FortiCentral User Guide

VERSION 1.9

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FortiCentral v1.9 User Guide

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Installation

FortiCentral is a Windows application that you can use to access live video and recorded video clips on the FortiRecorder NVRs.

System requirements

- Windows 7 32/64 bit Home/Professional, Windows 8, Windows 8.1, and Windows 10
- CPU: Intel i5 3.2 GHz
- RAM: 8 GB
- Hard Disk: 50 GB
- Video Card: Discrete video card with 2 GB video RAM
- Screen resolution: 1920x1080

Note: For installations only requiring one or two video streams, FortiCentral can run on an Intel Atom 1.3GHz, 2GB RAM system with integrated graphics.

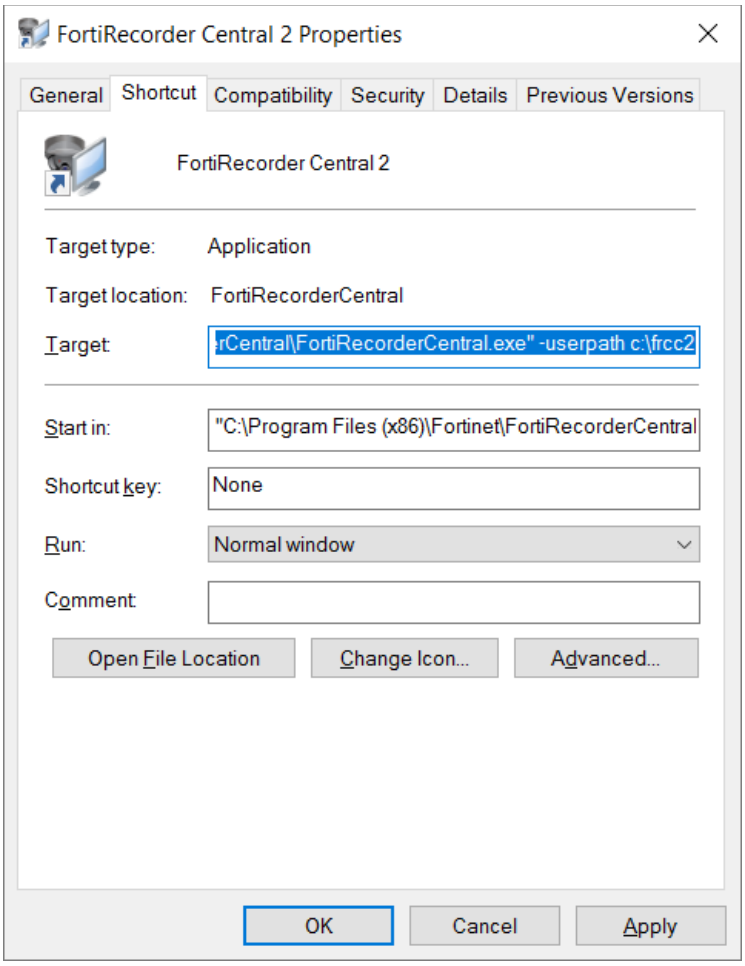
Installing

1. Download the last build from Fortinet support site: http://support.fortinet.com.
2. Run the install program. The following packages will be installed:
   - Microsoft .NET Framework 4.5.1
   - Visual C++ 2013 Redistributable
   - FortiCentral
3. After the installation is finished, click the following desktop icon to open the program:

Multiple instances

FortiCentral supports custom configuration paths using the “-userpath” parameter. This can be used to allow multiple users to run on a single machine using Remote Desktop or Citrix. If no directory is specified, the local AppData folder will be used. You can also create a USB portable instance by running with “-userpath %cd%\config”. Note that each instance must have its own unique configuration path.

To create a second FortiCentral instance, you must run Central with the "-userpath" parameter followed by a directory path that contains the configuration for this instance. Renaming the Central shortcuts can help to distinguish each instance.



Notes:

- It is safe to copy the whole configuration from one instance to another; however, it is recommended you delete the old configuration after copying to avoid leaving lingering bits that may cause unpredictable behavior.
- If no “–userpath” is used and no directory is supplied, it will use a Windows user specific path.
- If multiple instances that refer to the same “–userpath” try to run at the same time, the newer instance will close the older instance.
- If an instance is run with no “–userpath”, it will attempt to close all other instances.
- Multiple instances on a single machine will compete for resources and result in lower performance for each user.

Logging in the first time

1. Click on the Central desktop icon. The following logon screen appears:

2. Select the desired language. The following languages are currently supported: English, French, German, Simplified Chinese, and Traditional Chinese.
3. Enter the default user name *admin* with no password.
4. Click **Login**.

   Important: After logging in, for security reasons, go to **Settings > Users** to change the admin user's password.

Initial Configuration

Before you begin using FortiCentral you will need to establish a user account and add your FortiRecorder NVRs to Central.

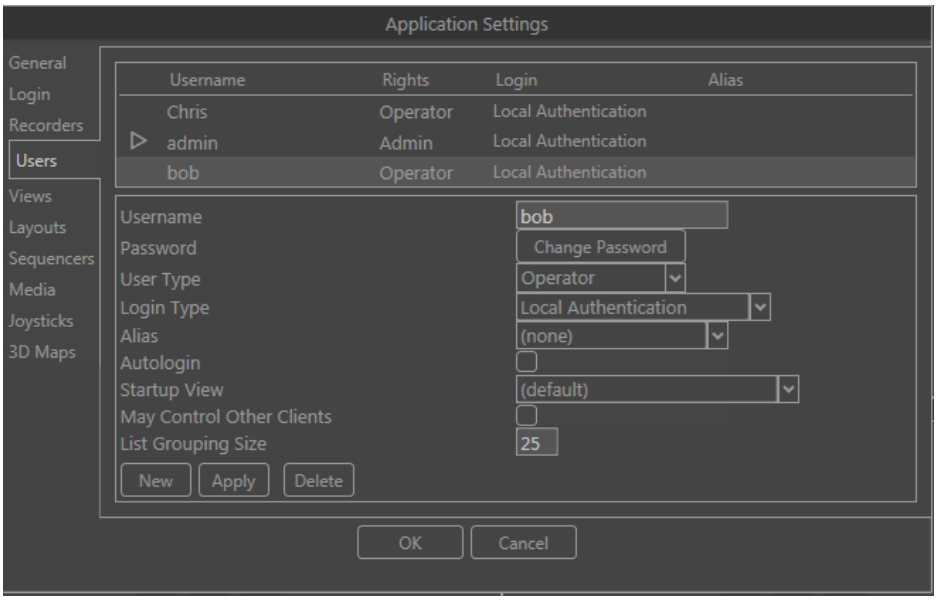
Configuring a user account

To access your FortiRecorder you will first need to create a user account. There are three user creation methods that fit a variety of different access situations. The following login instruction assumes you will use the same credentials (user name and password) to log in to Central and FortiRecorder NVR. For alternative logins, see Alternative login methods.

To create a user account

1. Click the **Settings** button at the top right of the software.

2. Select **Settings** > **Users**.



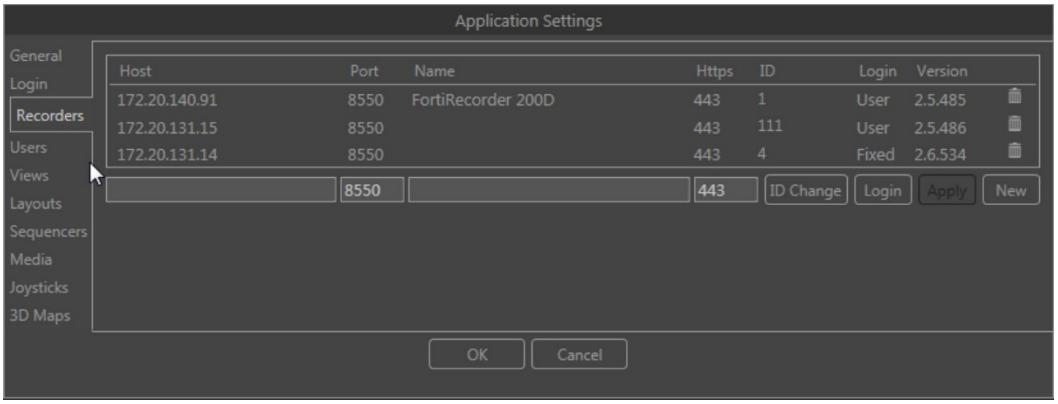
3. Enter a username and password and select **New**. Your username should be the same username you use to access the FortiRecorder unit.
4. Specify a user type. For a definition of each user type, see the FortiRecorder Administration Guide.
5. Login type is Local Authentication. For more information, see the LDAP and Radius Authentication Configuration chapter.
6. Select **OK**.

Adding a FortiRecorder NVR

With the initial login information configured, you will now need to add FortiRecorder units to FortiCentral so that you can view the camera videos connected to the FortiRecorder NVRs.

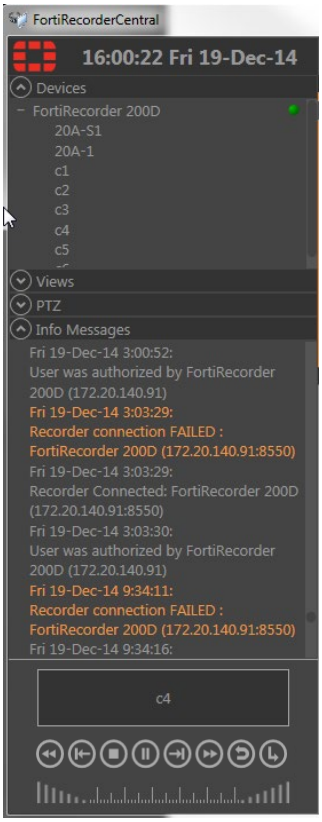
To add an NVR

1. Select the **Settings** button.
2. Select **Settings** > **Recorders**.



3. Enter the domain name or IP address of the FortiRecorder NVR. Keep the default port number.
4. Enter a descriptive name.

   The NVR and its connected cameras now appear in the Devices Panel.



Alternative login methods to FortiRecorder

FortiCentral supports three methods to log in to FortiRecorder NVRs.

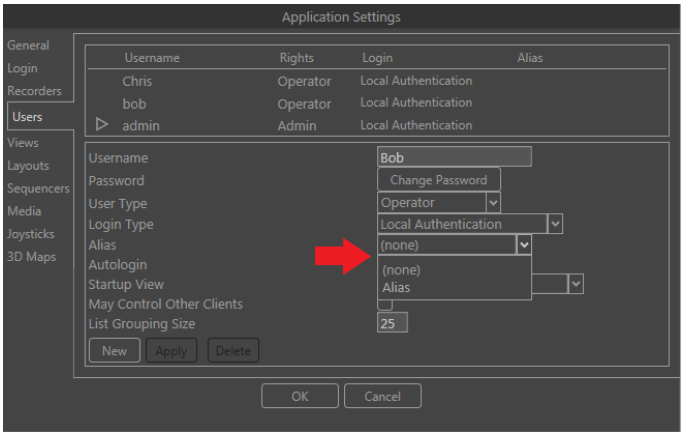
- **Simple synchronized login**: If you want to use the same user name and password to log in to both the FortiCentral and NVR, use this login method described in Configuring a user account.
- **Fixed login**: If you have multiple FortiRecorder units and each unit has its own login credentials, you will need to enter individual login information for each unit when you add the unit. In this case, the Central user can be different from the NVR user/users.

    1. Select the **Settings** button.
    2. Go to **Settings > Recorders**.
    3. Add the NVR and then select **Login**.
    4. Enter the username and password for the NVR.
    5. Select **Apply** and then select **OK**.
    6. Repeat for every NVR to be added.

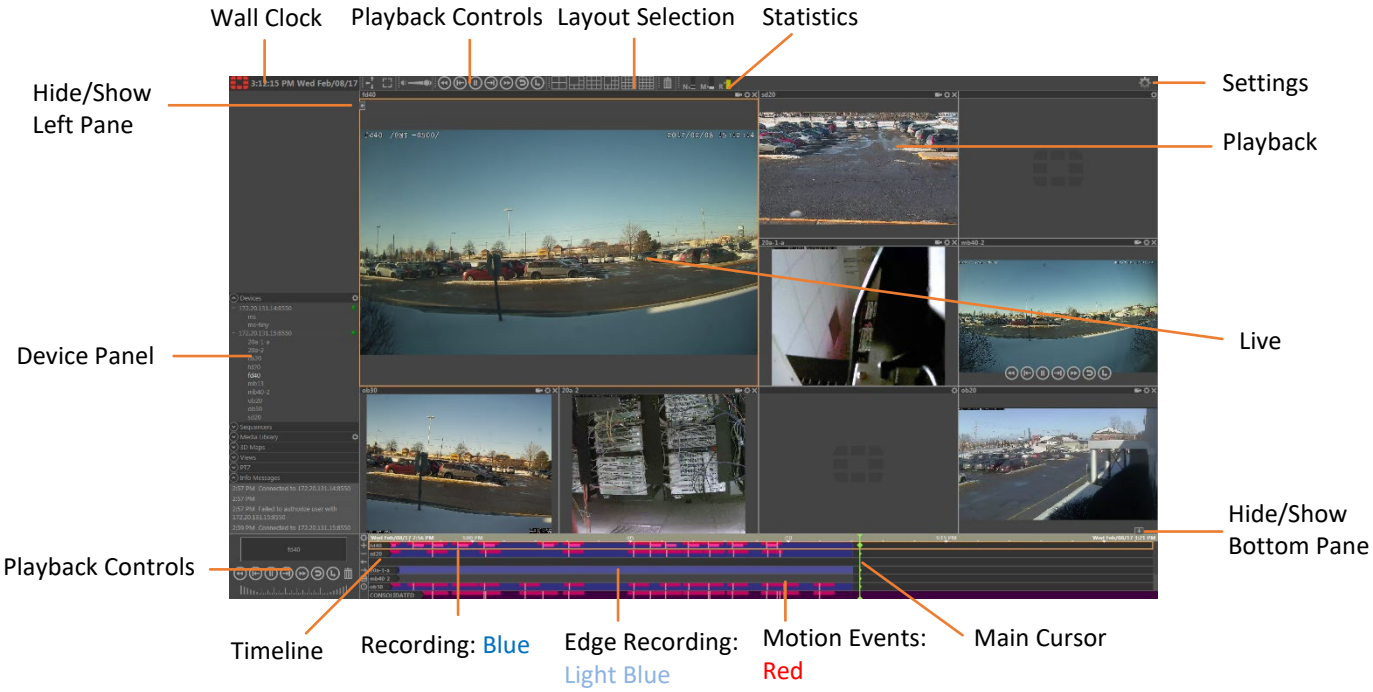
2. **Alias login**: An alias account is a FortiRecorder user account on Central. A central user can use the alias account to log in to FortiRecorder. But the alias account cannot be used to log in to Central. If you have a large variety of different FortiCentral users, all the users can use the same alias account to access the FortiRecorder. You do not have to create numerous accounts for all the Central users. Another benefit is that when you, as a system administrator, remove user accounts on Central, you do not have to remove any user accounts on the NVR.

    1. Select the **Settings** button.
    2. Go to **Settings > Users**.
    3. Enter your username and password for the alias account. This is the credential to be used by Central users to access the FortiRecorder NVR.
    4. Select **Alias** from the **User Type** dropdown menu.
    5. Select **New** and then **OK.**

    Once your alias account is created, you can then add new users that use the alias account to access the FortiRecorder NVR by selecting the alias account in the **Alias** dropdown menu in the new user creation section, as shown below.



Interface Overview



FortiCentral GUI contains the following main sections/panes:

- **Left**: resource column
- **Bottom**: video timeline
- **Top**: toolbar area
- **Center**: pane area

Resource column

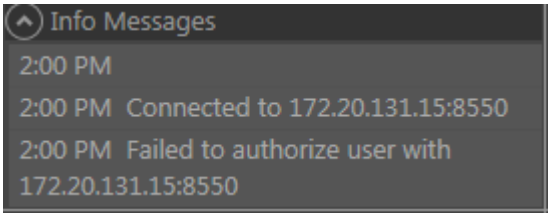
The resource column contains several collapsible information and control tabs. The resource column allows you to quickly drag and drop objects such as cameras, sequencers, and media files into the pane area.

The primary resource column is the Device Panel. The Device Panel contains all of the added recorders and the cameras connected to those recorders. With the Device Panel, you can quickly assess the connection status of every added recorder.

- A green bullet indicates an active connection with successful authorization.
- A yellow bullet indicates that the recorder is visible on the network, but the user credentials used at FortiCentral are not acknowledged at the recorder.
- A red bullet indicates that the recorder is not visible on the network. It may be down, disconnected, or misconfigured.

Note: The user account and password that is used for FortiCentral is also used to log into the FortiRecorders. So, user accounts in the recorders must be synchronized with those in the Central. Any user permissions that are applied to this user in the individual recorder affect what FortiCentral is allowed to do with this user logged in.

The Info Messages section of the Resource Column features a collection of log messages generated by the Central at specific times. For example, the log messages may inform you the exact time a connection failed for a specific recorder.



Video timeline

The video timeline contains all of the necessary tools for controlling video and accessing important recording information.

The Playback Controls at the bottom left of the Video Timeline provide a quick and easy way to control the selected camera in the Pane Area. The blue bar in the Video Timeline indicates recording, light blue if it is edge recording and dark blue if it is recording to the NVR. The red bars indicate motion detection. When you select a video pane, both the selected pane and the associated camera in the Video Timeline are highlighted.

The main Timeline provides a quick and easy way navigate to a specific recording point in a camera's video feed. If a pane is selected, the Main cursor indicates the current play position of the selected video feed. If it is live, the Main cursor moves with current time. You can switch to playback mode by simply dragging the Main cursor to where you want to begin viewing.

Note: The timeline can be adjusted in scale (zoomed in/out) using the mouse wheel.

For a more detailed look at video playback see the Playback chapter.

Toolbar area

The toolbar area contains tools to organize the pane area, control videos, and monitor network connectivity.

The Layout Selection area of the Toolbar provides a quick and easy way to control how many cameras are displayed in the pane area.

The toolbar area contains network, memory, and rendering performance information in three small meters.

N: Network usage shows the current, peak and average bandwidth of incoming data. If the recorder cannot send out video streams fast enough it will start skipping frames. The skip count can be observed in the tooltip for this control. If this occurs the bar turns yellow and then red. A red or yellow bar indicates that the network bandwidth is too low to support the number of video streams that are currently displayed.

M: Memory usage shows how much memory the application is using. The total amount of available memory is indicated as well in the tooltip. Hold down the mouse over the control to keep the tooltip active.

R: Rendering performance indicates how many MPixels are decoded per second. A 1MP image at 30fps requires 30MPixel/s for example. If more video is displayed in FortiCentral the performance limit of the PC will eventually be reached. At this point the video decoder has to drop frames to keep up with the incoming video stream. This drop rate is displayed at the tooltip and if it occurs the bar turns yellow and red in more severe situations. This indicates that the CPU/graphics performance of the PC where FortiCentral is running has reached its limit.

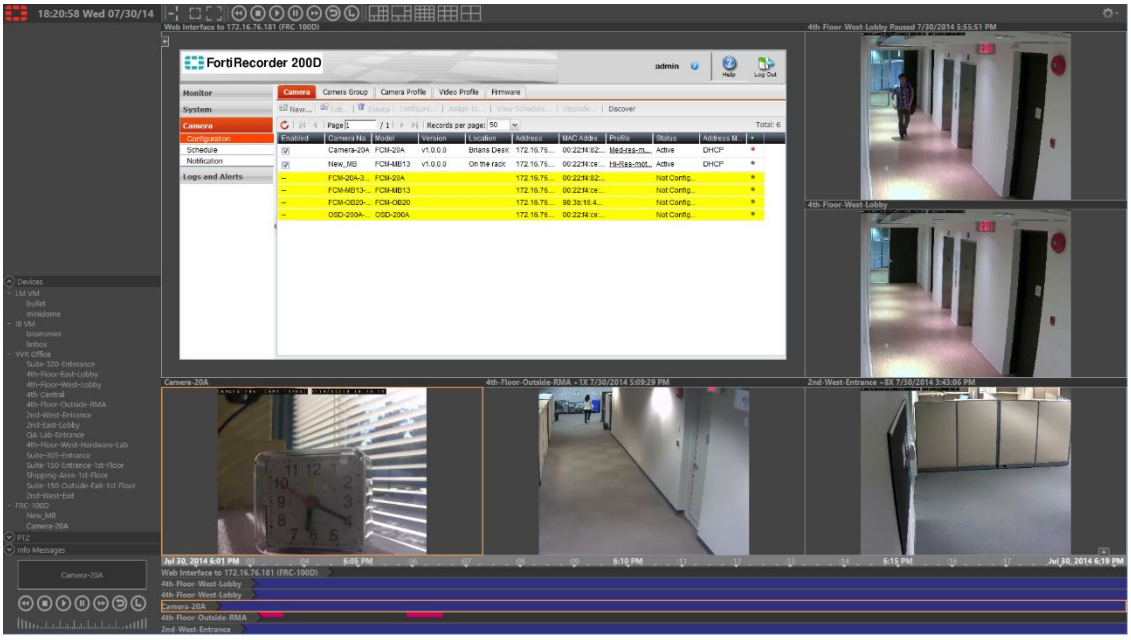
Pane area

FortiCentral unifies access to multiple recorders so they can function as one integrated system. The pane area can display different videos from different recorders at the same time. Additionally, the pane area can also feature various other media content.

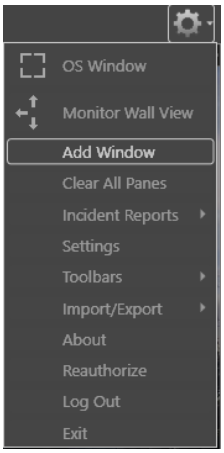
Each pane is independent, so you can switch between a live and recorded playback for a single camera in two different panes. Individual panes can also contain recorder information. You can drag a recorder from the Device Panel to a pane, which allows you to easily access the recorder and its configuration options.

Note: You can hold control and select and drag content from one pane to another. This will duplicate the selected content into another pane.

Note: Double-clicking a pane will change the pane to full-screen-mode.



FortiCentral allows for even more monitoring space through additional pane areas. To view more video panes, you can open multiple windows. To open a new window, select the **Settings** button and then **Add Window**.



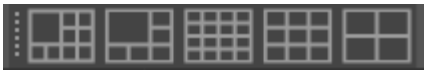
You can drag cameras from your main window to the newly opened window. Newly opened windows do not feature the control column or the timeline control section. You have to go back to the original window for these features.

Customizing FortiCentral

FortiCentral features a variety of ways to customize your monitoring experience.

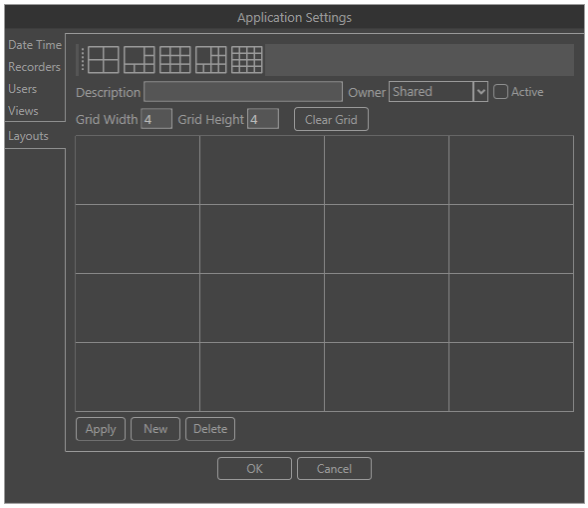
Arranging the layout

The video pane area can be organized in a variety of different fashions to fit your viewing needs. The grid layout selection area is the easiest and most common method to organize the viewing panes. To quickly customize the pane area, simply select one of the predefined grid layouts.



A layout is the structure of the Central grid. You can create grid layouts that belong to a private user or create layouts shared between all users.

To create your own layout



1. Select the **Settings** button.
2. Select **Settings** > **Layouts.**
3. Enter a description for the custom grid.
4. Select who will be able to view the custom layout from the Owner dropdown menu.
5. Create your own grid by clicking and dragging your mouse cursor over each pane to adjust its size.

   Note: Grid width is limited to a range of 2-30. Grid height is limited to a range of 2-20. The finished layout can have up to 64 panes.

   Note: Created panes display the aspect ratio that it most closely matches. If it does not match one of the common aspect ratios, the pane will display N.S. (non-standard).
6. Select **Apply** and then **OK.**

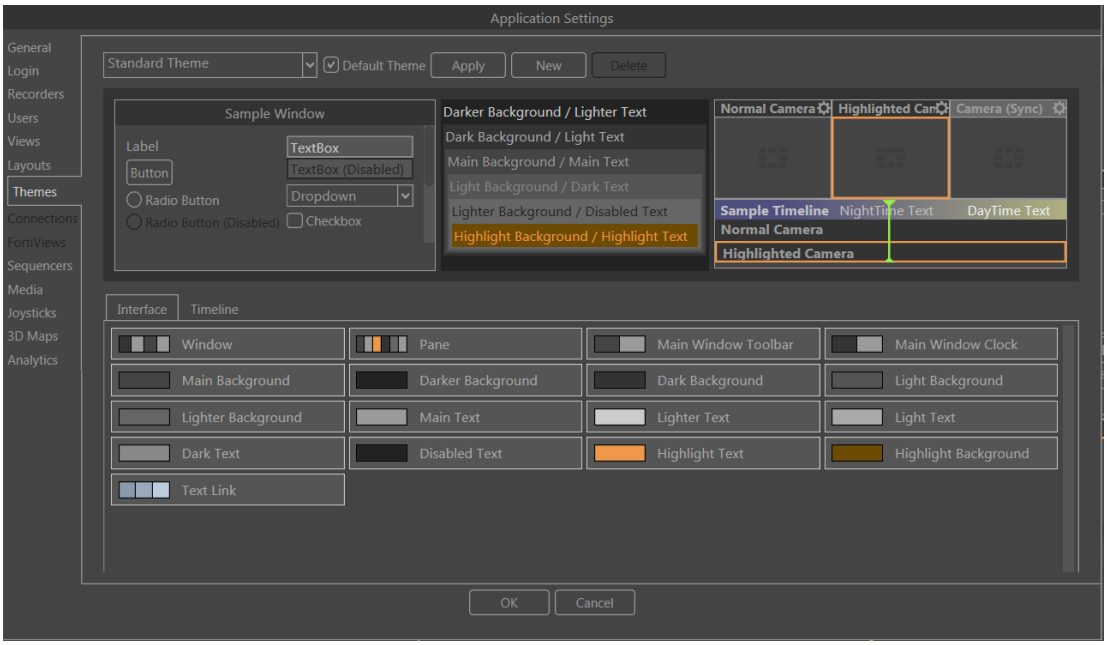
Your newly created custom grid layout will appear in the layout selection area of the Toolbar Area.

To make the viewing pane full-screen, select the Monitor Wall View button. To revert back to a normal view, press ESC. The Windowed Mode button collapses the program into windowed mode. Press the button again to go to full-screen.

Changing the Visual Appearance

FortiCentral supports fully customizable themes to meet your preferences and needs.

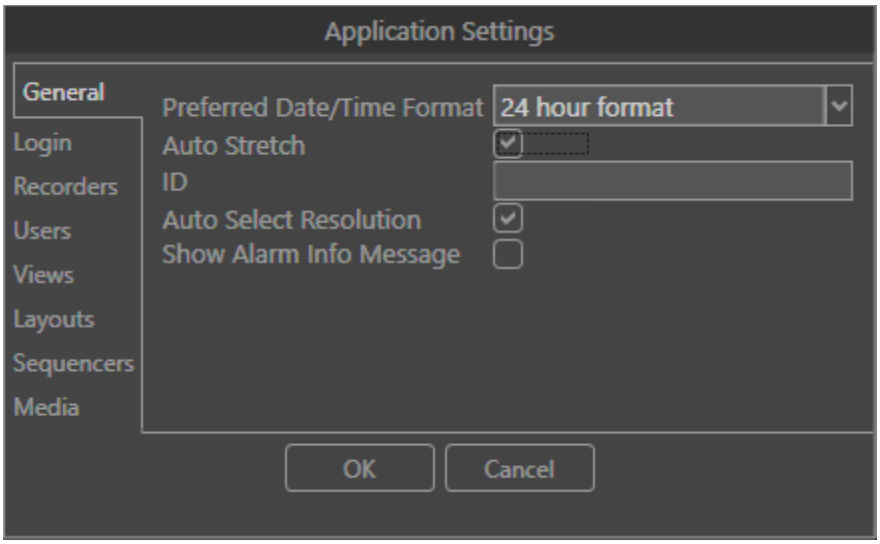
To access FortiCentral's themes, select the settings button and then select **Themes.**



Themes can be saved and stored for easy accessability.

Configuring application settings

FortiCentral contains a variety of general application settings that can be altered to customize your monitoring experience. The Application Settings are located in **Settings** > **General.**



Select your preferred date/time format from the Date/Time dropdown menu.

If the auto stretch setting is enabled all added content will automatically stretch in the pane area.

Selecting auto resolution makes FortiCentral automatically choose the best matching stream for the video in each pane. If you drag the video from two differently sized panes, the best resolution will be used. The viewing stream resolution is defined in the camera profile settings when you configure the FortiRecorder. For details, see the FortiRecorder Administration Guide.

Enable the show alarm setting to display events such as motion detection, digital input, audio detection, or PIR detection.

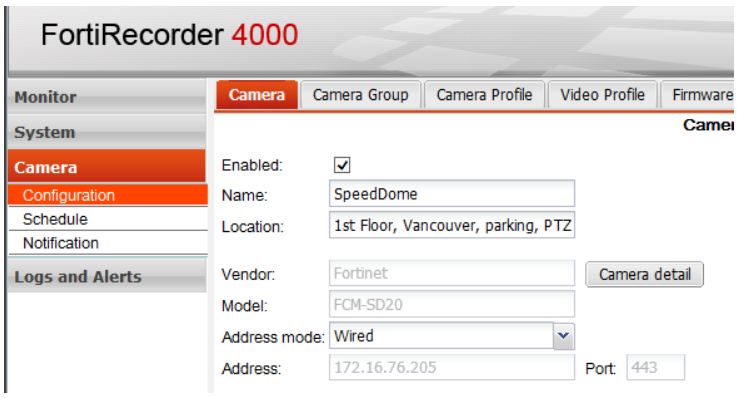
Organizing the device panel

The Device Panel in FortiCentral provides the ability to organize your cameras and added content in whatever fashion best suits your needs. For example, you could add tags to a camera to better organize and identify your cameras.

Tags are part of the location string for a camera. To view a camera's tag, hover your mouse over a selected camera.

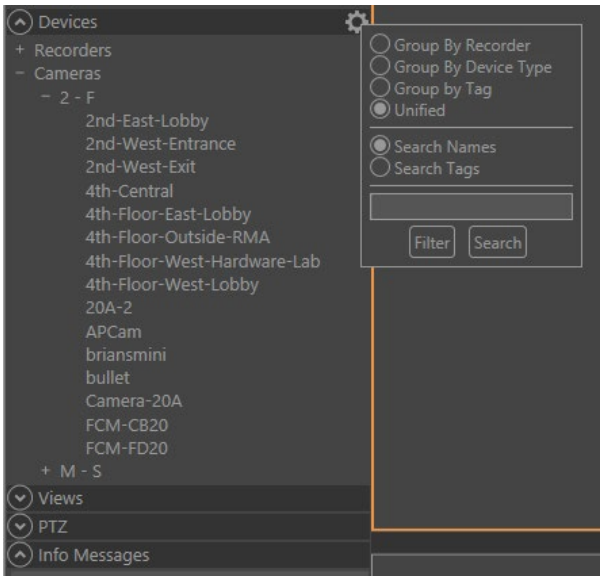
To add tags to a camera

1. Log on to the FortiRecorder web UI.
2. Go to **Camera > Configuration > Camera.**
3. Enter a name in the **Location** textbox.
4. Add as many tags as you desire, following each one with a comma, in the same **Location** textbox.



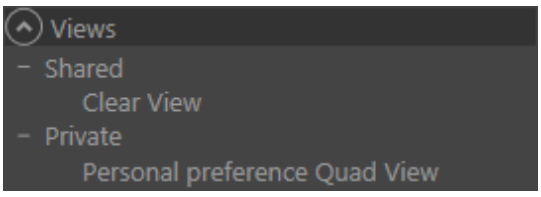
The first entry in the location field (1st floor) is the location. All entries after the location that are separated by a comma are tags.

The Device Panel settings button provides the ability to group your cameras by recorder, device type, and tag. With tags you can search for a specific camera by entering the camera's name or tag in the Search textbox. You can also group your cameras by tags. For example, you could have all of the cameras on each floor grouped for easier and quicker monitoring.



Views

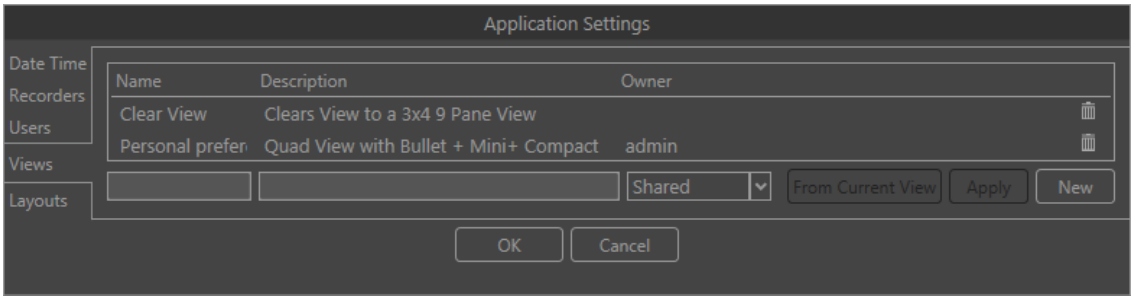
Views are stored desktop configurations that can be shared or private. A view contains the layout of the desktop and which camera is displayed in each pane. With Views you can store your favorite camera arrangements and quickly recall them from the Views panel in the Resource Column.



There is a Shared section that contains Views that are available to all users and a Private section for Views only viewable to a specific person.

To create a view

1. Choose a layout.
2. Place the cameras into the panes.
3. Go to Settings and select the Views Tab.
4. Enter a name.
5. Enter a description. The description will appear as a tooltip.
6. Set the owner to Shared or Private. Only the administrator has the right to assign a view to other users.



Note: If a new view is created, the view is always taken from the current view on the desktop. If an existing view is selected, it can be updated with the current view by clicking **From Current View** button.

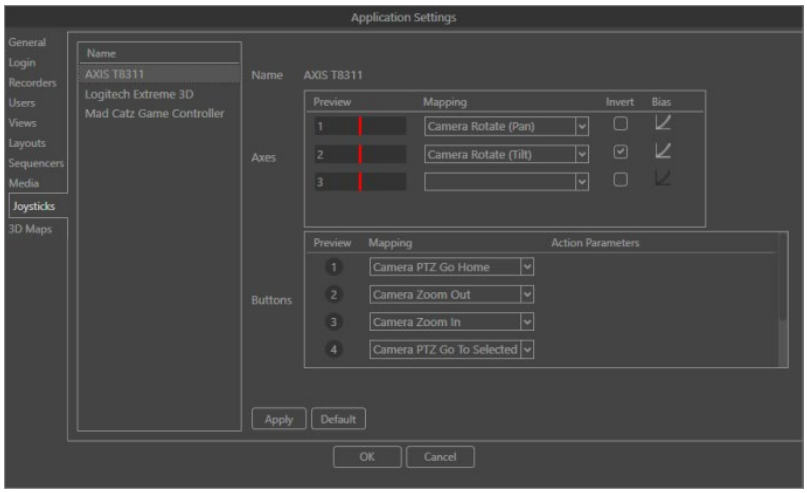
Joystick controls

FortiCentral supports PTZ camera joystick control. While FortiCentral supports most joysticks, professional surveillance grade joysticks are recommended for more precise control.

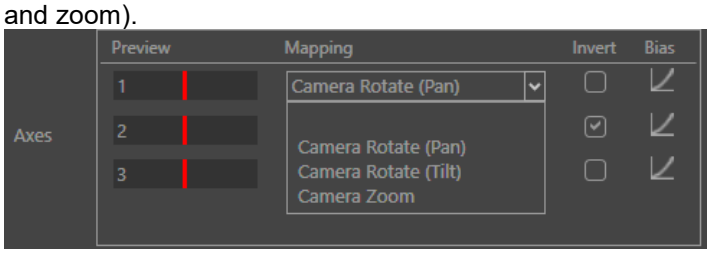
To configure joystick control

1. Select the Settings button.
2. Select the Joysticks section.

   The supported joystick should automatically calibrate once plugged in and appear in the left box of the joystick section.

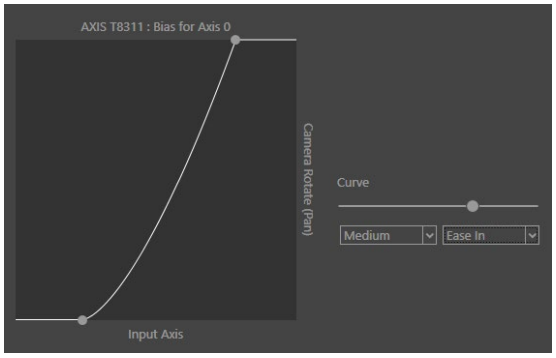


3. If not already assigned, assign each number a different mapping control option (pan, tilt, and zoom).

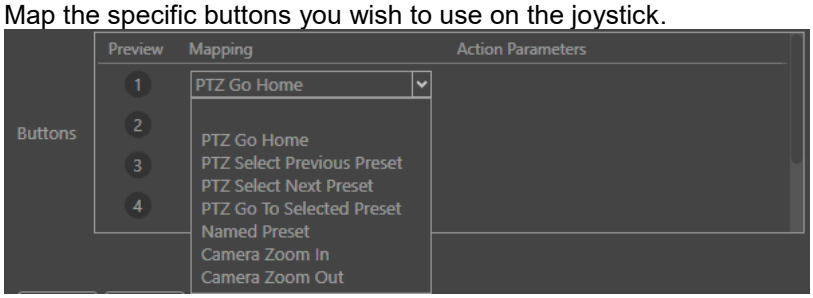


4. Depending on personal preferences, you can invert the direction of movement. For example, when you push the joystick forward, the camera tilts up; if inverted, the camera will tilt down.

5. Selecting Bias will help you adjust the movement sensitivity along a specific axis. Using the linear setting, the camera's movement speed matches how hard you push the joystick lever. Ease in or Ease out sets how the camera accelerates and decelerates during movement.



6. Map the specific buttons you wish to use on the joystick.

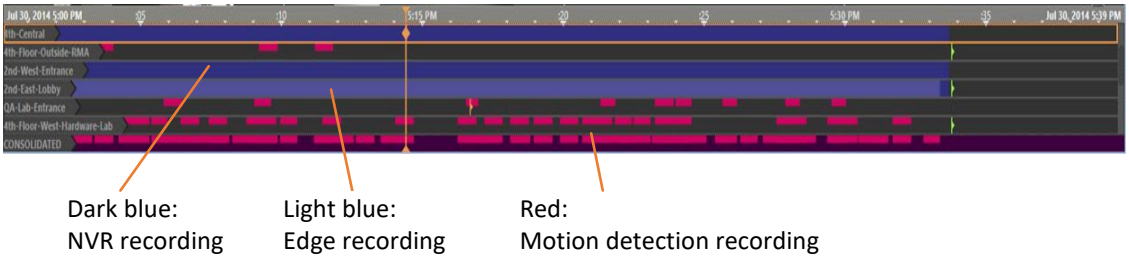


Playback and Monitoring

ForitRecorder Central offers a variety of ways to control the playback of your camera's recorded video and different ways to monitor and review the content placed in the video pane.

Timeline bar

The primary method of controlling playback is the Timeline bar.



Selecting a motion triggered event will play the camera's video at the beginning of the captured clip.

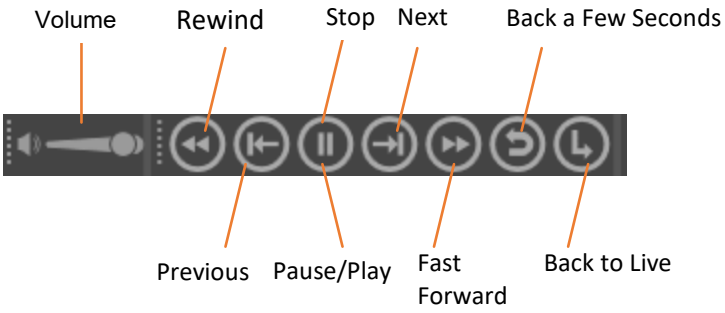
When you select a specific camera in the timeline, a yellow highlight displays around the timeline row that is related to the selected pane. To go to a specific point in time during a camera's recording, with the correct camera selected, select the desired point in the Timeline bar. For motion clips, the playback will start at the beginning of the recording. You can use your mouse wheel to zoom out on the Timeline bar to reveal more time.

Important: If you are recording video onto your SD card through edge recording, selecting a specific moment on the timeline will make the NVR begin downloading the video. Once you download the edge recording to the NVR, the edge recording in the camera will be erased.

The bottom row of the Timeline bar is the Consolidated Row. It shows an overlay of all alarm recordings for all cameras in a pane. The Consolidated Row helps you monitor incoming alarms, which can greatly help when there are many cameras displayed in the Timeline bar.

Playback controls

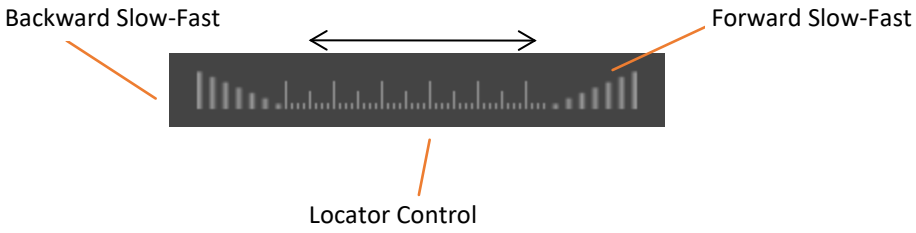
In addition to the Timeline Bar, you can use the Playback Controls to control a camera's playback. The Playback Controls are located at the bottom of the Resource Column, the Toolbar Area and displayed as an overlay in the Pane Area when you hover your mouse over a selected video.



A blue bar indicates recording, light blue for edge recording and dark blue for NVR recording, while a red bar indicates a motion triggered recording. Selecting a motion triggered event will play the camera's video at the beginning of the captured clip.

Locator control

Once a video is in playback, the Locator Control is a convenient way to fine position the point of playback.



The scale in the middle can be dragged to the left and right, which will move the playback of the selected video backward or forward depending on the direction your mouse drag. For example, selecting the left side of the scale area and moving the mouse across to the right side of the scale will jog the video ten seconds forward.

The wedge-shaped ends of the Locator Control are proportional speed controls. If the mouse is pressed down in these areas the video will play forward or backward continuously – until the mouse is released. The speed depends on the position (1/8 speed to 64x speed).

Tip: To move forward frame by frame select the slow-motion portion of the right wedge (1/8 speed).

Fisheye viewing

Fisheye cameras, such as the FortiCam-FE120, support panoramic viewing for a larger monitoring view. Fisheye cameras are displayable in three different modes, selectable from the camera's overlay:

Normal Video Mode: The default mode that displays the fisheye stream and digital zoom.

PTZ Mode: The live or playback video is transformed to mimic a PTZ camera. The ePTZ can be used on multiple panes from the same camera, which simulates multiple cameras viewing different directions. This mode is controlled though the use of the middle mouse button.

Ribbon Mode: Ribbon mode displays either a 360 degree, like a ceiling and table, or a single 180 degrees span, like a wall mount.

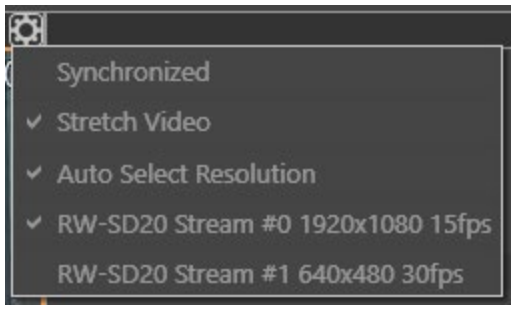
The camera must be streaming video in fisheye format and not de-warped on the camera, or none of the viewing modes will be available. Camera-side de-warping has limited options and no ePTZ.

Synchronized playback

FortiCentral features synchronized playback, which allows multiple select cameras to be controlled through a single action.

To synchronize playback

1. Select the **Settings** button from the top right of the camera's pane.
2. Select **Synchronized** from the dropdown menu.



3. Repeat steps 1 and 2 for the other cameras you want synchronized.

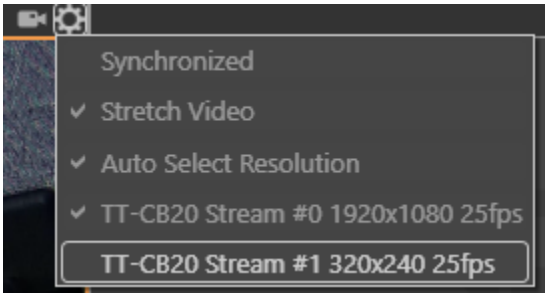
Once the selected cameras are synchronized, you can control all of the cameras with the same action.

Video stream resolution

FortiCentral features the availability of a second stream. If multiple people are monitoring a single camera stream on your network, you can keep the recording resolution high and the stream at a lower resolution to save bandwidth. Currently, the following camera models support dual streaming: FCM-CB20, FCM-SD20, FCM-FD20, and FCM-MD20.

Before you can select the second stream from FortiCentral, you must first adjust the Camera Profile Settings in FortiRecorder. See the FortiRecorder Admin Guide for more details.

To switch to a different stream, select the **Settings** button from the camera's video pane and then select the alternative stream.



If you enable auto select resolution, FortiCentral automatically chooses the best matching stream for the video depending on the size of the pane. If you drag the video to a different size pane or make the camera full-size by double-clicking the pane, the best resolution is used.

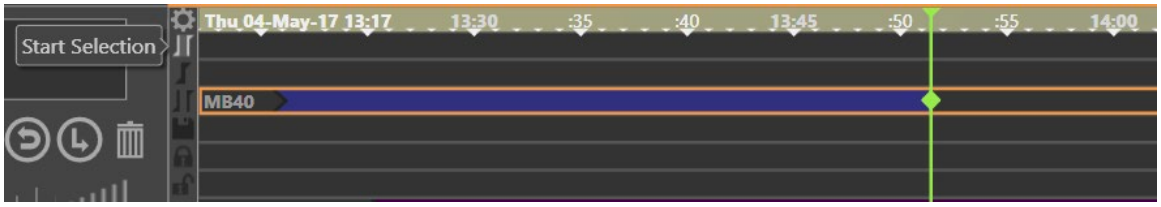
Locking events

FortiCentral supports locked events. Operators can select important time periods on the timeline and lock them so that they cannot be overwritten or erased.

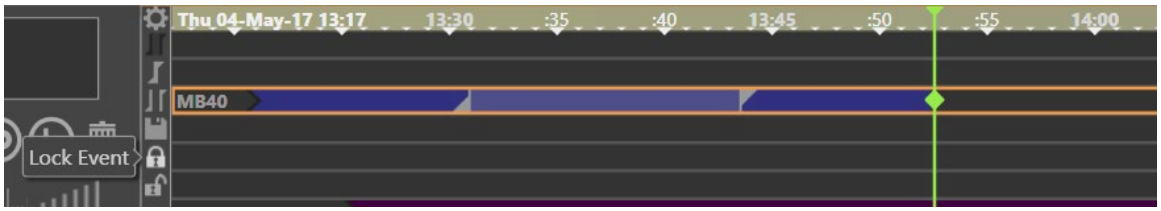
Note: The locking event feature is only available for 2.6 firmware or later.

To lock an event

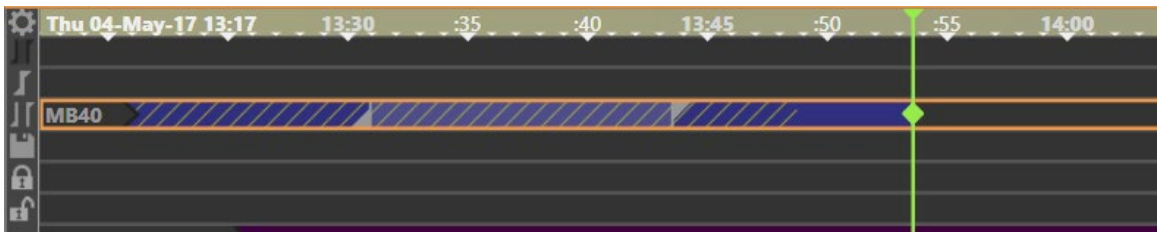
1. Select the channel you want to lock.
2. Select the Start Selection button.



3. Select your desired time period you wish to lock and then select the Lock Event button.



Note: The shaded section of the selected area in the timeline may be longer than the selected area. This occurs when selected period overlapps two storage files. Both files are locked to preserve the video footage in this instance.

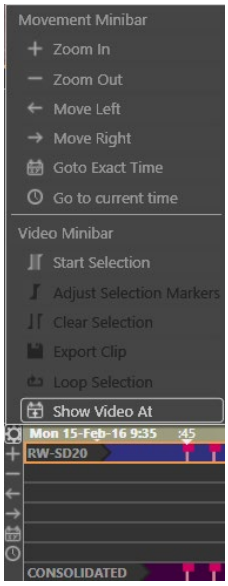


Video clip download

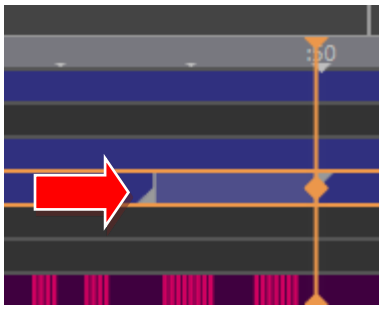
FortiCentral supports direct download of selected video clips, so you can save the video on a local disk and play them back at a later time.

To download a video clip

1. Go to the frame you want to start the video.
2. Select the **Settings** button to the left of the Video Timeline.
3. Select **Start Selection** in the Video Minibar section.



4. Select and drag the cursors to decide where the clip will begin and where it will end.

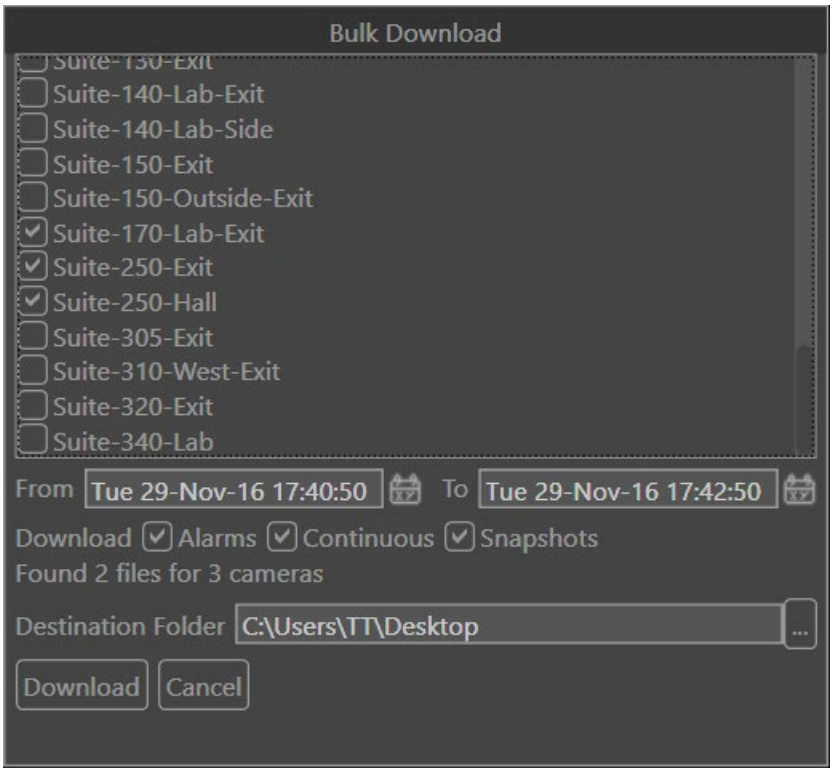


5. Select the **Export Clip** button to start the download.

The clip will begin downloading. You can view the download progress in the Downloading section of the Resource Column. Once the download finishes, select the location on your local hard drive where you want the file stored. Exported videos are in an .mp4 file format and can be a maximum of five minutes.

Bulk download

You can download video from multiple cameras to your local PC all at a time.



To bulk download video from multiple cameras

1. Select the **Settings** button.
2. Go to **Import/Export > Bulk Download**.
3. Specify the cameras, time period, video types, and destination folder.
4. Click **Download**.

Sequential viewing

FortiCentral can automatically switch groups of cameras on a single pane or multiple panes. On a single pane, this feature provides sequential viewing of cameras one after the other with defined switch time. If used on multiple panes, it provides a virtual tour by switching the next camera on the next pane in a round robin fashion. The advantage is a longer dwell time of each video thus giving a better situational awareness.

Sequencers can manage video streams from cameras, images and media clips.

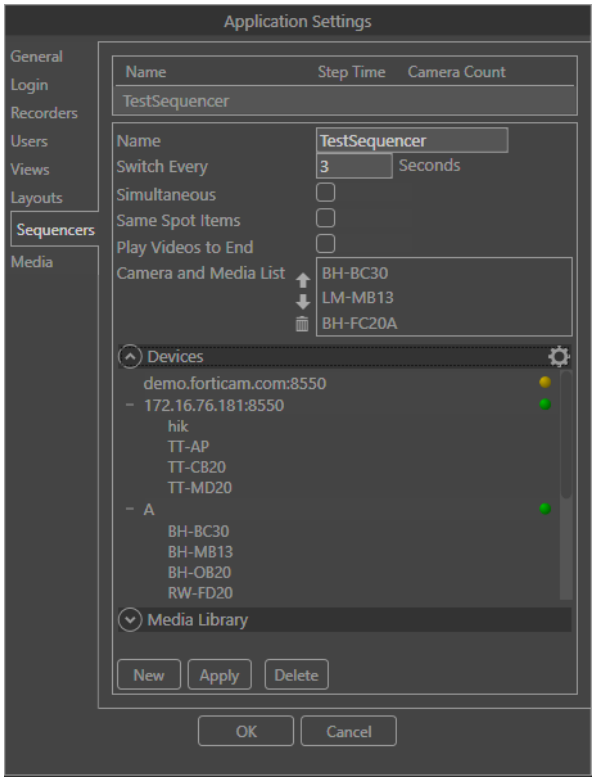
There are advanced modes to simultaneously switch multi pane sequencers and to make sure content is displayed on the same position in every round. Multiple sequencers can be defined and played at the same time. They are synchronized from a common clock.

FortiCentral supports sequential viewing. Single pane sequential viewing provides users with a series of camera views that rotate in a single pane at specified intervals. For example, one pane can rotate between six cameras every ten seconds. With sequential viewing, users can monitor dozens or even hundreds of cameras in only a few panes.

To configure sequential viewing

1. Select the **Settings** button.
2. Go to **Settings > Sequencers**.
3. Enter a name and how often the view will switch in seconds.

4. Expand the **Devices** dropdown menu.
5. Drag and drop the cameras you wish to view into the Camera and Media List section.



6. Select **Apply** and then select **OK**.

To add your newly created sequencer to the viewing panes, expand the Sequencer dropdown menu in the resource column and drag and drop the sequencer into one of the viewing panes.

If you mouse over a video pane that contains a sequence of videos, five icons appear:

Start or pause the video sequence.

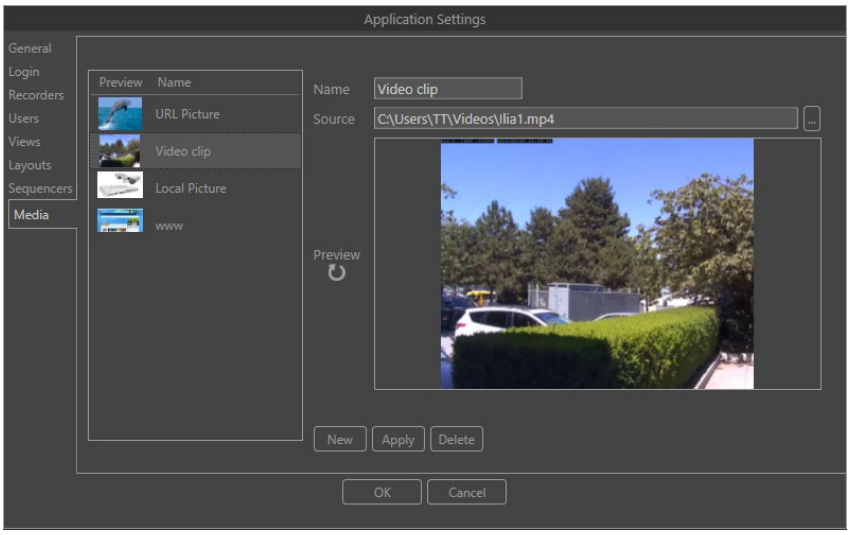
Stop and close the video sequence.

Go back to the previous camera in the sequence.

Go to the next camera in the sequence.

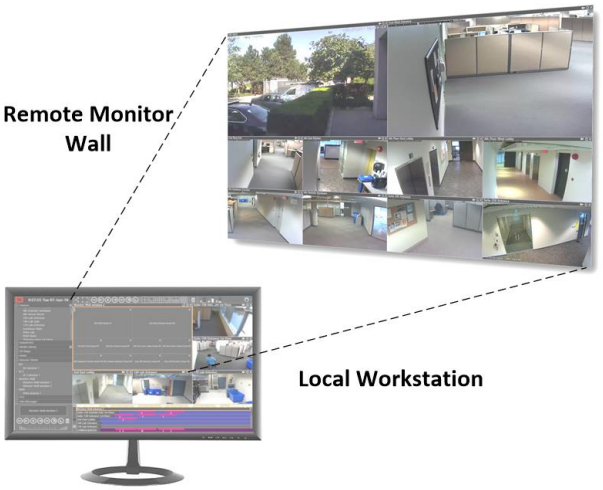
Drag and drop the current video from the sequencer to another pane. If during the sequential playback you see a video of interest, use the drag and drop cursor to bring it to a new video pane. The original sequential video will continue playing while the new pane will play only the selected video.

You can add video clips or pictures to the sequencer rotation list by selecting **Media** from the Application Settings, uploading the media files, and then adding them to the **Camera and Media List** under the **Media Library** dropdown menu in the **Sequencers** section.



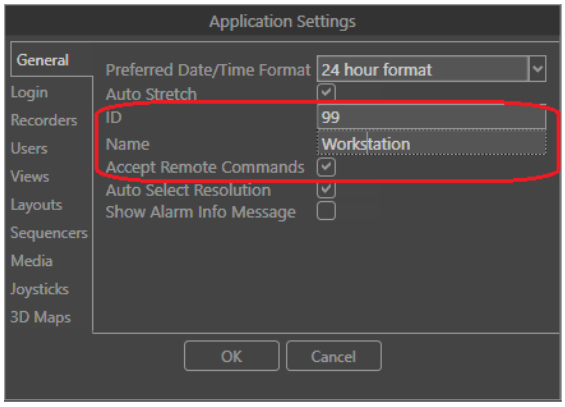
Remote control management

FortiCentral supports remote control management. Through remote control management, you can control the viewed cameras of a shared NVR in FortiCentral on a remote system. For example, you could use remote control management to collaborate surveillance among various security operators so that each operator could monitor the same camera.



To configure remote control management on the remote client

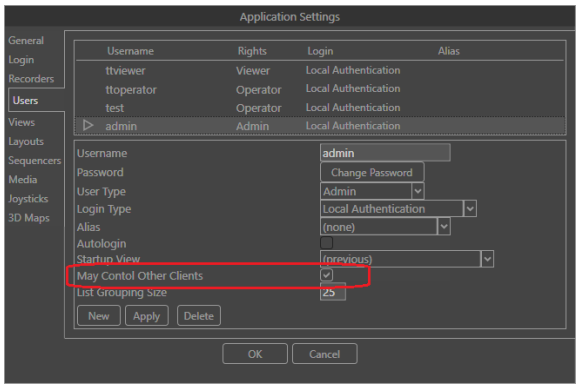
1. Select the Settings button and go to **General**.
2. Enter a unique number between 1 and 65000 in the ID field and the name you want to show in the remote client list in the Name field.
3. Enable *Accept Remote Commands*.



To configure remote control management on the local client

1. Select the Settings button and go to **Users.**
2. Enable *May Control Other Clients*.

   You can restrict who has control over the remote clients by changing the User Type. For example, you could select Admin to make sure only administrators can remotely control the viewing options of another system.



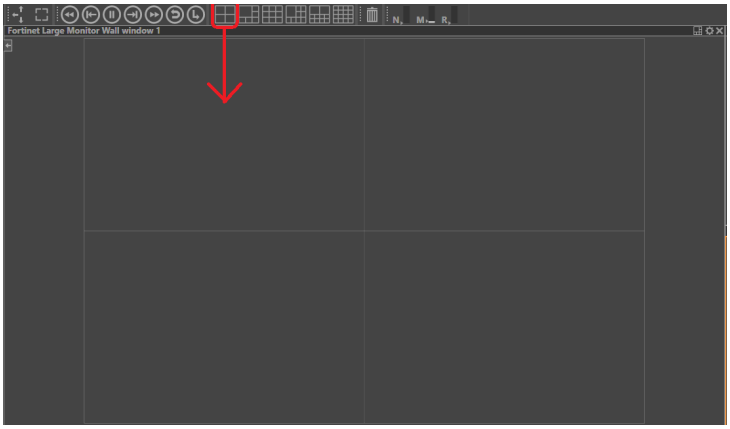
Remote Clients should now appear in the Device Panel.

To display cameras on a remote monitor

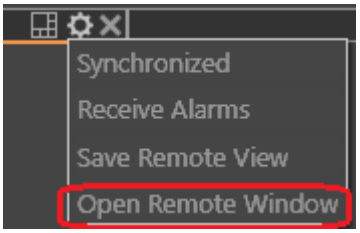
1. Drag the remote client from the Remote Client section to a local pane.
2. Drag your desired camera from the Device Panel to a local pane.

Organizing a remote client

You can store views of a remote client desktop by using the Save Remote View option in the individual pane settings menu. Make sure to include “Remote” in your view description to help distinguish between local and remote views. Additionally, you can control the windows and layout on the remote client by dropping a layout icon from the toolbar on the remote window.



You can also open a new window on the remote client by sellecting the settings button in a pane and sellecting *Open Remote Window*.



Monitor wall control

One workstation running FortiCentral can operate multiple monitors and form a Monitor Wall. Typically, these workstations are shared between manned operator workstations; however, it is

possible to control a monitor wall workstation from any operator workstation. Users can switch video, apply views, or change the layout.

This feature requires two FortiCentral instances to communicate with each other. To successful communicate they must be connected to at least one shared FortiRecorder.

To configure an operator side FortiCentral to control a Remote Client

1. Enter a unique numeric ID in Settings. This is ideally planned by the administrator, but you can assign your own ID number. If your ID is in conflict, you will receive a warning message.
2. In the Monitor Wall workstation, set up another unique numeric ID in Settings. Choosing a name for the local workstation will allow others to identify it correctly. This name will appear in the Remote Clients expander tab in the device column.
3. Enable “Accept Remote Commands”.

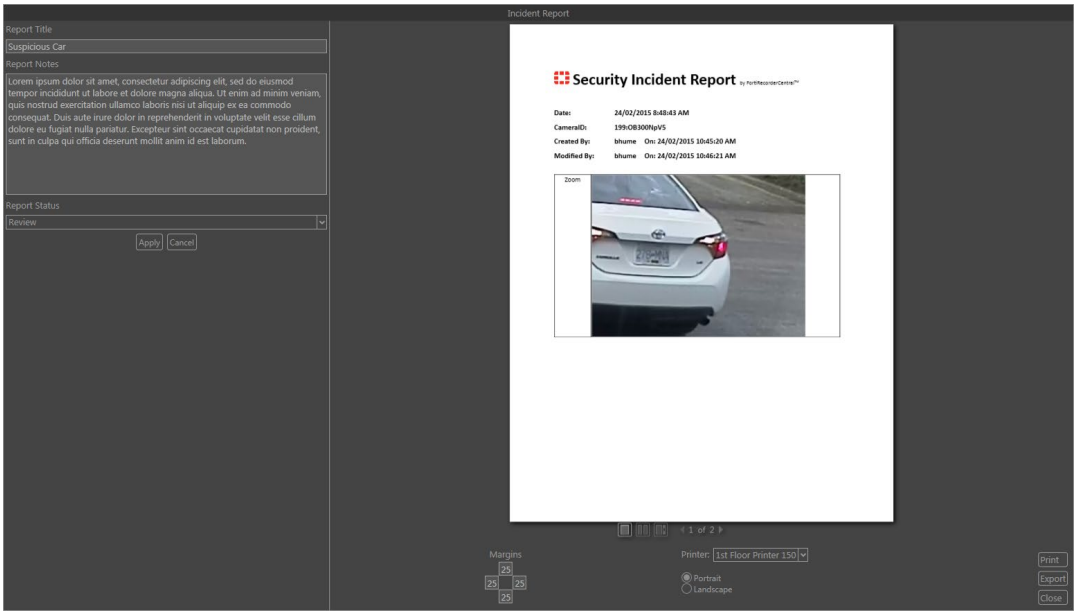
Once this is set up, the Monitor Wall appears on the operator workstation under Remote Clients. Drag the Monitor Wall name onto a pane to show a representation.

Incident reports

FortiCentral supports saving and printing specific sections within your videos by creating an Incident Report.

To create an incident report

1. Set the video to the frame you wish to display in the report.
2. Select the **Settings** button.
3. Select **Incident Reports**.
4. Select **New Report**.

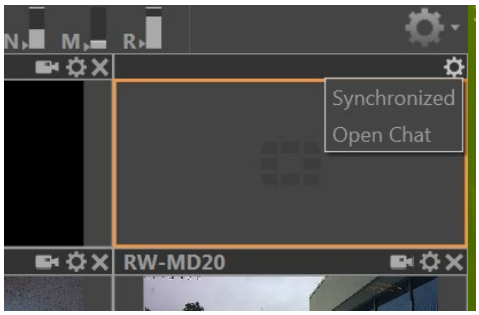


Chat

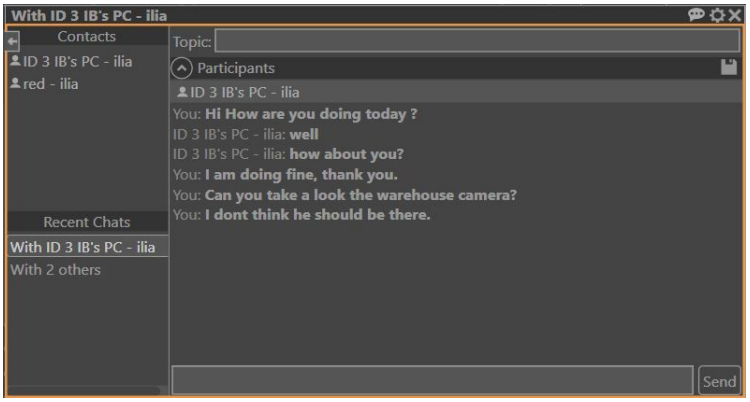
FortiCentral supports a chat function, which allows operators to collaborate online discuss surveillance procedures.

To start chat

1. Select the **Settings** button on an empty pane.
2. Select **Open Chat**.



The contact list is populated by currently connected users and groups. Double click on a contact or drag the contact into the Participants area to initiate a conversation or add users to an existing conversation.



To save the list of participants in a current conversation, select the disk button in the Participants section.

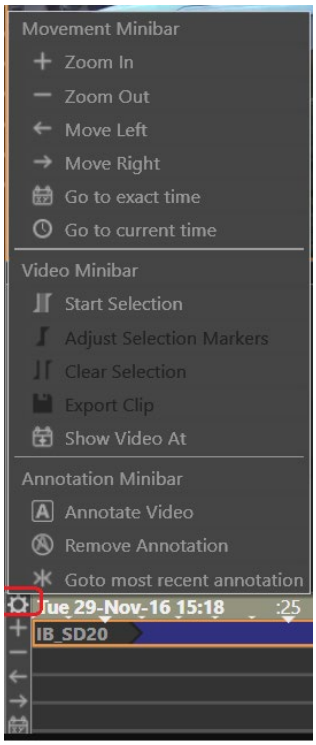
Adding annotations

ForiRecorder Central supports the creation and retrieval of annotations on the video timeline. Operators can create digital notes within a specific video for future review.

To create an annotation

1. Select the Settings button in the Video Timeline.

2. Select Annotation Minibar to display the quick selection buttons in the Video Timeline.



3. Select the desired time in the Video Timeline where you wish to place an annotation.
4. Select the Annotate Video button.
5. Enter your desired annotation and select **OK**.

A light blue bar appears in the Video Timeline where the annotation is placed. When you move the cursor over the blue bar, the annotation appears on screen.

Select the Remove Annotation button to delete the selected annotation.

To go to the next most recent annotation, select the Next Annotation button.

Adding media

FortiCentral supports media management, which allows users to upload and display pictures, video clips, and web pages in the video panes.

This is useful to enrich the information available to the operator or public on the FortiCentral screen. For an operator it is useful to have quick access to:

- Location map
- Telephone directory
- Instructions
- Emergency procedure

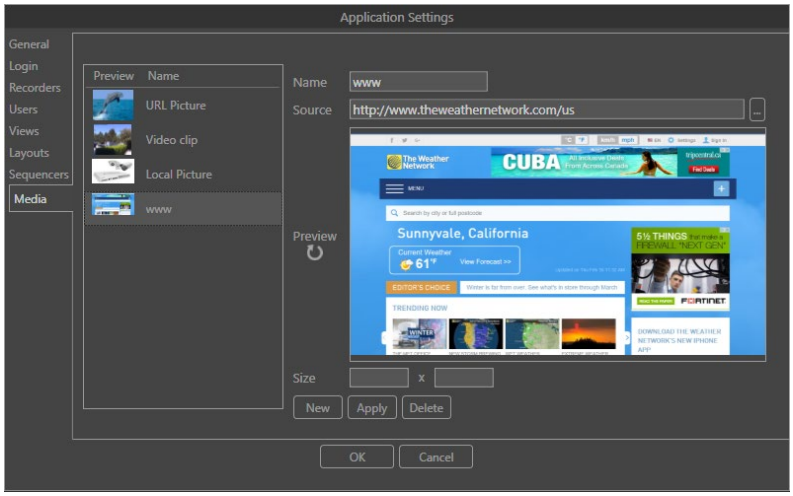
This function can also be used as information bulletin board like a digital signage solution, displaying:

- Newsletter
- Today's activity
- Weather condition/Snow report
- What's on sale
- Small presentation

Media Elements can be loaded from local storage or via URLs. In case of web page display, the content is refreshed every time it is switched to a pane. This allows regular refresh of web content if the media element is used in a sequencer.

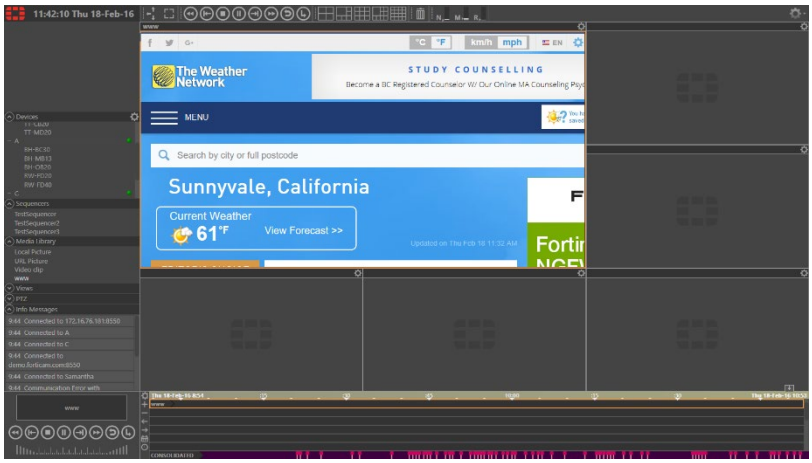
To add any media to a pane

1. Select the **Settings** button.
2. Select the **Media** tab.
3. Enter a name for the media.
4. Select the source of the media. You can either upload media from your hard drive or enter a URL to add a web page or a media file from a web page.



5. Select **New** and then **OK**.
6. Open the **Media Library** tab from the Resource Column.

7. Select and drag the media from the **Media Library** to a pane.

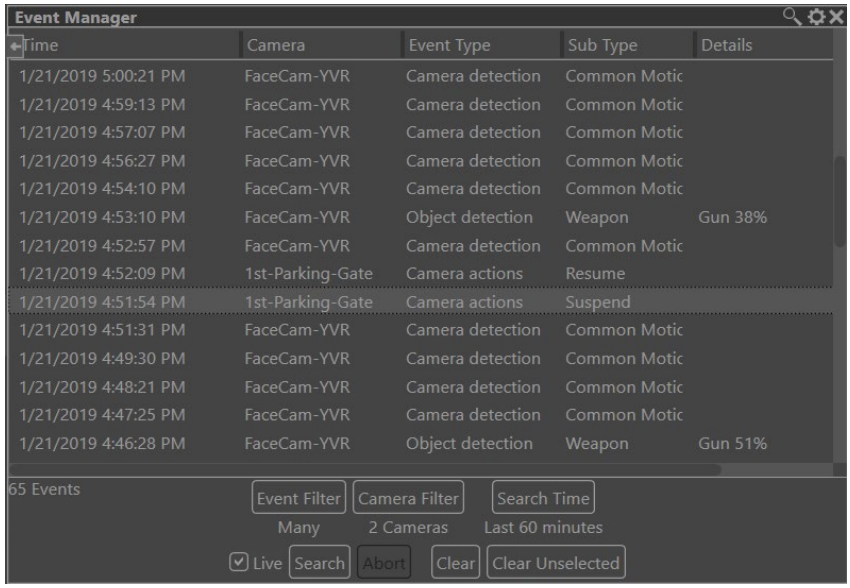


Event Management

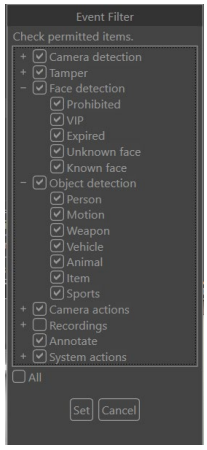
Event Manager provides a centralized view of live and recorded events. You can create customized views that consolidate a wide variety of different event types, such as motion detection, facial, and system actions like rebooting and interruptions.

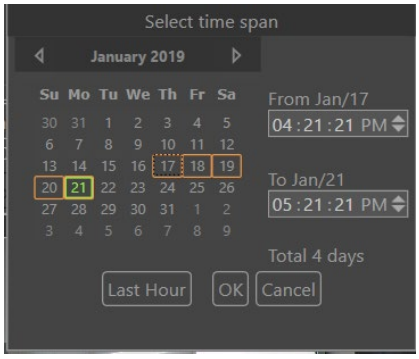
Using Event Management

To access the Event Manager, select the settings button in the desired pane and then select **Open Event Manager.**



From the Event Manager menu, you can filter for specific events using the **Event Filter** button, define time periods to search for events, and sort the entries for easier review. Event filter can recall multiple named sessions.



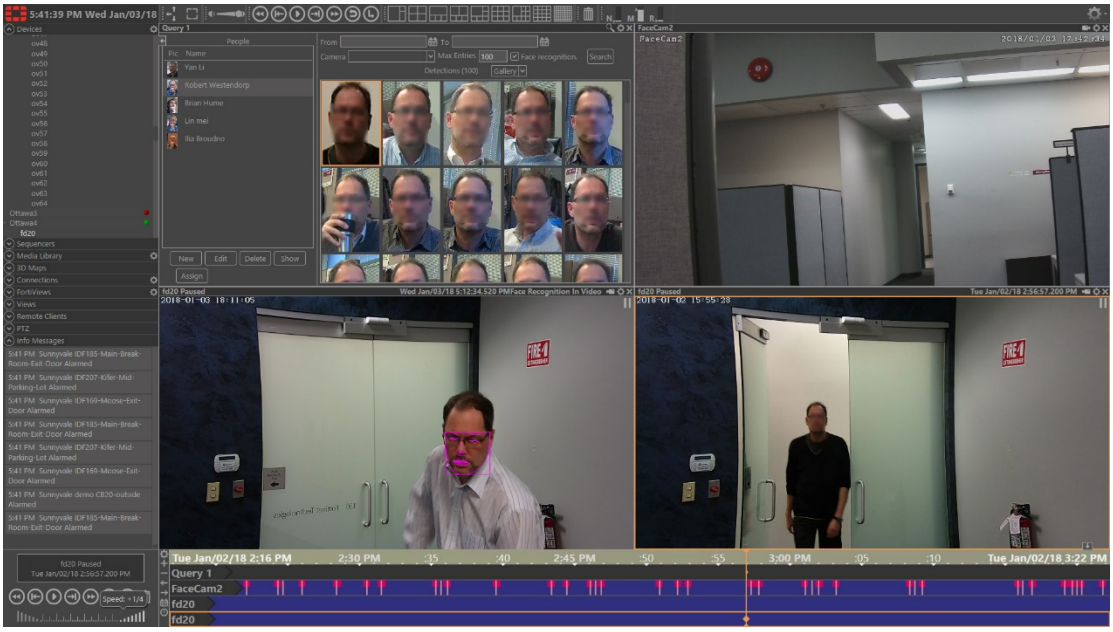


Incoming events are added to the list in real-time when you enable the Live option.

To play back a selected video, drag and drop the event from the Event Manger to a pane. The video automatically begins playback.

Facial Recognition

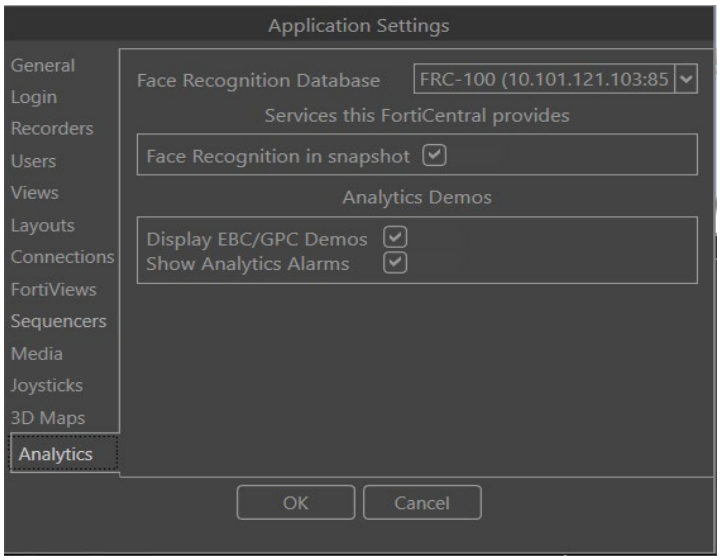
FortiRecorder and FortiCentral support easy to use face detection for your ever-evolving security needs. Face detection quickly accesses a detailed database to accurately identify individuals on camera.



Configuring facial recognition

To configure facial recognition in FortiCentral

1. Select the settings cog and select **Settings**.
2. Select **Analytics**.

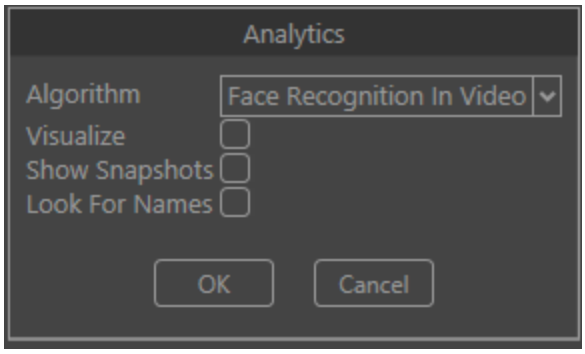


3. Select the recorder receiving the results of the face analytics from the Face Recognition Database dropdown menu.

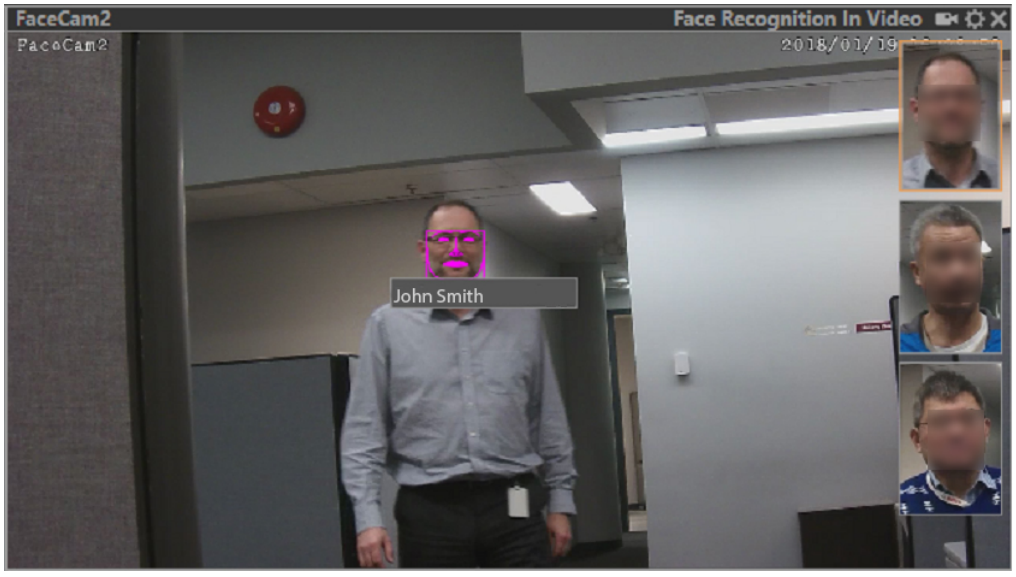
4. Enable “Face Recognition in a snapshot” to allow FortiRecorder to receive pictures of individuals for later identification.
5. Enable “Display EBC/GPC Demos” to electronically welcome guests based on recognition.
6. Enable “Show Analytics Alarms” to start a playback loop of the moment an individual triggered the alarm.
7. Select **OK**.

Configuring the analytics processor

1. Drag a camera from the device tree to an open pane.
2. Select the Settings cog menu from the pane window.
3. Select Analytics.



4. Select Face Recognition from the Algorithm dropdown menu to activate analytics on the camera stream.
5. Enable “Visualize” to enable the overlay of facial landmarks in live video. The colors of the face landmarks indicate specific characteristics:
White: The face is detected but the quality is not good enough to generate a representation.
Yellow: The first frame taken as a snapshot and to generate face representation.
Magenta: The person is being tracked after the initial detection.
Cyan/Green: The person track continued from face matching.

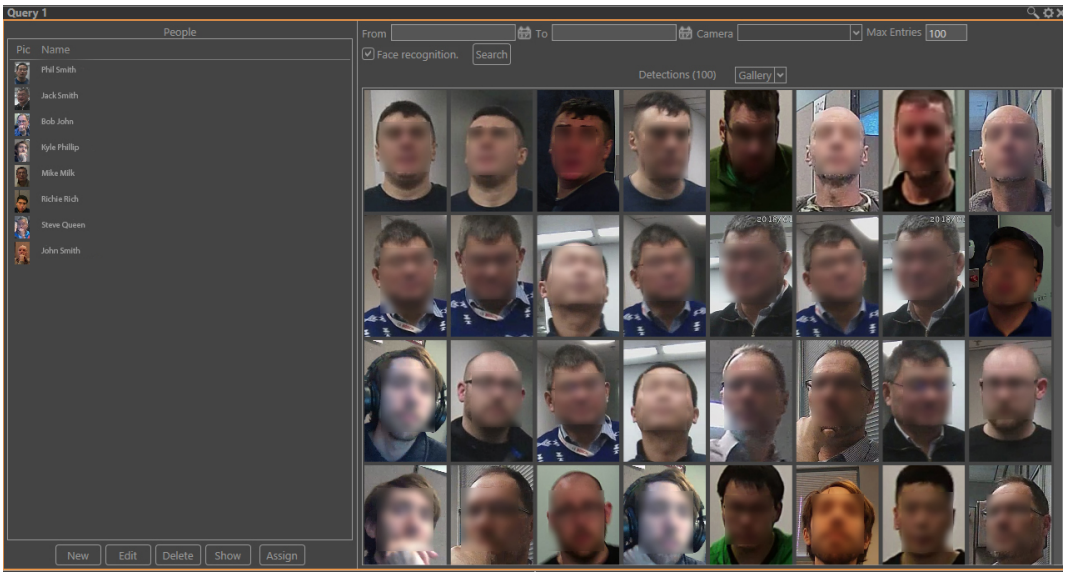


6. Enable “Show Snapshots” to display the best snapshots associated with each track in a gallery. This acts as a brief history of individuals captured on camera.
7. Enable “Look for Names” to activate a search for a detected face in the facial database. If an enrolled person is in the database that resembles the currently detected person, their name is added to the bottom of the facial landmarks.
8. Select **OK**.

Using the vision query manager

The vision query manager is the primary facial detection interface. To access the interface, select the Settings gear in the pane section and then select “Search Computer Vision Data”.

The interface is divided into two sides. On the left are the known individuals and on the right is the search function and results.



To check to see if an individual recently caught on camera has been seen before

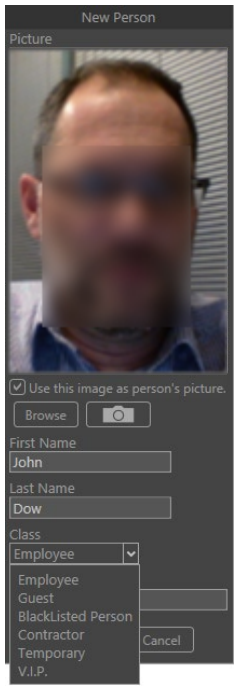
1. Select the settings gear from the pane.
2. Select “Open Computer Vision Query”.
3. Select “Search” without enabling Face recognition. Enter the specific dates you know the individual was caught on camera in the “From” and “To” fields. To narrow your search even further, select the specific camera from the Camera dropdown menu.
4. Select the subject of interest, enable Face recognition and attempt to search again. The results are sorted according to similiarity with the selected person of interest.
5. Drag a specific facial capture from the query pane to the video pane to play the video from the moment of detection.

If an individual frequently visits your location you will likely want to enter that individual into your database for easier recognition and surveliance.

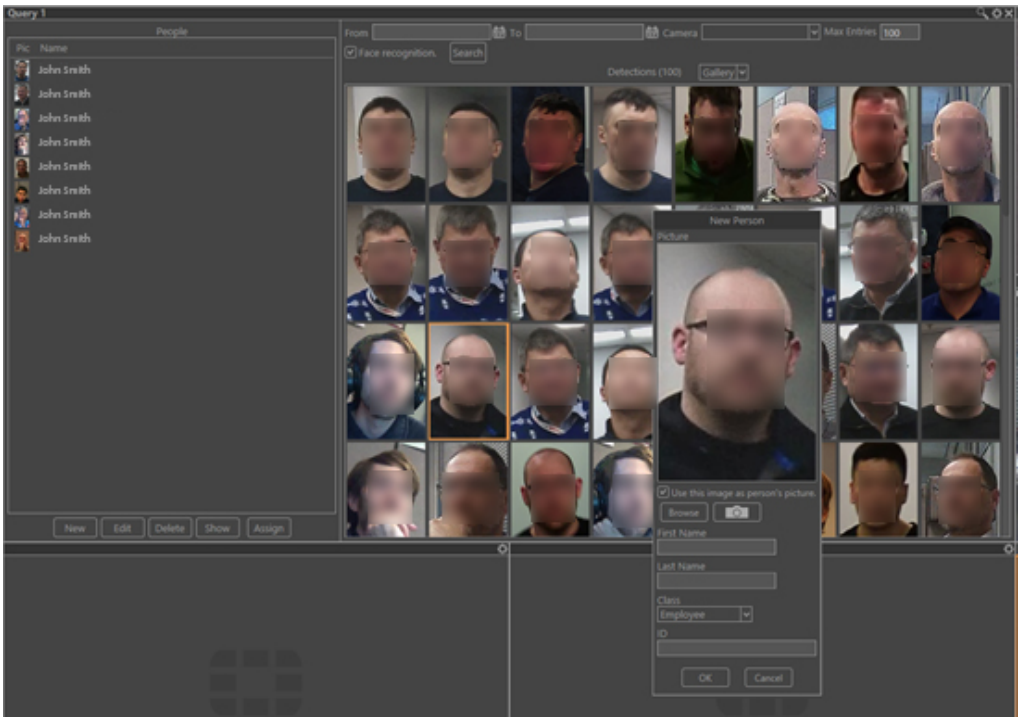
To enter an individual into the database

1. Select **New** from the People section of the Computer Vision Query interface.

2. Select **Browse** to select a picture on your computer or the camera icon to select a particular picture from a selected video device source.
3. Enter their identification information and select their relation to your building from the Class dropdown menu.
4. Select **OK.**



Alternatively, you can enter an individual into the facial database by selecting the individual from the search query section and entering their information. Additionally, you can select the individual and each track they appear in and select the **Assign** button to provide the facial database with more images to improve the identification process.

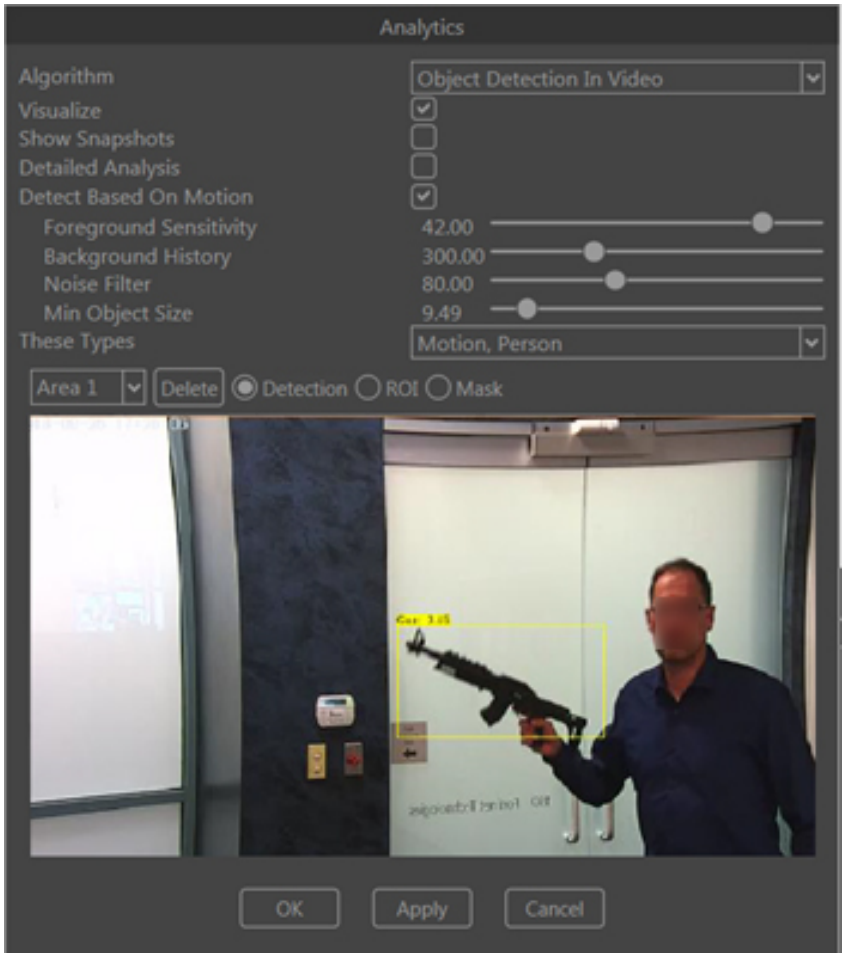


Object Detection

FortiCentral supports object detection in video analytics. Important detected objects, such as people, guns, or cars, are fed into the database of a FortiRecorder where they are used to trigger notifications and then forwarded to all FortiCentral workstations.

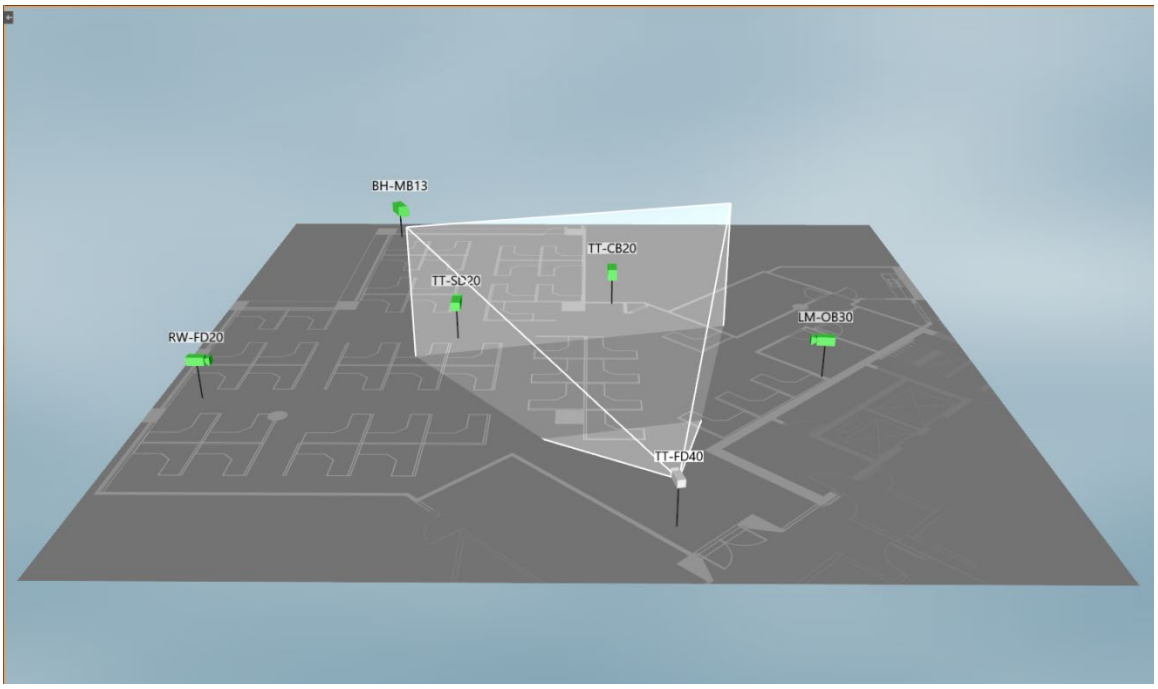
To configure object detection

1. Select the settings gear in the camera's pane window.
2. Select **Analytics**.
3. Select **Object Detection in Video** from the Algorithm dropdown menu.
4. Enable Visualize to display a bounding box around the detected object in the camera perview.
5. Enable Detailed Analysis if a more detailed analytics network is required. Keep in mind enabling this feature will decrease processor speed.
6. Select the type of object you want to detect from the **These Types** dropdown menu.
7. Select the desired detection area. A detection area limits the space to scan for object detection. ROI areas define a specical area of focus using a user-defined bounding square. The Mask type creates a black out zone where object detection does not scan.
8. Select **Apply** and then **OK.**



3D Floor Plan Monitoring

FortiCentral supports 3D floor plan visualization, allowing you to view a floor plan of your camera positions in a three-dimensional space. 3D floor plan monitoring lets you see the horizontal and vertical viewing angles, as well as the depth of field of every camera under your control.

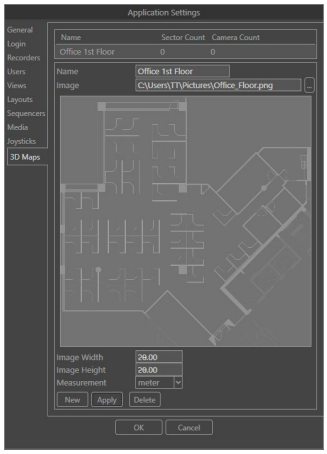


Configuring 3D maps

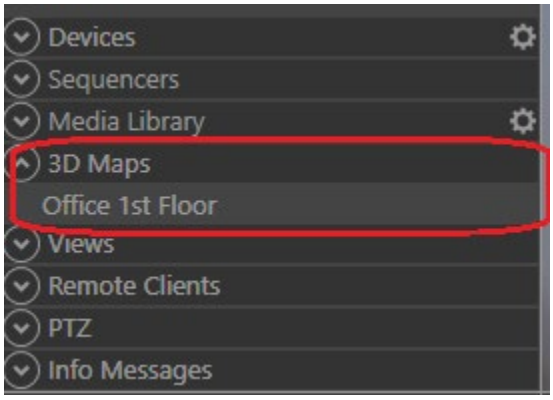
Before you can begin using the 3D map for surveillance and add a map to your video pane, you first must configure the 3D map in FortiCentral.

To configure a 3D map

1. Select the **Settings** button and go to the **3D Maps** section.



2. Name the floor plan and select the button to select a floor plan image. FortiCentral supports .jpg, .jpeg, .png, .bmp, .tif, and .tiff image files. 3D maps can be exported and transferred to other computers by going to Settings > Import/Export > Import/Export 3D Maps.
3. Enter an image width and height to help scale the map and ensure correct visualization cones.
4. Select **Apply** and then **OK** to save your map. Once your map is saved it will appear in the Device Panel.

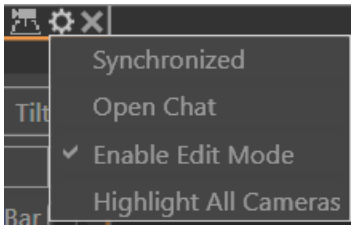


Using 3D maps

With the 3D map configured, you can now drag a selected map to one of your panes.

To work with a selected map

1. Select the settings button in the map's pane area.
2. Select *Enable Edit Mode*.

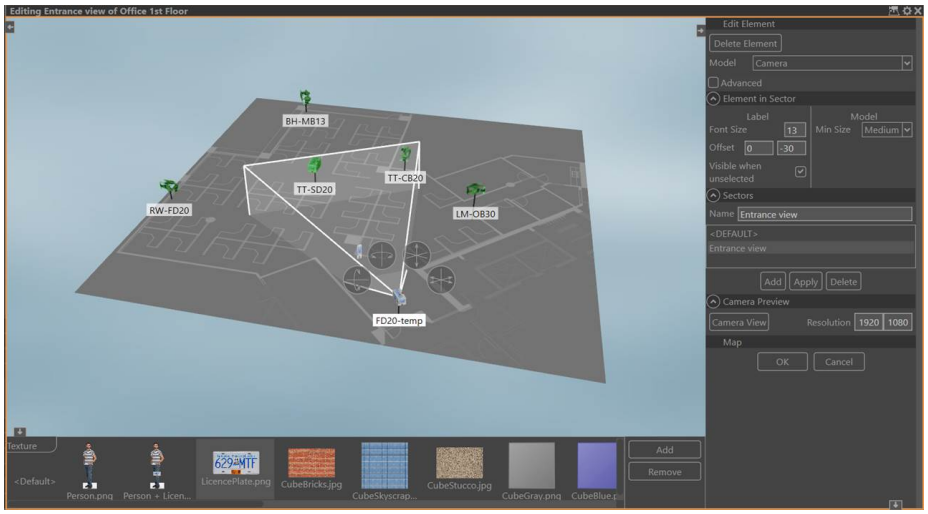


3. Drag and drop a camera from the Device Panel to the location it is installed on the floor plan.
4. Select *Highlight All Cameras* to show the view cone of all available cameras on the 3D map.

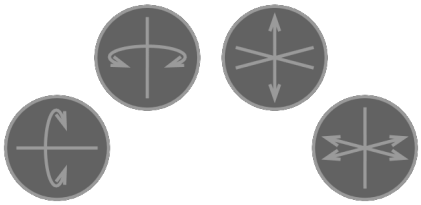
   You can navigate the floor plan by using the scroll wheel button to change views and holding the right mouse button to change the view of the plan along a vertical axis. When you have a desired view of a plan save the view as a Sector by selecting the Sector menu, entering a name for the view, and selecting **Add.**

To work with cameras on a map

1. Select a camera on the map.



Four icons appear above the camera, which you can use to work with the camera. From left to right: tilt, pan, vertical movement, horizontal movement.



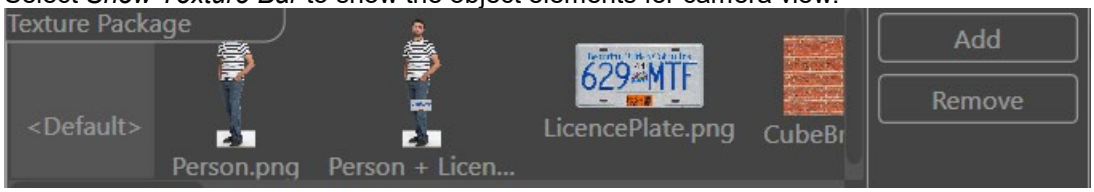
2. Select the **Tilt** button to move the camera in a sloping position.
3. Select the **Pan** button to turn the camera left or right.
4. Select the **Vertical movement** button to move the camera up and down along a vertical axis.
5. Select the **Horizontal movement** button to move the camera left and right along the horizontal axis.

Using the Camera View

The camera view enables users to plan their camera settings and placement by viewing the scene through the eye of the camera.

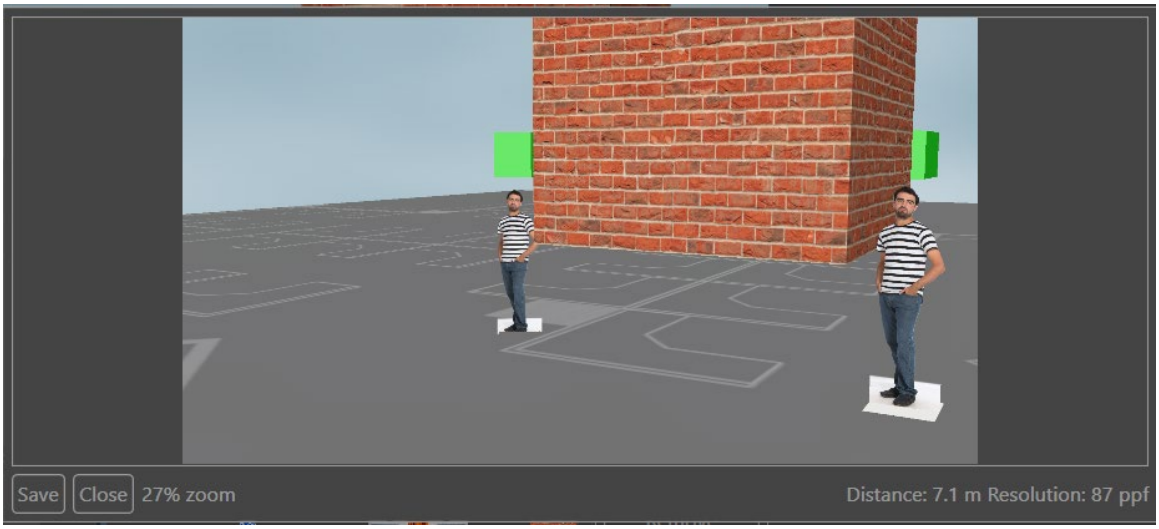
To enable the camera view

1. Select the desired 3D map pane.
2. Select the settings button in the map's pane area and then select *Enable Edit Mode.*
3. Select *Show Texture Bar* to show the object elements for camera view.



4. Expand the Camera Preview section.
5. Select *Camera View*.

You can use this view to check what the resolution will be for various objects in a selected distance. For example, you could implement two people into your camera view at different distances to check whether or not your camera settings require adjustment to see each individual clearly.



FortiView

FortiView is only accessible to users who have paid for the proper licensing.

FortiView monitors the status of FortiGate, FortiMail, FortiVoice, and FortiAnalyzer devices and streams live video camera and playback footage. FortiView is ideal for Network Operation Centers, System Operation Centers, and simple security offices. With FortiView, operators can help security officers monitor cameras and the security status of the network.

Licensing FortiView

FortiView is a paid feature in FortiCentral that requires proper licensing to enable.

To license FortiView

1. Go to **Settings > About.**

2. Select **License** and then **Import License.**
3. Select the license file (. lic type) in the file import dialog and select **Open** to import the license into FortiCentral.
4. Select **OK** to finish importing the license.

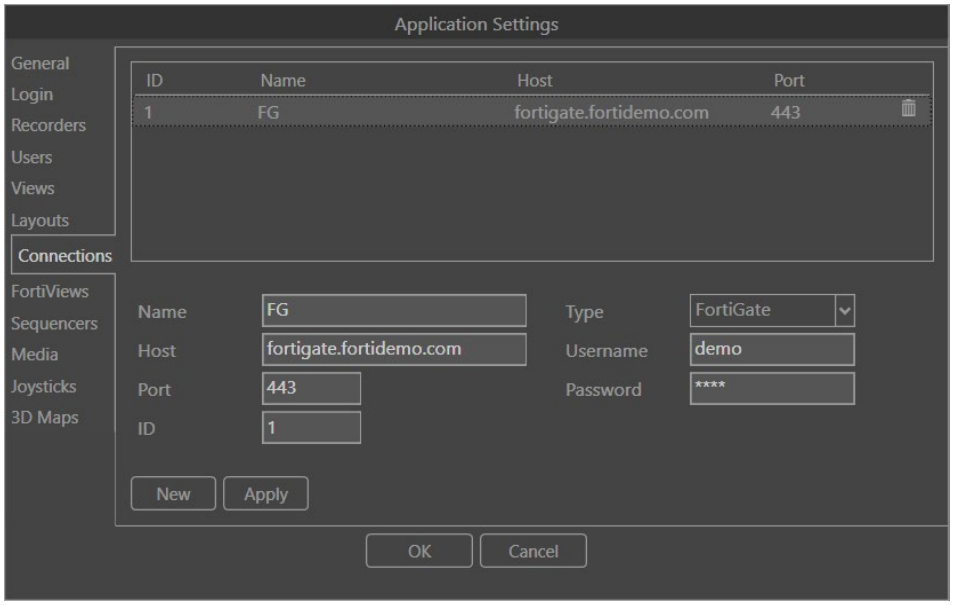
Connection settings

The Connection setting configures the connection to each device (FortiGate/ FortiMail / FortiVoice or FortiAnalyzer) for which one or more FortiViews are generated.

1. Go to **Application Settings > Connections.**
2. Enter a descriptive name for the connection.
3. Enter the IP address or FQDN of the FortiGate/FortiMail/FortiVoice/FortiAnalyzer in the Host section.
4. Enter the Port used for the Host address to access devices REST API or GUI. The default is 443.
5. Enter an ID. If you have multiple connections, use a different name and ID to distinguish between connections. If FortiViews are transferred (dropped) from a local workstation to e.g. a monitor wall the ID numbers of the Connections on the local and remote machine have to match to the same device.

All machines in an installation should use the same connection ID for the same device (FortiGate/ FortiMail / FortiVoice or FortiAnalyzer).

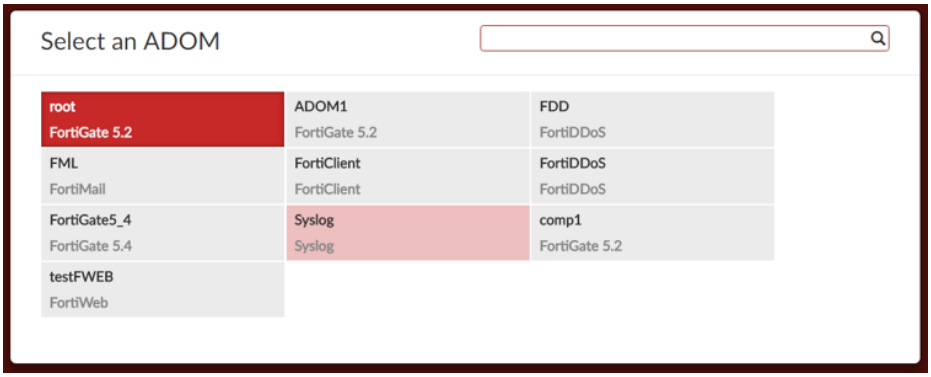
6. Enter a login user name and then enter a password. Connection does not support blank passwords.



ADOM name

FortiGate, FortiMail, FortiVoice, and FortiAnalyzer all share similar connection settings; however, FortiAnalyzer has an additional ADOM field. Defining ADOM allows ForitView to take connection directly to the screen, bypassing the ADOM selection.

FortiCentral connects directly and bypasses the ADOM selection.



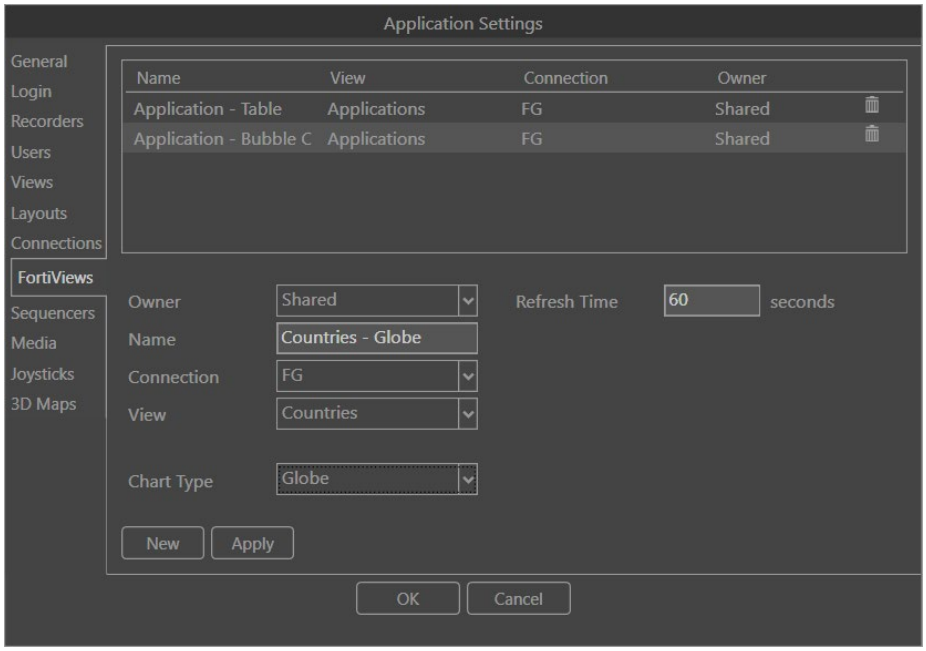
Configuring FortiView

FortiView is capable of displaying Application, Destination, Source, Countries, and Transparent URL.

To configure FortiViews

1. Select Shared or Owner from the dropdown menu to determine who has access rights to the view.

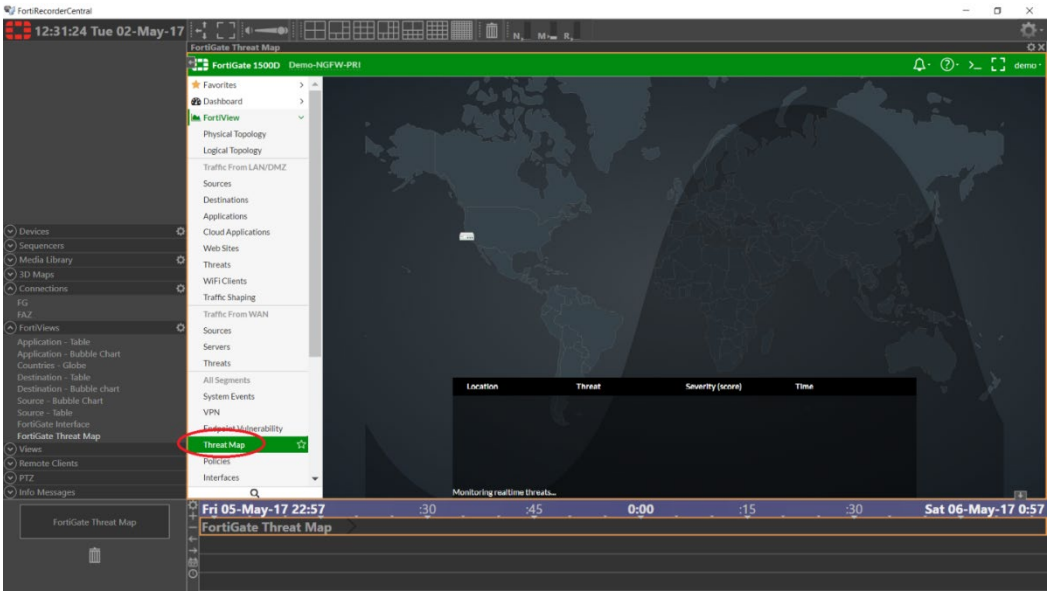
2. Enter a name in the Name field.
3. Select your desired connection from the dropdown menu, which corresponds to the FortiGate/FortiMail/FortiVoice, or FortiAnalyzer you established in the Connection tab.
4. Select your desired view from the dropdown menu: Application, Destination, Source, Countries, and Transparent URL.
5. Select your desired Chart Type. For Application and Source view, you can select a bubble chart or a table chart style.
6. Enter the time in seconds the view will be refreshed.



Transparent URL

The Transparent URL feature allows operators to create a direct FortiGate, FortiMail, FortiVoice, or FortiAnalyzer web page view in FortView.

In the following example, a FG connection is dropped into a pane and the user has manually logged in. Navigate to the Threat Map page to include the Threat Map as a FortiView.



To create a transparent mode FortiView from Connections

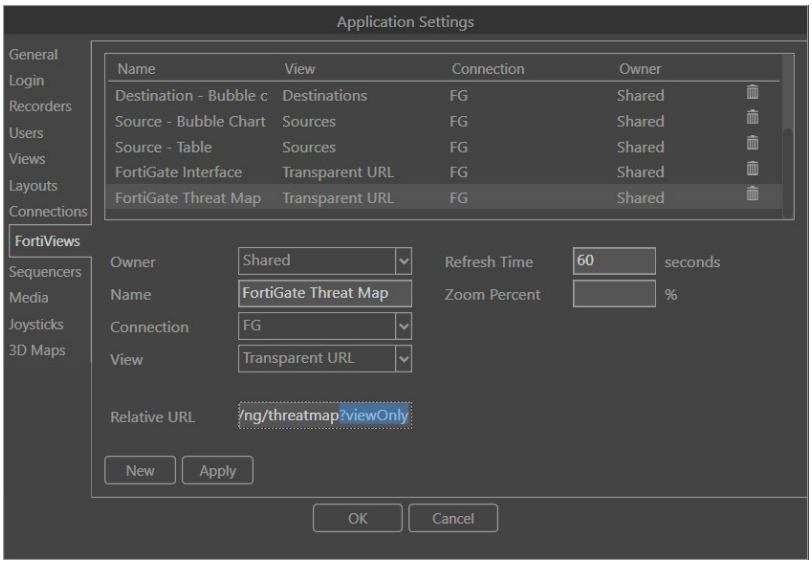
1. Drag the created Connection over to the pane and navigate to the desired page. This example uses the FortiGate dashboard.
2. Select the cogwheel settings button in the top right corner.
3. Select Create FortiView from Current Page

4. Enter a name for the FortiView. In this example, the FortiView is named “FG-Dashboard-Main”.
5. Drag and drop the newly created FortiView from the FortiViews section into a pane.

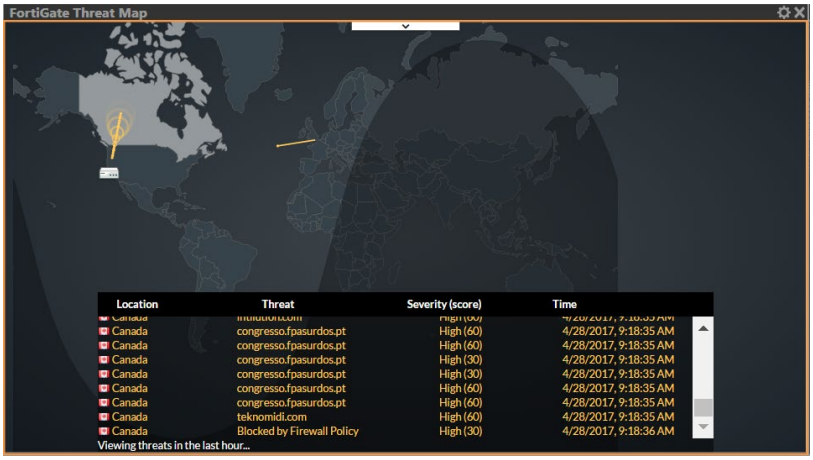
Removing the selection bar

If you would like to view the graph in full screen mode without the selection bar on the left, edit the URL of the transparent FortiView in FortiView settings.

Add “?viewOnly” at the end of Relative URL.



You will now be able to view the Threat Map in full screen mode.



RADIUS and LDAP Authentication Configuration

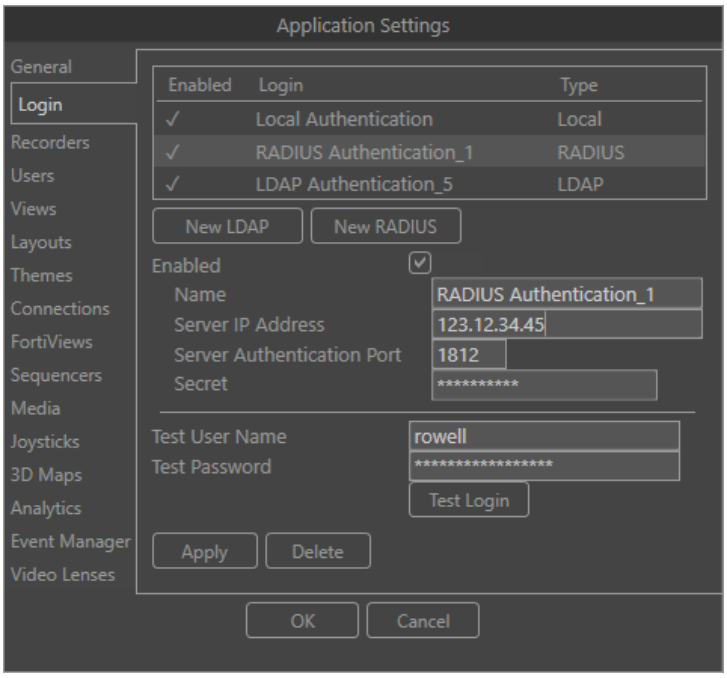
Lightweight Directory Access Protocol (LDAP) is an Internet protocol used to maintain authentication data such as departments, people, groups, passwords, email addresses, and printers. LDAP consists of a data representation scheme, a set of defined operations and a request/response network.

Remote Authentication Dial-in User (RADIUS) is a user authentication and network-usage accounting system. When users connect to a server they enter a user name and password. This information is passed to a RADIUS server, which authenticates the user and authorizes access to the network.

Radius Configuration

To configure the RADIUS authentication

1. Select the settings button.
2. Select **Settings > Login**.
3. Select the **New LDAP** or **New Radius** button.



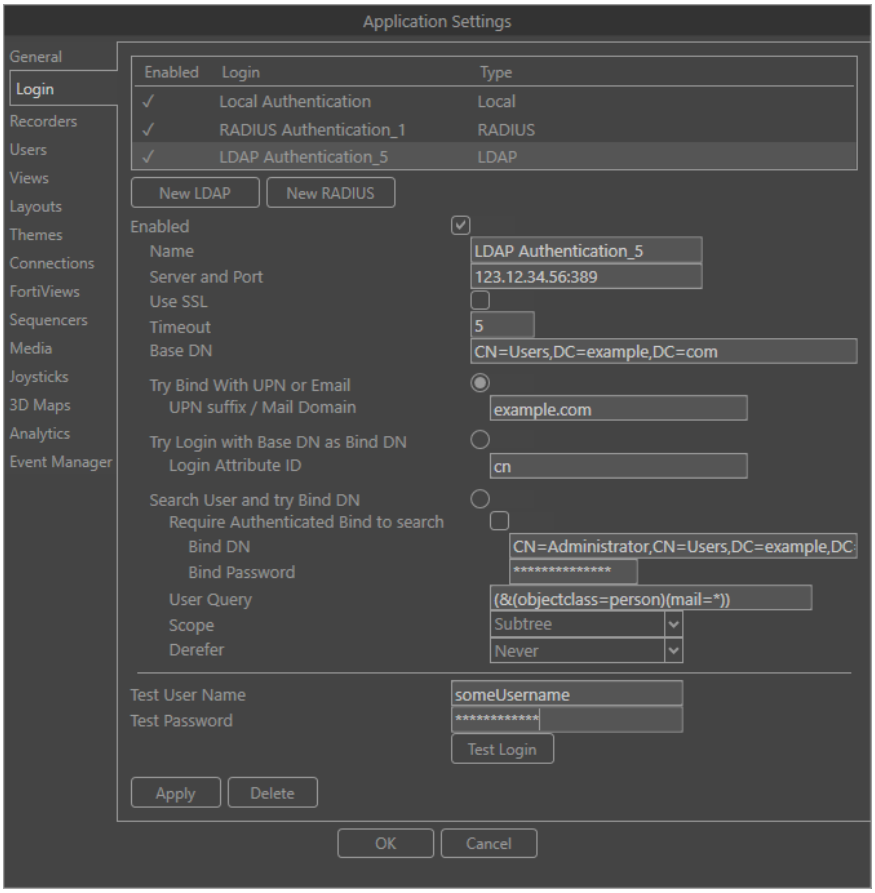
4. Select the Enabled checkbox to enable this authentication profile.
5. Enter a name for the profile.
6. Enter the server IP ddress of the RADIUS server that will be queried when an account referencing this profile attempts to authenticate.
7. Enter the server port number on which the authentication server listens for queries. The IANA standard port number for RADIUS is 1812.

8. Enter the the secret required by the RADIUS server. It must be the same as the secret that is configured on the RADIUS server.

LDAP Configuration

To Configure the LDAP authentication

1. Check the Enabled checkbox to enable the authentication profile.



2. Enter a name for the profile.
3. Enter the IP address of the LDAP server queried when an account referencing the profile attempts to authenticate.
4. Enter the port number on which the authentication server listens for queries. The IANA standard port number for LDAP is 389 and LDAPS (SSL/TLS-securedLDAP) is 636.
5. Check “Use SSL” if your directory server uses SSL to encrypt query connections.
6. Enter a time, in seconds, the connection timeouts.
7. Enter the distinguished name (DN) of the part of the LDAP directory tree that FortiCentral searches for user objects.
8. Select “Try Bind With UPN or Email” to form the user’s bind DN by prepending the user name portion of the email address ($user) to the User Principle Name (UPN) and provide the UPN suffix or Mail Domain in the field.
   Note: “username” becomes username@example.com
9. Select “Try Login with Base DN as Bind DN” to form the user’s bind DN by prepending a common name to the base DN and provide login attribute ID. Some common ID’s are “cn” or

"uid".
Note: "cn" becomes "cn=username, cn=Users, dc = example, dc = com"

10. Select "Search User and try Bind DN" to form the user's bind DN by using the DN retrieved for that user by User Query Options and enable "Require Authenticated Bind to search" and enter the user's credentials.
11. Enter an LDAP query filter in the User Query field that selects a set of user object from the LDAP directory. The query string filters the result set, and should be based upon any attributes that are common to all user objects but also exclude non-user objects.

    For example, if user objects in your directory have two distinguishing characteristics, their objectClass and mail attributes, the query filter might be:
    "(&(objectClass=inetOrgPerson)(mail=*))" where * is the variable for a user's email address.
    Another example could be ("(&(objectclass=person)(cn=*))" becomes the query "(&(objectclass=person)(cn=username))").
12. Select which level of depth to query, starting from Base DN.
    Subtree – Query recursively all levels below the Base DN in the LDAP directory tree.
    OneLevel – Query only the one level directly below the Base DN in the LDAP directory tree.
    Base – Query only the Base DN level in the LDAP directory tree.
13. Select when, if ever, to dereference attributes whose values are references.
    Never – Do not dereference
    InSearching – Dereference only when searching
    FindingBaseObject – Dereference only when finding base search object
    Always – Always dereference

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