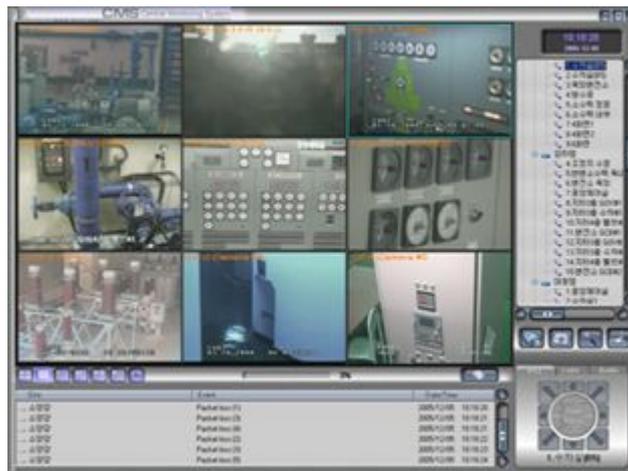


High-Quality IP Video Surveillance

True CMS (User Manual)



TRUEN

Last modified: 2008-06-03

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1. True CMS Overview

- True CMS is a program to offer real time A/V monitoring with multiple connections to video servers and IP cameras. It also offers various Recording functions plus Search and Playback.
- The program consists of two different programs: **True CMS** and **True Search**. These programs run independently and offer real-time monitoring and playback respectively.
- The CMS offers not only Video/Audio monitoring but also Recording, Playback, Event monitoring, Alarm & PTZ Control and Remote set-up function-like features which DVRs offer.

System Requirement

OS: Windows XP, Windows 2000
CPU: 2GHz or higher
Memory: 512MB or higher
VGA: 128MB RAM or higher
Hard disk capacity : 20MB or more free space

2. Installation and Start-up

Upon successful installation of True CMS package, True CMS icon is created on the Desktop and a program group is created.

True CMS icon

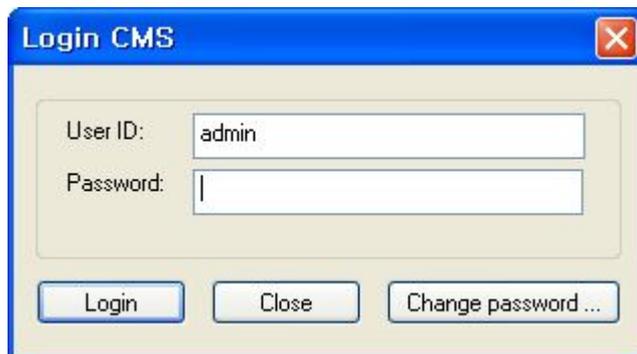


Program group

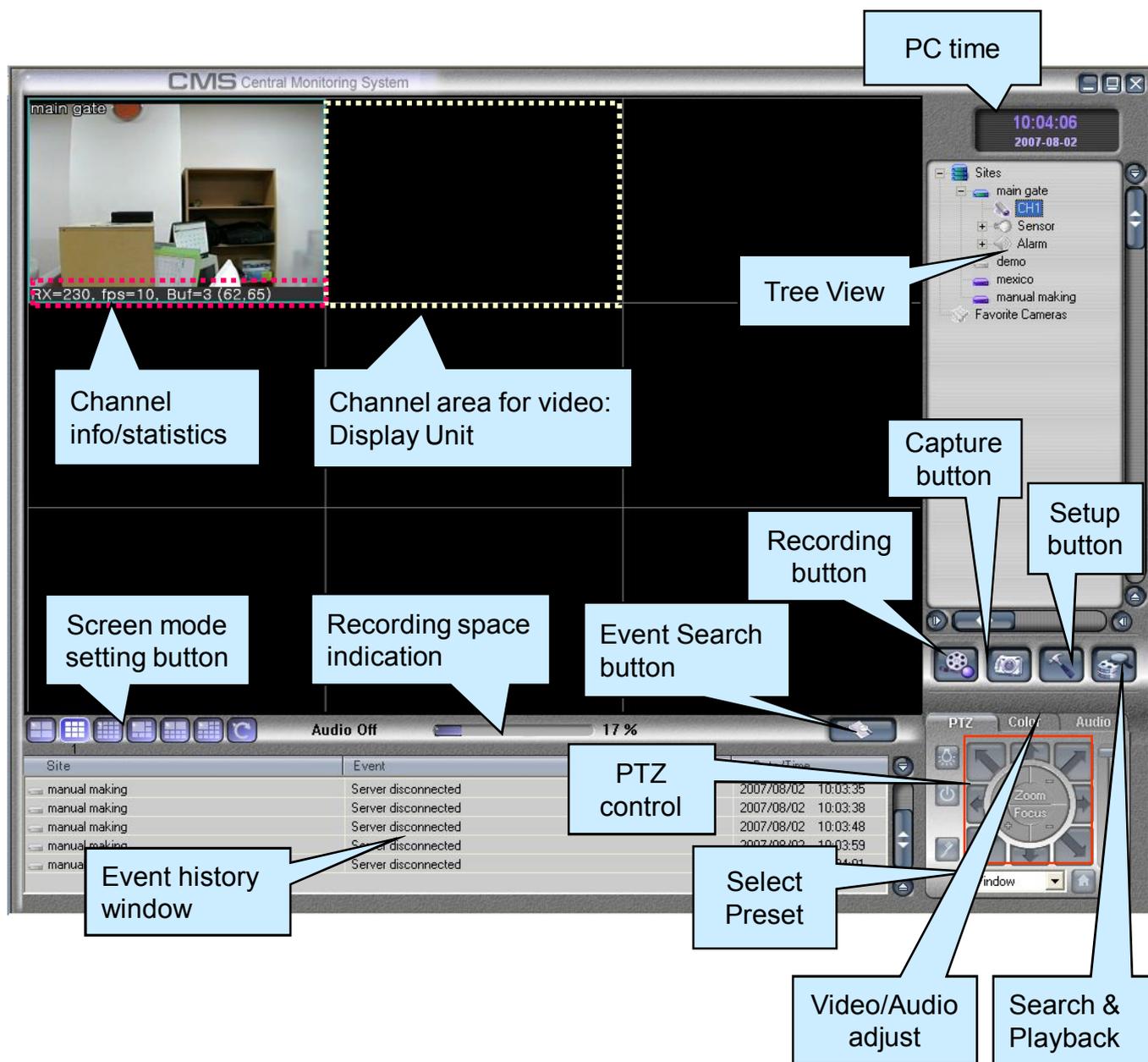


True CMS is started by double clicking the icon or selecting True CMS menu in the group.

Login dialog comes first to allow only registered users to use the system. User 'admin' exists by default and its password is blank(none) unless specified differently in the last step of the installation.



3. Main Screen Configuration



4. Registration & Connection of Server

4.1 Registration of server

Video transmitting device such as video server and IP camera is referred as 'server' in this manual. True CMS connects to servers in order to get audio/video streams and events for viewing and recording.

The first step for connection is to register the server in True CMS.

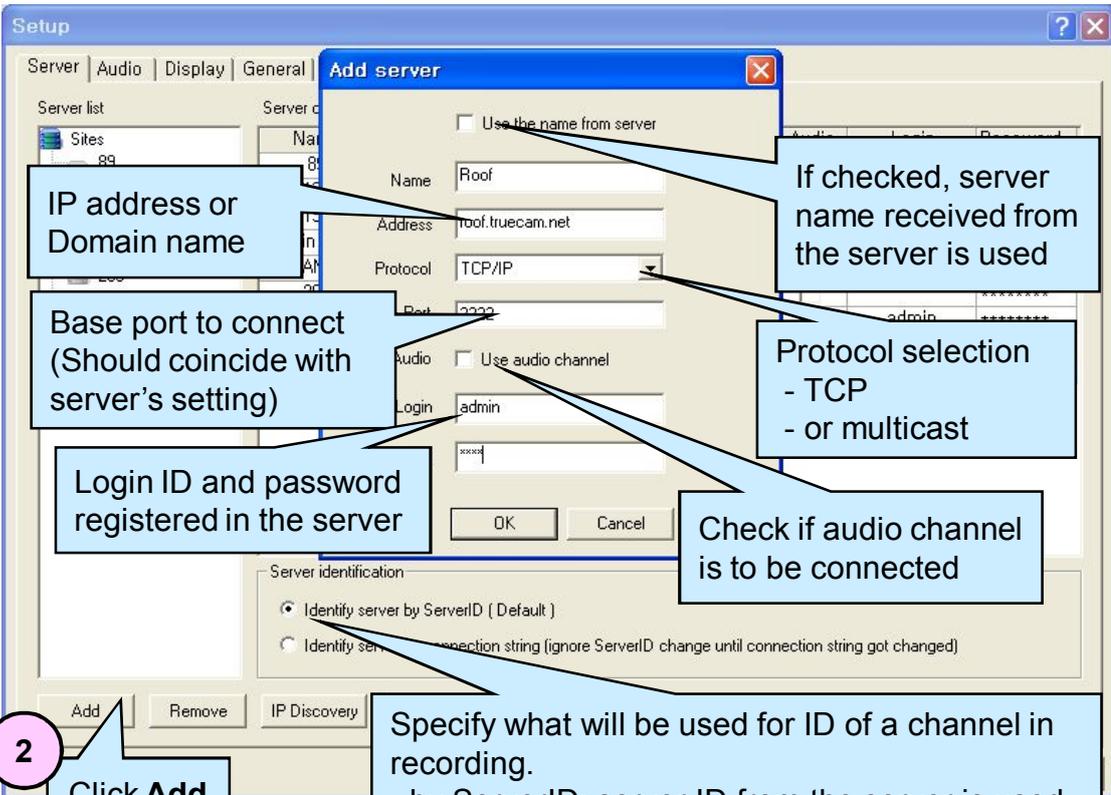
1

Click **Setup** button



2

Click **Add** button



IP address or Domain name

Base port to connect (Should coincide with server's setting)

Login ID and password registered in the server

Check if audio channel is to be connected

Specify what will be used for ID of a channel in recording.

- by ServerID: server ID from the server is used
- by connection string: IP address or domain name is used

This setting need not be touched unless server device or address of the server is changed frequently.

If checked, server name received from the server is used

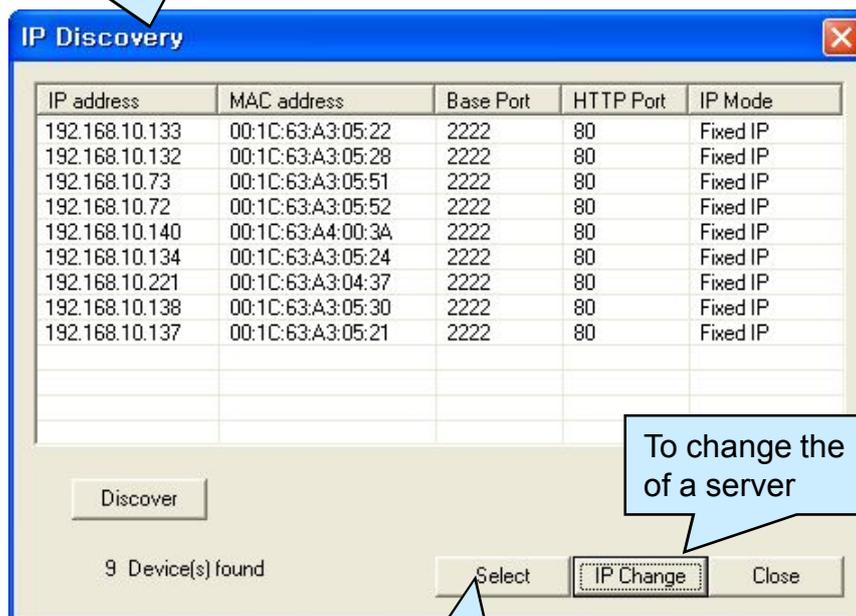
Protocol selection - TCP - or multicast

4-2 Finding servers with IP Discovery

Servers on the LAN can be discovered conveniently using IP Discovery function. After discovering servers, it is possible to select a server for registration or to change the IP address of the server.

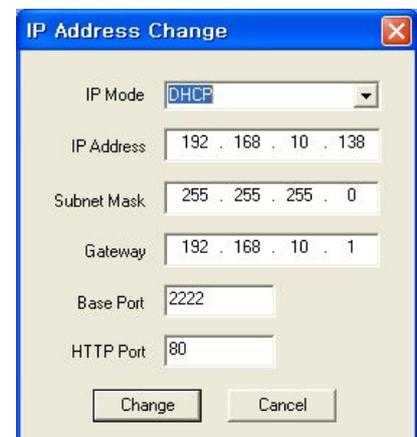
Notice: IP Discovery uses UDP packets for finding server. So, it may not work when the firewall is activated on the PC.

IP Discovery dialog comes on pressing **IP Discovery** button in **Server** page



To change the IP address of a server

To register a server

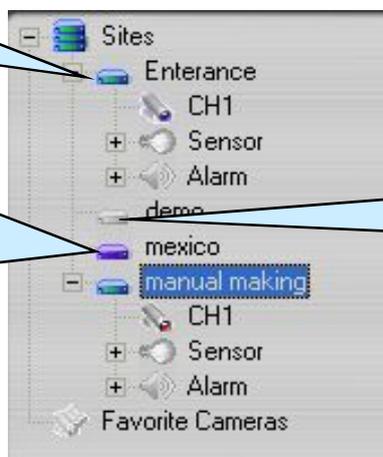


4-3 Managing server connection using Tree View

Servers registered at **Server** tab of Setup dialog are shown on Tree View. A server's connection state is distinguishable by colour of the tree node.

BLUE :
Connected state

PUPPLE :
“Trying connection”
state: disconnected
state due to server
failure or network
problem



GREY :
Disconnected by user

Once clicking right button on PC mouse at tree node, it shows **Connect** or **Disconnect** menu. Using this menu, it is possible to connect or disconnect to a server individually.

It is also possible to connect or disconnect all registered servers at once by using the menu on root('Sites') node



Connect/Disconnect on
server node



Connect/Disconnect on
root node

5. Live Monitoring

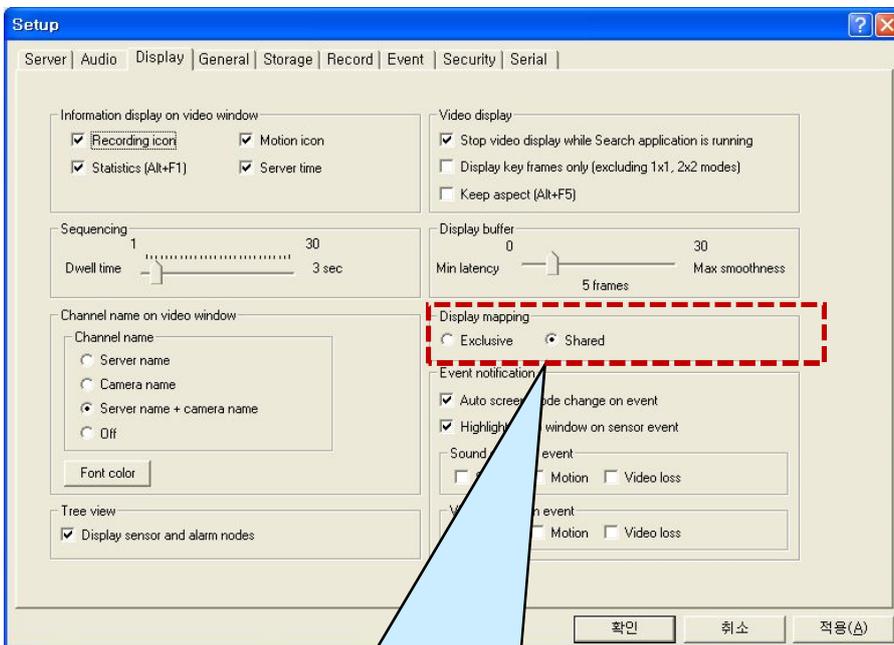
5.1 Screen mode and channel mapping

1) Mapping channels and video windows

Mapping between Server channel and Display Window

There are two ways to make a mapping between server channel and display window. In case only 1 channel servers or IP cameras are connected, use of Shared mapping is general.

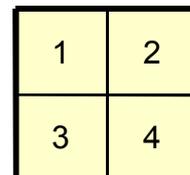
1. Exclusive mapping
 - Channels of currently selected server are displayed on video windows in orders. Channels of other servers are not displayed.
2. Share mapping (default)
 - All channels of all servers are displayed in the order in the Tree View.



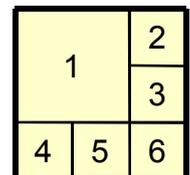
Display mapping: how channels and windows units are mapped

Numbering of Display Windows

The order numbers of display windows are numbered left-to-right, top-to-bottom starting from the upper-left corner window.



2x2 mode



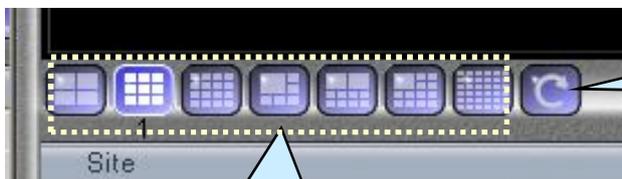
1+5 mode

5-1 Screen mode and channel mapping

2) Using various screen modes

Configuring screen mode

Screen mode can be selected by pressing one of buttons for screen mode configuration. Using **Sequence** button, it is possible to display channels sequentially in a specified interval.



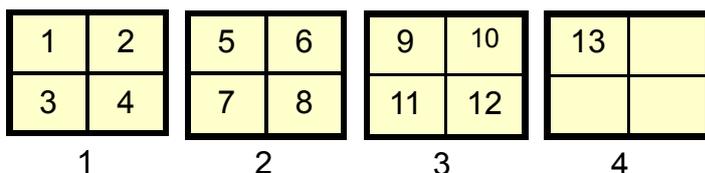
Sequence button
(Auto-rotation
function)

Screen mode buttons
- 2x2, 3x3, 4x4, 1+5, 2+8, 1+12, 6x6

Page transition

If the number of channels are larger than the number of video windows in current screen mode, they are mapped to more than one pages of display windows.

For instance, if the number of total channels is 13 and current display mode is 2x2, there will be 4 pages.



Press this icon
to transit to the
next page

Indicate current
page number

5-1 Screen mode and channel mapping

3) Active channel

Active channel

Currently selected channel is called as 'Active channel'. Active channel is the channel affected by the following operation:

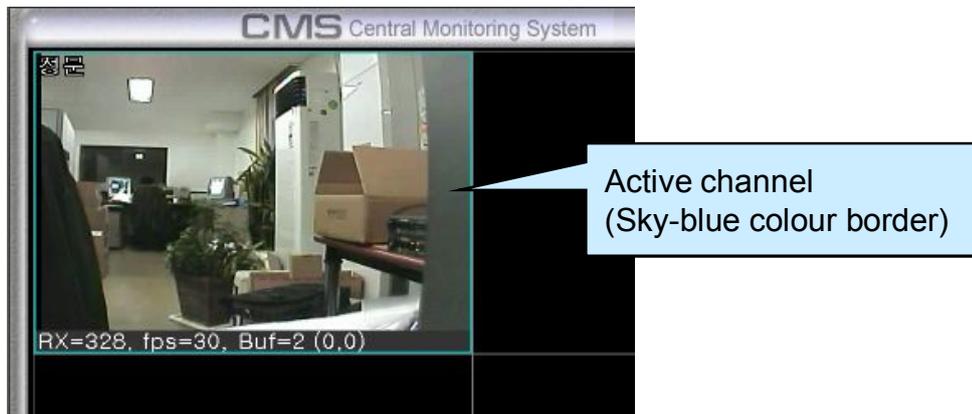
- PTZ control
- Audio Tx/Rx

Identification of active channel

Border line of the active channel is sky-blue coloured.

Selecting the active channel (one of the two method)

- Click mouse on the display unit
- or
- Select the camera in the Tree View



5-1 Screen mode and channel mapping

4) Video loss and video off

If video stream comes normally from the server, decoded video is displayed on the corresponding display unit.

Video loss

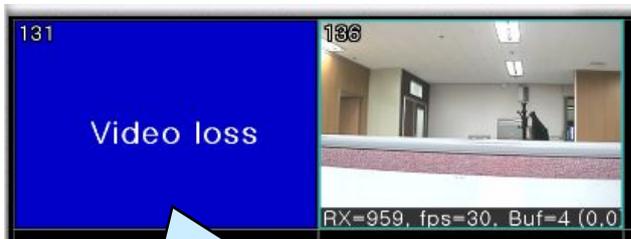
Video loss state, absence of video input signal in the server, is visible in two ways:

- The display unit displays 'Video loss' message
- Camera node in the Tree View shows special sign

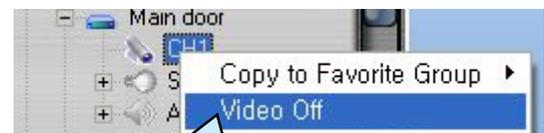
Video-off

Video delivery from the server can be stopped by selecting **Video Off** menu on a camera node. Such state is referred as video-off state.

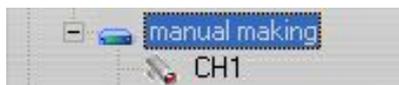
Display unit is not allocated for a channel of video-off state.



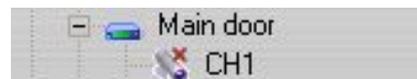
'Video loss' message on display unit for absence of normal video input to the server



Video On/Off menu to control video stream delivery from the server



Red sign in camera node represents video loss state



X sign in camera node represents video-off state

5-1 Screen mode and channel mapping

5) Display setting

Recording icon:

- Recording Icon (red bullet) is displayed on the video window when corresponding video channel is being recorded

Motion icon:

- Motion icon is displayed on the video window when motion is detected on the corresponding video channel

Statistics:

- Audio/Video statistics are display at the bottom of all video windows

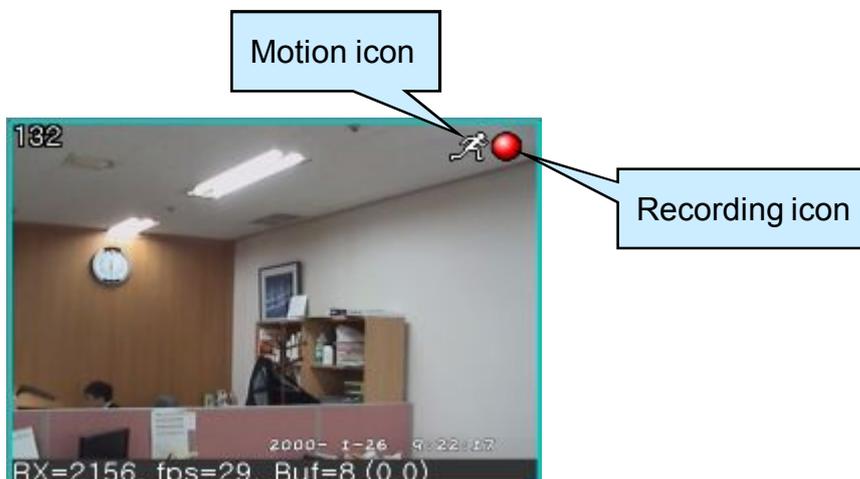
Server time:

- Server time for the channel is displayed on the lower-left corner of each display unit

Interval for display sequencing

Configure how channel name on video window is displayed

To display sensor and alarm nodes on Tree View



5-1 Screen mode and channel mapping

5) Display setting

The screenshot shows the 'Setup' window with the 'Display' tab selected. The window has a menu bar with 'Server', 'Audio', 'Display', 'General', 'Storage', 'Record', 'Event', 'Security', and 'Serial'. The 'Display' section includes the following settings:

- Video display:**
 - Stop video display when True Search application is running
 - Display key frame only (1, 2, 3, 4, 5)
 - Keep aspect ratio mode
- Display buffer:** 0
- Min latency:** 5 frames
- Display mapping:**
 - Exclusive
 - Select display mapping mode
- Event notification:**
 - Auto screen mode change
 - Highlight video window
 - Sound effect on event:**
 - Sensor
 - Motion
 - Video loss

Callouts provide the following explanations:

- Stop video display of CMS when True Search is running (Useful when PC is overloaded by running CMS and True Search together):** Points to the 'Stop video display when True Search application is running' checkbox.
- Display key(I) frames only (See below):** Points to the 'Display key frame only' checkbox.
- Aspect ratio mode - To stretch to fill display unit or - Keep aspect ratio of the frame:** Points to the 'Keep aspect ratio mode' checkbox.
- Select display mapping mode:** Points to the 'Select display mapping mode' radio button.
- Red rectangle on event:** Points to the 'Auto screen mode change' checkbox.
- Windows' beep sound on event:** Points to the 'Sound effect on event' section.
- Video-off state of a channel is changed to video-on state on events:** Points to the 'Auto screen mode change' checkbox.
- Control the number of frames to be buffered for smooth display:** Points to the 'Min latency' field.
 - Small: delay is small, but smoothness may not be good
 - Large: delay is large, but video is more smooth
- Auto screen mode change: If a channel with event is not in visible state, screen mode is changed automatically to a mode with more display units: 1x1 -> 2x2 -> 3x3 etc.:** Points to the 'Auto screen mode change' checkbox.

Key frame only display mode

This mode is provided to reduce CPU load when large number of servers are connected and screen configuration mode displays more than 4 channels at the same time.

Full frames are displayed in the following cases even when this mode is enabled:

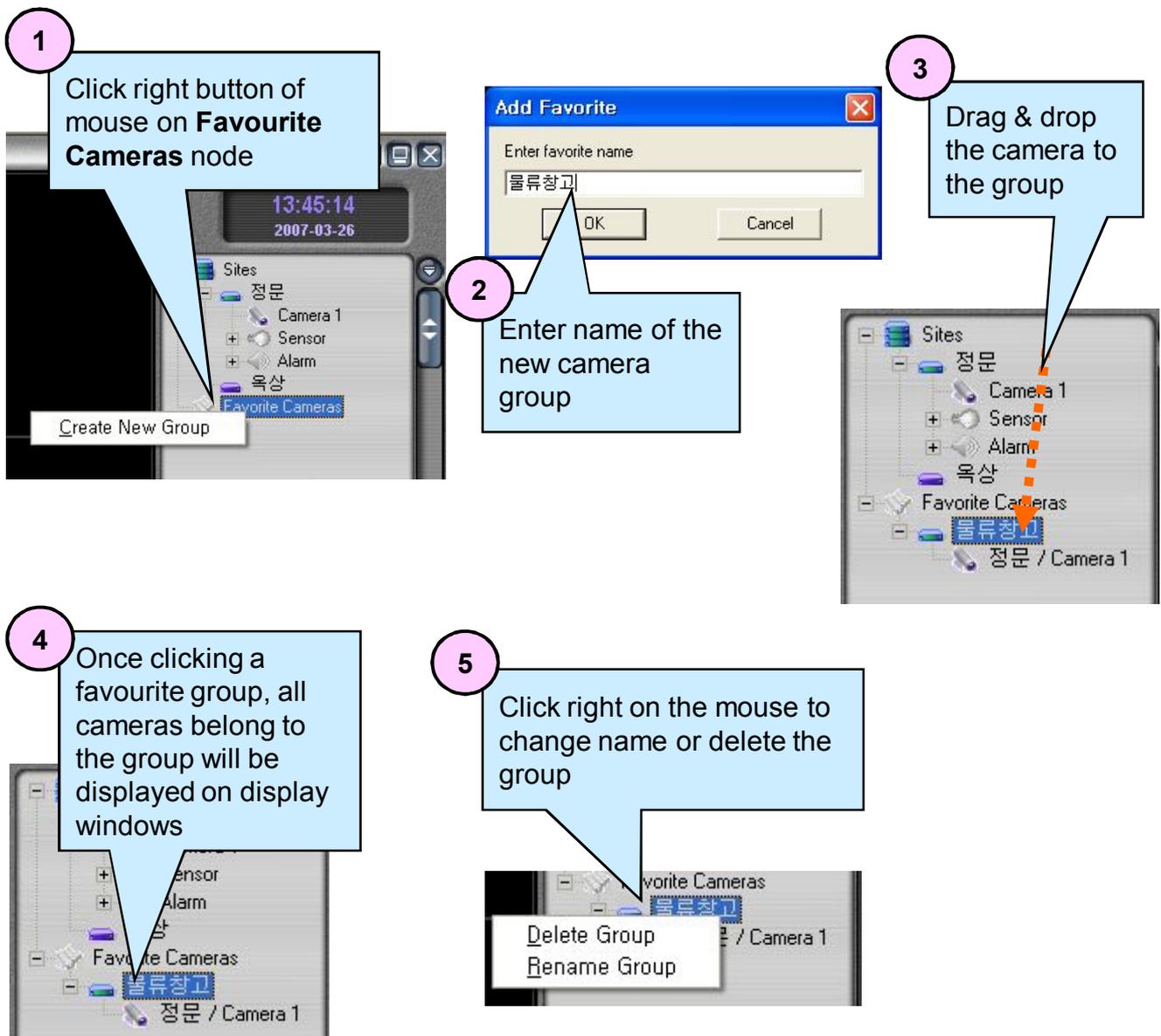
- (1) 1x1 mode, 2x2 mode: because only 4 channels are displayed
- (2) Currently selected(highlighted) channel in any screen mode: to provide interactivity in PTZ control

5-1 Screen mode and channel mapping

6) Managing favourite group

Favourite Camera Group

Cameras from different servers can be selected to form a **Favourite Camera Group**, which is convenient for monitoring groups of cameras of special interest.



5-2 Adjusting video input

Adjustable properties of video input

- Contrast, brightness, saturation

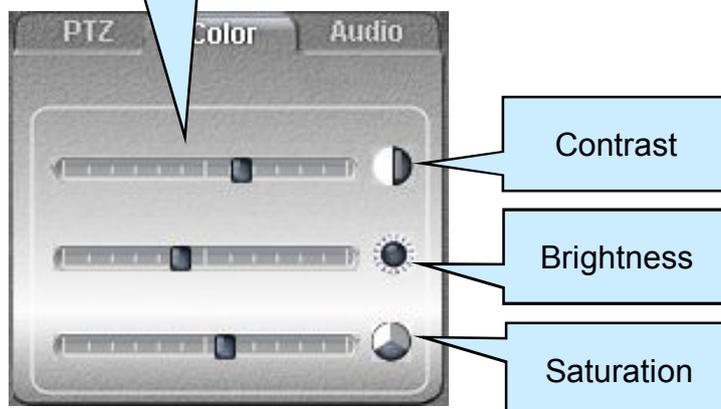
1

Select the channel to be adjusted
(Make it active channel)

- Select the display window
or
- Select the camera node in the Tree View

2

Adjust the property

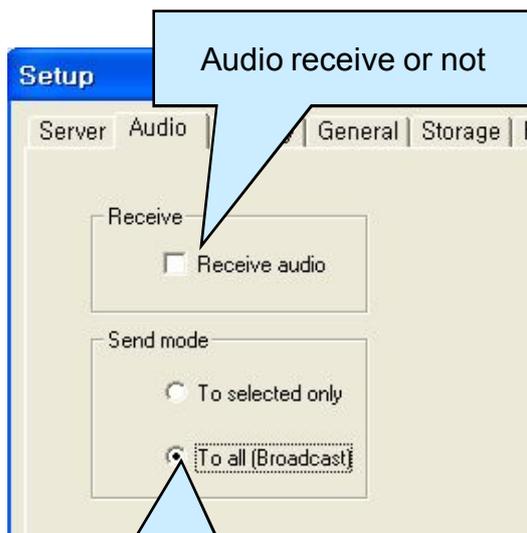


5-3 Audio setup and control

Audio communication modes

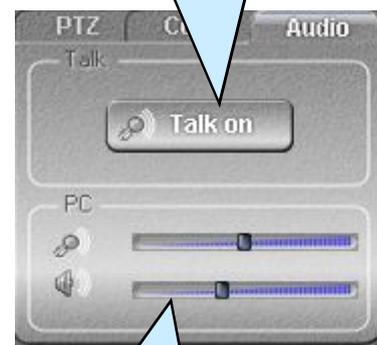
CMS -> Server : 1:1 or 1:N (broadcast) mode selectable

Server -> CMS : (In case of selecting Receive) CMS receives audio data from all servers which enabled audio TX. Only audio from active channel is output to PC speaker.



Send mode: Unicast or broadcast

Audio send On/Off



Adjust PC's mic and speaker volume

5-4 PTZ control & preset

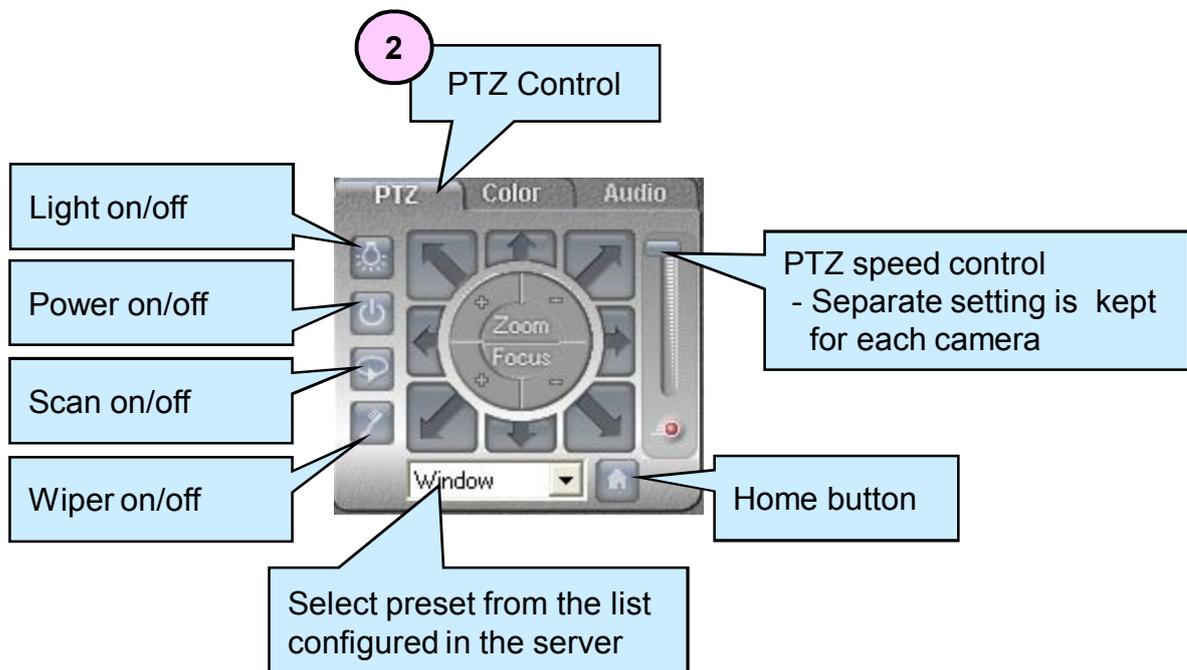
PTZ Control

True CMS supports PTZ control for PTZ receivers by major vendors such as Pelco, Samsung. We welcome the requirements from customer to add additional PTZ protocols.

Notice: Some features of camera may not be supported depending on camera types: light , power, wiper, home and diagonal direction button

1

- Select the Active channel (Refer 5-1-3)
 - Select display window
 - or
 - Select the camera node in the Tree View



On-Screen PTZ Control

It is also possible to control PTZ by clicking a display unit for a camera using the mouse.

- Clicking the mouse: Pan or Tilt control to corresponding direction
- Mouse scroll button: Zoom control

5-5 Event and alarm

1) Event monitoring

Types of events

Server event (Events from video server or IP camera)

- 1) No camera (video loss) 2) Sensor 3) Motion

Local (CMS) event

- Local events are generated by CMS

- 1) Server added/deleted 2) Server connected/disconnected
 3) CMS started/terminated 4) Connection failed
 5) Audio talk on/off 6) Setup opened/closed
 7) Search started/terminated

Events are displayed on Event Window as soon as they are generated.

Site	Event	Date/Time
Local event	CMS started	2007/03/26 13:44:27
정문	Server connected	2007/03/26 13:44:27
복합	Server disconnected	2007/03/26 13:44:33
복합	Server deleted	2007/03/26 13:44:33
복합	Server added	2007/03/26 13:44:45
정문	Sensor 1 on	2007/03/26 15:14:02

Site: server which triggered the event

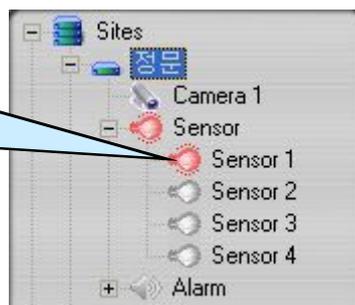
Event type

Event time

Event display/notification

- For sensor event, both Tree view and display unit show special marks.
- For any types of events, it is possible to generate sound effect (at **Display** tab)

Sensor node in the Tree view reflects the state of the sensor



The border of a display unit blinks in red colour when the sensor event happens on the corresponding server

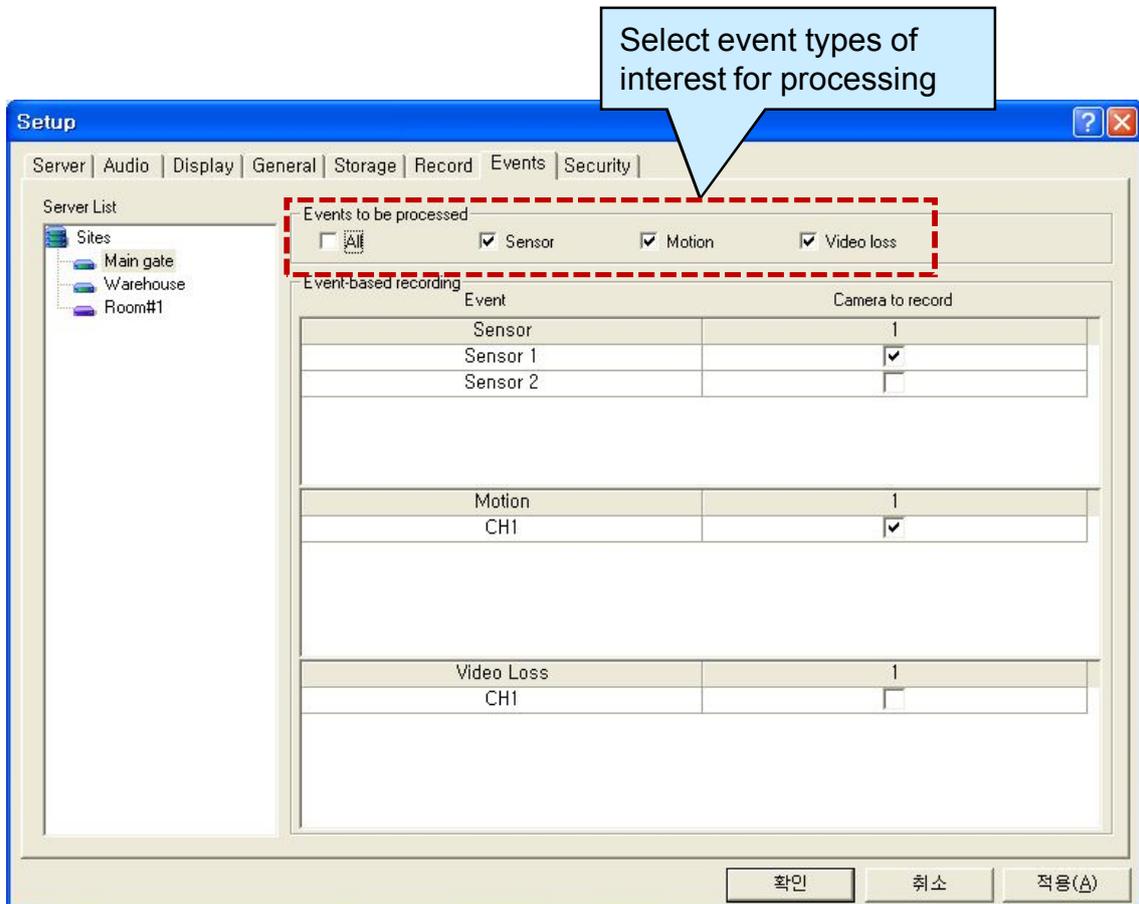


Blinking stops if the display unit is clicked by mouse

5-5 Event and alarm

2) Filtering events

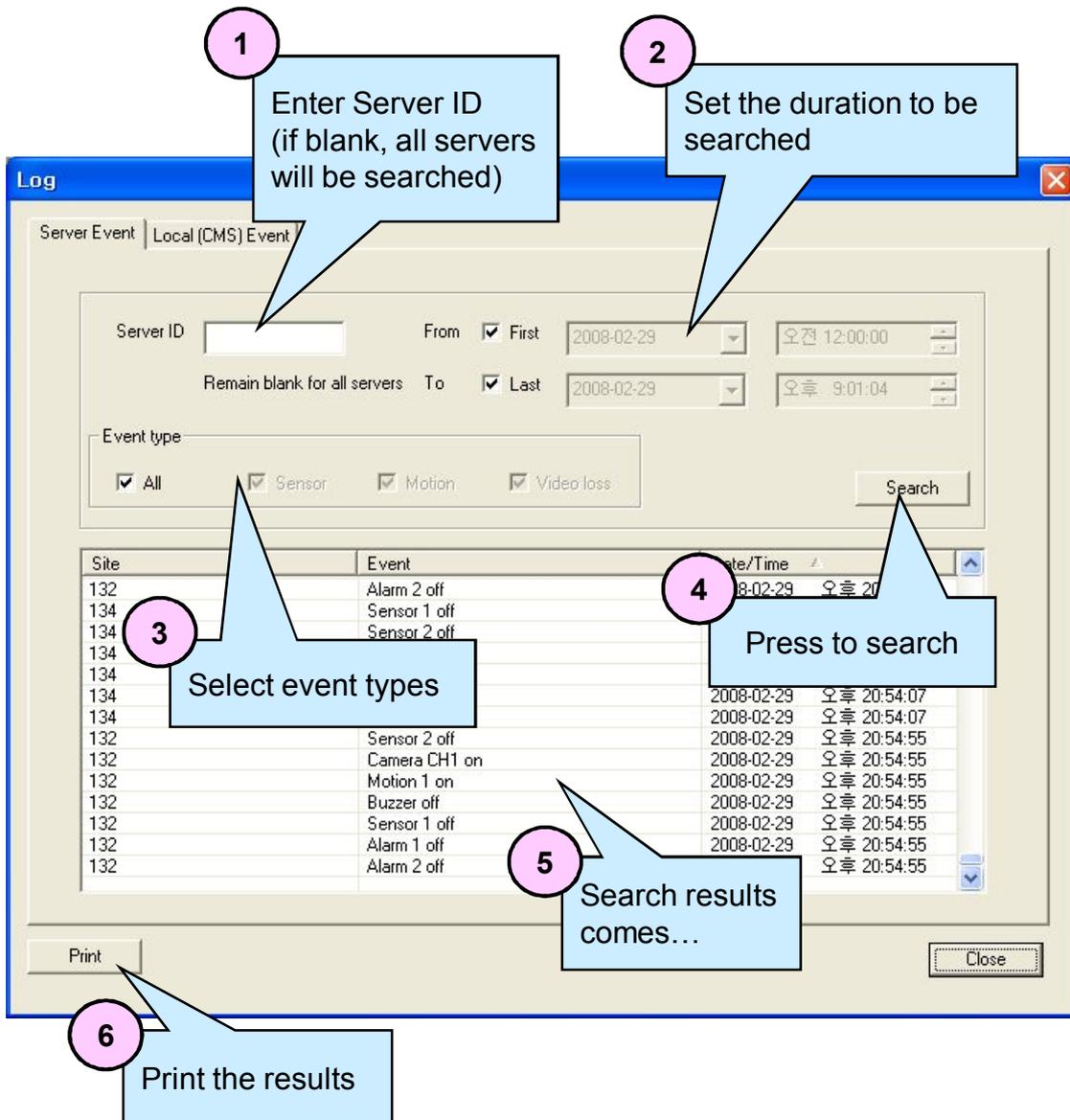
It is possible to select types of events from servers for processing. Only selected types of events are displayed, logged and recorded. For example, if a user doesn't want to monitor motion events, motion event can be unchecked. Then no motion events are displayed on Event Window.



5-5 Event and alarm

2) Event Search

Event Search window is invoked by pressing **Event Search** button 
Event Search window consists of two sections: Server event and Local (CMS) event. They can be searched in the same way.



The screenshot shows the 'Log' window with the 'Event Search' section active. The window is divided into two tabs: 'Server Event' and 'Local (CMS) Event'. The 'Server Event' tab is selected. The search criteria are as follows:

- 1** Enter Server ID (if blank, all servers will be searched): The 'Server ID' field is empty.
- 2** Set the duration to be searched: The 'From' date is 2008-02-29, 'To' date is 2008-02-29, 'From' time is 오전 12:00:00, and 'To' time is 오후 9:01:04.
- 3** Select event types: The 'Event type' section has checkboxes for 'All', 'Sensor', 'Motion', and 'Video loss', all of which are checked.
- 4** Press to search: The 'Search' button is highlighted.
- 5** Search results comes...: The search results are displayed in a table below the search criteria.
- 6** Print the results: The 'Print' button is highlighted.

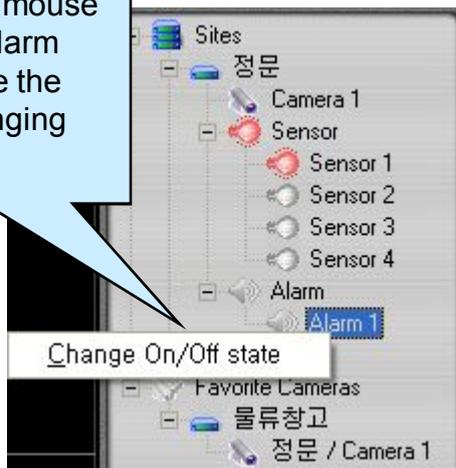
Site	Event	Date/Time
132	Alarm 2 off	2008-02-29 오후 20:54:07
134	Sensor 1 off	2008-02-29 오후 20:54:07
134	Sensor 2 off	2008-02-29 오후 20:54:07
134		2008-02-29 오후 20:54:07
134		2008-02-29 오후 20:54:07
134		2008-02-29 오후 20:54:07
132	Sensor 2 off	2008-02-29 오후 20:54:55
132	Camera CH1 on	2008-02-29 오후 20:54:55
132	Motion 1 on	2008-02-29 오후 20:54:55
132	Buzzer off	2008-02-29 오후 20:54:55
132	Sensor 1 off	2008-02-29 오후 20:54:55
132	Alarm 1 off	2008-02-29 오후 20:54:55
132	Alarm 2 off	2008-02-29 오후 20:54:55

5-5 Event and alarm

3) Alarm(relay) control

The server's alarm port can be controlled remotely from CMS. An alarm node in the Tree View comes grey when the alarm is off, and comes red when the alarm is on.

Click the right mouse button at an alarm node to invoke the menu for changing alarm state



When the alarm on, colour of the node turns red



5-6 Still image capture

Press **Capture** button  to capture a still image. Captured image can be saved as BMP or JPEG format. Before saving or printing the image, it is possible to edit the image for inserting a title or privacy masking. It is also possible to insert a digital signature (watermark), which can be recognized by a special viewer (JPEG view.exe). This feature is supported for JPEG format only.



Capture button

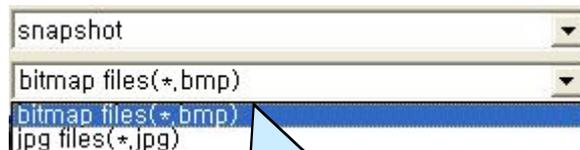
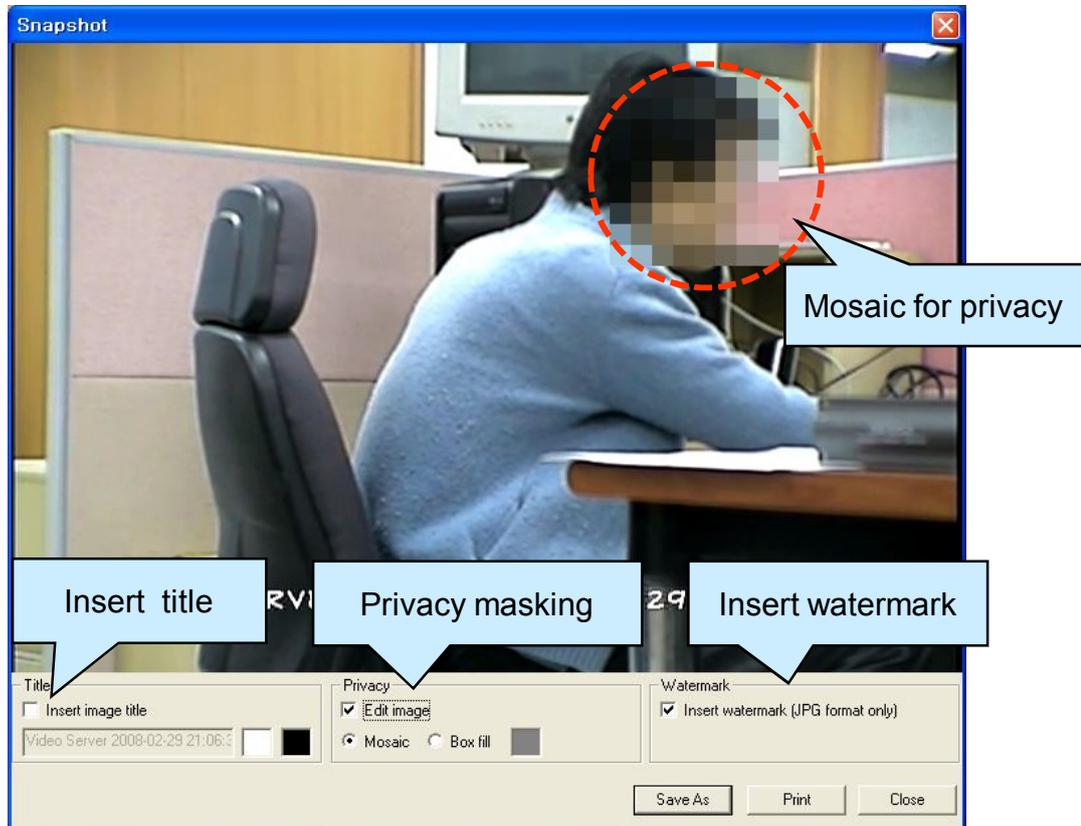


Image format selection at Save As dialog



5-7 Watermarking

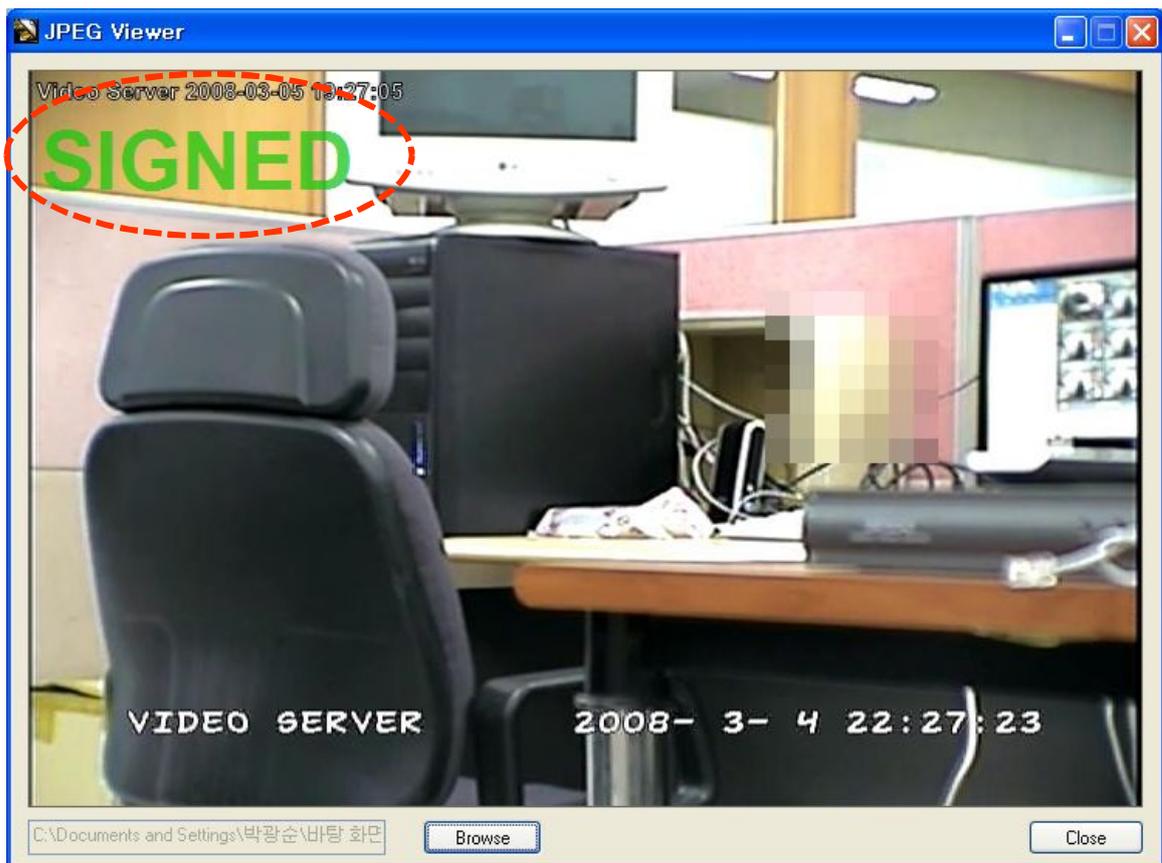
Inserting watermark

Watermark(or digital signature) can be inserted by checking "Insert watermark" item on Snapshot dialog. It works only in case the image is saved as JPEG format.

Checking the validity of an image

Validity of an image can be checked by a special JPEG viewer(JPEGViewer.exe) in the installed folder. It tells the type of a JPEG image in three ways:

- SIGNED: captured by CMS and not modified since then
- NOT SIGNED: not captured by CMS
- MODIFIED: captured by CMS but modified since then



6. Recording

1) Overview

Features of recording

Video, audio and event data can be recorded into disks with the following features.

- Simultaneous recording of max 36 video channels and max 36 audio channels
- Support of long pre-event and post-event recording time
- Time-lapse recording and event-based recording with various combination of events
- Disk recycling on disk full
- Disk add/drop without affecting existing data recorded

Procedure for recording configuration

In order to make recording work, it is necessary to configure storage and record setting in the following order.

① Configure storage (**Storage** tab)

True CMS allocates a large file in each disk for recording multiple channels effectively. It is necessary to allocate storage file in the disks to be used.

② Configure recording mode and schedule for each channel (**Record** tab)

For each video channel, recording mode and schedule need to be set.

③ Configure the association between events and video channels (**Event** tab)

In case of event-based recording, it is necessary to associate events and video channels

④ Start recording with **Record** button 

6. Recording

2) Storage setup

The first step is to allocate storage files on disks. When there are multiple disks, storage file can be allocated in each disk. In such case, they are used in the order of disk order.

1 Select disk on which storage file is allocated
(Press the row to make it active: blue coloured)

2 Press **Allocate storage on the disk** button
⇒ **Allocate Storage file** dialog comes

3 Enter amount to allocate and press OK

4 Select one or more disk(s) to use for recording ('check')

5 Select **Overwrite** for recycling mode

Drive	Total(GB)	Available(GB)	Allocation(GB)	Used(GB)	
<input type="checkbox"/> c:	29.91	24.74	0.00	0.00 (0%)	
<input checked="" type="checkbox"/> d:	30.27	29.02	3.00	1.73 (58%)	2007/04/22 20:24:51 - 2007/04/23 14:51:51
<input checked="" type="checkbox"/> e:	30.27	30.20	10.00	10.00 (100%)	2007/04/22 20:24:51 - 2007/04/23 14:51:51
<input type="checkbox"/> f:	58.58	58.52	45.00	0.44 (1%)	2007/05/02 14:33:53 - 2007/05/02 14:51:51

Allocate Storage File dialog box details:

- Drive: f:
- Total size available: 58.52 GB
- Recommended max size for allocation: 49.73 GB
- Allocation for recording: 45.00 GB
- Notice: Allocation will erase all recorded data
- Buttons: OK, Cancel

Setup window buttons: 확인, 취소, 적용(A)

6. Recording

3) Recording mode and schedule setup

Recording mode(time-lapse mode or combination of various event mode) and schedule can be set for each channel.

Time-lapse recording: the camera is recorded continuously according to the schedule

Event-based recording: the camera is recorded when one or more events happens

- (1) Set **Record** to On
- (2) Select record mode to apply to the schedule table
- (3) Set the schedule by clicking the cells or drag & drop
- (4) Specify Pre/Post event time in case of event-based recording

The screenshot shows the 'Setup' window with the 'Record' tab selected. The 'Cameras from' table is as follows:

No	Name	Record	PreEvent(sec)	PostEvent(sec)	Audio 1
1	Camera 1	On	30	180	<input type="checkbox"/>

The 'Record Mode' section shows 'By Events' selected, with 'Sensor' and 'Motion' checked. The calendar grid shows a dark blue block from 08:00 to 18:00 on days T, W, and T. A legend on the right lists recording modes: Off, Time Laps, Sensor, Motion, Video Loss, Sensor&Motion, Motion&Video Loss, Sensor&Video Loss, and Sensor&Motion+Video Loss.

Callouts in the image provide the following information:

- 1** Record On/Off: Points to the 'Record' column in the table.
- 2** Recording mode: Points to the 'By Events' radio button.
- 3** Use mouse to configure: Points to the calendar grid.
- 4** Pre-event recording time: Points to the '30' value in the 'PreEvent(sec)' column.
- Post-event recording time: Points to the '180' value in the 'PostEvent(sec)' column.
- Select audio channel to be recorded together with this video channel: Points to the 'Audio 1' checkbox.
- One or more events can be combined: Points to the 'Sensor' and 'Motion' checkboxes.
- Different colours for combination of recording modes: Points to the legend on the right.

6. Recording

4) Association of events and cameras for recording

In order to do event-based recording, it is necessary to make the association between an event and the cameras to be recorded. When the server has multiple number of video channels, more than one cameras can be associated to an event.

Event-based recording is not enabled for event types which are not selected in “Events to be processed” setting.

The screenshot shows the 'Setup' window with the 'Events' tab selected. The 'Events to be processed' section has checkboxes for 'All', 'Sensor', 'Motion', and 'Video loss', with 'Sensor', 'Motion', and 'Video loss' checked. The 'Event-based recording' section contains a table with columns 'Event' and 'Camera to record'. The table has three sections: 'Sensor', 'Motion', and 'Video Loss'. In the 'Sensor' section, 'Sensor 1' has a checkmark in the 'Camera to record' column for '1'. In the 'Motion' section, 'CH1' has a checkmark in the 'Camera to record' column for '1'. In the 'Video Loss' section, 'CH1' has a checkmark in the 'Camera to record' column for '1'. Callouts point to these checkmarks with the following text:

- Camera 1 is to be recorded when sensor 1 event happens
- Camera 1 is to be recorded when motion event happens
- Above setting specifies that camera 1 of the server 'Main gate' should be recorded when sensor 1 event or motion event from the server come

The 'Server List' on the left shows 'Main gate', 'Warehouse', and 'Room#1'. The bottom of the window has buttons for '확인' (OK), '취소' (Cancel), and '적용(△)' (Apply).

6. Recording

5) Recording control

Record button is used as the master control of recording. **Record** button should be ON for any type of recording(time-lapse or event-based) to work. If **Record** button is OFF, all recording stop.



Recording is ON



Recording is OFF

Notice: At least one disk(storage) file on which storage file is allocated should be selected for the recording to proceed.

Drive	Total(GB)	Available(GB)	Allocation(GB)	Used(GB)
<input type="checkbox"/> c:	19.53	6.38	0.00	0.00 (0%)
<input type="checkbox"/> d:	55.01	25.46	3.00	0.05 (2%)

C: No storage file allocation on C drive
D: Storage file is allocated, but not selected(cheked)



This error comes when **Record** button is pressed without selecting disk to record

7. Search and Playback

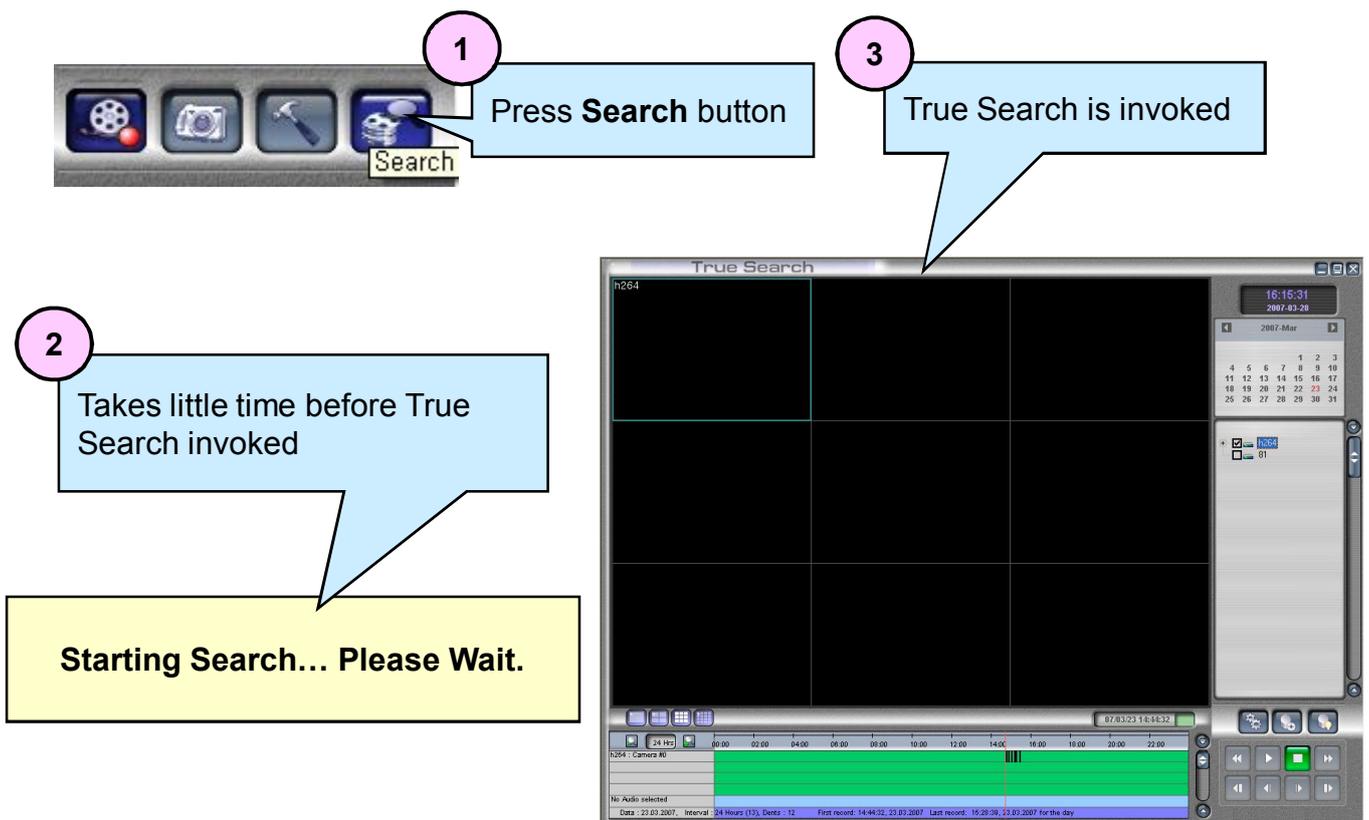
1) Overview

True Search program is for searching and playback of video, audio event data.

True Search can be executed in two ways:

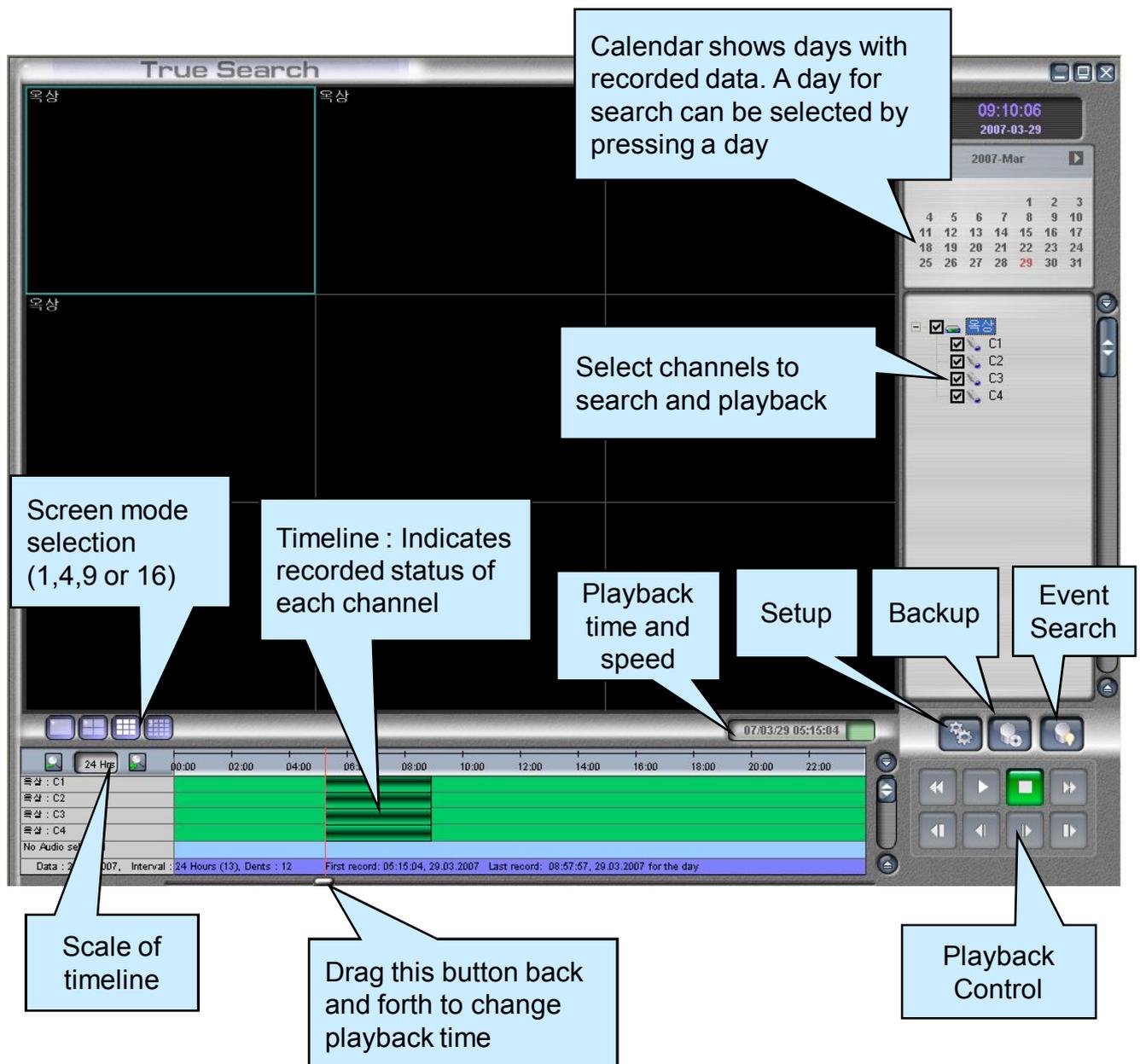
- Invoked independently from True CMS
- By pressing **Search** button in the True CMS program

It offers simultaneous playback of up to 16 channels. One audio channel can be played together with video channels.



7. Search and Playback

2) True Search interface



7. Search and Playback

3) Search by date and time

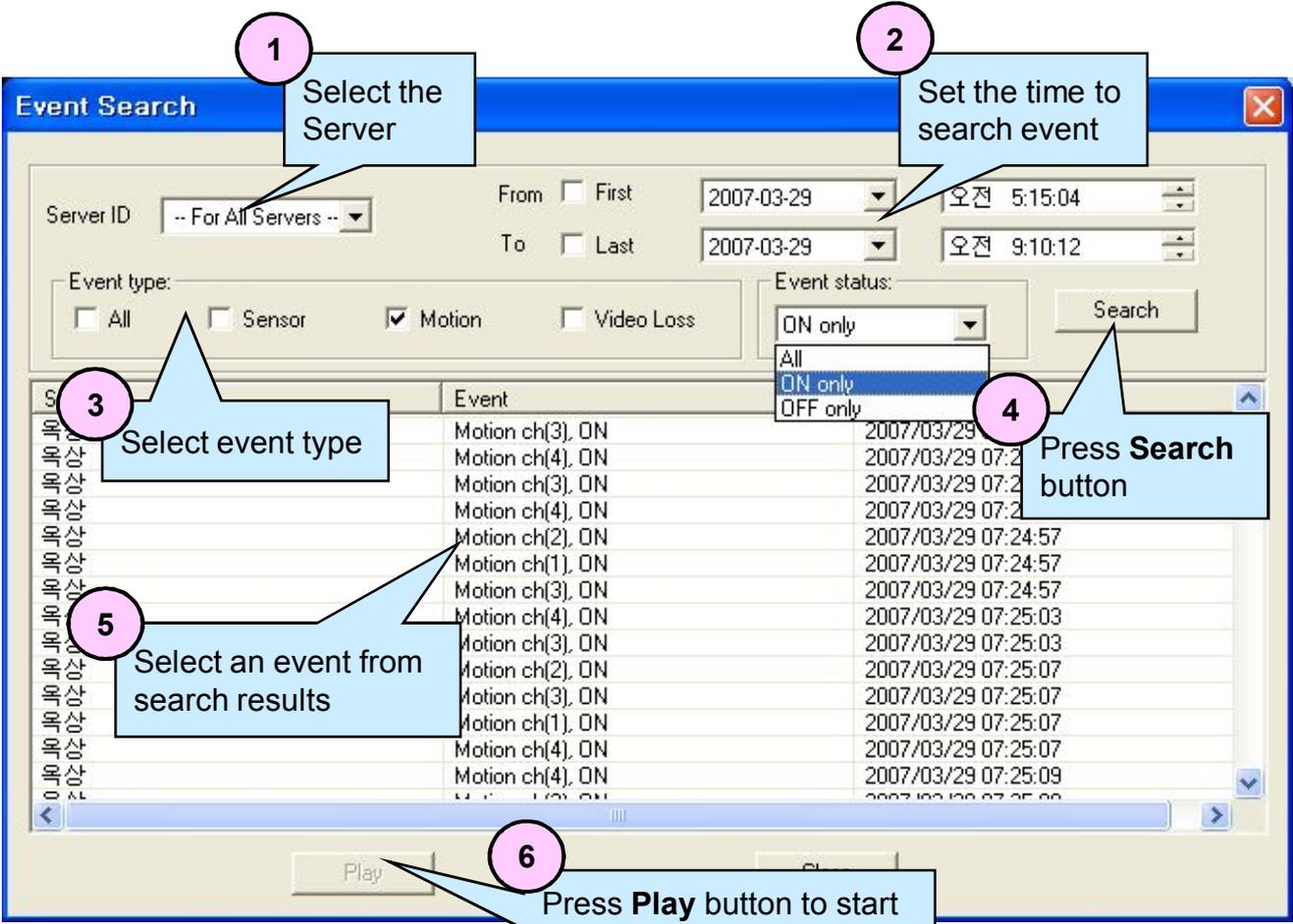
The screenshot shows the 'True Search' software interface. It features a main display area with a grid, a right-hand panel with a calendar and channel selection, and a bottom timeline with playback controls. Callouts are as follows:

- 1**: Select the date to search (Blue character : there is recorded data, Red character: current date). This points to the calendar on the right where the 29th of March is highlighted in red.
- 2**: Select channel to search (max 16CH). This points to the channel selection list (C1, C2, C3, C4) on the right.
- 3a**: Select the time to playback. This points to the timeline at the bottom.
- 3b**: Adjust the scale of the timeline if necessary. This points to the '24 Hrs' scale selector on the timeline.
- 4**: Playback control. This points to the playback buttons (stop, play, etc.) on the right side of the timeline.

7. Search and Playback

4) Search by event

Once clicking **Event Search** button , the **Event Search** window is opened. On the **Event Search** window, various conditions can be combine to find specific events. Then, video channels associated with a specific event can be searched and played (Association between events and video channels is determined at recording configuration: **Event** tab of True CMS).



The screenshot shows the 'Event Search' window with the following fields and callouts:

- 1** Select the Server: Points to the 'Server ID' dropdown menu.
- 2** Set the time to search event: Points to the 'From' and 'To' date and time selection fields.
- 3** Select event type: Points to the 'Event type' checkboxes (All, Sensor, Motion, Video Loss).
- 4** Press Search button: Points to the 'Search' button.
- 5** Select an event from search results: Points to the list of search results.
- 6** Press Play button to start playback of channels associated with the event: Points to the 'Play' button at the bottom.

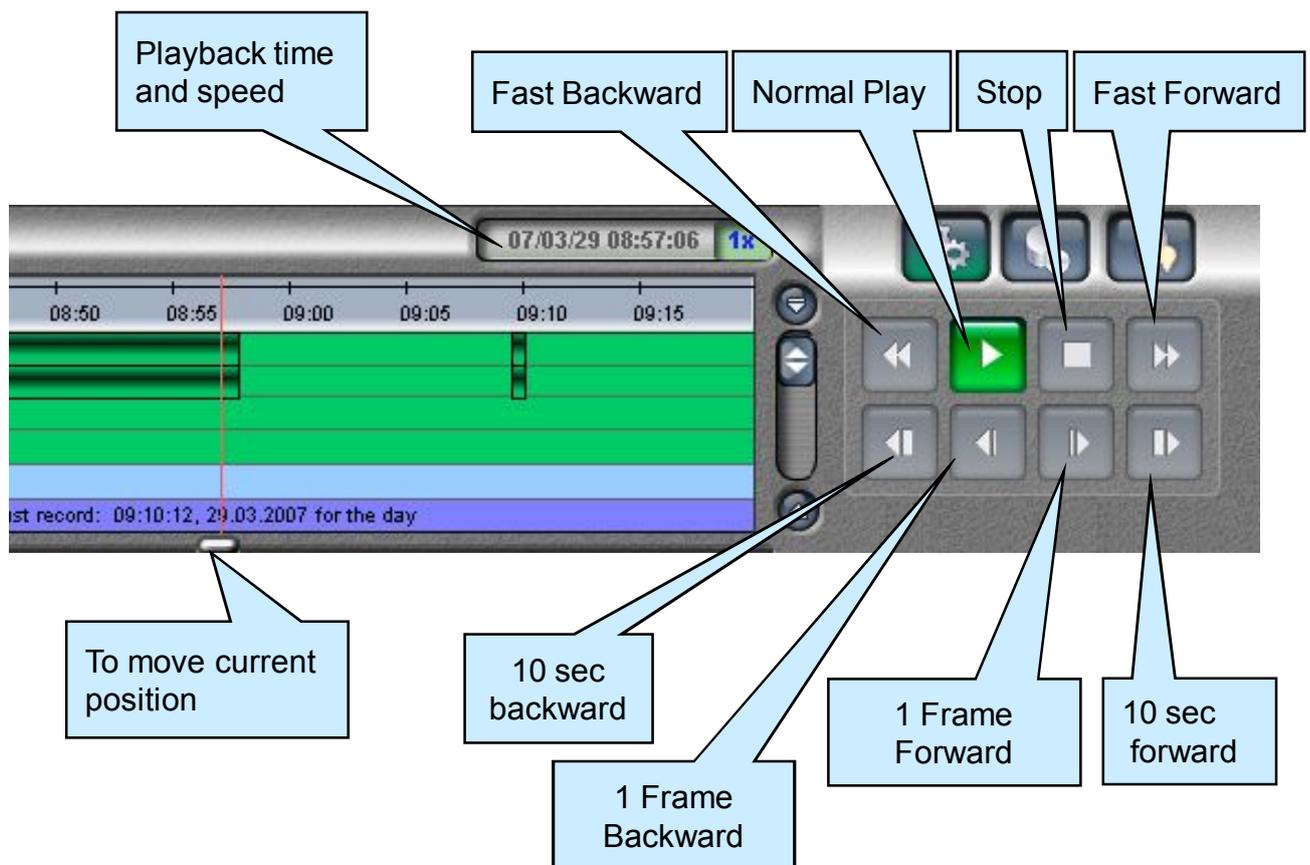
Event	Time
Motion ch(3), ON	2007/03/29 07:24:57
Motion ch(4), ON	2007/03/29 07:24:57
Motion ch(3), ON	2007/03/29 07:24:57
Motion ch(4), ON	2007/03/29 07:24:57
Motion ch(2), ON	2007/03/29 07:24:57
Motion ch(1), ON	2007/03/29 07:24:57
Motion ch(3), ON	2007/03/29 07:24:57
Motion ch(4), ON	2007/03/29 07:25:03
Motion ch(3), ON	2007/03/29 07:25:03
Motion ch(2), ON	2007/03/29 07:25:07
Motion ch(3), ON	2007/03/29 07:25:07
Motion ch(1), ON	2007/03/29 07:25:07
Motion ch(4), ON	2007/03/29 07:25:07
Motion ch(4), ON	2007/03/29 07:25:09

7. Search and Playback

5) Playback control

While playback is going on, various playback control operations can be performed to find a scene more quickly. It is possible to add and delete channels during playback.

The Fast Forward and Fast Backward support 4, 9, 16 times speed and they show only key frames. 1 Frame Backward also moves back to previous key frame.



7. Search and Playback

When the playback reaches the first position or the last position having data in backward or forward playback respectively, CMS may show a dialog box to ask if timeline data is to be updated.

The screenshot displays the True CMS interface. At the top left, a video window shows a security camera feed of an office. Below it is a timeline with a red vertical line indicating the current playback position at 18:16:46. A confirmation dialog box is overlaid on the timeline, asking: "Storage became out of date, refresh is needed, Refresh?". The dialog has two buttons: "예(Y)" (Yes) and "아니오(N)" (No). A callout box points to the dialog with the text: "A dialog box to ask if timeline data is to be updated". Another callout box points to the end of the timeline with the text: "When it reaches the end of the timeline...". A third callout box at the top right explains: "This happens because the first position or the last position can be changed during playback due to storage recycling or recording of new data respectively. It doesn't happen if recording is not in progress." The interface also includes a calendar on the right and various playback controls at the bottom.

This happens because the first position or the last position can be changed during playback due to storage recycling or recording of new data respectively. It doesn't happen if recording is not in progress.

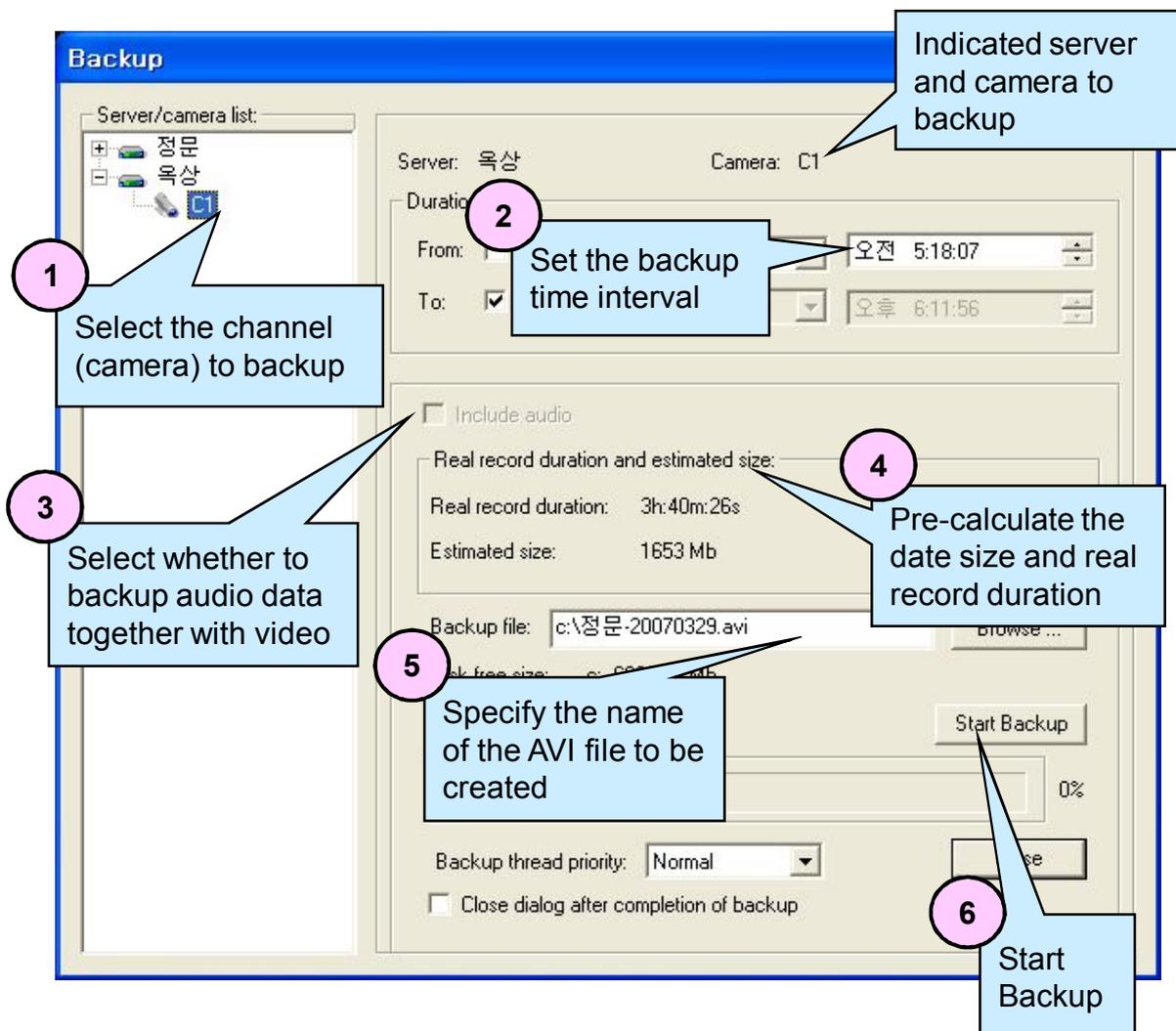
When it reaches the end of the timeline...

A dialog box to ask if timeline data is to be updated

7. Search and Playback

6) Backup

Backup enables you to take backup of a recorded duration into AVI file. Pressing Backup button , a dialog for AVI backup is invoked.



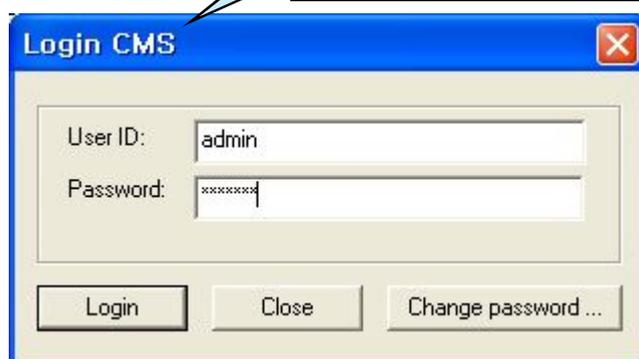
8. Security

1) Overview

User authentication is performed on start up of CMS for security reason. Depending on the privilege group to which a user belongs, some operations are restricted.

Admin user pre-exists as the name 'admin'. Users of other groups can be created only by admin user.

User authentication is asked on start up of CMS



Depending on the privilege of a user, some operations are restricted
- eg) Recording Start/Stop and Setup are not allowed to a user of 'user' group



8. Security

2) User groups and privileges

Operations which are not allowed to a user group are restricted in two ways:

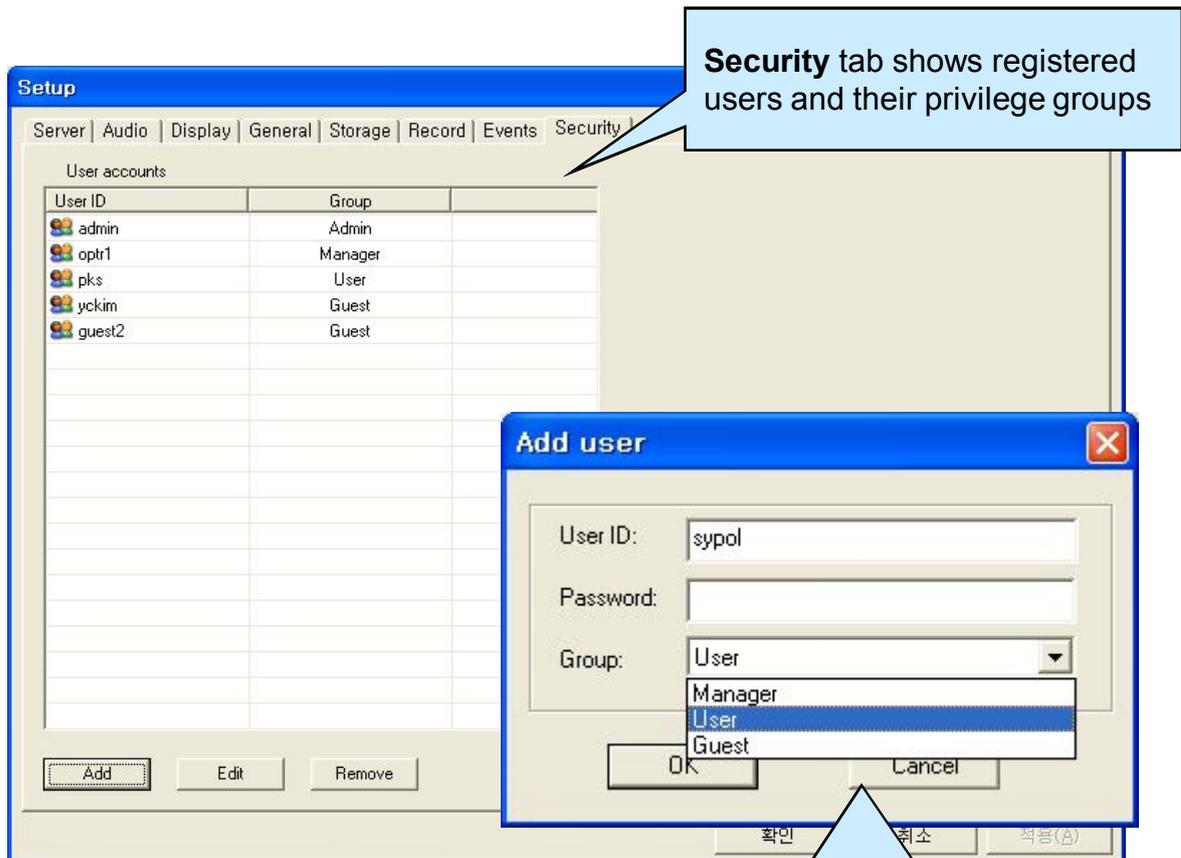
- Buttons are disabled
- Pop-up menus don't appear on right button click of the mouse

Group Privilege	Admin	Manager	User	Guest
Viewing only	○	○	○	○
PTZ control Color control Audio control Server connection/disconnection Event search Still image capture True Search invoke	○	○	○	
Setup excluding user account mgnt. Record start/stop Favorite camera group mgnt. Change camera on video windows	○	○		
User account management	○			

8. Security

3) User account management

Only admin can manage user accounts. In fact, **Security** tab on Setup dialog is visible only to admin user.



The dialog for adding a user.

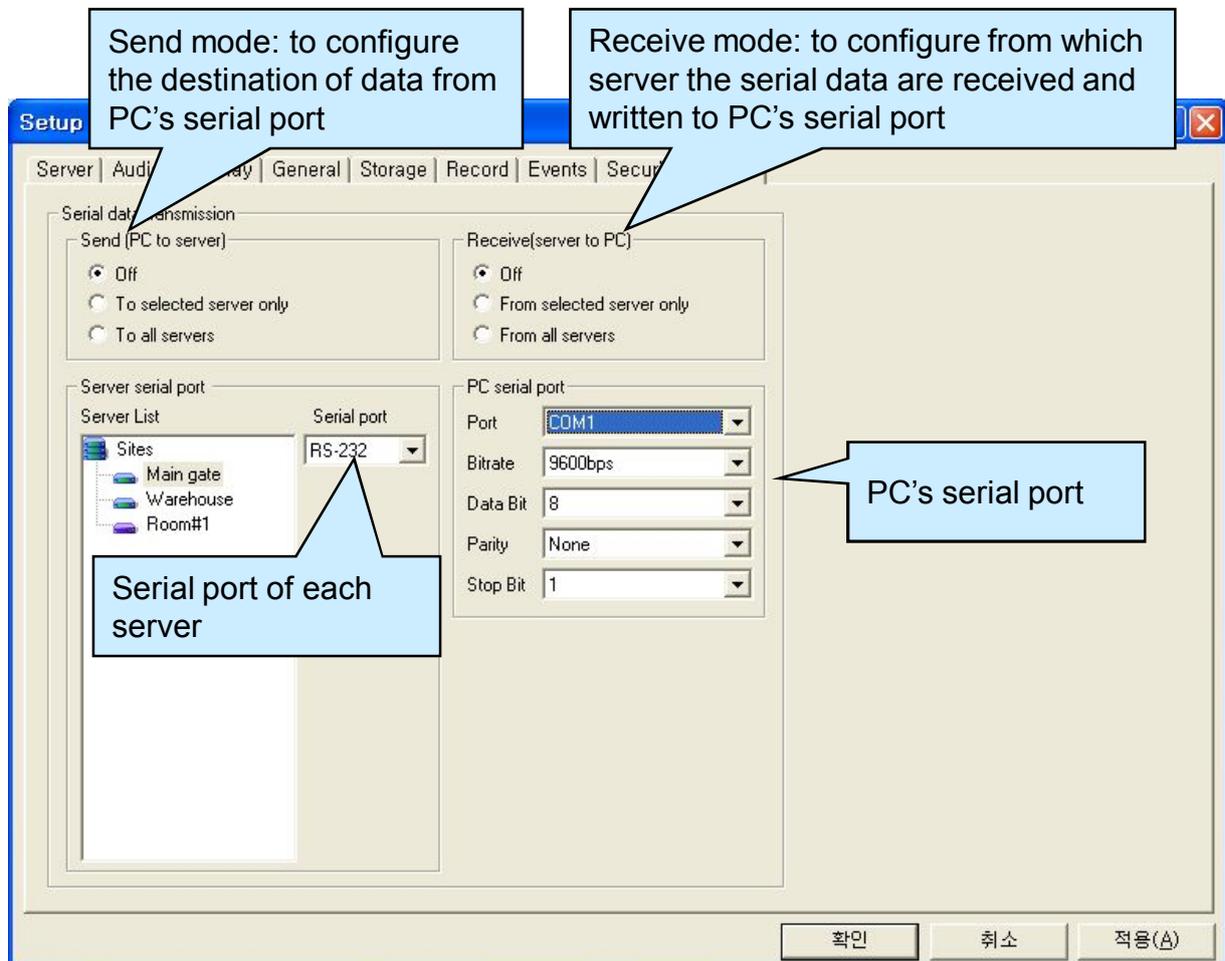
Admin user can change other user's password and/or group on the dialog invoked by pressing **Edit** button

9. Other Functions

1) Serial data pass-through

True CMS supports serial data pass-through between PC's COM port and a serial of a server. As the name 'data pass-through' tells, True CMS doesn't do processing on the data sent or received. It just relays the data bi-directionally.

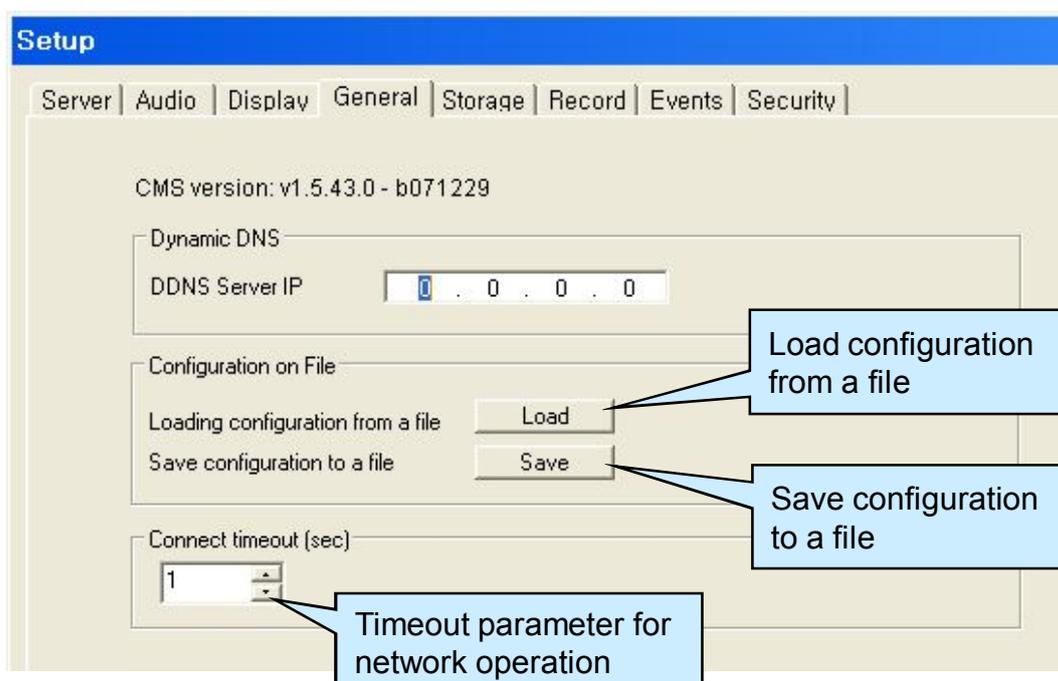
One of the usage of this feature is to use PTZ control keyboard for PTZ control instead of PTZ GUI in CMS, which is preferred by some users.



9. Other Functions

2) Saving and loading configuration

True CMS supports the function to export and import its configuration to/from a file. It is useful for taking backup of CMS configuration which is rather complicated due to many registered servers. It is also possible to apply a configuration taken from a PC to another PC to run CMS.



3) Setting DDNS server IP address

For video servers which use old scheme of DDNS service, it is necessary to set the IP address of the DDNS server. It is provided for compatibility with old models. Recent models including TCS-200, TCAM series don't need this setting.

4) Connect timeout parameter

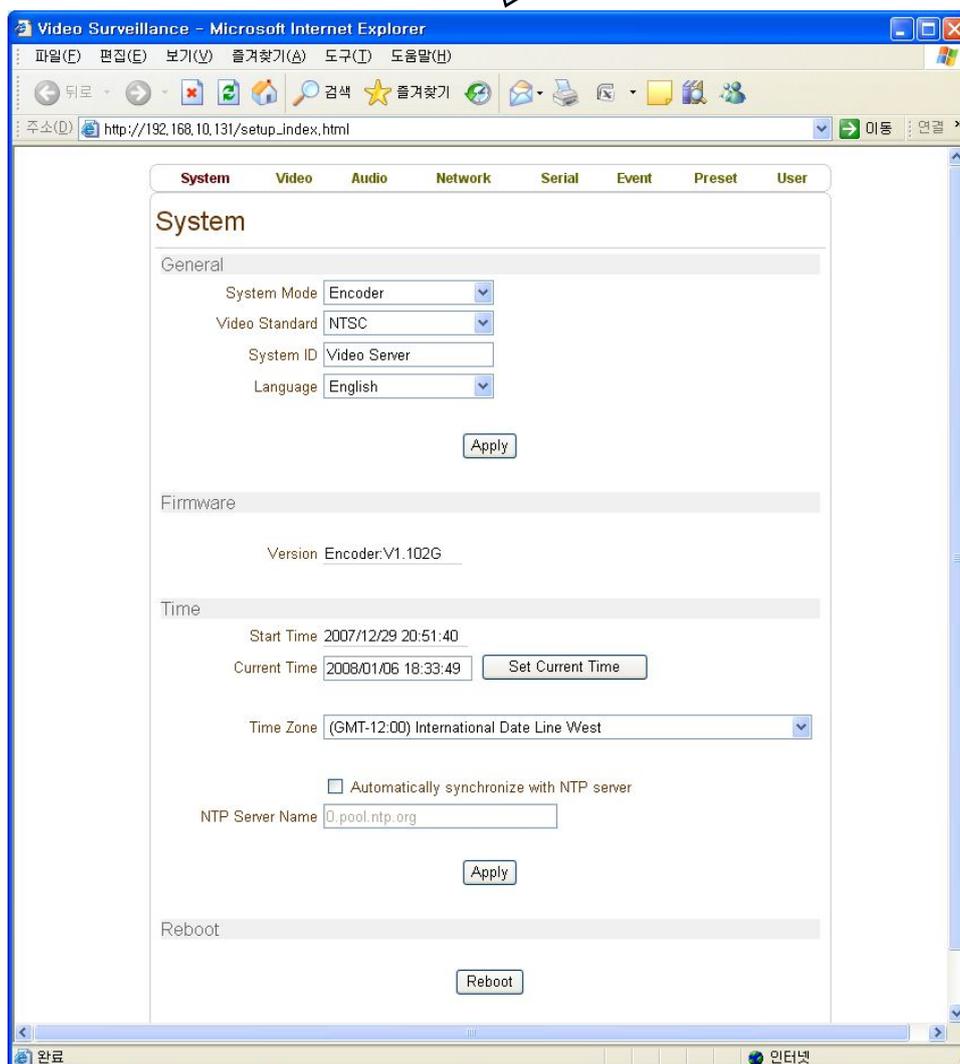
This is the timeout parameter used internally for server connection and control. It is exposed to tune the network operation of True CMS on a network of very bad condition. This parameter need not be configured in normal situations.

9. Other Functions

5) Remote setup of server

Pressing **Server Setup** button on **Server** tab of Setup dialog invokes Internet Explorer or specific dialog for remote setup of the selected server, depending on the model of video server or IP camera.

Internet Explorer invoked for remote setup of a server



9. Other Functions

6) Statistics

Pressing Alt-F1 enables the statistics of video and audio reception and decoding on each video window. It is disabled by pressing again (toggle). This can be also configured at **Display** tab of Setup dialog.



Receiving video bitrate) = 317kbps,
Video frame rate(fps) = 29
Frames in video buffer = 2
Audio TX = 0kbps, Audio RX = 0kbps

10. Trouble Shooting

1) True CMS or True Search fails to start

If True CMS or True Search fails to start with the following message box, it means that a resource for displaying video is not available on the PC. On Windows XP where DirectX is installed by default, the message comes mostly due to lack of graphics memory. At least 128MB of graphics memory is required for simultaneous execution of True CMS and True Search.



2) Warning for lack of display memory

The following message may come when display memory is insufficient. The number of channels in the dialog can be displayed with full performance. If more channels are connected, display skipping may happen.



3) The network to a server is normal, but it is not connected

When a server is not connected, the reason can be checked in the following step.

- (1) Check if the server is reachable. Use of PING command is useful.
- (2) Check if the server's base port setting and the port on Server tab match.
- (3) Check if ID and password specified on Server tab are correct.

If they are incorrect, the following message will be displayed periodically on Event Window.

Site	Event
136	Connection failed (Password mismatch)
131	Connection failed (Unknown login ID)

10. Trouble Shooting

4) Recording won't start

Recording can't be started with the following error message if the storage is not configure. Please refer 6-2) Storage setup for how to allocate storage file.



One or more disks need to be selected for recording. The following error message comes when no disks are selected.



5) Reallocating the storage fails

Reallocation of the storage while recording is working on the disk is not allowed. The following error message comes in such trial.



11. Customization

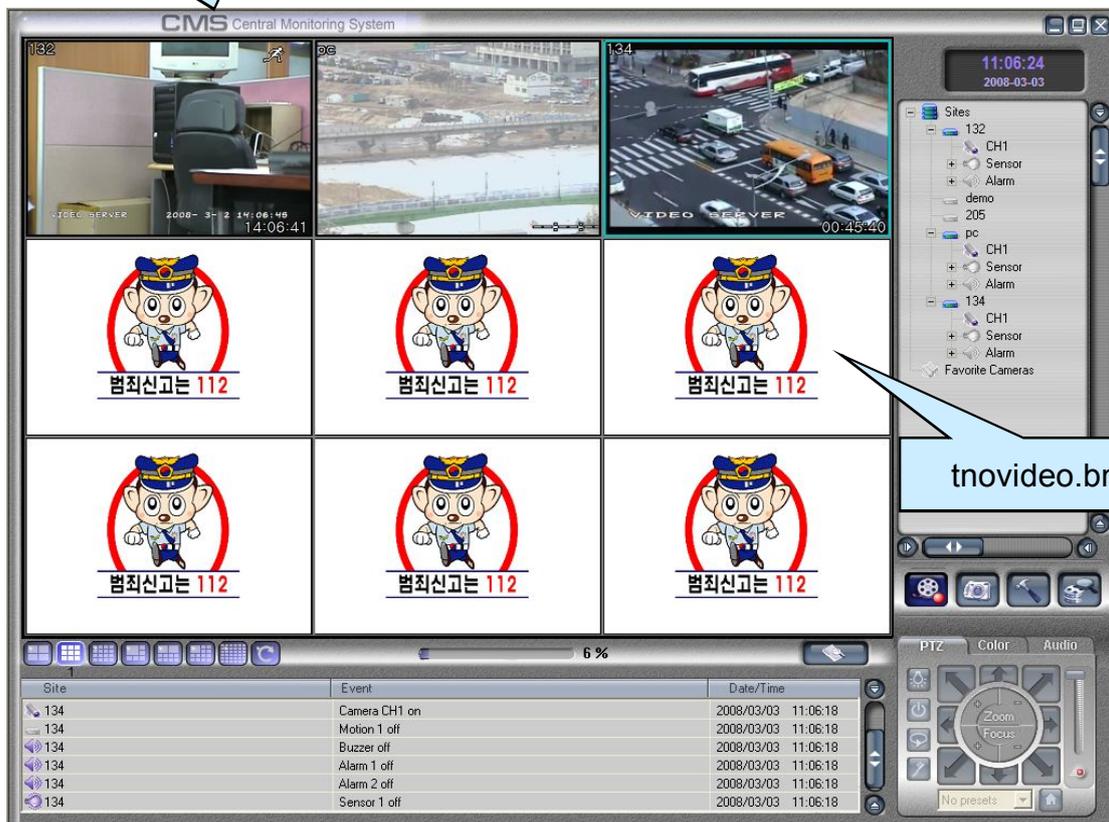
It is possible to customize CMS by changing images file in the installation folder. There are four image files which can be used for display company/site logo etc.

- tsplash.bmp: splash image which comes on launching CMS
- tlogo.bmp: title image on the top of CMS application
- tsearch.bmo: title image of Search application
- tnovideo.bmp: image which comes on a video window when the channel is not connected



tlogo.bmp

tsplash.bmp



tnovideo.bmp