



LOREX Player User Manual

Version 1.0

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IP SURVEILLANCE

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Table of Contents

Introduction to LOREX Player.....	3
LOREX Player Main View.....	3
Video display area.....	3
Application controls area.....	4
LOREX Player application controls.....	4
Tree view.....	4
Tree view buttons	5
Camera control	5
View control.....	5
Main window controls.....	6
Log view area.....	6
Full screen video.....	6
Launch LOREX Player application.....	7
Login to a user account.....	7
Application settings.....	7
Servers and cameras.....	9
Adding a camera location.....	9
Adding a camera.....	11
Editing previously entered properties.....	12
Viewing Video From a Live Source.....	12
Open a video window.....	12
LOREX Player apart view for full screen video.....	13
Control of PTZ Enabled Devices.....	14
Pan and tilt.....	14
Zoom.....	14
Home.....	14
Single frame capture.....	14
Recording Video.....	15
Location of archived video.....	15
Viewing Archived Video.....	16
Archive view.....	16
Browsing overview.....	16
Locating by date.....	17
The timeline zoom setting.....	17
Step backward / forward.....	18
Position of the playback head on the timeline.....	18
Slow / fast playback settings.....	19
Motion Settings.....	20
Access the motion settings dialog.....	20
Log Viewer.....	22

Introduction to LOREX Player

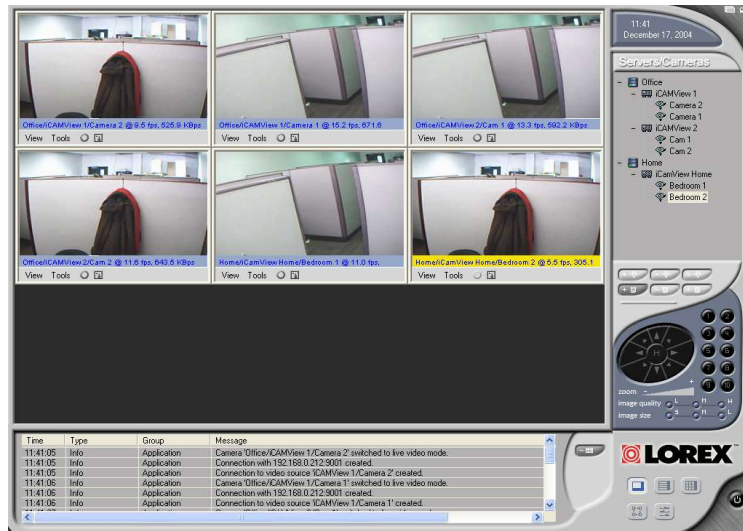
LOREX Player is a stand alone application which may be used to access sources of live and archived video. For installation and hardware setup please refer to the Quick Start guide.

LOREX Player Main View

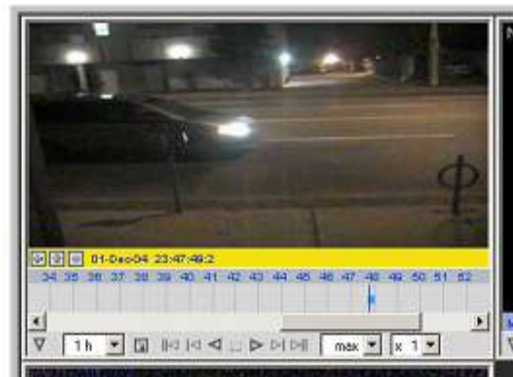
The main view of LOREX Player is a full screen window, which is comprised of a video display area, an application controls area, and a log view area.

Video display area

The video display area occupies the left hand portion of the main view. It is a window in which sub windows containing live and archived video content are contained.



Video windows, as well as containing live video from single or multiple cameras, may also be used to view archived video content. In this case, a time line and “VCR” style controls will be present. The usage of the various controls and settings present in video windows including the archive view timeline is covered later in this document.

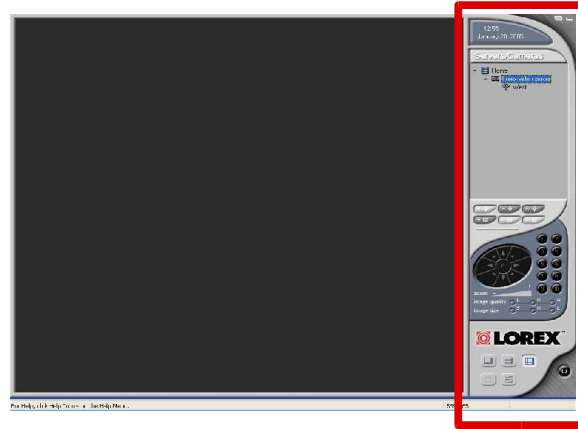


Application controls area

LOREX Player application controls

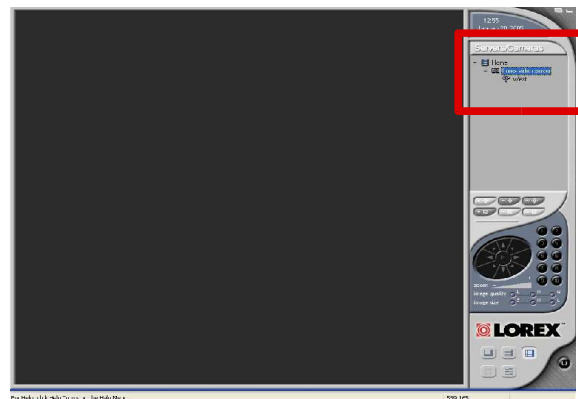
The LOREX Player application controls are always found on the right hand side of the main view.

The application controls contain tools for selecting camera servers and individual cameras, for controlling cameras, and for the viewing, recording, and accessing of video content.



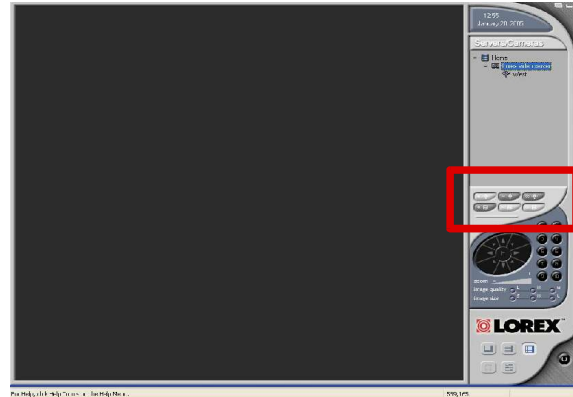
Tree view

One of these tools is a tree view which facilitates the discovery and selection of video sources, including cameras, from the network.



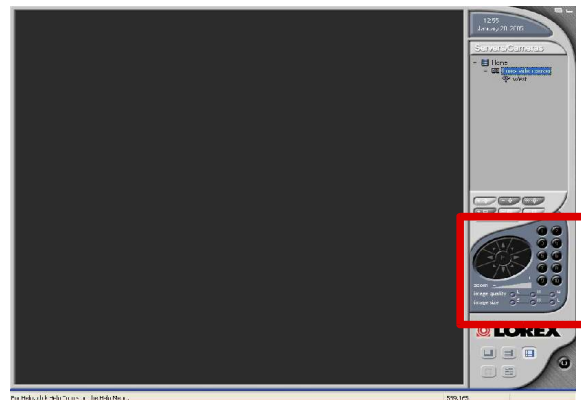
Tree view buttons

A group of six buttons, which are located beneath the tree view in the application controls area, allows for the addition, removal, and the editing of the properties of the various accessible cameras and camera servers.



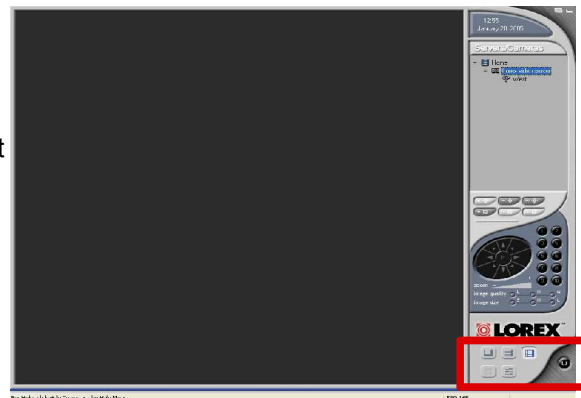
Camera control

The LOREX Player controls area also includes an area dedicated to the pan tilt zoom control of the individual cameras that are accessible to you, provided that the cameras themselves are equipped with these capabilities.



View control

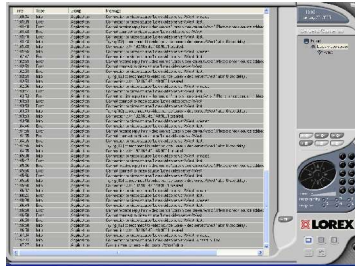
The LOREX Player controls area contains another group of buttons whose function is to present the main view in one of three convenient formats.



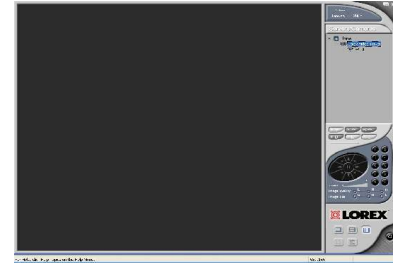
These formats are normal, log only, and video only, and they are illustrated as follows:



normal



log only



video only

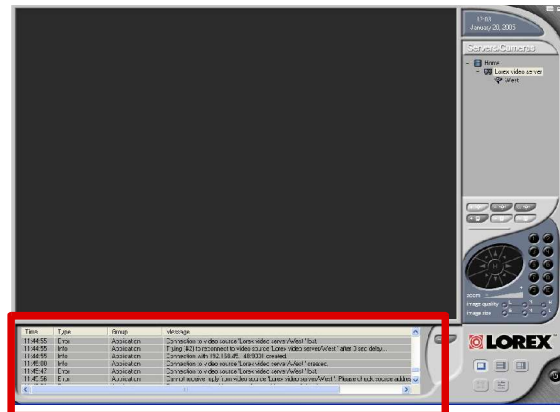
Main window controls

Finally, the LOREX Player controls area includes the top level application window controls such as apart view, minimize and exit.



Log view area

LOREX Player creates an event log. Entries are created in the log for events such as connecting to or disconnecting from a camera, recording or stopping the recording of a camera's video, and the accessing of archived materials. The log entries are displayed in chronological order in the log view area.



Full screen video

Video windows can be maximized. Maximized video windows will occupy the entire video display area. A maximized video window will, when LOREX Player is in apart view, occupy the entire screen.



Launch LOREX Player application

To begin using LOREX Player, double click the LOREX Player icon on the desktop.

Login to a user account

Enter a user name and password, and click the [OK] button.

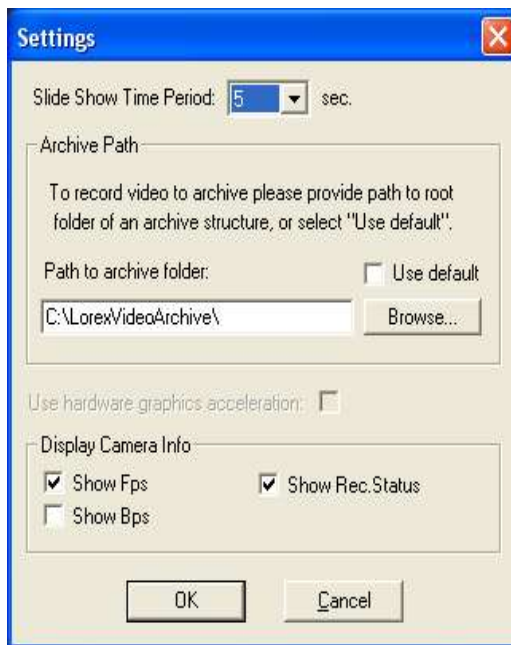
Note: The default username is 'admin' and the default password is 'admin'.



Application settings

Click the [Settings] button and select the Settings option from the Tools sub menu. The application settings dialog will appear.





Slide Show Select the desired slide show step interval.

Archive Path A directory structure containing files related to recorded video will be generated by LOREX Player. The top level of this directory may be set using this dialog. By default, this structure appears in the root of the local drive (e.g. C/) and is called "LOREXVideoArchive".

Hardware Acceleration
 Select this option if the system on which LOREX Player will run has video acceleration hardware.

Display Camera Info
 Set annotations for the live video display

Click the [OK] button when done.

Servers and cameras

The various networked devices that can be accessed from within LOREX Player are represented hierarchically in the tree view, which is present in the application controls area of the main view. The tree view control buttons, which are located below the tree view, enable the addition and removal of elements from the tree view, and also allow the properties of those elements to be set, viewed, and modified.

There are three types of elements which can appear in the tree view .

A **location** represents a group of devices on the network such as camera servers and cameras. A **video server** is a device that supports access to one or more cameras. A **camera** represents a camera from which video may be obtained.



Adding a camera location

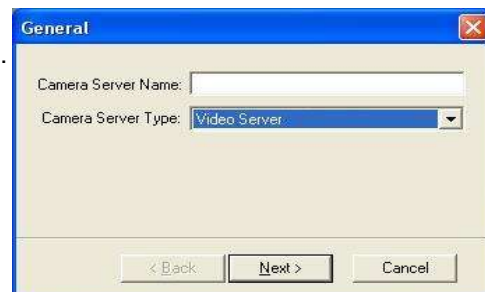
Use of the LOREX Player to access network enabled cameras begins with the addition of a **location**, to the tree view.

Click the *Add Camera Location* button.

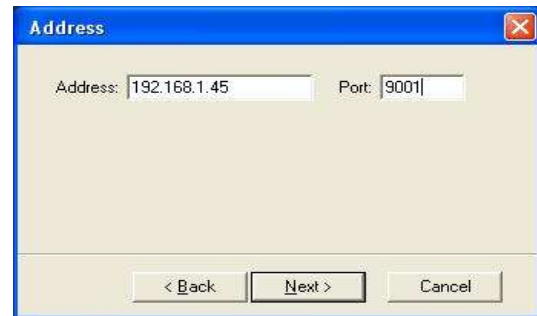
Enter a name for the location and Click [OK].



Enter a name for the camera server and Click [Next].



Enter the nine digit IP address of the server in the *Address* field.
Enter the port number in the *Port* field.
Click [Next].



The 'Address' dialog box has a blue title bar with a close button. It contains two text input fields: 'Address' with the value '192.168.1.45' and 'Port' with the value '9001'. At the bottom are three buttons: '< Back', 'Next >', and 'Cancel'.

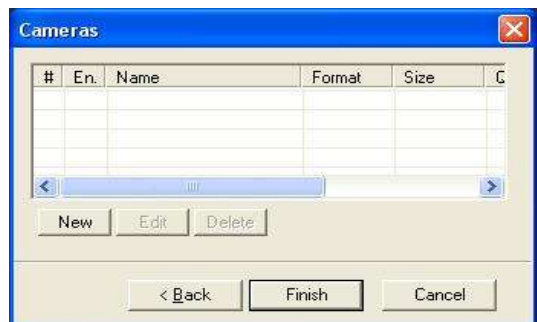
If the camera server in question is configured for a username and password (generally a good idea), enter these and Click [Next].



The 'User' dialog box has a blue title bar with a close button. It contains two text input fields: 'User Name:' and 'Password:'. At the bottom are three buttons: '< Back', 'Next >', and 'Cancel'.

Click [Finish] to add the camera server to the tree, or

Click the [New] button to define a camera for the server.

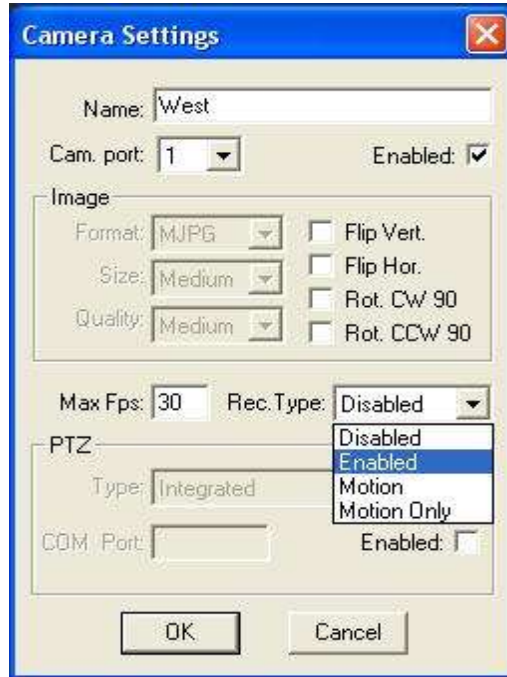


The 'Cameras' dialog box has a blue title bar with a close button. It features a table with columns: '#', 'En.', 'Name', 'Format', 'Size', and 'C'. Below the table is a scroll bar. Under the scroll bar are three buttons: 'New', 'Edit', and 'Delete'. At the bottom are three buttons: '< Back', 'Finish', and 'Cancel'.

#	En.	Name	Format	Size	C

Adding a camera

The final step in the setup of a camera server is to provide the information required to access one or more cameras.



Name	A name for the camera.
Cam Port	This number is an hardware specific code that allows the device to be identified as a video source.
Enabled	This status flag can be used to enable or disable the use of the camera.
Format	Select a video encoding format.
Size	Select <i>Small</i> , <i>Medium</i> , or <i>Large</i> .
Quality	Select <i>Low</i> , <i>Medium</i> , or <i>High</i> . This determines the image compression setting.
Flip Vert	Change the presentation of the image.
Flip Hor	Change the presentation of the image.
Rot CW 90	Rotate the image +90 degrees
Rot CCW 90	Rotate the image -90 degrees
The availability of Image adjustments may depend on the hardware and local configuration of the camera.	
Max Fps	The maximum number of video frames from the camera allowed to be delivered and recorded per second.
Recording	Select the option which describes the type or types of events which may cause recording to be initiated. Set to <i>Integrated</i>
Type	This field is not used.
Com Port	
Enabled	Select this option to enable PTZ control of the camera.

Editing previously entered properties

Properties associated with the various elements present in the tree view may be viewed and edited as follows:

Click on the element in the tree view

and then click on the appropriate view settings button.

Alternately, right click the element in the tree view and select the appropriate menu option.



Viewing Video From a Live Source

Once a control server has been added, you may get LOREX Player to initiate a connection.

Open a video window

To open a video window, right-click and select Open Camera View or double click the icon of the camera in the tree view.

You can view multiple cameras at the same time by repeating this step for each camera.



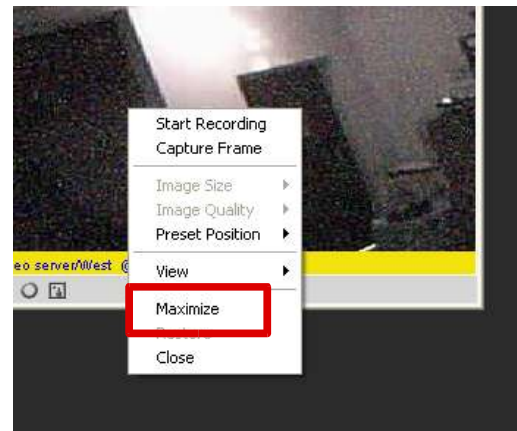
LOREX Player apart view for full screen video

Click the apart view icon.



Right click within a video window and then select the Maximize menu option. Repeatedly step through all open video sources

When two or more video windows are open in the LOREX Player, the Slide Show button will become active.



Click the Slide Show button to enable the Slide Show.

This means that each open video window will be maximized and brought to the front for a certain interval of time (5 seconds default).



Control of PTZ Enabled Devices

The camera control section of the application controls area provides a way to target specific areas of interest within a PTZ capable camera's range. The controls will become active when the camera's video window is active. (This can be ensured by clicking the video window.)

Pan and tilt

Click on the directional arrow buttons of the PT controller to pan and tilt a camera.

Zoom

Click and drag the zoom indicator control to determine the zoom setting of a camera.

Home

Click on the Home button to cause a camera to return to it's default PTZ position.

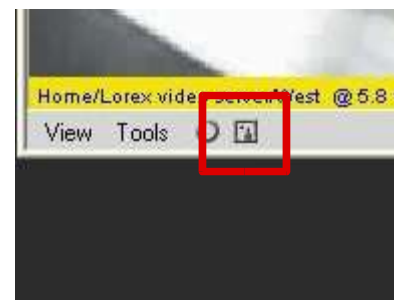
Show / hide PTZ controls

Click the *Settings* button and select the *Show Controller* option from the *View* sub menu.



Single frame capture

The [Capture] button is located in the toolbar of a video window below the video area. Click this button to capture the current frame of video as a still image.



The image capture window will pop up over the main view. To save the image, click the [Save] button

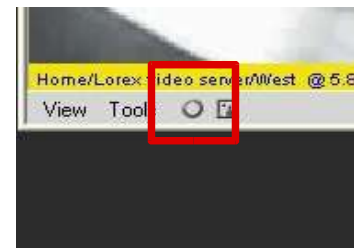
A file chooser dialog will appear and allow you to name and save the image as a .jpg file.



Recording Video

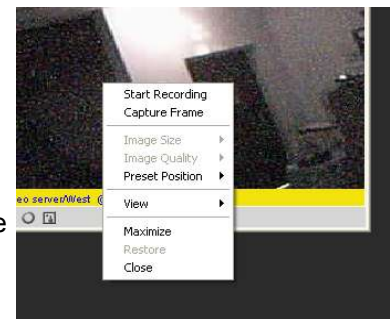
It is possible to start and stop the recording of video in three different ways.

Start and stop recording by clicking the record button on the toolbar of a video window.



Alternately, right click within a video window and select the *Start Recording* or *Stop Recording* menu option.

Start Recording and *Stop Recording* menu options also become available by right clicking on a camera icon in the tree view.



Location of archived video

A directory structure containing files related to recorded video will be generated by LOREX Player. The top level of this directory may be set in the application settings dialog.

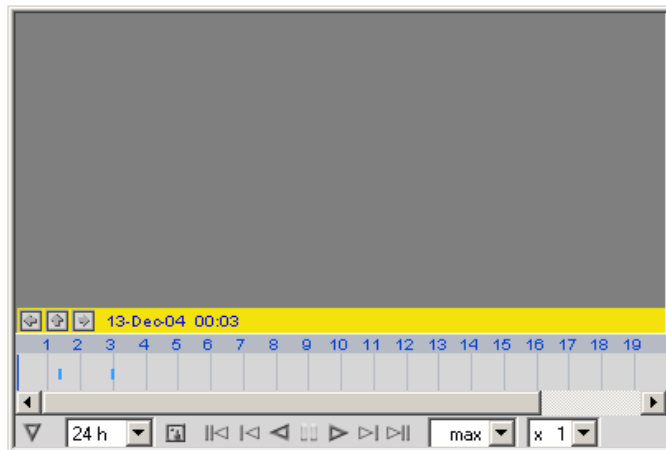
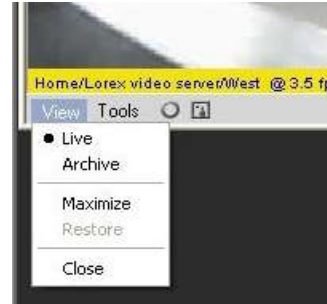
By default, this structure appears in the root of the local drive (e.g. C/) and is called "LOREXVideoArchive".

Viewing Archived Video

A number of controls exist to enable the locating, browsing, and analyzing of archived video. These controls become available when an open video window (representing a video source) is set to Archive view.

Archive view

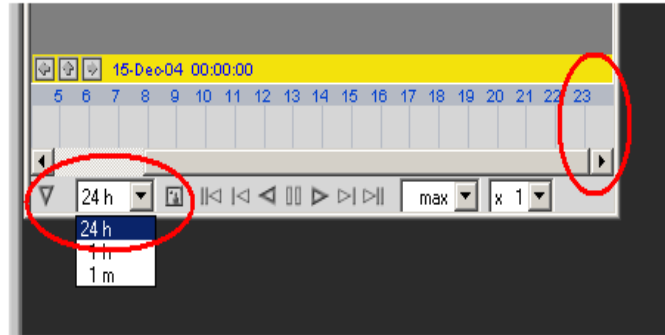
Click the drop down button on the toolbar of a video window and select the *Archive* menu option to turn on archive view.



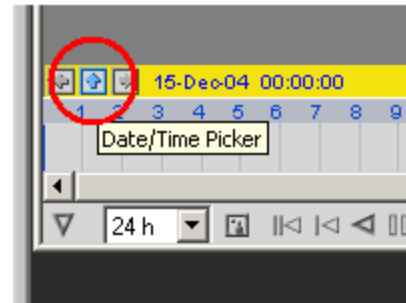
Archive view may be distinguished from live view by the presence of a timeline in the video window.

Browsing overview

It is essential that relevant archived video be located quickly and accurately. For example, to locate a segment of archived video in which the occurrence of a certain incident has been captured, you may wish to select a starting date and then view all the following or preceding video in an accelerated presentation, pausing when the sought incident is identified. Following this, you may wish to narrow down the hour, minute, and second of the occurrence, and then to inspect individual consecutive frames.



Locating by date

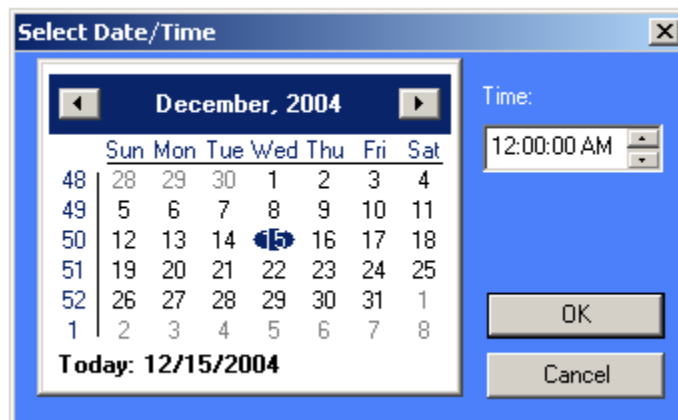


Click the Date/Time Picker button to activate the Date/Time Picker.

Select the date on which the sought archived video was recorded.

You may also input a time using the Time input field. It may be more convenient, however, to ignore the Time input field and instead browse the timeline.

Click the [OK] button.



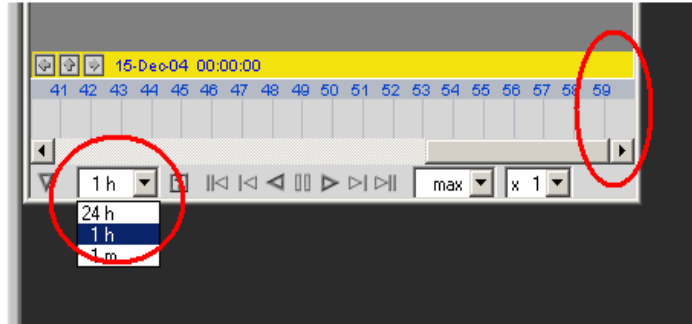
The timeline zoom setting

The timeline may be designated to display the existence of archived video for a given day, hour, or minute.

Use the Time Zoom dropdown control to select a timeline zoom setting.

Notice that the timeline scrollbar is shifted fully to the right. We can see that the highest number in the timeline graticule is 23 because the Time Zoom control is set to the 24 hour zoom setting.

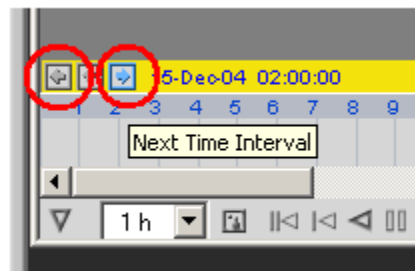
In this instance, the Time Zoom control is set to the 1 hour zoom setting, and, as a result, 59 is the highest number in the timeline. (60 minutes in an hour.)



Step backward / forward

Click the Step Ahead and Step Back buttons to traverse the intervals of time preceding and following the current interval displayed.

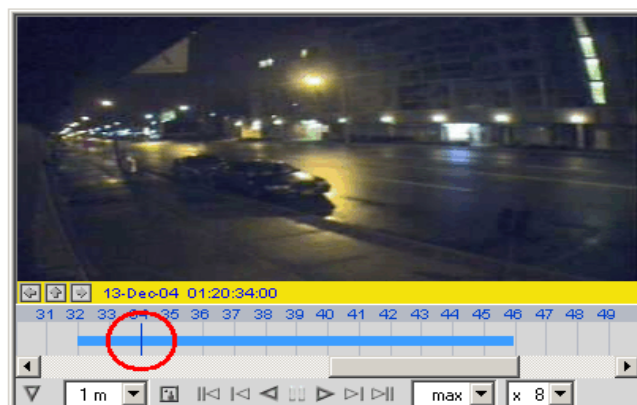
The amount of time moved per click is the same as the interval displayed in the Time Zoom control.



Position of the playback head on the timeline

Segments of archived video will appear on the timeline as light blue bars.

Click on the timeline to position the playback head. The playback head is represented by a thin dark blue vertical bar on the timeline.



Playback and frame step through

“VCR” style controls are present in the toolbar of video windows.

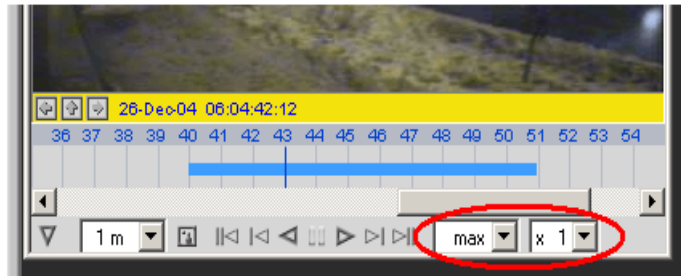
These buttons allow forward and reverse playback, forward and reverse single frame step through, and single click positioning of the playback head to the end or beginning of archived video segments.



Slow / fast playback settings

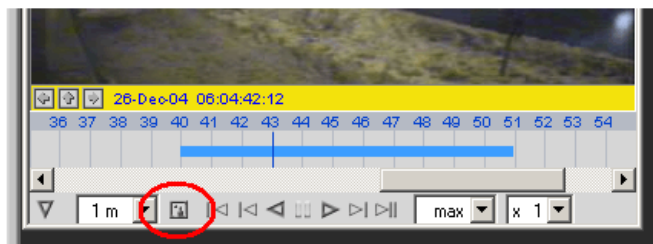
A variable speed “visual search” functionality is achieved through use of the Play FPS and Playback Speed controls.

The selected option in the first dropdown list determines the maximum number of frames per second that will be displayed during playback. For example, selecting a small number will allow slower than real time playback, similar to jog / shuttle functionality.



The selected option in the second dropdown list determines the number of frames of archived video skipped for every frame actually displayed during playback. For example, selecting a high number will allow the browsing of a lengthy segment of archived video in a short period of time.

The image capture button may be used when viewing archived as well as live video.



Motion Settings

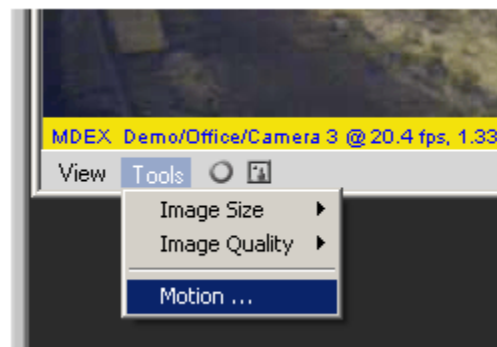
LOREX can detect motion within a video frame and log the motion generated events, which will appear in the archive view timeline. Recording can also be automatically triggered by motion generated events.

What constitutes motion within a video frame is determined by three motion perception threshold settings, and a user defined active area.

Access the motion settings dialog

To access the motion settings dialog from LOREX Player:

Click the controller button in the LOREX Player video window live view toolbar and select the Motion menu option.

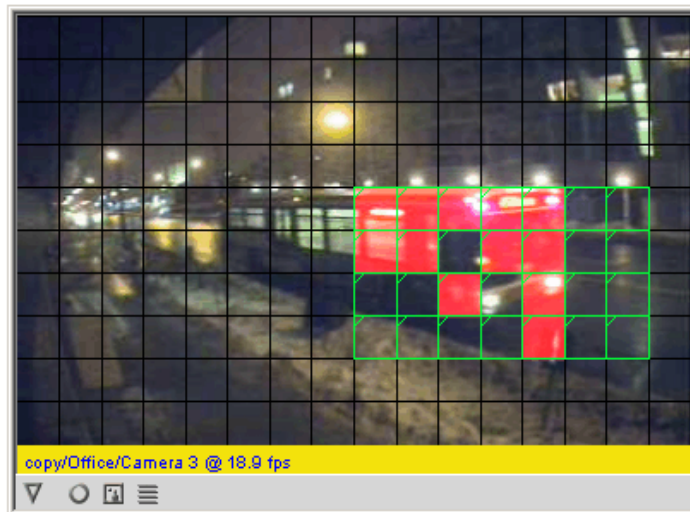


Motion settings Dialog

When the Motion Settings dialog is active, a grid will appear in it's associated video window. Areas of the grid which appear green indicate the active zone. Only motions occurring within the active zone may trigger the recording of video and the logging of motion events.

Red translucent squares indicate the presence of motion within the video frame, as this example of a moving bus demonstrates.

To define the active zone, click and drag within the video window to highlight the grid squares which are to comprise the active zone.



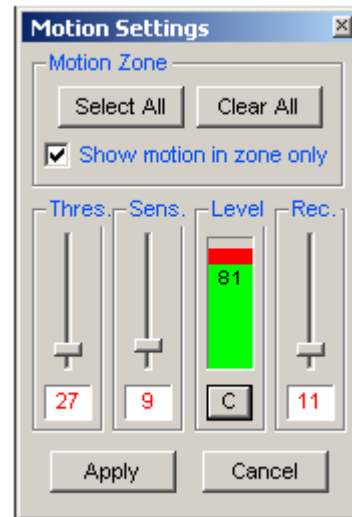
Use the [Select All] and [Clear All] buttons in the Motion Settings dialog to select or deselect the entire video frame as the active zone.

The display of detected motion within a video window may be limited to the active zone with the selection of the *Show motion in zone only* option.

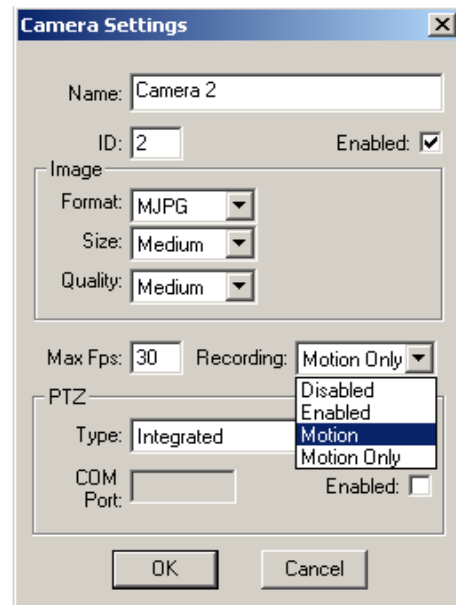
Adjust the *Threshold* and *Sensitivity* sliders to determine the appropriate settings where relevant movement is perceived as motion and background noise or irrelevant movements are not. A good way to find this balance is to adjust the sliders so that an excess of detected movements appears, and then continue the adjustments so that the unwanted noise is filtered out and only legitimate movements within the frame are perceived.

The *Record* slider determines the number of grid squares which must be simultaneously in a state of motion perception in order to result in the recording of video and / or the logging of a motion event.

Once the desired level of motion detection sensitivity has been established, click the [Apply] button in the Motion Settings dialog.

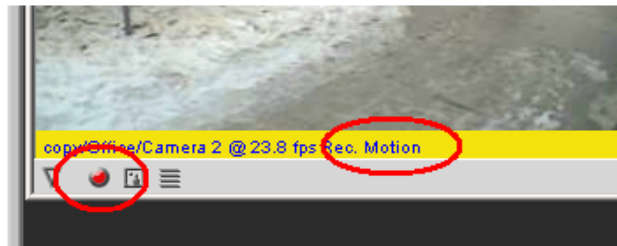


Ensure that the *Motion* or *Motion Only* option is selected in the appropriate Camera Settings dialog.



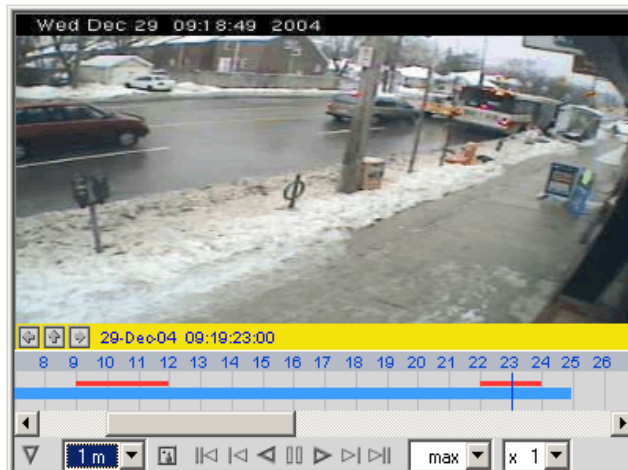
Finally, to enable motion initiated recording, click the record button in the video window toolbar.

Notice that the word “Motion” appears in the status bar during the recording of motion initiated events.



Motion events can be verified in archive view by observing the appearance of the timeline.

The red bars indicate logged motion events.



Log Viewer

To access the log viewer from LOREX Player, click the [Settings] button and select the *Log History* option from the *View* sub menu.

The log viewer permits browsing of all events related to the operations of a specific LOREX Player. One full day's events are displayed at a time. The events displayed may be filtered by type and / or group.

Use the dropdown list to select from a list of days for which log information exists.

Use the [Delete] button to delete the log file for the presently displayed day.

