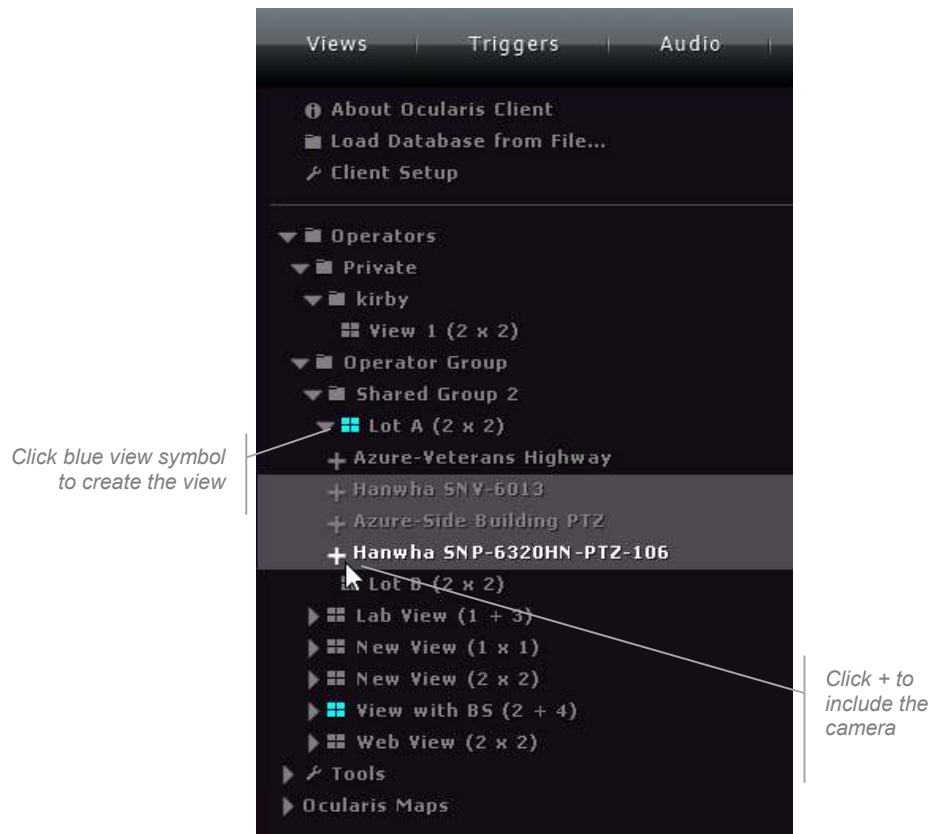
To select a camera from the list, click on the camera name. A 1 x 1 view will open with the selected camera displayed.

6.3 Creating Views On-The-Fly

Sometimes you may want to see a subset of cameras in a view completely in a view by itself. Or, you may want to see a view of cameras that are located in separate views. You can create a view on-the-fly for only cameras that you select.

6.3.1 To Create A View On-The-Fly

1. From the Views menu, expand the view with the cameras you wish to select.
2. Select a camera by clicking the '+' symbol (not the camera name) on the left of the camera name. When you do this, the view symbol turns blue.

Figure 15 Select Cameras for a View

3. Continue to select cameras by clicking its corresponding '+'.
4. Once you've completed your camera selection, click on any blue view symbol.

The view shown will be a symmetrical view equal to or greater than the number of cameras selected. For instance, if three cameras are selected, a 2 x 2 view is drawn with three of the four panes populated. If nine cameras are selected, a 3 x 3 view is drawn showing the nine cameras. The system will automatically display the best stream available for the camera (i.e. use [Auto] mode).

The view generated is temporary. It will remain in system memory so that you can use the 'Previous' and 'Next' button to gain access once another view is displayed. Once you've logged off, however, the view is no longer available.

You may also select cameras from separate views to be included in the new on-the-fly view.

6.4 Private Views

The average user (i.e. non-administrator) has access to their user group's views as well as views private to themselves. These *Private* views may be created by users inside Ocularis Client (if granted permission) or Administrators inside Ocularis Client or Ocularis Administrator. For more information see *Creating & Editing Views in Ocularis Client* on page 27.

6.5 Auto Views

Auto Views allow for on-the-fly creation of temporary views by the operator. They are a quick and easy way to create a 'grid' and populate it manually with cameras.

Note: The ability to create an auto view in Ocularis Client is a privileged feature. 'Create Views in Ocularis Client' must be set to 'Allow' in order to create an Auto View.

6.5.1 To Display an Auto View in Ocularis Client:

1. Select the Views menu and then **Auto Views**.

Figure 16 Auto Views Templates



Available templates are: 1 x 1, 2 x 2, 3 x 3, 4 x 4

2. Select the desired template.
3. Use the Circular Control Panel (right-click) to select a camera for each pane.

By default, each pane will be generated using the best resolution stream available for that size pane. You may change streams (if privileged) using the 'aux' interactive control on the pane. See **Selecting Alternate Streams** on page 48.

Note: *Once you navigate away from the Auto View template it is not available as part of the standard navigation if you use the previous and next view icon.*

6.6 Keyword Quick View

If configured by the system administrator, operators may have access to *Keyword Quick Views* in Ocularis Client. A quick view is one that may be invoked by entering a keyword or tag that is associated with a camera. For instance, you may have a camera positioned at every doorway in the office. If the keyword 'door' is assigned to these cameras, operators can quickly show all cameras that meet the keyword criteria. While this may also be done in a preconfigured view, using keyword quick view can be significantly faster than paging through dozens or hundreds of views and selecting one from the menu.

To display a Keyword Quick View in *Ocularis Client*:

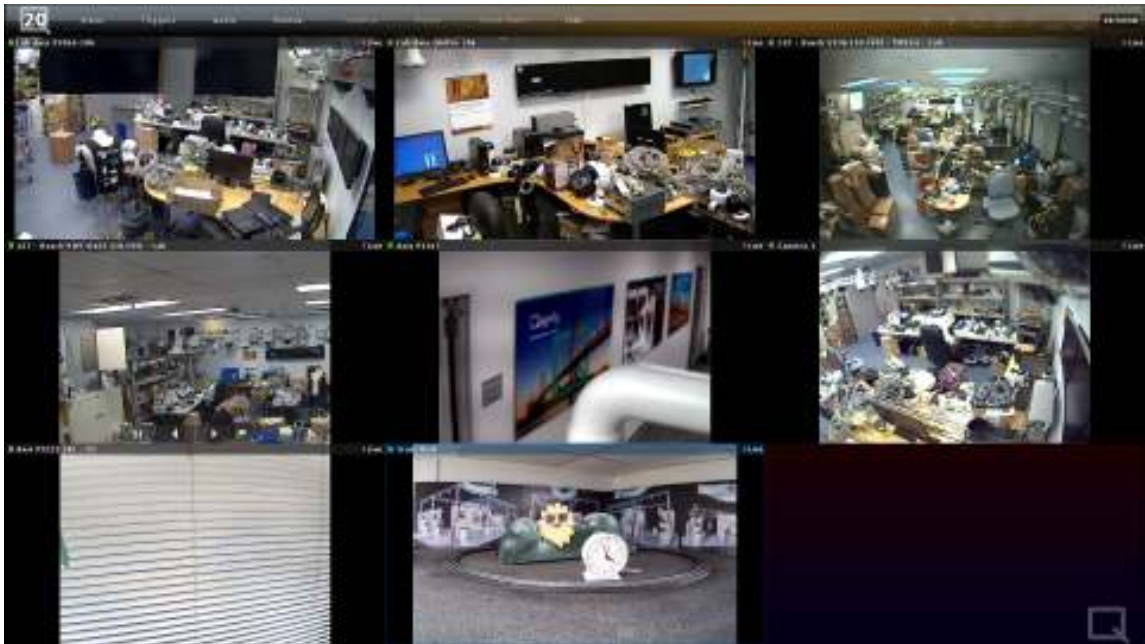
1. With any view or map open, press the 'p' key on the keyboard.

The text 'Enter a tag' should appear in the upper left portion of the screen.

Figure 17 Example Keyword: LAB



2. Type the keyword and press the **[ENTER]** key.

Figure 18 Results for keyword: LAB

A view will appear containing up to twenty-five cameras that meet the tag criteria. If there are more than twenty-five cameras that meet the criteria, only the first twenty-five cameras found will be displayed.


This view is temporary and will not automatically reload if the current session ends. However, you can use the navigation icons (*Go to Previous View* and *Go to Next View*) while you are still logged in to the same session.

6.7 Creating & Editing Views in Ocularis Client

Views may be created using Ocularis Client:

- While connected to Ocularis Base if the user has privileges to do so
- When operating Ocularis Client directly with the recorder (not logged in to Ocularis Base). This is called “Limited Mode”.

The ‘Setup Utility’ is the feature used to create views.

1. From the main menu, click the ‘Setup Utility’ icon, located on the right-hand side of the menu bar. The icon will appear when hovering over it. 

Note: If you do not see this icon, you do not have privileges to create or edit views. Contact your System Administrator for access.

The View Setup/Editing utility is displayed.

Figure 19 Setup Utility



Views are organized within folders or ‘View Groups’.

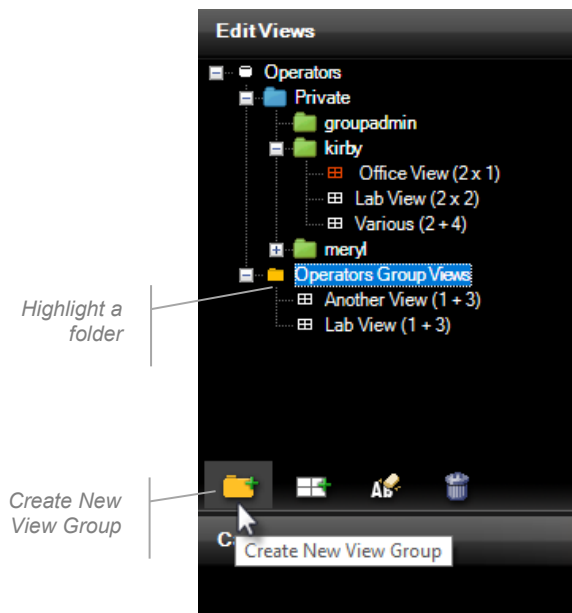
- If using Ocularis Client in Limited Mode, the top level folder is the name of the Company as defined in the Ocularis 5 recorder.
- Otherwise, the top level folder is the user group.

The ‘Filter’ box enables easy access to views or cameras. Any character (number or letter; not case sensitive) or combination of characters will filter the list to only the items containing

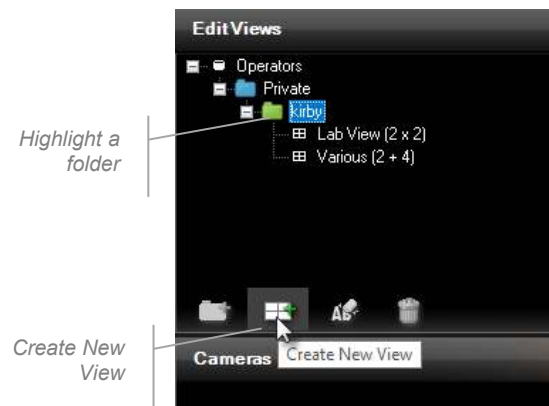
the character or string of characters entered, highlighting those characters within the list names.

2. Administrator users or Group Administrators may create subfolders with a user group. To do so, highlight a folder, and click the 'Create New View Group' icon, located on the bottom left of the Edit Views pane.

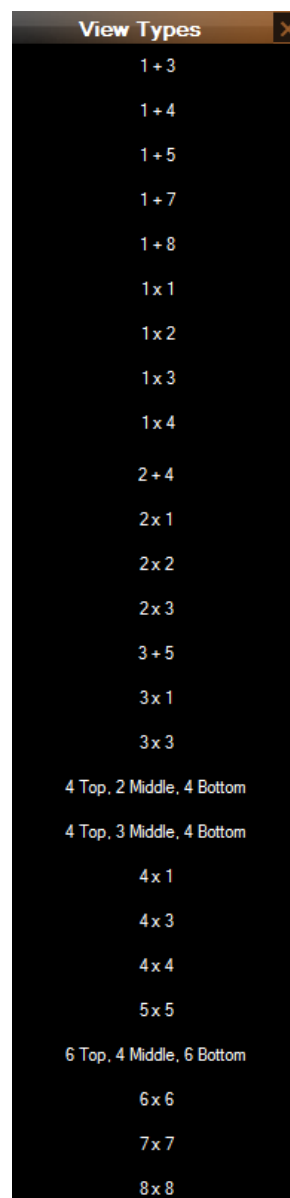
Figure 20 Edit Views Using Ocularis Client






3. To create a view within a folder, click on the 'Create View' icon [📊]. This will open a submenu of view layout templates.



Available view types include:



4. Select a view layout. The screen to the right is drawn using that layout
5. At any point during the View creation process, you can:
 - Rename [, and Delete [ Views
6. Save changes, without closing the editor by clicking the **Save** icon [

6.8 Populating View Panes

View panes may be populated with cameras, hotspots, carousels, web-pages and push video panes. To populate a pane, simply drag and drop the desired element from the Cameras panel into the pane. If the pane is already populated, the dragged view element will replace the previous element.

6.8.1 Populating a View Pane with a Camera

In the Cameras panel in the setup utility, click on the [+] sign next to 'Cameras' to expand the list of cameras available.

The 'Cameras' filter box enables easy access to cameras by name. Any character (number or letter; not case sensitive) or combination of characters will filter the cameras list to only the cameras containing the character or string of characters entered, highlighting those characters within the cameras' names.



1. Drag the desired camera into one of the view panes. An image from the camera view, as well as the camera name, will appear in the pane.
2. To display a different camera or view element, simply drag another camera or view element into the pane.

When a camera's view pane is selected, you will notice the Properties panel appear with two items: **Aspect** and **Streams**. You can modify the pane's aspect (Fit to Window or Keep Original) as well as the default stream selection for the camera. . The system will automatically display the best stream available for the camera (i.e. use [Auto] mode) unless you manually select a specific stream.


6.8.2 Populating a View Pane with a Non-Camera Element

If you want to populate a view pane with a Hotspot, Web page, Push Video pane or Blank Screen pane, you may do so by dragging the desired element from the Cameras panel to the desired view pane.

6.8.3 Saving Changes and Open the View

1. Once you've completed populating all of the view panes, it is important to save the changes made, by clicking the 'Save'  icon.
2. To use the view, exit (close) the Setup utility .
3. Select the newly created view from the 'Views' menu.

6.8.4 Exiting the View Editor

1. To exit and return to standard viewing of Ocularis Client video, click the close Setup utility  icon.

6.9 Editing View Panes

Views may be edited from within Ocularis Client by users (Private Views only), Group Administrators (their own Private or Group Views) or Administrators (any view). Group Administrators and Administrators may also modify views using the Ocularis Administrator application. The origin of the view does not matter as to where it can be edited or deleted.

6.10 Quick Review and Camera Control During Live Monitoring

Ocularis Client provides multiple tools for adjusting the contents of view panes, sending video alerts, and on-the-fly investigation of the video displayed.

WARNING:

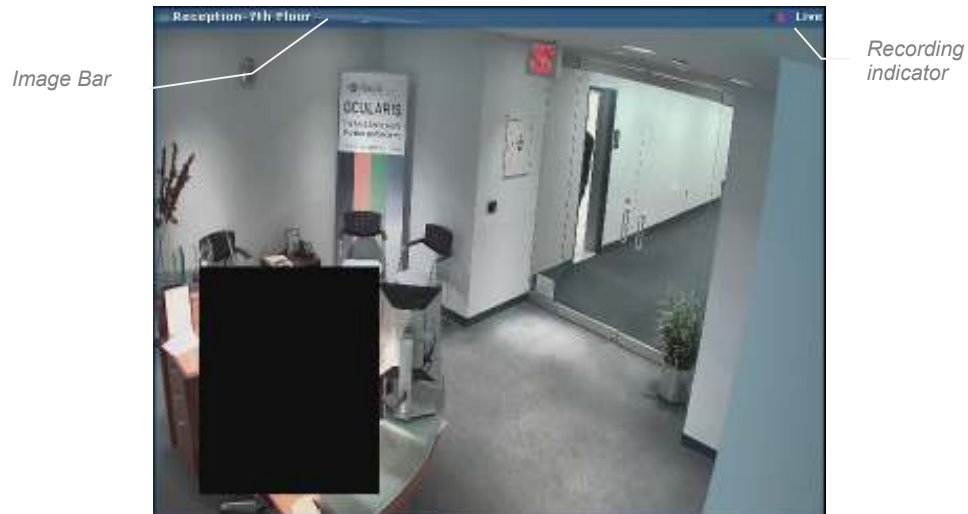
*If you have trouble seeing the display of video, make sure that the camera name does not have any special characters in it including: < > & ' " \ / : * ? | []*
See your system administrator to remedy this.

6.10.1 View Pane Controls

6.10.1.1 Pane vs. full-screen (maximized) display modes

Click on the camera pane Image Bar (which displays the camera name) to toggle between multiple camera view and full screen display modes.

Figure 21 View Pane Image Bar



6.10.1.2 Image Bar

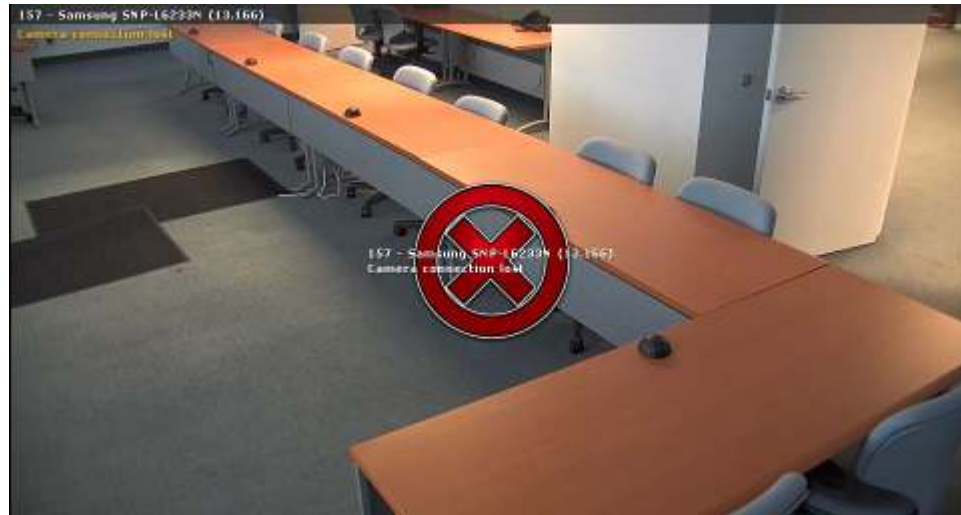
When viewing video, the top of each pane contains the **Image Bar**.

- The camera name appears on the left portion of the Image Bar. This may be the name from the recorder or the alternate name assigned to the camera in the Ocularis Base.
- To the left of the camera name, is a heart beat indicator to provide an easy way to determine if the camera is operational.
 - If the indicator is pulsing green, the camera stream is functioning normally.



- If the indicator is pulsing red, the camera is offline. You will also likely see a 'Camera connection lost' message and a large red X.

Figure 22 Lost Connection



Click the **Image Bar** to maximize or restore the size of the pane. A maximized pane may change in resolution depending on how the administrator configured the pane. If there are multiple camera streams available, it is possible that the highest resolution will be displayed.

Ocularis Client video indicators are defined as follows:



1. **Recording Indicator:** A red rectangle indicates recording is taking place and will remain on as long as the system is recording the camera's feed.
2. **Video Status:** In the upper right of the video pane, a video status of the camera is displayed as follows:

| | |
|--|-----------------|
| Live Video – Displays the text “Live” | Live |
| Stopped Video – Displays the text “!” | ! |
| Paused Video - Displays the text "Paused" | Paused |
| Playback - Appears when in Browse mode | Playback |

In addition to these indicators, there may be additional content visible in a camera stream in Live or Browse mode. If a *Privacy Mask* was configured, a portion or portions of the image may be blocked from view. Privacy Masks may be set at the camera, recorder or Ocularis level. The image below depicts a rectangular Privacy Mask positioned over the desk, affording the receptionist some level of privacy.



Additionally, if you position the mouse cursor over the block to the left of the camera name, you'll see a pop-up showing an optional description of the camera as well as other streaming information including the compression method, image size and frame rate of the camera shown.

6.10.1.3 Video Debug Information

If the Video Debug Information checkbox is checked in the Client Setup, you will be able to see additional information.

Figure 23 Video Debug Off



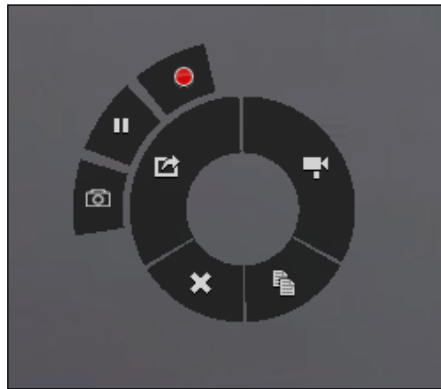
Figure 24 Video Debug On



As you can see (Figure 24), with Video Debug On, you also see the frames per second (fps) that are streaming from the camera to the server as well as the Packet Loss and Latency. This information is useful during troubleshooting. You may need to reload the camera in order to view this information after enabling the feature.

6.10.2 Circular Control Menu

Right-click on a camera view, or left-click (or touch) and hold for one second, to display the 'Circular Control' Menu.



The Circular Control menu


Note:

When interacting with PTZ cameras, a Virtual Joystick control will appear in the center of the camera pane upon mouse-over or clicking. To display the Circular Control menu using left-click or touch, you must click or touch the pane off-center (i.e. any point except the center of the pane).

The 'Circular Control' Menu provides a quadrant with several functions:

1. [Select Camera](#)
2. [Copy to Clipboard](#)
3. [Clear a camera from a pane](#)
4. [Push Video](#)
5. [Start Recording](#)
6. [Toggle Patrolling](#)
7. [Take Snapshot](#)

6.10.2.1 Select Camera

Click the camera icon [] at the top-right quadrant of the circular control to display a camera list. Cameras listed here are displayed based upon user privileges and access rights. Click a camera to display it in the desired pane.



The Select Camera list; click on a camera to display it in the

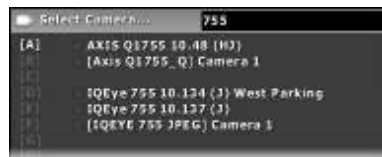
Navigating the List

- Click-drag on the list to scroll up and down, similar to smart phone navigation.
- Click on a Quick-Link (highlighted capital letter) to display the camera names that begin with that letter.
- Type all or a portion of the name or keyword of a camera. The text will appear in the text box at the top of the list. For instance:



Example: type portion of name

This example results in displaying cameras containing with 'Son'




Example: type portion of model number

This example results in displaying any camera containing the text '755'. Each time you display the camera selection list, the text that was typed in last will be displayed. To remove the text, press the 'Backspace' key on the keyboard. If you would like the text box to be cleared each time it is displayed, check the **'Clear Filter Text After Selection'** checkbox in the Client Setup screen.

Note that on-the-fly changes are only temporary, and will not affect the saved view.


6.10.2.2 Copy to Clipboard

Right-click on a camera view, or left-click (or touch) and hold for one second, to display the 'Circular Control' Menu.

Click the 'Clipboard' icon  in the bottom-right quadrant of the circular control menu. This will save the displayed camera image to the clipboard which can be pasted into different applications for later use. A "Frame in Clipboard" confirmation message will appear.

6.10.2.3 Clear a camera from a pane

Right-click on a camera view, or left-click (or touch) and hold for one second, to display the 'Circular Control' Menu.

Click the 'Remove Camera' icon  in the bottom-left quadrant of the circular control menu to remove the camera from the pane.


Note:

Removing a camera from a view pane as described above will only delete it temporarily; permanent removal of a camera from a view can only be done by an administrator modifying the view on the Base.

6.10.2.4 Push Video

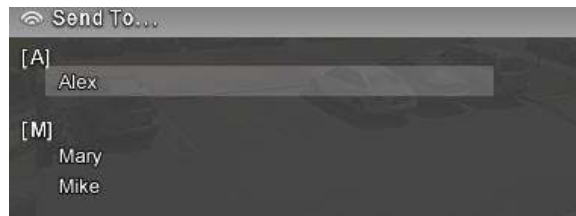
Live video can be pushed manually, as described herein, to other users' designated Push Video panes. The recipient must have a visible view pane configured with Push Video in order to receive the video.

To manually send video, right-click on a camera view, or left-click (or touch) and hold for one second, to display the 'Circular Control' Menu.

Click the 'Push Video' icon  in the top-left quadrant of the circular control menu. This will display the recipients list.

The list will display all users currently logged in to the Ocularis Base-Server. (Or, if logged in directly to an NVR, the list of configured NetMatrix recipients appears.)

Click a recipient name to send live video; click-drag to scroll up and down the list. The recipient must have a view with a Push Video pane visible in order to see the video.




Push Live Video recipients list

6.10.2.5 Start Recording

When viewing live video, you may see activity occurring that you wish to capture. You may manually start recording the video displayed in the pane.


To manually initiate recording:

1. Right-click on a camera view, or left-click (or touch) and hold for one second, to display the 'Circular Control' Menu.
2. Click the 'Start Recording' icon [] in the upper-left outer quadrant of the 'Circular Control' Menu to begin recording video from the selected pane.

Video recording will begin. Recording is indicated by the red center square in the pane's image bar. For Ocularis 5 recorders, video will be recorded for the duration as set on the camera's configuration screen for 'Maximum post-alarm duration' under Alarm recording. The default is 100 seconds. For legacy recorders, the duration is five minutes.

Access to this icon is controlled through either the *Ocularis Administrator* or the recording component's management application. If you do not have access to this icon and you think you should, see your system administrator

6.10.2.6 Toggle Patrolling

PTZ cameras may be configured to patrol from a preset position to another preset position. While viewing video, you may wish to pause the camera at a given preset in order to view video activity taking place. Click the 'Toggle Patrolling' icon in the upper-left outer quadrant of the 'Circular Control' Menu to pause the patrol. The PTZ camera will  remain at this position, until the user clicks the 'Toggle Patrolling' icon again.

Keep in mind that the PTZ camera may still be controlled by other operators. The camera will be paused in the current position for all users until an operator click the resume patrol icon again.

Access to this icon is controlled through either the *Ocularis Administrator* or the recording component's management application. If you do not have access to this icon and you think you should, see your system administrator.

6.10.2.7 Take Snapshot

When viewing video, you may see activity occurring that you wish to capture immediately. You may take a quick snapshot of the image displayed in the pane. The image is saved to a predetermined location in .jpg format. The ability to be able to perform this function is controlled via the 'Export Frames' privilege in Ocularis Administrator. This privilege is assigned at the user group level, user level, as well as on the camera privilege group.

Taking a snapshot is available with Live or Recorded video. If you do not see this icon on a camera pane's Circular Control Menu, ask your system administrator to enable the privilege on your user account and/or check the camera privilege group's settings. This feature is supported on all feature sets of Ocularis.

When you click the 'Take Snapshot' icon, a confirmation message appears ("Snapshot Taken") and a .jpg file is stored in the location defined in the Video section of the Client Setup screen. (See **Video** on page 72).

Taking a snapshot may also be done via the view pane (live or browse) (See **One-Click Snapshot** on page 59), using a keyboard shortcut (See **Shortcuts** on page 75) or joystick shortcut (See **Joystick Controls** on page 78).

6.10.3 Quick Review Tools

As Ocularis Client is designed to display only the tools you need when you need them, moving the cursor around the screen will result in the display (or hiding) of tools applicable to the area of the application. Visible tools are context sensitive and may be controlled via User Privilege in the Ocularis Administrator application.

6.10.3.1 Playing back video

Upon mouse-over, whether in full-screen or pane mode, playback controls (also called 'Interactive Overlay Controls') appear in the pane.




Overlay Controls

Click and hold the 'Forward' (right arrow) or 'Reverse' (left arrow) buttons to review video. Releasing the buttons will pause the video stream. Note that clicking on the 'Forward' button while viewing live video will pause the video stream.

Pause a live video stream by using the 'Pause' button. When the video is paused, the pause icon will change to a heart symbol; to resume live video, click the heart-shaped 'Live' [♥] button.

6.10.3.2 One-Click Snapshot

You may see an additional icon in the overlay controls for live or recorded video . This is the *Take Snapshot* overlay. Click this icon to take a snapshot of the image in the pane. The image is saved in JPEG format in a location defined in the Video section of the Client Setup screen. (See **Video** on page 72). You'll receive a confirmation message in the pane with the text 'Snapshot taken' upon clicking the icon. Taking a snapshot may also be done via the Circular Control menu (See *Take Snapshot* on page 39), using a keyboard shortcut (See **Shortcuts** on page 75) or using a joystick shortcut.

One-Click Snapshot is supported in live or recorded modes, on any pane with camera video displayed (i.e. hotspots, carousels, etc.)

6.10.3.3 Applying Digital PTZ

Digital PTZ can be applied to video in any mode or pane, live or recorded.

To apply digital PTZ, click-drag or touch-drag a rectangular region within the camera view. The selected region will expand to the entire size of the camera display. Note that the default for optical PTZ cameras is optical zoom, therefore the 'Digital PTZ' option must be selected prior to drawing a Digital PTZ region.

Figure 25 Digital PTZ in live monitoring mode



Once a Digital Zoom region is created, a PIP (picture-in-picture) of the entire camera view, indicating the selected digital PTZ area, will appear in the top right corner of the camera pane, for orientation and navigation. The selected area can be dragged within the PIP, maintaining the same magnification level. This zoomed image may be copied to the clipboard using the Circular Control Menu.

Click or touch the camera view (outside of the PIP window) to remove the digital PTZ and return to normal camera view.

6.10.3.4 Applying Optical PTZ

Ocularis Client offers a number of methods for controlling PTZ-enabled cameras.

1. Click to Center: click on any point within the camera view to center the camera on it.
2. Virtual Joystick: hover over or touch the center of the camera view to display the virtual PTZ joystick handle, and drag it in any direction for continuous panning and tilting.

Figure 26 Virtual Joystick



3. Physical joystick: standard USB joysticks can be used to pan, tilt and zoom the camera view. This may require configuring the joystick buttons.
4. Click-drag/touch-drag region: draw a region within the camera view to center the camera and set the zoom level. Zoomed images may be copied to the clipboard using the Circular Control Menu.
5. Mouse Scroll Wheel: optical zoom in/out can be applied in any mode (including digitally-zoomed camera views) using a scroll-wheel mouse.
6. Zoom control ribbon: click on any point on the zoom ribbon, or use the [+] and [-] buttons, to set the zoom level.

Figure 27 Zoom Control Ribbon

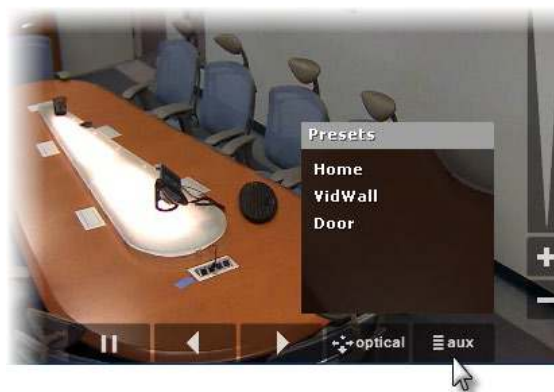


Note: The very edge of the zoom ribbon may be inactive in some cases.

7. Optical PTZ presets: Click the 'aux' button alongside the playback controls to display the PTZ presets as configured on the recording component (see the individual recording component's user manual for more information). This will display the presets list.

Click on an item on the list to display the PTZ preset, or click-drag up and down to scroll the available presets.

Figure 28 PTZ Presets List



8. Toggle between optical and digital PTZ: Click the 'Optical PTZ' button to toggle between digital and optical PTZ.



Note:

Not all controls are available in conjunction with every PTZ camera model.

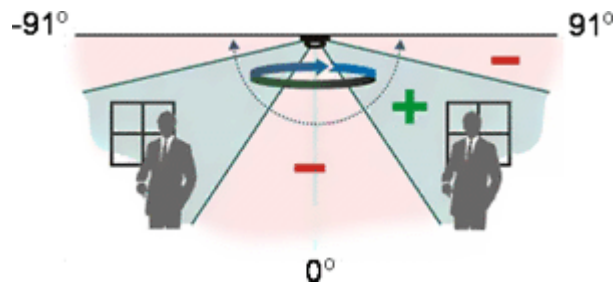
Note:

While users may have the ability to view video from a PTZ camera, they may not have the privilege to control its functions. These privileges may be set for the user within the user settings of the recording component or Ocularis Administrator.

6.10.3.5 Control for 360° Lenses and Cameras

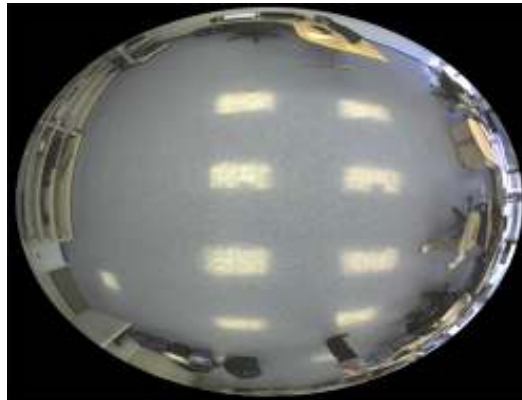
Some cameras are manufactured with 360° capabilities. The lenses of these 'dome' cameras can see either 180° or 360° fields of view. These cameras are increasingly replacing multiple static cameras since they can cover more area in the field of view.

Figure 29 Sample 180° Lens



Ocularis Client enables parsing the spherical video stream, received from cameras equipped with a panomorph lens, so that it appears un-skewed, resembling the image received from a camera equipped with a standard lens.

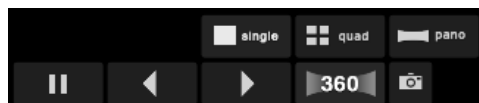
Figure 30 Warped Image



360°-equipped cameras are displayed in *Ocularis Client* in either Single, Quad or Pano view depending on the manufacturer plug-in software. In Quad view, four instances of the camera will populate a single camera pane, with individual digital 'PTZ' control. By 'pointing' each quadrant at a different direction and setting different zoom settings, a single panomorph camera pane can provide 360-degree coverage for large halls and open areas.

Figure 31 Dewarped Image**Controls for Panomorph lens views include:**

- Playback controls (standard; forward, back and pause)
- Toggle modes – click the **360** icon to display the available functions. **Single** displays one view image while **Quad** displays a four-quadrant view of the camera. **Pano** shows a 180 panoramic view.

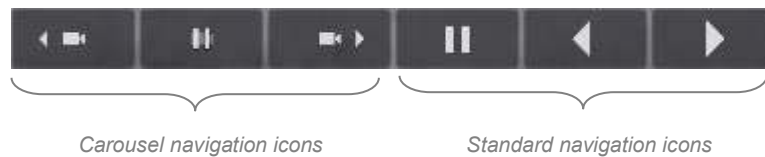
*Panomorph View Controls*

- Virtual Joystick – clicking anywhere within the camera view and moving the cursor in any direction will create a pan/tilt effect, resembling that of an optical PTZ camera.
 - Moving the virtual joystick down will, in ceiling-mounted cameras, cause the camera view to face upward; moving the joystick left and right will move the camera view in the opposite direction, at a speed relative to the length of the horizontal gesture.
 - Position the mouse in the center of the camera view in single mode, and in the intersection of the four quadrants in quad mode, will display the Virtual Joystick control.
 - Zoom In/Out – use the Zoom Ribbon on the right side of the screen, or the mouse wheel if available. At a certain zoom level, the camera view will revert to the original, pre-parsed 360 view.

Figure 32 Virtual Joystick Panomorph View

6.10.3.6 Carousel sequence control

Carousel panes can be controlled just like any other camera pane, for playback, digital PTZ and optical PTZ.



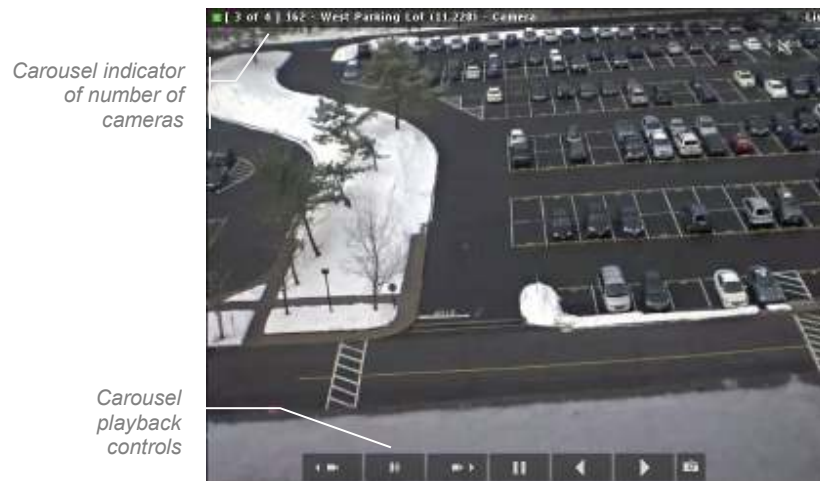
You can skip to the next and previous camera in the carousel sequence, as well as pausing the sequence. Once paused, the carousel will show the current camera indefinitely. To resume the carousel, click the checkmark icon.

Creating a Carousel Dynamically

You may create a carousel on the fly in any pane displaying camera video. In the desired pane, simply use the 'Circular Control' Menu and click the 'Select Camera' icon.

Figure 33 Create a Carousel On The Fly

When the resulting camera list appears, click the '+' symbol next to the desired camera. The camera is added to the pane, rather than replacing the existing camera.

Figure 34 Add a Carousel As Needed

6.10.3.7 Hotspot control

Hotspots are typically used when many panes are displayed and the operator needs to enlarge the view of one camera while still viewing others. Multiple hotspot panes may be configured as well.

To use a hotspot:

1. Open a view which contains a hotspot pane.
2. Click once on the hotspot pane to select it.
3. Click on another pane with camera video (carousels and other hotspots included).
This video should now appear in the hotspot pane.

Figure 35 Hotspot Creation

4. Video in the hotspot may be paused and navigated like any other pane.

Figure 36 Using a Hotspot

5. When done viewing the video in the hotspot, use the *Circular Control Menu* to clear the hotspot pane.
6. Repeat steps 2 and 3 above to select a different camera stream for the hotspot.

To lock a hotspot:

Once you populate a hotspot pane with camera video, you may want to lock it in place for a time so that you can investigate this or other panes. You may lock the video in the hotspot pane by clicking the hotspot lock icon located in the upper right corner of the hotspot.

Figure 37 Lock a Hotspot

The hotspot remains locked for the current session even if you switch to 'Browse' mode. If you log out, however, the view will be returned to its original format and the hotspot will be empty. Click the hotspot lock again to unlock the hotspot.

6.10.3.8 Selecting Alternate Streams

If the camera supports it, multiple streams may be viewed from the Ocularis Client. The streams must be configured in the recorder by the system administrator. Stream selection is a privilege controlled at the group/user level by the Ocularis system administrator. Use a lower quality stream for viewing on a network where bandwidth is limited. Differing streams may also be selected for supported cameras with embedded NVRs. Note: Ocularis administrators can select the default stream to display on a per camera per view basis. If an 'AUTO' option is selected (which is the default), the stream that best fits the size of the pane (in pixels) is displayed. If 'AUTO' is selected, the highest available stream is displayed when the pane is maximized or a portion of it is digitally zoomed.

To Select an Alternate Stream:

1. On a pane which contains a camera with two or more streams, (Notice the stream that is currently shown by positioning the mouse cursor in the streaming info area), click the 'aux' overlay button.

Figure 38 Select Stream

2. In the resulting pop-up, select the stream you wish to switch to. (You may need to click the 'Streams' tab in the pop-up if the camera also contains PTZ presets or Triggers).

Figure 39 More Streaming Info

3. The alternate stream is now shown. Verify this by using placing the mouse cursor in the streaming info area.

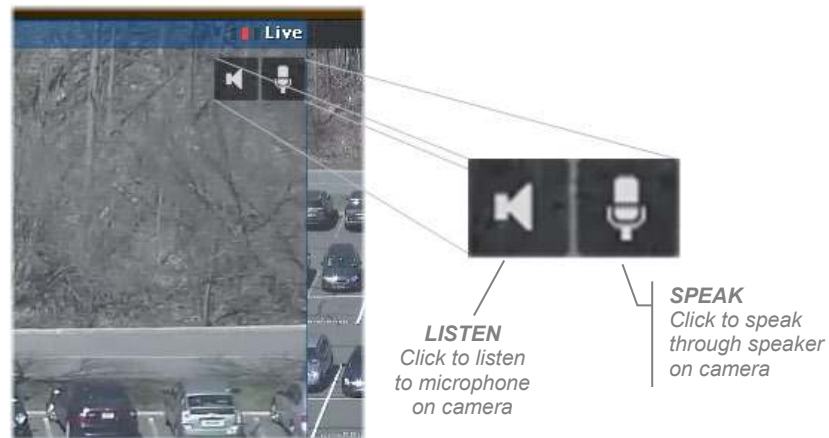
For cameras with embedded NVRs, different camera manufacturers may display a different list of available streams.

6.10.3.9 Two-way audio



Ocularis Client enables both listening to audio from camera-connected microphones and sending audio to camera-connected speakers. All camera-connected audio devices are configured on the recording component.

Cameras with connected audio capabilities display overlay audio icons in the top right corner of the video pane. These icons may be used for listening to a camera-connected microphone as well as sending audio to a camera's speaker using a microphone connected to the operator station.

Figure 40 Two-Way Audio



LISTEN and SPEAK icons

Clicking on either icon will enable or disable the feature. The icon will appear with a slash when off.   In standard mode, if you click the icon, the function is enabled (turned on) until you click the icon again to disable it (turned off). Note that audio icons appear only upon mouse move, together with all other overlay controls.

The 'Audio' menu may also be used to select an audio stream to hear what is going on near the selected camera-attached-microphone. Keep in mind that you can elect to hear audio from a camera that is not in displayed in the view. Two-way audio, i.e. sending audio to a speaker on a different camera, is supported in Ocularis 4.x and in Ocularis 5.

6.10.3.10 Push to Talk

'Push to Talk' is a feature that is configurable in the 'Client Setup' screen. It changes the behavior of how the 'Speak' icon functions within a view pane. If [Push To Talk](#) is enabled, click and hold the 'Speak' icon to enable it and speak into the microphone to send audio to the vicinity of the camera. Release and the microphone is disabled. This feature works similar to a 'walkie-talkie'.

6.10.3.11 Using Audio

With Ocularis 5, use the 'Listen' icon in the camera's pane to hear its audio. You may also select an audio stream from the Audio menu for any camera whether it is currently displayed in the view or not.

Note: With Ocularis 4.x and prior, audio is treated as a separate entity in Ocularis. You can listen to the audio from one camera, while viewing video from another camera or cameras. Only one audio stream may play at a time.

If you use the Audio menu, you can select the audio stream to listen to by its camera-attached-microphone name (as defined in the recording component). Select the same menu item again to turn off audio from that microphone.

If you use the 'Listen' overlay icon to listen to the remote microphone, keep in mind that since only one audio stream can play at a time, clicking the icon in one pane will automatically turn off the audio in another pane. Also, if you enable audio from a camera in one pane, and then maximize the video for a different camera, you will still hear the audio stream enabled from the first camera, even though a different camera is in full view.

6.11 Overlays with Metadata

When configured with third party systems, additional data may be displayed along with the camera's video stream. Text, shapes or images may appear as an overlay while viewing a camera. The data is read from a file accessible via the network or internet. Any changes made to the file will dynamically appear in the view or map. In the event where a camera is configured with an overlay, additional interactive controls will appear in the camera's pane.

Figure 41 Toggle for Overlay



Ocularis supports the SAI (SeeTec Analytic Interface) plug in that allows you to connect to third party analytic software (e.g. as Technoware). This configuration is done on the recorder. If present, the 'Overlay on' and 'Overlay off' icons will be present in live or browse mode. Toggle the icon on or off to view the metadata.

Figure 42 Sample Metadata

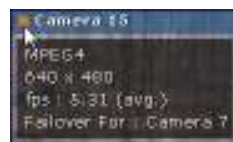
6.12 Critical Camera Failover

Critical Camera Failover is used for mission critical applications where live video cannot be interrupted. Camera streams may become unavailable for multiple reasons such as network failure, device failure or even recorder failure. Critical Camera Failover automatically switches the camera pane to an alternate stream in as little as 2-3 seconds without operator intervention and works in all Camera Views, Map Views and Alerts. Critical Camera Failover will continue to function even if Ocularis Base is unavailable. Use this feature when you never want to lose sight of a scene.

Administrators configure which cameras require failover and assign cameras as back up in the *Ocularis Administrator* application. As an operator of Ocularis Client, when a camera fails, the transition to the failover camera is nearly seamless. You will see a message 'Failover Camera' appear in the video pane and a pulsing orange icon to the left of the camera name.

Figure 43 Critical Camera Failover

The streaming information for that camera pane will also identify the name of the primary camera for which the current camera is configured as failover.

Figure 44 Mouse over to view Failover Camera Name

The system administrator can define failover cameras using a:

- Duplicate camera stream from a redundant recorder
- Different camera from the same recorder
- Different camera from a different recorder
- Or any combination of above

Multiple cameras can be set as failover cameras for a primary camera. The level of tolerance to wait prior to switching to a failover camera is defined by the system administrator when configuring the failover camera. The time in which the 'Failover Camera' message is displayed in Ocularis Client is configurable by the user in the 'Client Setup' section of Ocularis Client. (See *Critical Camera Failover* on page 74). The message will appear for the duration configuration and then disappear. To keep the message on screen, use a value of 0 in the Critical Camera Failover message setting.

Once the connection to the primary camera stream resumes, the view pane will revert to that camera stream.

7 Browsing (Investigation Mode)

Ocularis Client's Browse mode includes a variety of tools for quick, easy access to video of incidents, reviewing the events before, during and after the incident, and for exporting segments of video for evidence.

7.1 Switching between Live and Browse modes

In the top menu bar, click *Browse* to shift to Browse mode. Once in Browse mode, the menu item will change to *Live* for returning to Live monitoring.

Upon switching between Live and Browse modes, the currently displayed camera view will carry between the modes. This includes current cameras displayed in full screen, carousel panes, hotspots and push-video panes.

As opposed to the Live Monitoring view, which displays multiple cameras asynchronously (i.e. different panes can show playback, paused and/or live cameras simultaneously), the Browse mode displays all cameras synchronously. This provides insight as to the events taking place at different locations at the time an incident occurred, and allows easily tracking an incident as it moves from camera to camera.

7.2 The Browse (Investigation) Window

Figure 45 Sample Browse Window

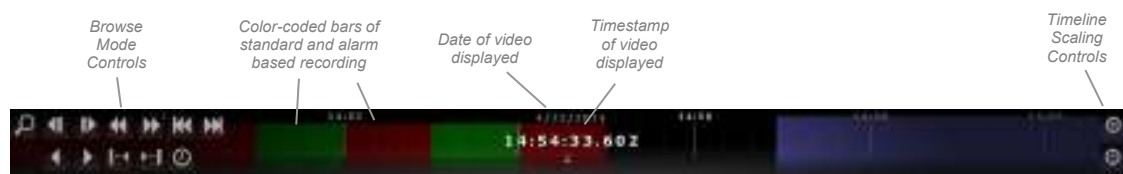


Ocularis Client's Browse window offers a number of tools and methods for accessing and enhancing video of incidents:

7.2.1 The Scalable Kinetic Timeline

The Kinetic Timeline provides a clear overview of recorded motion events over extended periods of time. It can be used for reviewing video from multiple cameras simultaneously at variable speeds, for quick access to video of incidents.

Figure 46 The Kinetic Timeline



7.2.1.1 Timeline Color-Coding

Color-coded segments in the timeline are used to indicate whether video has been recorded at a certain time, and whether motion was detected during those periods:

- Black: no video was recorded
- Green: video was recorded, but no motion has been detected. This is also called Standard Recording.
- Red: video was recorded, potentially containing motion events. This is Alarm Recording.
- Blue/Purple: indicates the future, starting from the current time

The Kinetic timeline ribbon displays color coding accurate to the minute. Sometimes, due the granularity of the timeline shown, the ribbon will show red indicating that video was recorded when, in fact, it was not. In this instance, the date/timestamp of the frame will be displayed in red.

Figure 47 Red Timestamp Indicates No Recording

7.2.1.2 Video Buffer Indicator

The Kinetic Timeline will show a bar (Video Buffer Indicator) which indicates how much video has been buffered for that camera at that point in time.

Figure 48 Video Buffer Indicator

7.2.1.3 Video Retrieval

If there is a delay when loading video in Browse Mode, you may see the border of the pane pulsing in the color purple and an information message 'Processing: reading at: <date and time>'. This video retrieval text will appear only for camera with embedded NVRs.

Figure 49 Processing Video

7.2.1.4 Scaling the timeline

Use the [+] and [-] buttons on the right to scale the timeline, thus extending or contracting the time period displayed. As the Timeline is scaled, marker line spacing will contract or expand.

7.2.1.5 Playing video using the timeline

The Kinetic Timeline allows for quickly scanning extended portions of recorded video from one or multiple cameras. ‘Swiping’ the timeline (rapidly dragging and releasing while still in motion) in either direction will play the video at a speed proportional to the speed of the swiping motion. The Kinetic Timeline can also be used for ‘shuttle’-style playback by click-dragging the timeline in a slow, controlled manner.

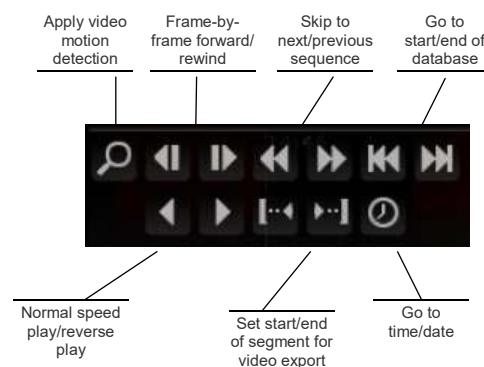
7.2.1.6 Using the timeline in multiple-camera views

In multiple-camera views, the Kinetic Timeline at the bottom of the Browse window refers to the selected camera (indicated by a blue frame around the camera view pane), while all other cameras maintain an individual timeline at the bottom of each camera pane. Click on another camera pane to select it; this will automatically associate the main Timeline with the newly-selected camera.

7.2.2 Browse Mode Controls

Ocularis Client’s Browse Mode Controls allow for precise playback control and access to events by motion sequence, frame-by-frame playback, normal-speed playback and time/date. This group of controls also provides access to the motion detection toolbar, and is used to search recorded video for motion in a defined area of the view.

Figure 50 The Browse Mode Toolbox



- **Apply Video Motion Detection**

Transition to Motion Detection mode (described in the next section)

- **Frame-by-frame forward/rewind**

Review video frame-by-frame in both directions.

- **Next/previous motion sequence**

Motion sequences display the actual starting point of detected motion occurrences.

- **Go to start/end of database**

Access directly the beginning of the video database and the current time.

- **Normal speed playback**

Review recorded video at normal speed, both forward and backward. Click on the timeline to pause.

Tips:

You may increase the speed of the playback (up to 1024 times) if, after you click the normal speed icon once, you hold the [SHIFT] key and click the icon again. Repeat this to increase the speed of the playback.

Hold the [CTRL] key while playing back video. The Kinetic Timeline will zoom to the GOP being played.

Hold the [SHIFT] key while using the mouse scroll wheel to move the camera backward/forward frame by frame.

- **Playback of Motion Based Recording Only**

If you want to playback only alarm video (that is, video that was recorded due to a configured alarm such as motion), simply hold the [ALT] key down and click the play forward or backward icons. You will see a small 'bell' icon appear on the timeline to the right of the date. This indicates that you are in playback of alarm recording mode.



When the video reaches the end of one alarm recording segment (the video represented in 'red'), it will then jump to the next red segment and continue to play. You may also use the [SHIFT] key in conjunction with this mode if you want to view the video faster.

Keep in mind, however, if 'Synchronous Playback' is checked in the Video screen of the Client Setup, this feature is disabled.

- **Set start/end of bookmark**

Graphically set the start and end points of video segments. This is used when exporting video as evidence (described in the 'Video Export' chapter)

- **Go to Time/Date**

Access video from a specific time and date; scroll up and down the time unit rollers to set the exact time and date.

Figure 51 Go To Date / Time


7.2.2.1 Synchronous Playback

In Browse Mode, when displaying a view with multiple panes at least one pane must be selected in order to work with the Kinetic Timeline. The behavior of the playback of views with multiple panes can be associated with the selected pane or not.

With Synchronous Playback, playback of panes is not associated with the selected pane. All recorded video from all displayed cameras in a view will display their own recorded video based on the timeline regardless of which video pane is selected. If Synchronous Playback is not enabled, the selected pane controls when the recorded video for all panes is displayed. Only the selected pane will play all of its recorded video. If there is a gap of recorded video on the selected pane, other panes will not play their video when video from the selected pane is not present.

Synchronous Playback must be enabled manually by the user in the [Video](#) of Client Setup. Keep in mind that if 'Synchronous Playback' is checked in the Video screen of the Client Setup, the playback of only motion based (alarm) recordings feature is disabled.

7.2.2.2 One-Click Snapshot

If this feature is enabled, you'll see the Snapshot icon on the video pane itself . Click this overlay to take a snapshot of the recorded video. A JPEG image is saved in the location defined in the Video Tab of the Client Setup screen (See *Video* on page 72). Taking a snapshot may also be done via the view pane (live or browse) (See *One-Click Snapshot* on page 40), using a keyboard shortcut (See *Shortcuts* on page 75) or using a joystick shortcut (See *Joystick Controls* on page 78).

7.2.2.3 Tool Tips

If you are not sure of a tool's meaning, and the mouse is positioned over the tool, a description of that tool's function appears.

Figure 52 Tool Tip



7.3 Motion Detection

Motion detection enables expediting the event detection process, by eliminating the need to manually review volumes of video data. Motion can be detected within a defined zone, and the detection process can be configured to the exact parameters of the targeted behavior or movement.

7.3.1 Applying motion detection to recorded video


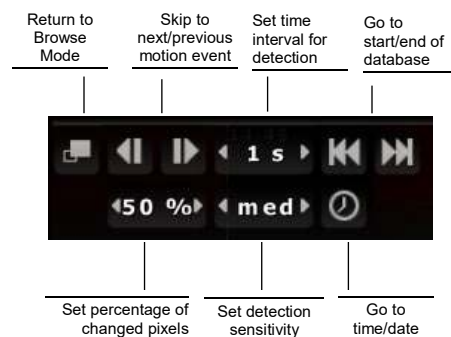
1. Click the Motion Detection button  in the Browse Mode toolbox. This will replace the Browse Mode controls with the Motion Detection Controls.

Figure 53 The Motion Detection Toolbox



2. Draw a rectangular region in the camera pane. A motion level gauge will appear on the bottom of the region.
3. Set the motion detection parameters, to match the nature of the targeted movement:
 - **Time Interval (sampling rate)**
Set this parameter based on the duration of the motion event. Set a high sampling rate (e.g., frame-by-frame) for vehicles on a roadway, as they may enter and exit

the detection region within a fraction of a second. On the other hand, large values should be set for slow moving persons or objects. Available values are frame-by-frame (FBF), 1, 5, 10 and 30 seconds.

- **Percentage of changed pixels**

Set this parameter based on the size or area of the movement, relative to the detection region. For example, set a high value for detecting a vehicle entering a detection region the size of a single parking space; this will prevent false detections of persons walking in the parking lot. Values range from 1% to 99%.

- **Sensitivity**

This parameter defines the amount for pixel color and brightness change. Set this parameter according to the amount of 'noise' caused by ambient lighting, shadows, reflections from windows, etc.

4. Set the start time for motion detection. Use the 'Go To Time/Date' utility, skip to the beginning or end of the recorded video database, or drag the timeline to the desired time and date.
5. Click the 'Skip to Next/Previous Motion Event' to begin searching, going either back or ahead in time.
6. Adjust the time interval, pixel change and detection sensitivity parameters if too many or too few motion events are detected.
7. Click 'Return to Browse Mode' to return to the primary Browse Mode view.

7.4 The Time Slicer

Ocularis Client's Time Slicer functionality enables users to easily and quickly access video of an incident by auto-generating equal-interval thumbnails of a specific camera view. Once the incident is evident in one of the thumbnails, the user can create sets of thumbnails of increasingly smaller time intervals, towards accessing the exact moment the incident began or ended.


Figure 54 The Time Slicer



7.4.1 Accessing video of an incident using the Time Slicer

1. In Browse Mode, click on the Timeslice menu item.
2. The Time Slicer will generate thumbnails of the currently selected camera view, spaced 10 minutes apart, starting from the currently displayed time-stamp and back in time. The Timeslice Current View pane displays the camera view at the current time stamp (indicated on the Kinetic Timeline.)
3. For convenient detection limited to a certain part of the camera view, you may apply digital zoom by drawing a rectangular region in the Timeslice Current View. This will change the zoom level in all Timeslice thumbnails.
4. Depending on the nature of the incident searched, you may adjust the initial time interval and the direction of detection (backward or forward in time).
 - Use a larger interval to detect significant or semi-permanent changes to the current camera view, that occurred days before or after the current time stamp (e.g. set the

interval to One Day to detect damage to a building that occurred within the past week.)

- Use a smaller interval to detect short-term, transient incidents that occurred within hours or minutes of the current time-stamp (e.g. use the default 10-minute interval, or even a 1-minute interval to detect a car that had parked within half an hour of the currently displayed video.)
5. Click the Search Back/Forward buttons , depending on the desired direction of detection, to generate the next set of thumbnails, starting at the time-stamp of the bottom-right thumbnail.
 6. Once a change has been detected between two consecutive thumbnails, indicating that the incident has occurred in the time between the two frames, click on the first of the two (if searching back in time; click in the second frame if searching forward in time). The selected thumbnail will populate the Timeslice Current View pane, and the Timeline will move to the selected thumbnail's time stamp.
 7. Select a smaller interval and click the Search Back/Forward buttons to generate thumbnails of smaller intervals, and repeat the process until the exact start or end time of the incident is accessed.
 8. At this point, you can:
 - Apply motion detection to the Timeslice Current View pane: motion detection can be applied to the Timeslice Current View pane in the same manner as any Browse Mode pane. See *Motion Detection* on page 60 for more information.
 - Review the selected camera or the entire camera view at the time of the detected event: click on the camera's title bar to expand it to full-view, or click 'Overview' in the menu bar to resume multi-camera browsing.
 - Export video and/or still images for evidence: see *Exporting Evidence (Video and Still Images)* on page 87.

Note:

If no video is recorded at a Timeslice point, the Time Slicer will search for and display the next frame of recorded video (both backward and forward in time.) Time Slicing will resume from that point on at the set interval.

7.5 The Motion Slicer




Similar to the Time Slicer, the Motion Slicer enables instant detection of motion events, adjusted for the duration of the event and level of motion.

7.5.1 Accessing video of an incident using the Motion Slicer

1. Within the Time Slicer, click 'Motion'.
2. Set the Motion Slice detection parameters, based on the nature of the motion detected. The sampling frequency, denoted in intervals ranging from frame-by-frame to 1 minute, complies to the speed of the object or duration of the event. The percentage of change determines the minimal number of changed pixels (from within the digitally-zoomed image) for an event to be detected.

Note:

For more information about setting motion detection parameters, see [Motion Detection](#), page 60.



3. Draw a Motion Detection zone using the motion detection tool  in the Browse Mode toolbox.
4. Click the Back/Forward buttons , depending on the desired direction of detection, to generate thumbnails of detected motion events. At any point during the detection process you may click the pause button  to abort the operation.
5. If needed, adjust the detection parameters and repeat the search. Unless a different thumbnail from the first is selected, or the timeline is moved, the search will resume from the same point.
6. Once the maximum number of twenty thumbnails per page is reached, the Motion Slice process will halt. To continue, click on either the Back or Forward buttons to resume detection.
7. Once the desired motion event is accessed, you can:
 - Apply motion detection to the Motion Slice Current View pane: motion detection can be applied to the Motion Slice Current View pane in the same manner as any Browse Mode pane. See *Motion Detection* on page 60 for more information.
 - Review the selected camera or the entire camera view at the time of the detected event: click on the camera's title bar to expand it to full-view, or click 'Overview' in the menu bar to resume multi-camera browsing.

- Export video and/or still images for evidence: see *Exporting Evidence (Video and Still Images)* on page 87.

7.6 Alerts

Alerts generated by the recording component in response to events such as motion detection or generic events received from external systems (e.g. access control, emergency phones, etc.) may also be used in Time Slicing.

7.6.1 Accessing video of an incident using Alerts

1. Within the Time Slicer, click 'Alerts'
2. Browse by Server, Camera and Alert and select the desired alert.
3. Starting at any point in the timeline, click on the Back/Forward buttons , depending on the desired direction of viewing alerts. This will populate the screen with thumbnails of the camera at the time of each alert. At any point during the detection process you may click the pause button  to abort the operation.
4. Hover over a thumbnail to enlarge it, or click to set the Timeline and the Currently Displayed Camera pane to the time stamp of the alert.
5. Once the maximum number of twenty thumbnails per page is reached, the Alerts process will halt. To continue, click on either the Back or Forward buttons to present the next set of alerts.

Note:

The camera associated with the alert can be different from the one currently displayed; in such a case the alert thumbnails will show the displayed camera at the time stamps of the selected alert.

6. Once the desired event is accessed, you can:
 - Apply digital Zoom to the Currently Displayed Camera pane
 - Apply motion detection to the Currently Displayed Camera pane: motion detection can be applied in the same manner as any Browse Mode pane. See *Motion Detection* on page 60 for more information.
 - Review the selected camera or the entire camera view at the time of the detected event: click on the camera's title bar to expand it to full-view, or click 'Overview' in the menu bar to resume multi-camera browsing.

- Export video and/or still images for evidence: see *Exporting Evidence (Video and Still Images)* page 87.



7.7 Sequences

Sequences are messages generated by the recording components indicating a sequence of events. Each sequence may include one or more instances of motion, or alerts received from external sources, making this method more suitable for accessing complex incidents. The recorder's motion detection utility may be configured to include a few seconds of pre- and post-event video.

Figure 55 Generating Sequences



7.7.1 Accessing video of an incident using Sequences

1. Within the Time Slicer, click 'Sequences'
2. Starting at any point in the timeline, click the Back/Forward buttons , depending on the desired direction of viewing alerts. This will populate the screen with thumbnails of the starting point or end point of each sequence (for generating sequences forward and back in time, respectively). At any point during the detection process you may click the pause button  to abort the operation.
3. Hover over a thumbnail to enlarge it, or click to set the Timeline and the Currently Displayed Camera pane to the time stamp of the sequence.

4. Once the maximum number of twenty thumbnails per page is reached, the sequence-generating process will halt. To continue, click on either the Back or Forward buttons to present the next set of sequences.
5. Upon accessing the desired sequence, you may:
 - Apply digital Zoom to the Currently Displayed Camera pane
 - Apply motion detection to the Currently Displayed Camera pane: motion detection can be applied in the same manner as any Browse Mode pane. See *Motion Detection* on page 60 for more information.
 - Review the selected camera or the entire camera view at the time of the detected event: click on the camera's title bar to expand it to full-view, or click 'Overview' in the menu bar to resume multi-camera browsing.
 - Export video and/or still images for evidence: see *Exporting Evidence (Video and Still Images)* page 87.

8 Client Setup

The 'Client Setup' screen, located by selecting **Views...Client Setup** allows users to customize their *Ocularis Client* experience. Access to this screen is controlled in the Ocularis Base. Configuration is broken into five sections:

- Display
- Video
- Shortcuts
- Joystick Controls
- Video Wall

8.1 Display

The 'Display' section allows the user to configure certain display related parameters used with Ocularis Client for their own user account for the current workstation. These settings are workstation-specific so the settings will not follow the user if they log in from a different workstation.

Figure 56 Display

The screenshot shows the 'Client Setup' window with the 'Display' tab selected. The window has a teal header bar with the title 'Client Setup'. On the left is a sidebar with navigation links: 'Display' (selected), 'Video', 'Shortcuts', 'Joystick Controls', and 'Video Wall'. The main content area is divided into several sections:

- Mode:** Two radio buttons: 'Full Screen' (selected) and 'Windowed'.
- Screens:** Two checkboxes: 'Screen 1' (checked) and 'Screen 2' (unchecked).
- Auto-Hide:** One checkbox, currently unchecked.
- Maximize on Event:** One checkbox, currently unchecked.
- Default Startup Behavior:** One checkbox: 'Load Last View Upon Successful Login' (checked).
- Camera Selection Filter Settings:** One checkbox: 'Clear Filter Text After Selection' (unchecked).
- Maximize on Event Behavior:** A dropdown menu currently set to 'All Events'.
- Language:** A dropdown menu currently set to 'English'.
- Audio:** One checkbox: 'Push To Talk' (unchecked).
- Snapshots:** One checkbox: 'Show Snapshot Overlay' (unchecked).
- Folder:** A text field containing 'C:\Users\Administrator\Documents\IC' followed by a browse button '...'.

At the bottom right of the window are two buttons: 'Save' and 'Cancel'.

The items on this screen are defined as follows:

8.1.1.1 Mode

The default 'Mode' is to display Ocularis Client in 'Full Screen' mode on all connected monitors. If you prefer, you may display the Ocularis Client in a resizable window, by selecting 'Windowed' mode. Changes made to this setting will be immediate upon clicking 'Save'.

8.1.1.2 Screens

The number of screens detected by the PC's video card is represented by the checkboxes in the 'Screens' section. Check a minimum of one screen or as many as shown on which to display Ocularis Client. Ocularis Client supports the ability to view up to eight (8) monitors on the same client machine. Changes to this feature take effect only after you 'Log Off' and restart Ocularis Client.

8.1.1.3 Auto-Hide

The 'Auto-Hide' checkbox controls whether the Ocularis Client main menu bar is visible at all times. If this checkbox is checked, the menu bar will 'disappear' after a few seconds while viewing live or recorded video. To view the menu bar after it is hidden, slide the mouse to the top of the screen and it will appear. Changes made to this setting will be immediate upon clicking 'Save'. Auto-hide is not available when the screen configuration is in 'windowed' mode.

8.1.1.4 Maximize on Event

This checkbox works in conjunction with the '[Maximize on Event Behavior](#)' drop-down selection. If checked and an event that meet the criteria in the 'Maximize on Event Behavior' occurs, the Ocularis Client window on the corresponding screen will maximize.

8.1.2 Default Startup Behavior: Load Last View Upon Successful Login

The 'Load Last View Upon Successful Login' option will, after a successful login, display the last view shown when the user last exited the application. If the box is unchecked, the screen will start off blank upon each successful login.

8.1.3 Camera Selection Filter Settings: Clear Filter Text After Selection

When you display a camera list in a video pane from the Circular Control Menu, you have the ability to filter the list by typing all or a portion of the name or keyword of a camera. If the 'Clear Filter Text After Selection' checkbox is checked, the textbox will be cleared of text each time the [Select Camera](#) list is invoked. If the box is unchecked (default), the last text typed will appear in the list. Changes made to this setting will be immediate upon clicking 'Save'.

8.1.4 Maximize on Event Behavior

The options in the drop-down list for 'Maximize on Event Behavior' include: **All Events, Priority 5 and above, Priority 8 and above** and **Priority 10 only**. When a configured event meeting the priority criteria selected occurs and a '[Maximize on Event](#)' checkbox is selected, the Ocularis Client application will maximize on the corresponding screen(s). While the default selection in this drop-down is 'All Events', the feature will not work until one or more screens are select adjacent to the '[Maximize on Event](#)' checkbox(es).

Note: *In some cases, Ocularis Client may be maximized but appear behind another application window.*

Note: *This feature is disabled on video walls.*

8.1.5 Language

If you wish to change the display language for Ocularis Client, you may do so by selecting it from the 'Language' drop-down menu. This setting applies to the current PC only. Keep in mind that if someone else uses the PC this setting will apply to them too. Therefore, if the person using the PC after you does not understand the language you've selected, it is courteous to change the language back to the original before you log out. Changes to the language take effect only after you 'Shut Down' and restart Ocularis Client.

8.1.6 Audio: Push To Talk

The 'Push To Talk' checkbox allows you to control the functionality of the 'Speak' overlay icon in a view when you want to transmit audio. If this checkbox is checked, the Speak icon will behave like a walkie-talkie where you will have to click and hold it to communicate. Changes made to this setting will be immediate upon clicking 'Save'.

8.1.7 Snapshots: Show Snapshot Overlay

The checkbox 'Show Snapshot Overlay' controls whether the [One-Click Snapshot](#) icon appears in panes with camera video (live or browse). If this checkbox is not visible, the logged in user does not have the privilege to take snapshots (which is controlled in Ocularis Administrator). This feature is off by default in new installations. If this checkbox is unchecked, the icon overlay is not displayed. However, the user may still (pending privileges) take snapshots from the Circular Control Menu (See *Take Snapshot* on page 19), via keyboard shortcut (See *Shortcuts* on page 51) or using a joystick shortcut (See *Joystick Controls* on page 54). Changes to this feature take effect only after you 'Log Off' and restart Ocularis Client.

8.1.8 Snapshots: Folder

The 'Folder' is the location where you want the snapshots to be stored. The default location is:
c:\Users\username\Documents\Ocularis\Snapshots

8.1.8.1 Snapshot Filename Format

The filename for the snapshot image includes the date, time and camera name at the time of caption and is in the format:

Where: `YYYY-MM-DDTHH_MM.SS.SSS_Camera name.jpg`

| | |
|--------|------------------------------------|
| YYYY | Four digit year |
| MM | Two digit month |
| DD | Two digit date |
| T | a separator character for the time |
| HH | Two digit hour (in military time) |
| MM | Two digit minutes of the hour |
| SS.SSS | Seconds down to the millisecond |

Snapshots may be taken in quick succession since the filename is created using milliseconds and will yield unique file names. Changes made to this setting will be immediate upon clicking 'Save'.

8.2 Video

The 'Video' section allows the user to configure certain video related parameters used with Ocularis Client for their own user account. Changes made to any item on this tab will take effect after you 'Log Off' and restart Ocularis Client.

Figure 57 Video

The screenshot shows the 'Client Setup' window with the 'Video' tab selected. The sidebar on the left lists 'Display', 'Video', 'Shortcuts', 'Joystick Controls', and 'Video Wall'. The main content area is divided into several sections:

- Browsing:**
 - ☒ Reduced Frame Rate
 - ☐ Full Frame Rate
 - ☐ Synchronous Playback
- Video Quality:**
 - ☐ Maintain Quality in Browse Mode
 - ☐ Performance Mode (downscaling)
- Video Information:**
 - ☐ Video Debug Information
- Live Video Streaming Priority:**
 - A slider between 'As Soon as Possible' and 'As Smooth as Possible'. The slider is positioned towards 'As Soon as Possible'.
- Critical Camera Failover:**
 - Show Message for seconds (0 = always)

At the bottom right, there are 'Save' and 'Cancel' buttons.

The items on this tab are defined as follows:

8.2.1 Browsing

8.2.1.1 Reduced Frame Rate vs. Full Frame Rate

When browsing recorded video, the default is to display the selected pane in 'Full Frame Rate' and all others in Reduced Frame Rate. This saves on bandwidth and is selected by default. Click 'Full Frame Rate' if you require all view panes to display video with full frame rate during playback of recorded video.

8.2.1.2 Synchronous Playback

The 'Synchronous Playback' checkbox controls the behavior of recorded video played back in Browse Mode. (see *Synchronous Playback* on page 59 for more information). The default value is unchecked. Keep in mind that if 'Synchronous Playback' is checked, the playback of only motion based (alarm) recording (using the ALT key) is disabled.

8.2.2 Video Quality

8.2.2.1 Maintain Quality in Browse Mode

If the 'Maintain Quality in Browse Mode' box is checked and you select *Browse* mode, the quality of the video panes will be the same in *Browse* mode as it was in *Live* mode. Left unchecked, the quality in *Browse* mode for all panes will be displayed at the highest setting.

8.2.2.2 Performance Mode (downscaling)

When necessary, Ocularis Client live or recorded video may be down sampled during viewing to improve performance. The performance improvements are most significant when viewing four or more HD streams in a single view. This option is disabled by default.

8.2.3 Video Information: Video Debug Information

Check this box to view additional information from the camera including: frames per second from the camera to the recorder, latency and packet loss. View the information by hovering the mouse cursor over the blinking light in the left side of the image bar. After enabling this checkbox, you may need to reload the camera in order to view the details.

8.2.4 Live Video Streaming Priority

The Live Video Streaming Priority is useful when connecting to low bandwidth remote sites or if using cameras connected wirelessly. It allows you to decide whether it is more important to get live video quickly ('As Soon As Possible') or in the best quality available ('As Smooth As Possible'). The more the slider is set towards 'As Smooth as Possible', a video buffer is introduced to allow for the smooth fluidity of the video. The default is set to 'As Soon As Possible'. Any change to this setting applies to all cameras.

8.2.5 Critical Camera Failover

If the Critical Camera Failover feature is enabled and a situation occurs where one camera takes over for another camera, a message is displayed in the pane with the failover camera indicating as such. The 'Show Message for ___ seconds' field, allows you to control the length of time in which the 'Failover Camera' message appears on the screen. A value of '0' will display the message constantly until the connection to the primary camera is re-established.

8.3 Shortcuts

The 'Shortcuts' selection allows the user to define custom keyboard shortcuts for common functions used with Ocularis Client for their own Ocularis user account. These settings are saved locally so they will not be available if you switch to a different computer. Changes made to any item on this tab will take effect immediately upon clicking 'Save'.

Figure 58 Shortcuts

| Function | Shortcut Input |
|----------------|----------------------|
| PTZ Up | <input type="text"/> |
| PTZ Down | <input type="text"/> |
| PTZ Left | <input type="text"/> |
| PTZ Right | <input type="text"/> |
| PTZ Up Left | <input type="text"/> |
| PTZ Up Right | <input type="text"/> |
| PTZ Down Left | <input type="text"/> |
| PTZ Down Right | <input type="text"/> |
| PTZ Zoom In | <input type="text"/> |
| PTZ Zoom Out | <input type="text"/> |
| Preset 1 | <input type="text"/> |
| Preset 2 | <input type="text"/> |
| Preset 3 | <input type="text"/> |
| Preset 4 | <input type="text"/> |
| Preset 5 | <input type="text"/> |
| Preset 6 | <input type="text"/> |
| Preset 7 | <input type="text"/> |
| Preset 8 | <input type="text"/> |

Note:

Configured keyboard shortcuts may be mapped to work with a USB jog shuttle device such as the Contour Design Shuttle Pro 2. Use the manufacturer's mapping tool to associate the Ocularis keyboard shortcut configured here.

Available functions for keyboard shortcuts include:

| Shortcut | Definition |
|---------------------|---|
| PTZ Up | Moves the image from a PTZ camera up |
| PTZ Down | Moves the image from a PTZ camera down |
| PTZ Left | Moves the image from a PTZ camera to the left |
| PTZ Right | Moves the image from a PTZ camera to the right |
| PTZ Up Left | Moves the image from a PTZ camera up and to the left |
| PTZ Up Right | Moves the image from a PTZ camera up and to the right |

| Shortcut | Definition |
|----------------------------------|--|
| PTZ Down Left | Moves the image from a PTZ camera down and to the left |
| PTZ Down Right | Moves the image from a PTZ camera down and to the right |
| PTZ Zoom In | Zooms in one level |
| PTZ Zoom Out | Zooms out one level |
| Preset 1 | Moves the PTZ camera to its preset position #1 |
| Preset 2 | Moves the PTZ camera to its preset position #2 |
| Preset 3 | Moves the PTZ camera to its preset position #3 |
| Preset 4 | Moves the PTZ camera to its preset position #4 |
| Preset 5 | Moves the PTZ camera to its preset position #5 |
| Preset 6 | Moves the PTZ camera to its preset position #6 |
| Preset 7 | Moves the PTZ camera to its preset position #7 |
| Preset 8 | Moves the PTZ camera to its preset position #8 |
| Preset 9 | Moves the PTZ camera to its preset position #9 |
| Start Recording | Manually starts recording on the camera of the selected pane |
| Show Live | Switches the application to Live mode |
| Show Browse | Switches the application to Browse mode |
| Next Image | Browses to next recorded image |
| Previous Image | Browses to prior recorded image |
| Playback | Initiates playback of recorded video |
| Minimize/Maximize View | Toggle the selected pane between minimize and maximize mode |
| Minimize Application | Minimizes the Ocularis Client application |
| Log Out | Issues a log out command to the Ocularis Client application |
| Close Application | Closes the Ocularis Client Application (equivalent to a 'Shut Down') |
| Show Client Setup | Displays the Client Setup configuration screen. |
| Show Shortcut Keys | Displays a list of existing keyboard shortcuts |
| Copy to Clipboard | Takes a snapshot of the current image and sends it to the Windows clipboard |
| Take Snapshot | Takes a snapshot of the current image and saves it in JPEG format to a predefined location. Path for file storage is configured in the Video tab. (see <i>Video</i> on page 72). |
| Show Camera List Selector | Display the list of available cameras in the selected pane. |
| Play Reverse - Yx | In Browse mode, play video 'Y' times fast in reverse. |
| Pause | Pause the video. |
| Play Forward – Yx | In Browse mode, play video 'Y' times fast in forward |
| Step Backward (time) | In Browse mode, play video in reverse mode but restrict to the time interval shown. |
| Step Forward (time) | In Browse mode, play video in forward mode but restrict to the time interval shown. |
| Set Start Marker | Set the starting point of the video to be exported. |
| Set Stop Marker | Set the ending point of the video to be exported. |

8.3.1 To Configure Custom Keyboard Shortcuts

1. To configure settings for custom keyboard shortcuts, click the 'Views' menu and select 'Client Setup'.

2. Select 'Shortcuts'.

A list of configurable functions appears.

3. To configure a function, select the cell adjacent to the function (using the mouse or finger with touch screen).

4. Enter the desired shortcut. A shortcut is defined by either:

- the combination of two keys: a modifier key (SHIFT, CTRL, or ALT) and a second key which can be a letter, number, arrow or number from the numeric keypad.
- a single key found on the keyboard (letter, number, directional arrow, etc).
- Some keys require a dual key combination (e.g. 'Home' and the letter 'P' may not be used alone but may be combined with 'CTRL', 'SHIFT', or 'ALT').

Hold the desired modifier key and depress the second key to assign this combination to the function. Or simply depress the single key you wish to assign. Repeat this process for each function for which you wish to assign a shortcut.

- Some special characters are not allowed
- Duplicate entries are not allowed

5. When finished, click the 'Save' button.

The changes made on this screen will be available when the user clicks the 'Save' button.

8.3.2 To Use a Keyboard Shortcut

Keyboard shortcuts will only work when the function is applicable. For instance, PTZ shortcuts only work with PTZ cameras, browse shortcuts only work when in Browse mode, etc.

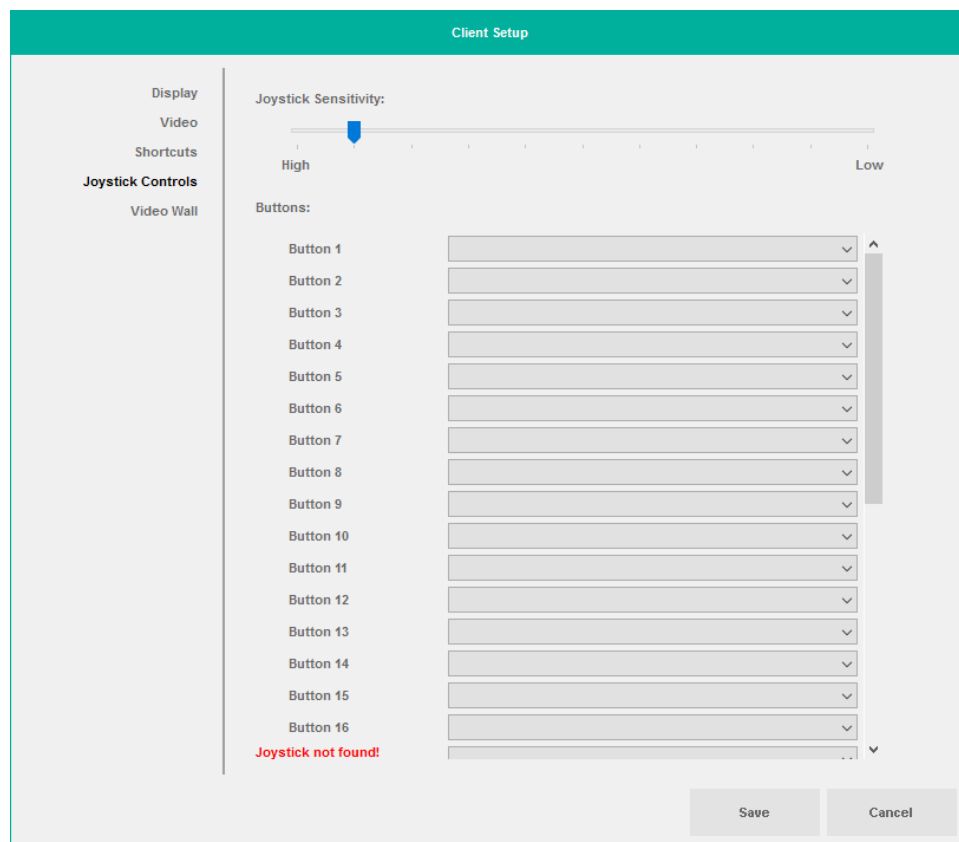
1. If the shortcut applies to a particular camera, click the pane with the camera video to select it.
2. Be sure to be in the appropriate mode (Live or Browse) based on the function to be issued.

3. Execute the shortcut (Hold the modifier key (SHIFT, CTRL or ALT) and press the secondary key or simply press the single shortcut key). The shortcut function should be invoked.

8.4 Joystick Controls

The 'Joystick Controls' section allows users to program USB or other joysticks.

Figure 59 Joystick Controls



8.4.1 Joystick Sensitivity

Use the 'Joystick Sensitivity' slider to adjust real (as opposed to virtual) joystick movement. The left of the slider bar indicates maximum sensitivity; the right side of the slider bar is the least sensitive. So, for instance, to instruct the smallest of joystick inputs to be passed along as PTZ commands to the recorder, move the slider to the left on the slider bar.

8.4.2 Buttons

If you have a USB joystick connected to the *Ocularis Client* PC, you will be able to map *Ocularis Client* functions to the buttons of the joystick. The commands available to program found in the drop-down list are defined here:

| Shortcut | Definition |
|-------------------------------|--|
| PTZ Up | Moves the image from a PTZ camera up |
| PTZ Down | Moves the image from a PTZ camera down |
| PTZ Left | Moves the image from a PTZ camera to the left |
| PTZ Right | Moves the image from a PTZ camera to the right |
| PTZ Up Left | Moves the image from a PTZ camera up and to the left |
| PTZ Up Right | Moves the image from a PTZ camera up and to the right |
| PTZ Down Left | Moves the image from a PTZ camera down and to the left |
| PTZ Down Right | Moves the image from a PTZ camera down and to the right |
| PTZ Zoom In | Zooms in one level |
| PTZ Zoom Out | Zooms out one level |
| Preset 1 | Moves the PTZ camera to its preset position #1 |
| Preset 2 | Moves the PTZ camera to its preset position #2 |
| Preset 3 | Moves the PTZ camera to its preset position #3 |
| Preset 4 | Moves the PTZ camera to its preset position #4 |
| Preset 5 | Moves the PTZ camera to its preset position #5 |
| Preset 6 | Moves the PTZ camera to its preset position #6 |
| Preset 7 | Moves the PTZ camera to its preset position #7 |
| Preset 8 | Moves the PTZ camera to its preset position #8 |
| Preset 9 | Moves the PTZ camera to its preset position #9 |
| Start Recording | Manually starts recording on the camera of the selected pane |
| Show Live | Switches the application to Live mode |
| Show Browse | Switches the application to Browse mode |
| Next Image | Browses to next recorded image |
| Previous Image | Browses to prior recorded image |
| Playback | Initiates playback of recorded video |
| Minimize/Maximize View | Toggle the selected pane between minimize and maximize mode |
| Minimize Application | Minimizes the Ocularis Client application |
| Log Out | Issues a log out command to the Ocularis Client application |
| Close Application | Closes the Ocularis Client Application (equivalent to a 'Shut Down') |
| Show Client Setup | Displays the Client Setup configuration screen. |
| Show Shortcut Keys | Displays a list of existing keyboard shortcuts |
| Copy to Clipboard | Takes a snapshot of the current image and sends it to the Windows clipboard |
| Take Snapshot | Takes a snapshot of the current image and saves it in JPEG format to a predefined location. Path for file storage is configured in the Video tab. (see <i>Video</i> on page 72). |

| Shortcut | Definition |
|----------------------------------|---|
| Show Camera List Selector | Display the list of available cameras in the selected pane. |
| Play Reverse - Yx | In Browse mode, play video 'Y' times fast in reverse. |
| Pause | Pause the video. |
| Play Forward – Yx | In Browse mode, play video 'Y' times fast in forward |
| Step Backward (time) | In Browse mode, play video in reverse mode but restrict to the time interval shown. |
| Step Forward (time) | In Browse mode, play video in forward mode but restrict to the time interval shown. |
| Set Start Marker | Set the starting point of the video to be exported. |
| Set Stop Marker | Set the ending point of the video to be exported. |

8.4.2.1 To Configure Joystick Controls

1. To configure joystick buttons to correspond to *Ocularis Client* functions, click the 'Views' menu and select 'Client Setup'.
2. Select 'Joystick Controls'. A list of buttons appears as shown in .Figure 59.
3. Click the drop-down list adjacent to the button you wish to configure. A list appears with the list of Ocularis functions that are configurable.
4. Select the Ocularis function you wish to assign to the corresponding button.
5. Repeat for each button you wish to configure.
6. When finished configuring joystick buttons, click the 'Save' button. The changes made on this screen will be available when the user clicks the 'Save' button. These settings will be saved only on the PC on which it was configured and will be specific to the logged in Ocularis user account.

8.5 Video Wall

Video walls are simply a collection of monitors typically posted in a public or other group observation area, with no visible keyboard attached. They are used to display video from preset cameras as well as receive video on demand, pushed there by operators. Video Walls in Ocularis are defined in the Base using the *Ocularis Administrator*. *Ocularis Client* is used to display the video wall. Remote Video Wall is an optional add-on component to Ocularis and available with *Ocularis Ultimate and Ocularis*. *Ocularis Professional* supports local video walls only.

8.5.1 Local vs. Remote

Local video walls are those on the same station (PC) as the operator. For instance, an operator's pc may have 4 monitors attached to it (with an appropriate video card). The operator can use one of the monitors to observe views and maps and the other three monitors as the video wall on which

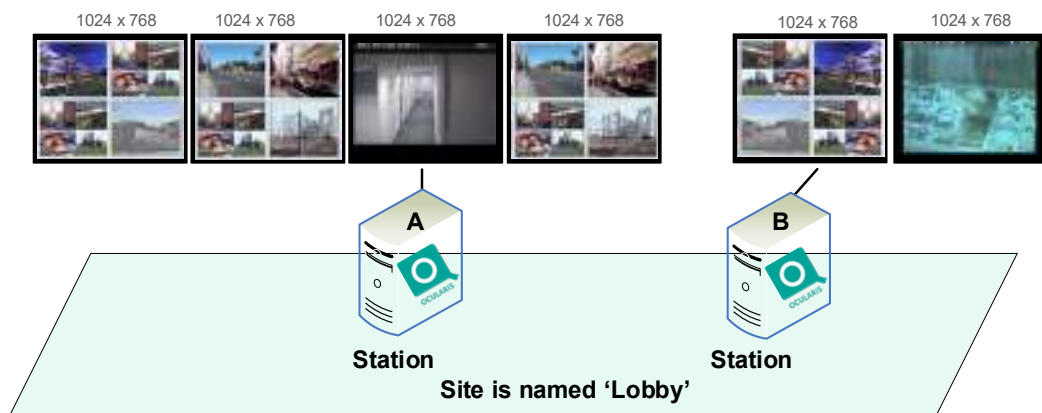
he can post video. Local video walls are available in all Ocularis feature sets. Rule of thumb is that a local video wall has the same IP address as the operator station.

Remote video walls are those where the video wall display monitors are not attached to the same pc as the operator. These monitors may be located in the same room or in another remote location from the operator. Remote video walls are available in *Ocularis Ultimate* and *Ocularis Enterprise*. Remote video walls use a different IP address as the operators' PCs who post video to them.

The Video Wall section in the 'Client Setup' screen is visible only in the full *Ocularis Client*. This tab is only used on the pc whose monitors are used for a remote video wall. Operators and typical users do not need to configure settings in this tab. Configure these parameters only when the PC monitor(s) attached to the local Ocularis Client are to become (all or a part of) a video wall.

The system administrator determines which video wall a user may push video to as well as which video wall *site* an Ocularis Client account may be associated with. The video wall in the example shown in the graphic below has six monitors and two *stations*. Each station is a separate PC with a unique IP address. Both stations combined make up the video wall site named 'Lobby'. Video wall site names are created by the administrator on the Ocularis Base. Video wall names can be any short label or description about the video wall. In most cases, where there are dedicated video walls, this is set up only once by the system administrator on the video wall system (station).

Figure 60 Sample Video Wall



There is no technical limit to the number of screens/monitors which can encompass a video wall. There is, however, a limit to the number of screens that each Ocularis Client installation can support. Currently, each instance of Ocularis Client can support up to eight (8) monitors on a single station (or IP address). Therefore, if you wanted a video wall comprised of sixteen (16) monitors

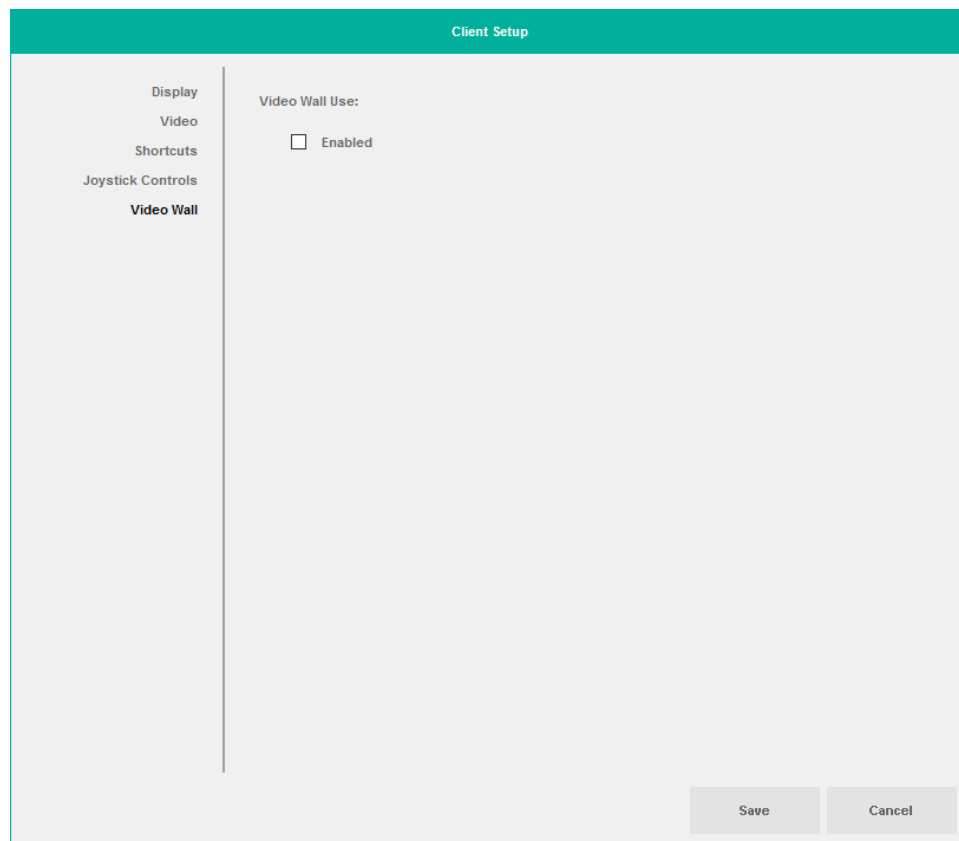
for instance, you would need at least two PCs, each with its own instance of Ocularis Client installed.

8.5.1.1 To Configure A Video Wall

These steps are necessary only when using remote video walls. On the Ocularis PC that is connected to the video wall monitors:

1. Click the 'Views' menu and select 'Client Setup'.
2. Select 'Video Wall'.

Figure 61 Video Wall



3. Check the 'Enabled' checkbox.

Warning: Do NOT check this box on standard operator computers. ONLY check it on video walls!

Figure 62 Video Wall - Enabled

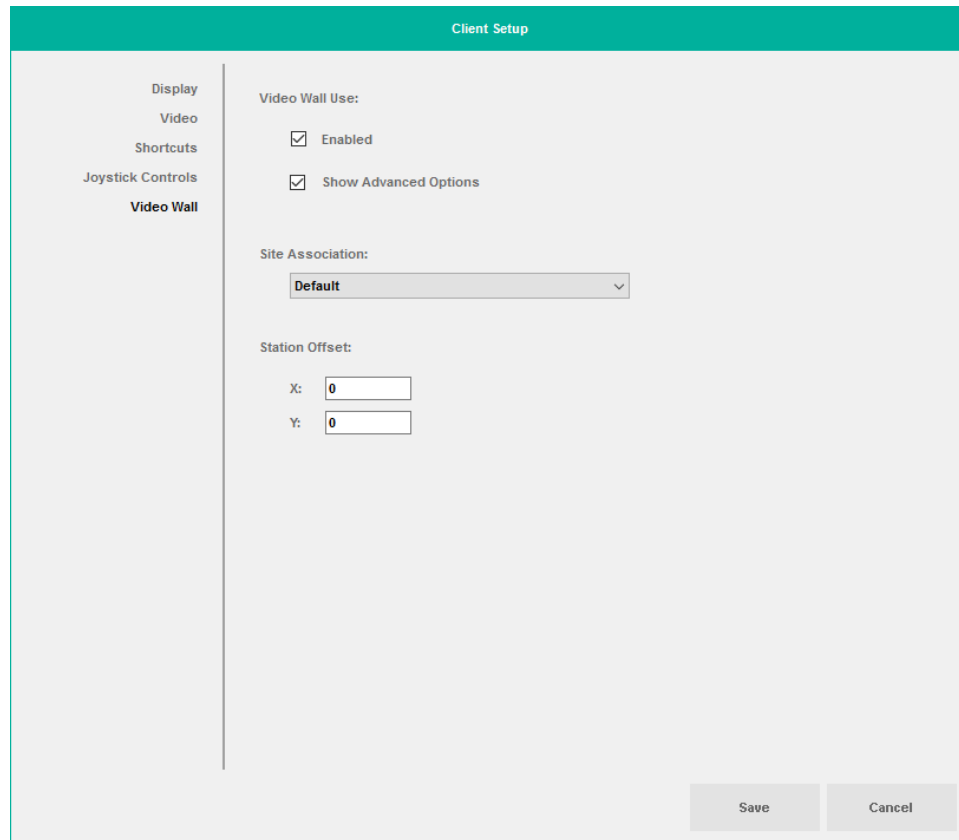
The screenshot shows the 'Client Setup' window with a teal header. On the left is a sidebar with links: Display, Video, Shortcuts, Joystick Controls, and Video Wall (which is highlighted). The main area is titled 'Video Wall Use:' and contains two checkboxes: 'Enabled' (checked) and 'Show Advanced Options' (unchecked). Below this is a 'Site Association:' section with a dropdown menu currently showing 'Building 1 Control Room'. At the bottom right are 'Save' and 'Cancel' buttons.

4. Select the video wall name from the 'Site Association' drop-down menu. The video walls listed here are displayed based on the privileges set up by the system administrator in *Ocularis Administrator*. In the example above, Station A would select 'Lobby' from the Site Association list. Station B would also select 'Lobby', adding its monitors to the bank for the video wall.
5. Click the 'Save' button. Then, log off and log back into Ocularis Client for the changes to take effect.

In most cases, this is all that is required. To use a video wall, see *Using a Video Wall* on page 138.

8.5.1.2 Changing the Position of the Video Wall Representation

If you wish to specify an exact position for the local monitor representation of the remote video wall, the axes or station offsets need to be defined. Click the 'Show Advanced Options' checkbox to enter the station offsets for the X and Y axis of the monitor positions.

Figure 63 Video Wall Station Offsets

The screenshot shows the 'Client Setup' window with a teal header. On the left is a sidebar with navigation links: 'Display', 'Video', 'Shortcuts', 'Joystick Controls', and 'Video Wall' (which is highlighted). The main content area is titled 'Video Wall Use:' and contains two checked checkboxes: 'Enabled' and 'Show Advanced Options'. Below these is a 'Site Association:' section with a dropdown menu currently set to 'Default'. Further down is the 'Station Offset:' section, which includes two input fields: 'X:' and 'Y:', both containing the value '0'. At the bottom right of the window are 'Save' and 'Cancel' buttons.

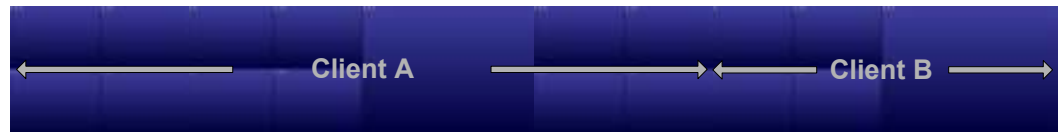
Configuring the X and Y Station Offsets

When configuring the X and Y Station Offsets, you need to know the screen resolutions of all the monitors in the video wall. Refer to the diagram below as an example.

In the example, Client A has four monitors attached and Client B has two monitors. Each monitor has a screen resolution of 1024 x 768.

Example 1:

If default station offsets are used ($X=0$, $Y=0$), the resulting video wall, when selected, will take the following shape (assuming that in the Video Wall tab of Client Setup, client A selected the video wall 'Lobby' before Client B selected it or Client A logged in first):



Four screens from Client A and two screens from Client B

The native functionality within Microsoft Windows allows a consecutive organization of the screens from each station. However, there may be a case where you wish to alter the default position for the video wall screens.

Example 2:

Assume that you wish a different layout for the video wall for these stations. To obtain the layout, the following station offsets should be used:

| Client A | Client B |
|-----------------|-----------------|
| $X = 0$ | $X = 0$ |
| $Y = 0$ | $Y = 769$ |

The calculation for the Y offset in station B is based on the assumption that each of Client A's screen is 768 pixels tall. The vertical position (Y), needs to start at least one pixel greater than Client A (otherwise, there would be overlap). The X offset is 0 to allow the screen to be placed in the left most position.



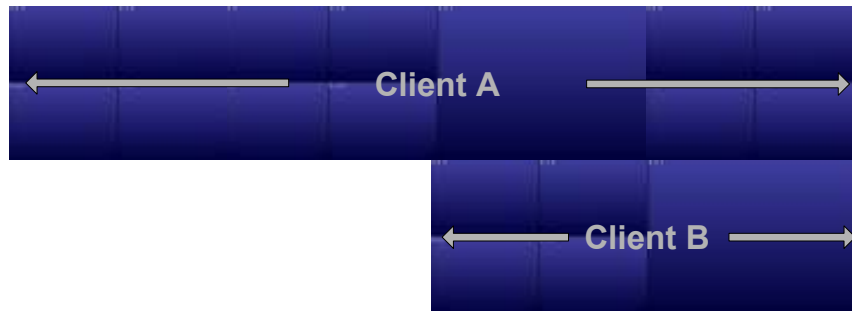
Four Screens from Client A on top of Two Screens from Client B (left justified)

Example 3:

This last example displays an alternate layout for the monitors from Client A and Client B. To obtain the layout the following station offsets should be used:

| Client A | Client B |
|-----------------|-----------------|
| X = 0 | X = 2049 |
| Y = 0 | Y = 769 |

The calculation for the Y offset in Client B is based on the assumption that each of Client A's screen is 768 pixels tall and 1024 pixels wide. The vertical position (Y), needs to start at least one pixel greater than Client A (otherwise, there would be overlap). The X offset is 2049 $[(1024 \times 2)+1]$ to display Client B's screens below and to the right of Client A's screens.



Four Screens from Client A on top of Two Screens from Client B (right justified)

9 Exporting Evidence (Video and Still Images)

Ocularis Client enables exporting video in audio-included AVI format, as a multi-camera video database, or as a single still image or series of images in JPEG format. The following export topics will be discussed here:

- Designating a range for exporting video
- Exporting an AVI video clip
- Exporting a Video Database
- Exporting Still Images (individual frames)
- Printing a Still Image Report
- Bookmarks
- Export Progress

9.1 Designating a range for exporting video

This step must be performed when exporting any video clip. It is not necessary for exporting a single still image or print reports.

Note:

Video export is possible only in Browse mode (including Timeslice, Motion Slice, Alerts and Sequences modes).





1. Make sure the Conventional search controls are visible. Click the Playback Mode icon  to toggle between the two sets of controls. The convention search icon  should be visible.
2. For .AVI exports, set the zoom level for the camera stream you wish to export. The resulting clip will display at the desired zoom level.
3. Position the Timeline at the desired starting point for the exported segment, and click the Set Start Marker icon .
4. Position the Timeline at the ending point of the exported segment (drag the timeline or play the video). Click the Set Stop Marker icon . The selected segment is displayed with a yellow bar.

Figure 64 Export Segment

5. You may extend or reduce the segment after it has been designating by setting different start and end points.

9.2 Exporting an AVI video clip

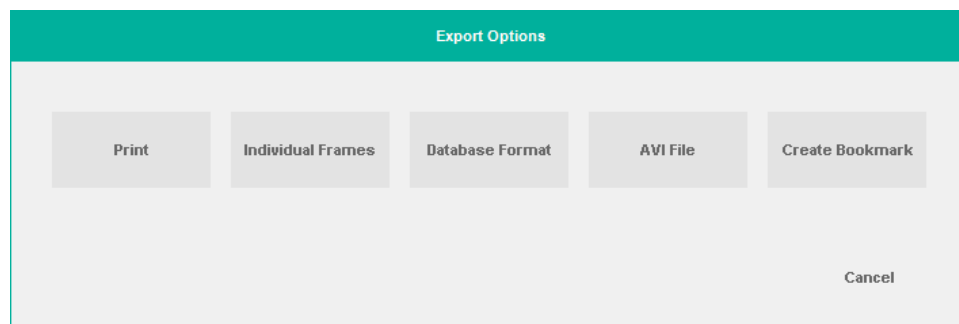
Audio-included, single-camera AVI clips have relatively small file sizes, allowing for electronic distribution of evidence across multiple platforms. Each frame in the clip is time-stamped, and an optional preamble including the time, date, camera ID, operator and operator's comments will precede the clip. Exporting video to .avi format is available in all models of Ocularis.

A Note About Video Codecs:

A video codec ("compression / decompression") is required to create .avi files. AVI is not in itself a codec; it is a common container format that many different codecs can use.

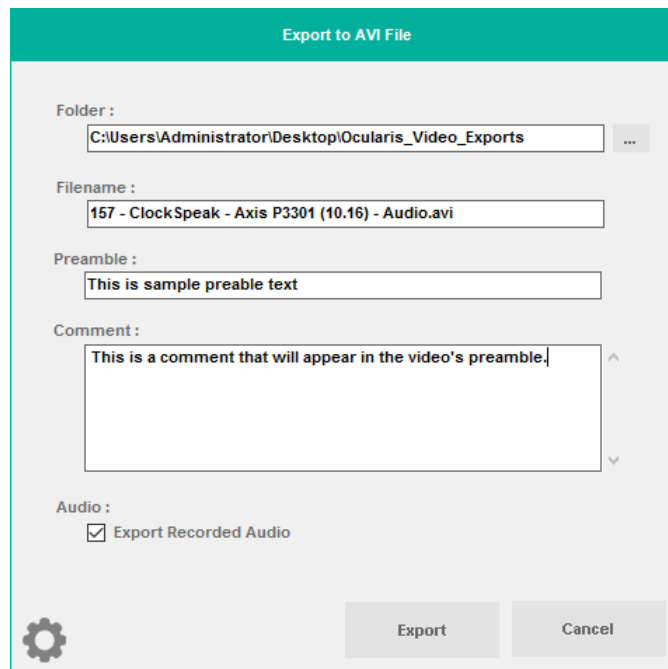
Ocularis Client 64-bit: This version does not recognize the Cinepak codec shipped with Microsoft Windows. Xvid must be used and installed manually. You can download this free codec from the Xvid website or from the Ocularis Component Downloads page located on Ocularis Base. Ocularis Client must be Shut Down and restarted in order to recognize a newly installed codec.

1. Once a segment of video has been designated for export, click 'Export' on the menu bar.

Figure 65 Export Options Dialog

2. Select 'AVI File'.

Note: *If you do not have the XVID codec installed, the system will notify you and will you not be able to export to .avi format until the codec is installed.*

Figure 66 Export to AVI

Export to AVI File

Folder :
C:\Users\Administrator\Desktop\Ocularis_Video_Exports ...


Filename :
157 - ClockSpeak - Axis P3301 (10.16) - Audio.avi

Preamble :
This is sample preable text

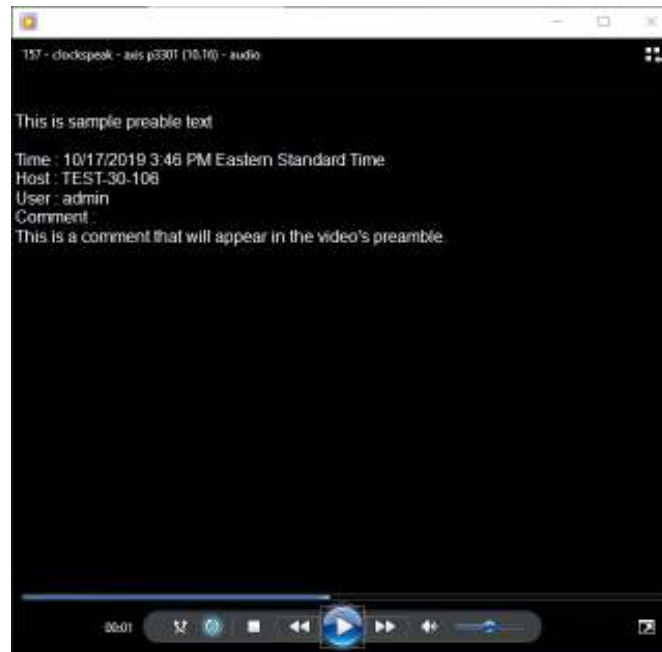
Comment :
This is a comment that will appear in the video's preamble.

Audio :
☒ Export Recorded Audio

Export Cancel

3. Enter the full path of the destination folder for the exported clip, or click Browse Folders  to select a folder or to create a new folder.
4. Enter a file name for the exported clip.
5. Enter Preamble text to display in the beginning of the video as an introduction.

By default, exported AVI clips are preceded by a Preamble which displays the time and date, operator (by username), camera name and the operator's comments. You may choose whether or not to append a preamble to the exported clip, and which items to include.

Figure 67 AVI Preamble


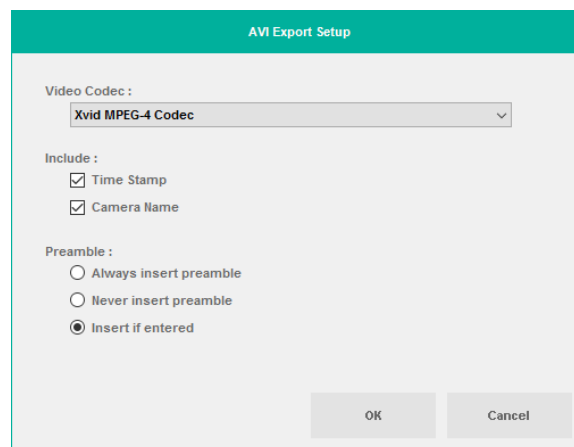
6. Enter additional information in the 'Comment' text box.
7. If the camera supports audio, the 'Export Recorded Audio' checkbox is selected by default. If audio is present on the clip, it will be included in the export.
8. Click the setup icon  to change the video export Codec or other features on the exported clip.

Figure 68 AVI Export Setup

9. Click the 'Video Codec' drop-down list to see the list of available codecs. These are the supported codecs installed locally and detected by Windows. Select the desired codec.

10. Determine if you wish to include:
 - a. A 'Time Stamp' to appear on the recorded video.
 - b. The 'Camera Name' to appear on the recorded video.
11. For the Preamble you can:
 - a. Always insert the preamble
 - b. Never insert the preamble
 - c. Insert the preamble text if entered (default value)
12. Click 'OK' to exit the Setup dialog box.
13. Click 'Export' to begin the export process.
14. If you wish to cancel the export while it is still in progress, you may do so by clicking the Cancel icon in the 'Jobs' menu. See *Cancelling an Export* on page 91 for more details.

Depending on the length of the designated segment of video and on the framerate and resolution of the video, the encoding process may take a number of minutes. You can follow the encoding progress by clicking on 'Jobs' on the menu bar.

Note:

You may continue to work with Ocularis Client as usual during the export process, including running multiple video exports simultaneously.

Note:

In the event that system memory is low, the resolution of the exported image may be scaled down. The message: "Resolution of exported images will be scaled down due to memory constraints." will appear. If you do not want to export using this resolution, cancel the export.

9.2.1 Viewing an Exported AVI Video Clip

Once a video clip is exported to an .avi file, it can be viewed with any application that supports playing .avi files such as Windows Media Player or QuickTime.

Additionally, if the export was done in the current session, an .avi export may be played back directly from the Jobs menu. Click the completed job in the Jobs menu to launch the associated .avi player and view the video clip.

9.3 Cancelling an Export

If, after executing an export of any type (AVI video, Database Format video or still images) you decide you want to abort the export for any reason (e.g., incorrect data selected, wrong codec selected, taking too long, etc.) you may cancel the export while it is still visible in the Jobs menu.


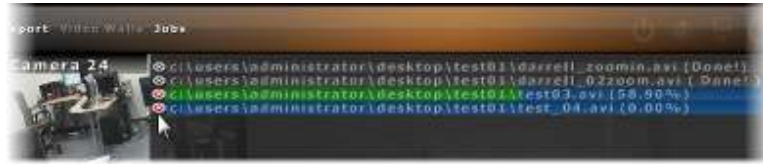
1. Click 'Jobs' on the menu bar.
2. Click the Cancel icon next to the job you wish to cancel. 

Figure 69 Cancelling an Export



3. A “Do you want to cancel ...” message box appears.
4. Click 'Yes' to cancel the export.

9.4 Exporting a Video Database

Multiple-camera video exports in database format allow future reviewing of an event as it unfolds through an entire set of cameras. While exported database files may be very large and therefore are not usually suitable for electronic distribution, their encryption and password-protection features provide the security level required in dealing with sensitive content and/or court evidence. Exporting to database format is available in all Ocularis feature sets. This feature may also be controlled (enabled or disabled) on a user group level by the system administrator.

Viewing the exported video database requires *Ocularis Client* or the *Ocularis Viewer* to be installed on the recipient's computer.

1. Once a segment of video has been designated for export, click 'Export' on the menu bar.
2. From the 'Export Options' screen, select 'Database Format'.

Figure 70 Export to Database Format

Export to Database Format

Folder : ...

Filename :

Included Feeds :

- ☒ Select All Feeds
 - ☒ Azure-Side Building PTZ
 - ☐ No Audio Select Audio
 - ☐ 157 - ClockSpeak - Axis P3301 (10.16) - Audio
 - ☐ 157 - ClockSpeak - Axis P3301 (10.16) - Audio Select Audio
 - ☐ Hanwha SNV-6013
 - ☐ No Audio Select Audio

☐ Export Alarm Recording Only

☐ Export Ocularis Viewer to same directory

Password Protection :

☐ Also Encrypt Video Data

Encryption Strength : 128 bit AES

Export Cancel

- In the 'Folder' field, enter the full path of the destination folder for the exported clip, or click Browse Folders ... to select a folder or create a new folder.
- In the 'Filename' field, enter a file name for the exported clip.
- Choose the camera feeds to be included in the database export in addition to the selected camera, from among current view's cameras. Or choose **Select All Feeds** to include all displayed cameras in the export.
To export a camera feed not included in the original view, cancel this dialog, change the camera using the 'Circular Control Menu' in either Live or Browse modes, and repeat steps above.
- Cameras that support audio display an 'Audio' checkbox available for selection. Check the Audio box if you wish to include recorded audio from the corresponding camera in the export.
- If you want to export only video recorded due to an event or alarm, click the box 'Export Alarm Recording Only'. For more information see *Export Alarm Recording Only* below.
- If the recipient of this video clip does not have *Ocularis Client*, you should include the *Ocularis Viewer* as part of the export. To include the Ocularis Viewer in the destination

folder, check the 'Export Ocularis Viewer to same directory' checkbox. More information on the *Ocularis Viewer* is discussed later in this section.

9. If you want to encrypt the exported clip, assign a password to the database and check the 'Also Encrypt Video Data' checkbox. Encryption requires password protection and the password is required to view the encrypted export. Select the encryption level (128 or 256). For more information see *Encryption* below.
10. Click 'Export' to begin the export process.
11. If you wish to cancel the export while it is still in progress, you may do so by clicking the Cancel icon in the 'Jobs' menu. See *Cancelling an Export* on page 91 for more details.

Depending on the length of the designated segment of video, the framerate and resolution of the video and whether audio was included, the encoding process may take a number of minutes. You can follow the encoding progress by clicking on 'Jobs' on the menu bar.

Note:

You may continue to work with Ocularis Client as usual during the export process, including running multiple video exports simultaneously.

9.4.1 Encryption

Video databases may be encrypted using the AES (Advanced Encryption Standard) algorithm. Available key sizes for export are 128 or 256 bits. Marking the checkbox 'Also Encrypt Video Data' will ensure that all files contained within the export are encrypted. If you leave this checkbox empty, only the index file to the video will be encrypted. Note that choosing the higher level encryption key or choosing to encrypt all files may increase the time needed to complete the export as well as impact the size of the exported video database.

9.4.2 Exporting Audio from A Different Source

As stated above, you may also export audio with the video during a database export. If you like, you can export audio from a different source along with camera video and associate with any camera. In the example shown in Figure 70, there are three cameras, one with audio.

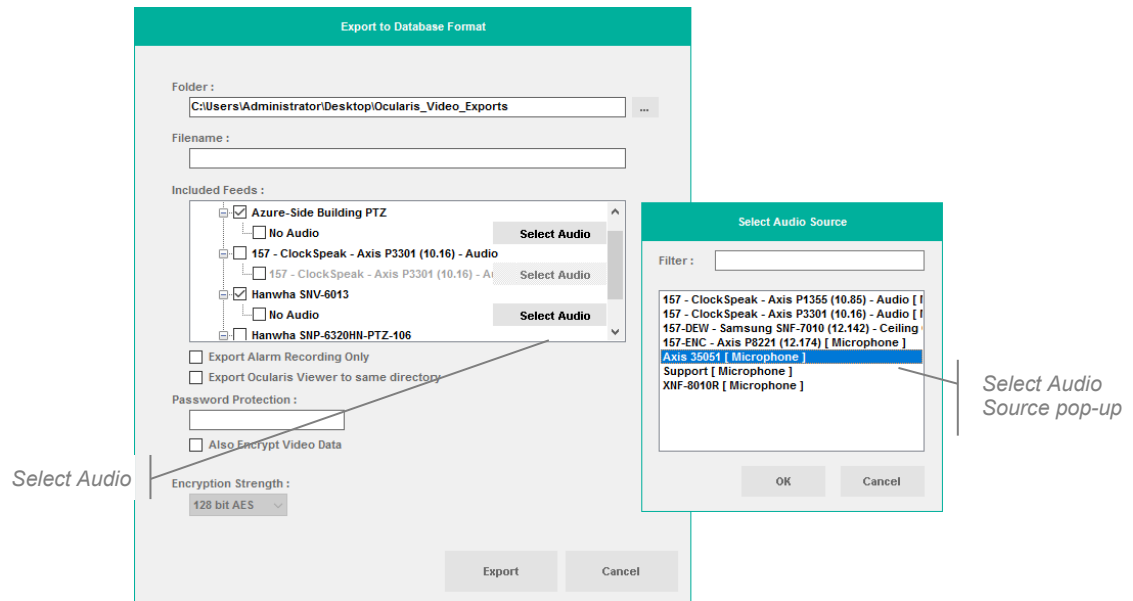
Exporting DB Format with Audio

The checkbox adjacent to the camera name selects the video. If the camera has recorded audio, its corresponding checkbox will automatically be checked and exported with the video. If you click the **Select Audio** button adjacent to the audio, you will be able to select and associate audio for a different device to the exported stream.

Let's examine an example where we will associate audio to the stream for the 'Hanwha SNV-6013' camera, which has no audio.

1. Click the checkbox adjacent to the camera stream: Hanwha SNV-6013. **Select Audio** become enabled.
2. Next, click the **Select Audio** button adjacent to 'No Audio'.

Figure 71 Export Audio From A Different Camera



3. Select the desired audio from the **Select Audio Source** pop-up and click **OK**.

Figure 72 Alternate Audio Source



Once complete, notice that the branch 'No audio' is renamed with the audio source from the other device (in this case, from 'Axis 35051 [Microphone]').

4. Complete filling out the rest of the dialog and when ready, click **Export**.

The clip will now associate video from one camera with another camera during playback.

9.4.3 Export Alarm Recording Only

Ocularis supports two types of recordings: Standard and Alarm. Standard recording, also known as continuous recording, is video that is recorded regardless of whether there is motion or another event associated with that video. Standard recording is represented in the color green on the Kinetic Timeline. Alarm recording is video that is recorded due to a configured event, such as motion detection. Alarm recording is represented in the color red on the Kinetic Timeline. If a camera has both Standard and Alarm recording configured, you can export (in Database Format) only the Alarm Recording portion in order to eliminate the Standard Recordings. This saves on export space and time.

9.4.3.1 To Export Only Alarm Recordings

1. With the desired camera displayed, enter *Browse* mode.
2. Select the start and end of the video clip.

3. From the menu bar, select 'Export'.
4. From the **Export Options** screen, select 'Database Format'.
5. Enter the Folder and Filename for the exported clip.
6. Select the camera feed.

Note: If audio exists and the Audio box is checked, the audio will still be exported when executing an Alarm Recording Only export. During playback, audio will play during periods where no video is displayed.

7. Check the box 'Export Alarm Recording Only'.

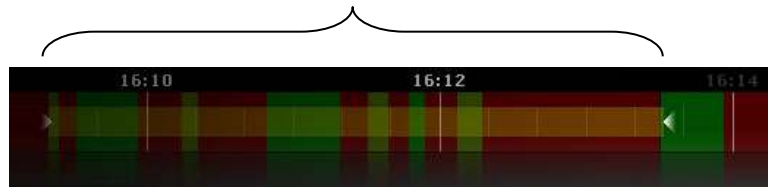
Figure 73 Export Alarm Recordings Only

The screenshot shows the 'Export to Database Format' dialog box. The 'Folder' field is set to 'C:\Users\Administrator\Desktop\Ocularis_Video_Exports'. The 'Filename' field is set to 'Sample Export Alarm Recording Only'. In the 'Included Feeds' section, 'Select All Feeds' and 'Receptionist' are checked, while 'No Audio' is unchecked. A red arrow points to the 'Export Alarm Recording Only' checkbox, which is checked. Below this, 'Export Ocularis Viewer to same directory' is unchecked. The 'Password Protection' field is empty, and 'Also Encrypt Video Data' is unchecked. The 'Encryption Strength' is set to '128 bit AES'. At the bottom, there are 'Export' and 'Cancel' buttons.

8. Include anything else from the dialog (e.g. Ocularis Viewer, password, encryption, etc.)
9. Click **Export**.

The exported clip will only contain alarm-based video.

For example, when this camera's video clip is selected, only the video in red (Alarm Recording) will be exported, rather than everything selected.

Figure 74 Export Only Alarm Video**Note:**

If audio exists and the Audio box is checked, the audio will still be exported when executing an Alarm Recording Only export.

9.4.4 Exported Results

Once the export process is finished, the following will be found in the destination folder:

- a '[filename].oml' file
- a folder named 'Data'
- a folder named 'Ocularis Viewer' (if the option to 'Export Ocularis Viewer to same directory' checkbox was selected)

The first two items are required to view the exported video in any format. The Ocularis Viewer folder is only necessary if the recipient does not have *Ocularis Client*.

To transfer the video export to another user, simply copy the exported items onto a portable hard drive, or burn them on a CD or DVD using any off-the-shelf burning software.

9.4.5 Viewing an Exported Video Database

Viewing an exported video database can be done by using the *Ocularis Client* or the *Ocularis Viewer*.

9.4.5.1 Viewing Exported Video with Ocularis Client

To view exported video using the *Ocularis Client*:

1. Select the 'Load Database from File' option under the 'Views' menu
2. Select the .oml file in the 'Open' dialog and click Open.

The video database will open in Browse mode, allowing for all Browse operations (including motion detection, Timeslice, Motion Slice, etc.)

Note:

It may take a short period for the video database to parse and recorded video to be available for browsing.

Figure 75 Loading a Video Database with Ocularis Client



9.4.5.2 Viewing Exported Video with Ocularis Viewer

For occasions when a user does not have the *Ocularis Client* installed, a standalone video viewing application called the *Ocularis Viewer* is available to view recorded database video.

Note:

Be sure to copy the Ocularis Viewer to the PC that will be playing the exported video.

The *Ocularis Viewer* is installed during the installation of *Ocularis Client*. It is also exported to a folder when you export video and select the 'Export Ocularis Viewer to same directory' option.

Note:

Video exported from a camera with a panomorph lens will appear in its original 'warped' state when viewing using Ocularis Viewer. Use Ocularis Client to view this video as dewarped. See [Viewing Exported Video From a Camera with a Panomorph Lens](#) below.

See the *Ocularis Viewer User Manual* for instructions on how to use the *Ocularis Viewer*.

9.4.5.3 Viewing Exported Video From a Camera with a Panomorph Lens

If you exported video from a camera with a 360° lens using Database Format, the inherent format for the video is in its original, 'warped' state. Only the Ocularis Client (not the Viewer) can dewarp the image into one of the camera's supported views (Single, Quad, Pano, etc). If the video is to be played on a computer without connectivity to Ocularis Base, do the following:

1. On the computer where the video is to be viewed, download and install the Ocularis Client software (obtain from <http://www.onssi.com/support/downloads>.)
2. Launch Ocularis Client.
3. Login with any username. Use one with only alphabet letters.
4. Leave the *Password* field blank.
5. In the *Server* field, enter the text: **local**

6. Click **Log in**.

Ocularis Client should launch with a blank screen.

7. Select *Views.....Load Database from File*
8. Select the exported database to view.

Now you may playback the clip and use the camera's corresponding dewarping tools to change its view.

9.5 Exporting Still Images (individual frames)

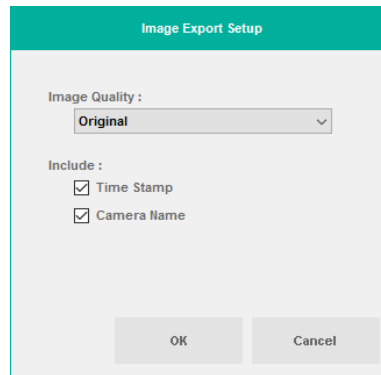
Rather than full-motion video, you may want to export a still image or series of still images from *Ocularis Client*. Single-camera still images can be extracted either as single frames or multiple frames, covering the entire export range.

Figure 76 Export a Still Frame



9.5.1.1 To export a Single Frame

1. From Browse mode, select a camera, and set the Timeline to the desired point in time, with the desired image displayed.
2. Click 'Export' on the menu bar and select 'Individual Frames'.
3. Check the 'Single Frame' radio button.
4. Click 'Setup' to set the Still Image export parameters:

Figure 77 Image Export Setup

5. Set the image quality to Original, Medium or Low. Exporting images in 'Original' quality will result in larger file size, while reducing the image quality may cause image degradation.
6. Check the 'Time Stamp' and 'Camera Name' checkboxes to include camera and timestamp information in the export.
7. Click 'OK' to return to the 'Export Still Frame' dialog box, and click 'Export'.

You may view the exported .jpg image with any application that supports this file type.

9.5.1.2 To export all frames from the selected range

1. From Browse mode, select a camera.
2. On the Timeline, set the start and end points for the exported segment (see *Designating a range for exporting video*, page 87).
3. Click 'Export' on the menu bar and select 'Individual Frames'.
4. Check the 'Full Timespan' radio button.
5. Click 'Setup' to set the Still Image export parameters:
6. Set the image quality to Original, Medium or Low. Exporting images in 'Original' quality will result in larger file size, while reducing the image quality may cause image degradation.
7. Check the 'Time Stamp' and 'Camera Name' checkboxes to include camera and timestamp information in the export.
8. Click 'OK' to return to the 'Export Still Frame' dialog box, and click 'Export'.

You may view the exported .jpg images with any application that supports this file type.

9. If you wish to cancel the export while it is still in progress, you may do so by clicking the Cancel icon in the 'Jobs' menu. See *Cancelling an Export* on page 91 for more details.

9.6 Printing a Still Image Report

Still Image Reports are one-page reports which include a still image as well as the associated time/date, camera information, operator and workstation identifiers and operator comments.

9.6.1.1 To Generate a Print Report

1. From Browse mode, select a camera, and set the Timeline to the desired point in time.
2. Click 'Export' on the menu bar and select 'Print'.
3. Enter a report Header, report Footer and Comments.

Figure 78 Still Image Report



4. Click 'Preview' to view the final report prior to printing.
5. Click 'Print' to print the report, using any local or networked printer.

Note:

If you select an area on the video and zoom in, the enlarged image will appear on the print report.

9.7 Bookmarks

A Bookmark is simply an exported video clip that is stored centrally. Bookmarks are a copy of the video data exported. These clips are maintained in their location indefinitely (or until they are manually deleted). Therefore, bookmarks exist long after the original video footage has reached its retention time limit. IT administrators can use any off-the-shelf back up tool to back up bookmarks in their saved location.

Bookmarks may be shared among multiple operators, directly from within Ocularis Client, saving time needed to create multiple copies of exported evidence.

Bookmarks may be assigned to an incident case and be categorized by classification or tag to facilitate organization. Like the Database Format export, bookmarks may include multiple cameras (audio and video).

The location of bookmark storage is configurable by the system administrator. The default location is on the same machine as Ocularis Base but the system administrator may change this location during installation.

The default path for bookmarks is:

c:\inetpub\wwwroot\OcularisService\Bookmarks\Data

The ability to create a bookmark is controlled in the *Ocularis Administrator* application on a camera by camera basis for each user group. You may have the privileges to bookmark video from Camera A but not Camera B. Contact your system administrator for assistance.

This feature is available in all Ocularis feature sets.

9.7.1 Creating a Bookmark

1. From *Browse* mode, designate a segment of video for export. See *Designating a range for exporting video*, page 87.
2. Click 'Export' on the menu bar.
3. Select 'Create Bookmark'.

If this button is disabled:

- Check that you are logged in to the Ocularis Base Server (using *Ocularis Client*) rather than directly to the recording component.
- You may not have bookmarking privileges. Check with your system administrator.

- You may not have identified a video clip.

Figure 79 Creating A Bookmark

If there are expected cameras missing from the resulting list, you may have limited privileges for bookmarking. Check with your system administrator.

4. Select a *Classification* to file the bookmark under based on the nature of the clip.
5. Select a *Case File* for the clip to be assigned. A Case File is an incident case which may contain multiple bookmarks or alerts related to the same event. Classifications and Case File designations are created and configured in the *Ocularis Administrator*. This field is optional.
6. Enter any *Tags* for the clip. Tags are keywords related to the clip content. Tags are created here and may be deleted in the *Ocularis Administrator*. This field is optional.
7. Enter any comments related to the clip or its contents. This field is optional.
8. Choose the camera feed(s) to be included in the bookmark export in addition to the selected camera, from those displayed in the current view.

To include a camera feed not shown in the original view, cancel the 'Create Bookmark' dialog and modify one of the view panes to display the desired camera using the 'Circular Control'. Then, click 'Export' and repeat steps above.

To include all cameras displayed, click the 'Select All' checkbox.

9. For each camera that has associated audio, an 'Audio' checkbox appears beneath the camera name. If you wish to also include recorded audio in the bookmark, check the Audio checkbox beneath the corresponding camera.

10. Click 'Submit' to create the bookmark.

You may verify the successful creation of the bookmark, by looking at the 'Status' column of the bookmark table. See *Viewing a Bookmark* on page 105 for more details.

9.7.2 Viewing a Bookmark


Viewing a bookmark is supported when using *Ocularis Client* with Ocularis Base.

1. Click 'Views' on the menu bar.
2. Select 'Tools' and then 'Bookmarks'.

Figure 80 Bookmarks



The resulting screen displays a list of existing bookmarks in the lower half and a 2 x 1 view with hotspots in the upper half.

3. Sort the list of bookmarks by clicking on the column heading.
4. Click the comment balloon to view bookmark comment 
5. Position the mouse over a Thumbnail to see an enlarged view of the thumbnail image.
6. Click a hotspot pane and then a thumbnail to view video from that Thumbnail.

The hotspot will show a still image of the start of the bookmark video clip.

7. Position the mouse over the pane to see the navigation controls for that pane. Use these controls to view the video.

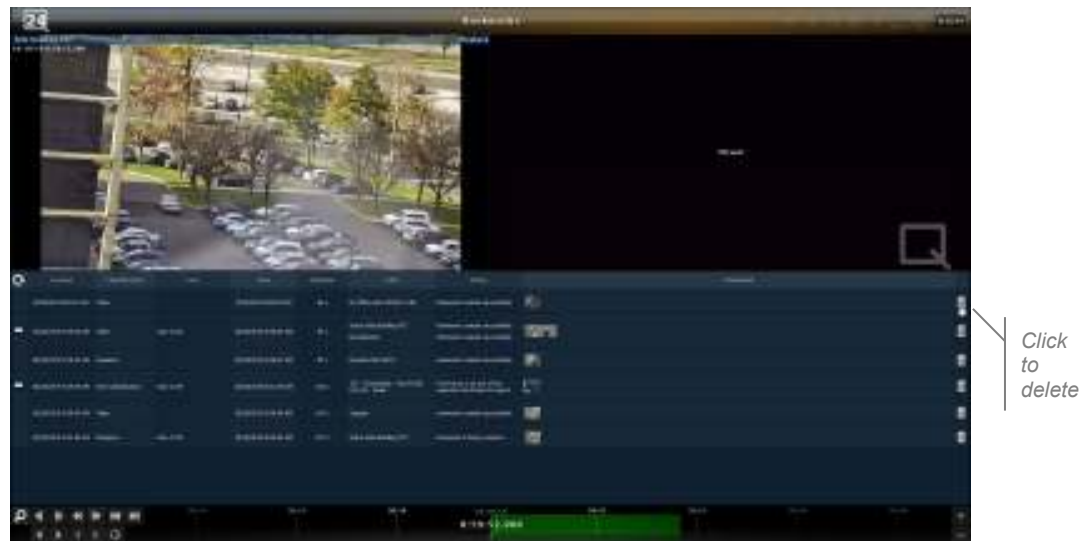
The 'Status' column of the Bookmarks table indicates whether the video of the bookmark was successfully created. In the case where audio is included during bookmark creation, there may be an instance where the video is successfully bookmarked but the audio export is not successful. In this case, a message appears in the hotspot view pane indicating an error with the audio export.

9.7.3 Deleting a Bookmark

Deleting a bookmark is a privileged feature. If a user creates a bookmark and the user is later deleted from the system, the bookmark still exists and is available to other members of the user group.

1. Click 'Views' on the menu bar.
2. Select 'Tools' and then 'Bookmarks'.

Figure 81 Delete A Bookmark



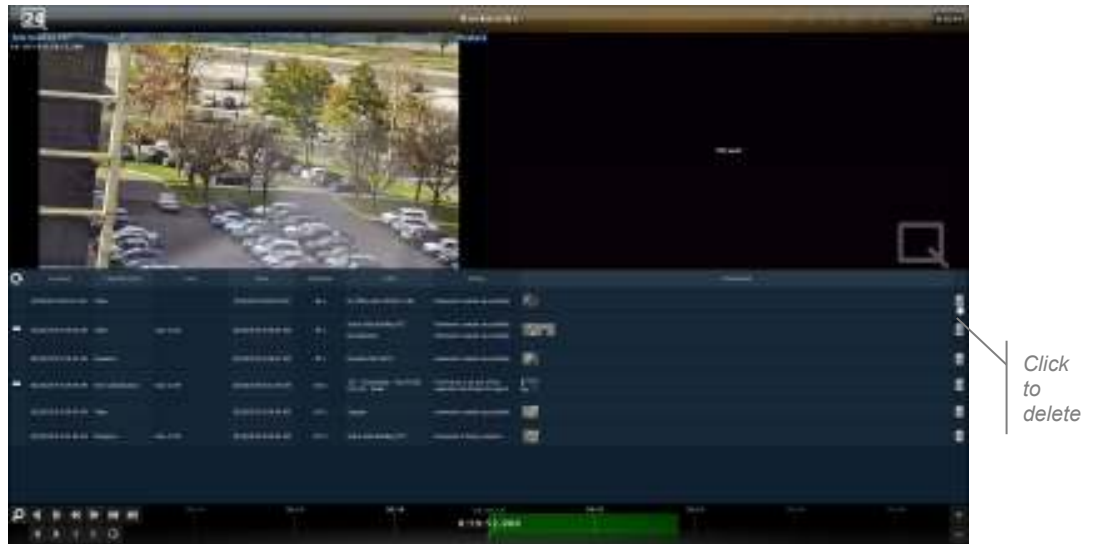
3. Click the trashcan icon on the right of the bookmark to delete.
4. Click **Yes** at the 'Do you want to delete 1 bookmark?' pop-up. Then click **OK**.

9.7.4 Deleting Multiple Bookmarks

Deleting multiple Bookmarks is easy. Simply select multiple bookmarks using the [SHIFT] or [CTRL] keys and select the multiple trashcan icon.

1. Click 'Views' on the menu bar.
2. Select 'Tools' and then 'Bookmarks'.

Figure 82 Delete Multiple Bookmarks



3. Select the bookmarks you wish to delete.
 - a. Click on the first bookmark to be deleted.
 - b. Use [SHIFT] and then click the left mouse button on the last contiguous bookmark to be deleted. This highlights a range of bookmarks.
 - c. If the bookmark you wish to delete is not contiguous, use the [CTRL] key to select multiple, separate bookmarks.

Once two bookmarks are deleted, a multi-trashcan icon appears.



4. Click the multi-trashcan icon in the column heading.
5. Click **Yes** at the 'Do you want to delete x bookmarks?' pop-up. Then click **OK**.

9.8 Export Progress

When you export video clips, images or bookmarks, the export process will take place in the background. This frees up the interface and allows you to continue to monitor and view video. A list of exported jobs and their progress is available in the Jobs menu.

Viewing Exported Jobs

1. Click the **Jobs** menu.

Figure 83 Export Progress



Exported Jobs

- Clips are listed in the order in which they were exported. Those jobs which are completed are labeled with '(Done!)'.
- Clips that are still being exported are shaded with a progress bar and the percentage complete is shown.

- Clips listed are those which have been exported in the current session. The list is cleared when the user logs out and is empty upon re-log in.
- If you wish to cancel the export, you may do so by clicking the Cancel icon in the 'Jobs' menu. See *Cancelling an Export* on page 91 for more details.

10 Alerts

The Alerts feature is available with all feature sets of Ocularis. It encompasses the following:

- Blank screen monitoring
- Storing and handling alerts
- Access of stored alerts
- Visible alert location on a map
- Posting alert video to a video wall (For Ocularis PS, local video wall only)
- Scheduling automatic handling of alerts

Alerts are generated when a configured event occurs. The event can be as simple as motion detected on a camera to complex composite events that combine multiple events into one (e.g. when there is motion on camera A and a card swipe is detected from an access control system, generate an alert). Alerts may be configured on the NVR itself or from the *Ocularis Administrator*. The *Ocularis Administrator*, however, controls the distribution of an alert regardless of where it was configured. When an operator is logged in through Ocularis Base, for instance, alert video is forwarded to the *Ocularis Client*.

Note:

Alert notification is controlled on a distribution group and schedule basis. It may also be automatically handled based upon an alert schedule. If you do not see an expected alert it may be because either your user account was not given adequate permission, the time period for which you should receive the alert has passed or the alert itself was scheduled for automatic handling and was stored directly to the database. See your system administrator for assistance.

10.1 Blank Screen Monitoring

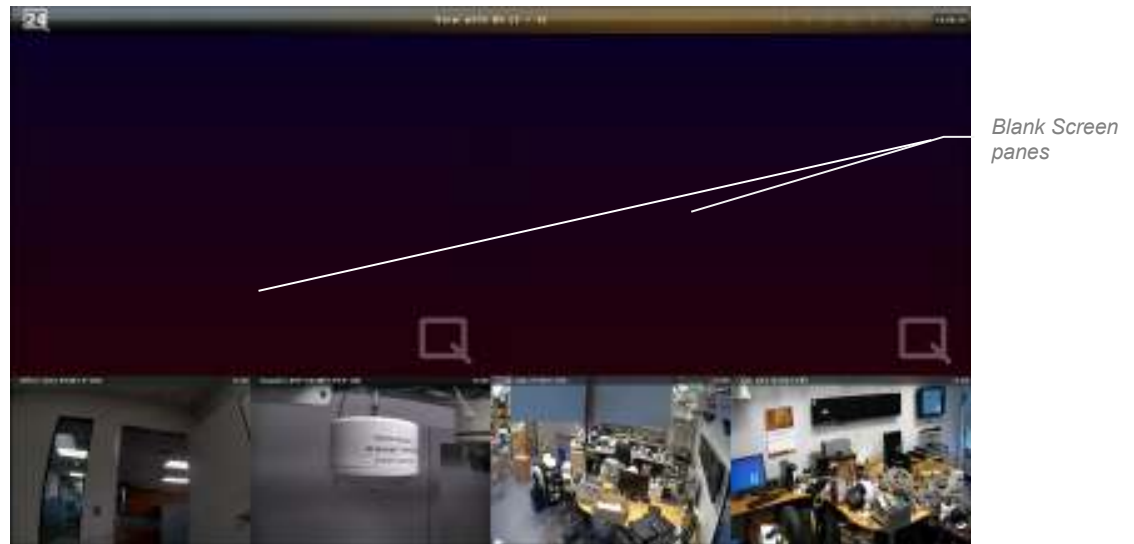
Blank Screen monitoring is an effective way to notify an operator when an event occurs. The view pane is 'blank' until an event occurs and video from the alert is pushed to the blank screen pane. Video from one or more cameras may be displayed triggered by a single alert. This eye-catching method of video display draws the attention of the operator to video where some action is taking place.

Configuring a view pane with a Blank Screen is done in the *Ocularis Administrator* and therefore, this function is supported only when using *Ocularis Client* with Ocularis Base. For instructions on Blank Screen configuration in *Ocularis Administrator*, see the *Ocularis Administrator User Manual*.

10.1.1 Using Blank Screen Monitoring

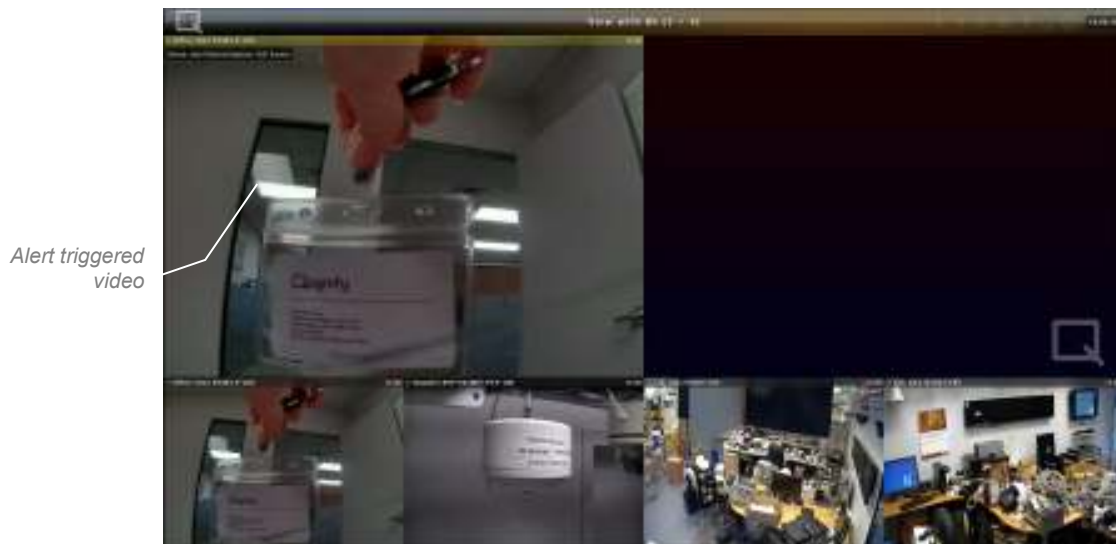
Start by displaying a view that was configured with a Blank Screen pane. Select the 'Views' menu and choose the view containing the Blank Screen.

Figure 84 Blank Screen Monitoring



When an alert occurs, video will be populated in the Blank Screen pane.

Figure 85 Motion Triggered Alert

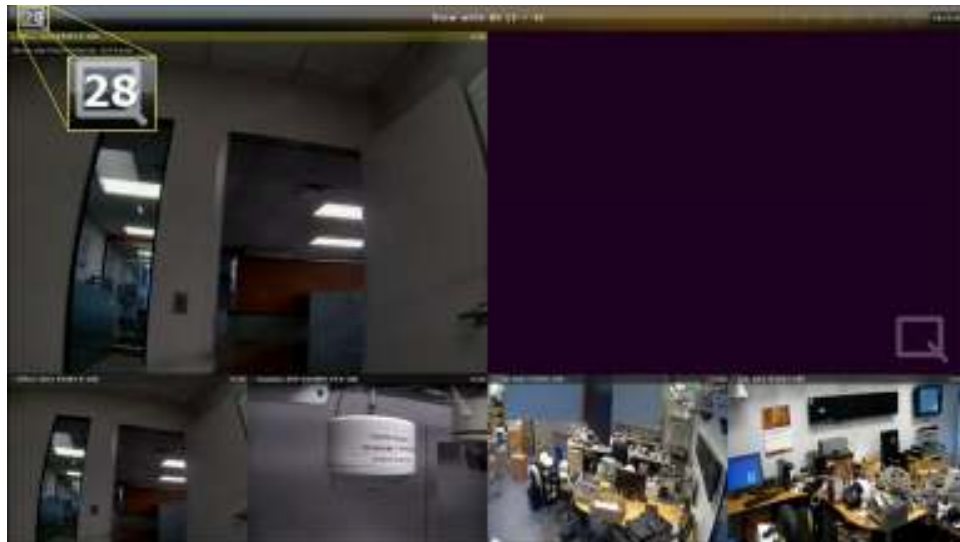


If you position the mouse over the Blank Screen pane, navigation controls appear allowing you to play or pause the alert video.

Figure 86 Blank Screen Controls

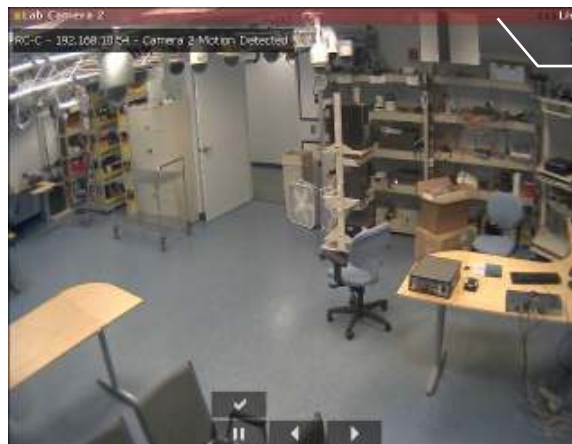
10.2 Alert Counter

An *Alert Counter* appears in the upper left corner of the screen to indicate the number of alerts received in the current session. When you log in, you will be presented with the last 20 alerts directed to your user account as configured by the system administrator.

Figure 87 Alert Counter

10.3 Alert Priorities

Administrators assign priorities to each alert using the *Ocularis Administrator*. (See the *Ocularis Administrator User Manual*.) Priorities are identified in *Ocularis Client* by a colored bar at the top of the Blank Screen pane.



color coded
for alert priority

High Priority Alert

The color code for alerts is defined as follows:

- Blue = zero (0) priority alerts
- Green = low priority alerts
- Yellow = medium priority alerts
- Red = high priority alerts

Zero, low and medium level alerts remain visible in a Blank Screen pane for about 10 seconds (default dwell time) and then they are cleared from the screen. Low and medium priority alerts can be retrieved from the Alert Manager. Zero priority alerts, once cleared from the screen, are not saved or retrievable. By default, high priority alerts remain visible on the Blank Screen pane until they are acknowledged by an operator or another alert of equal or higher priority occurs. High priority alerts may be configured so that they too will be cleared from the screen after the dwell time.

An audible sound may be heard when an alert is triggered. The sound may be different for each alert regardless of priority. Audible alerts are configured in the *Ocularis Administrator* application.

Low, medium and high priority alerts go either to the 'Alert Manager' or the 'Handled Alerts' list and may be investigated and reviewed at a later time.

10.4 Clearing an Alert from a Blank Screen

10.4.1 High Priority Alerts

A High priority alert remains visible until an operator handles it from the Blank Screen pane or until another alert with the same or higher priority occurs. It may also clear the screen after the dwell time has been reached if configured to do so. Click the acknowledge button (checkmark icon)

above the navigation controls to acknowledge the alert and clear the pane. You can view the handled alert at any time. See *Handling Alerts* on page 119 for more information.



Acknowledge a high priority alert

Note:

If a blank screen is used on an unmanned video wall, high priority alert video may be replaced with another alert of the same or lower priority once the dwell time has been reached. The high priority alert can be retrieved from the alert manager at a later time.

10.4.2 Medium, Low and Zero Priority Alerts

Since Medium, Low and Zero priority alerts display on the blank screen temporarily, there is an option to *pin* the video to the pane until such time as it is cleared manually or until another alert with higher priority occurs. This gives you the opportunity to investigate the alert video before it is cleared from the pane.



non-high priority alerts

- Click the checkmark (acknowledge) to handle the alert now. It will then be moved to the 'Handled Alerts' list.
- Click the 'Pin' icon when viewing to keep the video displayed and investigate further.
- Clear the pane of video by using the Circular Control Menu (right-click or left click and hold) and select the 'Remove Camera' icon. This unhandled alert will be listed in the Alert Manager and can be viewed and handled at a later time. See *Handling Alerts* on page 119 for more information.

10.5 Alert Handling Notification

If multiple operators are viewing blank screen video at the same time and someone handles the alert, all others who happen to be viewing the same alert will see an overlay notification that the alert is being handled and by whom. Once handled, the video will be cleared from the blank screen for all parties.

alert handling
notification



10.6 Alert Manager

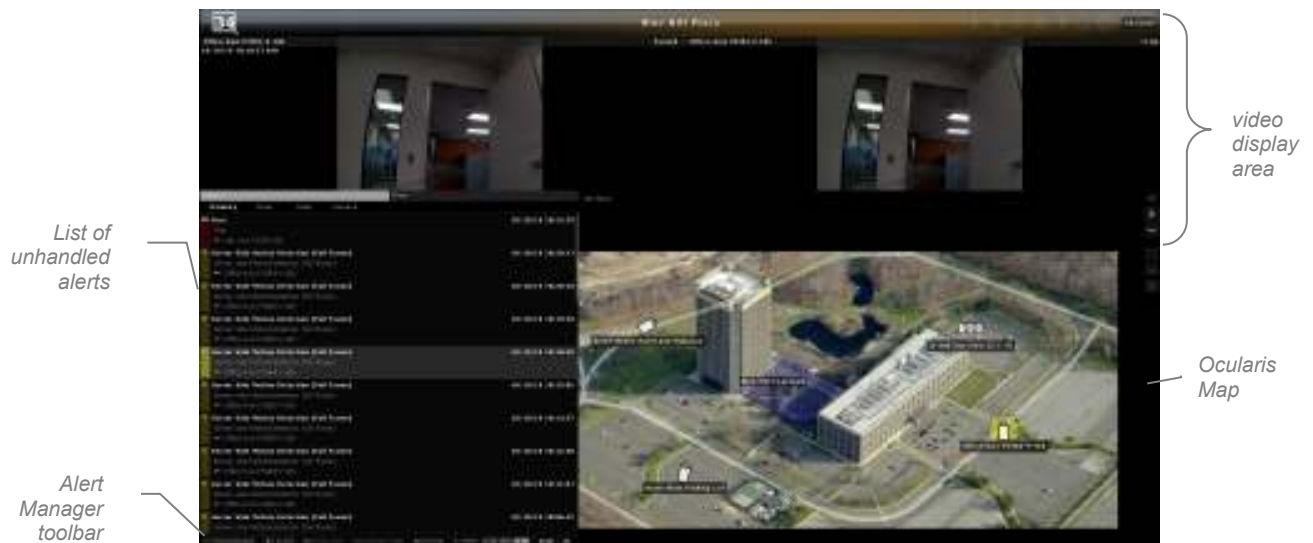
The Alert Manager displays a list of alerts that have been triggered but have not yet been handled. You can view, sort, store and review alerts. You can also locate alert locations on a map.

Launch the *Alert Manager* by one of the following methods:

From the menu bar, select: *Views* → *Tools* → *Alert Manager*.

Or click the *Alert Counter* found in the upper left corner of the screen.

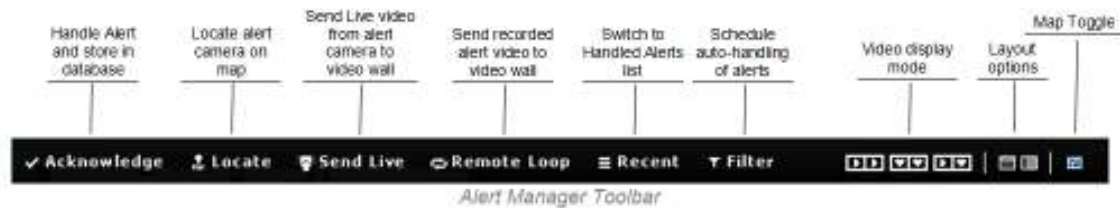
Figure 88 Alert Manager Interface









The Alert Manager screen may be customized between two layouts: 'Row layout' and 'Column Layout'. In 'Row Layout' (see example above), the upper section of the screen displays video related to the configured event that triggered the alert. The lower left section displays a list of alerts with associated information (event name, camera name, priority, timestamp, etc). The lower right section displays a map. If multiple maps are available, use the 'Locate' button to find the alert on a map.

In 'Column Layout' (not shown), the video display area is shown in the upper right section of the screen, the list of unhandled alerts on the left and optional Ocularis Map in the lower right. Use the 'Layout Options' tool on the *Alert Manager Toolbar* to change between the two layouts.

10.6.1 Alert Manager Toolbar



The tools on the Alert Manager Toolbar can be defined as follows:

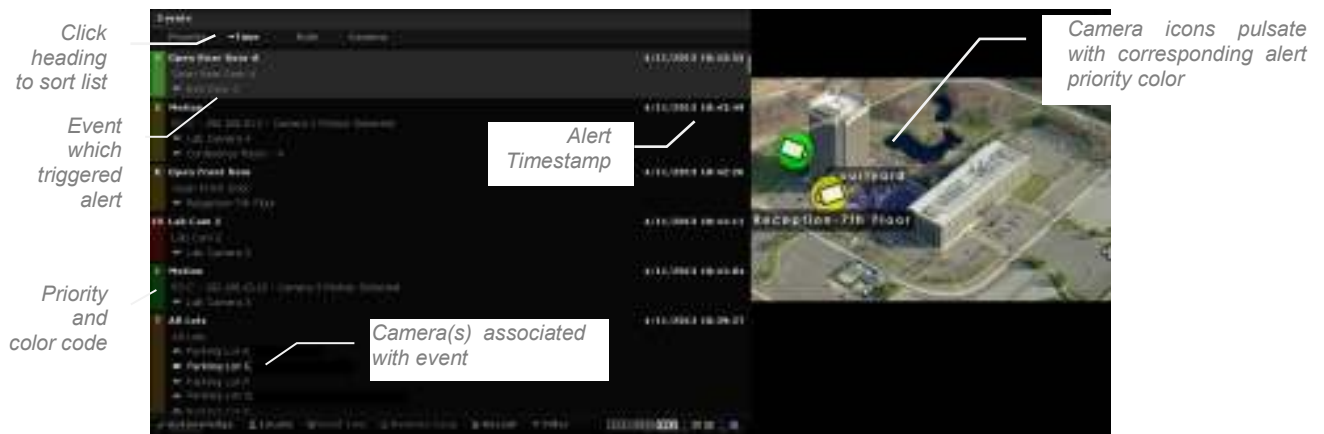
| Tool | Description |
|---------------------------|---|
| Acknowledge | The <i>Acknowledge</i> tool will store the selected alert into the database of Handled Events. You'll be prompted for detailed information about the alert. See <i>Handling Alerts</i> on page 119. |
| Locate | The <i>Locate</i> tool will center the map on the primary camera for the selected event. This will only work if the map is displayed. |
| Send Live | The <i>Send Live</i> tool works in conjunction with Ocularis Video Walls. If a video wall is displayed on a map in the Alert Manager, operators can push live video from the primary camera associated with the selected event to the video wall. See <i>Sending Live Video</i> on page 144. |
| Remote Loop | The <i>Remote Loop</i> tool also works in conjunction with Ocularis Video Walls. If a video wall is displayed on a map in the Alert Manager, operators can push recorded video from the primary camera associated with the selected event to the video wall. See <i>Sending Recorded Video</i> on page 144. |
| Recent | Click this tool to switch to the Handled Alerts list. |
| Filter | This tool allows privileged operators to create schedules where alerts can be automatically handled or discarded based on a timetable. See <i>To Schedule Alerts for Automatic Handling</i> on page 123 |
| Video Display Mode | The three video display mode icons switch the video display area as follows:  Show All Camera's Event Triggered Recorded Video  Show All Camera's Live Video  Show Selected Camera Event Triggered and Live Video |
| Layout Options |  Click this icon to display the Alert Manager in 'Row layout'  Click this icon to display the Alert Manager in 'Column Layout' |
| Map Toggle |  Show or Hide Ocularis Map; if a triggered alert is from a camera which is displayed on a map, you can display the corresponding map by selecting the event and clicking the Map Toggle icon. This works in conjunction with the Locate tool. Click 'Locate' to center the map on the camera whose event triggered the alert. |

The tools on the toolbar become emphasized or dimmed based on their applicability.

10.6.2 Alert List

Alerts triggered from configured events appear in the Alert Manager. The list of alerts shows those which have occurred but have not been handled. ‘Handling’ an alert is defined as acknowledging it, applying optional keyword tags or classifications and storing it in the Handled Alerts database for later retrieval or review.




Figure 89 Unhandles Events in Alerts List



- Click a column heading to sort the list by that item (Priority, Time, Rule or Camera) in ascending order. Click the column heading again to reverse the sort by descending order.
- Select an alert in the list to display video from that alert in the video display area.

10.6.3 Video Display Modes

The Alert Manager view allows the operator to change the modes of the video triggered by the alert. There are three options:

-  Show All Camera's Event Triggered Recorded Video
-  Show All Camera's Live Video
-  Show Selected Camera Event Triggered and Live Video

10.6.4 Show All Camera's Event Triggered Recorded Video

Select an alert and click the icon:



Recorded video from all cameras associated with the event will be displayed in the video display area. The thumbnails will resize to fit all cameras.

Figure 90 Alert with Multiple Associated Cameras



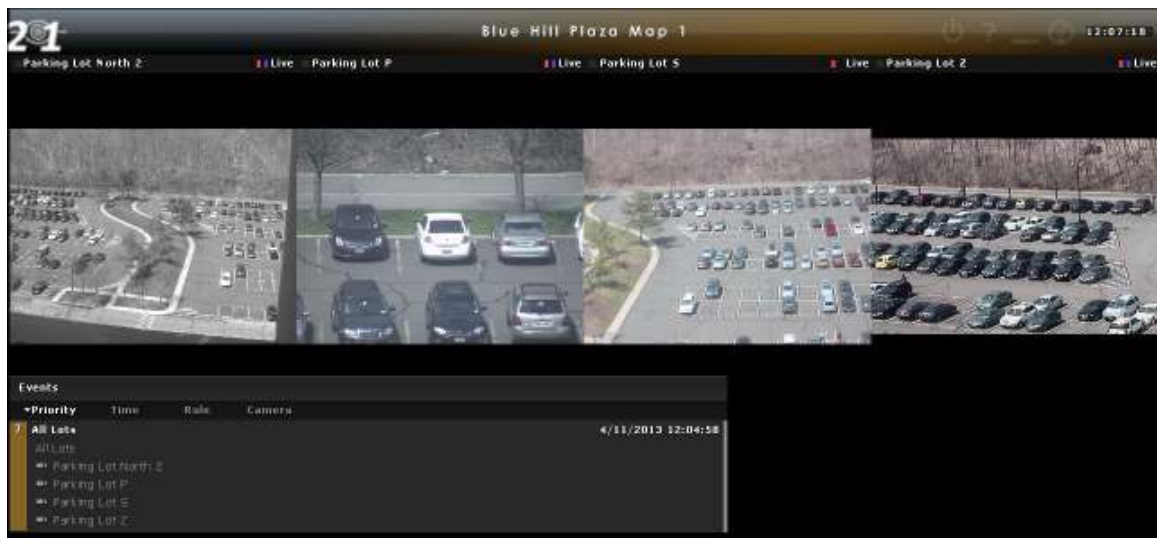
10.6.5 Show All Camera's Live Video

Select an alert and click the icon:



Live video from all cameras associated with the event will be displayed in the video display area. The thumbnails will resize to fit all cameras.

Figure 91 Live Video From Multiple Camera Alert



10.6.6 Show Selected Camera Event Triggered and Live Video

Select an alert and click the icon:



Live and recorded video from the selected camera associated with the event will be displayed in the video display area. In row layout, the recorded video is on the left and the live stream is on the right.

Figure 92 Recorded & Live Video from Alert



10.7 Storing and Handling Events

As alerts are received and reviewed, operators can choose to file or store the events for later retrieval. Alerts in the Alerts List are only sustained for the current *Ocularis Client* session. Therefore, important alerts should be saved and categorized ('Handled') so that they may be viewed at a later time.

10.7.1 Handling Alerts

Alerts may be handled from the Alert Manager or from video displayed in a blank screen pane.

1. From the *Alert Manager*, select the alert and click the 'Acknowledge' tool in the Alert Manager toolbar.

From a blank screen pane, click the checkmark icon in the Overlay Controls.

2. Fill out the fields in the resulting 'Handle Event' pop-up window.

Figure 93 Handle Event

Handle Event

Classification
-- None --

Case
-- None --

New Case...

Tags
Enter multiple tags separated by space

Comment

Submit Cancel

3. Select a category for the alert from the 'Classification' drop-down list. These Classifications are defined in the *Ocularis Administrator* by the system administrator. This field is optional.
4. Select an existing incident case file from the 'Case' drop-down list. This field is optional. Click the 'New Case' button to add a new Case File.
 - a. In the event you wish to add a new case file on the fly, enter the case name in the 'Name' field and any comments specific to this file.
 - b. Click 'Submit'.
 - c. Be sure to select the new case from the 'Case' drop-down list.
5. Enter keywords to be used as tags for the incident in the 'Tags' field.
6. Enter specific comments regarding the alert incident in the 'Comments' field.
7. Click 'Submit'.

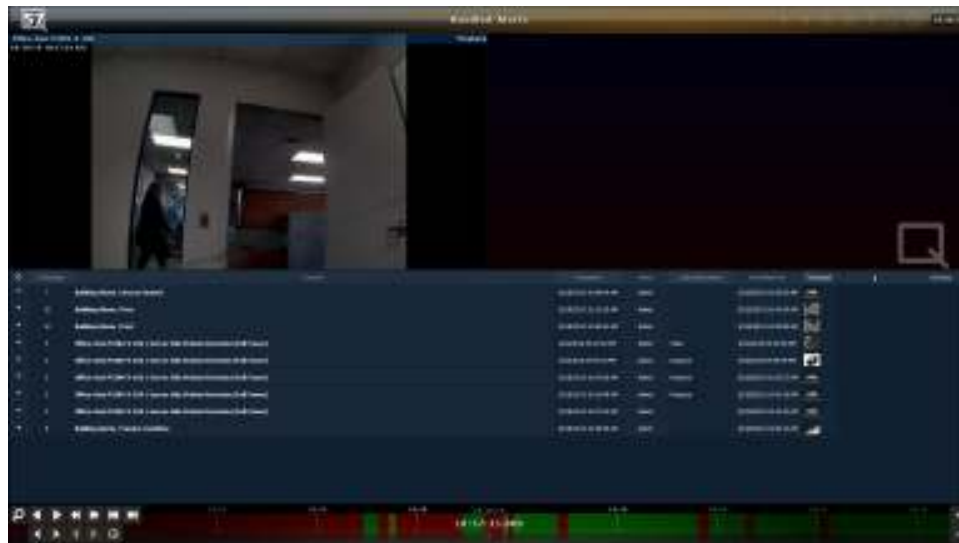
The alert is removed from the unhandled alert list and can be accessed at a later time under 'Handled Alerts'.

10.8 Accessing Stored (Handled) Alerts

Once alerts have been handled, they can be accessed at any time.

From the menu bar select: **Views** ➔ **Tools** ➔ **Handled Alerts**. The result is a list of all handled alerts.

Figure 94 Handled Alerts List



Note:




The ability to view handled alerts is controlled through the user account. If you have trouble viewing handled alerts, see your system administrator for assistance.

The upper portion of the screen shows the recorded video clip that was captured during the event. Click the thumbnail of the event to populate this area. Use the Kinetic Timeline or timeline tools to navigate the video clip.

- In the event that there are multiple cameras associated with an event, the thumbnail will display a filmstrip icon. The video shown will be that of the primary (first) camera in the group.
- In the event that the event was handled via the 'Batch Handle' function by the system administrator (this is performed in the Ocularis Administrator application), the thumbnail shown will be that of a plain camera. Click this icon to see the video from the primary camera associated with the event.



In the lower half of the screen, a table is displayed with each row representing a handled alert. The following columns are provided in the table:

| | |
|--------------------------|---|
| Reload | Click the icon  to refresh the list and view alerts handled by others in your user group (pending privileges) while viewing this screen. |
| Expand / Collapse | <div>  Click to expand row detail </div> <div>  Click to collapse row detail </div> |
| Priority | The priority number assigned to the event. |
| Event | The name of the event that triggered the alert |
| Created | The date and timestamp when the event occurred. |
| User | The name of the user (Ocularis Client account name) who handled the alert. |
| Classification | The classification category assigned to the alert. |
| Handled at | The date and time when the alert was handled. |
| Thumbnail | A thumbnail of the video for the alert. Hover the mouse cursor over the thumbnail to view a larger thumbnail image of the alert video. Click the image to see alert video. |
| Event count page | 25 events are shown on a page. If you have more than 25 handled events, you can page through the list using the column heading navigation. |
| Number of Events | The total number of handled events is displayed |

10.8.1 Event Detail

Click the expand icon  to view additional details regarding the handled alert:



When you expand a row to display the details for the handled alert, the following appears:

| | |
|-----------------|---|
| Comments | If the handler of the alert entered comments during handling, the comments are listed first. (Optional) |
| Tags | Any tags (key words) assigned to the alert are listed next. (Optional) |
| Case | The case designation is listed next. (Optional) |
| Cameras | The camera(s) associated with the event are listed. Note that the camera(s) listed here may be different from the camera which may have actually triggered the event. |

10.8.2 Sorting Handled Alerts

To locate alerts more easily, click the column heading to sort the list by that column.

10.8.3 Viewing Alerts

To view video from a handled alert:

1. From the 'Handled Alerts' screen, click the thumbnail image of the alert you wish to view.
Browse mode is invoked and the upper left pane is populated with the recorded alert video.
2. Use the Kinetic Timeline and its navigation controls to rewind or forward the video recorded at the time of the alert.

10.8.4 Exporting Alert Video

While viewing handled alerts, you may have a need to export the alert video. Just as you can export video to .AVI format, database format or bookmarks while browsing, you can export video clips from a handled alert.

10.8.4.1 To export a video clip from alert video

1. From the 'Handled Alerts' screen, click the thumbnail image of the alert you wish to view. You should already be in 'Browse' mode.
2. Use the Kinetic Timeline to set the start and end times for the video clip to be exported.
3. Click 'Export' on the menu bar.
4. Choose your method of export from the resulting 'Export Options' box.

10.8.5 Automatic Alert Handling

Rather than handle each alert one-by-one, two mechanisms have been implemented to handle events in bulk.

- The system administrator can batch handle events from the *Ocularis Administrator* application. He or she can automatically handle a set of alerts based on event source, event or age. See the *Ocularis Administrator* User Manual for more details.
- Qualified operators can schedule events to be automatically handled from the Ocularis Client Alert Manager.

10.8.5.1 To Schedule Alerts for Automatic Handling

Privileges to access this feature must be specifically granted by the system administrator. Use this feature to create schedules where events are automatically handled or discarded. For

instance, if you know that building maintenance will be doing some construction in an area where you have cameras and events configured, you may want to automatically handle these alerts during the time of construction to save the operators' time and effort on dealing with nuisance alerts.

1. From the *Ocularis Client* Alert Manager, click the *Filter* tool on the Alert Manager toolbar.

Figure 95 Create Event Schedule

2. Enter a name to assign to the filter in *Filter Name*.
3. Select the Event category(s) (or event source) that you wish to be affected.
4. All events from the sourced checked in 'Events' are listed in 'Filtered Events'. You may deselect those events you do not want included as part of the schedule by click the event and then clicking the Remove button. You may select multiple events.
5. Enter the start time for the schedule. You can type in the date or select it from the drop-down menu. The default start time is the current time. If you need to modify this, simply type in the new start time.

6. Enter the end time for the schedule. You can type in the date or select it from the drop-down menu. The default end time is one hour from the current time. If you need to modify this, simply type in the new start time.
7. Select either *Discard* or *Autohandle*. We recommend 'Autohandle' as alerts which occur meeting the criteria set in the schedule will automatically be stored in the Handled Alerts database and can be reviewed at a later time.



The 'Discard' option will eliminate alerts from being accounted for in the database or on the screen.

8. Click 'Submit'.

Alerts handled using this method will be shown in the Handled Alerts list with the plain camera thumbnail image.

11 Flags

A video flag is a timestamp on an image of video. Operators can flag video for later reference if they see something of interest. Flags may also be created on recorded video. The ability to view & create or modify & delete flags are privileged features and configured in Ocularis Administrator.

If you have the privilege to create flags, you'll see the flag overlay on the camera video.

Figure 96 Flag Overlay



11.1 Create A Flag (Live)

1. On the camera pane for which you want to create a flag, click the 'Flag' overlay.

A 'Video Flag Created' message appears in the upper left corner of the pane.

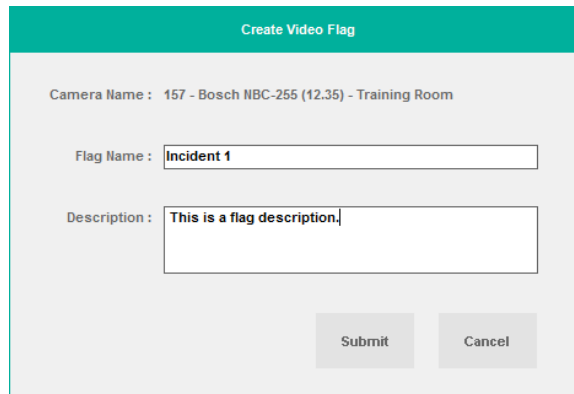
Figure 97 Creating a flag in Live Mode



11.2 Create A Flag (Browse)

1. Click 'Browse' to enter Browse Mode.
2. On the camera pane for which you want to create a flag, click the 'Flag' overlay.

A 'Create Video Flag' pop-up appears.

Figure 98 Create Video Flag (Browse Mode)

Camera Name : 157 - Bosch NBC-255 (12.35) - Training Room

Flag Name : Incident 1

Description : This is a flag description.

Submit Cancel

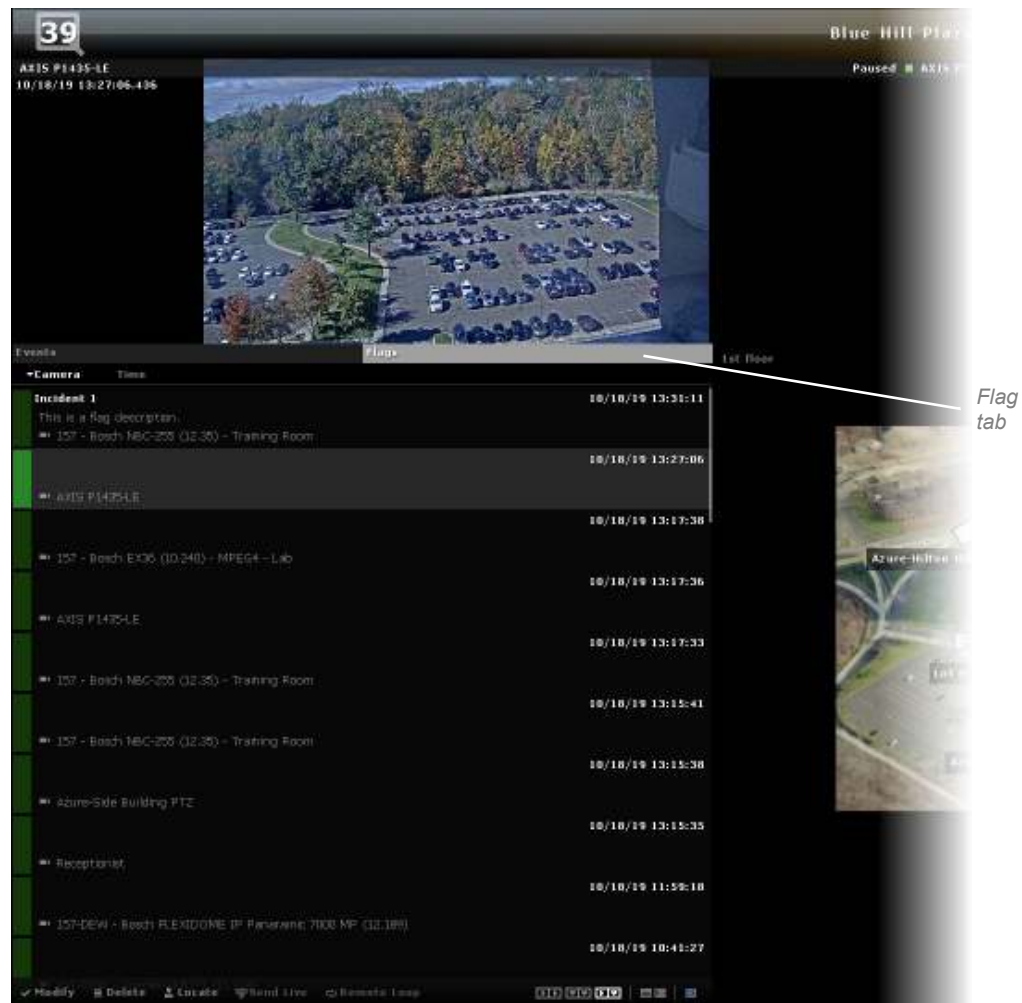
3. If desired, enter a name for the flag and optional description. Click **Submit**.

11.3 To View Flags

Use the Alert Manager interface to access flags.

1. Access the Alert Manager by clicking the Alert Counter or Views>Tools>Alert Manager.
2. Click the 'Flags' tab adjacent to the Events tab.

Figure 99 Flag List



You can sort the flag list by clicking on the Camera or Time headings.

3. Select a Flag in the list. The flagged image will appear in the upper left pane while live video appears in the upper right pane.
4. Use the navigational overlays to view video forward or backward from the timestamp of the flag..

Note: the Flag List does not refresh automatically. Reload in order to view an updated list.

Use the tools at the bottom of the list to:

- **Modify** – this allows you to add or edit **Flag Name** or **Description**
- **Locate** – locate the camera for the selected Flag
- **Delete** – to delete the flag

11.3.1 What Flags Are Displayed?

There is a chance that flags will be listed for video that has already been purged due to retention settings. Conversely, flags may be missing for video that has not yet been deleted. Flags are purged based on settings in the Device Manager ('Automatically delete events older than'). If you find that you are missing flags or that you have orphaned flags, ask your Administrator to check the settings on the Device Manager.

Flags only appear once there is a connection to the recorder. If you have multiple recorders, you may not see pertinent flags to a specific camera if that camera's video has not been viewed in the current session. To remedy this, right-click a pane to open the camera and then it and all flags from that recorder should be visible. Like camera video, you will only see flags for cameras to which you have permission to view.

12 Triggers

Ocularis Client enables triggering of outputs (relays) for activating external devices such as electronic locks, gates, camera presets, switching lights on and off, alarm systems, etc. These manual events can be global or associated with a particular camera and are configured on the recorder. A single trigger may include one or more actions, e.g. a button trigger can sound an alarm and send a PTZ camera to a specific preset.

All triggers are configured on the recorder; please refer to the recording component user manual for more information. Trigger activation is done in two places depending on the type of trigger.

12.1 Global Triggers

Global triggers are system wide and set up on the recorder.

From the Ocularis Client menu bar select: *Triggers* → *Global Triggers*. The result is a list of all configured manual events. Select the trigger to manually activate it.

Figure 100 Manually Execute a Global Trigger



12.2 Camera Level Triggers

Camera specific triggers are also available. With Ocularis 5, these are configured by administrators as a 'Button' associated with a specific camera. These triggers are launched directly from the view pane of the corresponding camera.

Figure 101 Camera Level Trigger

1. Display the camera with the camera level trigger.
2. In the View pane, click the 'aux' overlay button.
3. The resulting pop-up may display multiple tabs. Click the 'Triggers' tab to display the camera triggers (buttons).
4. Select the desired trigger from the displayed list.

If you do not see triggers that you once were able to see, contact your system administrator. It may be that the trigger needs to be privileged.

13 Ocularis Maps

Maps are supported when using *Ocularis Client* with any model of Ocularis. A map is a graphical representation of the Ocularis environment and is configured in the *Ocularis Administrator* application. Using *Ocularis Administrator*, system administrators import images to be used as maps and icons to represent cameras and views on those maps. The administrator positions icons on maps, links individual maps to each other and assigns access to maps for operators.

Viewing maps is done through the *Ocularis Client* from the Ocularis Maps or Alert Manager functions.

13.1 Viewing Ocularis Maps

1. From the menu bar select: *Views* ➔ *Ocularis Maps*.


The names of the installed maps are listed.


2. Select the desired map from the map list.




The map is displayed with icons for cameras and views as configured by the system administrator.

13.2 Map Navigation

Zoom in on a map in by using the scroll wheel of the mouse or clicking the zoom in icon. 

Zoom out of a map in by using the scroll wheel of the mouse or clicking the zoom out icon. 

Click a map link area or floating map pin to navigate from one map to another.

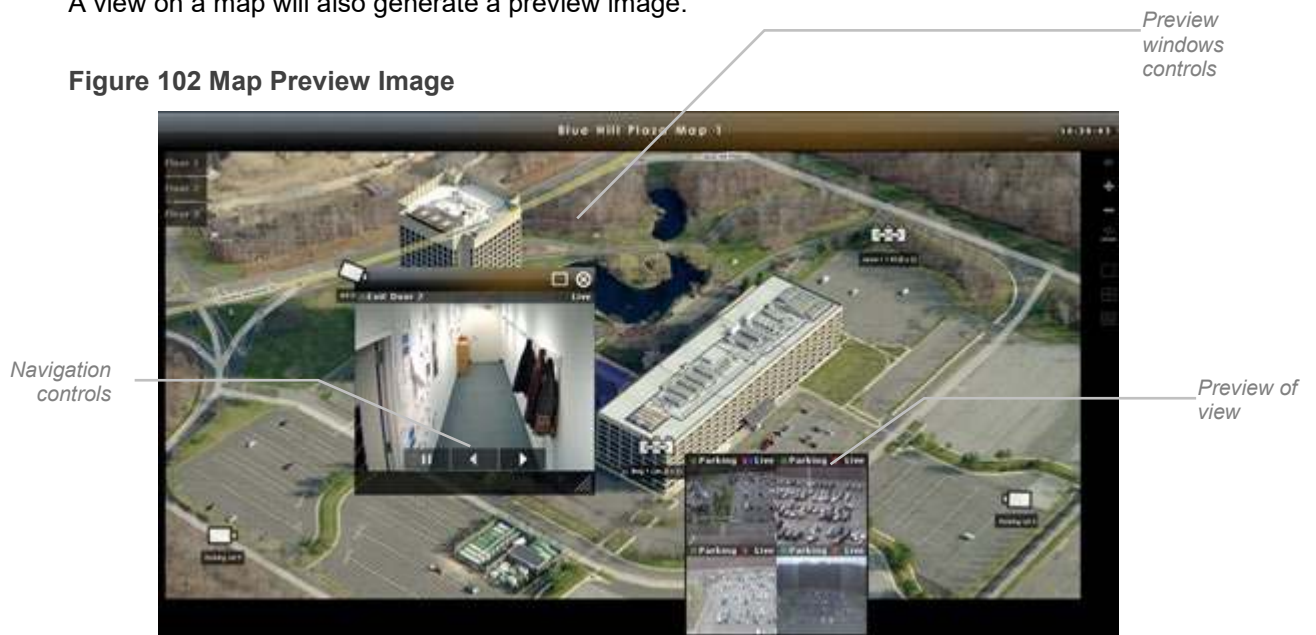
Click the back map navigation icon to go back to the previous map. 

13.2.1 Image Preview

For any camera icon displayed on a map you can open the corresponding video image by clicking and holding the primary (left) mouse button on the icon. The preview image that appears may be resized or moved on the screen. If you hover the mouse over the preview image, navigational controls appear which allow you to review recorded video.

A view on a map will also generate a preview image.

Figure 102 Map Preview Image



You can use the navigation icons within each view pane to navigate recorded video from the view.


13.2.1.1 Preview Window Controls

Once a preview window is displayed, controls are identified as:

Figure 103 Preview Window



- Use the *Preview Expand* tool to resize the preview window

- Click and drag the *Image bar* to move the position of the preview window
- Click the *Preview Close* button to close the preview window
- Click the *Preview Lock* button to lock the preview window. Once the window is locked, you may click on other camera icons or views and their image(s) will populate inside this window. Click the *Return* icon to unlock the preview so that multiple windows may now be displayed. 

13.2.1.2 Maximize Pane in a View

For views on a map, you can maximize a pane within the view window.

1. If desired, resize the view on the map.

Figure 104 Mazimize View on a Map



2. Click the image bar of the pane you wish to maximize. The pane will expand to fill the view window.

Figure 105 View Maximized on a Map

3. Click the image bar again to restore the pane to its previous size.

13.2.2 Image Arrange

To automatically arrange open preview images, click the Image Arrange Icon.



Preview images are arranged at the bottom of the map.

Figure 106 Arranging Images From A Map

13.2.3 Camera Field of View

You may notice a blue shaded area in front of a camera icon. This is the camera's field of view. Administrators may choose to use this graphic to represent how much coverage the camera provides.

Figure 107 Map with Camera Fields of View

13.2.4 Metadata Content on a Map

If there is an integration with a third party system, you may see other non-camera icons displayed on a map. Check specific details with your system administrator.

14 Ocularis Video Walls

A *video wall* is a monitor or set of monitors used solely for the purpose of displaying video and can dynamically accept video pushed to it by system triggered events or by an operator. An Ocularis video wall is simply a collection of monitors on a dedicated computer (or computers) running an instance of *Ocularis Client*. No special monitoring software is needed for a video wall.

14.1 Ocularis Video Wall Configuration

Video walls are defined in the *Ocularis Administrator*. They are controlled by an operator in the *Ocularis Client* when viewing a map. On the PC(s) used as a video wall, install and log in to *Ocularis Client*. Select a desired video wall as defined in '[To Configure A Video Wall](#)' on page 82.

14.2 Using a Video Wall

As you are viewing an Ocularis map, you may encounter video from a camera or a view you would like to display on a video wall.

1. Display the video wall template by selecting 'Video Walls' from the menu bar.

The Video Walls menu lists all video walls for which you have been granted access.

Note:

Access to video walls is restricted based on privileges assigned to the user group in the Ocularis Administrator.

2. Select the desired video wall.

The panes of the selected video wall are graphically displayed.

Figure 108 Virtual Video Wall Layout Panels

3. Drag & Drop a camera from the map to a pane on the virtual video wall.

Figure 109 Drag & Drop Camera From Map to Video Wall

The virtual video wall will display the camera name and the actual video wall will display the video from that camera.

4. Drag & Drop a view from the map to a pane in the virtual video wall to display an entire view on the video wall.

You can also click the virtual pane and then click the camera or view to populate the pane accordingly.

Tip: If you drop a view that contains a blank screen onto a video wall, the blank screen alerts will also display on the video wall.

14.3 Show/Hide Video Wall

On the operator's screen, the video wall template may be so large that trying to navigate the map on the same screen becomes tedious. You can roll the video wall up or down in order to view the map underneath.

In this example, the video wall overlay is covering a good portion of the map. The operator may have difficulty posting video from this map to the video wall due to the coverage of the overlay.

In the upper left corner, there is a collapse/expand icon next to the video wall name. Click to collapse the video wall.

Figure 110 Video Wall in 'Rolled Down' Position






Move the mouse cursor down the screen and you will see the video wall 'roll up' It is still there, except it is just hidden from view. The video wall toolbar is still visible. .

Figure 111 Video Wall in 'Rolled Up' Position

14.4 Changing Video Wall Panes

From the controller PC, you may change the pane arrangement on the video wall remotely. Using the video wall icons on the side bar, you can set the virtual video wall to a 1, 4 or 9 pane view.

1. While viewing an Ocularis Map, select the desired video wall from the Video Walls menu.
2. Select the pane which you want to change. The selected pane is displayed in green.
3. Click corresponding video wall icon:

| Click: | To display a: |
|---|----------------------|
|  | 1 pane view |
|  | 4 pane view |
|  | 9 pane view |

4. Now you may populate these panes by dragging & dropping icons from a map to the pane.

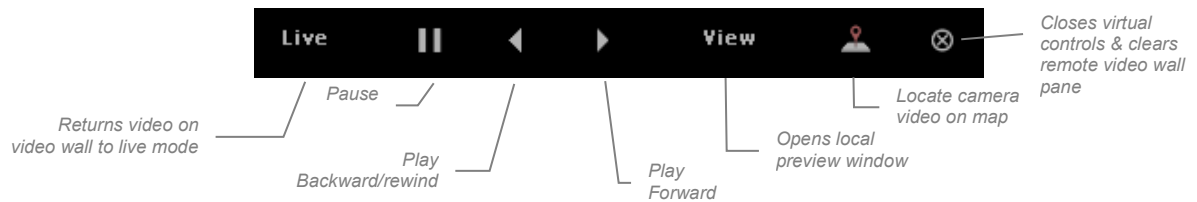
14.4.1 Managing Video in a Video Wall

Operators may control the video displayed in a video wall including pausing, rewinding and forwarding displayed video.

1. With the desired Ocularis Map and virtual video wall displayed, drag & drop camera video or a view to the video wall.

A set of virtual video wall controls appears.

Figure 112 Video Wall Controls



2. Select the pane which you want to control and use the icons on the virtual video wall controls.

14.4.1.1 Remote Control

If a video wall is visible from the controlling station, the video on the display can be controlled with the 'Pause', 'Play backward/rewind' and 'Play Forward' buttons. However, in cases where the video wall is not visible from the controlling station (because it is too far away or in another physical location), use the 'View' button to open a local preview of what is displayed on the video wall.


Figure 113 Remote Control



Use the navigation controls at the bottom of the preview pane so that you can see what is displaying on the remote video wall.


14.4.1.2 Camera Location

While working with an Ocularis map and video wall, you can auto locate the camera icon on the map which is displaying in the video wall.

1. Click the pane in the virtual video wall with the camera video you would like to locate.
2. Click the 'Locate Camera Video' icon. 

The Ocularis map repositions with the camera icon centered on the screen.

14.4.1.3 Clear a Pane in a Video Wall

1. Click the pane in the virtual video wall with the camera video you would like to clear.
2. Click the 'Clear Video' icon. 

14.4.2 Blank Screens in a Video Wall

When blank screens are posted to a video wall, their behavior is slightly different than if they are on an operator station. Namely:

- Video triggered by alerts of any priority (even high) will eventually be replaced by newer alerts. Any high priority alert that is overridden can be accessed via the Alert Manager by privileged operators.
- Configured properly, if there are multiple blank screen panes visible in a video wall, the alerts should populate the panes in the sequence from upper left to lower right per monitor.

14.5 Using a Video Wall in the Alert Manager

There are times when you are reviewing unhandled alerts and come across video that you wish to post to a video wall. Rather than switch over to Ocularis Maps and populate the video wall from there, you may do so directly from the Ocularis Client Alert Manager.

Alternately, some operators may want to use the Alert Manager as their sole dashboard interface with their security environment. In these instances as well, using video walls in the Alert Manager may come in handy.

14.5.1.1 To Use a Video Wall in Alert Manager

1. Open the Alert Manager (*Views...Tools...Alert Manager*).

2. Locate an alert in the unhandled alert list.
3. Show the video wall template by selecting from the menu bar, *Video Walls...<name of video wall>*

Figure 114 Post to a Video Wall



4. You can send live and recorded video to the video wall from this screen.

14.5.1.2 Sending Live Video

To send live video, use one of these two methods:

- a.) If the map displays the camera related to the alert, simply drag and drop the camera icon from the map to the corresponding pane of the video wall.
- b.) Click a pane of the video wall to select it. The selected pane should turn the color green. Then, click the *Send Live* tool found at the bottom of the screen on the Alert Manager toolbar.

14.5.1.3 Sending Recorded Video

To send recorded video:

- a.) Click a pane of the video wall to select it. The selected pane should turn the color green. Then, click the *Remote Loop* tool found at the bottom of the screen on the Alert Manager toolbar.

15 Ocularis Client in Limited Mode

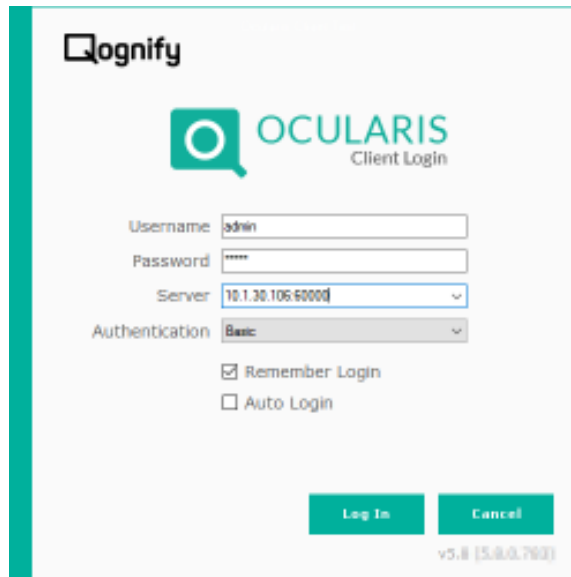
This section covers the setup and configuration for Ocularis Client when used to log directly into a recorder. This feature is commonly used for troubleshooting purposes.

15.1.1 Logging In

Log in to the Master Core using Ocularis Client. To do this, use the IP Address of the Core in the **Server** field.

Note: if the Base is on the same computer, you will need to append ':60000' to the end. This is the port number used for the Core.

For example:



Log in to Ocularis Client in Limited Mode

Once logged in, you may view video from the specific recorder (Master Core). Note that certain functions that normally travel through Ocularis Base (i.e. Alerts, Video Wall, Maps, etc.) will not be available.

See the section [Creating & Editing Views in Ocularis Client](#) on page 27 to create views in Limited Mode.