

Central Monitoring System

True CMS Release Notes



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1. Introduction

1. Information

This is the release note for **True CMS**. This document contains brief description of what is in the release and refers to a list of known problems. Users are advised to familiarize themselves with the contents of this note before using the release.

2. Purpose of This Release

This release is created to serve new features for all users of **True CMS** including **True Search**.

2. Releases

1. Release 3500

Date	2007. 9. 4	
Module versions	True CMS.exe	V1.5.1.35
	True Search.exe	V1.5.1.35
	cvctl.dll	V1.5.1.168
Summary of changes	<ul style="list-style-type: none"> ● User authentication enabled ● 36 channel support (6x6 mode) ● Change of UI for audio sending control ● Key frame only display mode 	

■ User authentication enabled

From F/W version 102A, TCS-200 and IP camera authenticate client's connection by checking user ID and password. Thus, in order for CMS to connect a server, it is necessary to enter correct user ID and password at corresponding entries in Server tab of Setup dialog. If user ID or password is not correctly specified, the server rejects connection and the following message will come on Event Window periodically.

Connection failed (Unknown login ID)

Connection failed (Password mismatch)

■ 36 channel support (6x6 mode)

The number of total channels which can be viewed and recorded simultaneously has been extended to 36 (previously it was 16). A screen mode control button for 6x6 mode has been added.



■ Change of UI for audio sending control

Audio sending activity is now controlled from Audio tab of main GUI.



It is for more convenient control when audio talk(broadcasting) mode needs to be turned on and off often. For example, when audio broadcasting to the remote sites(servers) are done only when it is necessary to send some warning messages, toggle button on the tab can be used instantly. Furthermore, the activities for audio talk on/off are recorded as local events which are useful as the proof that broadcasting for the warning was made.

Audio talk on

Audio talk off

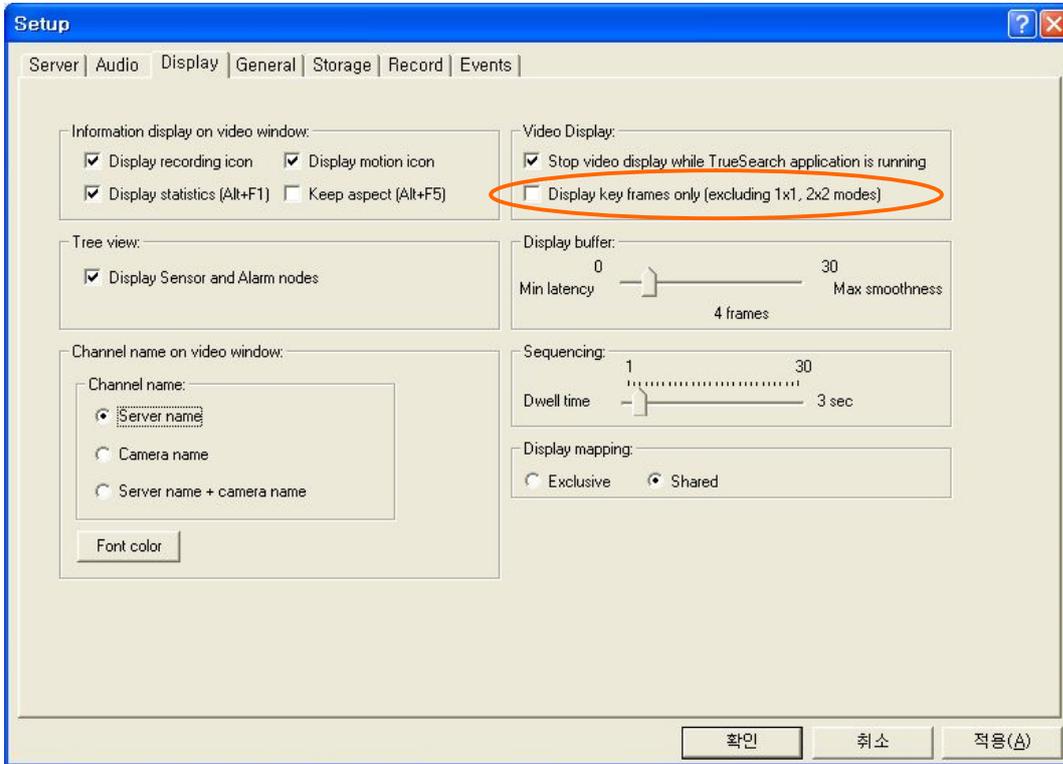
Audio sending mode – unicast or broadcast – is controlled on Audio tab of Setup dialog as before.

■ Key frame only display mode

One setting “**Display key frames only (excluding 1x1, 2x2 modes)**” has been added to Display tab of Setup dialog. When it is set, only key(Intra) frames are decoded and displayed. It is useful when there are many channels of high quality(frame rate &

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resolution) and therefore CPU is heavily loaded. Since only 1 and 4 channels are displayed in 1x1 mode and 2x2 mode, it doesn't work in these two modes. That is, all frames are processed in the modes.



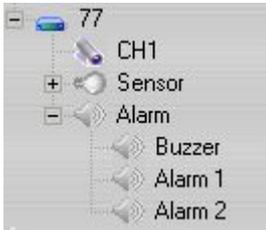
This setting has no effect on recording. All frames are recorded regardless of this setting.

2. Release 3501

Date	2007. 9. 20	
Module versions	True CMS.exe	V1.5.1.35
	True Search.exe	V1.5.1.35
	cvctl.dll	V1.5.1.168
Summary of changes	<ul style="list-style-type: none"> ● Buzzer node added to Tree view ● Support of PTZ preset configured in the server ● Removal of flickering in video loss handling ● Improvement of key frame only display mode 	

■ **Buzzer node is added to Tree view**

A node for Buzzer in TCS-200 comes as a child node of Alarm in Tree view. Furthermore Buzzer On/Off can be controlled on the node.



■ **Support of PTZ preset configured in the server**

PTZ preset control in PTZ tab now shows the preset list configured in the server. By selecting an entry in the list, the camera moves to a preset position.

■ **Removal of flickering in video loss handling**

Video displays of other channels used to be affected by a channel’s video loss or recovery. This behavior is improved. Now, a channel’s video loss or recovery doesn’t affect other channels.

■ **Improvement of key frame only display mode**

“Key frame only display” mode decodes and displays only key frames. Although it is useful for reducing CPU load on multi-channel display mode, PTZ control became non-interactive. To handling this situation, currently selected channel(highlighted channel in video windows) is decoded and displayed fully in “key frame only” display mode.

3. Release 4002

Date	2007. 10. 9	
Module versions	True CMS.exe	V1.5.40.4
	True Search.exe	V1.5.40.4
	cvctl.dll	V1.5.40.4
Summary of changes	<ul style="list-style-type: none"> ● User authentication support ● Improving jerky video display when network is bottlenecked 	

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■ User authentication support

User authentication is supported in this version. Login is required on starting the CMS. Depending on the group to which a user belongs, the privilege level of the user is defined. The following table shows the privilege level of each user group.

Privilege \ Group	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 mgmt.				
Record start/stop	○	○		
Favorite camera group management				
Change camera on video windows				
User account management	○			

Admin user as the name 'admin' exists by default on installation of CMS. Other user accounts can be created only by 'admin'.

■ Improving jerky video display when network is bottlenecked

When video stream is not delivered smoothly due to network bottleneck etc., video display comes jerky sometimes. This phenomenon has been fixed.

■ A bug in recording onto huge storage file has been fixed

When storage file is huge (about 250GB), sometimes writing to the file failed. This bug has been fixed.

4. Release 4102

Date	2007. 10. 29	
Module versions	True CMS.exe	V1.5.41.4
	True Search.exe	V1.5.41.4
	cvctl.dll	V1.5.41.4
Summary of changes	<ul style="list-style-type: none"> ● A bug fix in event-based recording ● Support of MPEG-4 video servers(TCS-1000, TCS-MX2, TCS-MX4) with new protocol ● Scheme change in invoking server setup 	

■ Bug fix in event-based recording

Event-based recording didn't work if related setting on Setup is done when the event state is already ON. This bug has been fixed.

■ Support of MPEG-4 video servers with new protocols

Internal protocol with MPEG-4 video servers(TCS-1000, TCS-MX2, TCS-MX4) has been revised.

■ Scheme change in invoking server setup

If login ID is not specified for a server on Server tab of Setup, login ID and password are not delivered on the URL for invoking web-based server setup. This is useful when "skip login" is enabled in the server.

5. Release 4202

Date	2007. 11. 23	
Module versions	True CMS.exe	V1.5.42.6
	True Search.exe	V1.5.42.6
	cvctl.dll	V1.5.42.6
Summary of changes	<ul style="list-style-type: none"> ● Decoder performance improvement ● A bug fix in Setup tab causing GUI exception ● A bug fix in "Available space" calculation ● Some texts are generalized ● Two packages: 16CH / 36CH support each 	

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■ Decoder performance improvement

Performance of H.264 decoder in multi-core CPU has been improved. It has been tested that 16 channels of D1 x 30fps 1Mbps video can be supported at less than 70% CPU load in a PC with Core2Quad CPU.

■ A bug fix in Setup tab causing GUI exception

When “Use the name from server” on Add server dialog is checked, “Exception in GUI thread” happened sometimes. This bug has been fixed. Default value of “Use the name from server” is also changed to ‘Unchecked’.

■ A bug fix in “Available space” calculation

Available space on Storage tab came 4GB larger than actually available disk space when there is no allocation. This bug has been fixed.

■ Some texts are generalized

Some texts in GUI are generalized:

- Tooltip for Search & Playback button: Start True Search => Search
- Message for invoking True Search: “Starting True Search... Please wait.” => “Starting Search... Please wait.”
- tlogo.bmp and tlogoTS.bmp files are removed from the package

■ Two packages: 16CH / 36CH support

Two versions of installation packages are available:

- cms_setup1_05_4202.exe: max 36 channel support
- cms_setup1_05_4202r.exe: max 16 channel support

6. Release 4300

Date	2007. 12. 31	
Module versions	True CMS.exe	V1.5.43.1
	True Search.exe	V1.5.43.1
	cvctl.dll	V1.5.43.1
Summary of changes	<ul style="list-style-type: none">● Dual monitor support● Minor refinements in GUI and Setup● A bug fix in AVI backup	

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	<ul style="list-style-type: none">● Change of display memory allocation● A bug fix: applying http port configured in the server for launching web-based setup
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■ Dual monitor support

CMS can be moved to the second monitor in a PC with graphics card supporting dual monitor. When CMS' video area comes across two monitors, the video on the monitor with larger region is displayed normally while video on the other monitor stops. This behavior is normal. Windows Media Player shows similar behavior.

■ A bug fix in AVI backup

When video stream is encoded at a framerate of less than 30fps, AVI backup file created from the stream is played slower than realtime. This bug has been fixed.

■ Minor refinements in GUI and setup

There have been minor refinements in GUI and Setup:

- Buzzer node doesn't come for IP camera now.
- Password item which is not used was deleted in General tab of Setup.
- Event tab: title for list view was refined.
- Message box for notifying that user ID should start with alphabet comes.

■ Change of display memory allocation

Internal scheme for display memory allocation has been changed. At least 128MB of graphics memory is required for executing CMS and Search simultaneously. Registry entries have been added to control the initialization scheme in case display memory is not enough.

■ A bug fix: applying HTTP port configured in the server for launching web-based setup

HTTP port 80 was always used for launching web-based setup. This caused problem when HTTP port of the server was set to other value. Now CMS gets the HTTP port setting from the server and uses it for launching Internet Explorer.

7. Release 4403

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Date	2008. 1. 31	
Module versions	True CMS.exe	V1.5.44.5
	True Search.exe	V1.5.44.5
	cvctl.dll	V1.5.44.5
Summary of changes	<ul style="list-style-type: none">● Extended PTZ control functions● Event filtering● Serial data pass-through● Improvement and bug fix in still image capture● IP discovery support● Sound effect on sensor event● Motion icon and record icon● Improvement of border line display● A bug fix in dual monitor support● A bug fix in playback of low fps stream● Removal of Windows error message due to removable storage devices	

■ Extended PTZ control functions

More functions have been added to PTZ control:

- Light, power, wiper on/off
- Home button
- Speed control

■ Event filtering

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.

//Event page of Setup



■ Serial data pass-through

True CMS supports serial data pass-through between PC's COM port and a serial of a

server. **Serial** page has been added for configuration of this function.

■ Improvement and bug fix in still image capture

- Still image capture didn't work on Windows Vista. This bug has been fixed.
- Captured image can be saved in JPEG format.

■ IP discovery support

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. **IP Discovery** button has been added to **Server** page of Setup.

■ Sound effect on sensor event

'Ding' sound is output to PC speaker when a sensor event comes.

■ Motion icon and record icon

- Motion icon is displayed on display unit.
- Record icon has been changed to bullet from 'R' character.

■ Improvement of border line display

Border lines between display units didn't some on very high resolution mode of Windows display. This problem has been fixed.

■ A bug fix in dual monitor support

Video didn't come normally in the following specific configuration of dual monitor display:

- 2nd monitor's resolution is higher than 1600 x 000 & CMS' screen mode is 1x1 full screen mode

■ A bug fix in playback of low fps stream

Playback speed of True Search was incorrect(too fast) when the stream was encoded at low fps(< 5). This bug has been fixed.

■ Removal of Windows error message due to removable storage devices

When removable storage devices such as SD or CF card reader are equipped on the PC and there is no actual media in the reader, the following error message by Windows came. This problem has been fixed.



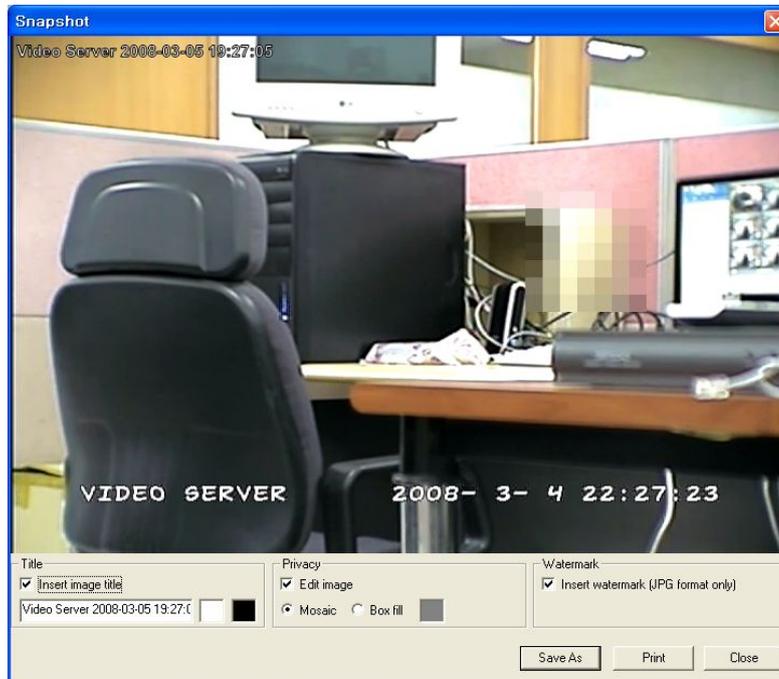
8. Release 4706

Date	2008. 4. 18	
Module versions	True CMS.exe	V1.5.47.17
	True Search.exe	V1.5.47.17
	cvctl.dll	V1.5.47.17
Summary of changes	<ul style="list-style-type: none"> ● Image capture improved ● Change of scheme for the situation of display memory lacking ● New H.264 decoder and improvement of display smoothness ● Server time display ● Event alarming ● Printing of event log ● On-screen PTZ control ● Scan function added to PTZ control ● PTZ control speed is saved to the configuration ● Sorting in IP discovery ● Change of server address specification ● Selection of audio connection ● Default values of pre/post event recording duration ● Logo image display for the display unit of no video ● A fix bug in full screen mode ● Change of reconnection interval ● Allowing multiple connections to the same IP address with different ports 	

■ Image capture improved

Three functions are allowed to a captured image:

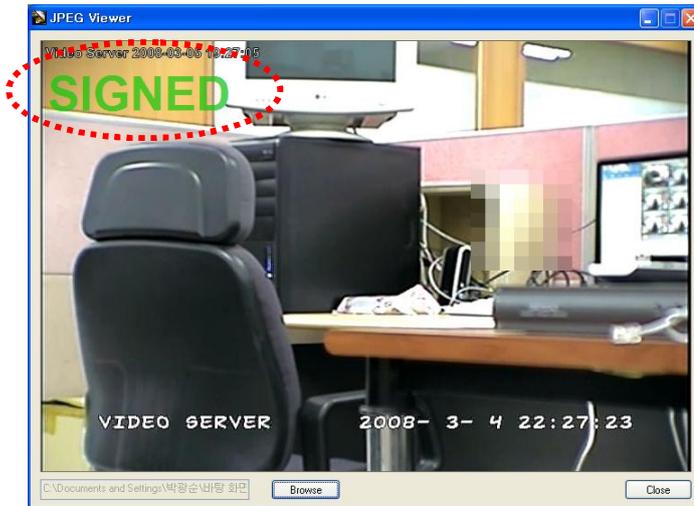
- Insertion of image title
- Masking a region for privacy: mosaic pattern or box filling
- Insertion of watermark



Watermarking

By checking “Insert watermark” item, a digital signature is inserted to the JPEG image. A special viewer, JPEGViewer.exe, is provided to recognize whether a JPEG image is one of the tree type:

- Not signed: not captured by CMS
- Signed: captured by CMS and not modified (original image)
- Modified: captured by CMS, but modified



■ **Change of scheme for the situation of display memory lacking**

When there isn't enough display memory in the PC to support all channel with full performance(30fps), CMS(or Search) displays a dialog for warning as follows.



■ **New H.264 decoder and improvement of display smoothness**

New H.264 decoder which has less latency than previous version is used. Actual latency is not reduced much. This is due to buffering for improving smoothness. That is, smoothness is improved in this release. Scheme for displaying OSD(channel name, motion icon etc.) is also changed to use less CPU (D3D APIs are used).

■ **Server time display**

For each channel, the server time is displayed on the lower-right corner of the display unit when it is configured on Display tab of Setup.

■ **Event alarming**

Additional method of event alarming is added. For each event type, it is possible to set

whether the sound effect is generated or not.



■ Printing of event log

Event log can be printed. **Print** button is added to Event Search window.

■ On-screen PTZ control

It is possible to control PTZ using mouse on the video window. Pressing mouse's left button triggers pan or tilt operation depending on current mouse position on the display unit. Mouse's scroll button is used for zoom control.

■ Scan function added to PTZ control

Scan function which traverses all preset positions in turn configured in the camera is added. This function works only when the camera(PTZ receiver) has the function.



■ PTZ control speed is saved to the configuration

PTZ control speed for each channel is saved to the configuration. Different speed can be set for each camera.

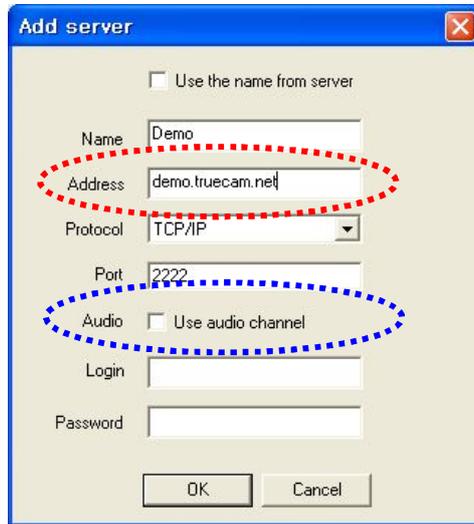
■ Sorting in IP discovery

The result of IP discovery can be sorted simply by pressing the header part of the list view.

■ Change of server address specification

The scheme for specifying server address is changed. Previously, two fields – address

type and address were used. Now it is unified to 'Address' field where either IP address or domain name can be entered.



■ Selection of audio connection

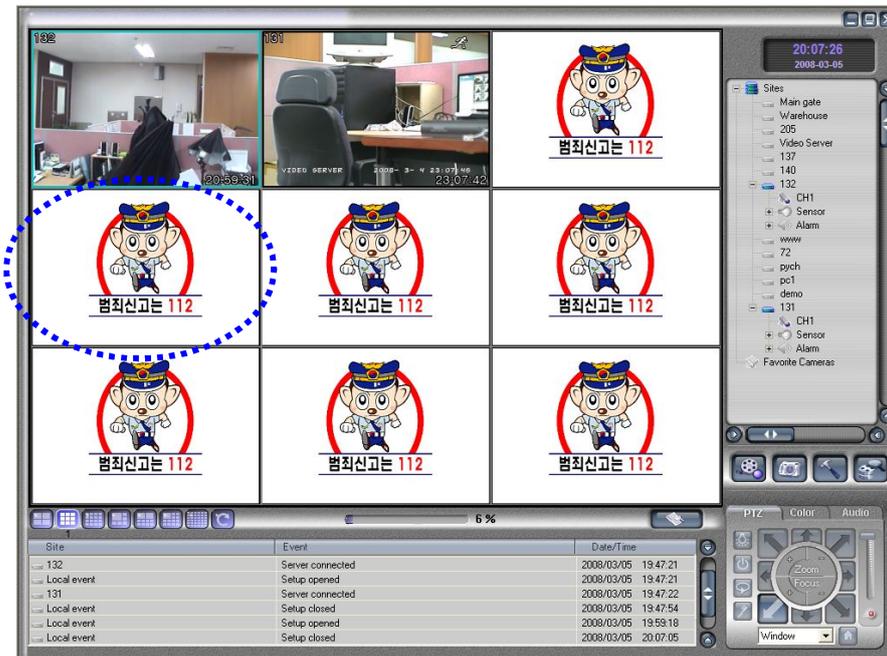
It can be separately configured on server registration whether audio channel will be connected or not. If audio is not used, it's better to disable audio connection. (Refer above figure)

■ Default values of pre/post event recording duration

Default values of pre-event recording duration and post-event recording duration are changed to 10 sec and 20 sec respectively.

■ Logo image display for the display unit of no video

Logo image can be displayed on the display unit of no video (no channel assignment or disconnected channel).



In order to display the image, place an image of name 'tnovideo.bmp' in the folder where CMS is installed. For natural display, the aspect-ratio of the image needs to be the same of that of a display unit.

■ **A bug fix in full screen mode**

When a mouse is moved to a specific position in full screen display mode, GUI items on CMS' skin come instantly. This bug has been fixed.

■ **Change of reconnection interval**

Reconnection interval is changed to 3.5 sec(from 4 sec) for internal reason.

■ **Allowing multiple connections to the same IP address with different ports**

More than one connection to the same IP address has been disabled so far. Multiple connections to the same IP address are now allowed in this version as long as the ports are different.

9. Release 4801

Date	2008. 6. 16	
Module versions	True CMS.exe	1.5.48.2

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	True Search.exe	1.5.48.1
	cvctl.dll	1.5.48.2
Summary of changes	<ul style="list-style-type: none">● A bug fix in server time display● Support of video-off mode● Video on/off control by events and automatic screen mode change● Revision of channel name display on video window● Improvement of storage access module● PTZ control improvement	

■ A bug fix in server time display

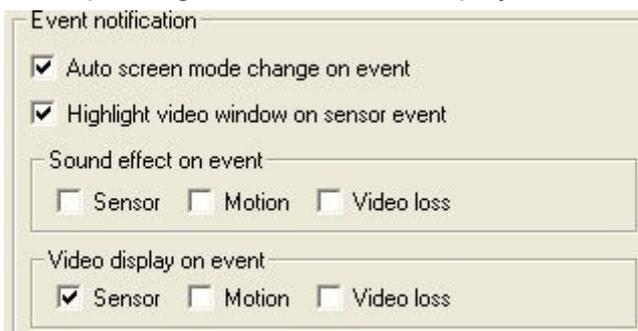
Server time came 1+ hour early when DST(Daylight Saving Time) is affective in the PC's time setting. This bug has been fixed.

■ Support of video-off mode

It is possible to turn on or off the video delivery of a connected channel. The Video On/Off menu on a camera node was added for this. A DU(Display Unit) is not assigned to a channel with video-off. Video on/off setting in the camera node and favorite camera node affects each other.

■ Video on/off control by events and automatic screen mode change

A channel which is in video-off state can go to video-on state automatically by checking corresponding events at "Video display on event" setting.



By checking "Auto screen mode change on event", the screen mode is changed automatically to a mode in which more channels can be displayed, when current screen mode can't display all channels including the channel with active event.

■ Revision of channel name display on video window

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'Off' option is added to channel name display setting. This is useful when channel name is displayed in Burn-In OSD from server.



Size of the font for channel name text is controllable. By checking 'Use large font' option, channel name is displayed in a larger font.

■ Improvement of storage access module

Storage access parts of True CMS and True Search have been improved not to stop or wait for long time when the storage is in corrupted state.

■ PTZ control improvement

Scheme for wiper control has been changed to work in the same way as pant/tilt operation buttons. Previously it worked as On/Off button.

3. To Be Improved

- MAP support
- Multi-monitor & 64 channel support
- Remote search and playback

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