

ST7501 Free-bundled

CENTRAL MANAGEMENT SOFTWARE

User's Manual

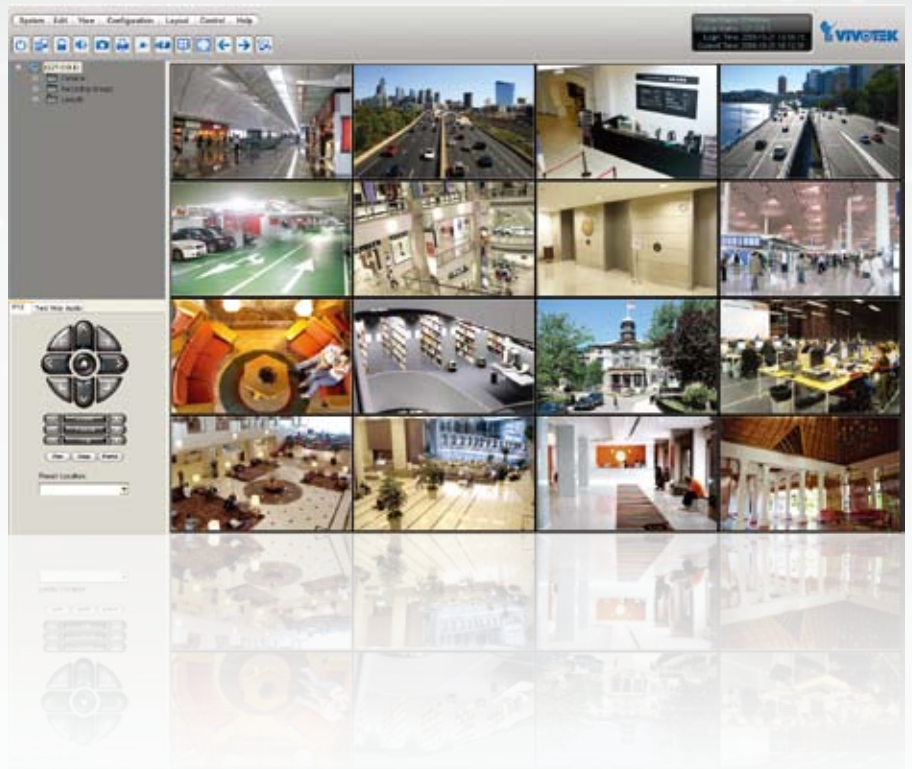


Table of Contents

Getting Started	1
Introducing ST7501	1
Special Features	1
ST7501 Server and Client Components.....	2
ST7501 Use Scenario	2
Functionality of ST7501 Server.....	3
Functionality of ST7501 LiveClient.....	4
Functionality of ST7501 Playback.....	5
Minimum System Requirements	6
ST7501 Installation.....	7
Installing the ST7501 Software	7
ST7501 Server	10
Activating ST7501 Server.....	10
How to Configure the Server.....	10
How to Stop/Reboot the Server.....	10
ST7501 LiveClient Configuration.....	12
Activating ST7501 LiveClient and Login to a ST7501 Server	12
User Interface of ST7501 LiveClient	13
Menu Bar.....	13
Status Panel.....	13
Quick Access Bar	14
Live Video Monitoring Window	14
Device tree	15
Camera Control Panel.....	16
PTZ Control Panel.....	16
Two Way Audio Control Panel.....	17
Language Selection	17
How to Manage Devices	18
Insert Devices	18
Insert Devices with Known IP Address.....	18
Insert Devices in LAN.....	20
View Live Videos	22
Dual Streams	22
Refresh.....	22
Camera Settings	22
Remove Live Video from the Video Monitoring Window	23

Delete Devices from the Server	24
Update Devices	25
How to Change Video Viewing Mode	26
Change the Layout of Live Video Monitoring Window.....	26
Switch Video Channels	26
Configure Layout Mode.....	26
Rotating Video Pages	27
Edit Layout	27
Maximize/Minimize the Live Video Monitoring Window.....	29
View Live Video with Dual Monitors	30
View the maximum 32 channels simultaneously.....	31
Use different layout on each monitor	31
How to Manage User Accounts	32
The Default User Roles and Privileges of User Accounts	32
Add User Account	33
Modify User Account	34
Delete User Account	34
How to Configure Station General Settings.....	35
How to Edit Recording Groups.....	36
Recording Groups Settings	36
Manually Start to Record/Stop Recording	38
How to Edit Recording Schedules.....	39
Edit Schedule List	40
Add Schedules	41
Rename Schedules.....	41
Delete Schedules	41
Load/Save Schedule Templates.....	41
Edit Camera List.....	42
Edit Time Frame List	43
Add New Time Frames.....	44
The Concept of Repeat Frequency	46
Repeat Frequency: Weekly (DayBase)--Set up time segments within a day.....	47
Repeat Frequency: Weekly (WeekBase)--Set up time segments within a week	49
How to Use Talking Panel	52
Add Camera to the Talking Panel.....	52
There are two ways to insert a Network Camera to the talking panel:.....	52
Remove Camera from the Talking Panel.....	53
How to Manage Event Trigger.....	54

DI/DO Settings	54
How to Configure Client Settings	56
Snapshot Settings	56
Take a Snapshot	57
AVI Settings	58
Record an AVI File	59
View Settings	60
Display Location	60
Date and time Format	61
Video Display Mode	61
Font Settings	61
General Settings	62
System Settings	62
Rotation Settings	62
How to Search for a Device on the Device Tree	63
How to Print Out a Video Picture	64
How to Lock LiveClient for Security Concerns	64
How to Logout from the Server	65
How to Exit the Application	65
ST7501 Playback Configuration	66
Activating ST7501 Playback and Login to a Server	66
User Interface of ST7501 Playback	67
Menu Bar	67
Status Panel	67
Quick Access Bar	68
Recorded Video Playback Window	68
Language Selection	69
Query Panel-- Browsing Page	69
Query Panel--Event Search Page	70
Query Panel--Log Viewer Page	71
Video Clips List Window	72
Playback Control Panel	73
How to View Recorded Video	74
Select a Recorded Video Clip	74
Remove Recorded Video Clips from Video Cells	76
Use Playback Control Panel	76
Timeline Slider Bar and Histogram	76

Zoom in and zoom out the Histogram.....	77
Control the Audio.....	78
How to Change Recorded Video Viewing Mode	79
Change the Layout of Recorded Video Playback Window.....	79
Switch Video Channels	79
Configure Layout Mode.....	79
Maximize/Minimize the Recorded Video Playback Window.....	80
View Recorded Video with Multiple Monitors	81
How to Search Events.....	82
Select Event Category	83
Event Category-All Events	83
Event Category-All Motion Events	83
Event Category-All IVA Events.....	84
Event Category-All DI Events.....	84
Specify the Search Time Range.....	85
Start Event Search and Display the Search Results.....	85
View the Retrieved Video Clips	87
How to Search Logs	88
Select Log Category/Log Type/Log Level	89
Search for All Local Logs	89
Search for Login History.....	90
Search for Login Activities.....	90
How to Configure Client Settings	92
Snapshot Settings	92
Take a Snapshot	93
AVI Settings.....	94
Convert an AVI File	95
View Settings.....	96
Display Location.....	96
Date and time Format	97
Video Display Mode	97
Font Settings.....	97
How to Search for a Device on the Device Tree	98
How to Print Out a Video Picture.....	99
How to Lock Playback for Security Concerns	99
How to Logout from the Server	100
How to Exit the Application.....	100

Getting Started

Introducing ST7501

VIVOTEK ST7501 is new generation central management software, featuring reliable recording and easy system management for diverse IP surveillance applications. ST7501 has three major components including: **ST7501 Server** for recording, **ST7501 LiveClient** for viewing live media data and managing the system, and **ST7501 Playback** for browsing the database and retrieving the recorded media data. You can install and run the three components on a single computer, or install all of them in three separate computers.

ST7501 Server is able to record network video streams up to 32 channels; while ST7501 LiveClient allows you to have real-time remote monitoring. For the video playback, you can use ST7501 Playback to retrieve the database with multiple advanced functions such as searching, browsing, and exporting. With ST7501 LiveClient and ST7501 Playback installed on other computers in different locations, you can have live viewing and database access for more efficient video management. Working seamlessly with VIVOTEK network cameras and video servers, ST7501 central management software provides you with reliable video surveillance unit.

Special Features

- Client/Server for Remote Video Management
- Real-time 32-channel Live Video Monitoring
- Simultaneous 16-channel Playback
- Efficient Recording System
- Pan/Tilt/Zoom Camera Control Interface
- Powerful Playback Control Functions
- Role-based User Account Management
- Lightweight Remote Login to Access All Functions
- Easy-to-use Snapshot Function
- Exports AVI Files to Local Host
- Seamlessly Integrates with All VIVOTEK Network Cameras
- Supports Dual-stream Live Viewing and Recording
- Cameras Accessible through NAT
- Event-triggered or Scheduled Recording Mode

ST7501 Server and Client Components

ST7501 has three components: one server component--**ST7501 Server**, and two client components--**ST7501 LiveClient** and **ST7501 Playback**.

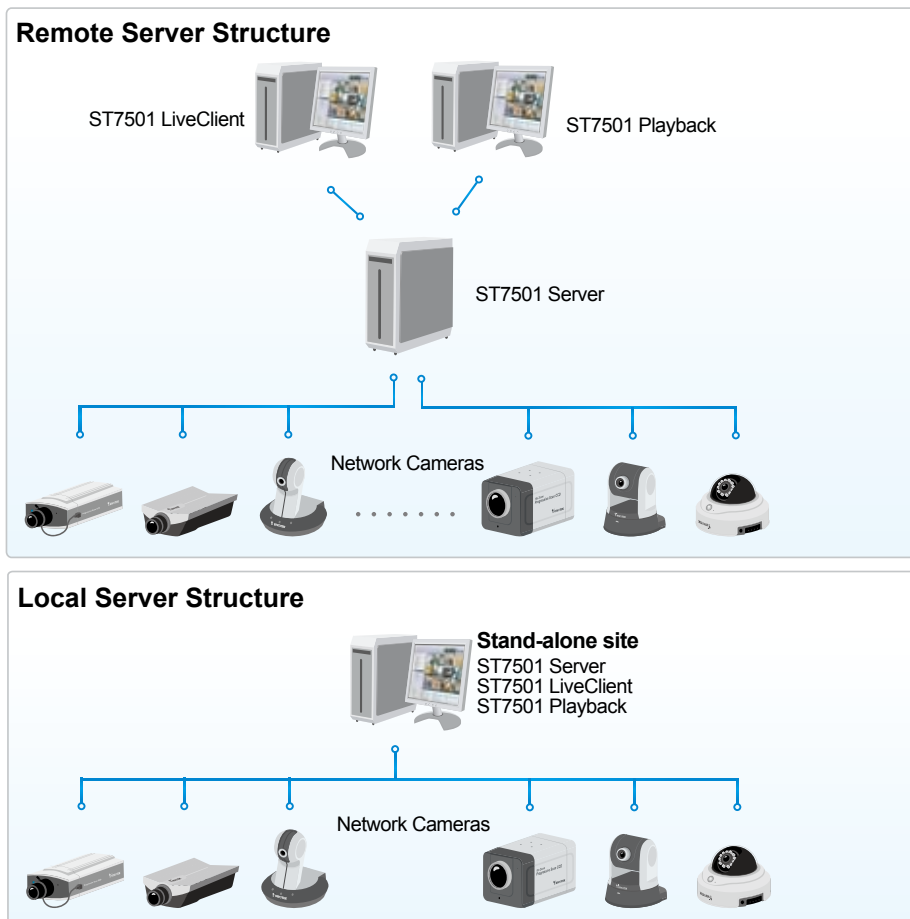
ST7501 server provides a centralized management site for video recording. **ST7501 LiveClient** is a client program for the user to login the target server over the network to modify the server's configuration, edit the server's recording group and schedules, etc.; **ST7501 Playback** is also a client program for the user to login the target server to browse the recorded video database and video clips related to specific events.

ST7501 Use Scenario

The three components can be installed separately or combined together on the same host. You can just install the components you need on your local host. For example, you can only install ST7501 LiveClient on your local computer to monitor the live video from a remote ST7501 server; or you can only install ST7501 Playback on another local computer to login a remote server to review recorded videos.

For user that only manages a few cameras, we recommend installing the client and server components on the same computer. A host with all of the three components installed is recognized as a stand-alone site. All the functions can be simultaneously performed on this site.

Below we illustrate the use scenario of ST7501 server and client components.



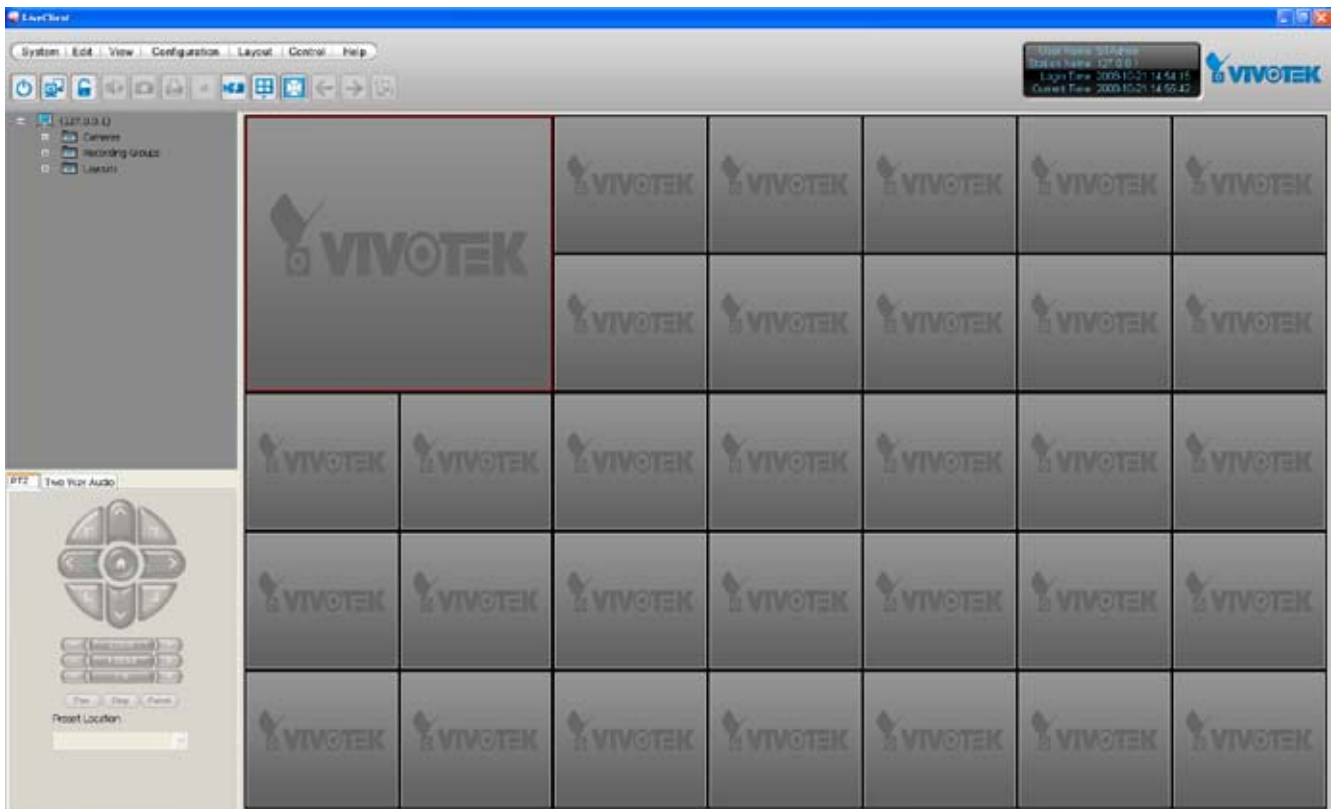
Functionality of ST7501 Server

- Serves as a centralized management site
- Performs 32-channel video recording
- Provides recording in multiple hard disks
- Feeds live video to the local/remote LiveClient users
- Feeds recorded video to the local/remote Playback users
- Zero waiting database recovery after unpredictable crash or power failure

To configure the server, you should use ST7501 LiveClient to login to it; there are convenient and intuitive user interface in ST7501 LiveClient for you to edit the settings of the target server.

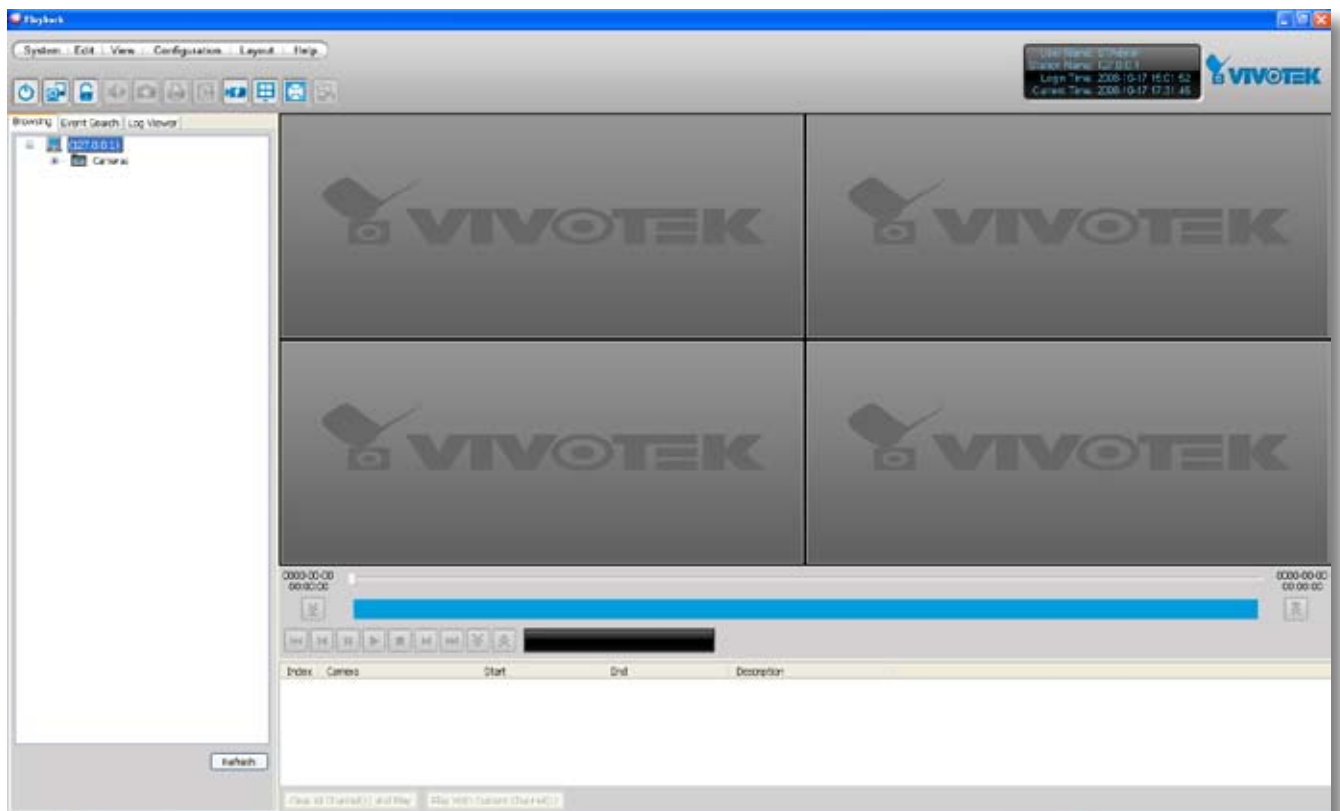
Functionality of ST7501 LiveClient

- Login to the ST7501 server
- Controls the server functions
 - Manages user accounts of the server
 - Edits the recording groups of the server
 - Edits recording schedule of the server
- Provides powerful monitoring window
 - Dual screens for maximum 32 channels simultaneous monitoring
 - 1x1, 2x2, 1+5, 3x3, 1+12, 4x4, 5x5, 1+31 monitoring layouts
 - Multiple video viewing pages and page switching
- Supports convenient evidence exporting
 - Exports AVI file of live video in real-time
 - Snapshots the live video pictures
 - Prints out the live video pictures
- Supports convenient multiple monitor switching
- Provides PTZ operation panel for PTZ camera control
- Remote configuration for network cameras
- Log settings for security concern



Functionality of ST7501 Playback

- Login to the ST7501 server
- Browses the database of recorded video from the server in day base
- Provides convenient playback window
 - Maximum 16 channels simultaneous playback
 - 1x1, 2x2, 1+5, 3x3, 1+12, 4x4 playback layouts
- Supports powerful playback functions
 - 1/8, 1/4, 1/2 slow-down playback
 - 2, 4, 8, 16, 32, 64 speed-up playback
- Supports convenient evidence exporting
 - Exports AVI file of recorded video in real-time
 - Snapshots the recorded video pictures
 - Prints out the recorded video pictures
- Supports convenient multiple monitor switching
- Powerful search engine
 - Event search
 - Log search



Minimum System Requirements

Before installing the ST7501 software, please make sure your system meets the following recommended minimum hardware requirements.

If you only want to install ST7501 server, please prepare the following hardware system:

Server	
Operating System	Windows XP Professional (32 and 64 bit), Windows Vista Business
CPU	Intel Pentium 4 or higher (Inter Xeon recommended), minimum 2.0 GHz
RAM	Minimum 1 GB for Windows XP Professional, 2 GB for Windows Vista Business
Network Interface Card	Ethernet, 1 Gbit recommended
Graphics Adapter	AGP or PCI-Express, minimum 1024×768, 16 bit colors
Hard Disk Type	ATA-100, SATA, SCSI, SAS (7200 rpm or faster)
Hard Disk Space	80 GB free (depends on the amount of Network Cameras and recording settings)

If you want to install both server and client programs, please upgrade your hardware system as below:

LiveClient and Playback	
Operating System	Windows 2K/XP Professional (32 and 64 bit), Windows Vista
CPU	Intel Core 2 quad 2.0 GHz or above
RAM	Minimum 1 GB for Windows XP Professional, 2 GB for Windows Vista Business
Graphics Adapter	AGP or PCI-Express, minimum 1024×768, 16 bit colors Minimum 128MB Video RAM, 512MB recommended
Network Interface Card	Minimum 10/100M, 1Gbit recommended
Hard Disk Type	ATA-100, SATA, SCSI, SAS (7200 rpm or faster)
Hard Disk Space	80 GB free (depends on the amount of Network Cameras and recording settings)

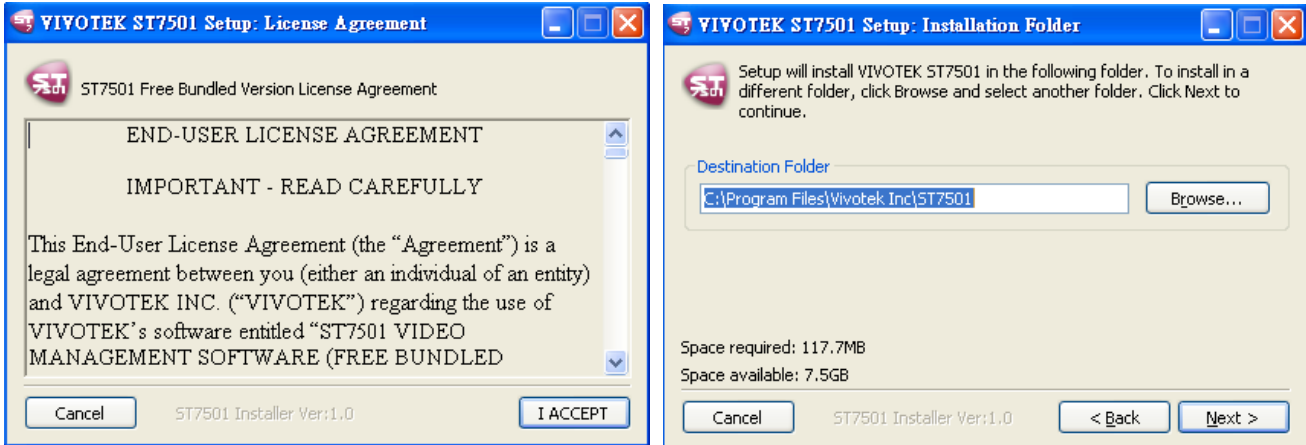


Only user with the authority as Administrator can install or use ST7501 on Windows Vista system.

ST7501 Installation

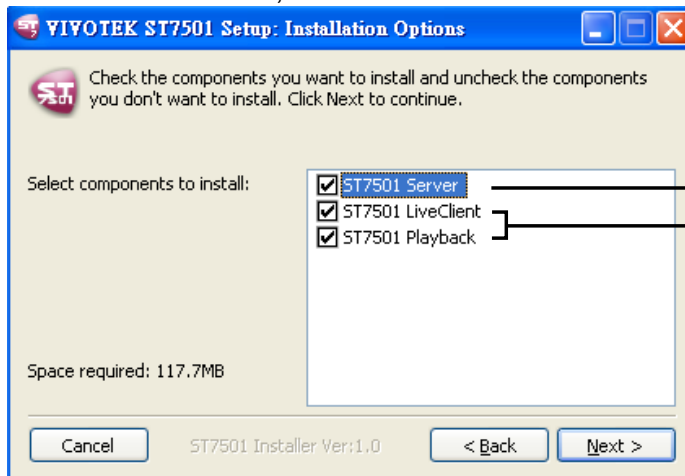
Installing the ST7501 Software

1. Run the **ST7501_Setup.exe** program on your computer. Click **I ACCEPT** for the License Agreement and specify a location to install.

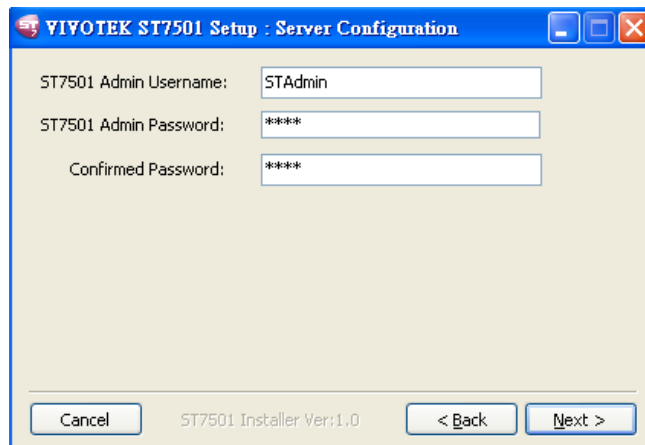


2. Select the items you want to install, and then click **Next** to continue.

- If you do not want to install ST7501 Server, uncheck the ST7501 server and click **Next** to install. Skip the following steps.



3. Assign administrator **username** and **password** for ST7501 Server which will run on this computer and then click **Next**.



Please remember the administrator username and password to login later.

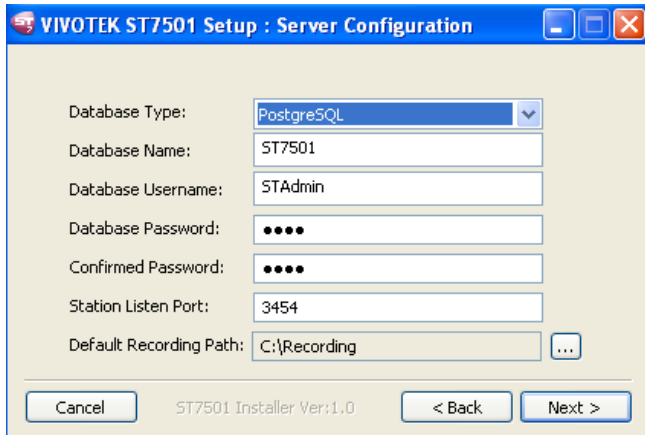
4. Install a database for your server. There are two options--PostgreSQL or SQL server.

PostgreSQL

If you don't have a database, we recommend you to select PostgreSQL (**8.2 version above is recommended**) as your database since ST7501 will instruct you to finish the installation procedure. **Please note that PostgreSQL may be interrupted by some antivirus program.** If you cannot use ST7501 without antivirus program, please use SQL server as your database engine.

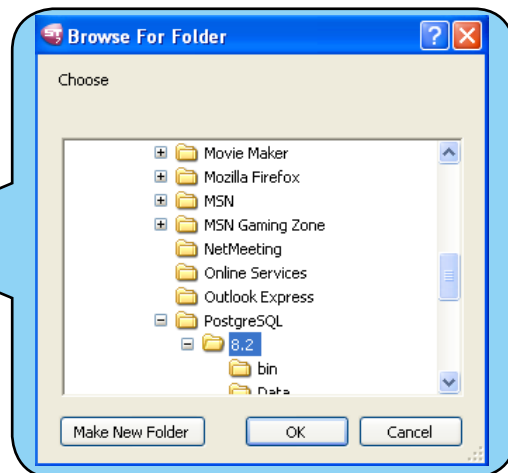
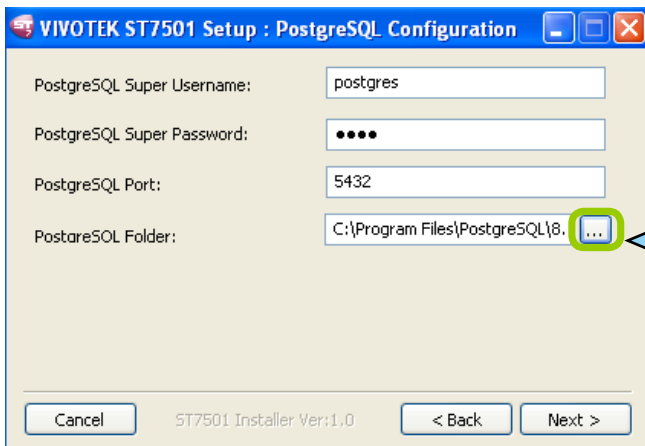
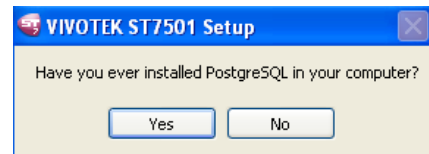
Follow the steps below to install PostgreSQL:

- a. Select it on the drop-down list and assign a password. ST7501 will default store the recorded media file under c:\Recording. If you plan to store data under other path, you could click **Browse ...** in the dialog to change the path. Then click **Next** to continue.

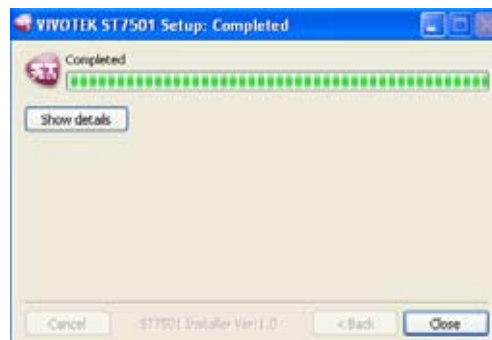
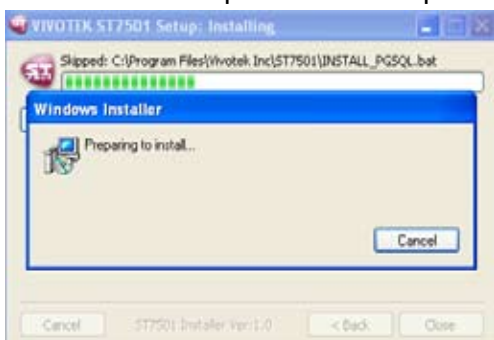


b. A dialog will pop up.

- If you don't have PostgreSQL installed on your computer, click **No** to begin the installation.
- If you already have PostgreSQL installed on your computer, click **Yes**. A PostgreSQL configuration window will pop up. Enter the **Super Password** and click **Browse ...** to specify the Folder.



c. Wait for the installation process to complete and then click **Close** to exit the installation program.

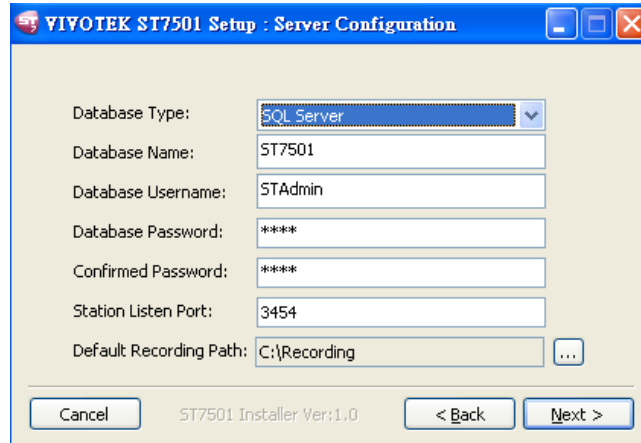


SQL Server

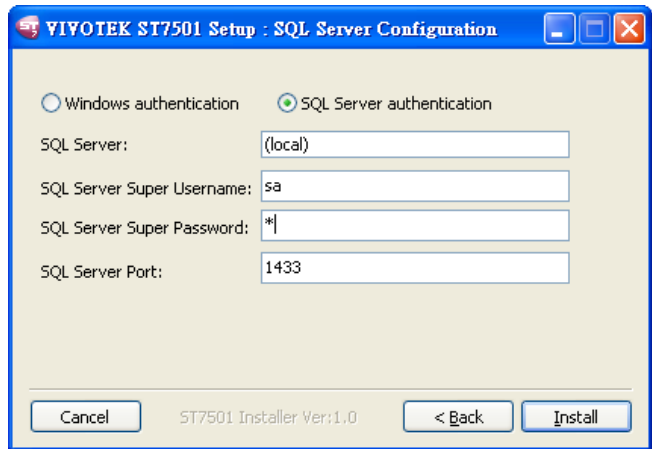
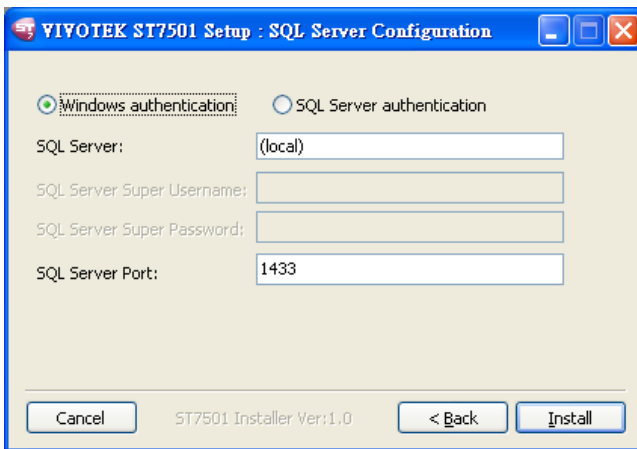
If you want to select SQL Server as your database, you have to install it in advance, and then start ST7501 installation.

Follow the steps below to install SQL Server:

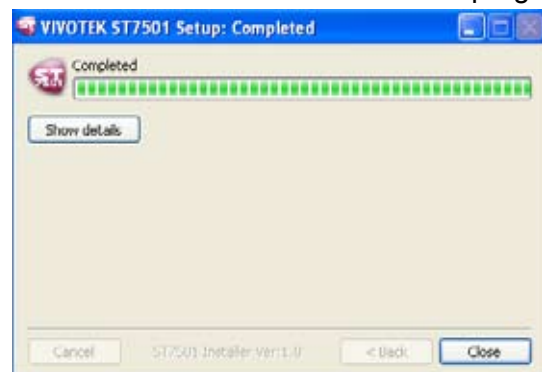
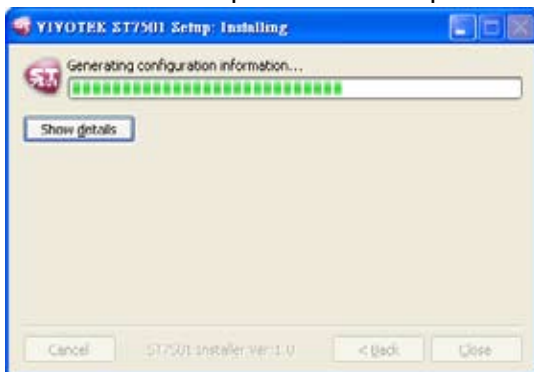
- Install and activate SQL server on your computer. **SQL server 2005 express version** is recommended. Please note that currently only the SQL server installed on the same computer is supported.
- Follow step 1-3 to run the **ST7501_Setup.exe** program on your computer.
- Select SQL Server on the drop-down list and assign a password. Click **Next** to continue.



- Select Windows authentication or SQL Server authentication. (Username and Password are necessary according to the settings when you install SQL server.) Then click **Install** to begin the installation.



- Wait for the installation process to complete and then click **Close** to exit the installation program.



Once you have the user account of a specific ST7501 station, you can login to ST7501 server from any computer over the network through LiveClient and Playback.

ST7501 Server

Activating ST7501 Server

The ST7501 Server is a service program that will run automatically when the computer starts up.

How to Configure the Server

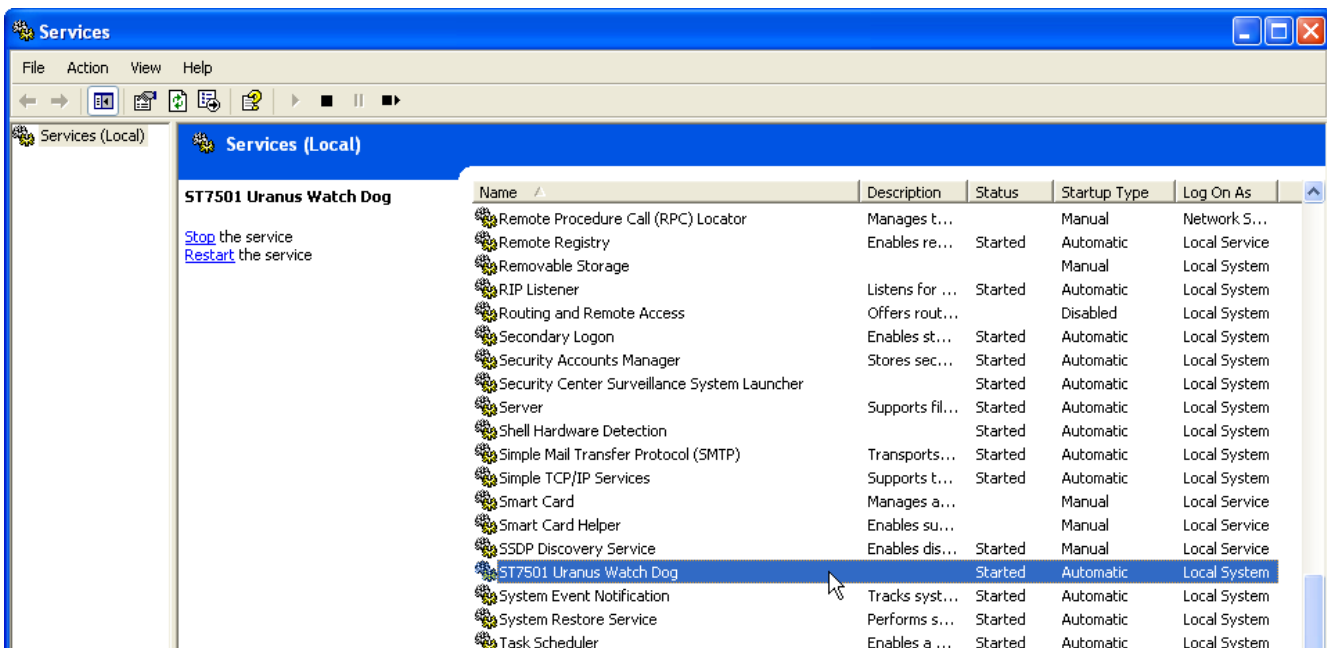
Please follow the steps below to configure the ST7501 server:

1. Find a local/remote computer that has installed ST7501 LiveClient.
2. Activate ST7501 LiveClient and login to the target ST7501 Server.
3. Configure the server using ST7501 LiveClient user interface.

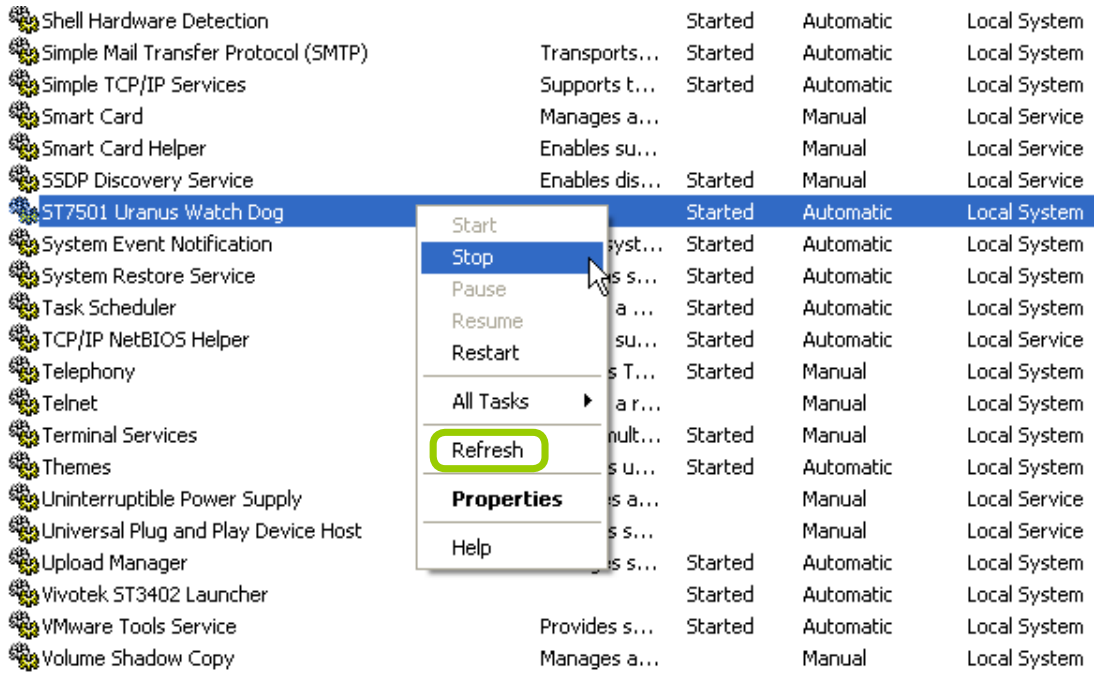
How to Stop/Reboot the Server

Please follow the steps below to stop/reboot the server:

1. Under Microsoft Windows, choose "**Start > Settings > Control Panel > Administrative Tools > Services.**"
2. The **Service** window will pop up. Search for "**ST7501 Uranus Watch Dog**" in the window.



3. **Right-click ST7501 Uranus Watch Dog** and click **Stop** to stop the services of ST7501 server.
Click **Restart** to reset ST7501 server.



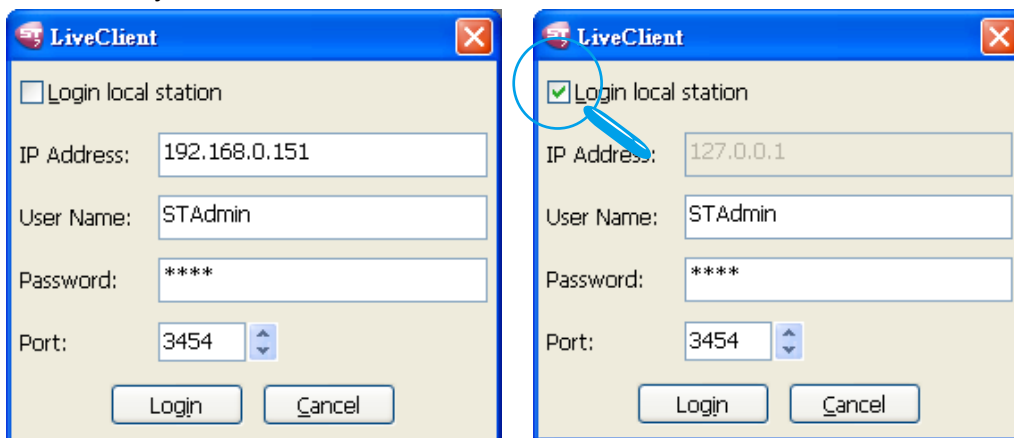
ST7501 LiveClient Configuration

Activating ST7501 LiveClient and Login to a ST7501 Server

ST7501 LiveClient allows you to monitor live video from cameras managed by a ST7501 Server; also, it is the main user interface to control lots of server functions.

After installing ST7501 LiveClient program, please follow the steps below to activate ST7501 LiveClient:

1. Run the **ST7501 LiveClient** program.
2. A **Login** window will pop up. Enter the blanks as below:
 - If you want to login to a remote ST7501 server, enter the **IP address, user name, password and communication port** of the server to login. Click **Login** to login the target server or **Cancel** to exit the system.
 - If you want to login to your local host which is currently running ST7501 server, check **Login local station** checkbox, then the local IP address will show up automatically. Enter the **username, password, and communication port** of the local server to login. Click **Login** to login the target server or **Cancel** to exit the system.

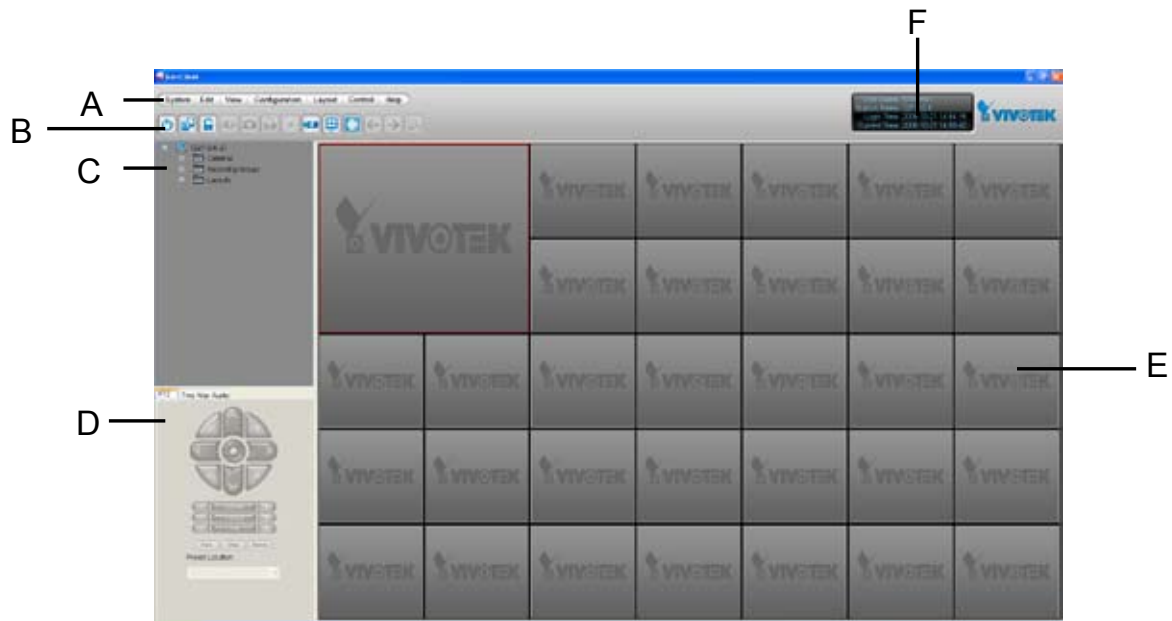


3. The ST7501 LiveClient monitoring window will be displayed.



Functions of the ST7501 LiveClient will be enabled according to the role of your login account. For more details about the privileges of the user account, please refer to How to Manage User Accounts on page 33.

User Interface of ST7501 LiveClient



- A. Menu bar B. Quick access bar C. Device tree
 D. Camera control panel (PTZ control panel / Two way Audio control panel)
 E. Live video monitoring window F. Status panel

Menu Bar

Menu Item	Drop-down Options
System	Language / Lock / Start to Rotate (Stop Rotating) / Enable Click On Image (Disable Click On Image) / Second View / Logout / Exit
Edit	Start to Record (Stop Recording) / Snapshot / Print / Record to AVI / Find
View	Full Screen / Minimize
Configuration	Cameras Management / User Management / Event Trigger Management / Station General Settings / Recording Group Settings / Recording Schedule Settings / Client Settings
Layout	Edit / Choose
Control	Motion / Zoom / Focus / Iris / Pan / Patrol
Help	About

Status Panel

User Name: STAdmin	User Name
Station Name: 127.0.0.1	Station Name (IP Address)
Login Time: 2008-08-13 17:36:54	Login Time (yyyy-mm-dd hh:mm:ss)
Current Time: 2008-08-13 19:41:27	Current Time (yyyy-mm-dd hh:mm:ss)

Quick Access Bar



Icon	Function	Description
	Exit	Exit the system
	Logout	Logout from the current station
	Lock	Click to Lock the system for security concerns (Unlock the system)
	Audio on	Adjust the audio volume of the focused video (Mute)
	Snapshot	Capture pictures from the focused video
	Print	Print out pictures of the focused video
	Record to AVI	Video compression in AVI format (Recording AVI)
	Remove All Connections	Remove all live videos from the live video monitoring window
	Layout	Change the layout of live video monitoring window
	Full Screen	Maximize the live video monitoring window
	Page Up	Switch to the previous video monitoring page
	Page Down	Switch to the next video monitoring page
	Switch Screen	Switch current window to other screen

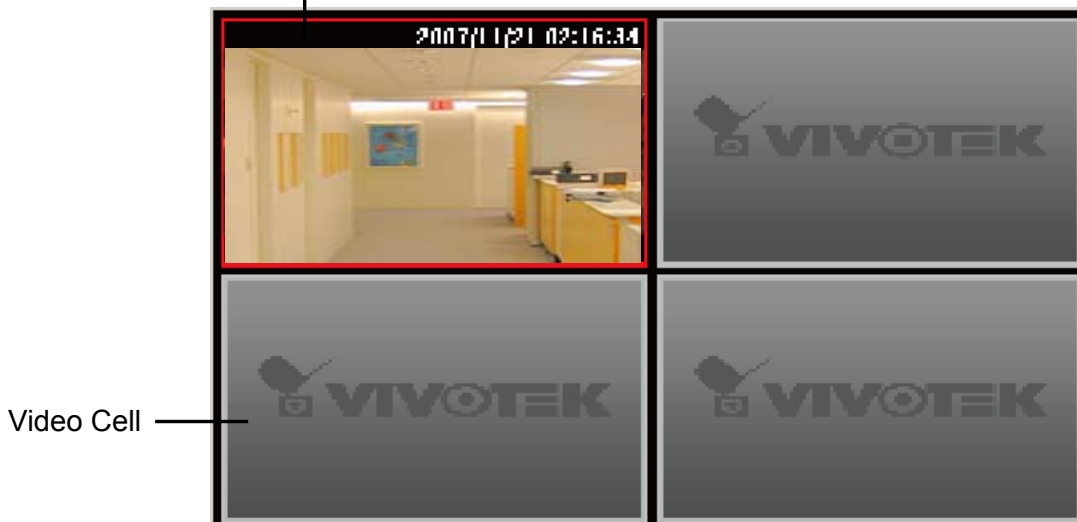


Some buttons will be disabled if the selected devices does not support those functions.

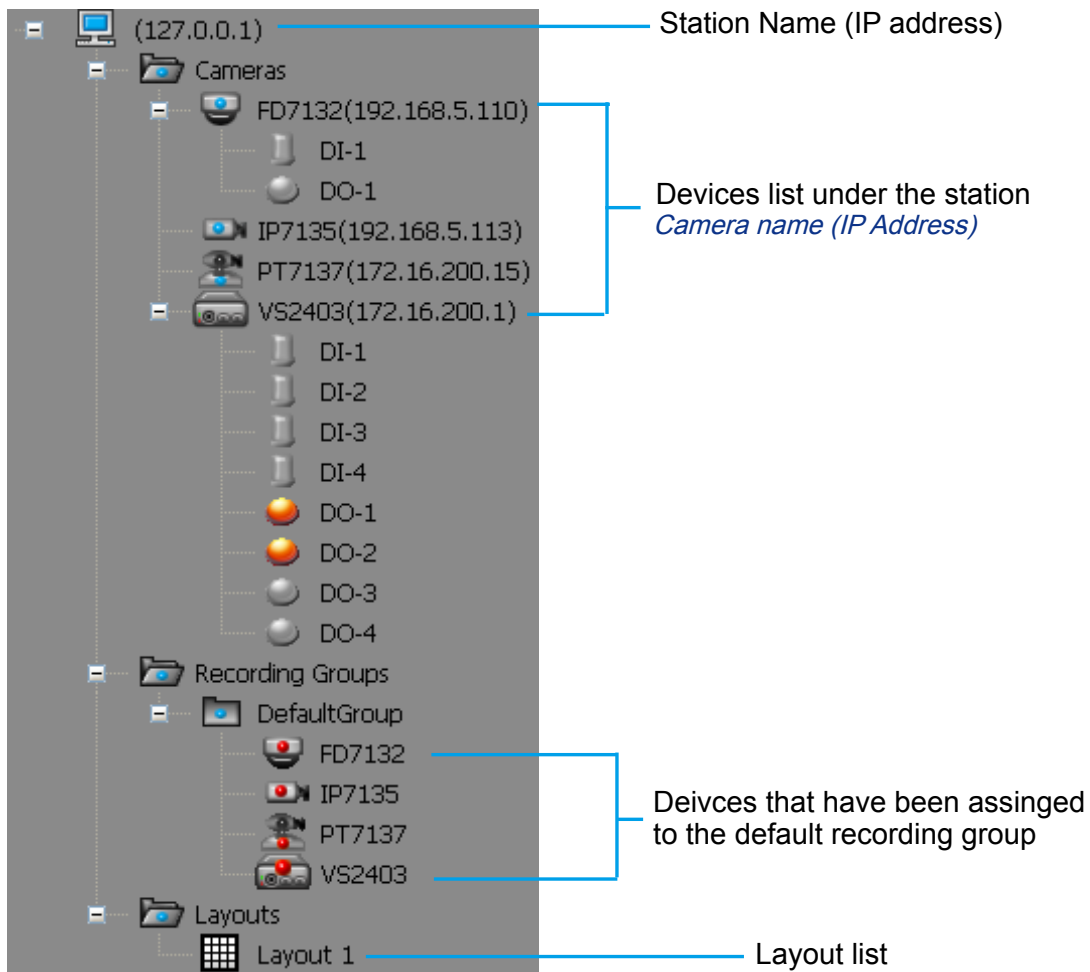
Live Video Monitoring Window

The "VIVOTEK" logo represents that no camera has been assigned to this video cell.

The red frame () represents the focused cell.



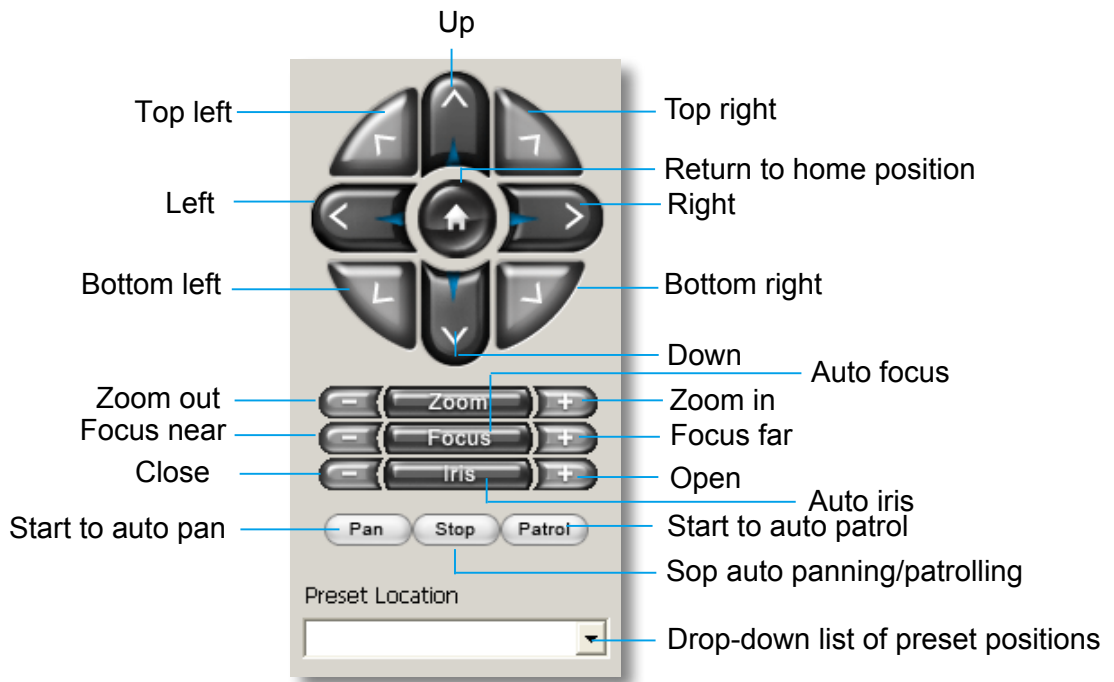
Device tree





Icon	Description
	A station (a computer that has installed ST7501 server)
	VIVOTEK fixed network camera Red dot means that the camera is recording.
	VIVOTEK PTZ network camera Red dot means that the camera is recording.
	VIVOTEK dome network camera Red dot means that the camera is recording.
	VIVOTEK video server Red dot means that the video server is recording.
	Digital input on / off
	Digital output on / off
	A layout of the live monitoring window
	The station that cannot be connected now.
	The device that cannot be connected now.

Camera Control Panel

PTZ Control Panel

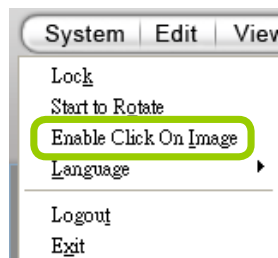


Only PTZ and speed dome cameras associated with the icon  or  on the device tree will enable the PTZ Control Panel.

- You can also click **Control** on the menu bar, and select the PTZ function on the drop-down list.

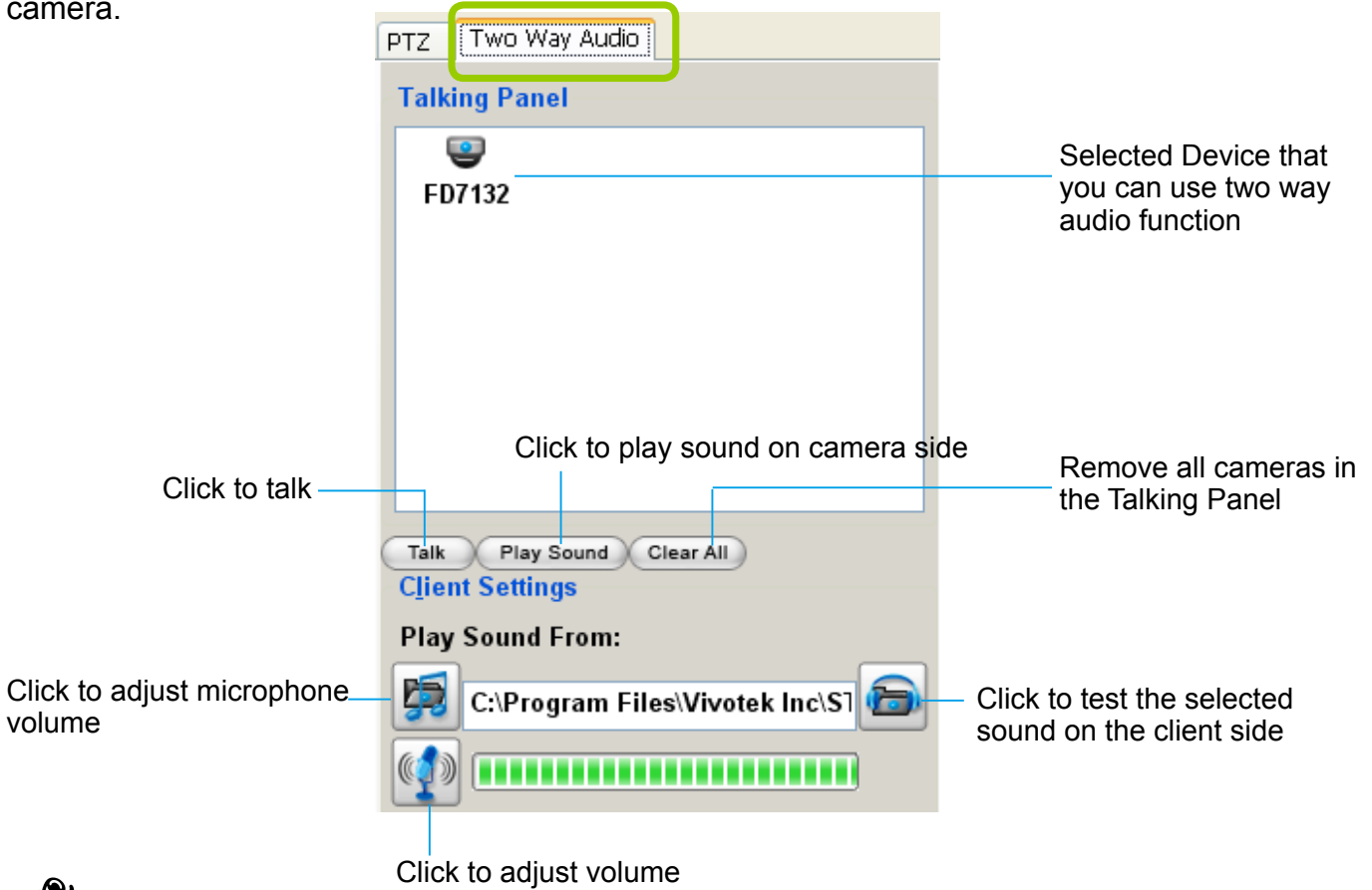


- Click **System > Enable Click On Image**, then you can use mouse to control the pan/tilt/zoom function for all live videos of PTZ cameras in video cells.



Two Way Audio Control Panel

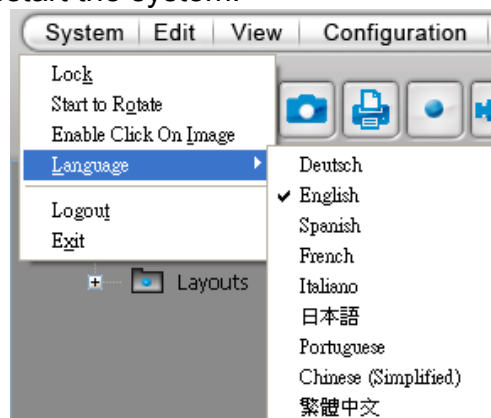
The two way audio function allows the user to communicate with people around the network camera.



- For detailed information about how to use the Talking Panel, please refer to page 53.
- Only cameras with two way audio function can be added to the talking panel.

Language Selection

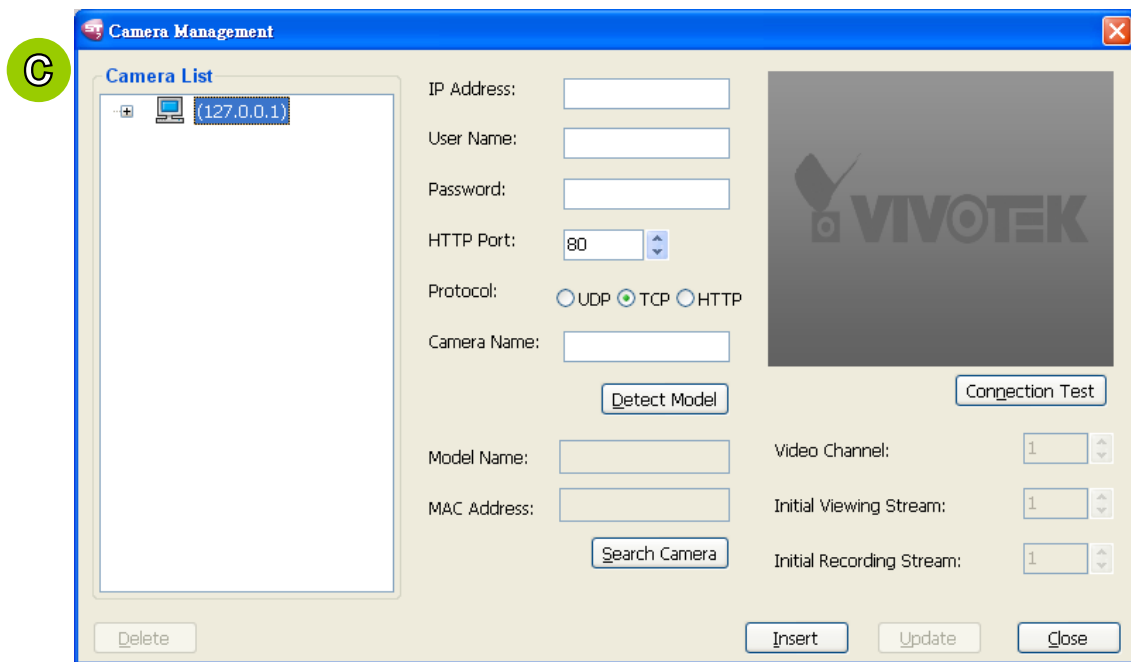
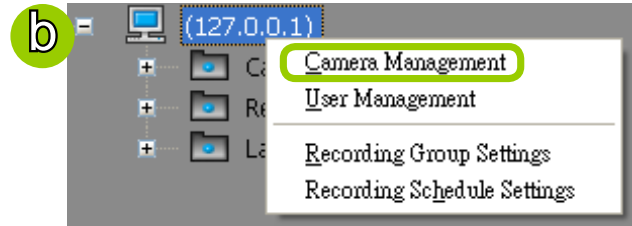
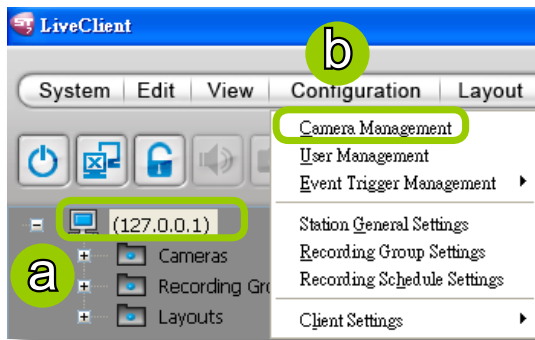
ST7501 currently supports multi-language user interface, and language options are available in: English, Deutsch, Español, Français, Italiano, 日本語, Português, 简体中文 and 繁體中文. If you want to select other language for the interface, please click **System > Language** on the menu bar to select a desired language. Please note that if you want to change the language option, a message will remind you to restart the system.



How to Manage Devices

Please follow the steps below to manage devices under a station:

- Click the station on the device tree.
- Click **Configuration > Camera Management** on the menu bar (or **right-click** the station, and then select **Camera Management**).
- The **Camera Management** window will pop up. Then you can begin insert or update devices under the station.



Insert Devices

Insert Devices with Known IP Address

Please follow the steps below to add devices with known IP address to a station:

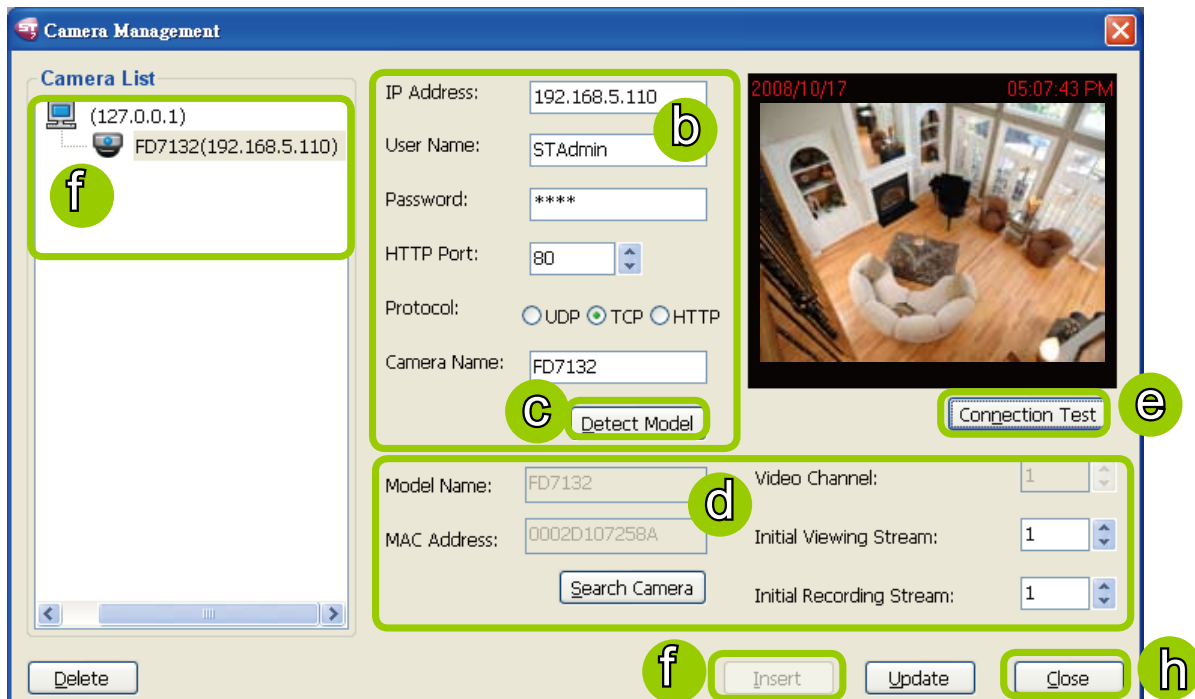
- Click the station on the device tree, and then click **Configuration > Camera Management** on the menu bar (or **right-click** the station, and then select **Camera Management**).
- The **Camera Management** window will pop up. Enter the device's **IP address**, (**User Name** and **Password** if necessary), **HTTP Port**, **Transmission Protocol**, and **Camera Name**. The transmission protocol determines how the live video stream is sent from the camera to the local computer. (Please refer to the note on next page for the detailed description of each transmission protocol.)



In Step **b**, choose the **transmission protocol** according to your network environment and the desired video quality. The characteristics of each protocol is shown in the following table.

Protocol	Description
UDP	This protocol allows near real-time audio and video streams. However, network packets may be lost due to network burst traffic and images may be obscured. Activate UDP connection when occasions require time-sensitive responses and video quality is less important.
TCP	This protocol guarantees the delivery of streaming data and thus provides better video quality. Nevertheless, the downside with this protocol is that the real-time effect is worse than that with the UDP protocol for a narrower bandwidth.
HTTP	This protocol allows the same quality as TCP protocol and the users don't need to open specific port for streaming under some network environment. Users inside a firewall can utilize this protocol to allow streaming data to come through.

- c. Click **Detect Model** to detect the model name and MAC address of the device.
- d. The model name and MAC address of the device will automatically show up in the blanks if the connection is successful. Specify the channel index for multi-channel video server; specify the recommended monitoring and recording stream for camera. If the camera does not support dual streams, these two fields will be disabled.
- e. If you want to make sure if this is the device you concern, click **Connection Test** to preview the live video from the device.
- f. Click **Insert** to add the device to the station, and it will show up under the device tree.



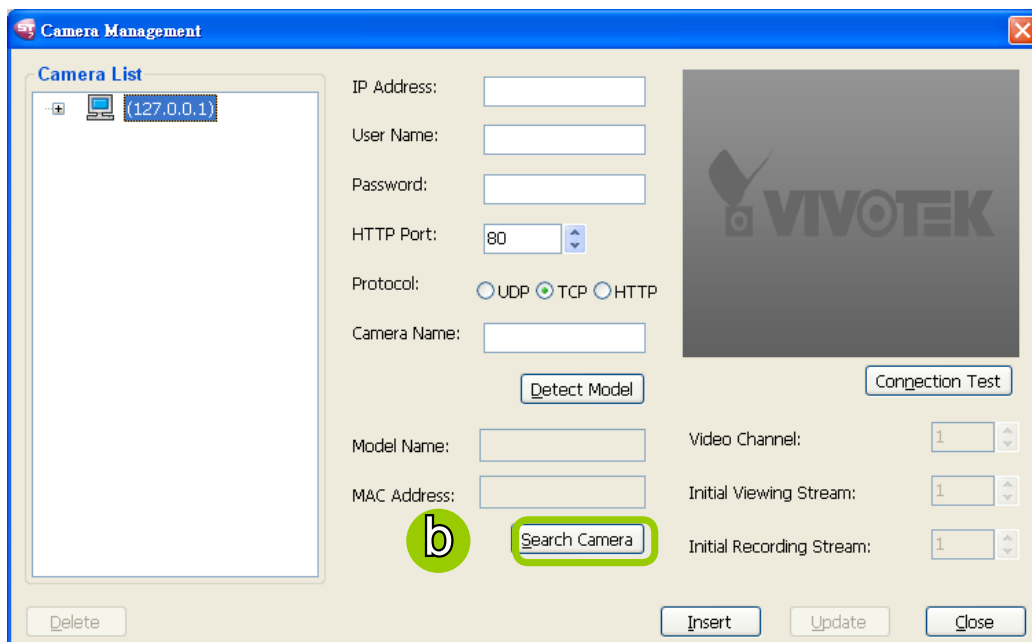
- g. To insert more devices to the station, repeat the above steps. You can manage up to 32 channels at the same time.
- h. When completed, click **Close** to exit the camera management window and return to the monitoring window.
- i. Back to the main window, you will find the newly inserted devices appear under the station and show up in the video cell.



Insert Devices in LAN

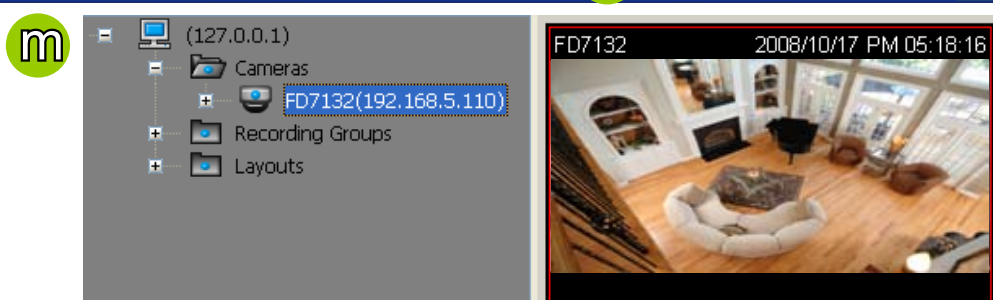
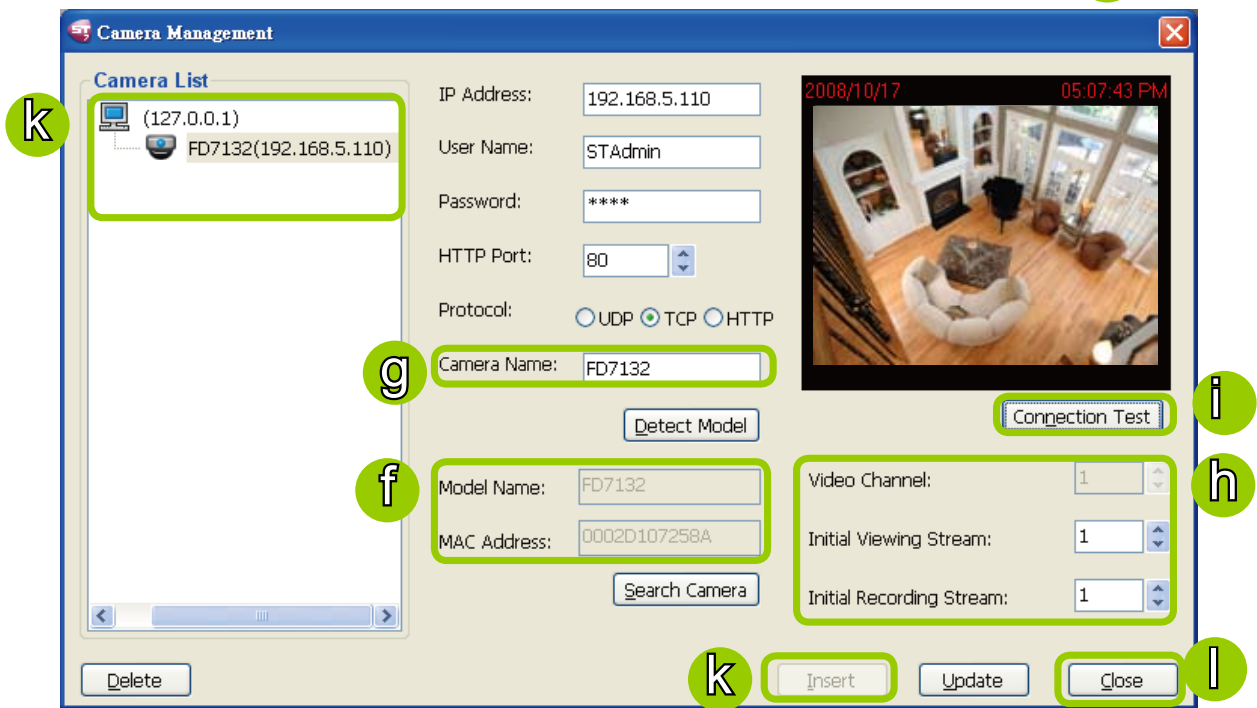
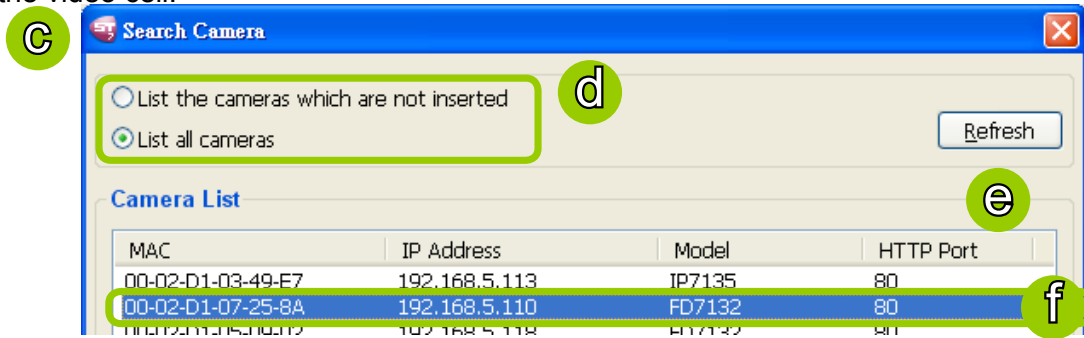
You can insert devices in LAN easily by using our convenient camera searching function. Please follow the steps below to add devices in LAN to a station:

- a. Click the station on the device tree in the monitoring window, and then click **Configuration > Camera Management** on the menu bar (or **right-click** the station, and then select **Camera Management**).
- b. The **Camera Management** window will pop up. Click **Search Camera** to detect all VIVOTEK's network cameras/video servers in LAN.



- c. A **Camera List** window will pop up and show a list of detected cameras in LAN.
- d. On the top of **Camera List** window, you can select "**List the cameras which are not inserted**" or "**List all cameras**". The items listed below will then change accordingly.
- e. You can click **Mac**, **IP Address**, **Model**, **Http port** to sort the items.
- f. Select a device from the list you want to insert to the station. Its **IP address**, **model name**, **MAC** and **HTTP port** information will automatically show up in the corresponding blanks in Camera Management window.
- g. Enter the device's **Camera Name**, (**User Name** and **Password if necessary**).
- h. Specify the channel index for a multi-channel video server; specify the recommended monitoring and recording stream for a camera.

- i. If you want to make sure if this is the device you concern, click **Connection Test** to preview the live video from the device.
- j. To insert more devices to the system, repeat the above steps. You can manage up to 32 channels at the same time.
- k. When all settings are done, click **Insert** to add the device to the station. The device will show up under the device tree.
- l. When completed, click **Close** to exit the camera management window and return to the monitoring window.
- m. Back to the main window, you will find the newly inserted devices appear under the station and show up in the video cell.



- In Step **h**, you can select the **Initial Viewing Stream** and the **Initial Recording Stream**.
- If you want to change the stream source of viewing stream later on, you can **right-click** the focused cell, and then select a desired stream. Please refer to **Dual Streams** on page 22 for detailed illustration.
 - If you want to change the stream source of recording stream later on, you can modify it when you edit a recording group. Please refer to **Recording Group Settings step f.** on page 37 for detailed illustration.

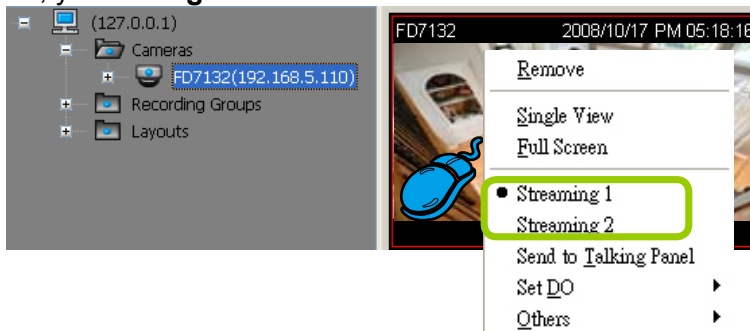
View Live Videos

The server will automatically add newly-inserted device to video cell for live viewing. You also can **double-click** the target device or **drag-and-drop** the target device from the device tree window to the video cell in the live video monitoring window.



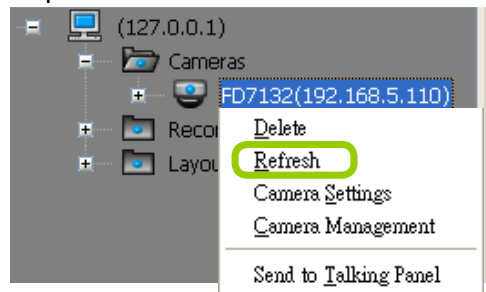
Dual Streams

For dual-stream devices, you can **right-click** on the focused cell to select streaming 1 or streaming 2.



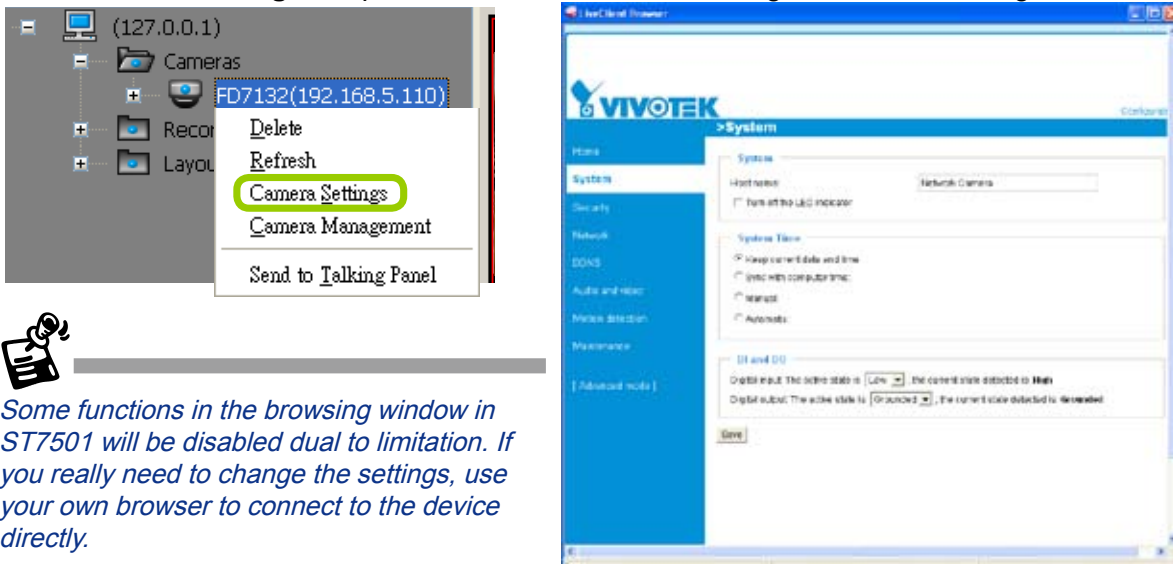
Refresh

Click **Refresh**, the LiveClient will request the latest information of the device from the server.



Camera Settings

Click **Camera Settings** to open LiveClient Browser to configure detailed settings.

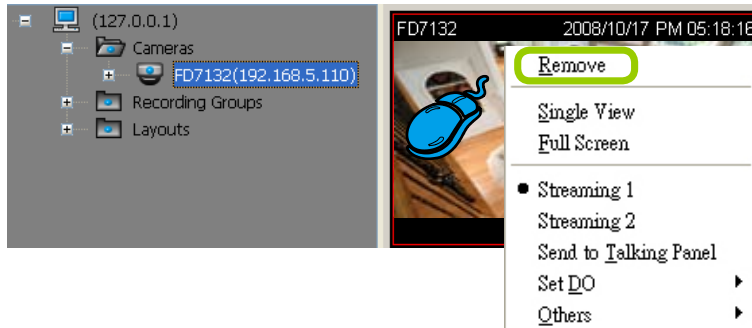


Some functions in the browsing window in ST7501 will be disabled dual to limitation. If you really need to change the settings, use your own browser to connect to the device directly.

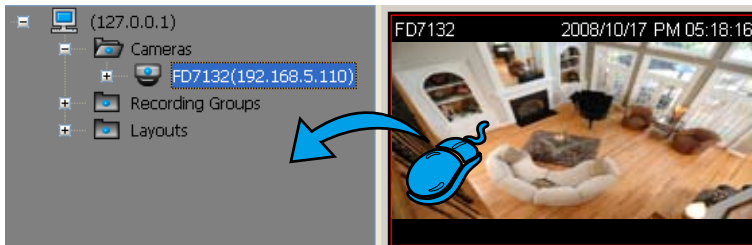
Remove Live Video from the Video Monitoring Window

There are two ways to remove a live video from the video cell:

1. **Right-click** the video cell and select **Remove**.



2. **Drag-and-drop** the live view from the video cell to the device tree window.



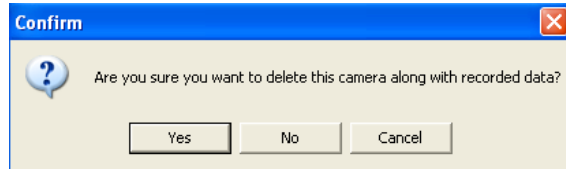
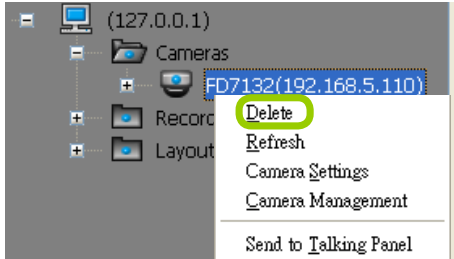
If you want to remove all live videos from the video cells, please click  on the menu bar.



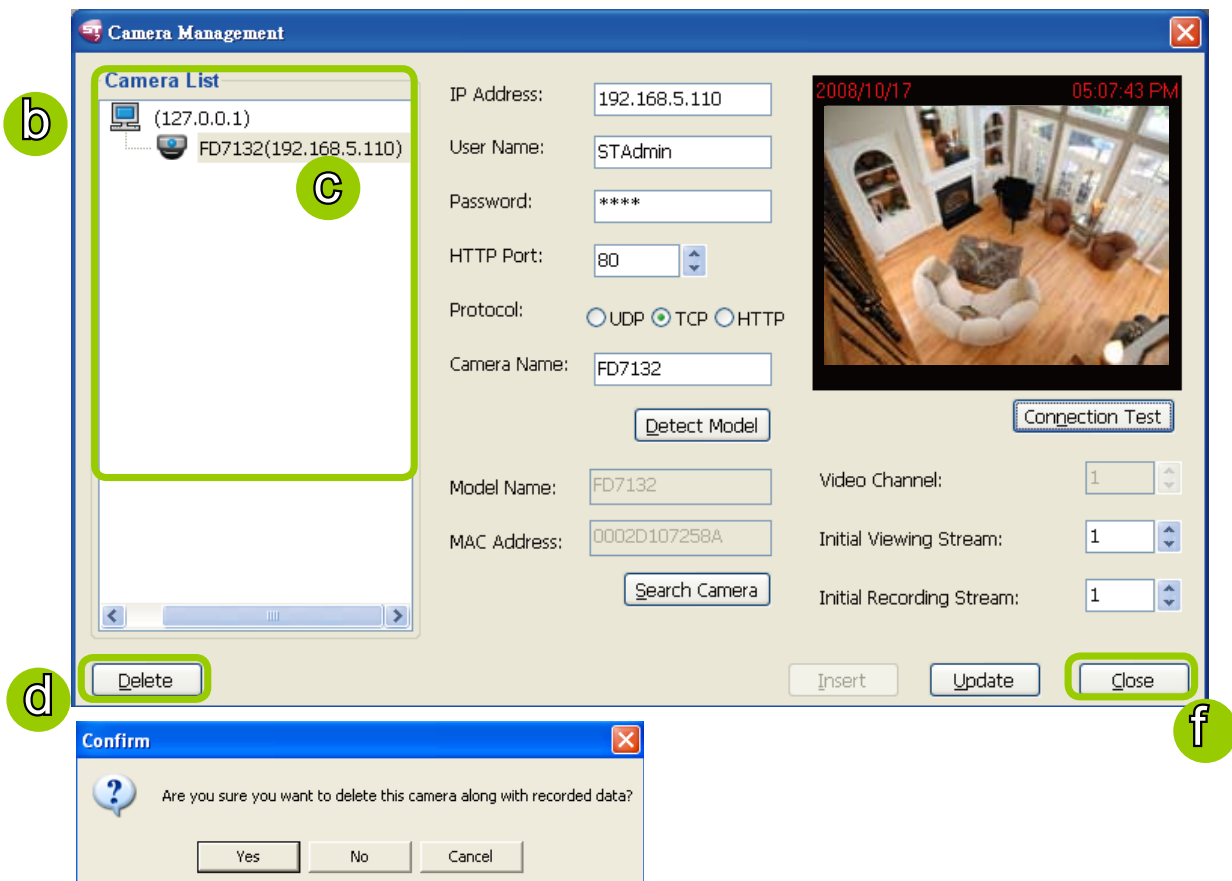
Delete Devices from the Server

There are two ways to delete a device from the server: Select either step 1 or step 2:

1. Select the device on the device tree, and then **right-click** to delete. Note that a dialog will pop up. Click **Yes** to delete the device along with recorded data; click **No** to delete the device but remain the recorded data; click **Cancel** to cancel the delete action.



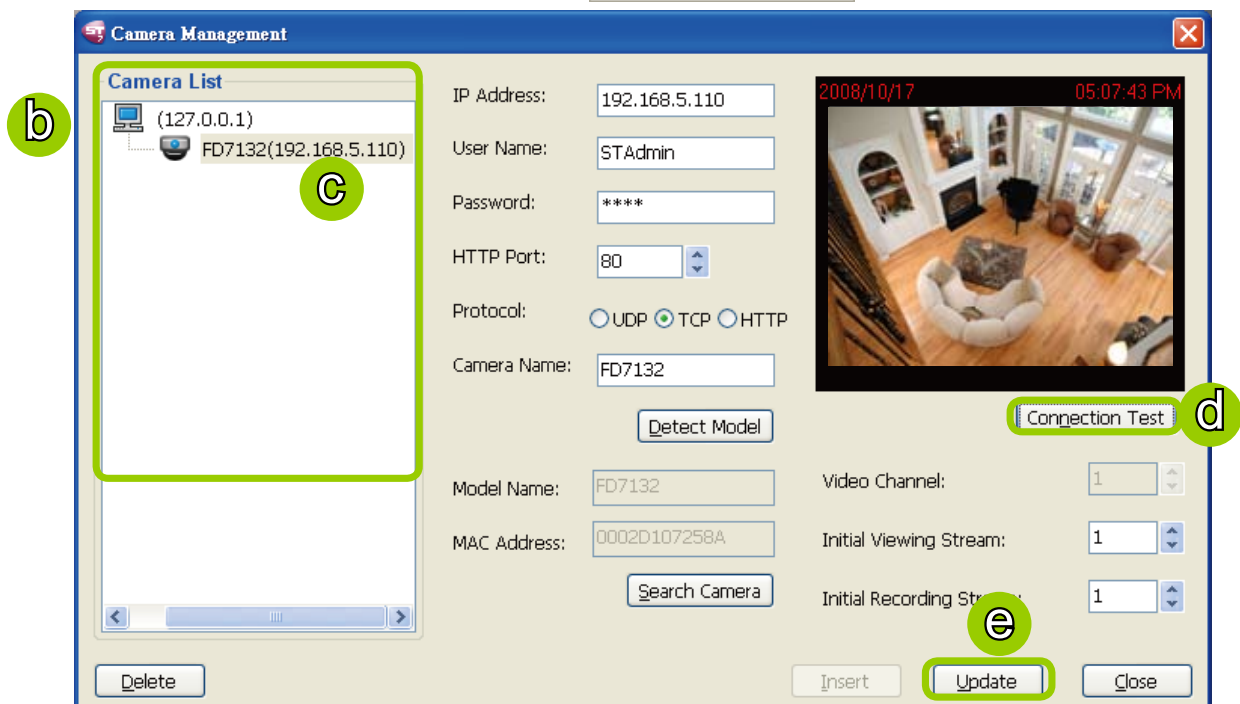
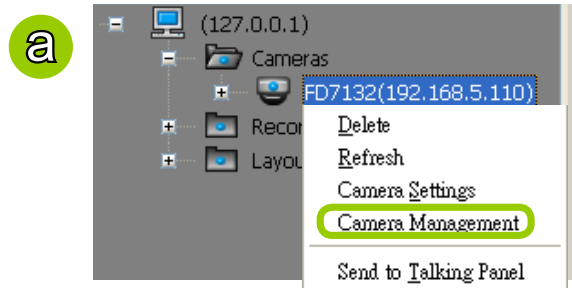
2. Delete a device from the server via Camera Management window:
 - a. Click the station on the device tree, and then click **Configuration > Camera Management** on the menu bar (or **right-click** the station, and then select **Camera Management**).
 - b. The **Camera Management** window will pop up. The device tree managed by the station will display in the left Camera List window.
 - c. Select a device on the list you want to delete. Its **IP address, model name, MAC and HTTP port** information will automatically show up in the corresponding blanks in Camera Management window.
 - d. Click **Delete** to delete it from the server. Note that a dialog will pop up. Click **Yes** to delete the device along with recorded data; click **No** to delete the device but remain the recorded data.
 - e. To delete more devices, repeat the above steps.
 - f. When completed, click **Close** to exit the camera management window and return to the monitoring window. The deleted device will disappear from the station.



Update Devices

Please follow the steps below to update a device via Camera Management window:

- Right-click** the target device on the device tree, and then click **Camera Management**.
- The **Camera Management** window will pop up. The device tree managed by the station will display in the left Camera List window.
- Select a device on the list you want to update. Its **IP address, model name, MAC** and **HTTP port** information will automatically show up in the corresponding blanks in Camera Management window.
- After modifying the settings, you can click **Connection Test** to preview the live video from the device.
- When all settings are done, click **Update** to enable the settings.



How to Change Video Viewing Mode

Change the Layout of Live Video Monitoring Window

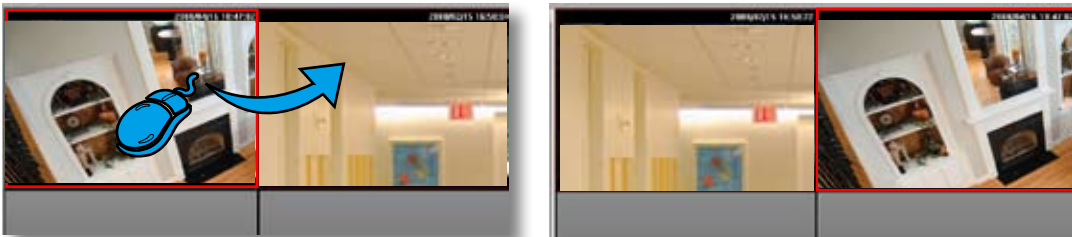
VIVOTEK ST7501 LiveClient supports up to 32-CH simultaneous video viewing on single monitor, and it allows you to change the layout of live video monitoring window based on the number of inserted devices.

Switch Video Channels


To move a video channel to another empty video cell, **drag-and-drop** the view to the target video cell.











To switch two channels, **drag-and-drop** one view to the other, then the two channels will switch with each other.



Configure Layout Mode

Click the **Layout** button  on the quick access bar. Select a desired layout mode, the layout window will change accordingly. Below we illustrate 8 kinds of layout modes and corresponding page numbers:





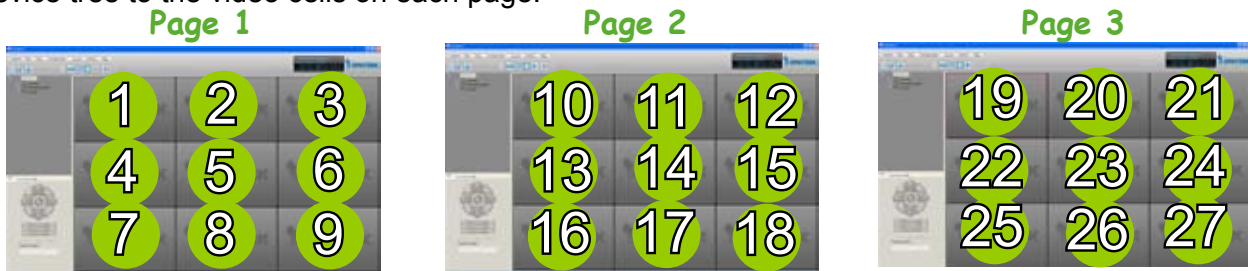
Layout mode	Description	Video page
1 x 1		32
2 x 2		8
1 + 5		4
3 x 3		3
1 + 12		2
4 x 4		2
5 x 5		1
1 + 31		1

More than 1 video page;
rotation function is enabled

Only 1 video page;
rotation function is disabled


Some layout modes (1 x 1, 2 x 2, 1 + 5, 3 x 3, 1 + 12, 4 x 4) will divide all video channels into several pages.

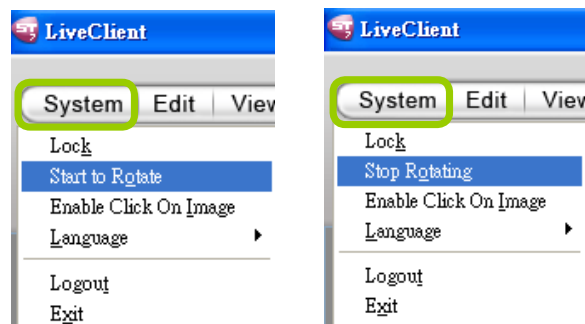
For example, under 3 x 3 layout mode, you can switch among the three pages by clicking  and  on the quick access bar. To arrange the content of each page, manually **drag-and-drop** cameras from the device tree to the video cells on each page.



Rotating Video Pages

For layout modes that contain more than one page, ST7501 LiveClient offers the rotating function to display all video pages in turns.

- To enable this function, click **System > Start to Rotate** on the menu bar, which will become **Stop Rotating**, then the video pages will start to rotate, and you don't have to click  for next page.
- To disable this function, click **System > Stop Rotating**, which will become **Start to Rotate** on the menu bar.

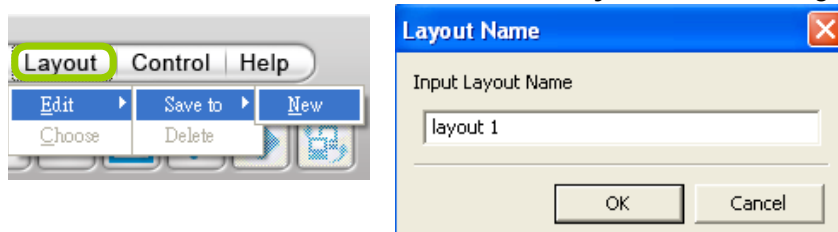


The default rotating time interval is 6 seconds. If you want to edit rotation settings, please refer to **Rotation Settings** on page 64.

Edit Layout

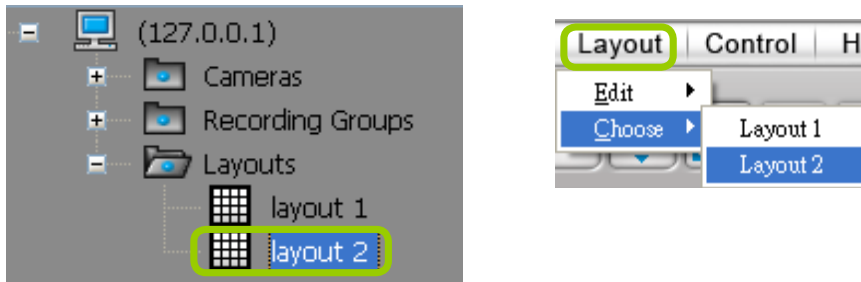
Please follow the steps below to save a layout:

- Arrange a layout mode and drag devices to desired video cells.
- Click **Layout > Edit > Save to > New** on the menu bar. A **Layout Name** dialog will pop up.

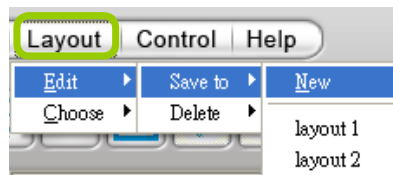


- Enter a descriptive name for the the layout, and then click **OK** to enable the setting.

- d. Back to the monitoring window, the new layout will show up under the device tree as below. You can save up to 10 layouts.
- e. To change to another layout, **double-click** the layout items on the device tree, or click **Layout > Choose** on the menu bar to select a desired layout.



- If you want to edit an existing layout, arrange a layout mode and drag devices to desired video cells, and then click **Layout > Edit > Save to > New (save as a new layout) or existing layout (replace with the new one)** on the menu bar.



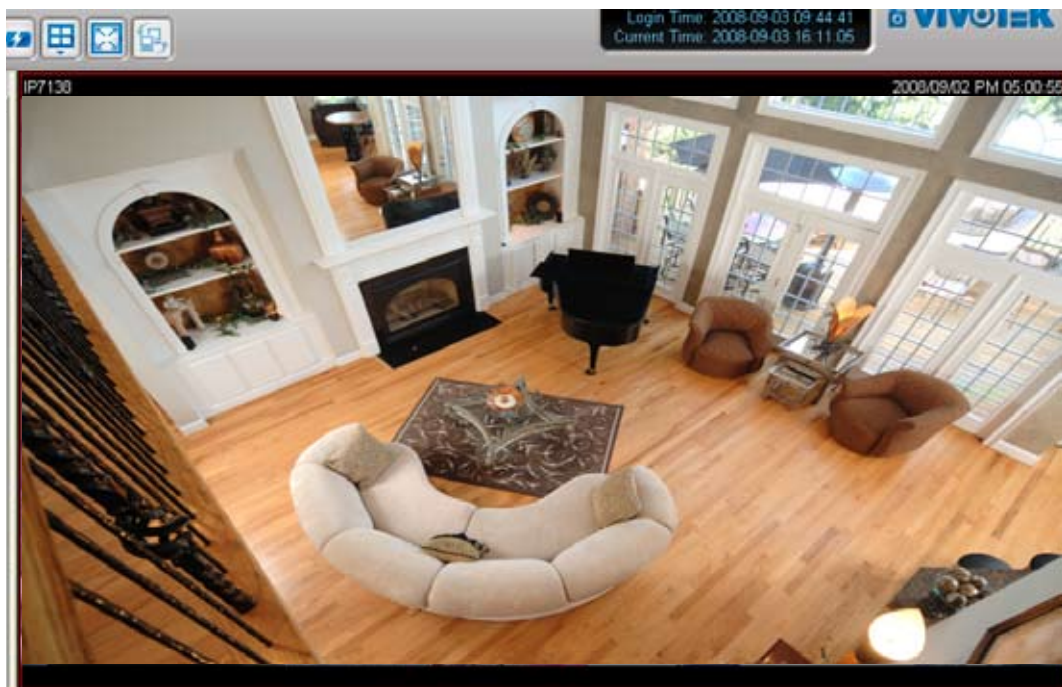
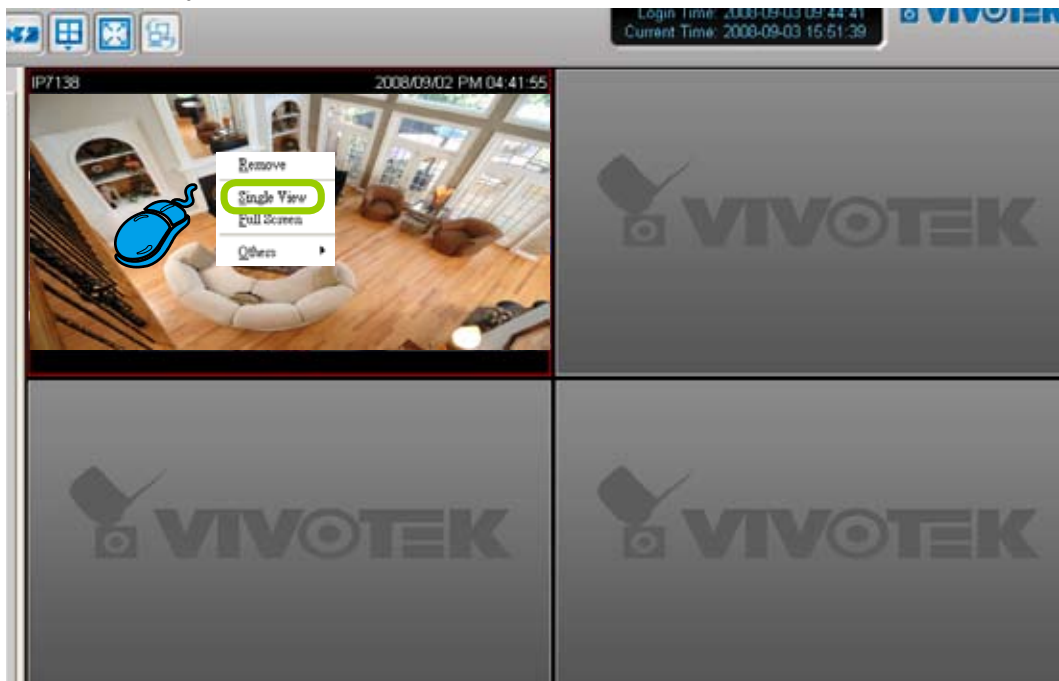
- If you want to delete an existing layout, **right-click** the layout items on the device tree or click **Layout > Edit > Delete** on the menu bar to select the layout you want to delete.



Maximize/Minimize the Live Video Monitoring Window


- Single View: to maximize a video cell to the whole video playback window

Double-click the video cell, or **right-click** the video cell and then check **Single View**. The focused video will occupy the whole playback window as below.

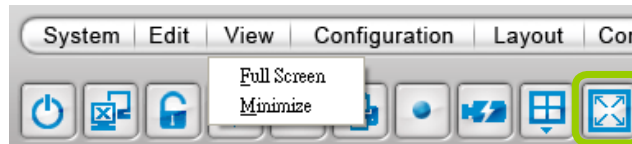


To restore to the original layout, **double-click** the video cell or **right-click** the video cell and then uncheck **Single View**.

- Full Screen: to maximize live video monitoring window to the whole screen

Click **Full Screen**  on the quick access bar or **right-click** the video cell and then check **Full Screen**. In addition, you can also click **View > Full Screen** on the menu bar to maximize the live video monitoring window.

To restore to the original layout, **right-click** a video cell and then uncheck **Full Screen**. You also can click **Esc** button on the keyboard to leave the full screen mode.



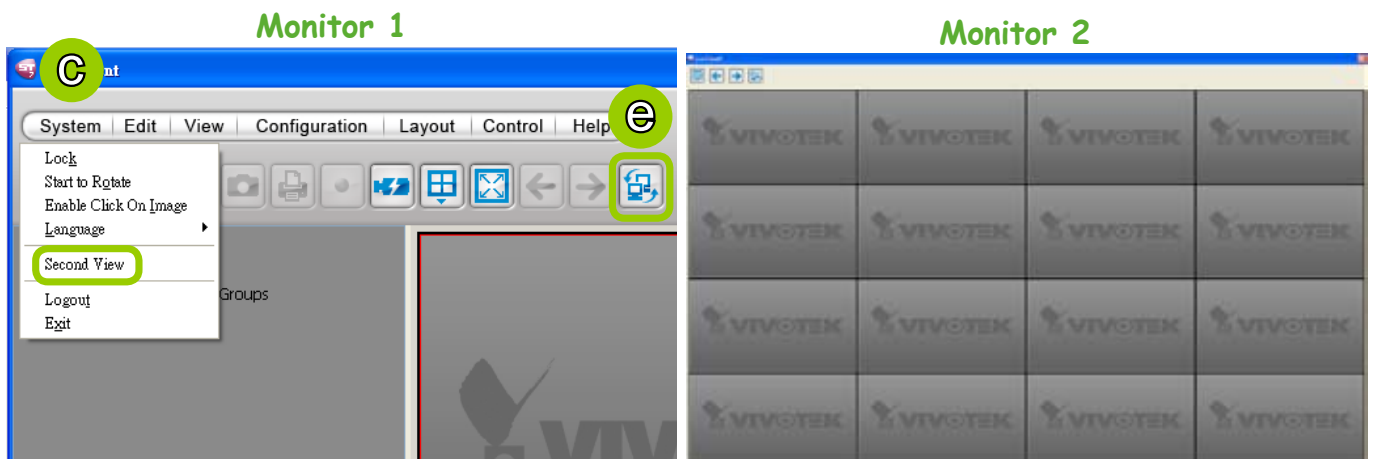
- Minimize: If you click **View > Minimize** on the menu bar, the LiveClient will minimize to the Windows tool bar.


View Live Video with Dual Monitors

ST7501 also supports live video viewing with dual monitors, and you can manage up to 32 channels concurrently. Moreover, the layout of video monitoring window on different monitor can be set up individually. Below we illustrate the applications of dual monitors:

Please follow the steps below to set up dual-screen mode:

- Set up dual monitors for your local computer.
- Launch ST7501 LiveClient on monitor 1.
- Click **System > Second View** on monitor 1, then the live video monitoring window will show up in monitor 2 as below.






- There are two ways to view live videos. One is to **drag-and-drop** the target device from the device tree window to the video cells. The other is to click any video cell on monitor 1 or monitor 2, and then **double-click** the target device; the live video will display in monitor 1 or 2 according to your choice.
- If you click **Switch Screen**  on the quick access bar, the live monitoring window of monitor 1 and monitor 2 will exchange with each other.

View the maximum 32 channels simultaneously

If you select 4x4 layout on dual screens, you can view the maximum of 32 channels live video simultaneously. In this case, each layout contains only 1 video page.




Use different layout on each monitor

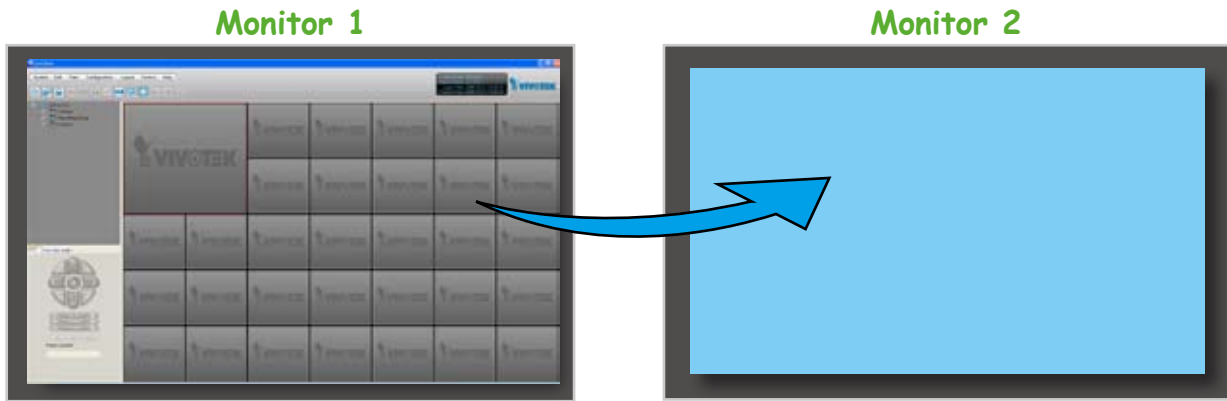
You also can select different layout for two monitors, just click the **Layout** button  on the quick access bar. Below shows an example of 2x2 layout with 4 video pages on monitor 1 and 4x4 layout with 1 video page on monitor 2. In the left monitor, you can click  and  to switch among four video pages.




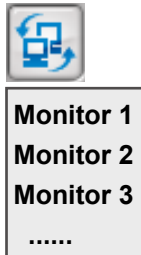
View Live Video with Multiple Monitors

If you have multiple screens in your monitoring center, you can switch the ST7501 LiveClient Window among these screens.

- If you have two monitors, click **Switch Screen**  on the menu bar, the LiveClient window of monitor 1 will switch to monitor 2.



- If you have three or more monitors, a drop-down list will display when you click **Switch Screen**  on the menu bar. The number of items on this list depends on the number of your screens. Select a desired screen on the drop-down list, the LiveClient Window will then switch to the specified screen.



How to Manage User Accounts

ST7501 allows users to add user accounts with four-level user roles: Administrator > Power User > Operator > Guest. Each role has different privileges listed as below. Moreover, Administrators have the highest privileges, while Power Users can only add/edit user roles as Power Users, Operators, and Guests.

The Default User Roles and Privileges of User Accounts

Privileges \ User Roles	Administrator	Power User	Operator	Guest
User Management	✓	✓		
Camera Management	✓	✓		
Delete Camera	✓	✓		
PTZ Control	✓	✓	✓	
Talk Control	✓	✓	✓	
Digital Output Control	✓	✓	✓	
Event Trigger Management	✓	✓		
Access Camera Configuration	✓	✓		
Access Recording Group/ Recording Schedule Settings	✓	✓		
Modify Recording Group/ Recording Schedule Settings	✓	✓		
Manually Recording	✓	✓	✓	
Event Search	✓	✓	✓	
Log Viewer	✓	✓	✓	

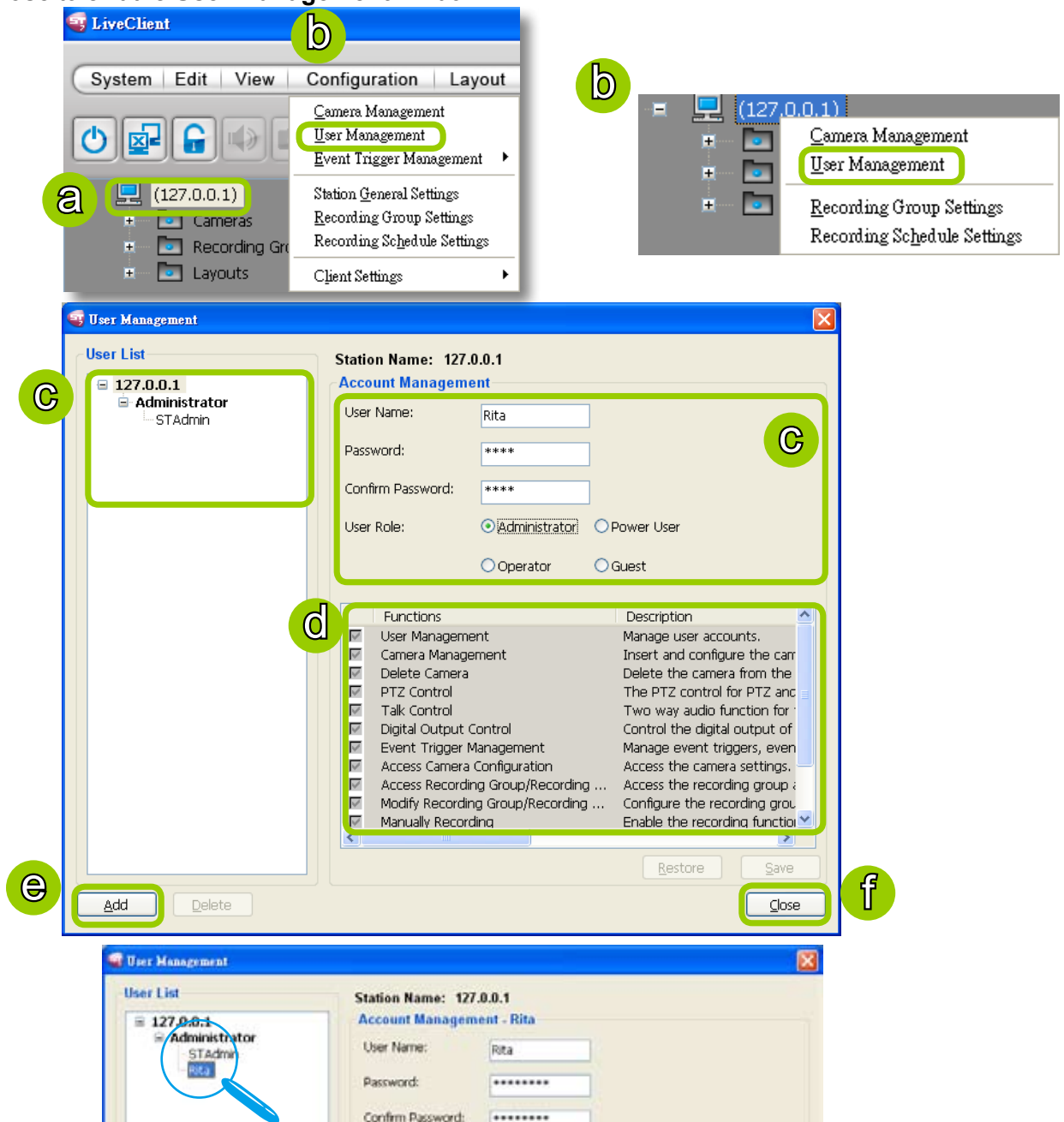


The privileges of Administrator cannot be unchecked.

Add User Account

Please follow the steps below to add a new user account for a station:

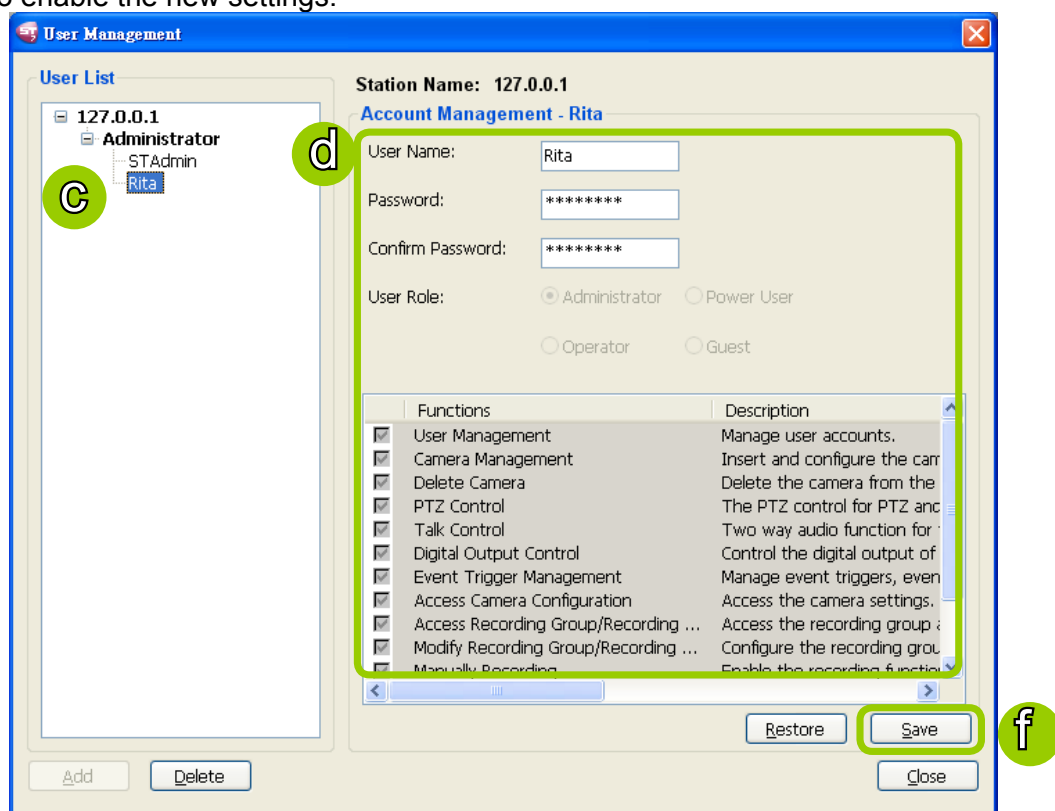
- Click the station on the device tree.
- Click **Configuration > User Management** on the menu bar (or **right-click** the station, and then select **User Management**).
- The **User Management** window will pop up. The user accounts under the station will be displayed under the device tree.
- Enter **User Name**, **Password**, and specify the **User Role** of this user.
- Check or uncheck the privileges for this user if you want to limit the access right. Please note that you cannot uncheck the privileges of **Administrator**.
- When all settings are done, click **Add** to add the user account to the station. The new user account will show up under the device tree.
- Click **Close** to exit the **User Management** window.



Modify User Account

Please follow the steps below to modify an existent user account:

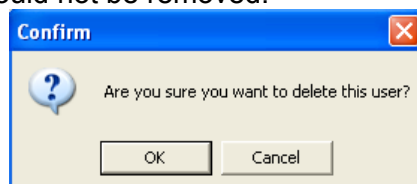
- Click the station on the device tree, and then click **Configuration > User Management** on the menu bar (or **right-click** the station, and then select **User Management**). The **User Management** window will pop up.
- The user accounts under the station will be displayed under the device tree.
- Click the user account you want to modify in the device tree.
- The account information of this user will be displayed on the right side.
- Uncheck the privileges if you want to limit the access right. Please note that you cannot uncheck the privileges of **Administrator**.
- Click **Save** to enable the new settings.



Delete User Account

Please follow the steps below to modify an existent user account:

- Select a station from the device tree and click **Configuration > User Management** on the menu bar (or **right-click** the station, and then select **User Management**).
- The **Management** window will pop up. The user accounts under the station will be displayed under the device tree.
- Click the user account you want to delete on the device tree.
- Click **Delete**, a delete user dialog will pop up. Click **OK** to delete the user account. The last administrator of the system could not be removed.

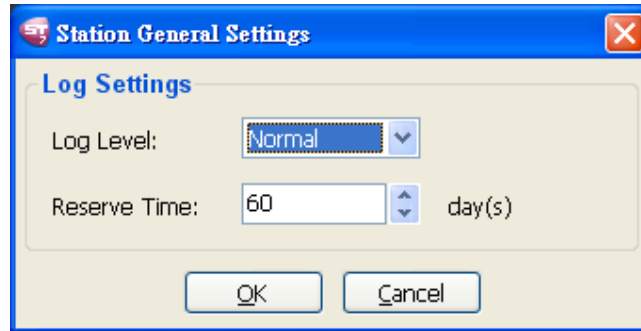


The last administrator of the system could not be removed.

How to Configure Station General Settings

In this section, you can set up **Log Settings** for the station.

- Log level: Select High (only record high-level logs), Normal (record high and normal logs), Low (record high, normal, and low-level logs) or All.
- Reserve Time: Enter the time interval that you want to reserve the log record. The maximum value is 416 days.



*For detailed information about log level, please refer to **How to Search Log** on page 90.*

How to Edit Recording Groups

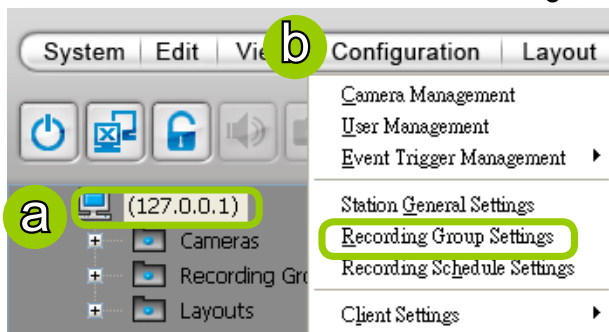
By default setting, all devices are assigned to the default recording group. You can manually remove a device from the default recording group. However, only those devices which belong to a recording group can produce recorded media data.

Another purpose of setting recording group is that you can distribute the recording loads to a number of hard-disks on the server side. The live media data will be stored in the first assigned hard-disk initially, and when the available free space of the first hard-disk approaches to the preset reserved space, the media data will be stored in the second disk, and so on. If the available spaces of that last disk approaches to the reserved spaces, the recorded data in the first disk will be erased for recording new media data. This procedure is called "Cyclic Recording".

Recording Groups Settings

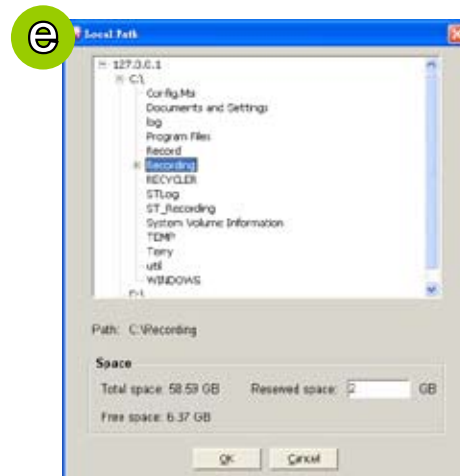
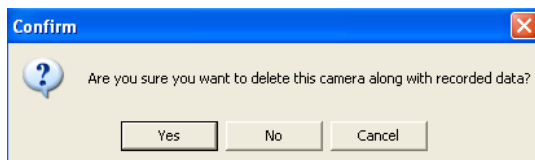
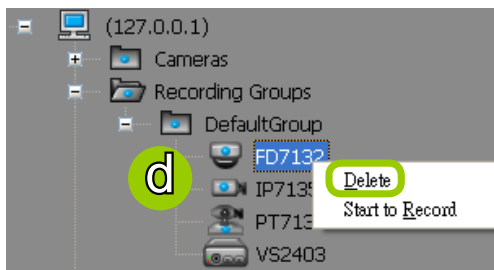
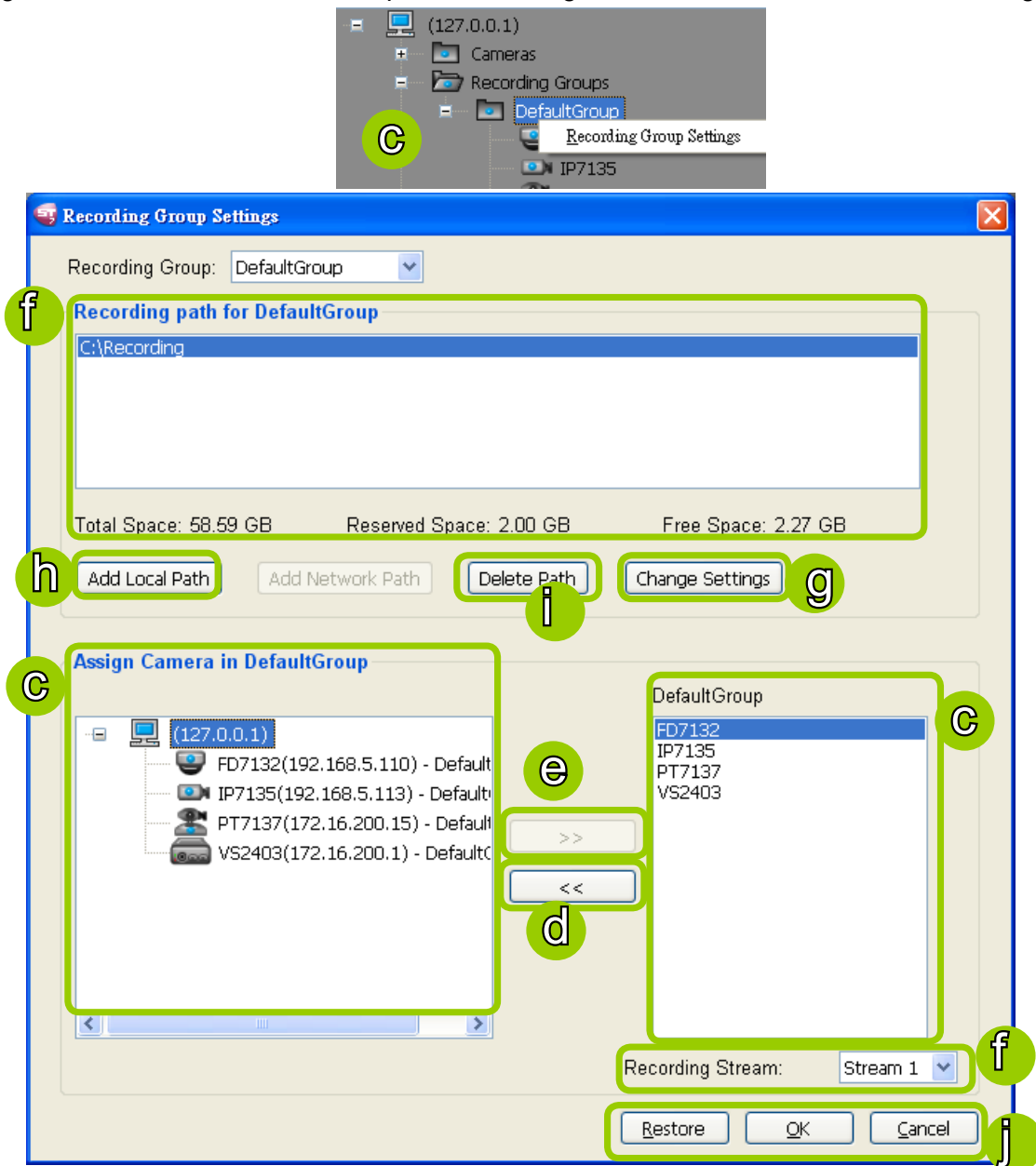
Please follow the steps below to set up recording groups for a station:

- Click the station on the device tree.
- Click **Configuration > Recording Group Settings** on the menu bar (or **right-click** the station on the device tree, and then select **Recording Group Settings**).
- The **Recording Group Settings** window will pop up. By default, all devices are assigned to the **Default Recording Group**. So you also can **right-click DefaultGroup** on the device tree, and then click **Recording Group Settings**.
- Click << to delete devices from the **DefaultGroup**. Note that a **Delete Camera** dialog will pop up. Click **Yes** to delete the device along with recorded data; click **No** to delete the device but remain the recorded data; click **Cancel** to cancel the delete action. Please note that only those devices which belong to a recording group can produce recording videos.
- Click >> to add devices to the **DefaultGroup**.
- For dual-stream device, select a desired source of recording stream.
- The default **Recording path** is C:\Recording. The total space and free space of the disk shows below for reference. To modify the **Reserved space** of a path, select the path in **Recording path for DefaultGroup**, and then click **Change settings** to modify its value.
- To add other recording path in your local computer, click **Add local path** to open a **Local Path** dialog to select a desired path. The total space and free space of the selected disk will be shown in the dialog for reference. Then click **OK** to enable the settings, or click **Cancel** to discard the settings.



To delete devices from the **DefaultGroup**, you can also **right-click** the device on the device tree, and then click **Delete** to delete it.

- i. To remove a path, select the path in **Recording path for DefaultGroup**, and then click **Delete path** to delete it.
- j. When all settings are done, click **OK** to confirm and save your settings. If you want to cancel all of your editing, click **Restore** to return to the previous settings or click **cancel** to discard the settings.

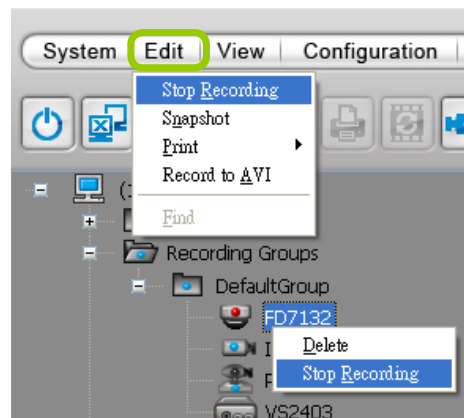
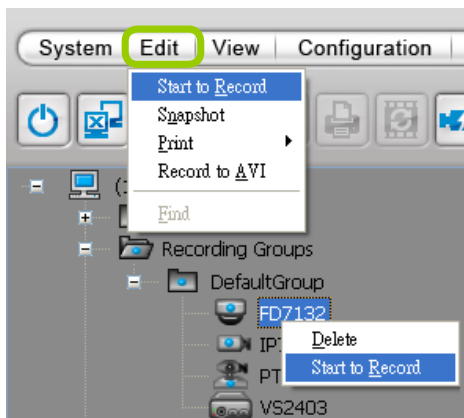


Manually Start to Record/Stop Recording

By default setting, all devices are assigned to the default recording group and default recording schedule. Therefore, once you insert a device to the station, the ST7501 server will begin to record live video according to the default recording schedule. (Please refer to How to Edit Recording Schedules on page 40.)

However, if you have changed the default schedule and in any emergency, you can manually click to enable a device **start to record** without setting up a recording schedule. Please follow the instruction below to manually enable recording.

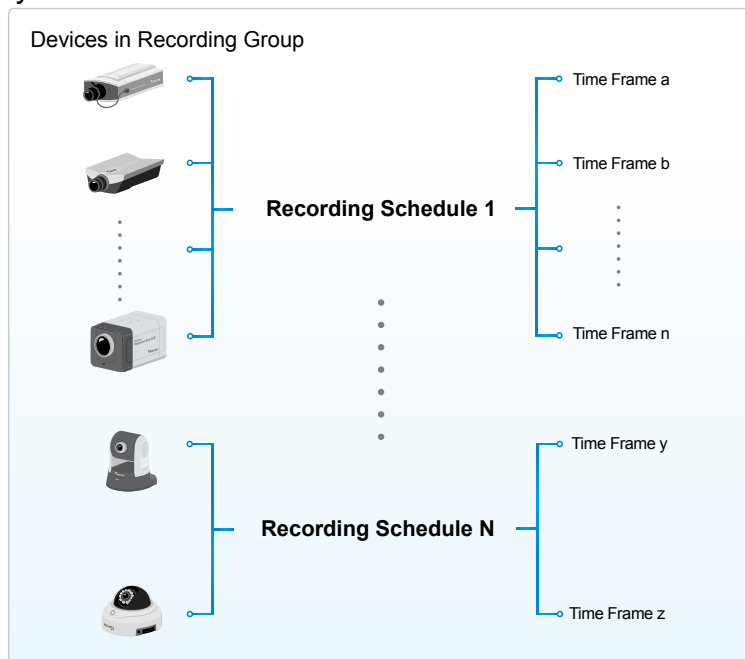
Click the device on the device tree under Default Group, and then click **Edit > Start to Record** on the menu bar (or **right-click** the device, and then select **Start to Record**). The string on the menu bar will turn into **Stop Recording** as below. The ST7501 server will start to record video from the target camera. Please note that its priority will be higher than a recording schedule, so it won't stop unless you click **Stop Recording**. After you click **Stop Recording**, the device will then follow the recording schedule.



How to Edit Recording Schedules

After editing recording group settings, you can begin to edit recording schedules for the devices in a recording group. By default setting, all devices are assigned to the default recording schedule (Please refer to the default time frame on page 44). Therefore, once you insert a device to the station, the ST7501 server will begin to record live video according to the default recording schedule. You can manually remove a device from the default recording schedule. However, please note that you cannot assign recording schedules to those devices which have been deleted from a recording group.

Following is the illustration of recording schedules, which are composed of several time frames. For each time frame, it has its own time segments, applying time range, repeat interval, and recording mode. Therefore, you can create different recording schedules with simple or complex time frames based on your need.



In addition, you can arrange the priority of each time frame according to its importance. The recording schedule with the highest priority will be applied first. This design is very useful because you can specify a new time frame with the highest priority for temporary need without modifying all the other time frames.

Features of the recording schedules:

- Each device can be assigned to only one recording schedule.
- Each recording schedule may contain many time frames.
- Each time frame has its own repeat frequency and recording mode.

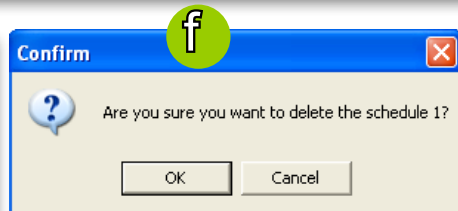
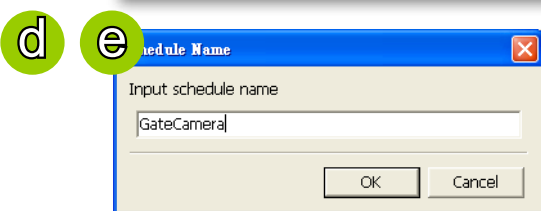
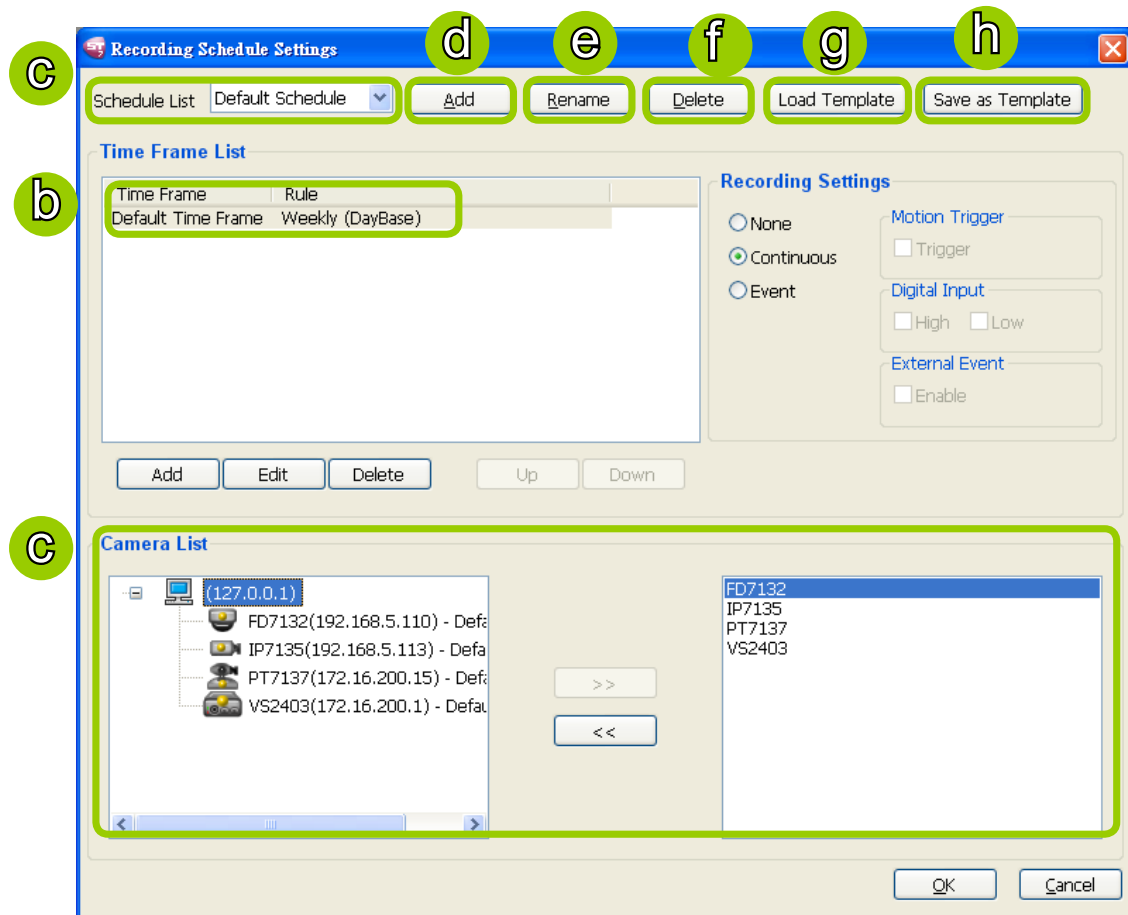
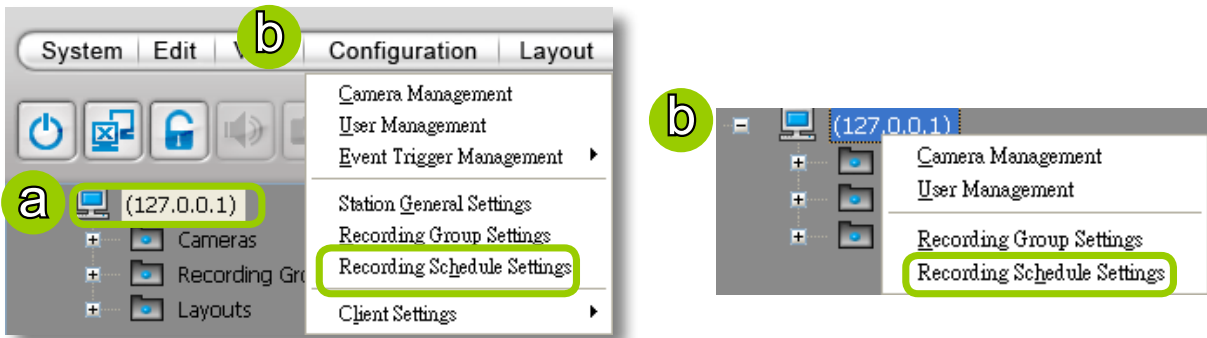
To save your time of editing recording schedules and time-frames, we also provide a useful **template** function for you to save your setting of schedules/time-frames. That is, you can save a specified schedule and download it as a template for future application or upload a well-arranged schedule template designed by others.

Please note that after you save the recording settings to the server, the recording schedule will begin automatically according to your settings.

Edit Schedule List

Please follow the steps below to set up the schedule lists:

- Click the station on the device tree.
- Click **Configuration > Recording Schedule Settings** on the menu bar (or **right-click** the station, and then select **Recording Schedule Settings**).
- The **Recording Schedule Settings** window will pop up. By default, all cameras under the station are assigned to **Default Schedule, Default Time Frame, and Default Camera List**.



Add Schedules

d. To add a new recording schedule, click **Add**. A Schedule Name dialog will pop up for you to enter a descriptive name for the new schedule. Click **OK** to confirm the settings or **Cancel** to discard the settings. The new recording schedule will show up on the schedule drop-down list.

Rename Schedules

e. To rename an existent schedule, select the schedule on schedule drop-down list and click **Rename**. A Schedule Name dialog will pop up for you to enter a descriptive name for the new schedule. Click **OK** to confirm the settings or **Cancel** to discard the settings. The new recording schedule will show up on the schedule drop-down list.

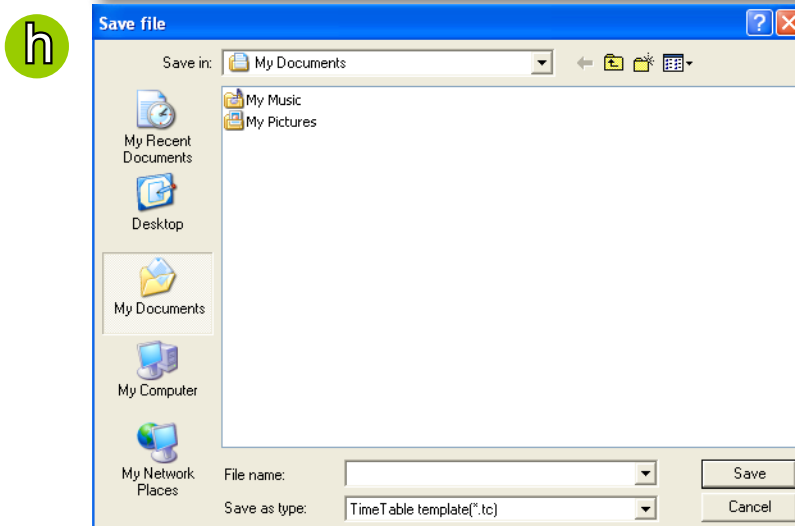
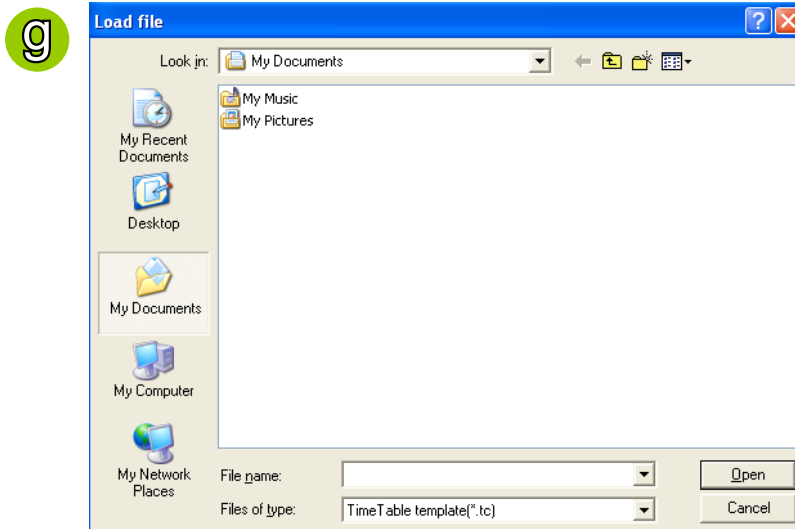
Delete Schedules

f. To delete an existent schedule, select the schedule on schedule drop-down list and click **Delete**. A Remove Schedule dialog will pop up. Click **OK** to confirm the settings or **Cancel** to discard the settings. The new recording schedule will show up on the schedule drop-down list.

Load/Save Schedule Templates


g. If you have a schedule template with time frames settings, you can upload it to ease the editing of schedule. Click **Load Template**, a **Load File** dialog will pop up. Select the template file and click **Open** to load it.

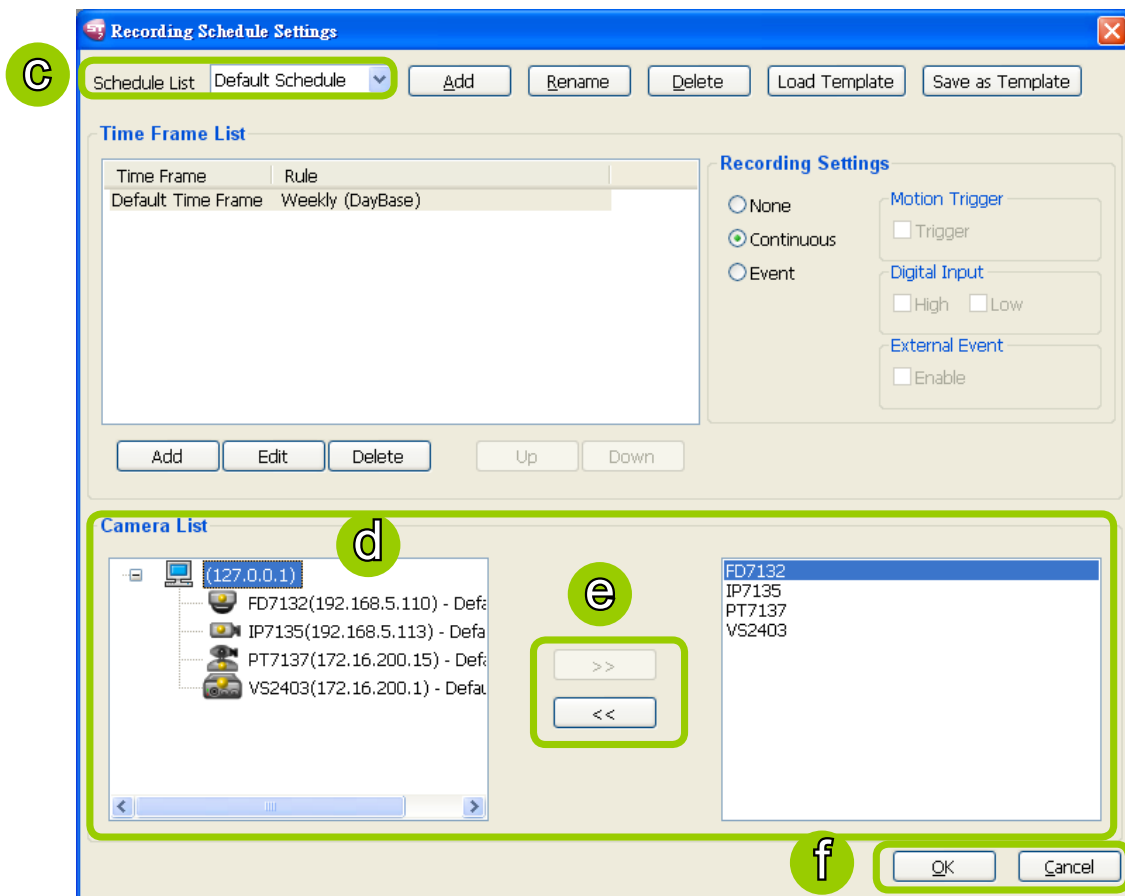
h. If you want to save a schedule as a template for future use, select the schedule on schedule drop-down list and click **Save as Template**. A **Save File** dialog will pop up for you to save the template file.



Edit Camera List

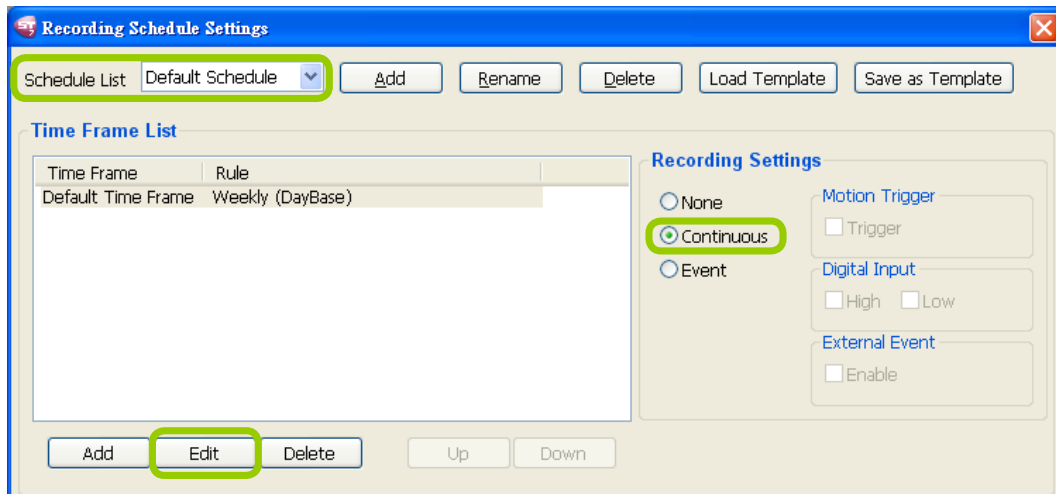
Please follow the steps below to assign a device to a recording schedule:

- Click the station on the device tree, and then click **Configuration > Recording Schedule Settings** on the menu bar (or **right-click** the station, and then select **Recording Schedule Settings**).
- The **Recording Schedule Settings** window will pop up. By default, all cameras under the station are assigned to **Default Schedule**, **Default Time Frame**, and **Default Camera List**.
- Select a recording schedule on the schedule drop-down list.
- By default, all devices under the station are assigned to the **Default Schedule**.
- Click << to remove devices from the **Default Schedule**. Click >> to add devices to the **Default Schedule**. Note that those devices that have been assigned to a schedule will be added with a yellow dot as .
- Click **OK** to confirm the settings or **Cancel** to discard the settings.

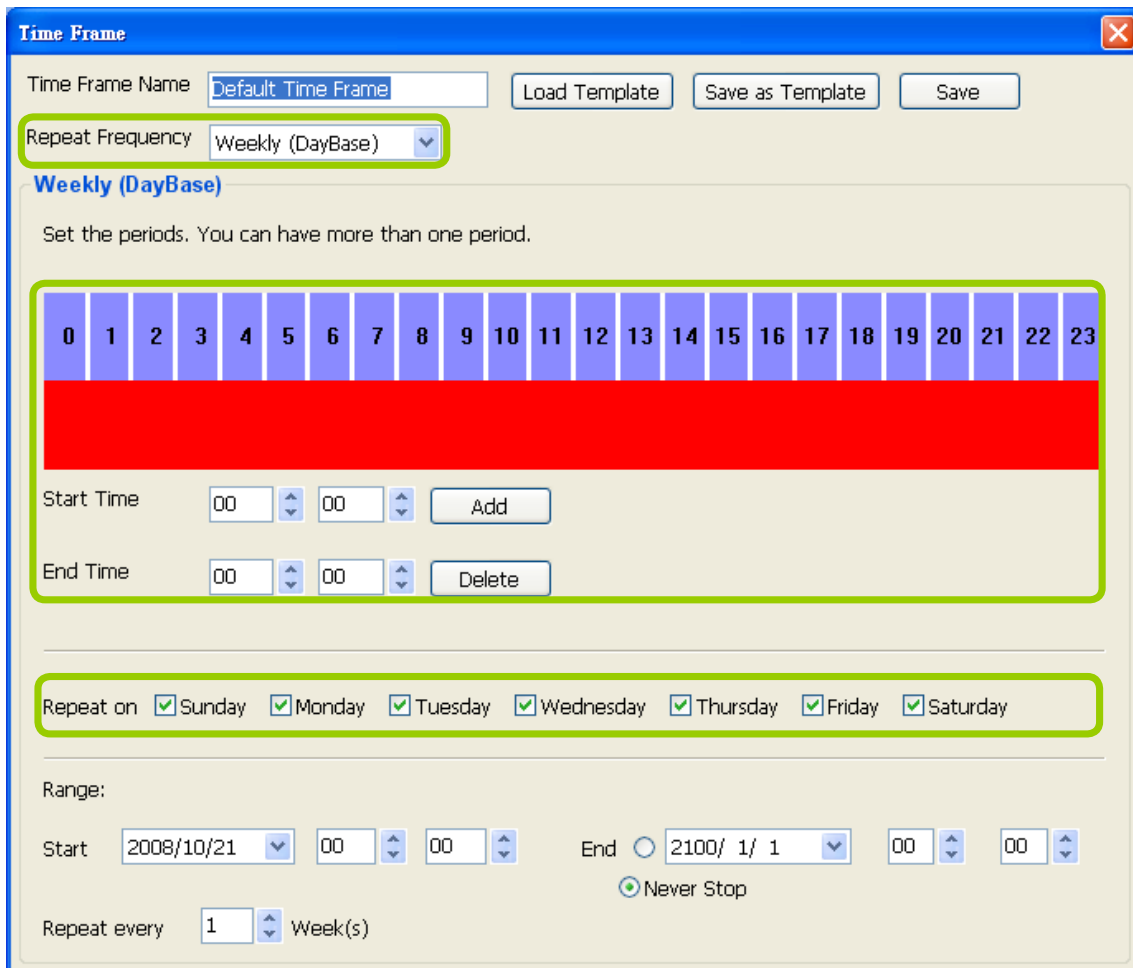


Edit Time Frame List

Default Time Frame: Weekly daybase, Mon.~Sun., 24-hour, continuous recording



Click **Edit** to open the default time frame settings page as below.



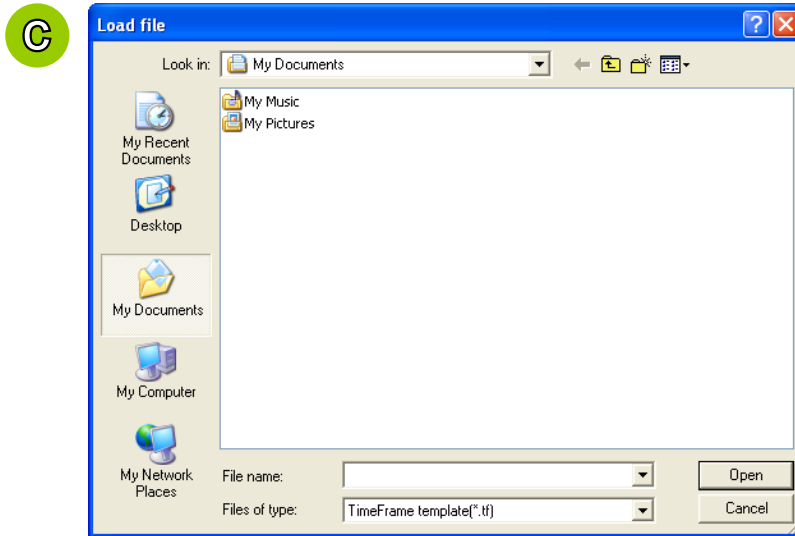
Add New Time Frames

Please follow the steps below to add new time frames for a schedule:

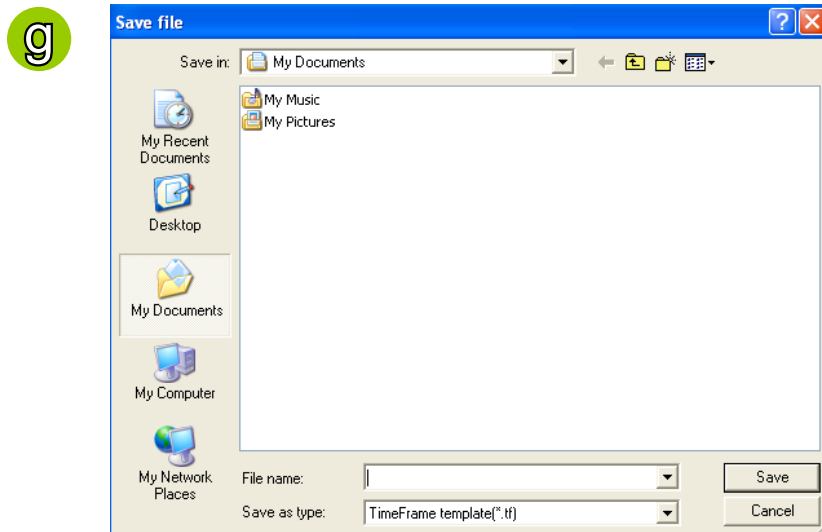
- Select a recording schedule on the schedule drop-down list.
- Click **Add** to open the **Time Frame Settings** window.
- If you have a time-frame template, you can upload it to ease the editing of schedule. Click **Load Template**, a **Load File** dialog will pop up. Select the template file and click **Open** to load it.
- Enter a descriptive name for new time frame.

The top screenshot shows the **Recording Schedule Settings** window. It features a 'Schedule List' dropdown menu set to 'Default Schedule'. Below it is a 'Time Frame List' table with one entry: 'Default Time Frame' with a 'Weekly (DayBase)' rule. To the right are 'Recording Settings' for 'None', 'Continuous' (selected), and 'Event'. At the bottom are buttons for 'Add', 'Edit', 'Delete', 'Up', and 'Down'. A green circle 'a' highlights the 'Add' button.

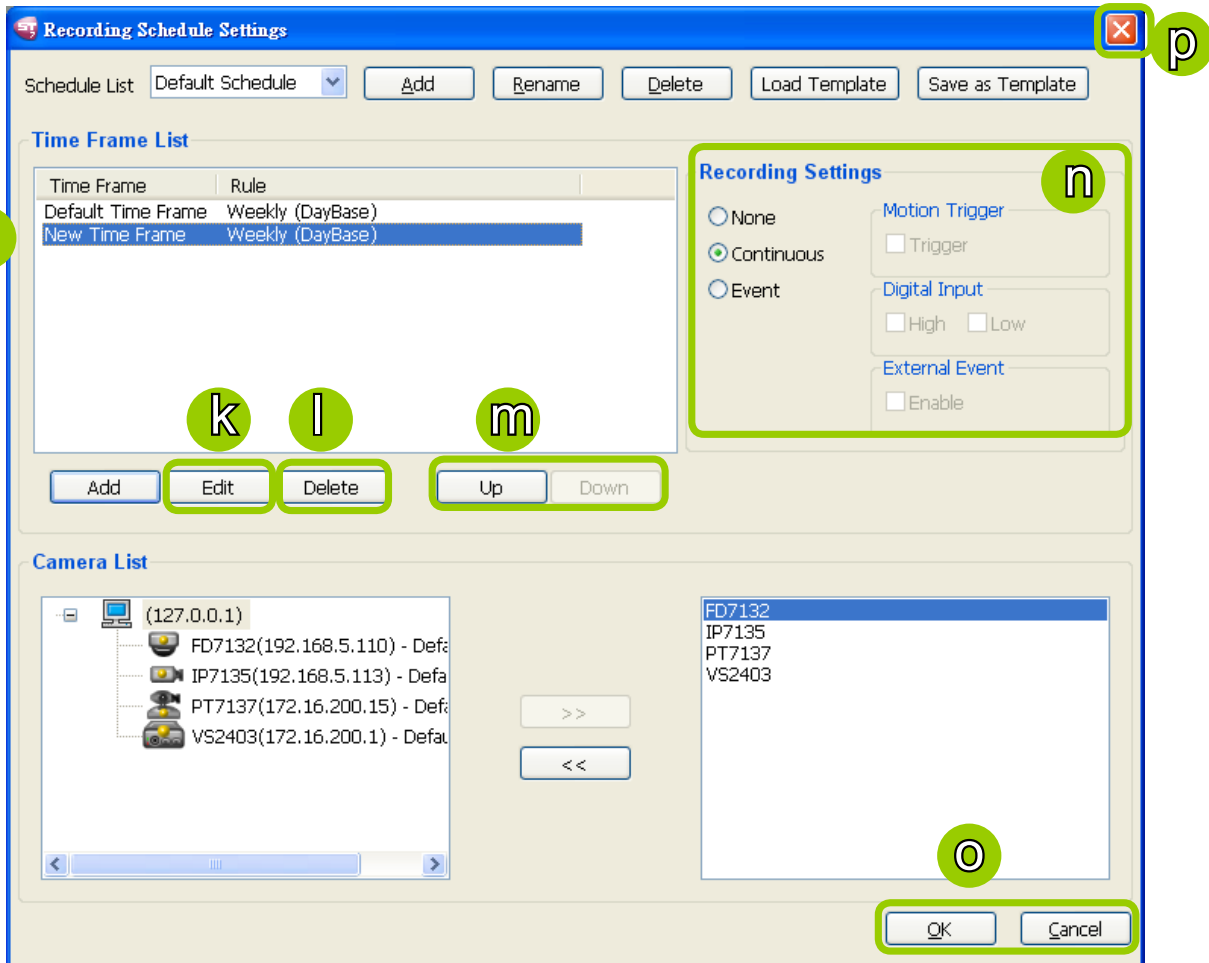
The bottom screenshot shows the **Time Frame** settings window. It has a 'Time Frame Name' input field, 'Load Template', 'Save as Template', and 'Save' buttons. The 'Repeat Frequency' is set to 'Weekly (DayBase)'. A section titled 'Weekly (DayBase)' contains a 24-hour grid (0-23) for setting recording periods. Below are 'Start Time' and 'End Time' fields with 'Add' and 'Delete' buttons. There are checkboxes for 'Repeat on' days (Sunday through Saturday). A 'Range' section includes 'Start' and 'End' date/time pickers, with 'Never Stop' selected. At the bottom, 'Repeat every' is set to '1 Week(s)'. Green circles 'b' through 'i' highlight various UI elements: 'b' on the 'Add' button, 'c' on the 'Load Template' button, 'd' on the 'Time Frame Name' field, 'e' on the 'Repeat Frequency' dropdown, 'f' on the 'Save' button, 'g' on the 'Load Template' button, and 'i' on the window's close button.



- e. To edit the new time frame, select a **Repeat Frequency** (Weekly-DayBase or Weekly-WeekBase) on the drop-down list and edit time segments, applying days, applying time range, and repeat time interval. For the detailed settings of each repeat frequency, please refer to The Concept of Repeat Frequency on page 47.
- f. Click **Save** to enable the settings.
- g. If you want to save this time frame as a time-frame template for future use, click **Save as Template**. A **Save file** dialog will pop up for you to save the template.



- h. If you want to add more time frames to a schedule, repeat above steps.
- i. Close the window when you finish the time frame settings.
- j. Back to the Recording Schedule Settings window, the new time frame will show up in Time Frame List.
- k. If you want to edit an existent time frame, select it on the Time Frame List and click **Edit** to set up.
- l. If you want to delete an existent time frame, select it on the Time Frame List and click **Delete**.
- m. If you want to change the priority of a time frame, select it on the Time Frame List and click **Up** or **Down** to shift its position. The time frame on the top of the list would have the highest priority.



- n. Select a Recording Mode for the time frame. There are three options: **None**, **Continuous**, and **Event**.
 - None**: No recording action.
 - Continuous**: Endless recording.
 - Event**: Start recording for **20 seconds** if event triggers. There are two kinds of event sources:
 - Motion Trigger**: Select **Trigger** to enable motion trigger
 - Digital Input**: Select **Rising/Falling** for low-to-high/high-to-low digital input signals.
- o. Click **OK** to confirm the settings or **Cancel** to discard the settings.
- p. Close the window when you finish the recording schedule settings.

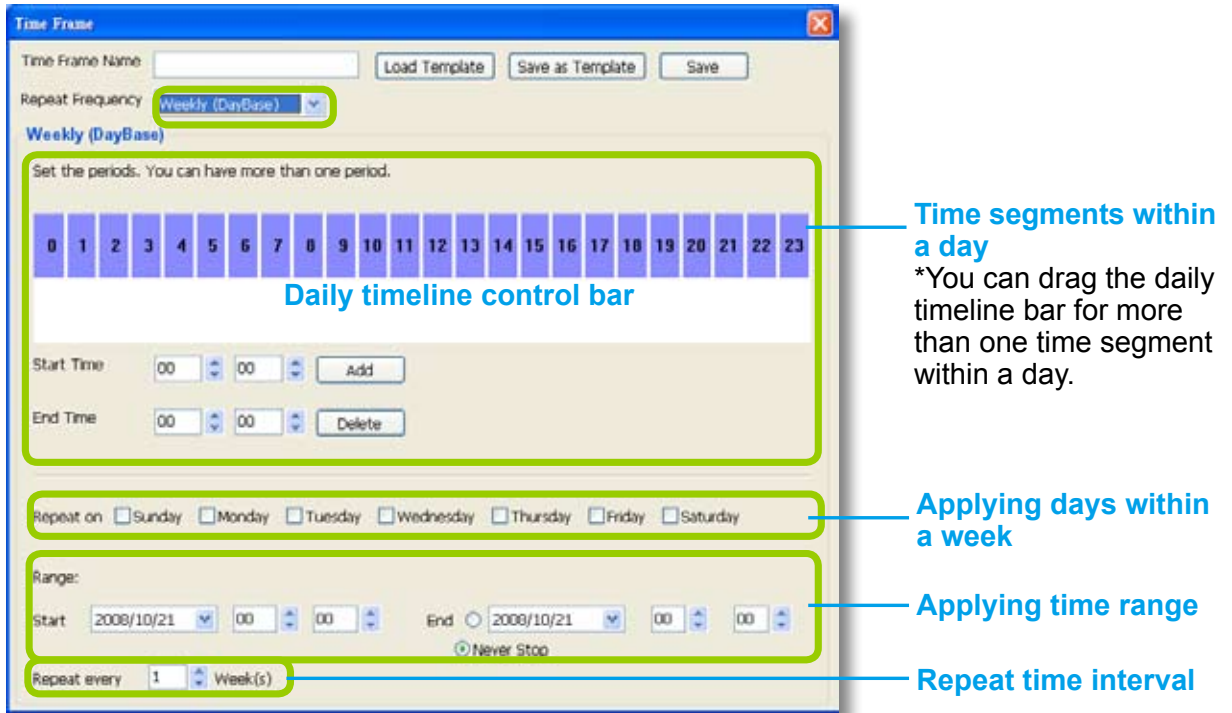
The Concept of Repeat Frequency

ST7501 free-bundled version offers two kinds of repeat frequency--**Weekly (DayBase)** and **Weekly (WeekBase)**. The meaning of each type is listed in the following table.

Repeat Frequency	Meaning
Weekly (DayBase) (Default Time Frame)	<ul style="list-style-type: none"> ■ Specify arbitrary time segments within a day, ■ Apply only on selected days of a week, ■ Repeat the segments every N weeks in the specified time range
Weekly (WeekBase)	<ul style="list-style-type: none"> ■ Specify arbitrary time segments within a week, ■ Repeat the segments every N weeks in the specified time range

Repeat Frequency: Weekly (DayBase)--Set up time segments within a day

To set up Weekly (DayBase) repeat frequency, please configure the following items: Time segments within a day, Applying days within a week, Applying time range, and Repeat time interval.



Time segments within a day
*You can drag the daily timeline bar for more than one time segment within a day.

Applying days within a week

Applying time range

Repeat time interval

Set up time segments within a day

You can specify several time segments within an day. The number 0~23 on the **daily timeline control bar** (the purple rectangles) means 24 hours a day.

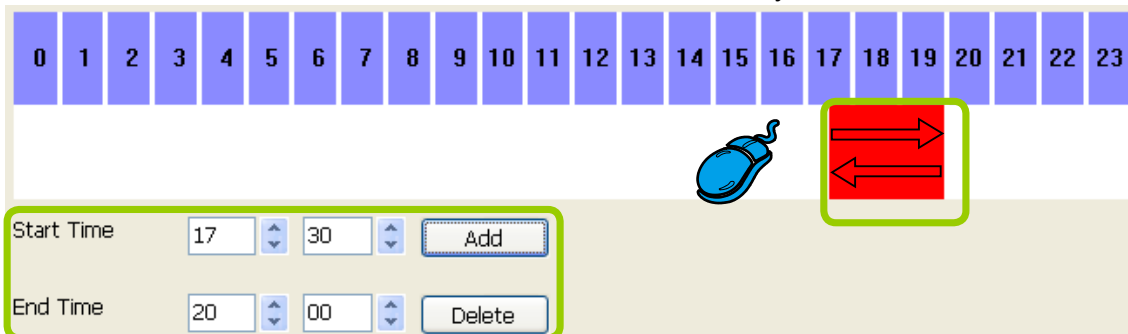
There are two ways to set up time segments: one is to use the computer mouse to draw timeline bars; the other is to enter the precise start and end time value in the corresponding fields.

Add time segments: Choose either step 1 or step 2 to set up

1. Use mouse to roughly drag timeline bars: **Left-click** on the white area under the **daily timeline control bar** and drag the mouse. The red timeline bars representing new time segments will appear. You can drag many time segments within a day.

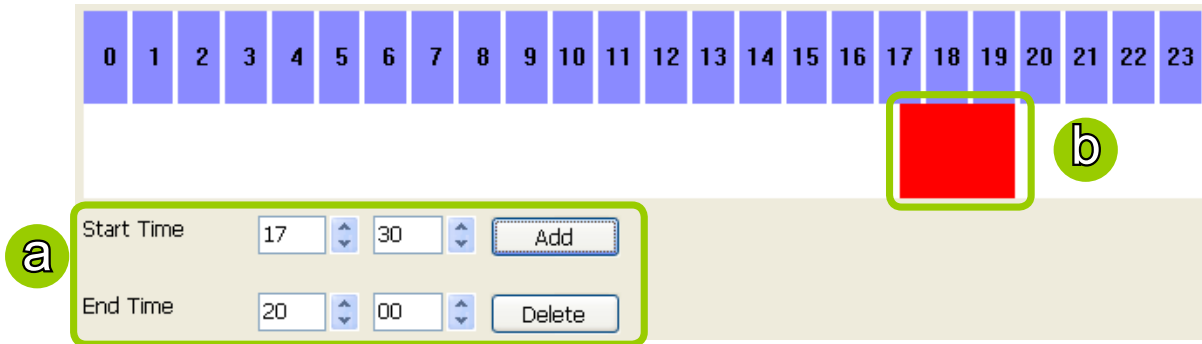
In the following illustrator, the red arrows show the dragging direction of the mouse. You can drag it from left to right or from right to left. Click the red timeline bar, the corresponding time segment will also show up in the Start Time and End Time fields.

Note that if you want to set up a time frame precisely, please click the red timeline bar and manually adjust its Start Time and End Time, and then click **Add** to modify it.



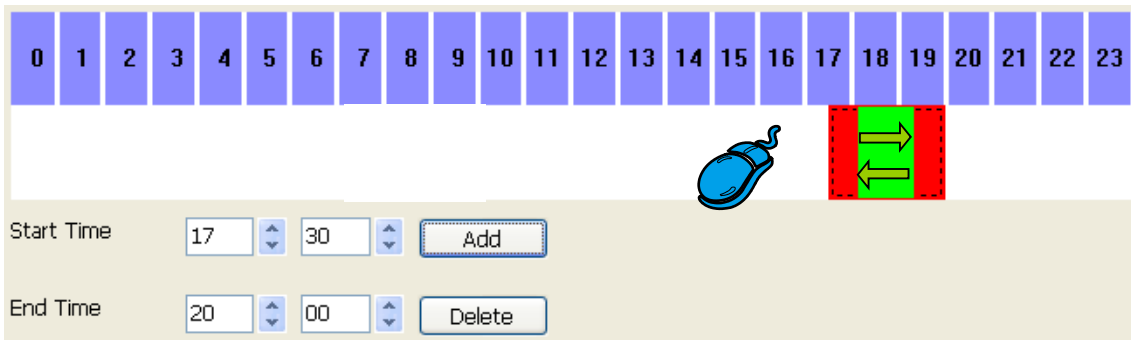
2. Enter precise Start Time and End Time:

- a. Directly enter the value in Start Time and End Time fields, and then click **Add**.
- b. The corresponding timeline bar will automatically show up.



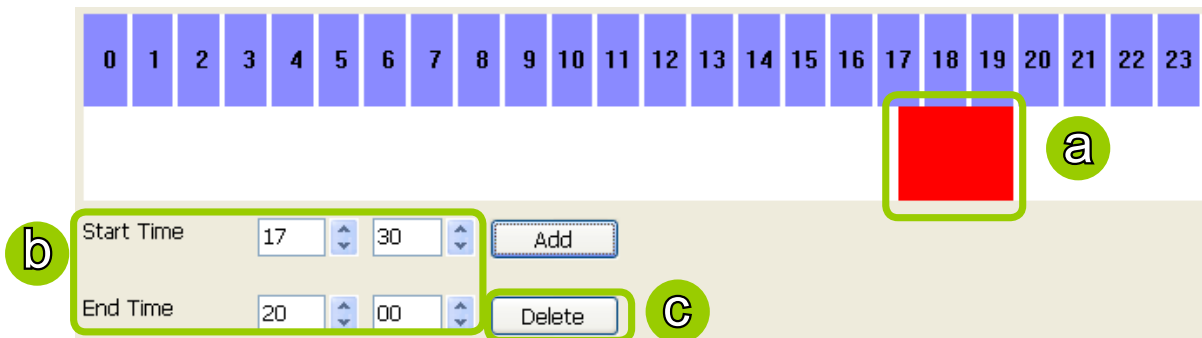
Delete time segments: Choose either step 1 or step 2 to set up

- 1. Use mouse to roughly erase the timeline bar: **Right-click** on an existing timeline bar and drag the mouse. A green timeline bar representing the deleted part of a time segment will erase the red timeline bar. In the following illustrator, the green arrows show the dragging direction of the mouse. You can drag it from left to right or from right to left.



2. Use delete button to remove the whole timeline bar:

- a. Click an existing timeline bar.
- b. The corresponding time segment will show up in the Start Time and End Time fields.
- c. Click **Delete**, the selected timeline bar will disappear.



Set up applying days within a week

For repeat frequency--"Weekly-day", you can apply the time segments only on selected days of a week. In the following example, only Sunday and Saturday are selected in the time frame.



Set up applying time range

For all kinds of repeat frequency, you can set up the applying date and time range for the time frame. Specify the start date and time in **Start** field; specify the end date and time in **End** field if you have an end time for applying this time frame.

A calendar date-picker will appear when you click on the **date** drop-down list. Click or to select the month, and then pick a desired day in the calendar.

If you do not have a terminating time for this time frame, select **Never** in **End** field.

Set up repeat time interval

The applying time intervals for repeat frequency "Weekly-day" and "Weekly-period" is "by every N weeks" as below. Repeat every 1 week means the time frame would apply for every week within the time range.

For repeat frequency "Weekly-day" and "Weekly-period"

Repeat Frequency: Weekly (WeekBase)--Set up time segments within a week

To set up Weekly (WeekBase) repeat frequency, please configure the following items: Time segments within a week, Applying time range, and Repeat time interval.

Time segments within a week

*You can drag the timeline bar for more than one time segment within a week.

Applying time range

Repeat time interval

Set up time segments within a week

You can specify several time segments within a week. The **weekly timeline control bar** (the purple rectangles) means 7 days a week, and the **daily timeline control bar** means 24 hours a day. The daily timeline control bar is only valid if one of the days on the weekly timeline control bar has been selected.

There are two ways to set up time segments: one is to use the computer mouse to draw timeline control bars; the other is to enter the precise start and end time value in the corresponding fields.

Add time segments: Choose either step 1 or step 2 to set up

1. Use mouse to roughly drag timeline bars:

- a. Click a day on the **weekly timeline control bar**. The selected bar will turn into green color.
- b. **Left-click** on the white area under the **daily timeline control bar** and drag the mouse. You can drag more than one time segment within a day. In the following illustration, the red arrows show the dragging direction of the mouse. You can drag it from left to right or from right to left.
- c. The red timeline bars representing new time segments will also appear under the **weekly timeline control bar**.
- d. Click a red timeline bar under the **weekly timeline control bar**, the corresponding time segment will also show up in the Start Time and End Time fields.

Note that if you want to set up a time frame precisely, please click the red timeline bar and manually adjust its Start Time and End Time, and then click **Add** to modify it.

The screenshot illustrates the first method of setting up time segments. At the top, the weekly timeline control bar shows days from Sun to Sat. 'Mon' is selected, highlighted in green. Below it, the daily timeline control bar is a white bar with a 24-hour scale (0-23). Red arrows labeled 'b' indicate dragging directions. A red timeline bar is shown under the weekly bar, labeled 'c'. Below this, the Start Time and End Time fields are populated with 'Friday 17 31' and 'Monday 20 08' respectively, labeled 'd'. Buttons for 'Add' and 'Delete' are visible.

2. Enter precise Start Time and End Time:

- a. Directly select a day and enter the value in Start Time and End Time fields, and then click **Add**.
- b. The corresponding timeline bars will automatically show up.

Following shows an example of a long-term time segment from Mon. 8:00 to Wed. 9:00:

The screenshot illustrates the second method of setting up time segments. The weekly timeline control bar has 'Mon' selected. The Start Time field is set to 'Monday 08 00' and the End Time field is set to 'Wednesday 08 00', labeled 'a'. The corresponding red timeline bars are shown under the weekly bar, labeled 'b'.

If you click on the weekly timeline control bar, the corresponding time segment on the selected day will show up accordingly:



Delete time segments: Please refer to page 49 for detailed illustration.

Set up applying time range

Please refer to page 50 for detailed illustration.

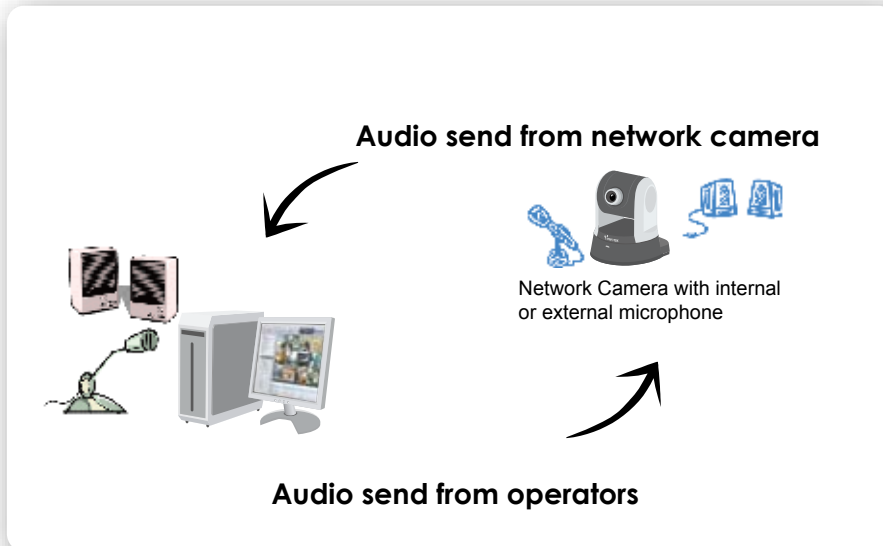
Set up repeat time interval

Please refer to page 50 for detailed illustration.

How to Use Talking Panel

ST7501 LiveClient supports two way audio function which allows the user to communicate with people around the network camera.

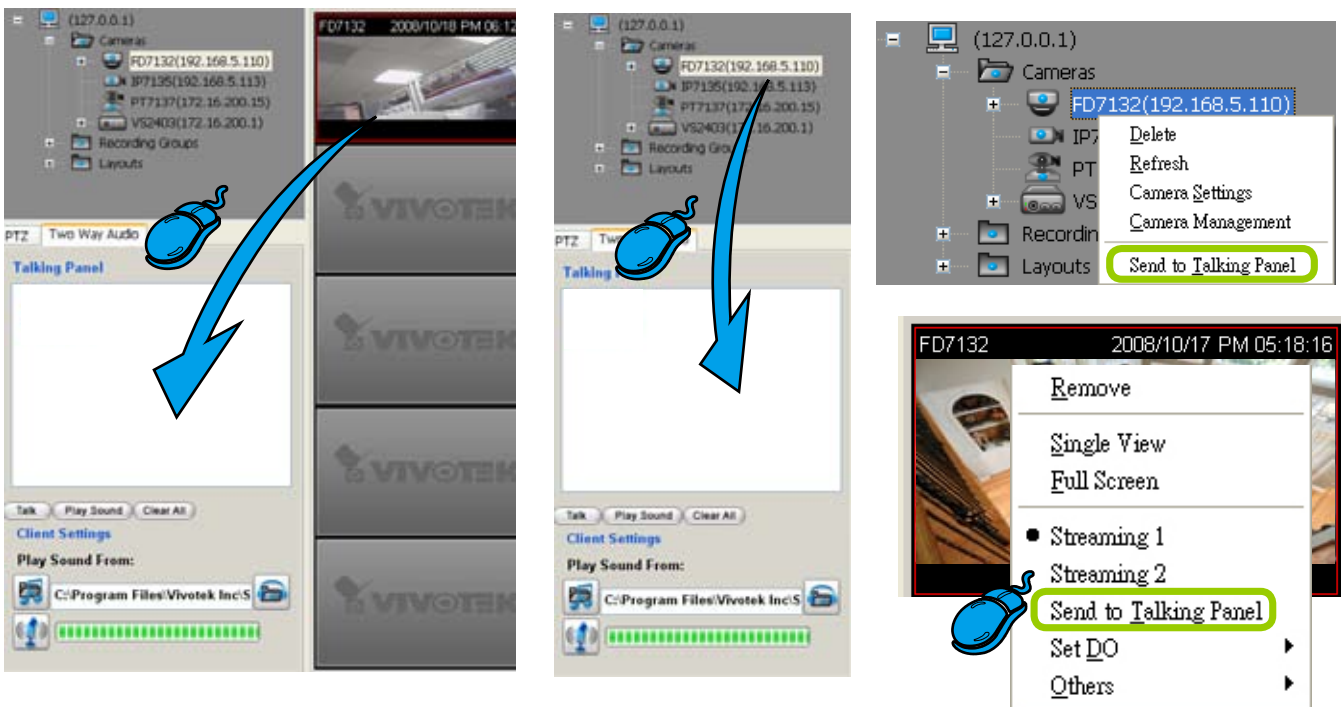
Following is the illustration of two way audio function:



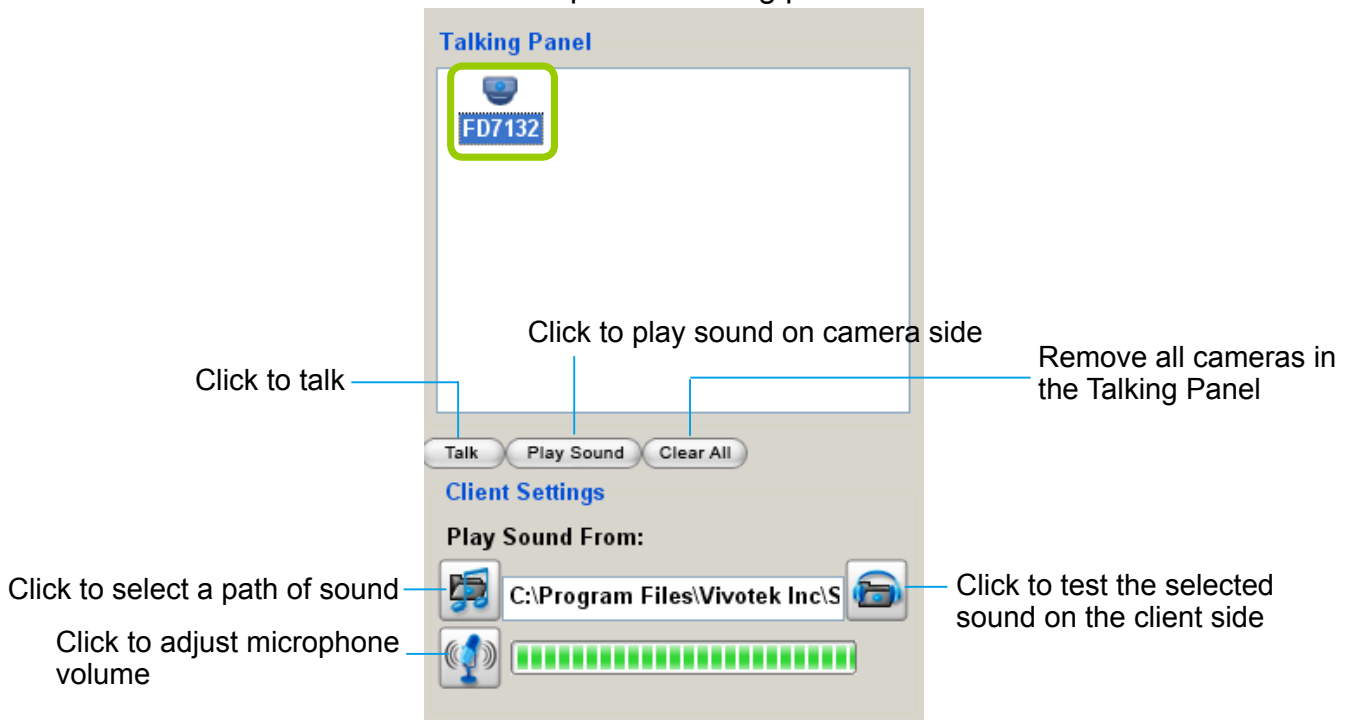
Add Camera to the Talking Panel

- There are several ways to insert a Network Camera to the talking panel:

Drag-and-drop a camera from the video cell or from the device tree to the talking panel as below. You also can **right-click** the target camera or the video cell, and then click **Send to Talking Panel** on the pop-up menu.



- An icon with camera name will show up in the talking panel.



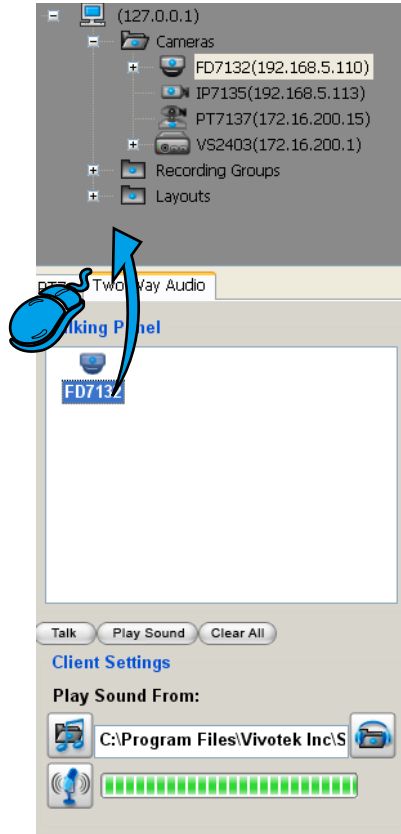
- Please note that you cannot **Talk** and **Play Sound** at the same time.
- When you are talking or playing sound, you cannot add other cameras to the talking panel. If you want to add more cameras to the talking panel, please click **Stop** and **Stop Playing** first.



Remove Camera from the Talking Panel

■ Remove a camera

Drag-and-drop a camera from the talking panel to the device tree as below. The camera icon will disappear.

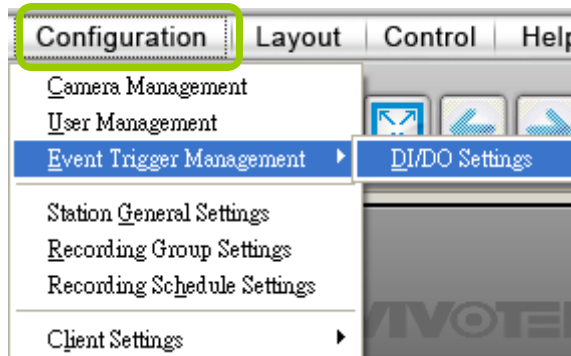


■ Remove all cameras

Click **Clear All** , all cameras in the talking panel will be removed.

How to Manage Event Trigger

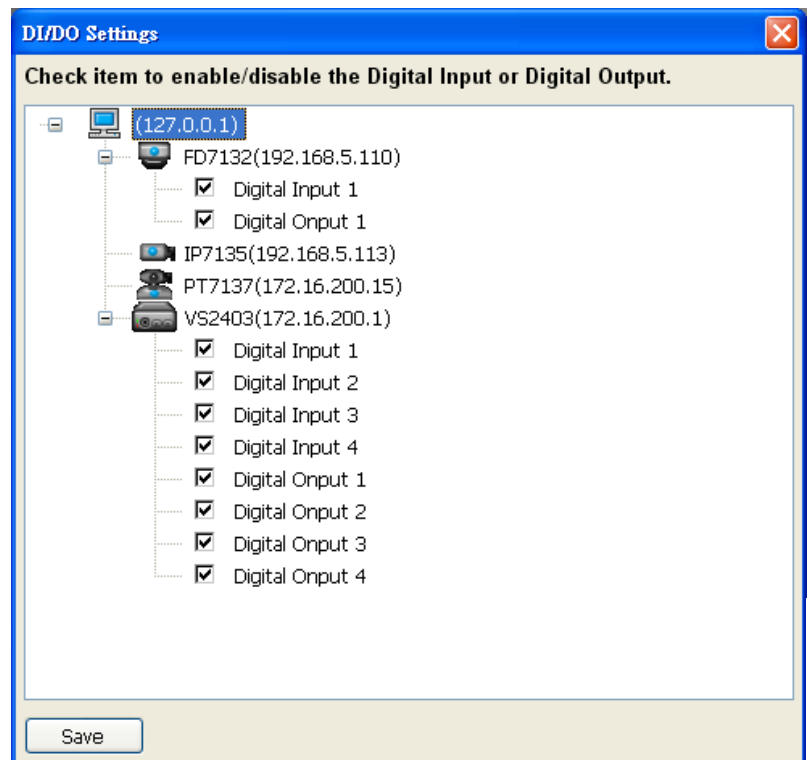
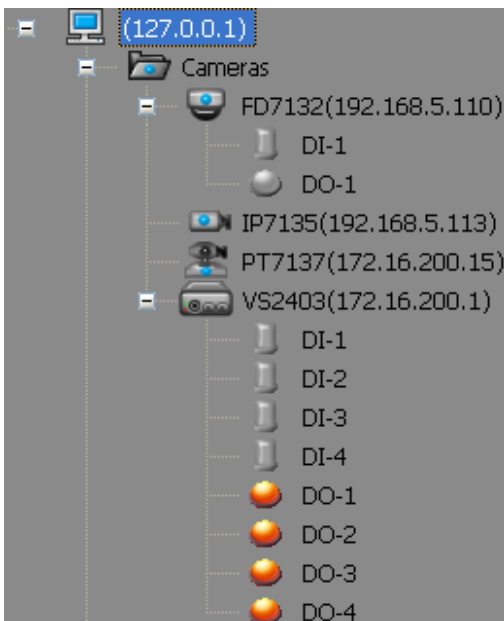
ST7501 LiveClient supports event trigger management which allows the user to configure DI/DO settings of linked network cameras.



DI/DO Settings

Please follow the steps below to configure snapshot settings:

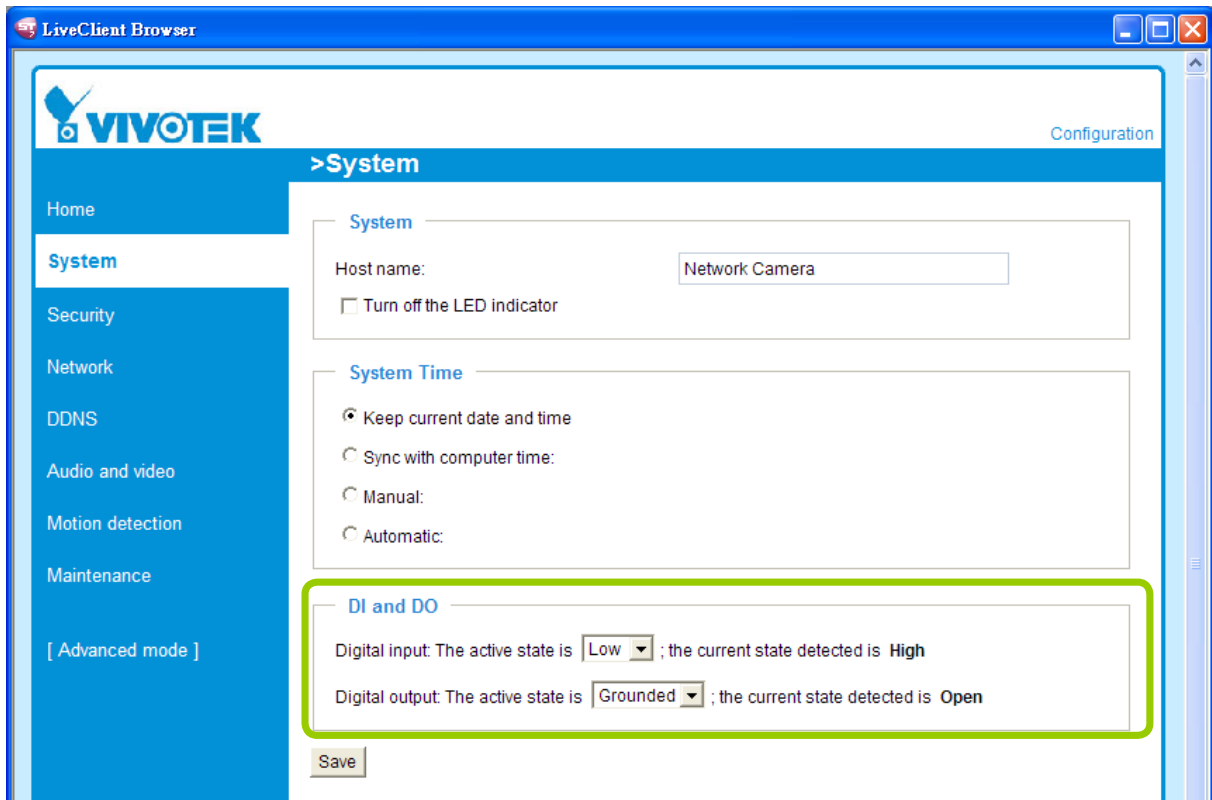
- a. Click **Configuration > Event Trigger Management > DI/DO Settings** on the menu bar to open the **DI/DO Settings** window.
- b. Check or uncheck the items to enable/disable the DI/DO function of linked network cameras. The items you've checked will show up in the device tree.



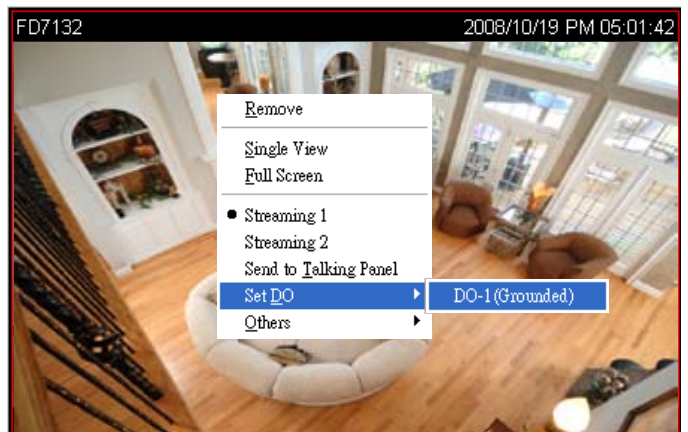
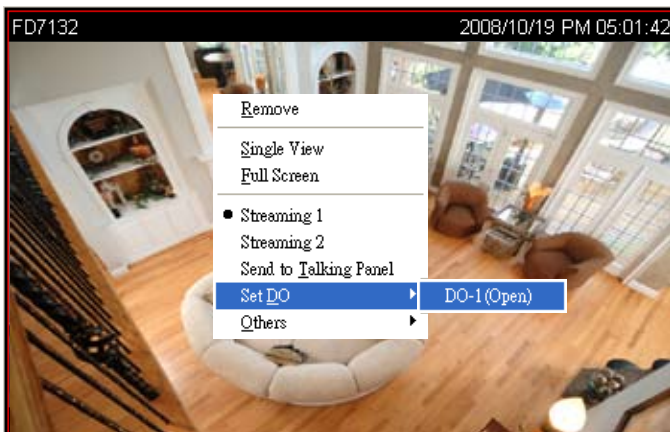
- c. Click **Save** to enable the settings.



- Before you configure DI/DO Settings on ST7501, please make sure you have linked your network camera or video server to the DI/DO devices, and set up correctly on the camera configuration page.

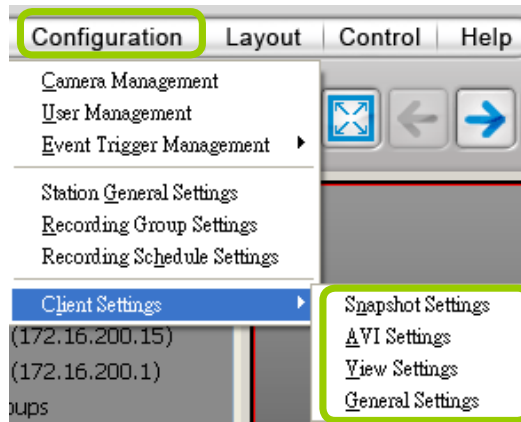


- You also can **right-click** the video cell, and then select **Set DO** to enable (**Grounded**) or disable (**Open**) the digital output of the linked device.



How to Configure Client Settings

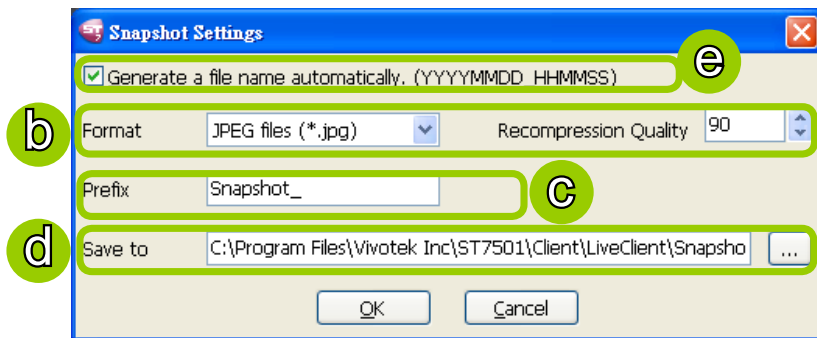
In Client Settings, you can configure Snapshot Settings, AVI Settings, View Settings, and General Settings. It allows you to save snapshots and AVI files on "local computer (client side, not server side)."



Snapshot Settings

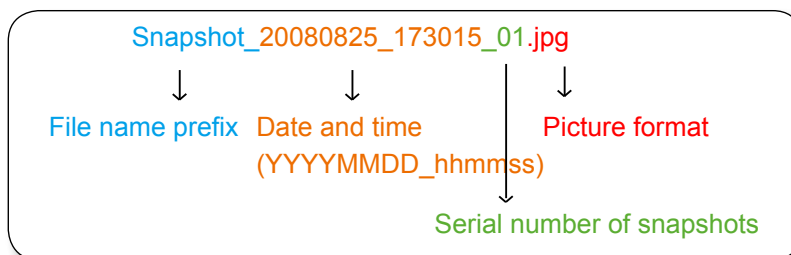
Please follow the steps below to configure snapshot settings:

- Click **Configuration > Client Settings > Snapshot Settings** on the menu bar to open the **Snapshot Settings** window.
- Select a picture format for snapshots (**BMP** or **JPEG**). If you select **JPEG** format, you can adjust the value of recompression quality (from 1 to 100). Note that higher value would generate higher picture quality but lower compression rate.
- Enter a descriptive Prefix for the filenames of snapshots.
- The default storage path for snapshot is C:\Program Files\Vivotek Inc\ST7501\Client\LiveClient\Snapshot. If you want to change the storage path, click **Browse ...** to select another folder.

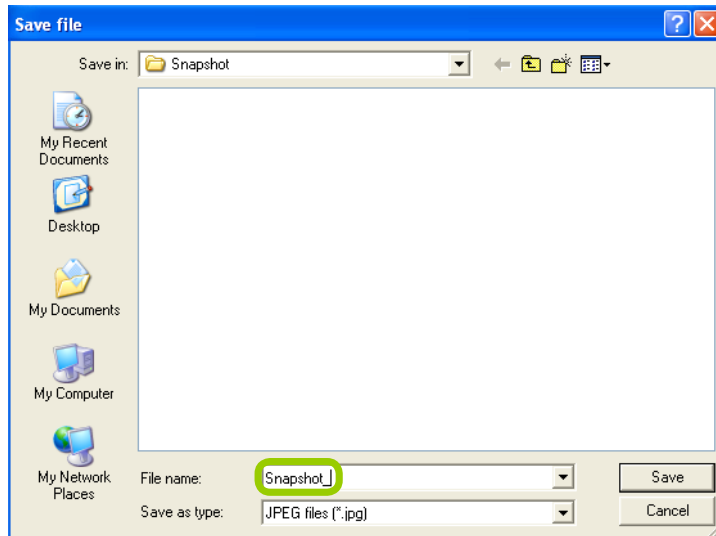


The recompression quality is only enabled in MPEG-4 streaming. If your stream source is MJPEG, the system will directly save the JPEG image without recompression.

- If you check **Generate a file name automatically**, ST7501 will directly save snapshots with filename in the following format to the storage folder.




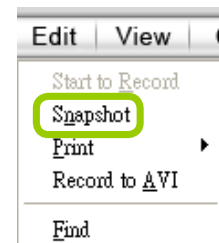
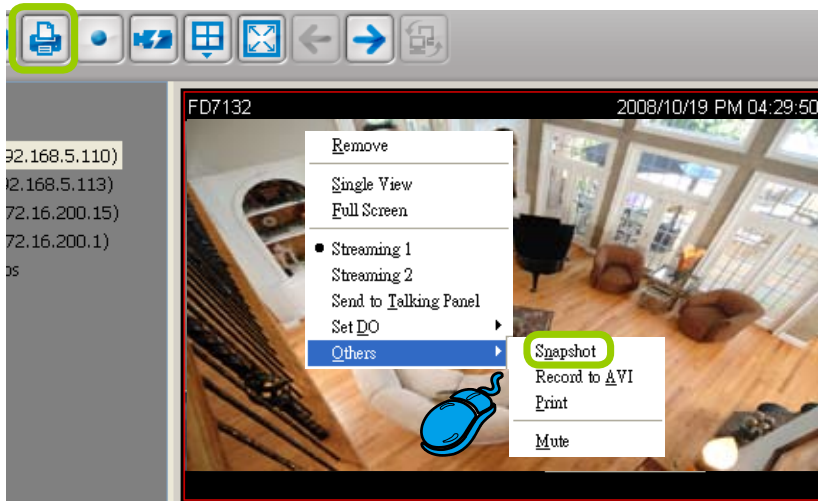
If you uncheck **Generate a file name automatically**, a **Save file** dialog will pop up when you take a snapshot. And the file name prefix will automatically show up in the Save File dialog.



Take a Snapshot

Please follow the steps below to take a snapshot of live video:

- a. Select a video cell you want to take a snapshot.
- b. Click **Snapshot**  on the quick access bar, or **right-click** the video cell and select **Others > Snapshot** in the pop-up menu. You also can click **Edit > Snapshot** to take a snapshot.



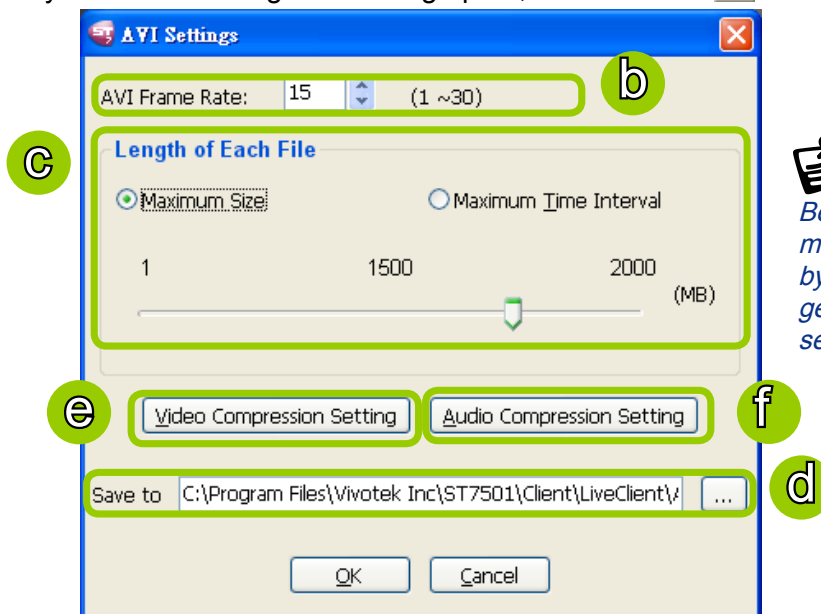
- c. The snapshots will be found in the storage folder on your local computer according to the snapshot settings.

AVI Settings

While you monitor a live video, the **Record to AVI** function allows you to record the live video in AVI format to your storage folder.

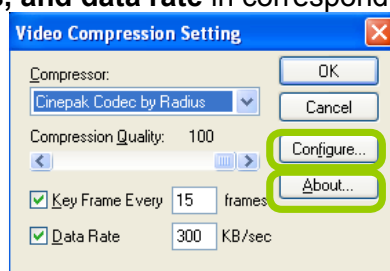
Please follow the steps below to configure AVI converting and exporting settings:

- Click **Configuration > Client Settings > AVI Settings** on the menu bar to open the **AVI settings** window.
- Edit the value of AVI frame rate (frame number per second).
- Select Length of AVI file-- **Maximum Size** (1~2000MB) or **Maximum Time interval** (1~150 min).
- The default storage path for AVI exporting is C:\Program Files\Vivotek Inc\ST7501\Client\LiveClient\AVI. If you want to change the storage path, click **Browse** ... to select another folder.



Because an AVI file has limitation of maximum file size not larger than 2G bytes. If the setting time length would generate data bigger than 2G bytes, several files will be generated.

- To modify the video compression settings, click **Video Compression Setting** to open the AVI Video Compression Setting window. Select the desired **video compression algorithm, compression quality, intervals, and data rate** in corresponding fields.

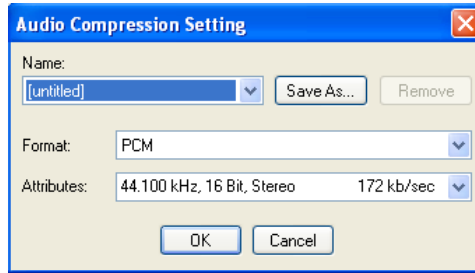


If you do not compress the video, the generated AVI file would be very large.

- To modify the settings of a compression algorithm, click **Configure**, a dialog will then pop up for you to modify the settings. The settings dialog is different from different compression.
- To see the information of a compression algorithm, such as its version, click **About**, a dialog will then pop up showing the related information. The settings dialog is different from different compression.




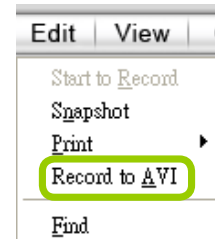
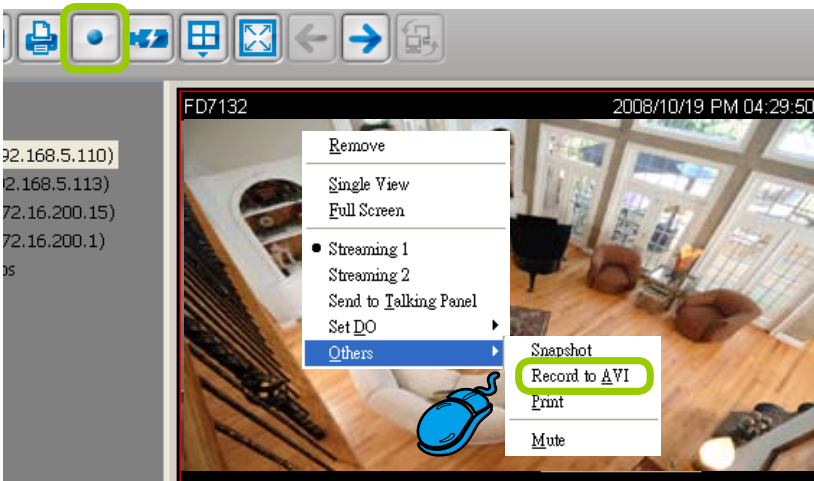
- f. To modify the audio compression settings, click **Audio Compression Setting** to open the AVI Audio Compression Setting window. Select the desired **audio quality, format, and attributes** in the corresponding fields.





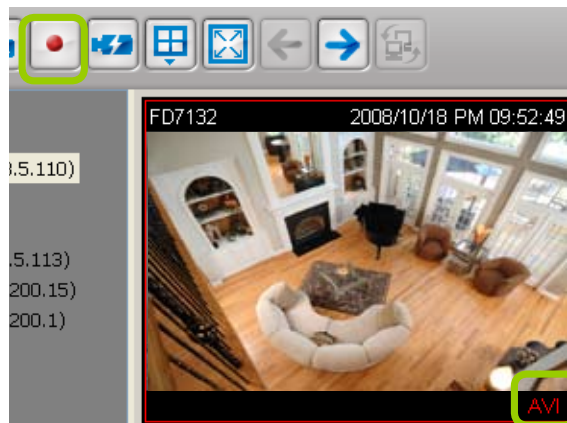
Record an AVI File

Please follow the steps below to record an AVI file of live video:

- Select a video cell you want to record an AVI file.
- Click **Record to AVI**  on the quick access bar, or **right-click** the video cell and check **Record to AVI** in the pop-up menu. You also can click **Edit > Record to AVI** on the menu bar.

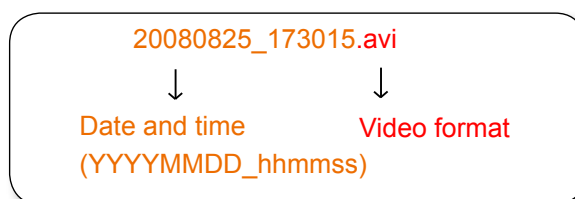


- The icon of **Record to AVI**  will then turns into **Recording AVI** , and a red AVI text string (**AVI**) will show at the right-bottom of the video cell. Note that only one video channel can be exported at a time.



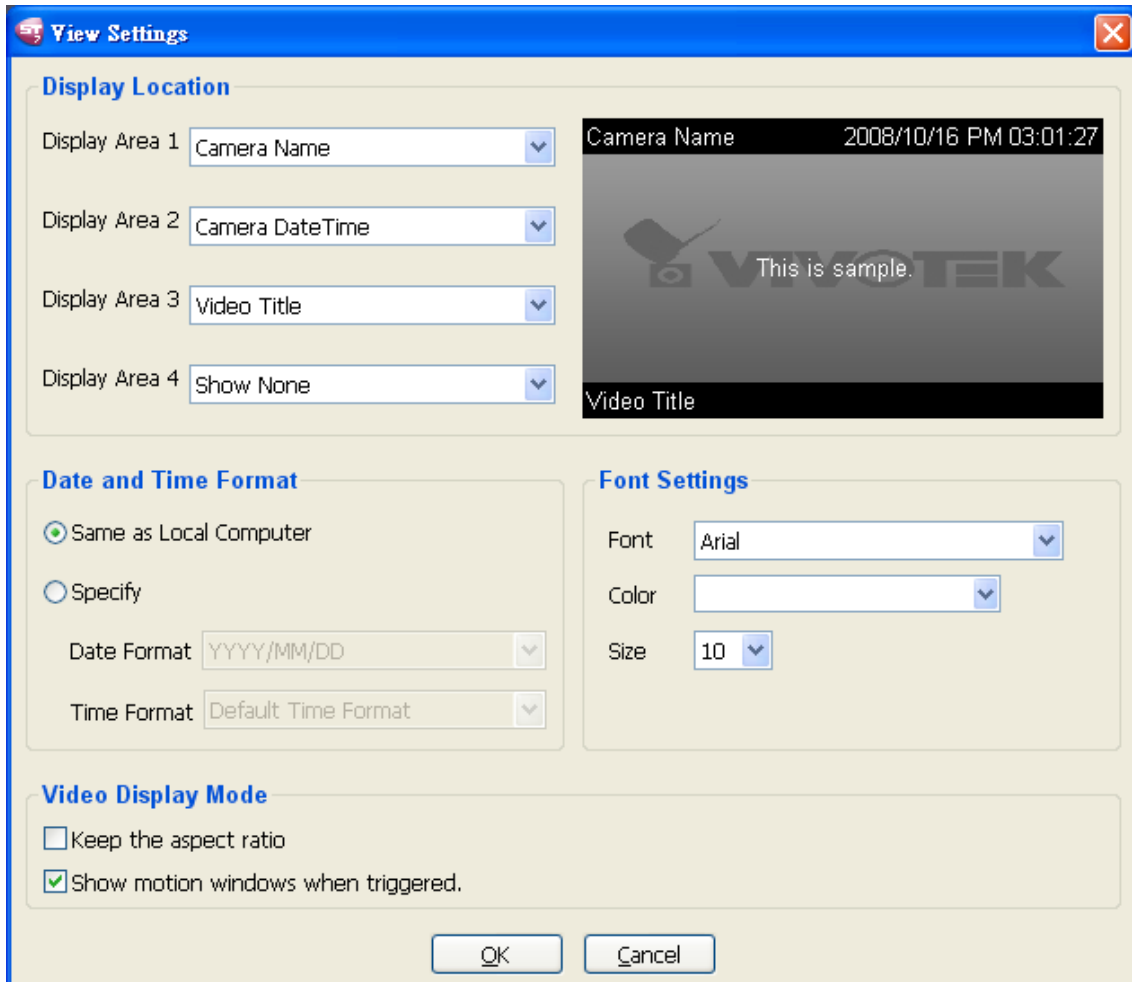
- When you want to terminate the AVI Recording, click **Recording AVI**  on the Quick Access Bar. The exporting process will then terminate and the button will change from  to . The exported AVI files can be found in the storage folder on your local computer according to the AVI settings.

Below is the file format of AVI files:

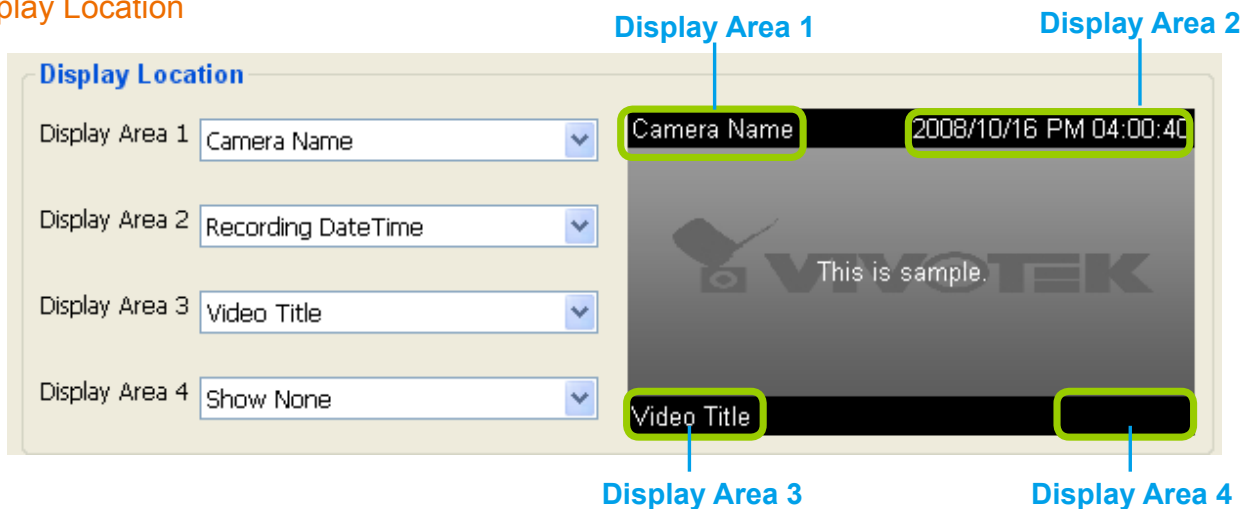


View Settings

This section allows you to set up the display mode of video cell, including **Display Location**, **Date and time Format**, **Video Display Mode**, and **Font Settings**. When you change the settings, the sample window will change accordingly for you to preview the settings.



Display Location



As the illustration shows, there are 4 display areas for you to put the information about the live video. Each drop-down list includes 6 options for you to select: **Show None**, **Camera Name**, **Video Title**, **Camera Date**, **Camera Time**, and **Camera DateTime**.

Date and time Format

- Same as local computer: Select this option, the date and time format will sync with the settings in the locale panel of your computer.

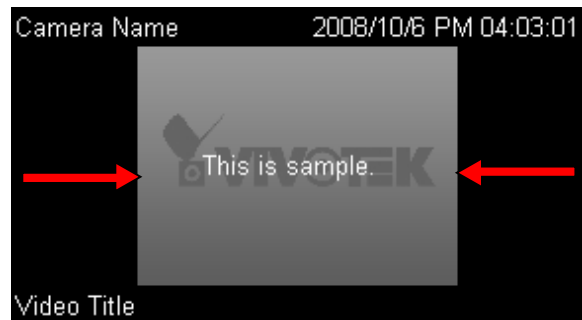
- Specify: Select a desired format for date and time on the drop-down list.

Date format: Select YYYY/MM/DD or MM/DD/YY

Time format: Select default Time Format (sync with the settings in the locale panel of your computer), 12h AM/PM, or 24h.

Video Display Mode

- Keep the aspect ratio: In default settings, the size of video cells will change according to the layout of the monitoring window you choose. However, the frame size may be distorted. If you check **Keep the aspect ratio**, the video cell will be adjusted to the right frame size as the sample window shows. This function is disabled in default setting.



- Show motion window when triggered: If you check this item, the red frame of motion detection window will show up in the video cell when motion triggered. This function is enabled in default setting.

For detailed information about how to set up the layout of the monitoring window, please refer to **How to Change Video Viewing Mode** on page 26.

Change the Layout of Live Video Monitoring Window

Font Settings

This function allows you to change the font on video cell.

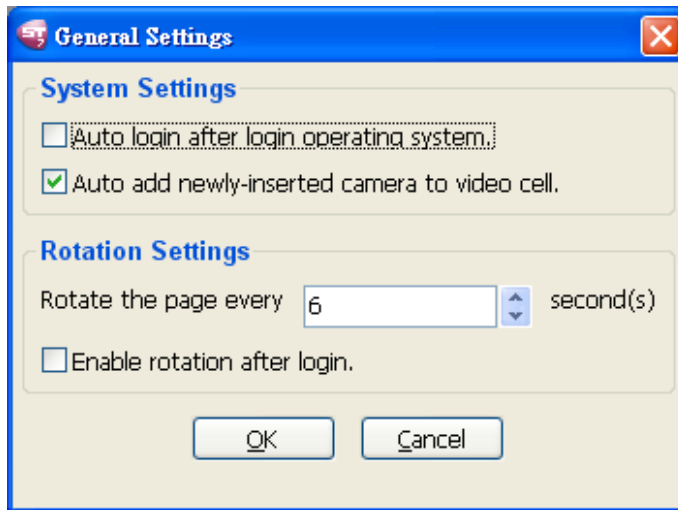
- Font: It will automatically list all fonts installed on your computer. Select a desired one.

- Color: Select a desired font color (white, red, green, blue).

- Size: Select a desired font size (8, 10, 12, 14).

General Settings

This section allows you to configure **System Settings** and **Rotation Settings**.



System Settings

- Auto login after login operation system: If you check this option, ST7501 LiveClient will automatically login after you login Windows without entering the user name and password. The default setting of this function is disabled.
- Auto add newly-inserted camera to video cell: If you check this option, ST7501 LiveClient will automatically add newly-inserted device to video cell. The default setting of this function is enabled.

Rotation Settings

- Rotate the page every second(s): Enter a desired time interval for rotation of video pages. The maximum value is 99 seconds. The default value is 6 seconds.
- Enable rotation after login: If you check this option, the video cells will start to rotate after you login LiveClient. The default setting of this function is disabled.

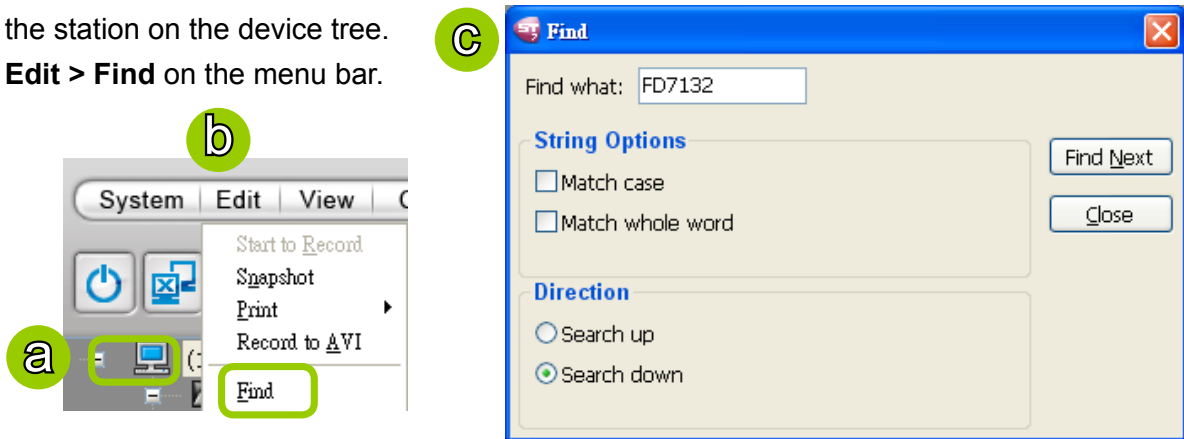
For detailed information about how to set up the layout of the monitoring window and rotation function, please refer to **How to Change Video Viewing Mode** on page 26.

How to Search for a Device on the Device Tree

This function is very convenient for you to quickly search for an inserted device, especially when you insert many devices.

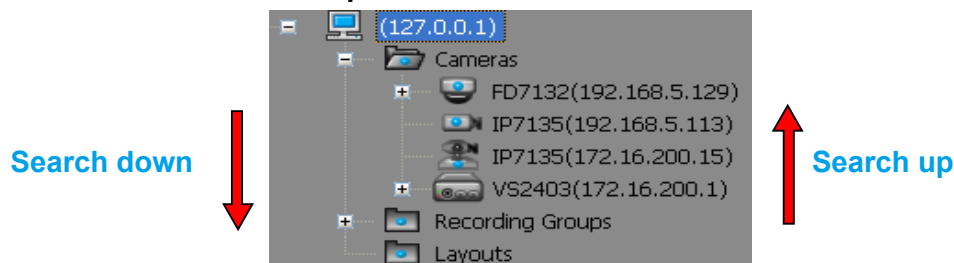
Please follow the steps below to find a device on the camera list:

- a. Click the station on the device tree.
- b. Click **Edit > Find** on the menu bar.

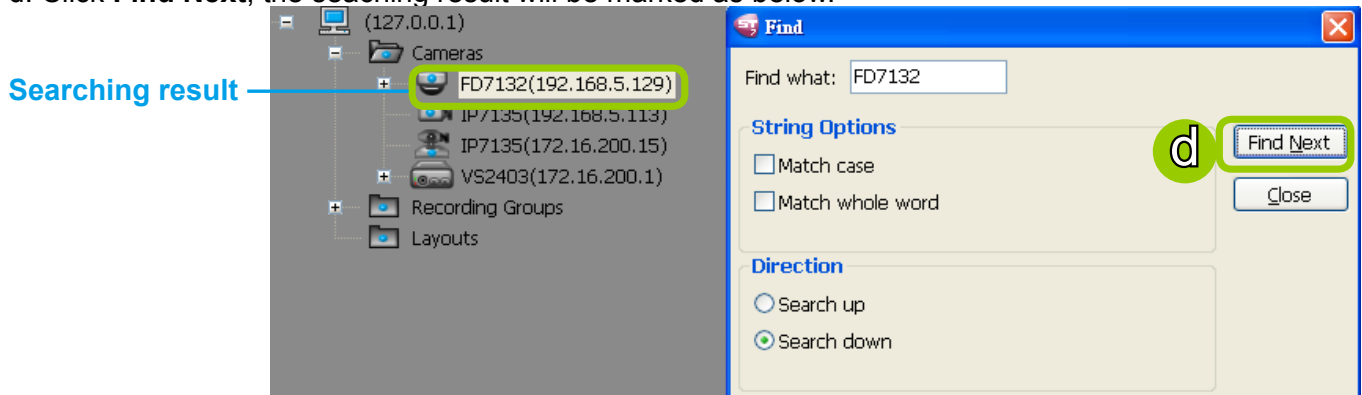


- c. The **Find** window will pop up for you to set up your searching criteria.

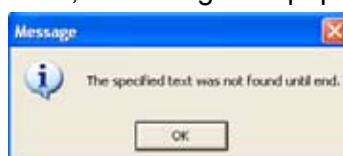
- Find what: Enter a descriptive string in the blank. The string can be the full or partial name of the device you want to search.
- String Options: **Match case** means that the searching result should be identical to the string in lower-case or upper-case letters, and the string can be part of a word. **Match whole word only** means that the searching result should be identical to the string in every characters, and the string should be a complete word or phrase. If you select both items, the searching result should conform to all criteria listed above.
- Direction: Select either **search up** or **search down**.



- d. Click **Find Next**, the searching result will be marked as below.




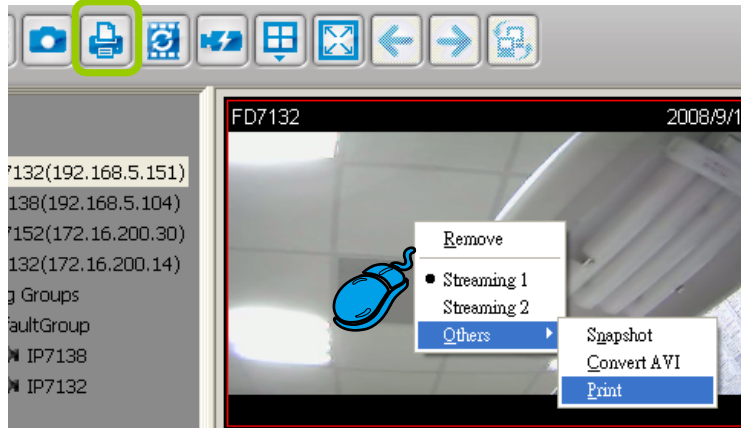
- e. If there is nothing found in the camera list, a message will pop up as below:



How to Print Out a Video Picture

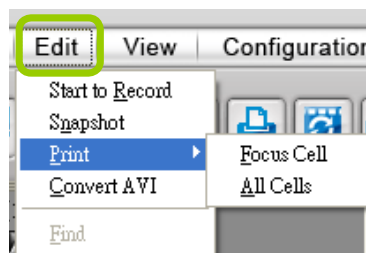
There are two ways to print out a video picture of live video:

1. Select a video cell, then click **Print**  on the quick access bar, or **right-click** the video cell and select **Print** in the pop-up menu. A Print window will pop up for you to choose the printer.






2. You also can click **Edit > Print** to print out a video picture.

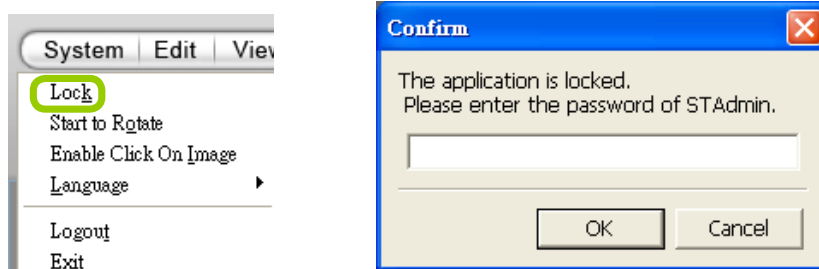
- Focus Cell: Print out a picture of the target video.
- All Cells: Print out a picture with all video cells in the monitoring window.




How to Lock LiveClient for Security Concerns

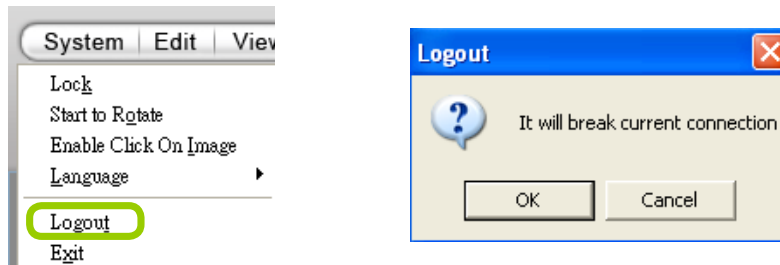
If you are to be away from your computer, for security concerns, we suggest you lock the program. When LiveClient is locked, the user must enter the correct password to unlock and reaccess the program.

- To lock LiveClient, click **Lock**  on the quick access bar or click **System > Lock** on the system menu. The icon of **Lock**  will then turns into **locked** .
- To unlock LiveClient, enter the correct password in the popup window.




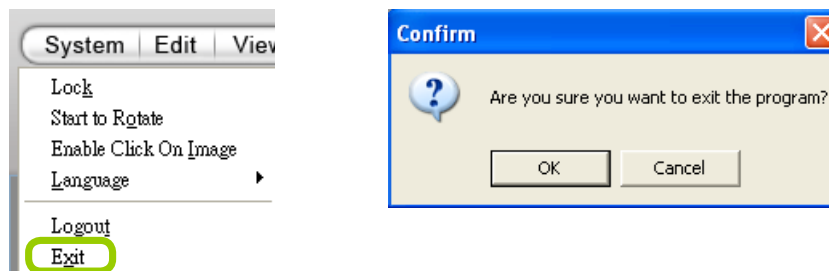
How to Logout from the Server

To logout from the current server, click **Logout**  on the quick access bar or click **System > Logout** on the menu bar. A confirmation window will pop up. Click **OK** to confirm or **Cancel** to return to the ST7501 LiveClient window.



How to Exit the Application

To exit ST7501 LiveClient, click **Exit**  on the quick access bar or click **System > Exit** on the menu bar. A confirmation window will pop up. Click **OK** to confirm or **Cancel** to return to the ST7501 LiveClient window. When you exit the program, your user account will be automatically logged out from the current server.



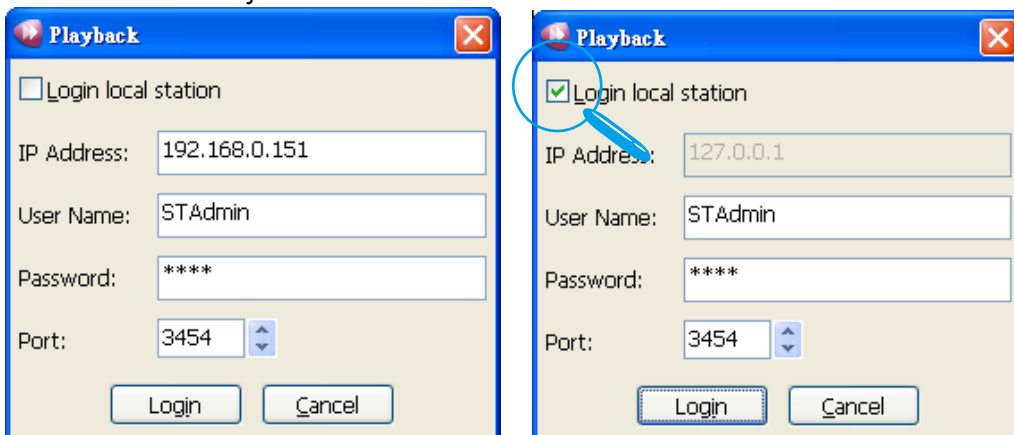
ST7501 Playback Configuration

Activating ST7501 Playback and Login to a Server

ST7501 Playback is an application that allows you to search and playback recorded media data from a ST7501 Server. Once you insert a device to the device tree of ST7501 LiveClient, it will automatically show up on the device tree of ST7501 Playback. Then you can begin to use ST7501 Playback to view recorded video clips.

After installing ST7501 Playback program, please follow the steps below to activate ST7501 Playback:

1. Run the **ST7501 Playback** program.
2. A **Login** window will pop up. Enter the blanks as below:
 - If you want to login to a remote ST7501 server, enter the **IP address**, **user name**, **password** and **communication port** of the server to login. Click **Login** to login the target server or **Cancel** to exit the system.
 - If you want to login to your local host which is currently running ST7501 server, check **Login local station** checkbox, then the local IP address will show up automatically. Enter the **username**, **password**, and **communication port** of the local server to login. Click **Login** to login the target server or **Cancel** to exit the system.

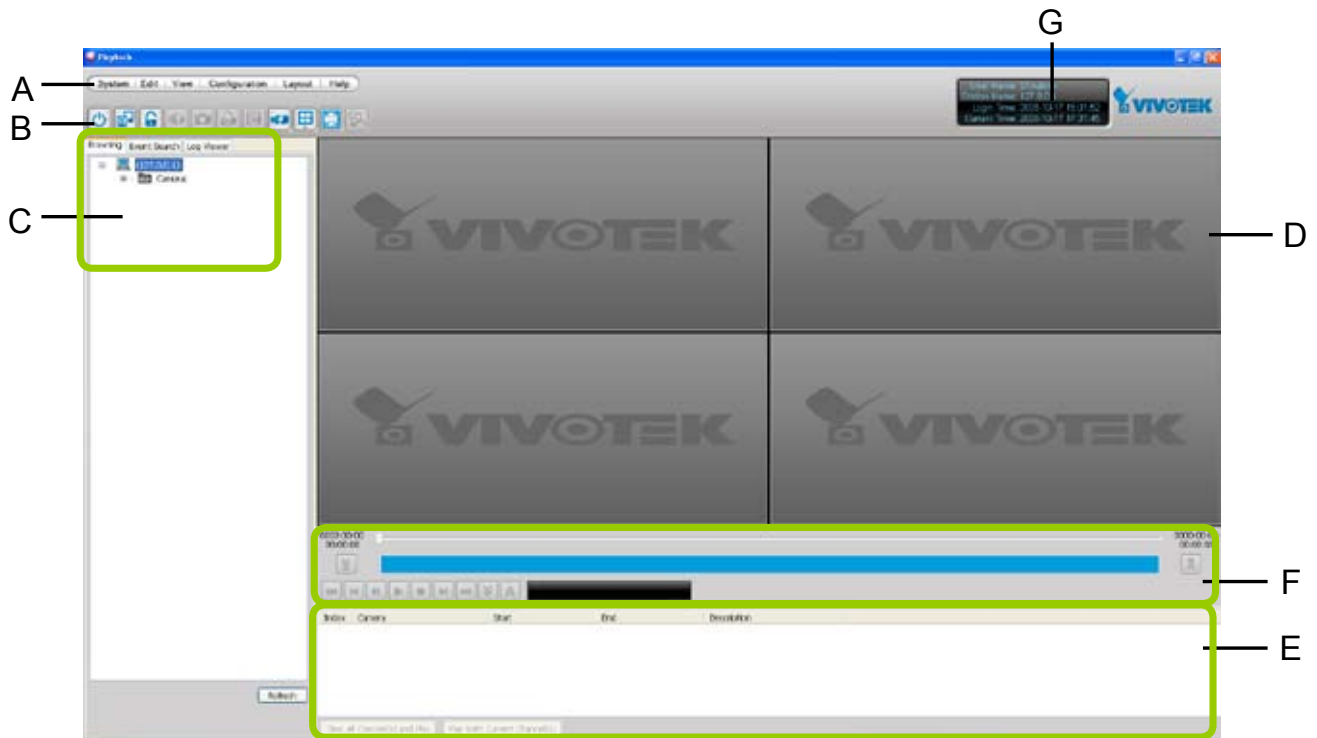


3. ST7501 Playback main window will be displayed.



Functions of the ST7501 Playback will be enabled according to the role of your login account. For more details about the privileges of the user account, please refer to How to Manage User Accounts on page 33.

User Interface of ST7501 Playback



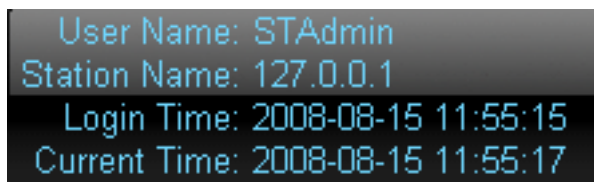
- A. Menu bar B. Quick access bar C. Query panel (Browsing/Event search/Log viewer)
 D. Recorded video playback window E. Video clips list F. Playback control panel G. Status panel

Menu Bar



Menu Item	Drop-down Options
System	Lock / Language / Logout / Exit
Edit	Snapshot / Print / Convert AVI / Find
View	Full Screen / Minimize
Configuration	Client Settings
Layout	Change Layout
Help	About

Status Panel



User Name
Station Name (IP Address)
Login Time (yyyy-mm-dd hh:mm:ss)
Current Time (yyyy-mm-dd hh:mm:ss)

Quick Access Bar



Icon	Function	Description
	Exit	Exit the system
	Logout	Logout from the current station
	Lock	Click to Lock the system for security concerns (Unlock the system)
	Audio on	Adjust the audio volume of the target video (Mute)
	Snapshot	Capture the picture of the target video
	Print	Print out the picture of the target video
	Convert AVI	Video compression in AVI format (Converting AVI)
	Remove All Connection	Remove all live videos from the live video monitoring window
	Layout	Change the layout of video monitoring window
	Full Screen	Maximize the live video monitoring window
	Switch Screen	Switch to another screen



Some buttons will be disabled if the selected devices does not support those functions.

Recorded Video Playback Window

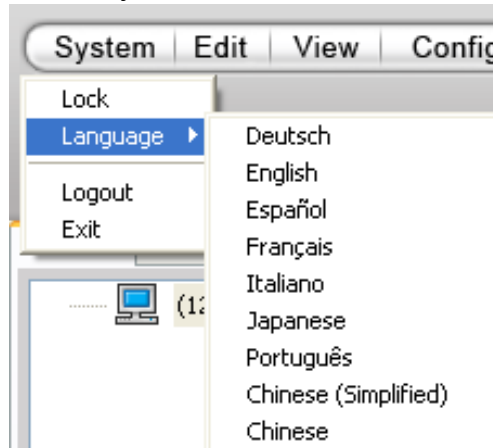
The "VIVOTEK" logo represents that no camera has been assigned to this video cell.

The red frame () represents the focused cell.



Language Selection

ST7501 current supports multi-language user interface, and language options are available in: English, Deutsch, Español, Français, Italiano, 日本語, Português, 简体中文 and 繁體中文. If you want to select other language for the interface, please click **System > Language** on the menu bar to select a desired language. Please note that if you want to change the language option, a message will remind you to restart the system.



Query Panel-- Browsing Page

Icon	Description
	A station (a computer that has installed ST7501 server)
	The camera that still exists on the device tree of LiveClient.
	The camera that has been removed from the device tree of LiveClient. However, its recorded video (if any) is still accessible.
	The date with recorded video clips.

Query Panel--Event Search Page

The screenshot shows the 'Event Search' page with the following components and callouts:

- Device Selection:** A tree view under '(127.0.0.1)' shows a 'Cameras' folder containing four sub-items: FD7132, IP7135, PT7137, and VS2403. A callout points to the '(127.0.0.1)' header with the text: "Select the devices you want to search event".
- Search Categories:** A dropdown menu is set to 'All Events'. A callout points to the dropdown arrow with the text: "Select Event Category".
- Event List:** A scrollable list of event categories including: Motion - Window 1, Motion - Window 2, Motion - Window 3, IVA - Moving Object, IVA - Loitering Detection, IVA - Camera Tampering, and IVA - Others.
- Time Zone:** A dropdown menu is set to 'GMT+08:00 Beijing, Chongqing'.
- Start Time:** A checked checkbox is followed by a date field '2008/10/17' and a time spinner '14:01:47'. A callout points to these fields with the text: "Specify search time range".
- End Time:** An unchecked checkbox is followed by a date field '2008/10/17' and a time spinner '15:01:47'. A callout points to these fields with the text: "Specify search time range".
- Search Button:** A 'Search' button is located at the bottom right. A callout points to it with the text: "Click to start to search, and the result will be listed in the video clips list".
- Display in New Result List:** An unchecked checkbox is located at the bottom left.



The **Time Zone** is the same as your local computer. The default **End Time** is the time when you use ST7501 Playback to login the server; the default **Start Time** is an hour earlier than the default **End Time**.

Query Panel--Log Viewer Page

The screenshot shows the 'Log Viewer' tab in a web application. At the top, there are three tabs: 'Browsing', 'Event Search', and 'Log Viewer', with 'Log Viewer' highlighted in a yellow box. Below the tabs is a large empty rectangular area. To the right of this area, a blue line points to the text 'Select the station you want to search event'. Below this area are several filter options, each with a blue line pointing to a descriptive label: 'Category: All Local Logs' (Select Log Category), 'User:' (Select User Account), 'Result: All' (Select Result), 'Log Type: All' (Select Log Type), and 'Log Level: All' (Select Log Level). Below these filters is a checked checkbox labeled 'Including above level'. Further down is a 'Time Zone:' dropdown menu set to 'GMT+08:00 Beijing, Chongqing'. Below the time zone are two time selection sections. The first is 'Start Time:' with a checked checkbox, a date dropdown set to '2008/10/17', and a time spinner set to '14:01:47'. The second is 'End Time:' with an unchecked checkbox, a date dropdown set to '2008/10/17', and a time spinner set to '15:01:47'. A blue line from the text 'Specify search time range' points to both of these sections. At the bottom of the interface is a 'Search' button, with a blue line pointing to it from the text 'Click to start to search, and the result will be listed in the video clips list'.

Select the station you want to search event

Select Log Category

Select User Account

Select Result

Select Log Type

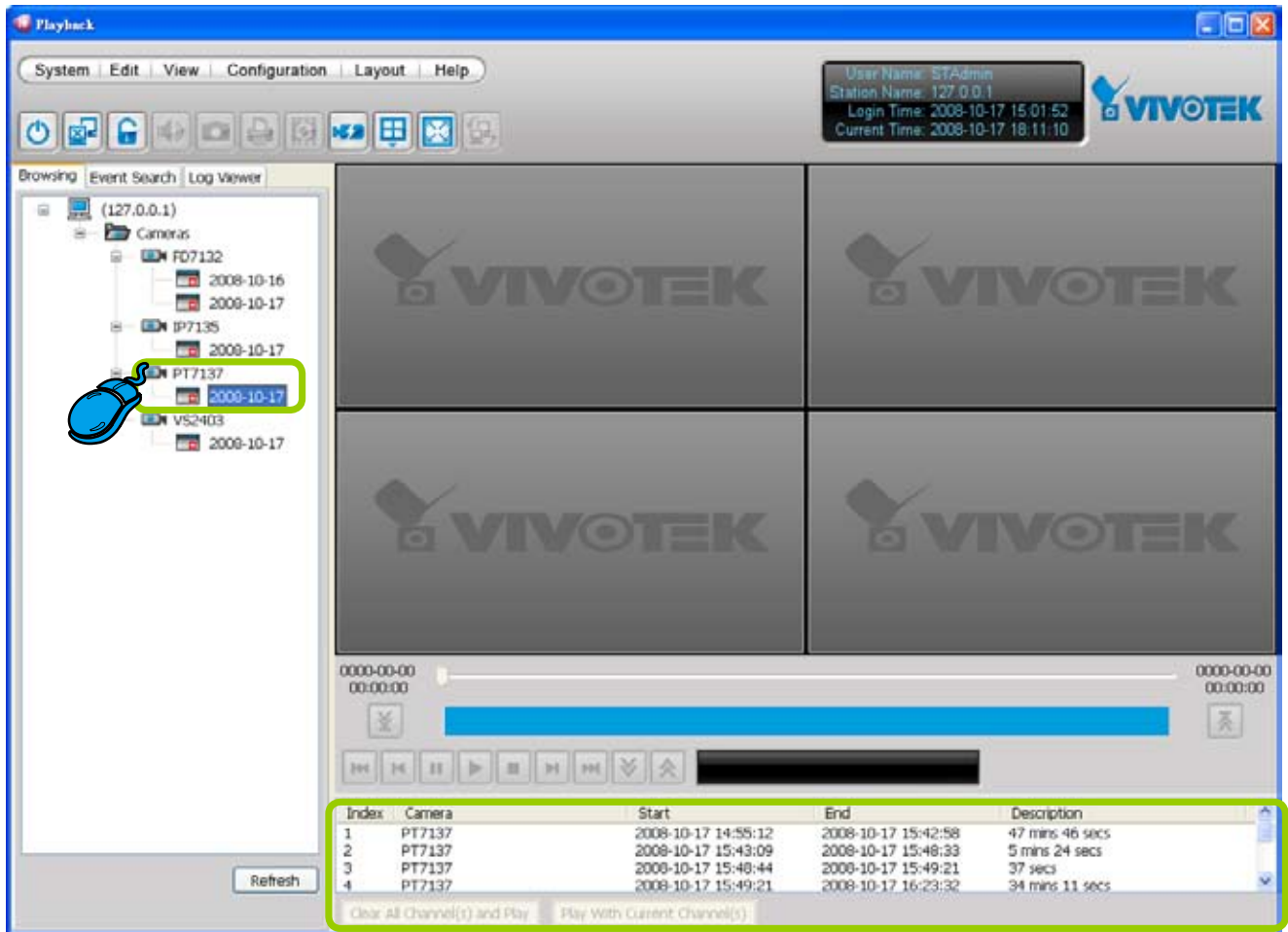
Select Log Level

Specify search time range

Click to start to search, and the result will be listed in the video clips list

Video Clips List Window

After you select a **date item**, the video clips will be listed in the video clips list window. A date item may contain more than one video clips.



Video clips ordering by time, no.1 is the earliest

Index	Camera	Start	End	Description
1	FD7132	2008-09-02 11:35:44	2008-09-02 11:48:38	12 mins 54 secs
2	FD7132	2008-09-02 11:54:27	2008-09-02 13:19:52	1 hour 25 mins 25 secs



Remove all video clips from video cells, and then play the selected video clips

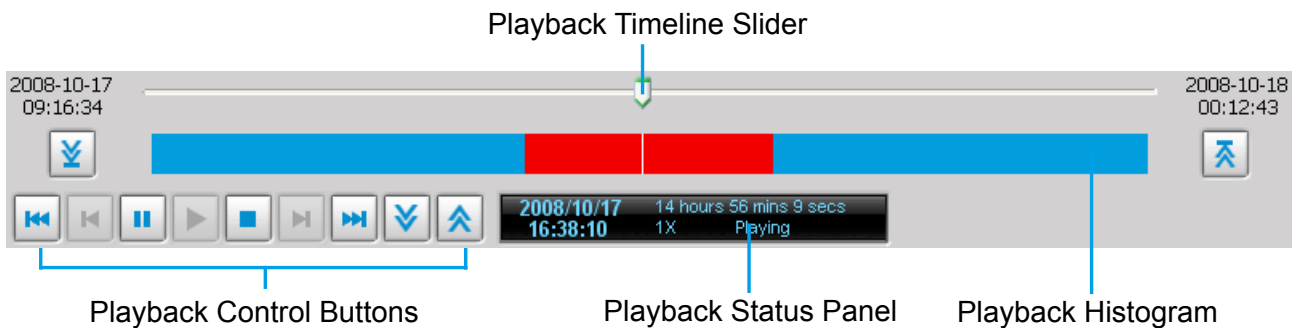
Play the selected video clips in available video cells



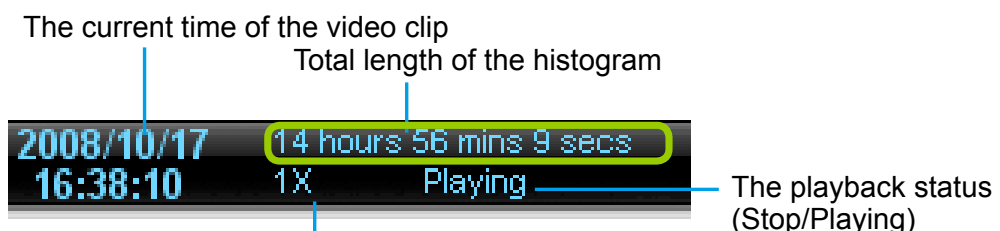
When you click one or more video clips, the two buttons above will be enabled. If you don't select any video clip on the list, these two buttons will be disabled.

Playback Control Panel

After you select a video clip to play, the playback control panel will be enabled for you to use.



Icon	Function	Description
	Histogram Zoom in	Zoom in the whole time range of the histogram
	Histogram Zoom out	Zomo out the whole time range of the histogram
	Last Time Interval	Go to previous video clip on the video clips list
	Last Frame	Go to previous video frame of the focused video clip
	Pause	Pause playback of the focused video clip
	Play	Start to play the focused video clip
	Stop	Stop playing the focused video clip
	Next Frame	Go to next video frame of the focused video clip
	Next Time Interval	Go to next video clip on the video clips list
	Slow Down	Slow down the playing rate
	Speed Up	Speed up the playing rate



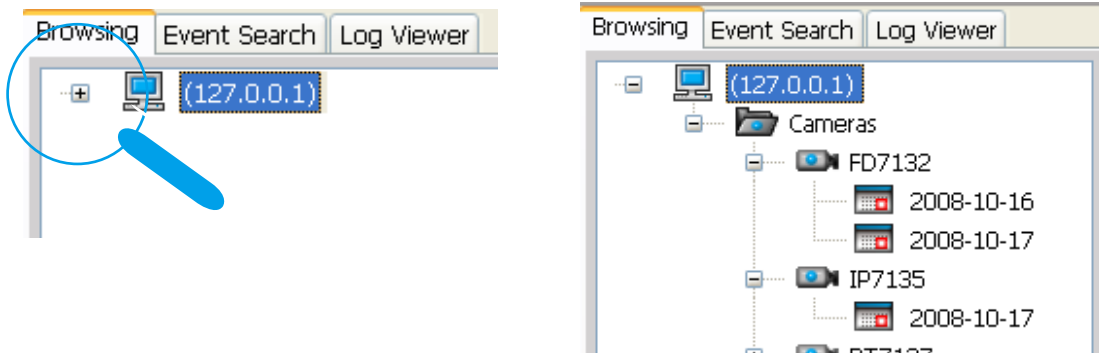
The playing rate can be 1/8, 1/4, 1/2, 1X, 2X, 4X, 8X, 16X, 32X, and 64X.

How to View Recorded Video

Select a Recorded Video Clip

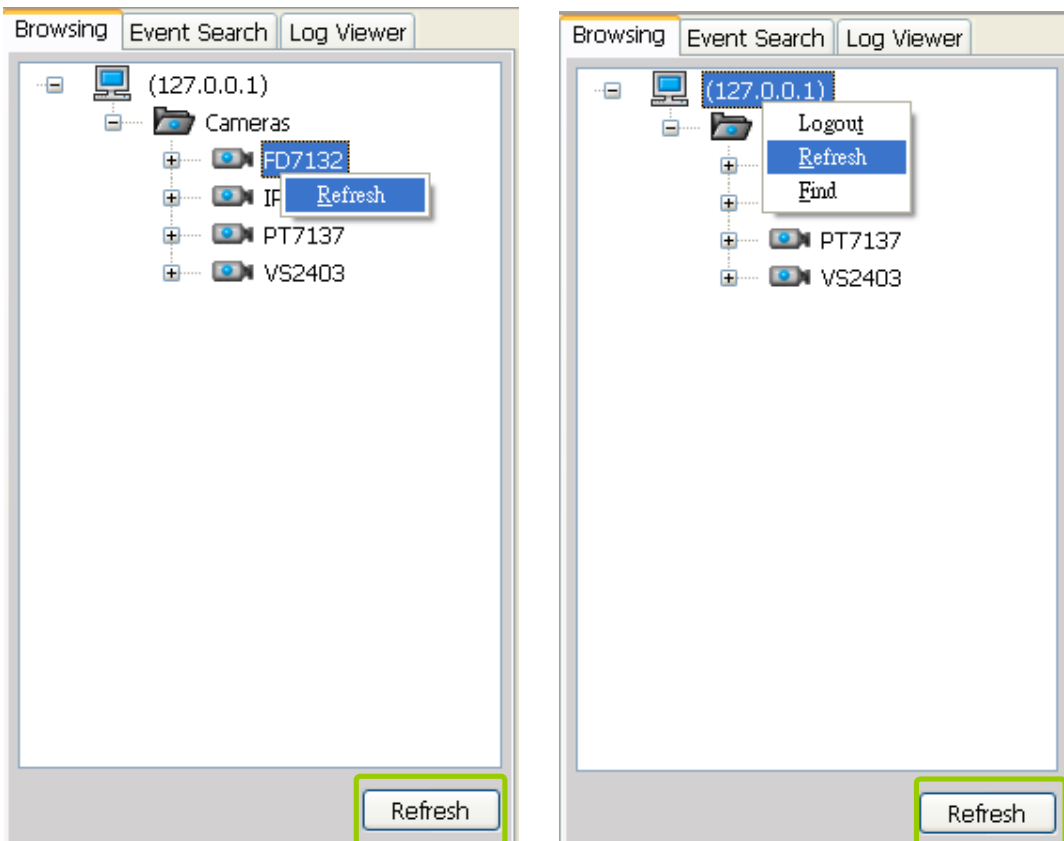
Please follow the steps below to select a video clip:

1. In the **Browsing** page, click the plus sign (+) to expand the device tree.



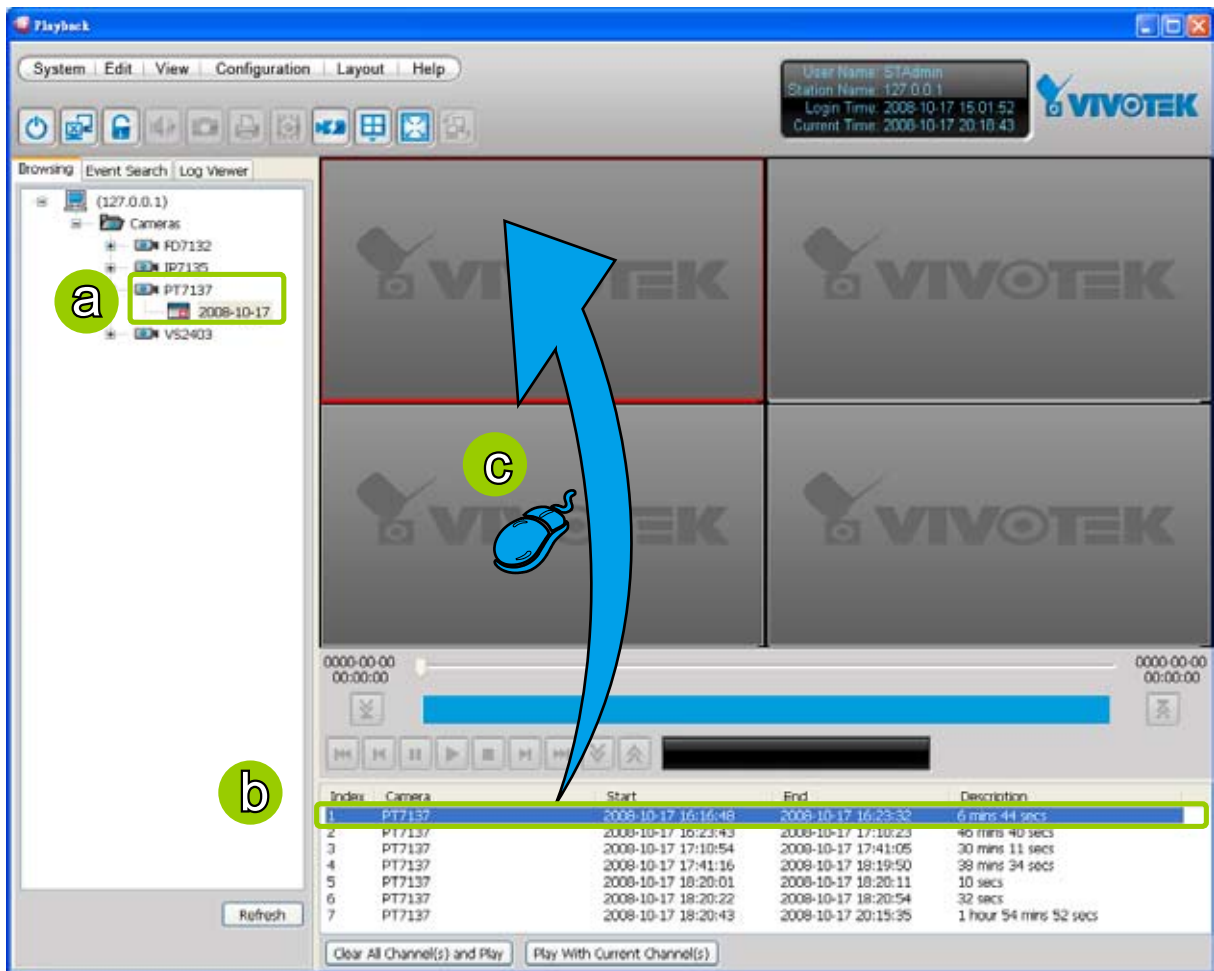
2. **Right-click** a device on the devices tree, and then click **Refresh** to display the recorded video clips. (or click the item, and then click **Refresh** on the bottom of the browsing page.)

Note that if you want to update all video clips of a station, click the station on the device tree and Refresh it.

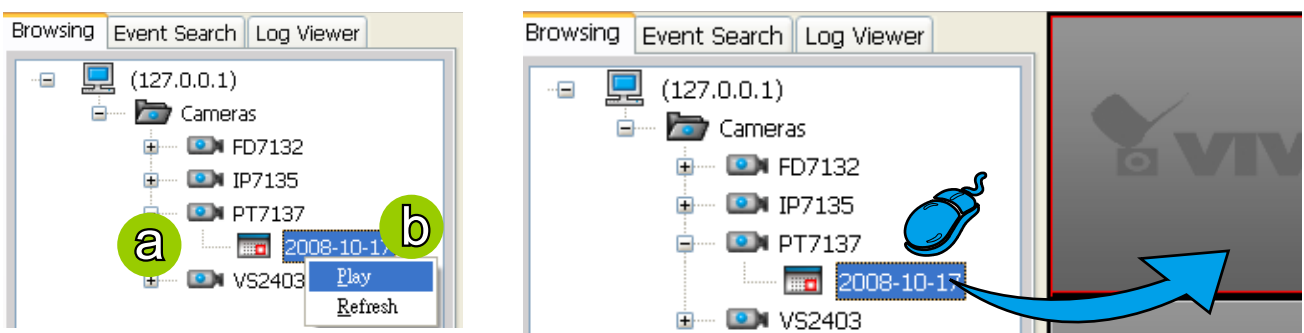


3. There are two ways to view the video clips of a date.

- View one of the video clips of a date:
 - a. Click a **date** item on the device tree. The corresponding recorded video clips will be listed in the video clip list window.
 - b. Select one video clip in video clip list window.
 - c. **Double-click** the video clip, it will start to play in an available video cell. (You can also directly **drag-and-drop** the video clip to a desired video cell in recorded video playback window. The video clip will start to play.)



- View all of the video clips of a date:
 - a. Select a **date** item on the device tree.
 - b. **Double-click** the **date** item, or **right-click** the **date** item and click **play**, it will start to play in an available video cell. (You can also directly **drag-and-drop** the **date** item to a desired video cell in recorded video playback window. The video clip will start to play.)

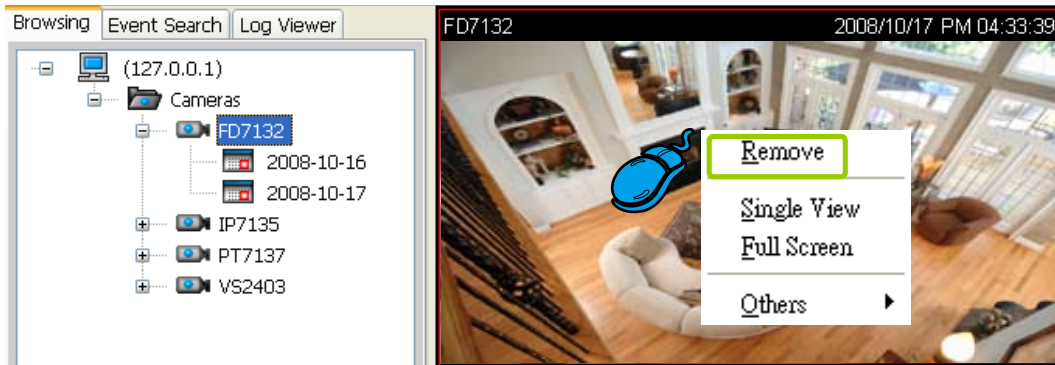


4. Then you can make use of the playback control panel to playback the selected video clip. Please refer to **Use Playback Control Panel** on page 75.

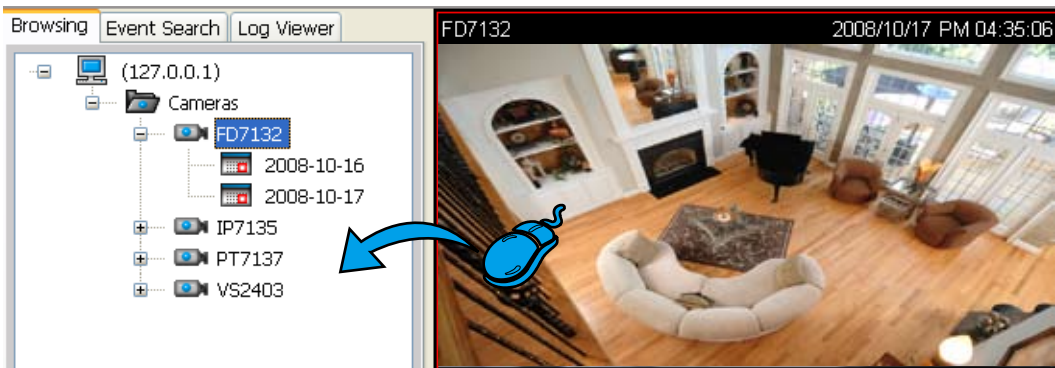
Remove Recorded Video Clips from Video Cells

There are two ways to remove a recorded video clip from the video cell:

1. **Right-click** the video cell and select **Remove**.



2. **Drag-and-drop** the live view from the video cell to the device tree window.



If you want to remove all live videos from the video cells, please click  on the menu bar.



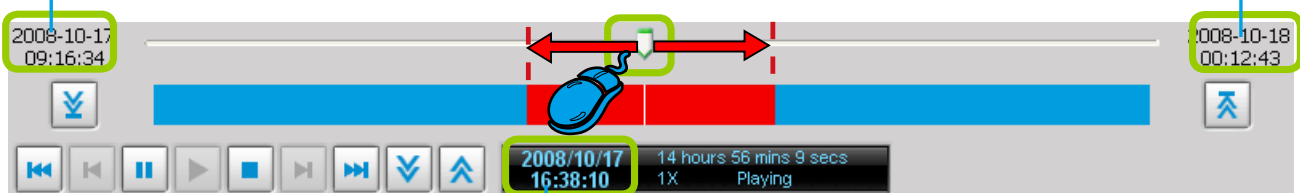
Use Playback Control Panel

Timeline Slider Bar and Histogram

The red part of the histogram shows the time range of a video clip. The timeline slider bar will move forward according to time shifting. To manually move forward/backward the video clip, drag-and-drop the **Timeline Slider Bar** among the red part above the histogram to a desired position as below.

The start time of the histogram

The end time of the histogram



The current time of the video clip will show up on the status panel. It will change according to the moving point of the timeline slider bar.

Zoom in and zoom out the Histogram



If you only record a short video clip, you can click zoom in to extend it.

Histogram zoom in

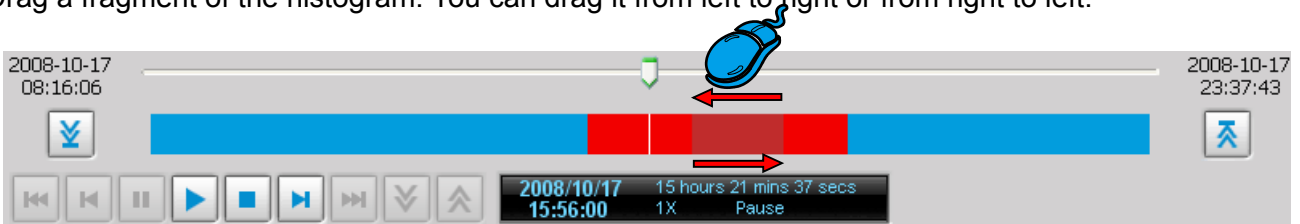
Histogram zoom out



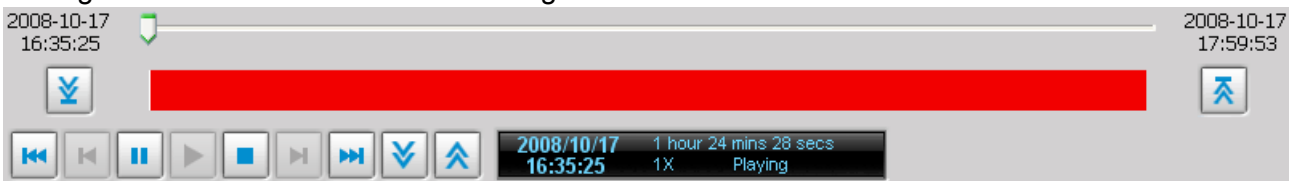
As the second picture shows, click **Histogram Zoom In**, the total time range of the histogram will shorten to half of the original time range; while the red part of the histogram that shows the time range of the video clip will extend to twice of the original time range.

In addition to clicking  and  to zoom in/zoom out the histogram, you can directly use mouse to drag the histogram to zoom in a fragment of the focused video clip. For example:

a. Drag a fragment of the histogram. You can drag it from left to right or from right to left.



b. The fragment will extend to the whole histogram as below.






For more functions of the playback control buttons, please refer to page 75 for detailed description.

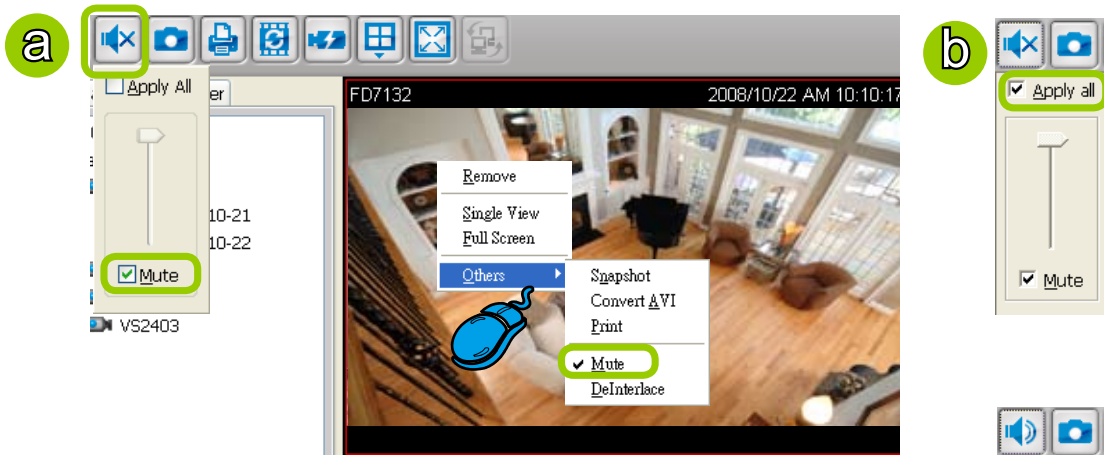
Control the Audio




The audio function will be enabled if the device is equipped with internal or external microphone. Please follow the steps below to adjust the volume or turn on/off the audio of the focused video:

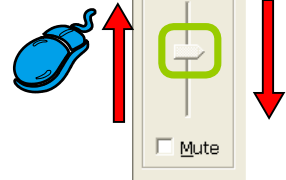
■ To turn off the audio (Mute)

- Click **Audio On**  on the quick access bar, and then check **Mute**. Or you can **right-click** on the video cell to open the pop-up menu, and then click **Others > Mute**. The mute option in the pop-up menu will then be checked.
- If you want to turn off the audio of all live video, check **Apply all**.
- The icon of Audio will then turn from  into .






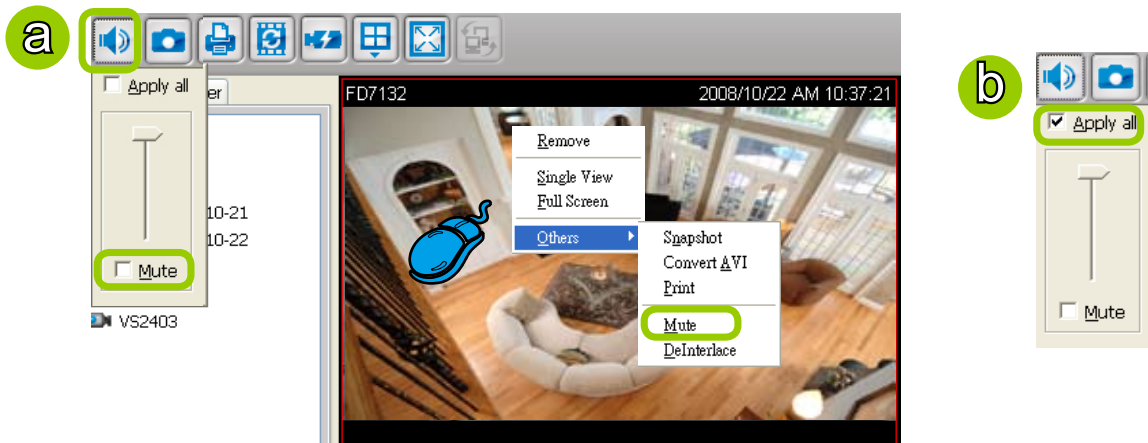
■ To adjust the audio volume

- Click **Audio On**  on the quick access bar.
- Drag-and-drop the slider bar. Slide to higher position for louder volume.



■ To turn on the audio

- Click **Mute**  on the quick access bar, and then uncheck **Mute**. Or you can **right-click** on the video cell to open the pop-up menu, and then click **Others > Mute**. The mute option in the pop-up menu will then be unchecked.
- If you want to turn on the audio of all live video, check **Apply all**.
- The icon of Audio will then turns from  into .



How to Change Recorded Video Viewing Mode

Change the Layout of Recorded Video Playback Window

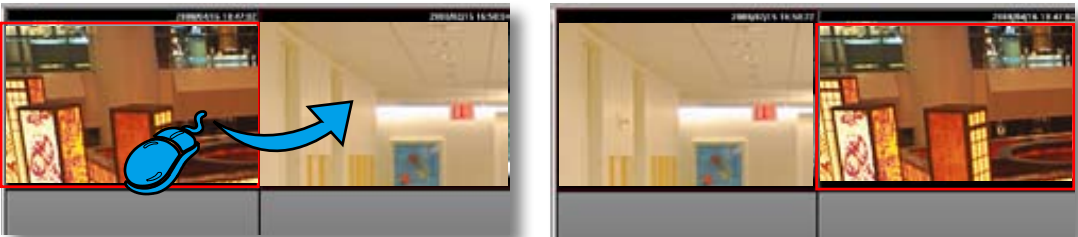
VIVOTEK ST7501 Playback supports up to 16-CH simultaneous recorded video playing on single monitor, and it allows you to change the layout of live recorded video playback window based on the number of inserted devices.

Switch Video Channels


To move a video channel to another empty video cell, **drag-and-drop** the view to the target video cell.

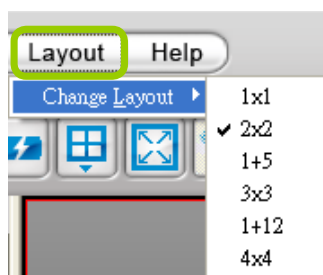








To switch two channels, **drag-and-drop** one view to the other, then the two channels will switch with each other.



Configure Layout Mode

Click the **Layout** button  on the quick access bar or click **Layout > Change Layout** on the menu bar. Select a desired layout mode, the layout window will change accordingly. Below we illustrate 6 kinds of layout modes:

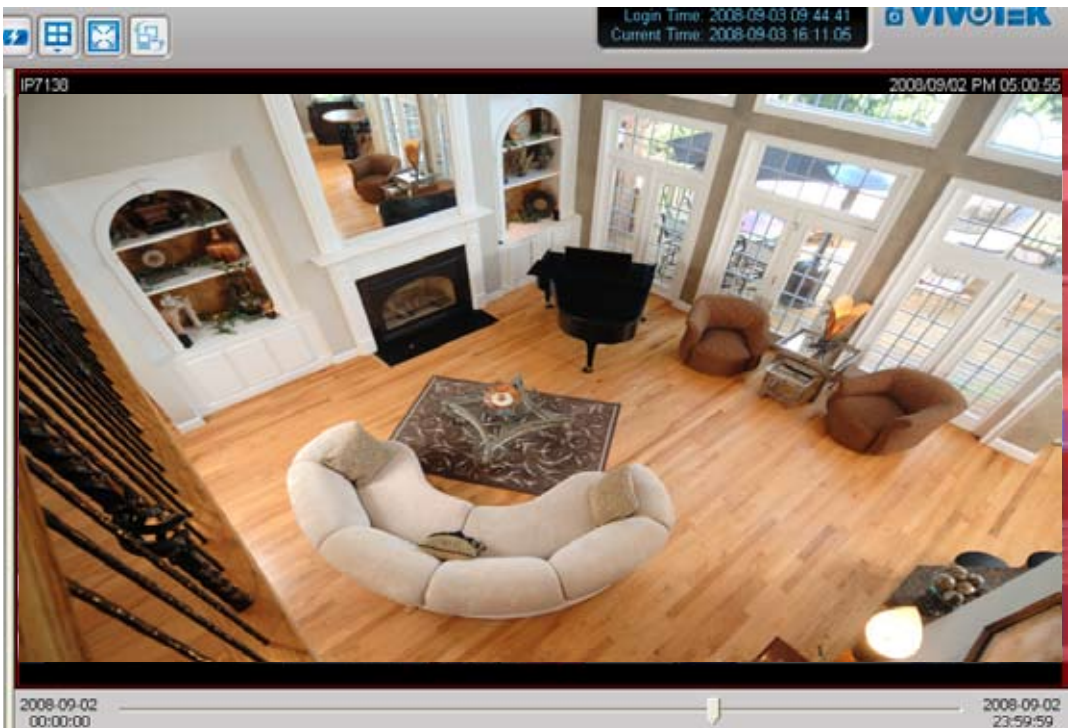
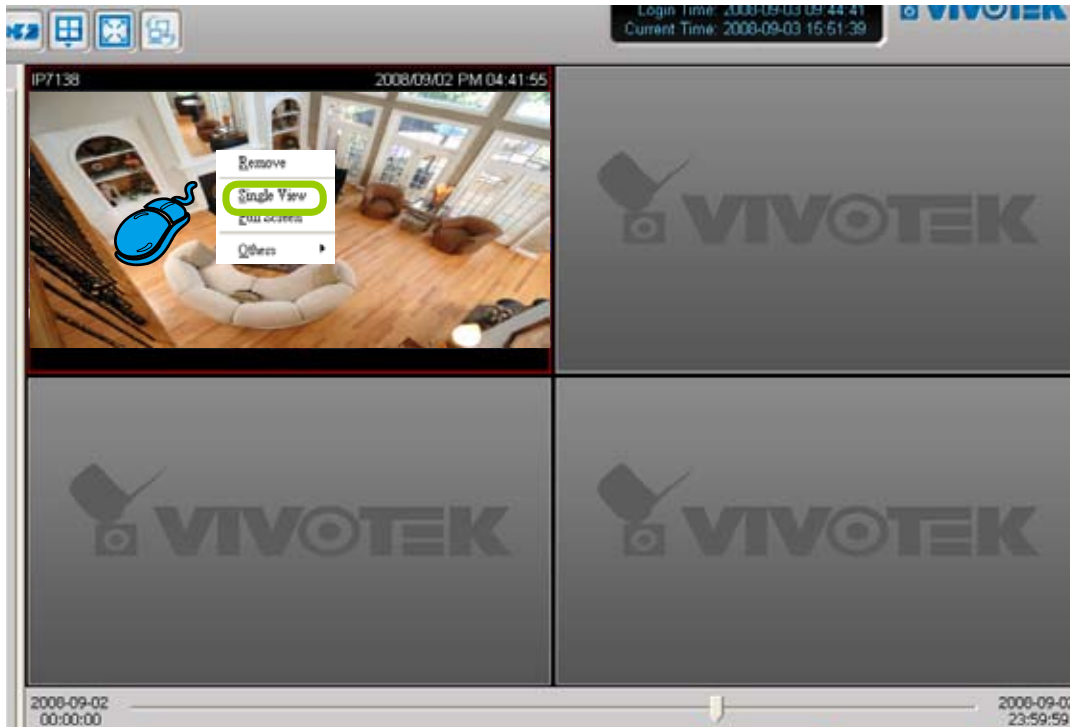


Layout mode	Description
1 x 1	
2 x 2	
1 + 5	
3 x 3	
1 + 12	
4 x 4	

Maximize/Minimize the Recorded Video Playback Window


- Single View: to maximize a video cell to the whole video playback window

Double-click the video cell, or **right-click** the video cell and then check **Single View**. The focused video will occupy the whole playback window as below.

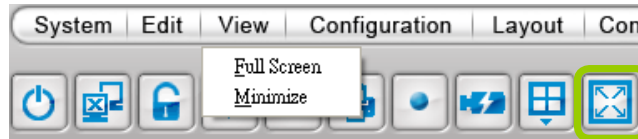


To restore to the original layout, **double-click** the video cell or **right-click** the video cell and then uncheck **Single View**.

- Full Screen: to maximize the video playback window to the whole screen

Click **Full Screen**  on the quick access bar or **right-click** the video cell and then check **Full Screen**. In addition, you can also click **View > Full Screen** on the menu bar to maximize the recorded video playback window.

To restore to the original layout, **right-click** the video cell and then uncheck **Full Screen**. You also can click **Esc** button on the keyboard to leave the full screen mode.

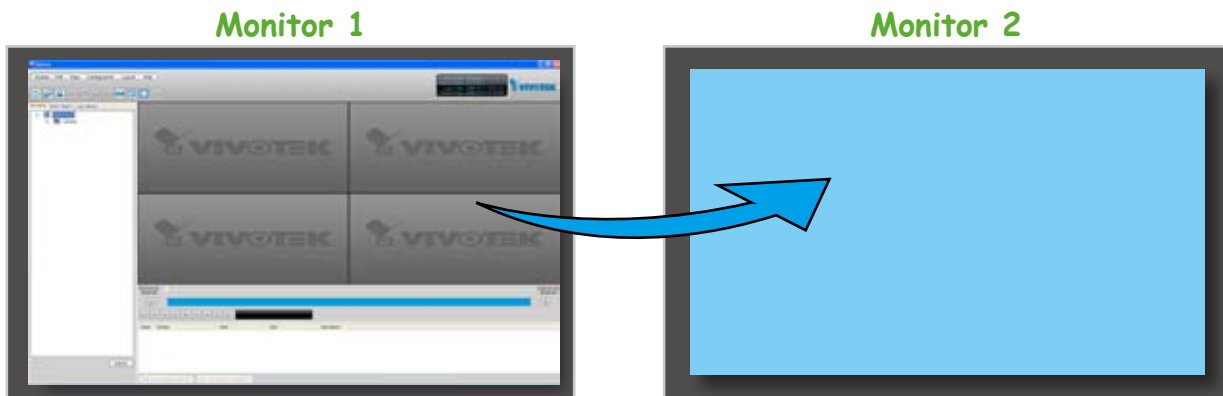



- Minimize: If you click **View > Minimize** on the menu bar, the Playback window will minimize to the Windows tool bar.

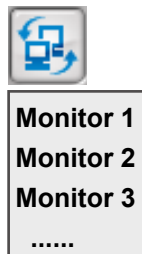
View Recorded Video with Multiple Monitors

If you have multiple screens in your monitoring center, you can switch the ST7501 Playback Window among these screens.

- If you have two monitors, click **Switch Screen**  on the menu bar, the Playback window of monitor 1 will switch to monitor 2.



- If you have three or more monitors, a drop-down list will display when you click **Switch Screen**  on the menu bar. The number of items on this list depends on the number of your screens. Select a desired screen on the drop-down list, the Playback Window will then switch to the specified screen.



How to Search Events

The ST7501 Playback offers users a powerful event searching engine to retrieve video clips from the database of recorded videos with different searching criteria, such as motion, IVA, or DI events. It will produce a video clip (20 seconds) for each event.

Please follow the steps below to search events:

- Open the **Event Search** page.
- Select the target station/devices you want to search event.
- Specify the **Event Category**. For detailed information, please refer to **Select Event Category** on page 85.
- Specify the search time range. You can check the start time only, check the end time only, or check both the start time and end time. The search will only include the events according to your time range setting. If you uncheck both the start time and end time, the search will include all events recorded by the server. Please refer to page 87 for detailed information.
- Start event search and display the search results. Please refer to page 87 for detailed information.
- View the retrieved video clips. Please refer to page 89 for detailed information.

The screenshot shows the VIVOTEK Playback software interface. The interface is divided into several sections:

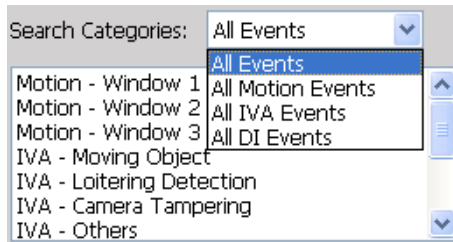
- Toolbar:** Contains various icons for system, edit, view, configuration, layout, and help. A green circle 'a' is placed over the 'Event Search' icon.
- Camera Selection:** A tree view showing cameras under the IP address 127.0.0.1. The 'FD7132' camera is selected. A green circle 'b' is placed over this selection.
- Search Categories:** A list of event categories such as 'Motion - Window 1', 'IVA - Moving Object', etc. A green circle 'c' is placed over this section.
- Time Range:** Fields for 'Start Time' and 'End Time' with date and time pickers. A green circle 'd' is placed over the 'Start Time' field.
- Search Results Table:** A table with columns: Index, Camera, Time, Type, and Description. It lists five events for camera FD7132. A green circle 'e' is placed over the table.
- Video Player:** A large window showing a video clip from camera FD7132 at 2008/10/17 PM 02:12:34. A blue arrow points from the search results table to this video player. A green circle 'f' is placed over the video player.
- Playback Controls:** A control bar at the bottom with play, stop, and other buttons. A green circle 'e' is placed over the bottom left corner of the interface.

Select Event Category

There are five event search categories: **All Events**, **All Motion Events**, **All IVA Events**, **All DI Events**.

Event Category-All Events

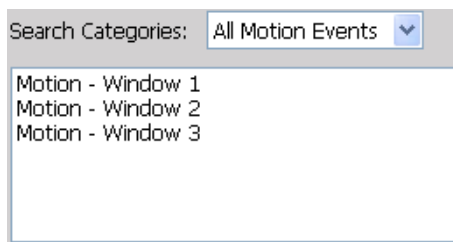
If you select **All Events** category, all the events of the three categories--motion detection, digital input, and abnormal video signal--will be included in the search.



Event Category-All Motion Events

The motion events indicates that there is motion detected by the camera. In the meanwhile, the parameter of the motion detection windows, such as detection sensibility, motion percentage, and the time of occurrence, are all recorded in the database of the server.

If you select **All Motion Events** category, all detected motion events will be included in the search.



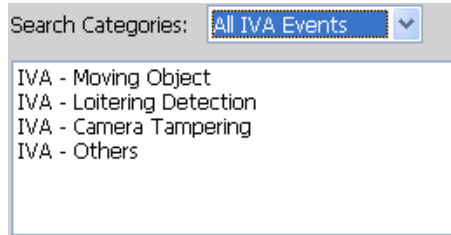
If you want to change the parameters of the motion detection windows, such as position, size, detection sensibility, and motion percentage, please link to the camera's web setting page to modify the values.

Enable motion detection

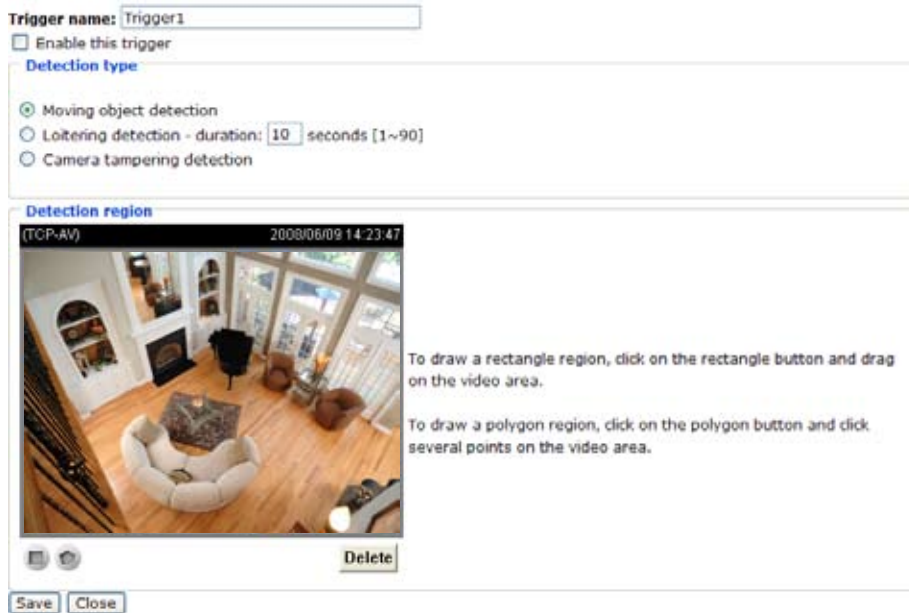
A screenshot of a camera's web setting page. On the left, there is a video feed showing a living room with a fireplace and a white sofa. A red-bordered window labeled 'W1' is overlaid on the video. On the right, there are settings for this window: 'Window Name' is 'W1', 'Sensitivity' is set to 80% (indicated by a slider), and 'Percentage' is set to 10% (indicated by a slider). Below the sliders is a red progress bar and two buttons labeled 'New' and 'Save'. The top of the page shows 'Video(TCP-AV)' and the timestamp '2008/03/25 16:39:26'.

Event Category-All IVA Events

For cameras with embedded video content analysis, it is capable of detecting IVA (Intelligent Video Analysis) events, such as moving object detection, loitering detection, and tampering detection. The embedded video content analysis, superior to conventional motion detection function, is capable of distinguishing between creature's motions and still backgrounds or natural movements like swaying trees, waves or sunset so as to prevent the false alarms from environmental noise. With the tampering detection, it can detect incidents such as shooting redirection, blocking or defocusing of cameras, or even spray-painted. Additionally, a suspicious object in the predefined detection region will trigger alarms once the dwelling time of the object is longer than the given time. If you select **All IVA Events** category, all detected IVA events will be included in the search.

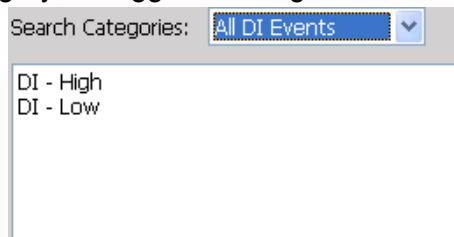


If you want to change the parameters of IVA, such as detection region, loitering duration, etc, please link to the camera's web setting page to modify the values.



Event Category-All DI Events

The motion events represent that there is Digital-Input signal detected by the camera and its corresponding information, such as DI-High or DI-Low signal and the time of occurrence, is transmitted and recorded in the database of the station. For some models, the rising means from normal state to trigger state, and the falling means from trigger state to normal state. If you select **All DI Events** category, all triggered DI signals will be included in the search.



If you want to change the DI/DO setting of the cameras, please link to the camera's web setting page to modify the settings.

Specify the Search Time Range

This section is for you to specify the search time range for event search.

- Uncheck start time and end time: the search should include all the videos in the database.
- Only check the start time: the search should include all the videos recorded since the start time.
- Only check the end time: the search should include all the videos recorded before the end time.
- Check both start and end time: the search should include all the videos recorded within the start and end time.

Specify the start date and time in **Start** field if you have an start time for applying this time frame; specify the end date and time in **End** field if you have an end time for applying this time frame.

A calendar date-picker will appear when you click on the **date** drop-down list. Click or to select the month, and then pick a desired day in the calendar.

You can manually enter a specific time.

Click the year and then click or to select a year

Click to select a month on the drop-down list

Click here to move to current date

Start Event Search and Display the Search Results

After you specify all the search criteria mentioned above, check/uncheck **Display in new result list** and click **Search** to begin event search and display the results.

- If **Display in new result list** is **unchecked**, then click **Search**, all search results will display on the original single page as below.

Index	Camera	Time	Type	Description
1	FD7132	2008-10-20 09:32:33	Motion - Window 1	19%
2	FD7132	2008-10-20 09:32:40	Motion - Window 1	12%
3	FD7132	2008-10-20 09:32:48	Motion - Window 1	34%
4	FD7132	2008-10-20 09:33:00	Motion - Window 1	60%
5	FD7132	2008-10-20 09:33:50	Motion - Window 1	44%
6	FD7132	2008-10-20 09:35:04	Motion - Window 1	26%
7	FD7132	2008-10-20 09:35:15	Motion - Window 1	15%
8	FD7132	2008-10-20 09:36:21	Motion - Window 1	15%
9	FD7132	2008-10-20 09:36:28	Motion - Window 1	34%
10	FD7132	2008-10-20 09:36:41	Motion - Window 1	18%
11	FD7132	2008-10-20 09:36:50	Motion - Window 1	31%

Unchecked

Only one page

- If Display in new result list is **checked**, then click **Search**, the search results will display on a new page as below. It's very convenient since you can put the search results of each search category on an individual page. You can set up to 5 pages in the video clip list window.

Checked

You can set up to 5 pages.

Index	Camera	Time	Type	Description
1	FD7132	2008-10-20 10:28:55	DI 2	Rising
2	FD7132	2008-10-20 10:28:55	DI 2	Falling
3	FD7132	2008-10-20 09:35:06	DI 2	Rising
4	FD7132	2008-10-20 09:35:06	DI 2	Falling
5	FD7132	2008-10-20 09:35:06	DI 2	Rising
6	FD7132	2008-10-20 09:35:07	DI 2	Falling
7	FD7132	2008-10-20 09:35:07	DI 2	Rising
8	FD7132	2008-10-20 09:35:08	DI 2	Falling
9	FD7132	2008-10-20 09:35:09	DI 2	Rising
10	FD7132	2008-10-20 09:35:09	DI 2	Falling

Video clips ordering by time, no.1 is the earliest

Device name

Event time

Event type

Event parameters

Right-click to: Remove Page

Right-click to: Clear All Results Remove Page

Index	Camera	Time	Type	Description
1	FD7132	2008-10-20 10:28:55	DI 2	Rising
2	FD7132	2008-10-20 10:28:55	DI 2	Falling
3	FD7132	2008-10-20 09:35:06	DI 2	Rising
4	FD7132	2008-10-20 09:35:06	DI 2	Falling
5	FD7132	2008-10-20 09:35:06	DI 2	Rising
6	FD7132	2008-10-20 09:35:07	DI 2	Falling
7	FD7132	2008-10-20 09:35:07	DI 2	Rising
8	FD7132	2008-10-20 09:35:08	DI 2	Falling
9	FD7132	2008-10-20 09:35:09	DI 2	Rising
10	FD7132	2008-10-20 09:35:09	DI 2	Falling

Index	Camera	Time	Type	Description
1	FD7132	2008-10-20 10:28:29	Motion - Window 1	24%
2	FD7132	2008-10-20 10:28:37	Motion - Window 1	18%
3	FD7132	2008-10-20 10:29:18	Motion - Window 1	10%
4	FD7132	2008-10-20 10:29:32	Motion - Window 1	25%
5	FD7132	2008-10-20 10:29:40	Motion - Window 1	55%
6	FD7132	2008-10-20 10:29:54	Motion - Window 1	28%
7	FD7132	2008-10-20 10:30:30	Motion - Window 1	29%
8	FD7132	2008-10-20 10:31:14	Motion - Window 1	92%
9	FD7132	2008-10-20 10:31:42	Motion - Window 1	20%
10	FD7132	2008-10-20 10:31:49	Motion - Window 1	20%

- The **Type** field in search result page shows the event category, and the **Description** field displays the parameters of the corresponding event type. For example, the description for motion detection event will show the detection **sensitivity** of the camera.

View the Retrieved Video Clips

Please follow the steps below to play the video clips listed in search result page:

- Select the video clips you want to view. You can select more than one video clips a time.
- Click **Clear All Channels and Play** if you want to remove all video clips from video cells. Then all the selected video clips will start to play in the video cells.
- Click **Play with Current Channels** if you want to keep the video clips on the occupied video cells. Then the selected video clips will start to play in those unoccupied video cells.
- The length of each video clip is **20 seconds**.

The screenshot displays a software interface for video management. On the left, there is a 'Browsing' pane with a tree view of cameras under the IP address (127.0.0.1). The 'Cameras' list includes FD7132 (checked), IP7135, PT7137, and VS2403. Below this, 'Search Categories' is set to 'All Motion Events', and 'Motion - Window 1', 'Motion - Window 2', and 'Motion - Window 3' are listed. The 'Time Zone' is set to 'GMT+08:00 Beijing, Chongqing'. Start and end time filters are set to 2008/10/20 from 09:28:27 to 11:28:27. A 'Search' button is present.

The main area shows four video preview windows, each displaying a living room scene from camera FD7132. The top two windows show a timestamp of 2008/10/20 AM 10:28:28, and the bottom two show 2008/10/20 AM 10:29:38. Below the previews is a playback control bar with a red progress indicator and a '2008/10/20 10:29:38 20 secs 1X Playing' display.

At the bottom, a table lists search results:

Index	Camera	Time	Type	Description
1	FD7132	2008-10-20 10:28:29	Motion - Window 1	24%
2	FD7132	2008-10-20 10:28:37	Motion - Window 1	18%
3	FD7132	2008-10-20 10:29:18	Motion - Window 1	10%
4	FD7132	2008-10-20 10:29:32	Motion - Window 1	25%
5	FD7132	2008-10-20 10:29:48	Motion - Window 1	55%
6	FD7132	2008-10-20 10:29:54	Motion - Window 1	28%
7	FD7132	2008-10-20 10:30:38	Motion - Window 1	20%
8	FD7132	2008-10-20 10:31:14	Motion - Window 1	92%
9	FD7132	2008-10-20 10:31:42	Motion - Window 1	20%
10	FD7132	2008-10-20 10:31:49	Motion - Window 1	29%

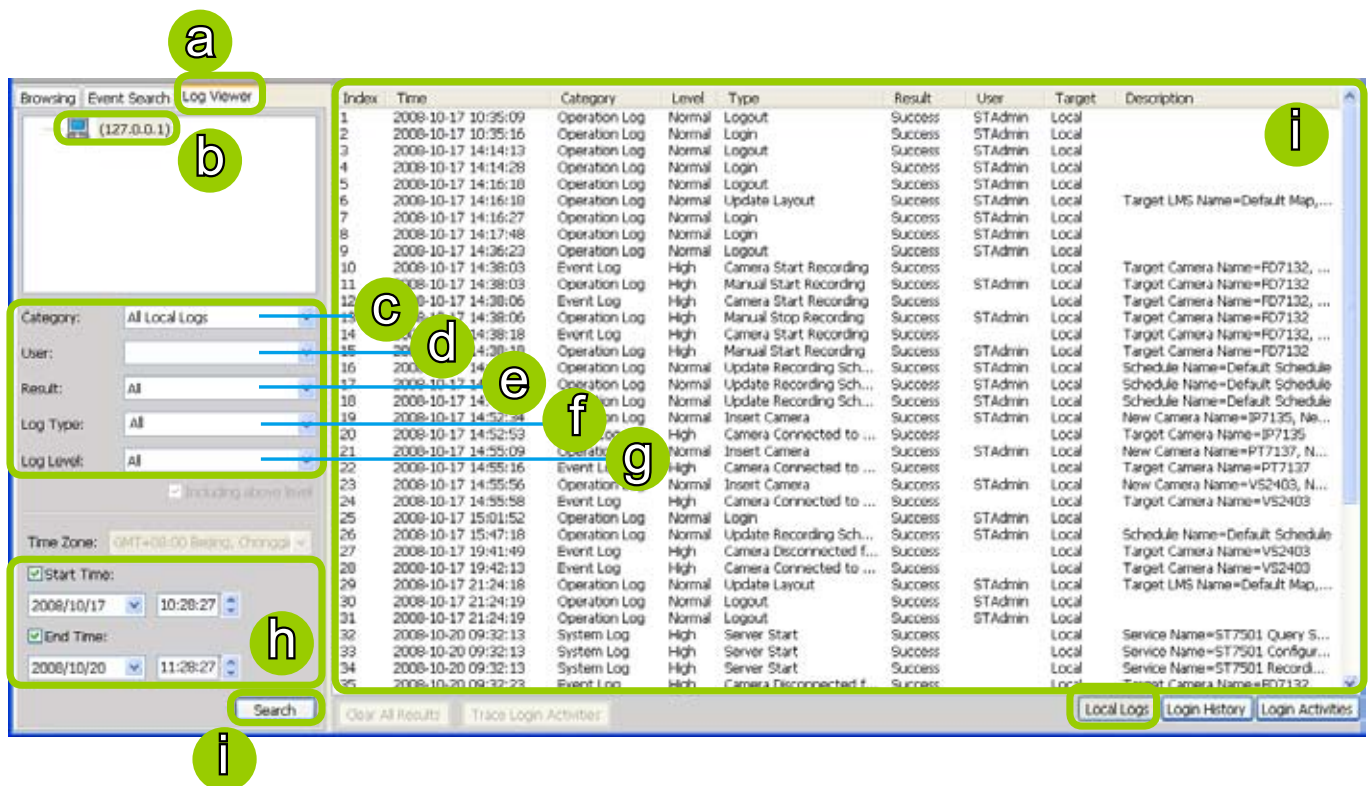
Below the table are two buttons: 'Clear All Channel(s) and Play' (labeled 'b') and 'Play With Current Channel(s)' (labeled 'c'). On the right side of the table, a green circle with the letter 'a' is positioned near the 'Description' column.

How to Search Logs

The ST7501 Playback offers users a powerful log searching engine to search all local logs with different searching criteria, such as log category, log type, and log level. The search results will display in the log viewer window with detailed log history.

Please follow the steps below to search logs:

- Open the **Log Viewer** page.
- Select the target station you want to search logs.
- Specify the **Log Category**. For detailed information, please refer to **Select Log Category** on page 91.
- Specify the **User Account**. If you have added other user accounts to the station, here you can select one to search its login history. For detailed information, please refer to **How to Manage User Account** on page 33.
- Specify the **Search Result**. Select **All** to display all search results; select **Success** to display successful log activities only; select **Fail** to display failed log activities only.
- Specify the **Log Type**. For detailed information, please refer to **Select Log Type** on page 91.
- Specify the **Log Level**. For detailed information, please refer to **Select Log Level** on page 91.
- Specify the search time range. You can check the start time only, check the end time only, or check both the start time and end time. The search will only include the events according to your time range setting. If you uncheck both the start time and end time, the search will include all events saved by the server. Please refer to page 87 for detailed information.
- Start log search and display the search results. Please refer to page 87 for detailed information.



Select Log Category/Log Type/Log Level

Following is the relationship of log category, level, and type. The search results will vary according to your options.

Log Categories	Log Levels	Log Types
Operation Log	Normal	Login
		Logout
		Add User
		Update User Name
		Update User Password
		Update User Privilege
		Delete User
		Insert Camera
		Update Camera Information
		Delete Camera
Set Digital Output		
Operation Log	High	Manual Start Recording
		Manual Stop Recording
		Set Recording Group
		Add Recording Schedule
		Update Recording Schedule
		Delete Recording Schedule
		Save Layout
Update Layout		
Delete Layout		
Operation Log	Low	Camera PTZ, Iris, Focus, Pan, Patrol Control
		Click on Image
		Select Preset Location
System Log	High	Server Start
		Server Stop
Event Log	High	Camera Disconnected from the Server
		Camera Connected to the Server
		Camera Start Recording
		Camera Stop Recording

Search for All Local Logs

Video clips ordering by time, no.1 is the latest

Search Result (Success or Fail)

Index	Time	Category	Level	Type	Result	User	Target	Description
1	2008-10-20 09:32:13	System Log	High	Server Start	Success		Local	Service Name=ST7501 Query S...
2	2008-10-20 09:32:13	System Log	High	Server Start	Success		Local	Service Name=ST7501 Configur...
3	2008-10-20 09:32:13	System Log	High	Server Start	Success		Local	Service Name=ST7501 Recordi...
4	2008-10-20 09:32:23	Event Log	High	Camera Disconnected f...	Success		Local	Target Camera Name=FD7132
5	2008-10-20 09:32:23	Event Log	High	Camera Disconnected f...	Success		Local	Target Camera Name=IP7135
6	2008-10-20 09:32:23	Event Log	High	Camera Disconnected f...	Success		Local	Target Camera Name=VS2403
7	2008-10-20 09:32:23	Event Log	High	Camera Disconnected f...	Success		Local	Target Camera Name=PT7137
8	2008-10-20 09:33:21	Event Log	High	Camera Connected to ...	Success		Local	Target Camera Name=VS2403
9	2008-10-20 09:33:22	Event Log	High	Camera Connected to ...	Success		Local	Target Camera Name=PT7137
10	2008-10-20 09:33:22	Event Log	High	Camera Connected to ...	Success		Local	Target Camera Name=IP7135
11	2008-10-20 09:33:22	Event Log	High	Camera Connected to ...	Success		Local	Target Camera Name=FD7132
12	2008-10-20 09:53:42	Event Log	High	Camera Disconnected f...	Success		Local	Target Camera Name=VS2403
13	2008-10-20 09:53:44	Operation Log	Normal	Login	Success	STAdmin	Local	

Click to remove all search results from the list

Search for Login History

Select **Login History** in the log category field, the search results including all login logs will display on the Login History page.

Video clips ordering by time, no.1 is the latest

User Account (Who login the server)

The screenshot shows the Log Viewer interface with the following search filters:

- Category: Login History
- User: (empty)
- Result: All
- Log Type: All
- Log Level: All
- Time Zone: GMT+08:00 Beijing, Chongqing
- Start Time: 2008/10/17 09:28:27
- End Time: 2008/10/20 11:28:27

The search results table is as follows:

Index	User	Login Time	Login Result	Logout Time	Logout Result
1	STAdmin	2008-10-17 09:38:00	Success	2008-10-17 09:38:12	Success
2	STAdmin	2008-10-17 09:38:27	Success	2008-10-17 09:44:11	Success
3	STAdmin	2008-10-17 09:53:08	Fail		
4	STAdmin	2008-10-17 09:53:11	Success	2008-10-17 10:19:46	Success
5	STAdmin	2008-10-17 10:19:58	Success	2008-10-17 10:35:09	Success
6	STAdmin	2008-10-17 10:35:16	Success	2008-10-17 14:14:13	Success
7	STAdmin	2008-10-17 14:14:28	Success	2008-10-17 14:16:18	Success
8	STAdmin	2008-10-17 14:16:27	Success	2008-10-17 21:24:19	Success
9	STAdmin	2008-10-17 14:17:48	Success	2008-10-17 14:36:23	Success
10	STAdmin	2008-10-17 15:01:52	Success	2008-10-17 21:24:19	Success
11	STAdmin	2008-10-20 09:53:44	Success	2008-10-20 11:28:05	Success

Buttons at the bottom include: Search, Clear All Results, Trace Login Activities, Local Logs, Login History, and Login Activities.

Click to remove all search results from the list

Search for Login Activities

This function allows you to search login activities the user has done during the login period. You can search for login activities on Local Logs and Login History page.

■ Search for Login Activities on Local Logs page:

- Click on **Local Logs** page.
- Select a login/logout item on the list.
- Click **Trace Login Activities**. Or you can **right-click** a login/logout item on the list, and then click **Trace Login Activities**.

The screenshot shows the Local Logs page with the following search filters:

- Clear All Results
- Trace Login Activities
- Local Logs
- Login History
- Login Activities

The activity table is as follows:

Index	Time	Category	Level	Type	Result	User	Target	Description
1	2008-10-17 14:16:27	Operation Log	Normal	Login	Success	STAdmin	Local	
2	2008-10-17 14:17:48	Operation Log	Normal	Logout	Success	STAdmin	Local	
3	2008-10-17 14:36:23	Operation Log	Normal	Logout	Success	STAdmin	Local	
4	2008-10-17 14:38:03	Event Log	High	Camera Start Recording	Success	STAdmin	Local	Target Camera Name=FD7132, Met...
5	2008-10-17 14:38:03	Operation Log	High	Manual Start Recording	Success	STAdmin	Local	Target Camera Name=FD7132
6	2008-10-17 14:38:06	Event Log	High	Camera Start Recording	Success	STAdmin	Local	Target Camera Name=FD7132, Met...
7	2008-10-17 14:38:06	Operation Log	High	Manual Stop Recording	Success	STAdmin	Local	Target Camera Name=FD7132
8	2008-10-17 14:38:18	Event Log	High	Camera Start Recording	Success	STAdmin	Local	Target Camera Name=FD7132, Met...
9	2008-10-17 14:38:18	Operation Log	High	Manual Start Recording	Success	STAdmin	Local	Target Camera Name=FD7132
10	2008-10-17 14:40:12	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
11	2008-10-17 14:40:14	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
12	2008-10-17 14:40:31	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
13	2008-10-17 14:52:34	Operation Log	Normal	Insert Camera	Success	STAdmin	Local	New Camera Name=IP7135, New IP...

Right-click to:

Clear All Results
Trace Login Activities

d. The search results of login activities will display on the Login Activities page as below.

Index	Time	Category	Level	Type	Result	User	Target	Description
1	2008-10-17 14:16:27	Operation Log	Normal	Login	Success	STAdmin	Local	
2	2008-10-17 14:38:03	Operation Log	High	Manual Start Recording	Success	STAdmin	Local	Target Camera Name=FD7132
3	2008-10-17 14:38:06	Operation Log	High	Manual Stop Recording	Success	STAdmin	Local	Target Camera Name=FD7132
4	2008-10-17 14:38:18	Operation Log	High	Manual Start Recording	Success	STAdmin	Local	Target Camera Name=FD7132
5	2008-10-17 14:40:12	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
6	2008-10-17 14:40:14	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
7	2008-10-17 14:40:31	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
8	2008-10-17 14:52:34	Operation Log	Normal	Insert Camera	Success	STAdmin	Local	New Camera Name=IP7135, New IP...
9	2008-10-17 14:55:09	Operation Log	Normal	Insert Camera	Success	STAdmin	Local	New Camera Name=PT7137, New I...
10	2008-10-17 14:55:56	Operation Log	Normal	Insert Camera	Success	STAdmin	Local	New Camera Name=VS2403, New I...
11	2008-10-17 15:47:18	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
12	2008-10-17 21:24:18	Operation Log	Normal	Update Layout	Success	STAdmin	Local	Target LMS Name=Default Map, Ne...
13	2008-10-17 21:24:19	Operation Log	Normal	Logout	Success	STAdmin	Local	

Clear All Results Trace Login Activities Local Logs Login History Login Activities

■ Search for Login Activities on Local History page:

a. Click on **Login History** page.

b. Select a login/logout item on the list.

c. Click **Trace Login Activities**. Or you can **right-click** a login/logout item on the list, and then click **Trace Login Activities**.

Index	User	Login Time	Login Result	Logout Time	Logout Result
1	STAdmin	2008-10-17 14:16:27	Success	2008-10-17 21:24:19	Success
2	STAdmin	2008-10-17 14:17:48	Success	2008-10-17 14:36:23	Success
3	STAdmin	2008-10-17 15:01:52	Success	2008-10-17 21:24:19	Success
4	STAdmin	2008-10-20 09:53:44	Success	2008-10-20 11:28:05	Success

Clear All Results Trace Login Activities Local Logs Login History Login Activities

Right-click to: Clear All Results Trace Login Activities

d. The search results of login activities will display on the Login Activities page as below.

Index	Time	Category	Level	Type	Result	User	Target	Description
1	2008-10-17 14:16:27	Operation Log	Normal	Login	Success	STAdmin	Local	
2	2008-10-17 14:38:03	Operation Log	High	Manual Start Recording	Success	STAdmin	Local	Target Camera Name=FD7132
3	2008-10-17 14:38:06	Operation Log	High	Manual Stop Recording	Success	STAdmin	Local	Target Camera Name=FD7132
4	2008-10-17 14:38:18	Operation Log	High	Manual Start Recording	Success	STAdmin	Local	Target Camera Name=FD7132
5	2008-10-17 14:40:12	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
6	2008-10-17 14:40:14	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
7	2008-10-17 14:40:31	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
8	2008-10-17 14:52:34	Operation Log	Normal	Insert Camera	Success	STAdmin	Local	New Camera Name=IP7135, New IP...
9	2008-10-17 14:55:09	Operation Log	Normal	Insert Camera	Success	STAdmin	Local	New Camera Name=PT7137, New I...
10	2008-10-17 14:55:56	Operation Log	Normal	Insert Camera	Success	STAdmin	Local	New Camera Name=VS2403, New I...
11	2008-10-17 15:47:18	Operation Log	Normal	Update Recording Schedule	Success	STAdmin	Local	Schedule Name=Default Schedule
12	2008-10-17 21:24:18	Operation Log	Normal	Update Layout	Success	STAdmin	Local	Target LMS Name=Default Map, Ne...
13	2008-10-17 21:24:19	Operation Log	Normal	Logout	Success	STAdmin	Local	

Clear All Results Trace Login Activities Local Logs Login History Login Activities



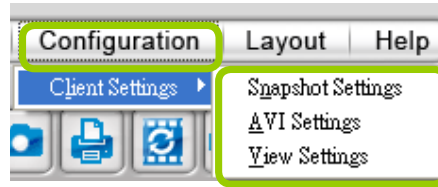
When you select **All** in Log level field, the search results will include all levels of logs. If you select **Low** in Log level field, and check **Including above level** as the right picture below, the search results will also include all levels of logs. But if you select **Normal** in Log level field, and check **Including above level** as the right picture below, the search results will only include **Normal-level** and **High-level** logs.

Log Level: Including above level

Log Level: Including above level

How to Configure Client Settings

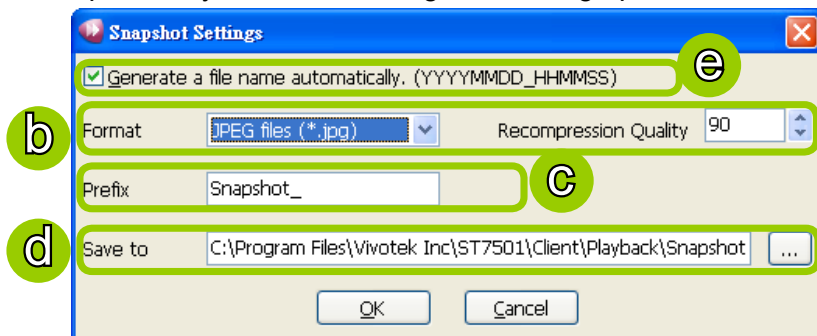
In Client Settings, you can configure Snapshot Settings, AVI Settings, and View Settings. It allows you to save snapshots and AVI files on "local computer (client side, not server side)."



Snapshot Settings

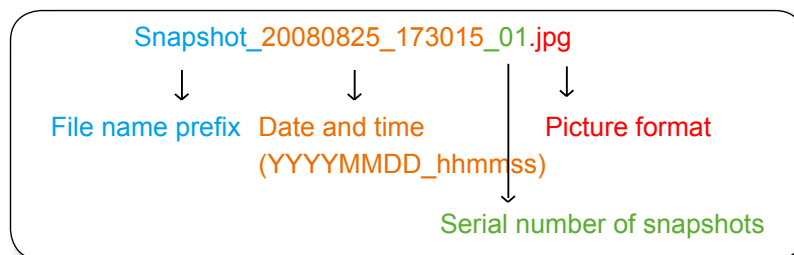
Please follow the steps below to configure snapshot settings:

- Click **Configuration > Client Settings > Snapshot Settings** on the menu bar to open the **Snapshot Settings** window.
- Select a picture format for snapshots (**BMP** or **JPEG**). If you select **JPEG** format, you can adjust the value of quality (from 1 to 100). Note that higher value would generate higher picture quality but lower compression rate.
- Enter a descriptive Prefix for the filenames of snapshots.
- The default storage path for snapshot is C:\Program Files\Vivotek Inc\ST7501\Client\Playback\Snapshot. If you want to change the storage path, click **Browse** ... to select another folder.

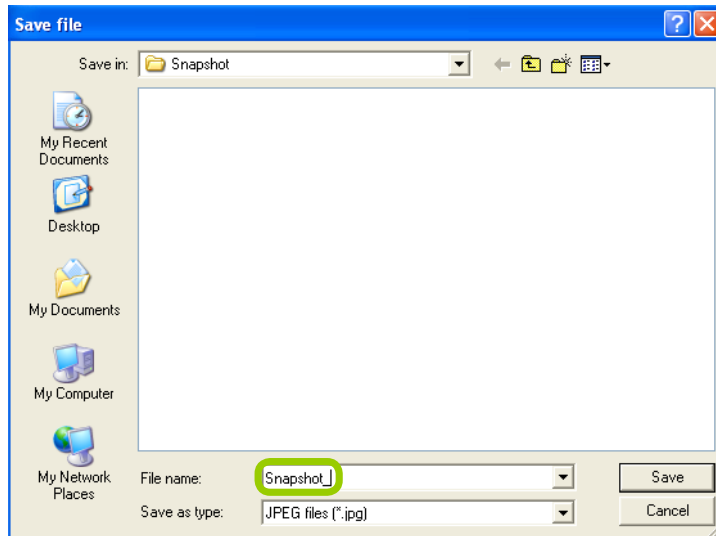


The recompression quality is only enabled in MPEG-4 streaming. If your stream source is MJPEG, the system will directly save the JPEG image without recompression.

- If you check **Generate a file name automatically**, ST7501 will directly save snapshots with filename in the following format to the storage folder.




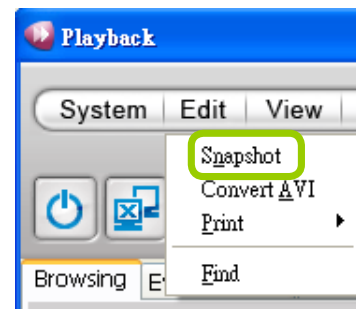
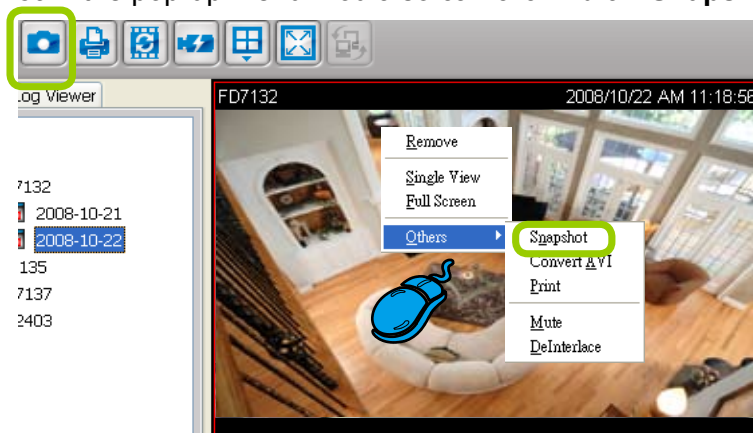
If you uncheck **Generate a file name automatically**, a **Save file** dialog will pop up when you take a snapshot. And the file name prefix will automatically show up in the Save File dialog.



Take a Snapshot

Please follow the steps below to take a snapshot of recorded video:

- a. Select a video cell you want to take a snapshot.
- b. Click **Snapshot**  on the quick access bar, or **right-click** the video cell and select **Others > Snapshot** in the pop-up menu. You also can click **Edit > Snapshot** to take a snapshot.



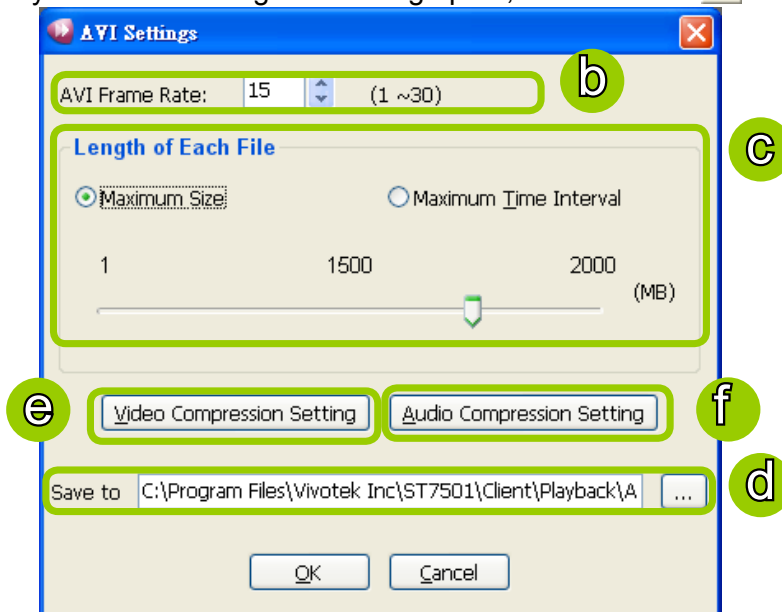
- c. The snapshots will be found in the storage folder on your local computer according to the snapshot settings.

AVI Settings

While you play a recorded video, the **Convert AVI** function allows you to export the recorded video in AVI format to your storage folder.

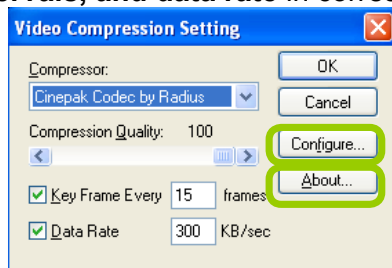
Please follow the steps below to configure AVI converting and exporting settings:

- Click **Configuration > Client Settings > AVI Settings** on the menu bar to open the **AVI settings** window.
- Edit the value of AVI frame rate (frame number per second).
- Select Length of AVI file-- **Maximum Size** (1~2000MB) or **Maximum Time interval** (1~150 min).
- The default storage path for AVI exporting is C:\Program Files\Vivotek Inc\ST7501\Client\Playback\AVI. If you want to change the storage path, click **Browse ...** to select another folder.



Because an AVI file has limitation of maximum file size not larger than 2G bytes. If the setting time length would generate data bigger than 2G bytes, several files will be generated.

- To modify the video compression settings, click **Video Compression Setting** to open the AVI Video Compression Setting window. Select the desired **video compression algorithm, compression quality, intervals, and data rate** in corresponding fields.



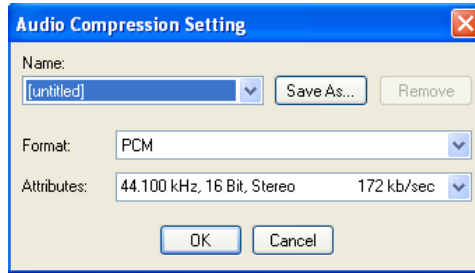
If you do not compress the video, the generated AVI file would be very large.

- To modify the settings of a compression algorithm, click **Configure**, a dialog will then pop up for you to modify the settings. The settings dialog is different from different compression.

- To see the information of a compression algorithm, such as its version, click **About**, a dialog will then pop up showing the related information. The settings dialog is different from different compression.




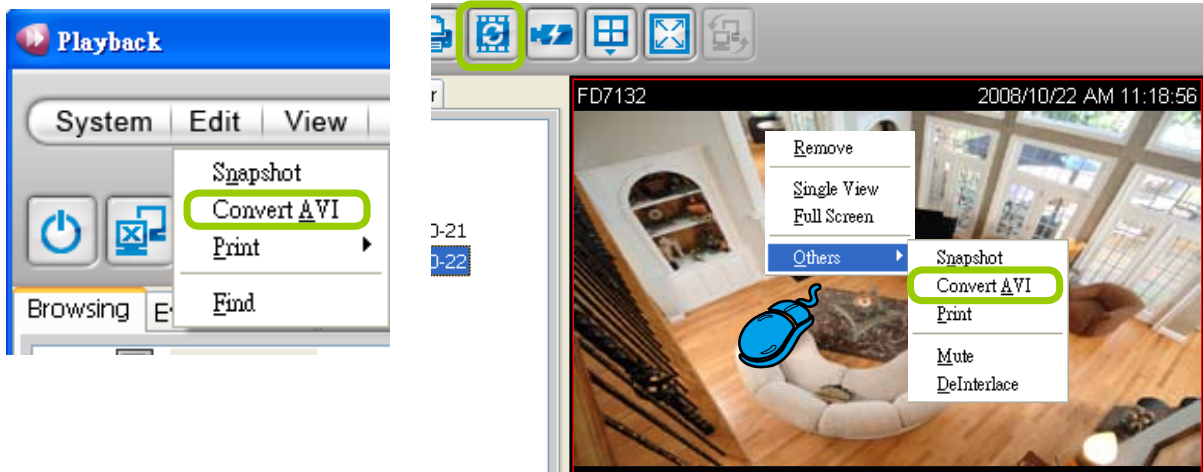
- f. To modify the audio compression settings, click **Audio Compression Setting** to open the AVI Audio Compression Setting window. Select the desired **audio quality, format, and attributes** in the corresponding fields.





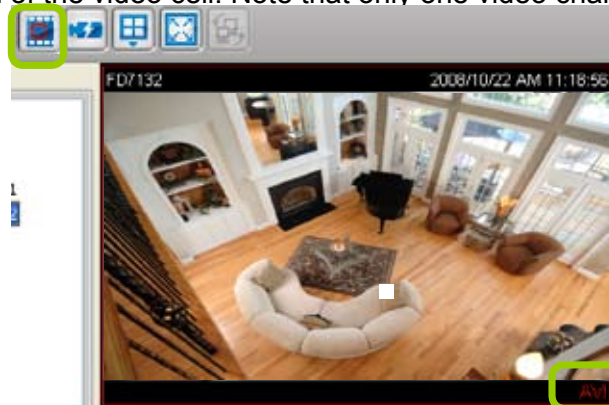
Convert an AVI File




Please follow the steps below to convert an AVI file of recorded video:

- Select a video cell you want to convert an AVI file.
- Click **Convert AVI**  on the quick access bar, or **right-click** the video cell and select **Convert AVI** in the pop-up menu. You also can click **Edit > Convert AVI** on the menu bar.

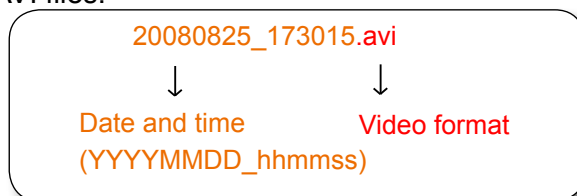


- The icon of **Convert AVI**  will then turns into **Converting AVI** , and a red AVI text string (**AVI**) will show at the right-bottom of the video cell. Note that only one video channel can be exported at a time.



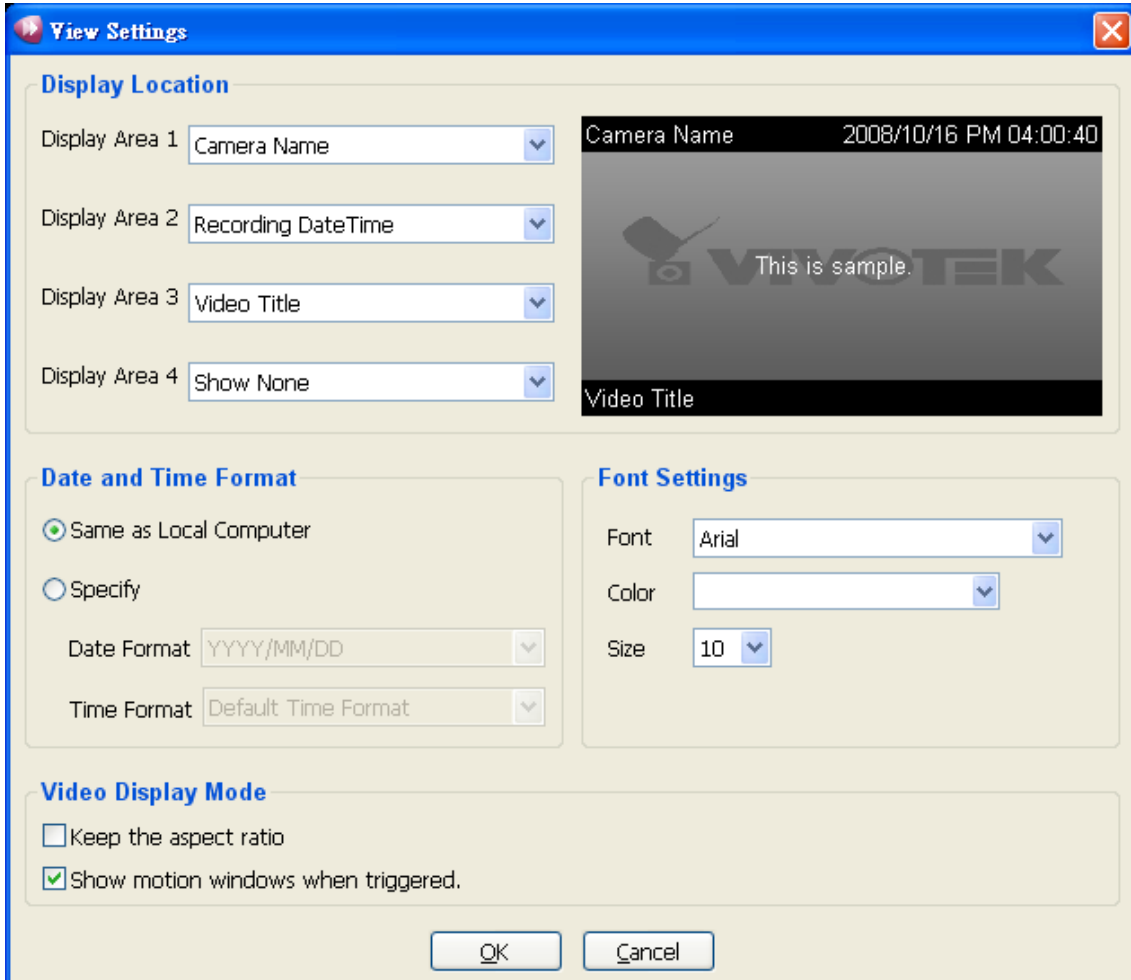
- When you want to terminate the AVI converting, click **Converting AVI**  on the Quick Access Bar. The exporting process will then terminate and the AVI Export button will change from  to . The exported AVI files can be found in the storage folder on your local computer according to the AVI convert settings.

Below is the file format of AVI files:

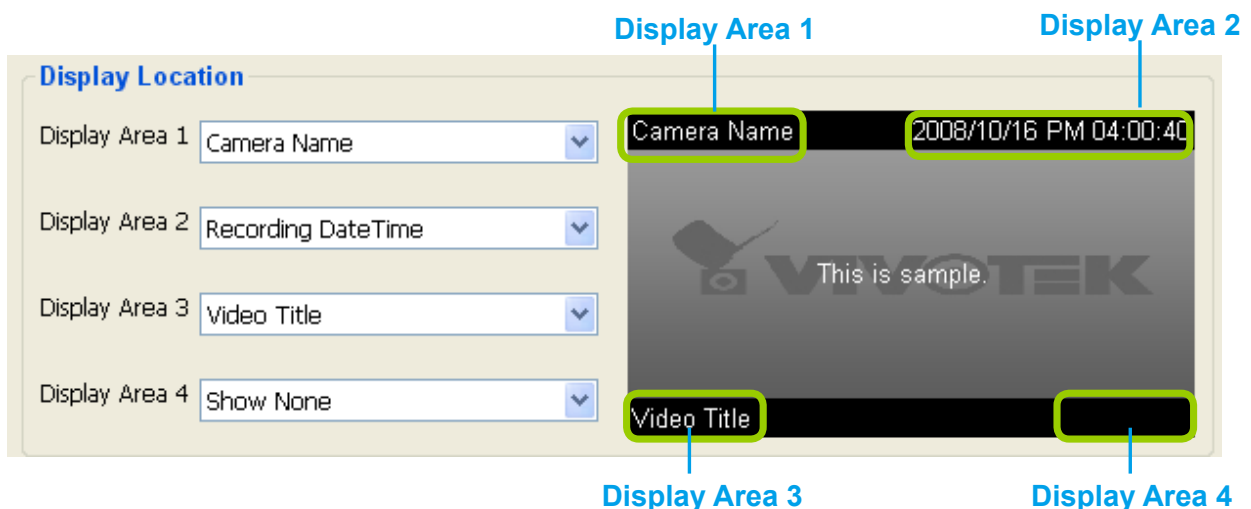


View Settings

This section allows you to set up the display mode of video cell, including **Display Location**, **Date and time Format**, **Video Display Mode**, and **Font Settings**. When you change the settings, the sample window will change accordingly for you to preview the settings.



Display Location



As the illustration shows, there are 4 display areas for you to put the information about the live video. Each drop-down list includes 6 options for you to select: **Show None**, **Camera Name**, **Video Title**, **Camera Date**, **Camera Time**, and **Camera DateTime**.

Date and time Format

- **Same as local computer:** Select this option, the date and time format will sync with the settings in the locale panel of your computer.
- **Specify:** Select a desired format for date and time on the drop-down list.

Date format: Select YYYY/MM/DD or MM/DD/YY

Time format: Select default Time Format (sync with the settings in the locale panel of your computer), 12h AM/PM, or 24h.

Video Display Mode

- **Keep the aspect ratio:** In default settings, the size of video cells will change according to the layout of the monitoring window you choose. However, the frame size may be distorted. If you check **Keep the aspect ratio**, the video cell will be adjusted to the right frame size as the sample window shows. This function is disabled in default setting.
- **Show motion window when triggered:** If you check this item, the motion detection window will show up in the video cell when motion triggered. This function is enabled in default setting.



For detailed information about how to set up the layout of the monitoring window, please refer to **How to Change Video Viewing Mode** on page 26.

Font Settings

This function allows you to change the font on video cell.

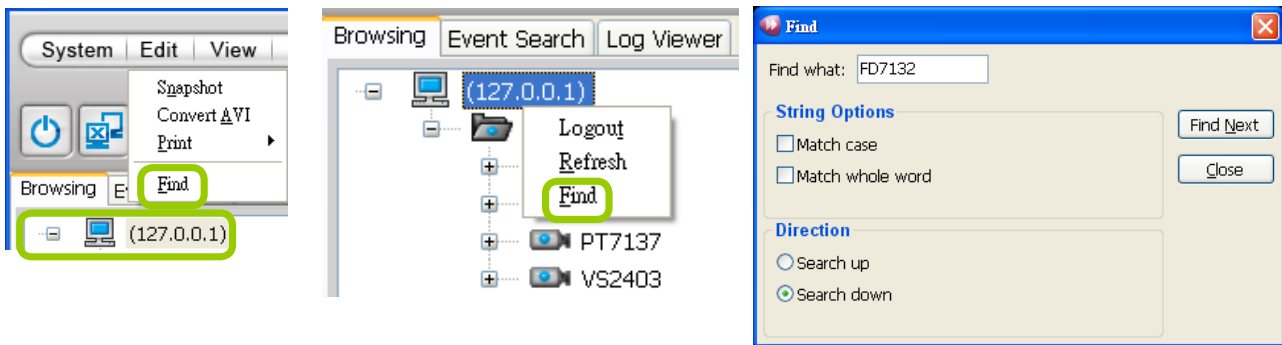
- **Font:** It will automatically list all fonts installed on your computer. Select a desired one.
- **Color:** Select a desired font color (white, red, green, blue).
- **Size:** Select a desired font size (8, 10, 12, 14).

How to Search for a Device on the Device Tree

This function is very convenient for you to quickly search for an inserted device, especially when you insert many devices.

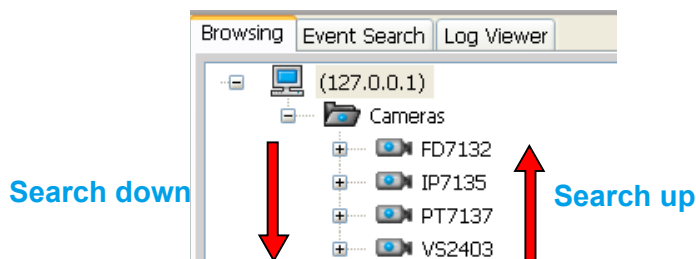
Please follow the steps below to find a device on the camera list:

- a. Click the station on the device tree, and then click **Edit > Find** on the menu bar. (Or you can **right-click** the station, and then click **Find** on the pop-up menu.)

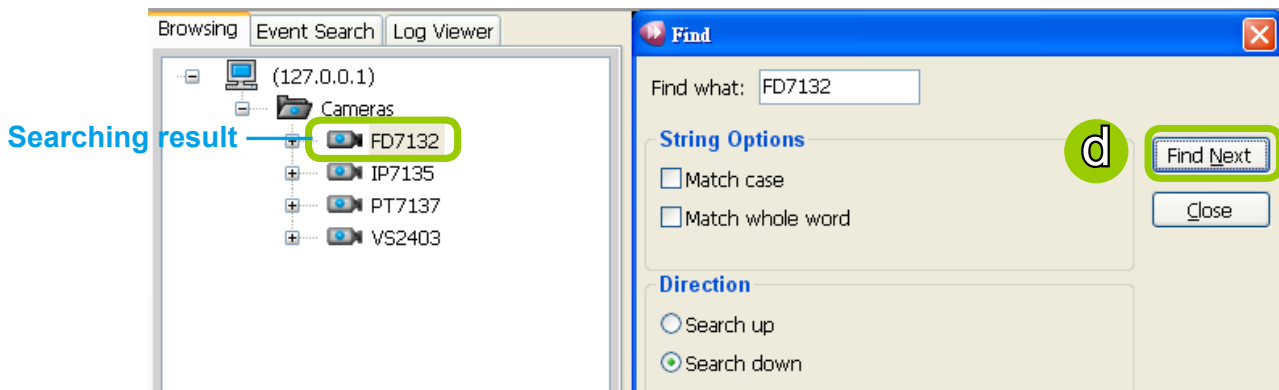


- c. The **Find** window will pop up for you to set up your searching criteria.

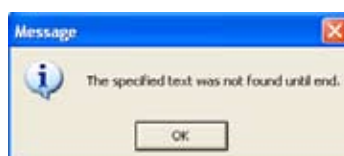
- Find what: Enter a descriptive string in the blank. The string can be the full or partial name of the device you want to search.
- String Options: **Match case** means that the searching result should be identical to the string in lower-case or upper-case letters, and the string can be part of a word. **Match whole word only** means that the searching result should be identical to the string in every characters, and the string should be a complete word or phrase. If you select both items, the searching result should conform to all criteria listed above.
- Direction: Select either **search up** or **search down**.



- d. Click **Find Next**, the searching result will be marked as below.




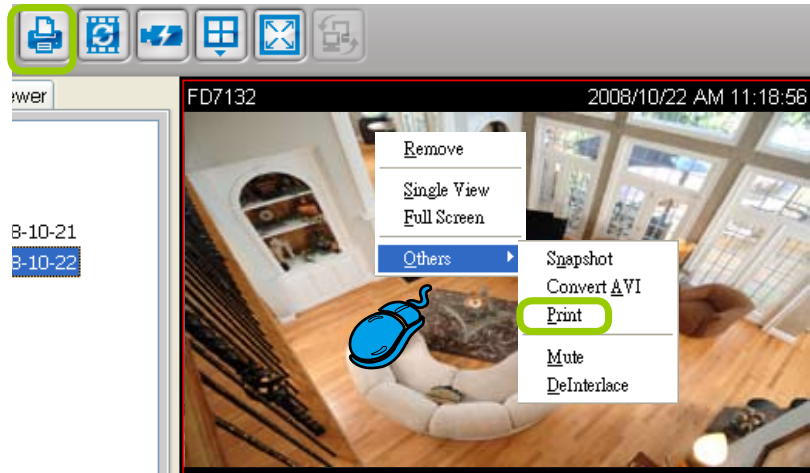
- e. If there is nothing found in the camera list, a message will pop up as below:



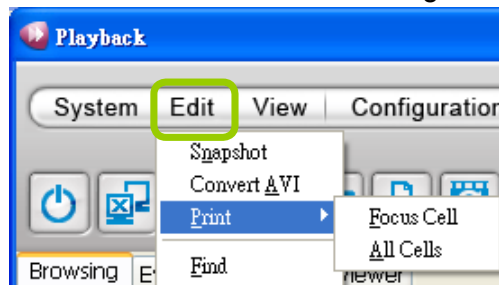
How to Print Out a Video Picture

There are two ways to print out a video picture of live video:

1. Select a video cell, then click **Print**  on the quick access bar, or **right-click** the video cell and select **Print** in the pop-up menu. A Print window will pop up for you to choose the printer.






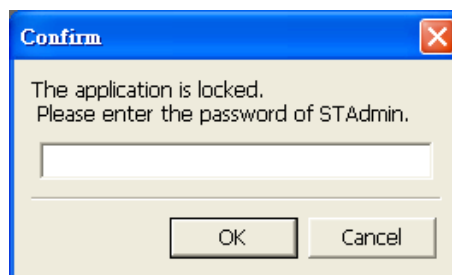
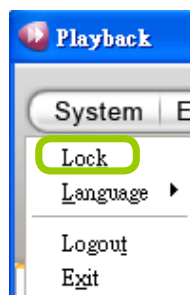
2. You also can click **Edit > Print** to print out a video picture.
 - Focus Cell: Print out a picture of the target video.
 - All Cells: Print out a picture with all video cells in the monitoring window.




How to Lock Playback for Security Concerns

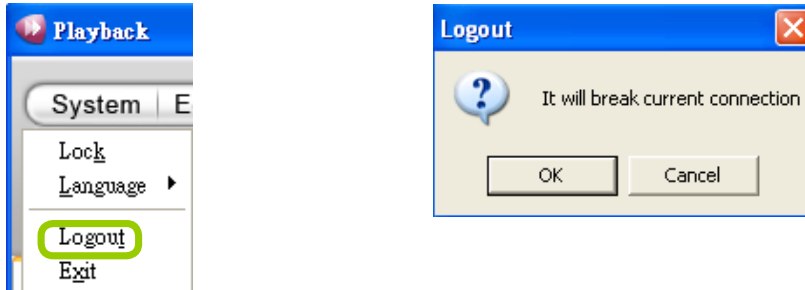
If you are to be away from your computer, for security concerns, we suggest you lock the program. When ST7501 Playback is locked, the user must enter the correct password to unlock and reaccess the program.

- To lock Playback, click **Lock**  on the quick access bar or click **System > Lock** on the system menu. The icon of **Lock**  will then turns into **locked** .
- To unlock Playback, enter the correct password in the popup window.




How to Logout from the Server

To logout from the current server, click **Logout**  on the quick access bar or click **System > Logout** on the menu bar. A confirmation window will pop up. Click **OK** to confirm or **Cancel** to return to the ST7501 Playback window.



How to Exit the Application

To exit ST7501 Playback, click **Exit**  on the quick access bar or click **System > Exit** on the menu bar. A confirmation window will pop up. Click **OK** to confirm or **Cancel** to return to the ST7501 Playback window. When you exit the program, your user account will be automatically logged out from the current server.

