

exacqVision Web Client

User Manual

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Table of Contents

Web Client.....	4
Connecting to and configuring systems.....	4
Modifying the server configuration	4
Changing the web client configuration settings	5
Configuration setup	6
System settings	6
Add IP Cameras.....	6
Adding a camera	6
Users	6
Adding a user	7
Camera settings	8
Configuring the camera's onscreen display.....	8
Device.....	8
Live page	9
Modifying live video.....	9
Viewing cameras	9
Additional lists.....	9
Opening a list of groups	9
Opening a list of maps	10
Opening a list of views	10
Soft Triggers	10
PTZ Control.....	10
Camera associations	10
exaccqReplay	11
Replaying video.....	11
Search page.....	11
Searching and playing back video	11
Performing a thumbnail search	12
Saving an image	12
Exporting files	12
Exporting a video	12
Exporting a video segment	12
Active directory support for the web service	13

Active directory in windows-based web service.....	13
Active directory and LDAP in Linux-based web service	14

Web Client

The web client is a web-based version of the desktop client. It provides most of the same functionality as the desktop client, without the need for a separate installation. The web client is provided as part of the web service's basic installation, and is available as soon as you install and configure the web service.

Note: Not all features are available to all users. There is a limit to the user's functions depending on the user's assigned permissions.

Connecting to and configuring systems

To connect to a listed system, complete the following steps:

1. Open the **Web Client** page.
2. Choose the appropriate configuration option:
 - To connect to a single server, go to step 3.
 - To connect to all the listed systems, go to step 4.
3. In the **Connection Status** field of the server you want to connect to, right-click the field entry and then select **Connect**.
4. In the lower-right corner of the **Systems** pane, click **Connect All**.

Modifying the server configuration

In the **Edit Systems** pane of the web client, you can modify which systems you want to connect to when you open the web client.

To modify the server configuration, complete the following steps:

1. From the Navigation tree, select **Edit Systems**.
2. To select a system, in the **Edit Systems** pane select the **Enabled** check box in the **System List** area.
3. In the **System Information** area, select one of the following options:
 - Use passthrough credentials
 - Always prompt for credentials
 - Use credentials entered below

Note: If you do not want the web client to automatically log you on to the server, select **Always prompt for credentials**.

4. Click **Apply**.

Changing the web client configuration settings

To change the web client configuration settings, complete the following steps:

1. In the Navigation tree, click **Client**.
2. To stream native h.264 support from the web service, select the **Use Software Decoding** check box from the **Video Panel** area.

Note:

- You must enable the websocket port 8082 in the web service configuration. For more information, see *Error! Reference source not found.* on page **Error! Bookmark not defined.** If you do not enable the websocket on the network, select the **Use Legacy Poll** check box in the **Advanced** area. This avoids a five second delay.
 - If you do not select **Use Legacy Poll** and enable the websockets on the network, the web client tries for five seconds to establish a websocket connection to port 8082. After this period, the system defaults to the legacy client to server connection.
5. To set the amount of time before a video timeouts because of user inactivity, in the **Inactivity Timeout** area, select the **Enable** check box.
 6. From the **Minutes** list, select the number of minutes.
 7. Click **Apply**.

Configuration setup

After you successfully log on and connect to a system, in the left corner of the toolbar, you can click **Config(setup)** page to access the configuration pages.

Note: In the left corner of the toolbar, the **Live** page, the **Search** page, and the **Config (setup)** page options are available only to users with the appropriate permissions.

System settings

In the **System** pane, you can view important system hardware and licence information, change the system name, and copy the licence number to the system clipboard.

Add IP Cameras

In the **Add IP Cameras** page, you can add IP cameras to the system.

To open the **Add IP Cameras** page, complete the following steps:

- In the Navigation tree, expand the server node.
- Expand **System** and then click **Add IP Cameras**.

Adding a camera

To add a camera to the system, complete the following steps:

Note: Ensure that all cameras connect to one network switch on a dedicated camera network, and that the server port is set to a fixed IP address.

1. In the **Add IP Cameras** pane, click **New**.
2. In the **IP Camera Information** area, enter the appropriate information.
3. Click **Apply**.
4. From the **IP Camera** List, select the **Enabled** check box for the camera.

Users

In the **Users** page, you can add and delete users, configure a user's group access level, and assign permissions for viewing cameras. After you add a user to the system, the user can log on and view live and recorded video according to the permissions that you assign them.

To open the **Users** page, complete the following steps:

1. In the Navigation tree, expand the server node.
2. Expand **System** and click **Users**.

Adding a user

To add a user, complete the following steps:

1. In the **Users** pane, click **New**.
2. In the **User configuration** area, enter the name of the new user in the **Username** field.
3. In the **Password** field, enter a password. To confirm the password, enter it again in the **Password Confirm** field.
4. From the **User Group** list, select one of the following permission levels:
 - **Full Admin:** The user can access all features in the system
 - **Power user:** The user can access all features in the system, except for adding and deleting users.
 - **Live Only:** The user can view live video from all the connected cameras.
 - **Search Only:** The user can search for recorded video.
 - **Live + Search:** The user can view live video and search for recorded video from all the connected cameras.
 - **Custom group or user:** Any user or custom group whose permissions or privileges are modified.

Note: Custom groups are not available on exacqVision Start servers.

5. Enter a number in the **Priority** field to assign a PTZ Priority level to the user. The highest priority level is 10.

Note:

- The PTZ priority level option is not available in exacqVision Start.
 - When two users attempt to control the PTZ functions of the same camera simultaneously, the system grants PTZ control to the user with the higher priority level. If a second user attempts to control the PTZ functions on a camera that a user with the same priority is controlling, control remains with the first user.
 - Administration users automatically have PTZ priority over any other user, and power users have priority over all users except for administration users.
6. In the **Custom User Privilege** area, select the privileges you want to assign to the user.
 - To edit the **Custom User Permissions** list, clear the **View Admin** and **User Admin** check boxes in the **Custom User Privileges** list.
 7. In the **Custom User Permissions** area, select the privileges you want to assign to the user.
 - To edit the **Custom User Permissions** list, clear the **View Admin** and **User Admin** check boxes in the **Custom User Privileges** list.
 8. In the **Custom User Permissions** area, select the devices that you want the user or user group to see and operate in the exacqVision client.

Note: If you change the custom user privileges or permissions for a group, ensure that you enter a new group name in the **User Group Name** field in the **User Configuration** area.

9. In the **Users** pane, click **Apply**.

Camera settings

In the **Camera's settings** page, you can configure the camera's onscreen display (OSD).

Configuring the camera's onscreen display

To configure the camera's onscreen display, complete the following steps:

1. From the Navigation tree, select the camera that you want to configure.
2. In the **Display** pane, enter a name for the camera in the **Name** field. You can enter up to 32 characters.
3. From the **Position** list, select a position for the onscreen display of the camera.
4. Select the information that you want to show on the camera display.

Note: You can select more than one option to display.

5. From the **Font** list, select a font.
6. From the **Size** list, select a font size.
7. In the **Effects** area, select a colour and font style.
8. Select one of the following options to apply the setting changes:
 - To apply the changes to the selected camera, click **Apply**.
 - To apply the changes to a multiple of cameras on the server, click **Apply To**. In the **Apply Display Settings to Cameras** page, select the cameras and click **Apply**.

Device

The **Device** page provides information about a hybrid system's analog capture card. Any cameras that connect to the analog capture card are listed in the Navigation tree below the device. After one or more systems connect and you enable their cameras, open the **Live** page for normal operation.

Live page

You can view live video from the system's cameras on the **Live** page. To open the **Live** page, complete the following step:

- In the upper-left corner of the toolbar, click **View live cameras**.

Modifying live video

Use the following options to modify the video from the live cameras:

- **Layout:** To view a multiple of cameras simultaneously, select a layout icon from the toolbar.
- **Size:** To increase or decrease the video size, click the **Plus** and **Minus** size icons on the toolbar.
- **Quality:** To increase or decrease the pixel rate, click the **Plus** and **Minus** quality icons on the toolbar.

Note: Lowering the pixel rate can increase the frame rate as it reduces the network load.

- **Video panes:** To switch the position of the cameras in the video panels, drag one video panel into another video panel. To remove a camera from a video panel, right-click the panel and select **Disconnect Video**.
- **Navigation tree:** To hide or show the Navigation tree, in the upper-right corner of the toolbar, select **Hide/Show Side Nav Bar**. The Navigation tree provides a list of all available cameras on the system. You can also access additional preconfigured lists in the lower part of the Navigation tree. For more information on the preconfigured lists, see *Additional lists* on page 9 .
- **FPS indicator:** The frames per second (FPS) indicates the number of frames per second, and is located in the lower-right corner of the **Live** page.

Viewing cameras

To view a camera, complete the following steps:

- In the **Live** page, select a layout option on the left side of the toolbar.
- In the **Live** page, drag the cameras from the Navigation tree into the panels.

Note: If you drag the server name from the Navigation tree into a panel, the panels can display a number of cameras from the server, depending on the layout option you select.

Additional lists

In the lower part of the navigation tree, you can access preconfigured lists of groups, maps, and views.

Opening a list of groups

To open a list of groups, complete the following steps:

1. Select **Groups** in the lower part of the navigation tree.
2. In the navigation tree, select the group of cameras you want to display.

Opening a list of maps

To open a list of maps, complete the following steps:

1. From the lower part of the Navigation tree, select **Maps**.
2. In the Navigation tree, select a map name to display the map on the **Video** pane.
3. In the **Video** pane, select an icon on the map to display a live view that is associated with the icon.

Opening a list of views

To open a list of configured camera views from the connected servers, complete the following steps:

1. From the lower part of the Navigational tree, select **Views**.
2. In the Navigation tree, select a view to open the camera configurations in that camera view.

Soft Triggers

- To open a list of configured triggers, select **Soft Triggers** from the right side of the toolbar.
- To activate an alarm trigger, in the **Soft Triggers** window, select the check box for the server.
- To deactivate an alarm trigger, in the **Soft Triggers** window, clear the check box for the server.

PTZ Control

- To open the **PTZ control** window, select **Change PTZ control style** from the right side of the toolbar.
- To select a preset, in the **Presets** field select a preset.
- To move the camera in the direction that you want, in the **Pan/Tilt** area, click the corresponding **Pan/Tilt** arrow icons.
- In the **Zoom** area, select the **Plus** or **Minus** icons to zoom in and out of the video panel.
- To increase the speed, move the **Speed** dial to the right. To decrease the speed, move the **Speed** dial to the left.

Camera associations

Camera associations can link a camera with specific devices and actions, such as security integrations, audio inputs and soft triggers. These associations display over the video as interacting icons that illustrate the state of the association. The web client can support the following camera associations:

- Soft Triggers
- Security Integrations

Note: For other camera association options, and to configure the camera associations, use the desktop version of exacqVision client. For more information on camera associations, see the *exacqVision Pro User Manual*.

exacqReplay

exacqReplay can play back recent live video in a new window. exacqReplay functions in the same way as a standard camera search, but also provides users with quick-access to recently viewed video.

Replaying video

To replay a video, complete the following steps:

- Right-click within the **Video** pane.
- Select **exacqReplay** and then select **Video** or **Layout**. Then select the interval of time from when you want to start the playback.

Search page

You can use the **Search** page to search and playback stored video. To open the **Search** page, complete the following step:

- In the upper-left corner of the toolbar, click the **Search page** icon.

Searching and playing back video

To search and playback video, complete the following steps:

1. From the left corner of the toolbar, select the **Search page** icon.
2. From the Navigation tree, select one or more cameras.
3. To configure a search range, in the **Timeline** pane, enter the dates and select times.
4. Click **Search**. The search results appear below the timeline in the **Timeline** pane. The type of video that you record during the search range is represented by a color-coded bar. For information on what the colors represent, see Table 1.

Table 1: Video types

Color	Description
Green	Continuous video
Blue	Motion video
Red	Alarm video

5. In the **Timeline** pane, select a camera to display the first video frame from that camera. To select multiple cameras, hold down the Control key and select other cameras.
6. Click **Play**
7. To navigate through the video, use the timeline slider or the video controls.
8. To move the video timeline, click the left and right arrows located on either side of the timeline.
9. To zoom in and out, select the **Plus** and **Minus** icons located on either side of the timeline.

Performing a thumbnail search

In Thumbnail Search mode, you can simultaneously view multiple video frames from the same camera.

To perform a thumbnail search, complete the following steps:

1. In the **Search** page, in the left corner of the toolbar select **Thumbnail Search Mode**.
2. Select a camera from the Navigation tree.
3. To configure a search range, in the **Timeline** pane enter the dates and select times.
4. Click **Search** to display captured video frames during the selected search range period. The capture time for each video frame is represented on the timeline by vertical orange lines.
 - To alter the range of video frames on display, in the upper-left corner of the toolbar select a window format.
 - To play a video starting from a video frame, double-click the video frame or click the **Play** icon that is located under the video frame.

Note: If you return to the **Thumbnail Search Mode**, the same thumbnails display.

- To increase or decrease the search range of the video frame, click the **Plus** and **Minus** icons located within the video panel.

Note: When you increase or decrease the search range of a video frame, the video panel you select becomes the center point of the thumbnails.

Saving an image

To save an image, complete the following step:

- Right-click the video image and select **Save Image**, or select the **Save Image** icon in the upper-left corner of the toolbar.

Exporting files

In the Search page, you can export a video or export a segment of a video. The web client supports the following file formats: EXE, AVI, PS, PSX, MP4, and MOV.

Exporting a video

To export a video, complete the following step:

1. In the Timeline pane, click **Quick Export**.
2. In the **Video Export and Download** window, select a file format.
3. Click **Export**.

Exporting a video segment

To export a video segment, complete the following steps:

1. In the Timeline pane, right-click the timeline where you want to start exporting the segment, and click **Mark Export Start**.
2. Right-click the timeline at where you want the segment to end, and click **Mark Export End**.
3. In the upper-left corner of the toolbar, click the **Export** icon.
4. In the **Video Export and Download** window, select a file format.
5. Click **Export**.

Active directory support for the web service

exacqVision web client and Exacq Mobile app users can use domain credentials to log on to exacqVision servers under the following conditions:

1. You configure the exacqVision server to communicate with the Active Directory (AD) or the Lightweight Directory Access Protocol (LDAP).
2. The user permissions are mapped to AD or LDAP groups or users.
3. You configure the server running the exacqVision web service as part of the domain.

For more information on configuring the exacqVision server, see the *AD guides* for each platform available at <https://exacq.com/support/specsheets.php?perma=exacqVision+User+Manuals>.

To configure the exacqVision web service to communicate with AD in either Windows and Linux, see the instructions in the following sections.

Note:

- When you use domain credentials, specify the username as <username>@<domain>.
- You cannot configure an AD account as the stored passthrough account in the web service configuration. You can only use AD accounts by installed client, web client and mobile app users.

Active directory in windows-based web service

When you use Windows client computers and Windows domains, configure your Active Directory (AD) server's IP address as one of your DNS servers. If there are any DNS resolution issues, Windows logon requires a large amount of time for processing before it fails.

To join your Windows system to the AD domain, complete the following steps:

1. On the system's desktop, right-click **System**, and then select **Properties**.
2. In the **System Properties** window, select the **Computer Name** tab.
3. Click **Change** to join the domain.
4. In the **Computer Name/Domain Changes** window, enter a unique computer name in the **Computer name** field.

Note: If you change the computer name, restart the system before continuing.

5. In the **Member of** area, select **Domain** and enter the AD domain.
6. In the **Windows Security** window, enter an authorized domain username and password.
7. Restart the system.

Active directory and LDAP in Linux-based web service

To configure your Linux system for active directory or OpenLDAP, complete the following steps:

1. Install Kerberos. KRB5 (MIT Kerberos V5) is specifically tested for this purpose.

Note: Installing `krb5-user` and `libkrb5-dev` also installs `krb5-config`, which is valid for all Ubuntu types.

2. Configure the `/etc/krb5.conf` file.
3. Add a stanza for the AD domain, and change the default realm to the AD domain. Fully qualified domain names (FQDN) for the KDC and admin server is preferred, in case the IP addresses is ever changed.

Note: Ensure that the FQDN resolves for the AD server.

4. Ensure the AD domain name is upper-case; for example:

```
[libdefaults]
    default_realm = EXACQ.TEST.COM
[realms]
    EXACQ.TEST.COM = {
        kdc = adserver2008.exacq.test.com
        admin_server = adserver2008.exacq.test.com
    }
```

5. Note the AD domain, along with the FQDN and IP address of the AD server:

```
EXACQ.TEST.COM    adserver2008.exacq.test.com 192.168.1.70
```

6. Use the `kinit` command to confirm that the Kerberos configuration works.
7. Obtain a ticket for the Kerberos logon; you can verify success using the `klist` command. Use `kdestroy` to release the ticket when you verify the configuration.

Note: For each `exacqVision` server you intend to connect to with a user principal instead of an `exacqVision` user name, add the `exacqVision` server's FQDN to your `/etc/hosts` file. Ensure it is the first name listed for that IP address. Otherwise, you receive Kerberos failures.