



ANT-32000A ANT-32000AS

H.264 HD VIDEO SERVER DECODER

SD-SDI and HD-SDI option – ANT-32000AS



User Manual ver. 2.0

Safety Precaution

**We appreciate you purchasing the ANT-32000A.
Before installing the product, please read the following carefully.**

- ◇ Make sure you turn off the power before installing ANT-32000A.
- ◇ Do not install under the direct sunlight or in dusty areas.
- ◇ Make sure you use the product within the temperature and humidity specified in the specification.
- ◇ Do not operate the product in presence of vibration or strong magnetic fields.
- ◇ Do not put electrically conducting materials in the ventilation hole.
- ◇ Do not open the top cover of the product. It may cause a failure or electric shock from the components.
- ◇ To prevent the unit from overheating, make sure you keep a distance from the ventilation holes of at least 10cm to any other object.
- ◇ Make sure the mains voltage is correct (220V/110V) before connecting the power adapter (12V DC output).

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Introduction

1. About This Manual

This User Manual provides information on operating and managing the ANT-32000A in a video surveillance system. The Manual includes instructions for installation, operation and configuration of the ANT-32000A as well as troubleshooting. ANT-32000A will be used as a generic part number and where SDI is mentioned this will refer to the ANT-32000AS only. All other features are common to both A and AS versions.

2. Features

ANT-32000A is a video and audio transmission system that provides surveillance and control over remote audio and video, based on an IP network through a LAN, ADSL/VDSL, and Wireless LAN. ANT-32000A operates in Encoder mode or Decoder mode. Encoder mode compresses video data and transmits it. Decoder mode receives the video data and decompresses it.

□ Video

- State-of-the-art Compression Algorithm, H.264 & MJPEG
- Dual stream H264 + H264 or H264 + JPEG
- Compression and Decompression with 18 Resolution options
: Full HD (1920x1080) ~ CIF(352x240)
- Wide Range of Video Transmission Rates : 32kbps ~ 8Mbps
- Various Transmission Modes : CBR, VBR
- Motion Detection
- HDMI In/Output
- HD-SDI In/Output (Optional)

□ Audio

- Multi-Transmission Mode : Unidirectional Mode (IP-server to Client PC or Decoder / Client PC or Decoder to IP-server), Bi-directional Mode (2 way audio)

□ Network

- Static IP & Dynamic IP (DHCP) Support
- One to One Connection & One to Multiple Connection
- Multi-Casting
- Various Protocols supported : TCP/IP, UDP, Multicast, DHCP, SMTP, HTTP, SNMP, RTP, RTSP

❑ Serial Data

- Two serial ports : RS-232, RS-422/485
- Various PTZ camera protocols
- Data pass-through mode : Serial data communication between Encoder - Decoder

❑ Sensor and Alarm

- Connections to external sensor and alarm devices
- Event Alarm

❑ USB

- Connection to external USB storage for remote access, recording and playback

❑ User Interface

- Display system status by using OSD (On Screen Display)
- Diagnose and upgrade through a dedicated program (True Manager)
- System configuration through Internet Explorer

❑ Reliability

- Reliable embedded system
- System recovery utilizing dual watch-dog functions

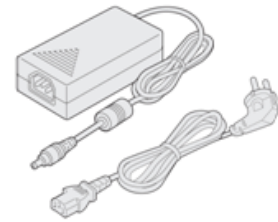
3. Product and Accessories



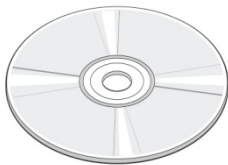
ANT-32000A



User Manual (CD)



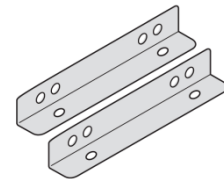
Power adapter and Cable



Software CD



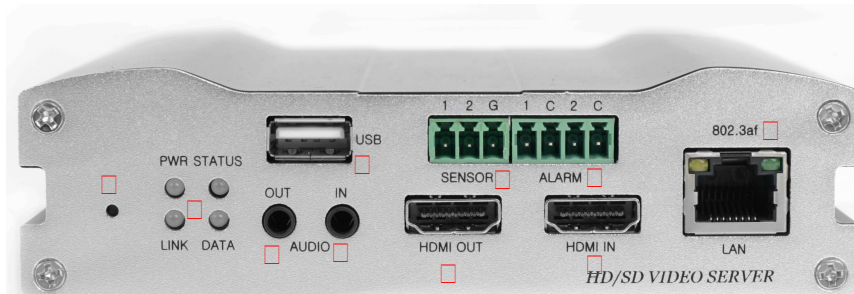
Screws



Brackets

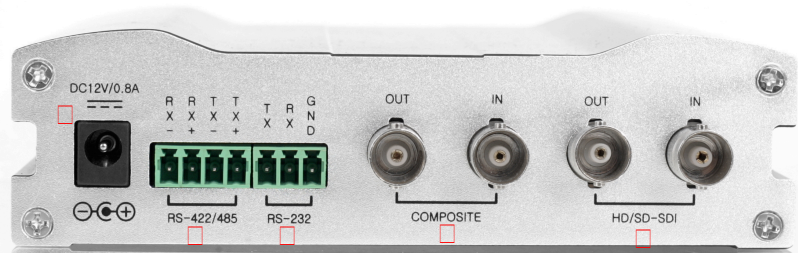
4. Part Names and Functions

□ Front View



No.	Parts	Function
1	LED	Display system status
2	Audio Input	Audio Input
3	Audio Output	Audio Output
4	HDMI Input	HDMI Video Input
5	HDMI Output	HDMI Video Output
6	USB Port	USB 2.0
7	LAN	100/10-base-T Ethernet
8	Reset Button	Initialization of network setting
9	Sensor	Sensor Input
10	Alarm	Alarm or Relay Output

□ Rear View



No.	Part	Function
1	Power	DC +12V power input
2	RS-422/485	Serial port for PTZ control and etc
3	RS-232	Serial port for PTZ control and etc
4	Composite In/ Output	Composite Video Input / Output
5	HD/SD-SDI In/Output	HD/SD-SDI Video Input / Output HD/SD-SDI input output is optional ANT-32000AS only

※

5. System Modes and Connections

ANT-32000A operates in one of two modes; Encoder, Decoder. ANT-32000A systems can be connected in either 1-to-1 fashion where one encoder is connected to one decoder or 1-to-many fashion where one encoder is connected to many decoders.

Following chart shows data status of video, audio and serial data on each mode.

System Mode	Video	Audio	Serial Data
Encoder	Transmit	Transmit/Receive	Transmit/Receive
Decoder	Receive	Transmit/Receive	Transmit/Receive

Therefore, the system modes are defined by the video communication and all system modes are capable of bi-directional transmission of audio or serial data.

Topology

Generally, the encoder and a decoder are connected in 1-to-1 mode. To support specific situations, 1-to-multiple connections is also supported.

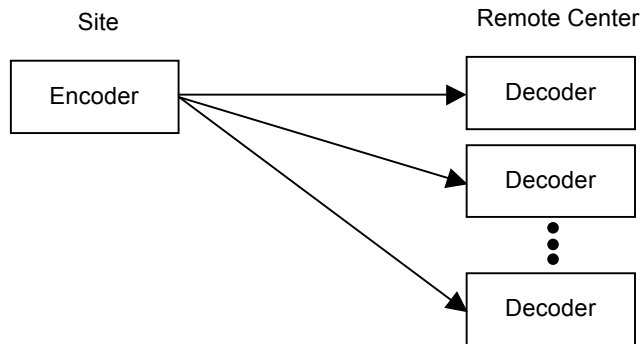
- **1:1 Connection (Unidirectional Transmission).**



Most commonly used configurations are 1 to 1 connections. An encoder is installed at a site where video images can be transmitted and a decoder is installed at a central location to receive and view the video images on monitors. Audio and serial data are transferred in either direction.

A decoder and encoder can be connected by setting the encoder's address to the decoder's remote IP. (see network setup page)

● **1:N Connection (Unidirectional Transmission).**



In this configuration, a site can be monitored from many remote central locations. Although any number of decoders can be connected to an encoder, in a real network environment, maximum connections would be limited by network bandwidth . Multicasting would be recommended in this mode otherwise the encoder is generating an individual stream for each decoder (simulcast) which will limit number of decoders due to:

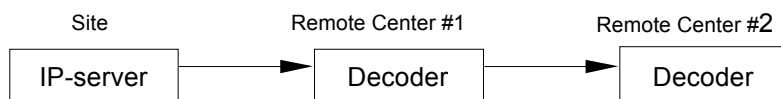
- a) Network bandwidth
- b) Encoder will run out of CPU processing power if too many streams are generated

Functionally, the VMS (Video Management System) PC based software can replace the decoder. (see VMS manual for details)

□ **Multicast Mode**

In a network supporting multicast mode, if **Multicast** is setup as a system protocol, you can use the bandwidth efficiently regardless of the number of decoders. In 1:N connections, a large number of decoders can receive audio and video data from an encoder by using a single streaming transmission.

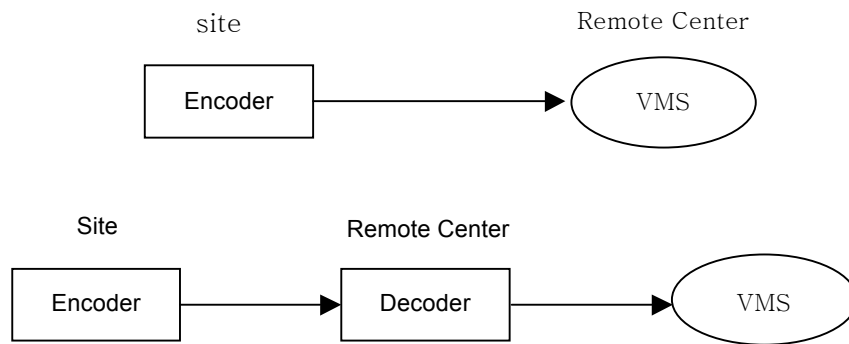
● **Relaying**



In this arrangement, video and audio can be retransmitted from a center to another center. The arrangement is useful when the network bandwidth at the site is limited while there is more than one

center wanting to monitor the site.

- **VMS (Video Management System)**



VMS (Video Management System) is a Windows based remote monitoring program to access multiple encoders or decoders for real-time monitoring or control of the encoders/decoders and connected cameras. Please refer to the VMS User Manual for more information on VMS.

Installation

1. Connecting Video

□ Encoder System

- **Connecting with Megapixel Camera**

Connect a camera which supports HDMI or SD/HD-SDI output to the HDMI or HD-SDI Input port of ANT-32000A accordingly. (ANT-320000AS if you need SDI)

- **Connecting with D1 resolution Camera**

Connect a camera to the Composite Video Input port of ANT-32000A accordingly.

□ Decoder System

Connect a monitor to HDMI , COMPOSITE or (HD-SDI) Output of ANT-32000A accordingly. (ANT-320000AS if you need SDI)

2. Connecting Audio

Audio is bi-directional in any configuration regardless of the system mode (Encoder or Decoder).

If necessary, it can be configured to be in transmit-only, receive -only or bi-directional mode

- Connect audio input and output ports to audio devices accordingly.
- Audio signal is at line level, therefore, a microphone or speaker with an amplification function should be used

3. Connecting Serial Ports

For camera control, PTZ controller (keyboard) and receiver can be connected to the serial ports. Two corresponding serial ports in encoder and decoder, which are connected in a 1-to-1 fashion ,works in pass-through mode. This means that commands at a local system's COM1 port will be transparently passed to the remote system's COM1 port. Also, a command at a local system COM2 port will pass to the remote system's COM2 port.

4. Connecting Sensor and Alarm

Connect sensor and alarm devices to the corresponding terminals .

5. Connecting Power

After confirming the power source, connect power adaptor and connect the 12VDC connector to the system. After a short period the system will boot up into an operating mode

6. Check if it Works

Once the power is supplied to the camera, it will start booting. The system will boot up to an operating mode after approximately 40-60 seconds. The green LED on the Ethernet port will flash indicating the system is ready.

Software provided on the disc called True Manager allows you to check the IP address and other network details of the camera. Please refer to the True Manager manual for instructions on how to find the IP address of the camera and if required changing it.

❑ Encoder LED Display

PWR	STATUS	LINK	DATA
○	○	○	○
Red	Green Blinking	OFF	OFF

Above LED status shows that camera is connected but a decoder is not connected. Once the encoder is connected to a decoder, color of "LINK" LED will turn to green and "DATA" LED will blink as video or audio transmissions occur

❑ Decoder LED Display

PWR	STATUS	LINK	DATA
○	○	○	○
Red	Green Blinking		OFF

Above LED status shows that the Decoder has started without connecting to an encoder. Once an encoder is connected, the color of the "LINK" LED will turn to green and the "DATA" LED will blink as video or audio data transmissions occur.

System Operation

1. LED Display

□ Description of LED

System status can be monitored with LED display

LED	State	Description
PWR	Off	Power off
	Red	Power on
STATUS	Green blinking	Normally operating
	Red	System failure: Needs diagnostics
	Constant change of colors between Red and Green	NTSC/PAL setting does not match with input video signal
	Red blinking	Failed to obtain IP address in DHCP mode
	Constant change of colors between Green blinking 2 times and Red blinking once	Failed to register on DDNS server
	Green blinking, Red blinks once every 5 seconds	Video loss in Encoder system
	Constant change of colours: Green, Orange, Red color in turn	Formatting USB storage device
LINK	Off	No connection to remote system
	Green	Connected to a remote system
	Red blinking	Decoder only: trying to connect to an Encoder
	Orange	Illegal connection (unsupported combination of system modes)
DATA	Green	Data transmission in progress
	Red	Data loss
	Off	No data transmission



2. Remote Video Monitoring

There are two ways to view video when the connections are completed between a site and central system. In order for correct operation, an IP address must be set accordingly. Please refer to **True Manager in Chapter 3** or **Remote Setting in Chapter 4** for further details.

Default ID : admin

Default Password : 1234

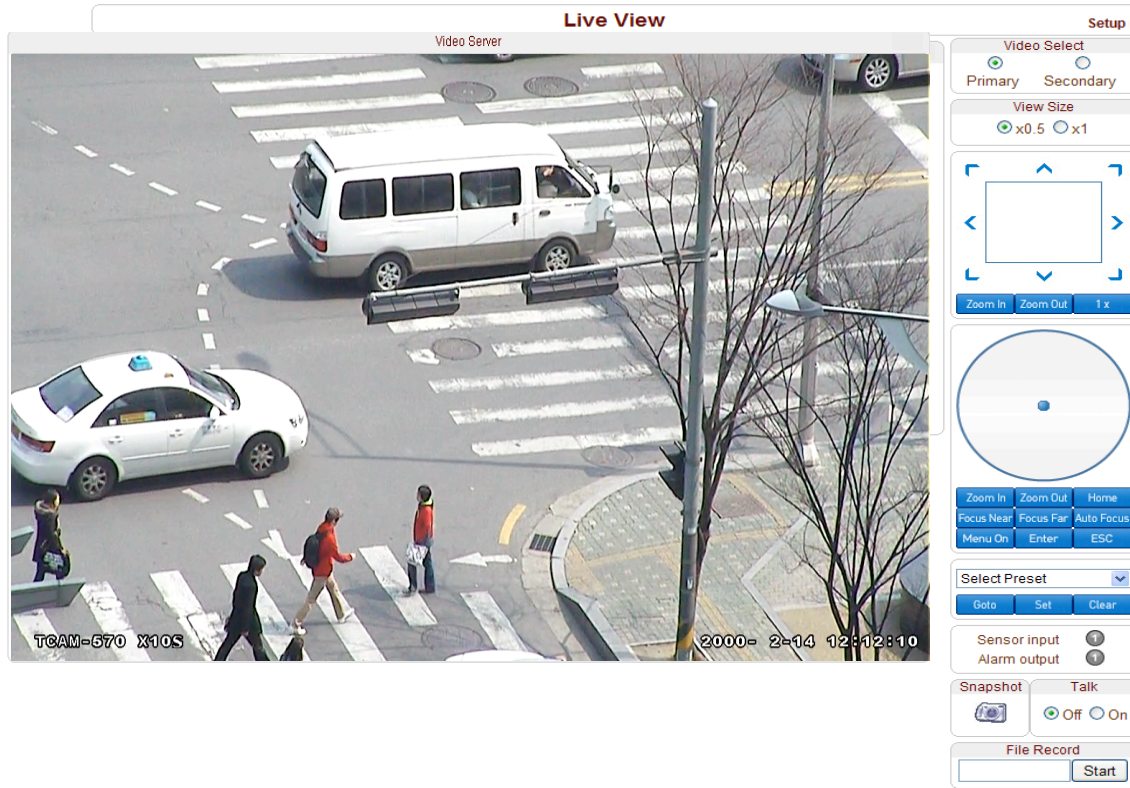
Video Monitoring with Decoder System

Once the IP address is set in the remote IP address section of the decoder or the IP Camera, the decoder system will connect to the encoder system or the IP Camera and start receiving the video images. Normally, a monitor connected to the decoder will display video images.

Video Monitoring using Internet Explorer

Open Internet Explorer and enter the encoder's IP address. The system will ask for confirmation to install Active-X control. Once authorized, the Internet Explorer will start to display video images from the encoder as shown below.

Default IP Address : http://192.168.10.100



- **Video Selection (Video Select)**

Select the Video stream to be viewed: Primary or Secondary

ANT-32000A is capable of dual streaming; primary streaming and secondary streaming.

Video will be displayed according to the resolution set on video configuration. If dual streaming (“Use Dual Encode” Menu in Video page) is not activated, secondary video is not available

- **Screen Size (View Size)**

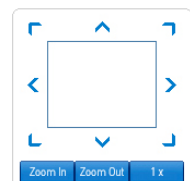
Adjust the Screen size

Screen size is initially adjusted according to the compression resolution. If you click x1/2 icon, the whole screen size will be reduced in a half.

- **Digital Zoom**

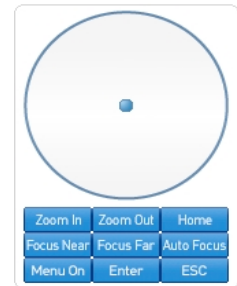
Control the Digital zoom on the screen

The more the camera zooms in, the smaller the square of the control panel is. Position of the image can be changed by moving position of the square. Max x5 Digital Zoom is available. If you press x1, the screen will return to the normal size.



- **PTZ Control Panel (Optical Zoom)**

Control PTZ and PTZ Control Panel is used for controlling external PTZ devices when the external PTZ devices are connected through serial port. Since some cameras have analogue PTZ functions, it is possible to zoom using the **Zoom in/out** buttons of PTZ control Panel



- **Focus Near, Focus Far, Auto Focus**

Adjust the focus

- **Menu On, Enter, ESC**

Display and control OSD(On Screen Display) menu if OSD menu is supported.

(ANT-32000A does not support OSD menu)

- Menu On: Display OSD menu list
- Enter: Select or operate menu items
- ESC: Cancel or go back to the previous menu

- **Select Preset**

Set preset position and move to the specific preset position (PTZ cameras)

- Go to: Move to the selected preset entry if the preset entry is set.
- Set: Set the current position to the selected preset entry.
- Clear: Delete the selected preset entry.

- **Sensor Input**

When the sensor on ANT-32000A is working/ activated, the light turns red.

- **Alarm Output**

Operate the alarm device connected to ANT-32000A.

- **Screen Capture (Snapshot)**

Capture pictures and store as BMP or JPEG files.

- **Audio Transfer (Talk on or off)**

Transfer audio from PC to TCS2000

- **File record**

Recording to an AVI file on Live view page is available. AVI files are generated in the specified folder or a specified file name on the PC where web browser is running.



1. Enter the drive and the folder name on the PC and enter the AVI file name to be used.
2. Press “**Start**” button to start to record.
3. Press “**Stop**” button to stop to record.
4. AVI file named “**File name_IP address_hh_mm_ss**” will be generated in the specified folder.

3. Initialisation of IP Address

If a system IP address is lost, the system can be reset to the system default IP address using the reset button in the back of the system. (pin hole)

- ① While system is in operation, press the reset button for more than 5 seconds.
- ② The system will reboot automatically
- ③ Once the system reboots, the IP address will be set to the system default as below.

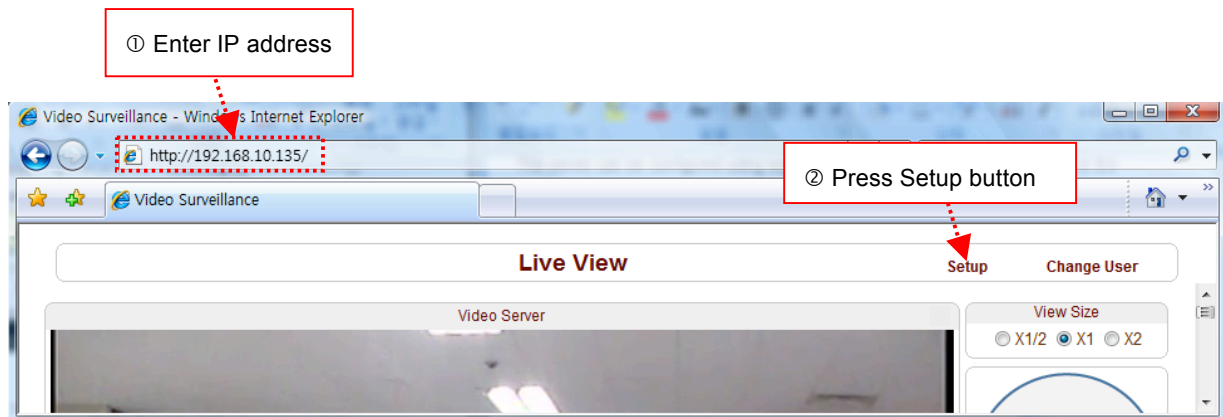
• IP mode	Fixed IP	• IP address	192.168.10.100
• Subnet mask	255.255.255.0	• Gateway	192.168.10.1
• Base port	2222	• HTTP port	80

Remote Configuration

Remote Configuration

Remote configuration of the server is available using a web browser. Enter the IP address of ANT-32000A and a live view screen appears as below. Press **Setup** button on the screen to set up the server.

For Remote Settings, user should be authorized higher than manager level (see user setup).



The remote configuration window may be slightly different depends on the system modes (Encoder, Decoder). The general explanation of the configuration in this manual is based on an Encoder system and differences according to the modes will be clarified when needed.

The configurations are grouped into 9 categories: **System, Video, Audio, Network, Serial, Event, Preset, Record and User**. Any configuration changes are not applied until the **Apply** button is pressed. Leaving the page without pressing the **Apply** button will cause changes on the page to be discarded.

Encoder Configuration

Encoder Configuration

While most configuration items are common for Encoder and Decoder modes, there are items which are relevant to specific system modes. All the configuration items for Encoder mode are explained first. Then, items specific only to Decoder mode are described respectively. Sections for Decoder will not include items which are common to Encoder mode

1. System Configuration

Live View
Setup

System
Video
Audio
Network
Serial
Event
Preset
Record
User

System

General

System Mode ▼

System ID

Language ▼

Firmware

Version

Board ID

Upgrade

Time

Start Time

Current Time

Time Format ▼

Time Zone ▼

Automatically synchronize with NTP server

NTP Server Name

Reboot

Factory Reset

□ **General**

- **System Mode**

Select system Mode: Select Encoder between Encoder and Decoder.

- **System ID**

Set the System ID. The set System ID is displayed with the video image in the web browser. The System ID is also transferred to remote software, such as VMS, and displayed on it. This is the name given to the server for identification purposes.

- **Language**

Select the language to be used for web-based configuration

□ **Firmware**

- **Firmware version**

Current firmware version

- **Board ID**

Display the Network board ID of the TCS2000 recognised by system

- **Upgrade**

Upgrade firmware

1. Press **Browse** button to select a firmware file from PC.
2. Press **Firmware Upgrade** button to start to upgrade.
3. Messages showing the status (downloading / upgrading) will be displayed.
4. The server will reboot automatically after completing the upgrade. **Do not turn the server off during upgrading**



Now, Upgrading... Please wait a minute.



□ **Time**

- **Start Time**

Latest system boot date and time

- **Current Time**

Current date & time: Enter a new date and time and press **Set Current Time** button to update date & time

- **Time Format**

Change the time format. Selectable time formats are as follows

- YYYY/MM/DD hh:mm:ss (Ex. 2010- 4-11 18:18:42)

- DD/MM/YYYY hh:mm:ss (Ex. 11- 4-2010 18:18:42)

- MM/DD/YYYY hh:mm:ss (Ex. 4-11-2010 18:18:42)

- **Time Zone**

Select a time zone of where the system is installed. Depending on the time zone, Daylight Saving Time will work automatically

The current time will be displayed on remote software (VMS) and recording files according to the selected time zone, not the time set on your computer.

A **time zone** is a region of the earth that has uniform standard time, usually referred to as the **local time**. By convention, time zones compute their local time as an offset from UTC (Coordinated Universal Time). In casual use, GMT (Greenwich Mean Time) can be considered equivalent to UTC. Local time is UTC plus the current time zone offset for the considered location.

- **Automatically synchronize with NTP server**

Synchronize system time with an NTP server using NTP (network time protocol). Name of the NTP server should be registered on NTP server Name.

The **Network Time Protocol (NTP)** is a protocol for synchronizing the clocks of computer systems over packet-switched, variable-latency data networks. It is designed particularly to resist the effects of variable latency by using a jitter buffer.

□ Reboot

- **Reboot Server**

Pressing the **Reboot Server** button will cause the system to reboot. Do not press the Reboot button unless the server needs a reboot.

□ Factory Reset

- **Factory Reset**

Set all settings to the factory default values. System log and user registrations are also

cleared. Log In User name and Password for log in will not be cleared however so it is important to remember these.

2. Video Configuration

Live View
Setup

System
Video
Audio
Network
Serial
Event
Preset
Record
User

Video Apply

Encode

Enable Preview Off On

Input Format: Composite PAL

Resolution: 720x576 Scaling

Framerate: 25

Preference: Bitrate

Quality: Economy

Bitrate: 4000 kbps (32 ~ 8000)

I-Frame Interval: 100

H.264 Profile: High Profile Baseline Profile

Dual Encode

Use Dual Encode Off On

Dual Encode Algorithm: H.264 MJPEG

Preference: Quality

Resolution: 720x480 Scaling

Framerate: 25

Quality: Economy


Bitrate: 1024 kbps (32 ~ 1024)

I-Frame Interval: 100

H.264 Profile: High Profile Baseline Profile

Motion Detection

Use Motion Detection Off On



Edit: Enable Disable Apply Edited Area

Mode: Set Erase

Sensitivity(0 for most sensitive): 5

Information Display

SystemID: Off On

Time: Off On

Position: Bottom Top

BurnIn OSD

SystemID: Off On

Time: Off On

Position: Bottom Top

Font Size: Small (8x8) Middle (16x16) Large (32x32)

Color

Brightness: 50

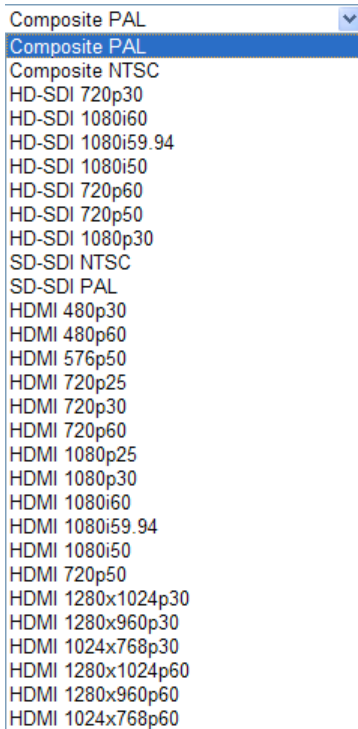
Contrast: 50

Hue: 50

Saturation: 50

□ Encode

● Input Format



Select **ON** to enable display of video on the monitor that is connected to the composite or HD/SD-SDI or HDMI video port. Select an **Input Format**. There are 4 types of input ports; Composite, HD-SDI(Option ANT-32000AS only), SD-SDI(Option ANT-32000AS only), HDMI. Select an input format according to the input port type.

● Resolution

Select video compression resolution. Compression resolutions are different depending on input formats. **The scaling** option is used when compression resolution is different from input compression. Without **the scaling** option, the input video image will be cut according to compression resolution. On the other hand, if **scaling** is selected, the input video size will be adjusted to the compression resolution.

● Frame rate

Determine the maximum number of frames per second for the video images to be compressed. The frame rate of actually transmitted video can be affected by a network bandwidth limitation

● Preference

Preference for video compression and transmission: With 'Bit rate' selected, the video

compression will be affected by the 'Bit rate' value entered. With 'Quality' selected, the video compression will be effected by the quality of image selected. Therefore, 'Bit rate' and 'Quality' corresponds to CBR (Constant Bit rate) and VBR (Variable Bit rate) respectively. CBR will try and maintain an average bit rate equal to the Bitrate value set. In Quality mode the bit rate will vary within limits determined by the Quality setting selected.

- **Quality**

Select Video quality. 8 levels of quality are available.

Quality mode (VBR encoding) adjusts the bit rate according to the image complexity, using higher bandwidth for increased activity in the video and lower bandwidth for decreased activity. It is preferred when the activity changes in the video are significant or the network capacity is insufficient to maintain certain bit rates continually.

- **Bit rate**

Determine bit rate value between 32 ~ 8000kbps.

Bit rate mode (CBR encoding) allows you to set a fixed target bit rate that consumes a predictable amount of bandwidth.

- **I-Frame Interval**

Possible values between 0 and 255. There will be no I-frames if 0 is selected.

- **H.264 Profile**

Select H.264 Profile: High Profile or Baseline Profile

The standard defines various sets of capabilities, which are referred to as profiles, targeting specific classes of applications.

- **High Profile (HiP)**

The primary profile for broadcast and disc storage applications, particularly for high-definition television applications (for example, this is the profile adopted by the [Blu-ray Disc](#) storage format and the [DVB](#) HDTV broadcast service).

- **Baseline Profile (BP)**

Primarily for low-cost applications that require additional data loss robustness, this profile is used in some videoconferencing and mobile applications. This profile includes all features that are supported in the Constrained Baseline Profile, plus three additional features that can be used for loss robustness (or for other purposes such as low-delay multi-point video stream compositing).

□ Dual Encode

● Use Dual Encode

1. Select **Off** button on the **Enable Preview** to **Enable use of Dual Encode**
2. Select **ON** to dissable use of Dual Encoding

The secondary video can be viewed on **Live View** window by selecting **Secondary** on **Video selection**

● Dual Compression Algorithm

Select Secondary Video compression between H.264 and MJPEG. Maximum resolution is 720 x 480. There are 8steps for adjusting this mode. If MJPEG is selected, only Quality mode is supported

□ Motion Detection

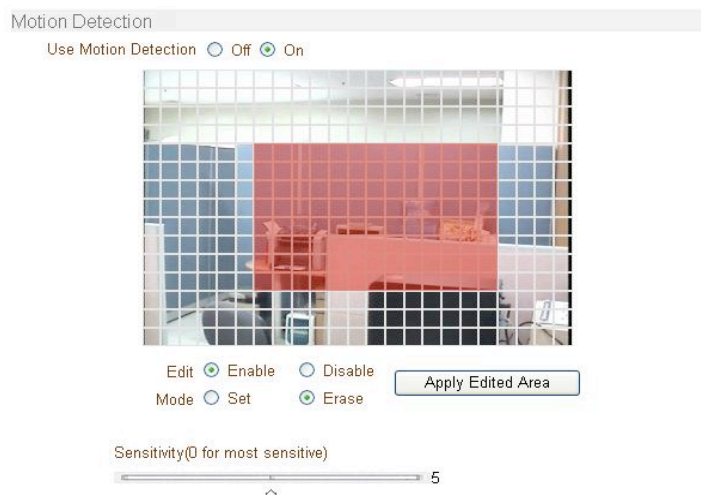
● Use Motion Detection

Select Motion Detection function

● Motion Detection Area Editing

Configure regions for motion detection. Regions of arbitrary shape can be configured by the following steps.

- ① Enable **Edit** item.
- ② Select editing Mode. **Set** is for including cells into the motion detection region and **Erase** is for excluding.
- ③ Select cells using the right button of the mouse. Multiple cells can be selected conveniently by clicking and dragging.
- ④ Press **Apply Edited Area** to save the editing



- **Sensitivity**

Set the condition to trigger an event for motion detection. The value determines the sensitivity of the motion detection within a block: the smaller, the more sensitive

- **Information Display**

System ID and/or server time can be display over the video window in Internet Explorer. Each item can be turned on or off separately, and position can also be configured. This information is displayed **after the video is decompressed**.

- **Burn-in OSD**

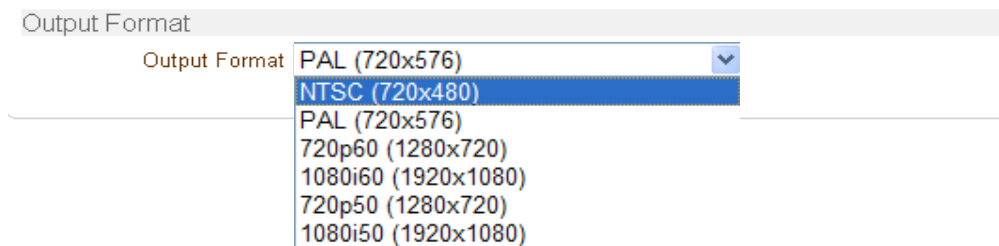
Insert system ID and date/time in **the compressed video**. System ID and time respectively can be turned on or off in the video. And position and Font size can be selectable.

- **Color**

Adjust Brightness, Contrast, Hue, Saturation

- **Output Format**

Output Format menu appears only when **Enable Preview is on**



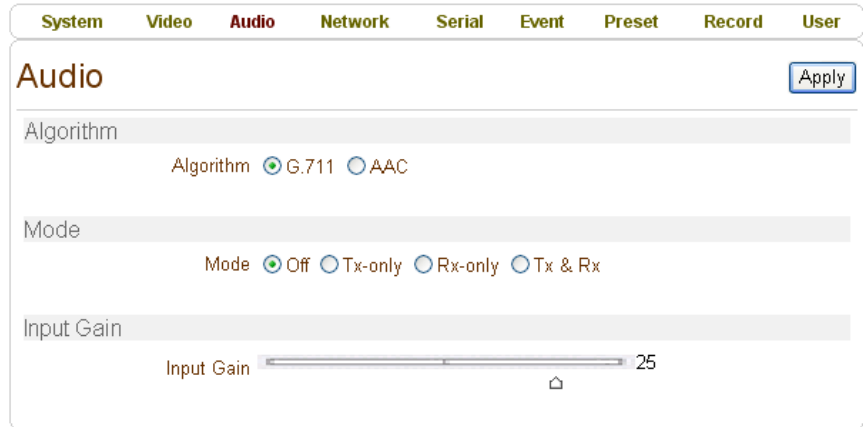
Select the output format for the monitor preview according to the video Input and monitor specification.

- The following output format is available according to the video input format

Output format	Available Input format
NTSC (720x480)	Composite NTSC, SD-SDI NTSC, HDMI
PAL (720x576)	Composite PAL, SD-SDI PAL, HDMI
720p60 (1280x720)	Composite, HD-SDI, HDMI
1080i60 (1920x1080)	Composite, HD-SDI, HDMI
720p50 (1280x720)	Composite, HD-SDI, HDMI

1080i50 (1920x1080)	Composite, HD-SDI, HDMI
---------------------	-------------------------

3. Audio Configuration



□ Algorithm

- Select audio algorithm between G.711 and AAC.

- **Bit rate**

Select the Bit rate between 64kbps and 128kbps when AAC is selected

The sampling rate is fixed to 32KHz when AAC is selected.

Note that when ANT-32000A is connected to a decoder, the decoder's audio algorithm should be set identically to transmit audio settings.

□ Mode

- Select audio operation mode

Mode	Action
Off	No operation
Tx-Only	Transmit only
Rx-Only	Receive only
Tx & Rx	Transmit and Receive

□ Input Gain

- Set audio input gain

4. Network Configuration

Setup
Live View

System
Video
Audio
Network
Serial
Event
Preset
Record
User
Camera

Network Apply

Local

IP Mode

Local IP

Local Gateway

Local Subnet

DNS

Obtain DNS server address automatically
 Use the following DNS server addresses

Primary DNS Server

Secondary DNS Server

Port

Base Port

HTTP Port

RTSP Port

Authentication

RTSP Authentication
 Off On

HTTPAPI Authentication
 Off On

RTP Session

Use RTP Session
 Off On

Destination IP

Destination Port

User Name

File Name

SNMP

SNMP Listen port

SNMP Trap Destination IP

SNMP Trap Destination Port

Multicast

Multicast IP

DDNS

DDNS Server None TrueDNS DynDNS

Check IP Disable

ID

Password

Domain Name

Bitrate Control

Flow Control Mode Frame Drop Mode Suppression Mode

Address Information

Current IP 192.168.10.105

Current Domain demo3.truecam.net

MAC Address 00:1C:63:AA:01:65

Connecting

Local

- **IP mode**

Two IP modes are supported. Depending on the selected mode, further configuration items come as follows

IP Mode	Selection	Description
Fixed IP	Local IP	Fixed IP address
	Local Gateway	Gateway IP address
	Local Subnet	Subnet mask
DHCP	N/A	

Please ask for IP address information from an ISP provider or network manager.

DNS

- **Obtain DNS server address automatically**

Get DNS server address automatically when IP mode is DHCP.

- Use the following DNS server addresses

Enter the DNS server IP address.

- Primary DNS server
- Secondary DNS server

Domain Name System (DNS) is a database system that translates a computer's fully qualified domain name into an IP address. Networked computers use IP addresses to locate and connect to each other, but IP addresses can be difficult for people to remember. For example, on the web, it's much easier to remember the domain name www.amazon.com than it is to remember its corresponding IP address (207.171.166.48). Each organization that maintains a computer network will have at least one server handling DNS queries. That server, called a name server, will hold a list of all the IP addresses within its network, plus a cache of IP addresses for recently accessed computers outside the network.

□ Port

- **Base Port**

Network base port is used for communication between systems. In order for the servers and remote systems to be connected together, the port number must be set identically .

- **HTTP Port**

HTTP port use for web-based connection

- **RTSP Port**

Enter RTSP port used for RTSP-based connection. The default RTSP port is 554

RTSP (Real Time Streaming Protocol) is a standard for connected client(s) to control streaming data over the World Wide Web

□ Authentication

- **RTSP Authentication**

If RTSP Authentication is set on the network page, the user should enter the correct user ID and password when any RTSP client is connected.

- **HTTP API Authentication**

When **HTTP API authentication** set to **ON**, HTTP Authentication is requested for all clients which use HTTP API .

□ RTP Session

- **RTP (Real-Time Transport Protocol)** is an Internet protocol used for transmitting single real-time multimedia data such as audio and video to a select group of connected clients. Normally RTSP uses RTP to format packets of multimedia content. The **RTP Session** menu is used when using RTP only streaming ,without RTSP connection. An RTP stream will be transmitted to the destination IP and Port set. The SDP (Session Description Protocol) file can be found in the server, and a client can retrieve it using an http connection.

Related settings are as following.

- **Destination IP** : Set the IP Address for your destination system which will receive the RTP stream
- **Destination Port** : Set the Port for your destination system which will receive the RTP stream
- **User Name**: Enter the User name that will be used as session name in the SDP file.
- **File Name**: Enter the file name that will be used as the name of the SDP file. Then, it can be accessed through <http://ServerAddress/filename>

RTP Session

Use RTP Session Off On

Destination IP

Destination Port

User Name

File Name

□ SNMP

- ANT-32000A can be used as an SNMP agent. It is compatible to both SNMPv1 and SNMPvec. Settings for using SNMP (Simple Network Management Protocol) are as following
 - **SNMP Listen Port**: The port is for connecting external devices when the system operates as an SNMP client. SNMP is not used by setting a 0 value.
 - **SNMP Trap Destination IP**: Set the SNMP Trap Destination IP.
 - **SNMP Trap Destination Port**: Set the SNMP Trap Destination Port. SNMP is not used by setting a 0 value.

SNMP

SNMP Listen port

SNMP Trap Destination IP

SNMP Trap Destination Port

Simple Network Management Protocol (SNMP) is used by network management systems to communicate with network elements. SNMP lets TCP/IP-based network management clients use a TCP/IP-based internetwork to exchange information about the configuration and status of nodes. SNMP can also generate trap messages used to report significant TCP/IP events asynchronously to interested clients. For example, a router could send a message if one of its redundant power supplies fails or a printer could send an SNMP trap when it is out of paper

□ Multicast

- **Multicast IP**

The multicast IP address selection range is between 224.0.1.0 and 238.255.255.255. The selection can be used only when media protocol is set to Multicast. The Multicast menu is used for the Multicast connection request from a decoder or VMS / NVR software to transmit Multicast stream to the decoder or VMS / NVR software. The multicast address must be the

same for the system to be connected using the multicast protocol.

□ DDNS

Select the DDNS (Dynamic DNS) server to use. One of two servers can be selected.

- **True DNS:** TrueDNS service is used in this mode. Systems can be registered on the website for TrueDNS service: <http://ns1.truecam.net>. System will get a domain name of xxx.truecam.net style. Please, refer to user guide document for True DNS service.
- **DynDNS:** DynDNS service is used in this mode. Refer www.dyndns.org for details. ID, Password and Domain name are needed when DynDNS is set.

Dynamic DNS is a method, protocol, or network service that provides the capability for a networked device, such as a router or computer system using the Internet Protocol Suite, to notify a domain name server to change, in real time (ad-hoc) the active DNS configuration of its configured hostnames, addresses or other information stored in DNS.

- **Check IP Disable:** If “Check IP Disable” is selected, IP Server will skip checking its own IP. In Fixed IP mode, the set IP will be registered on the DDNS server. In DHCP mode, the Allotted IP will be registered on DDNS server.

□ Bitrate Control

- When there is more than one client (decoder) connected to an IP camera (or video server) and some of them do not have enough bandwidth to receive the encoded stream fully, it is possible to select the way to stream video to clients as followings
 - **Frame Drop Mode:** Frames are dropped on sending routine. Only clients with limited bandwidth are affected by the dropping.
 - **Suppression Mode:** Video encoding is suppressed. All clients are affected.

□ Address Info

The following network information is displayed (Read only)

- **IP Address:** The servers own IP address. This information is useful when the server's IP mode is set to DHCP.
- **Domain Name:** In case the server is registered with a DDNS server, the registered domain name is displayed.
- **MAC Address:** Display the MAC address of the server. In case the server is registered with a DDNS server, the MAC address is used for DDNS registration.
- **Connecting:** Client IP Addresses that are currently connected to system are listed.

(1) Indicates Primary streaming and (0) indicates Secondary streaming



5. Serial Port Configuration

Setup

[Live View](#)
[Change User](#)

System
Video
Audio
Network
Serial
Event
Preset
Record
User

Serial Apply

COM1 (RS-232 Port)

Protocol

Bitrate

Data Bit

Parity

Stop Bit

COM2 (RS-422/485 Port)

Protocol

Bitrate

Data Bit

Parity

Stop Bit

PTZ

PTZ Type

PTZ ID

PTZ Port

Sensor Type

Sensor 1 Off N/O N/C

Sensor 2 Off N/O N/C

Sensor Schedule

Select Sensor Off Sensor On

Sensor 1

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SUN	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
MON	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
TUE	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
WED	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
THU	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
FRI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
SAT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Sensor 2

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SUN	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
MON	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
TUE	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
WED	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
THU	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
FRI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
SAT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

□ Serial Port Type and Configuration

- **Serial Port type:** There are two serial ports, RS-232, RS-422/485 in ANT-32000A. Select RS-422 or RS-485 in RS-422/485 port
- **Serial Port Configuration:** The serial ports can be configured as follows.

Each of the serial ports configurations must be same as the connecting device.

Mode	Selection
Bitrate	2400, 4800, 9600, 19200, 38400, 57600, 115200 bps
Data Bits	5, 6, 7, 8 bits
Parity	NONE, EVEN, ODD bit
Stop Bit	1, 2 bit

□ **PTZ**

- **PTZ Type:** Select the type of PTZ camera or receiver.
- **PTZ ID:** Since it is possible to control multiple PTZ cameras or receivers over a single control line, each camera or receiver will be assigned with a unique ID. Enter PTZ ID of a camera or receiver for control. The ID value range can be between 0 and 255.
- **PTZ Port:** Select the serial port used for the PTZ camera control.
- **Direct Keyboard Control:** Keyboard controller can be connected to ANT-32000A directly to control pan tilt zoom and focus

□ **Sensor Type**

There are two sensor input ports on ANT-32000A. Each of the sensor ports can be configured to the following.

Function	Operation
OFF	Not used
NO (Normally Open)	The port is normally open and activated when closed.
NC (Normally Closed)	The port is normally closed and activated when opened.

The function of the sensor port is set based on the type of the sensor connected.

□ **Sensor Schedule**

Each sensor port can be enabled or disabled by a day (of week) and hour unit. Sensor is disabled with a grey-colored block.



6. Event Configuration

Setup
Live View

System
Video
Audio
Network
Serial
Event
Preset
Record
User

Event Apply

Local

Sensor1 Beep Alarm1 Alarm2 E-mail FTP No Preset

Sensor2 Beep Alarm1 Alarm2 E-mail FTP No Preset

On Video Loss Beep Alarm1 Alarm2 E-mail FTP No Preset

On Motion Beep Alarm1 Alarm2 E-mail FTP No Preset

Remote

Sensor1 Beep Alarm1 Alarm2 E-mail FTP No Preset

Sensor2 Beep Alarm1 Alarm2 E-mail FTP No Preset

Sensor3 Beep Alarm1 Alarm2 E-mail FTP No Preset

Sensor4 Beep Alarm1 Alarm2 E-mail FTP No Preset

On Disconnect

On Disconnect Beep Alarm1 Alarm2 E-mail FTP No Preset

Duration

Beep synchronous

Alarm1 synchronous

Alarm2 synchronous

E-mail Notification

Server Address

Port

Sender Address

Authentication on SMTP server Off On

ID

Password

Destination Address

Video Clip Attaching Off Primary Video Secondary Video JPEG Capture

Number of Frame (1 ~ 10)

Before testing e-mail, please apply your configuration first.

FTP Upload

Server Address

Port

ID

Password

Upload Video Primary Video Secondary Video JPEG Capture

Number of Frame (1 ~ 10)

Continuous Upload Off On

Upload Duration sec (Max 300)

Upload Interval sec (Max 3600)

Event Record

Pre-event Time None

Post-event Time None

Local & Remote Event Configuration

- The event configuration configures the actions for each event type. **Local** section configures the actions for events from local (self) system, and the configuration activates local devices. **Remote** sections configure the actions for events from remote (peer) system.
- The following table lists the possible actions for events.

Action	Description
Beep	Outputs a beep sound using the buzzer in the system
Alarm1/Alarm2	Triggers alarm (relay) port.
E-mail	Sends E-mail to the specified address. AVI file can be attached
FTP	Upload AVI file to a specified FTP server
Preset	Moves the PTZ to associated preset position

- **The Sensor1 / Sensor2/ Sensor3 / Sensor4.**

Configure the actions when the sensor is activated. Multiple actions can be set for a single event.

- **On Video Loss**

Configure the actions when video input signal is lost. Multiple actions can be set for a single event.

- **On Motion**

Configure the actions when motion is detected. Multiple actions can be set for a single event.

- **On Disconnect**

Configure the actions when the link(connection) with peer system is disconnected. Multiple actions can be set for a single event.

Alarm and Beep activation duration

- Set the duration of alarm or beep activation in case of an event. If it is set to continuous, it will be in a inactive state until an operator resets it manually.

E-mail Notification

Specify the settings to send event information, when E-mail is selected as an event action.

- **Server Address:** Enter an address of mail(SMTP) server
- **Port:** Specify a port for SMTP operation (**Port 25 is the default port in SMTP operation.** If a different port is configured in the SMTP server, this port needs to be changed accordingly).
- **Sender Address:** Enter an account registered in the SMTP server.
- **ID & password:** When the server requires authentication, ID and Password of an E-mail account need to be entered.
- **Destination address:** Enter Destination address. More than one address can be entered by delimiting comma (,) or semi-colon (;). Destination address can take up to 63 characters.
- **Video Clip Attaching:** A video clip stored at the moment of the event can be attached as an AVI or JPEG file format. If using dual Encoding, Primary video or Secondary video (H.264 only) can be selected.
- **Number of Frame:** Enter frame number of JPEG Capture (from 1 to 10)

□ FTP Upload

Specify the settings to upload event information, when FTP is selected as an event action.

- **Server Address:** Enter an address of an FTP server to receive video files
- **Port:** Specify a port for FTP operation (**Port 21 is the default port in FTP operation.** If a different port is configured in the FTP server, this port needs to be changed accordingly.).
- **ID & password:** Enter ID and Password for accessing the FTP server.
- **Upload video:** Primary video and Secondary video (H.264 only), JPEG can be selected as an upload method.
- **Continuous upload:** Continuous upload “on” allows the video image to be transmitted regularly, regardless of occurrence of events.
- **Number of Frame:** Enter frame number of JPEG Capture (from 1 to 10)
- **Upload duration:** Specify recording duration of a video clip to be transmitted.
- **Upload interval:** Specify transmission interval.

Recording duration is not included in transmission interval. For example, if upload interval is 60 seconds and upload duration is 20 seconds, a video clip for 20 seconds is transmitted every 80 seconds.

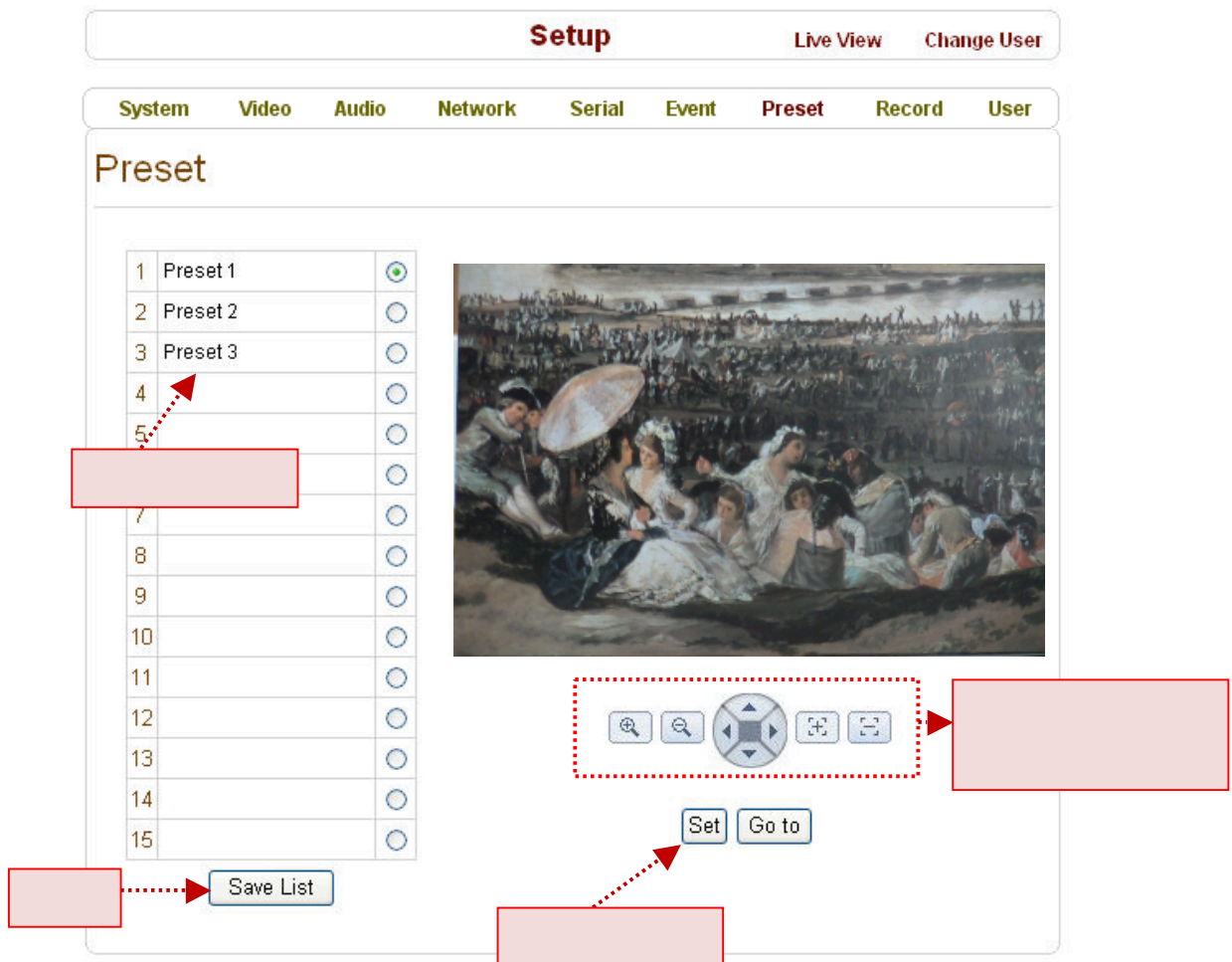
□ Event Record

Specify duration of recording video generated by events to send through e-mail or upload through FTP.

- **Pre-event Time:** Specify the duration of recording before an event happens.
- **Post-event Time:** Specify the duration after the event is cleared.
- Max duration is 30 seconds

② Press Set Button

7.Preset Configuration



Configure up to 15 preset positions. Preset function is not available on some PTZ receivers. Make sure to check if a PTZ receiver supports preset

❑ Preset Configuration

- Set the PTZ Presets by following the next steps
 - ① Move cameras to desired view using PTZ control buttons.
 - ② Enter Preset name.
 - ③ Press **Set** button.
 - ④ Once all the presets are set, press **Save List** button.
- **Move to Preset Position**

Select a preset from the Preset and press **Go To** button, the camera will move to the selected preset position.

8. Recording Configuration

Setup

[Live View](#)
[Change User](#)

System
Video
Audio
Network
Serial
Event
Preset
Record
User

Record

Disk Information

USB Disk available
Disk Size : 7.40 G
Free Space : 5.89 G

General

Use Record Off On

Select Video Primary Video Secondary Video

Overwrite Off On

Max File Size

Event Type

Event Type 1 Sensor1 Sensor2 Motion Video Loss

Event Type 2 Sensor1 Sensor2 Motion Video Loss

Event Type 3 Sensor1 Sensor2 Motion Video Loss

Event Type 4 Sensor1 Sensor2 Motion Video Loss

Pre-event Time

Post-event Time

Schedule Table

Record Off
 Continuous
 Disconnect

Select Event Type 1 Event Type 2

Event Type 3 Event Type 4

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SUN																								
MON																								
TUE																								
WED																								
THU																								
FRI																								
SAT																								

USB Device

USB hard disk or a memory stick can be used, and at least 1GB size is recommended.

Either EXT3 or FAT32 file system can be used. A disk with either EXT3 or FAT32 file system can be read in a Linux PC. However, only a memory stick with FAT32 file system can be read in a Windows PC. In case of formatting through True Manager, the disk is formatted as EXT3. The File system can be unstable and easily broken if you format the disk in FAT32 on Windows PC.

- * Recording features has been added from 102D_001 firmware version.
- * Less than 4Mbps of video bit rate is recommend when you record and monitor video at the same time since it may cause frame loss.

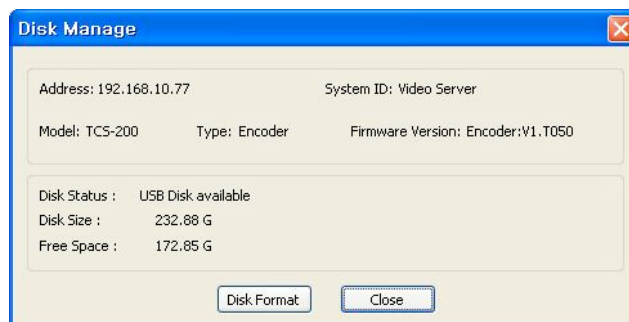
Disk information and recording setup

Be sure to restart the system after connecting a USB disk. During booting, the system reads status of disk and initializes it. Once the initialization of a disk is finished, the status of disk is shown on **Record** page of web-based setup.

□ Disk Information



- The status of a disk can be checked from the **Disk Manage** menu of True Manager as well.



Refer to the chart for checking the status of disk.

Disk status	Description
Disk error detected	Error
No disk	Disk is not connected to the system.
Searching Disk information	Checking the status of disk. Refresh the page and wait until the status is changed.
Mounting and Recovering Disk...	Performing recovery process when disk damage is found. It takes from seconds to minutes for recovering.
Disk format needed	Disk is attached, but the type of the file system is unknown or damaged.
Unknown disk type detected	
USB Disk available - (format is recommended)	Disk is available, but formatting is recommended.
USB Disk available	Available to be used for recording
Disk formatting – Start	Disk is being formatted. System should not be turned off during formatting.
Disk formatting – Progressing.....	
Disk formatting – Writing inode tables 63/619	
Disk formatting – Creating journal.....	
Disk formatting – Writing Superblocks.....	
Disk format done, Please wait for reboot.	
Disk removed or in abnormal state	

□ General

- **Use record** - **On**: Recording function will be used when “**On**” is selected.
- **Off**: Recording function will not be used when “**Off**” is selected
- **Select Video**: Select video streaming between primary video and secondary video
- **Overwrite**: In overwrite option, an action can be configured when the disk is full. If **Overwrite Off** is set, recording stops automatically when there is less than 100MB free space in the disk. If **Overwrite On** is set, recording continues by deleting the oldest data first on disk, maintaining free space of 300MB for normal operation.
- **Max File Size**: Max File Size option is for limiting the size of AVI file. If a small file size is set, files of small size will be generated but numbers of the files will be increased. If recording time is more than 10 minutes, a new file will be created even though the previous file size is smaller than set max file size.

□ Event Type

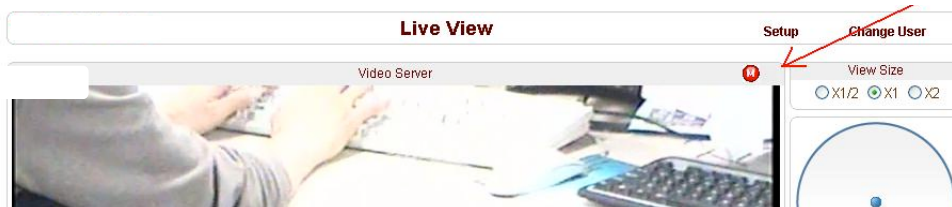
- Three recording modes are supported in ANT-32000A: **Full-time, Event, Disconnect**. In case of Event recording, event types can be selected among several events. Selected event type is used for configuring the schedule table. Up to 4 event types can be configured and each event type can be a combination of sensor, video loss and motion event.
- **Pre-event Time**: Specify the duration of recording before an event happens.
- **Post-event Time**: Specify the duration after the event is cleared

□ Schedule Table

- Actual recording mode is determined by **Schedule Table**, where recording mode configured by day (of a week) and time.
- Each of recording mode configures the recording operation as follows:
 - **Record off** : No recording
 - **Continuous** : Records continuously
 - **Disconnect**: Data is recorded when the system loses the connection to its client(Decoder, VMS/NVR) etc. When one of its multiple clients system is disconnected, this doesn't happen.
 - **Event Type**: Records when an event configured in **Event Type** setting happens.

Checking status of recording

- Recording status can be shown on the main view page.



- Recording status can be also shown in True Manager. When data is being recorded, **Record** column displays the **ON** sign.

The screenshot shows the 'True Manager' software interface. The 'Channels' tab is selected. A table displays the status of various servers. The 'Record' column for server 89 is circled in red and shows 'ON'.

State	Server Name	Ch	Conns	Cam	Motion	Record	V-E (kbps)	V-E (fps)	V-D (kbps)	V-D (fps)	A-E (kbps)	A-D (kbps)
<input checked="" type="checkbox"/>	Connected	89	1	1	OK	ON	3828	30	0	0	0	0
<input type="checkbox"/>	Disconnected	77										
<input type="checkbox"/>	Disconnected	100										
<input type="checkbox"/>	Disconnected	98										
<input type="checkbox"/>	Disconnected	96										
<input type="checkbox"/>	Disconnected	101										
<input type="checkbox"/>	Disconnected	130										
<input type="checkbox"/>	Disconnected	131										
<input type="checkbox"/>	Disconnected	133										
<input type="checkbox"/>	Disconnected	134										
<input checked="" type="checkbox"/>	Connected	135	1	2	OK		1418	30	0	0	62	0
<input checked="" type="checkbox"/>	Connected	136	1	1	OK		888	30	0	0	62	0
<input type="checkbox"/>	Disconnected	137										
<input type="checkbox"/>	Disconnected	138										
<input checked="" type="checkbox"/>	Connected	139	1	1	Loss		0	0	0	0	0	0
<input type="checkbox"/>	Disconnected	211										
<input type="checkbox"/>	Disconnected	221										
<input type="checkbox"/>	Disconnected	231										
<input type="checkbox"/>	Disconnected	232										
<input type="checkbox"/>	Disconnected	233										
<input type="checkbox"/>	Disconnected	234										
<input type="checkbox"/>	Disconnected	235										
<input type="checkbox"/>	Disconnected	236										

Search and Playback

Recorded File

- Recorded video and audio data can be saved as AVI format on the disk.
- In general, one AVI file is created for an event in case of event-based recording. However, it is possible that recorded data, caused by series of events happening quickly and continuously, may be merged to a single AVI file. (depending on pre/post event time settings.) The size of file is limited to 10 ~ 200MB or 10 minutes.
- In case of continuous recording, AVI files are created in series and the size of each is limited to 10 ~ 200MB or 10 minutes.

Search

- A file currently being recorded doesn't appear until it is completed. In case of Continuous recording, a file will be shown after 10 minutes from the start of recording, for a file is generated every 10 minutes.
- Press **Search Page** button on the **Record** setup page. Dates with recording data will be shown as follows.



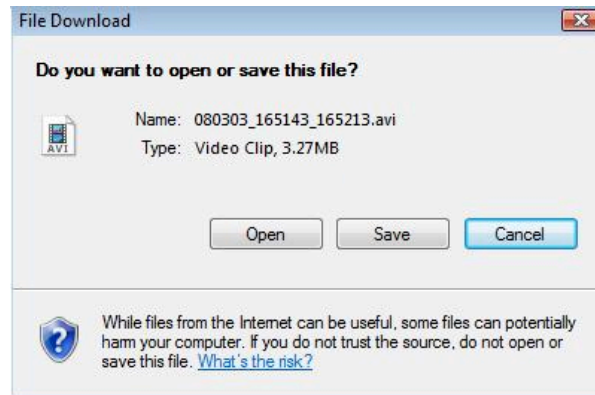
- First, choose the date to be searched and the list of AVI files will be shown.
- The file name shows the date and time: "**Date Begin Time End Time.avi**".



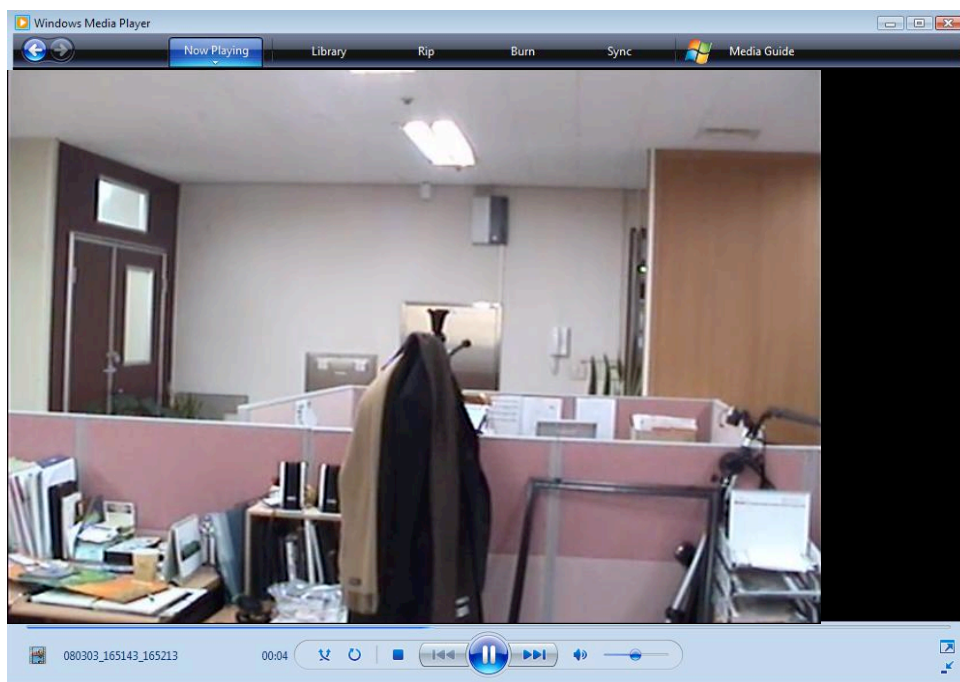
- Press **Root** to move back to the page with date list.

❑ Playback

- Selecting an AVI file will show a dialog for opening or saving the file.



- Pressing the **Save** button, the file will be stored in the PC. The AVI file can be played with Windows Media Player.



- If you press **Open** in the dialog, the file will be downloaded and played automatically with Media Player.
- Another connection through the web is disabled during downloading and it is also not possible to download two AVI files at the same time.

Deletion

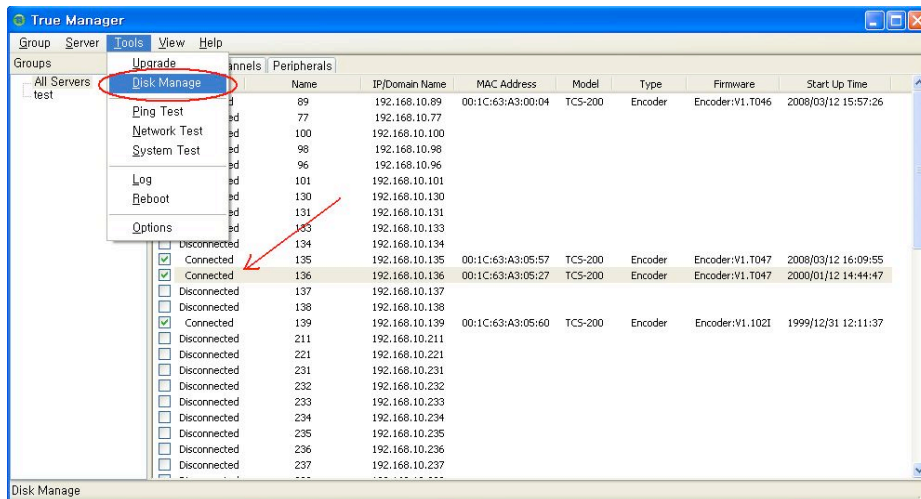
- If you want to delete recorded files, select the files by checking the item in front of each file and press the **Delete** button.



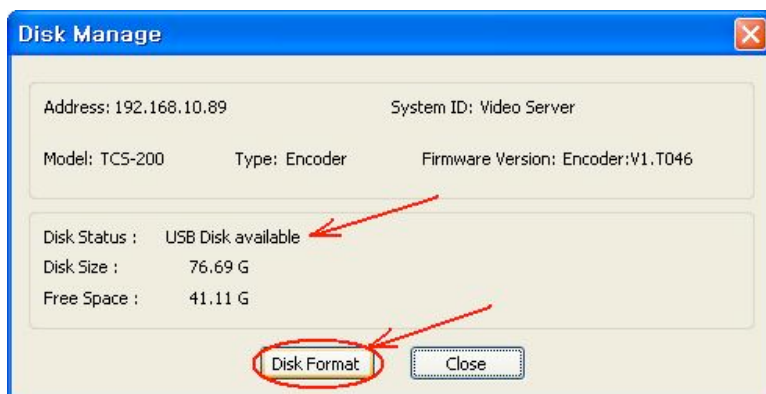
- It is possible to delete multiple files at once.

Formatting Disk

- True Manager is used to format a disk which is connected to the system.
- After connecting True Manager to a system, choose **Disk Manage** on the **Tools** menu.



- Check the status of the disk in the dialog and press **Disk Format** to format the disk.



- During formatting a disk, the progress will update on the **Disk Status** item. The system may be rebooted depending on the situation. Once **USB Disk available** is displayed, it means that formatting is completed successfully.
- Once formatting is started, it is not possible to cancel this. Even if you close the **Disk Manage** dialog, formatting will continue.

Trouble Shooting

- There may be a damaged file system if you turn off the power of the ANT-32000A or disconnect the USB memory stick or USB HDD while data is being written.
- In case of FAT32, recording can't be done normally if the file system is damaged. If this happens, the disk or memory stick should be reformatted on the PC.
- In case of EXT3, if the trouble in the file is not serious, it can may recover by itself. The recovery is executed at initialization of the system. Recording is not performed while recovery is in progress.

9. User Configuration

□ User List

- User can be registered and privilege level of a user can be specified. User configuration is allowed only to admin user. Max 16 users can be registered and each user can have one of four privileges.

Privilege	Allowed Operations	Remarks
Admin	All operations	User id = admin
Manager	All operations except for user configuration	
User	Live viewing and PTZ control	
Guest	Live viewing only	

- **Add User**

The Page for adding a user appears on pressing the Add button

ID	
Password	
Privilege Level	Manager

Add Cancel

User ID and password need to be entered and privilege level needs to be selected.
 User ID and password consists of alphanumeric string of max 15 characters.

- **Delete User**

A user is deleted by pressing Delete button.

- **Change Password**

Pressing **Modify Password** button after selecting a user shows a page for changing password.

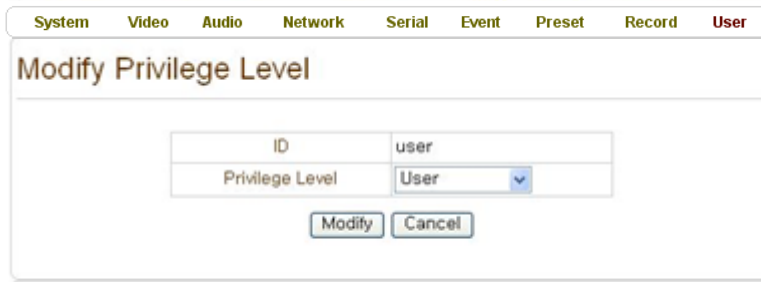
ID	admin
Current Password	
New Password	
Confirm Password	

Modify Cancel

In case of changing the admin password, old password is checked first.

- **Modify Privilege Level**

Pressing **Modify Privilege** button after selecting a user shows a page for changing the privilege. It is not permitted to change the privilege level of admin user.



□ Login Policy

- **Authentication Type**

For user login, access algorithm can be selected : Basic or Digest

HTTP authentication based on RFC 2617(HTTP Authentication: Basic and Digest Access Authentication) is supported.

- **Skip Login** provides for convenient access to the server when authentication is not required. When Skip Login is set to **Enable**, login step is skipped. The privilege level after login in this way is determined by the setting of **Privilege Level After Login Skipp**

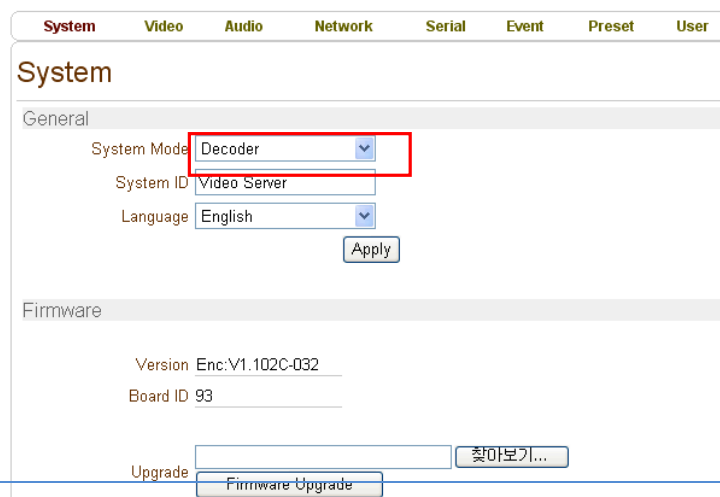
Decoder Configuration

Decoder Configuration

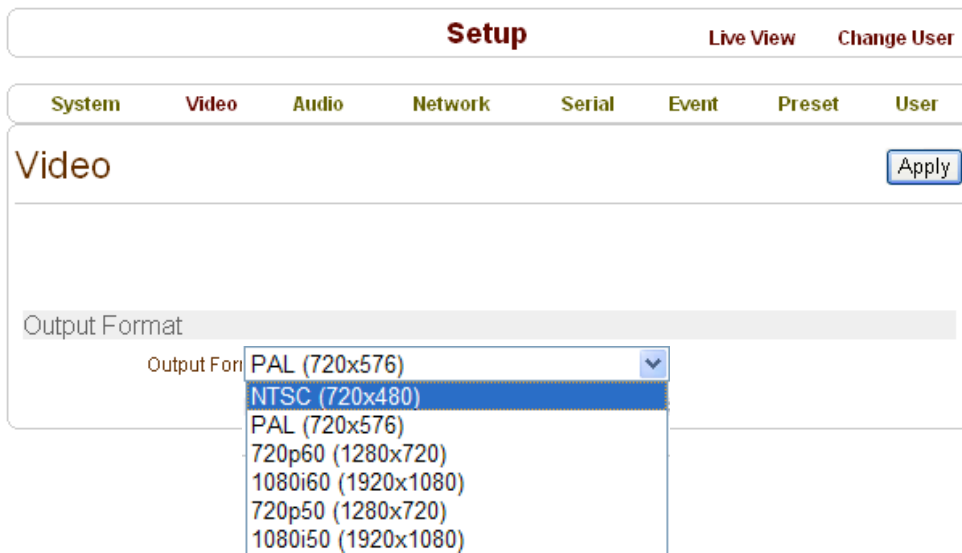
Decoder Configuration is slightly different from Encoder Configuration. Different configurations from the encoder will be explained in this Decoder Configuration section

1. System Configuration

By setting System Mode to Decoder in System configuration, the system will reboot and start to work as a Decoder.



2. Video Configuration



□ Output format

Regardless of input resolution of the Encoder or IP camera, Decoder of the ANT-32000A can display video format as follows;

- NTSC (720 x 480)



- 720p60 (1280x720)
- 1080p60 (1920 x 1080)
- 720p50 (1280 x 720)
- 1080i50 (1920 x 1080)

□ Buffering

- You can store a maximum 30 decoded frames temporarily by using buffering before displaying the frames. Displaying stored frames is smoother than displaying in real time. However, displaying stored frames causes delay because of process of buffering.

3. Network Configuration

Network page of Decoder has a section for specifying the remote system to connect to.



❑ Remote Type

- Normal : Connection for ANTRICA Encoder and decoder
- RTSP/RTP: Decoder system can make connection though RTSP protocol and get the stream via RTP. It is also possible to make connection with other vendor's H.264 IP camera supporting standard RTSP/RTP and standard H.264 algorithm.
- To make an RTSP connection, set *Remote Type* to "RTSP", enter the RTSP URL of remote system to *Remote Address*, and RTSP access port number to *Remote Port*. Currently it supports only video.

❑ Media Protocol

- Select protocol used for transmission of audio and video data between remote system and decoder. The decoder system or VMS can choose media protocols among TCP, UDP and Multicast.

❑ Remote Address

- Address of the remote system to be connected

❑ Port

- Port of the remote system to be connected

□ Remote Channel

- The channel can be selected when the remote system has multiple video channels

□ Use Streaming Server

- Decoder system has settings to connect to the Encoder or IP Camera via the Streaming Server. To connect to Encoder or IP Camera via Streaming Server, **Use Streaming Server** should be set to **On** and information about the **Streaming Server (SS)** needs to be configured appropriately.
- **SS IP address:** IP address of Streaming server
- **SS port:** Enter Port number that is set when registering Streaming server.
- **SS ID:** Enter Streaming Server ID.
- **SS password:** Enter Streaming Server Password.

Remote

Remote Type	Normal
Media Protocol	TCP
Remote Address	192.168.10.243
Port	2222
Remote Channel	Channel 1
Use Streaming Server	<input checked="" type="radio"/> Off <input type="radio"/> On
SS IP Address	0.0.0.0
SS Port	2222
SS ID	admin
SS Password	●●●●

4. Display Configuration

Setup Live View

System Video Audio Network Serial Event Preset **Display** User

Display Apply

Disconnect

Freeze Black Screen

LED

Video ▼

❑ Disconnection

- Decoder system's output mode on disconnected state can be configured
 - Freeze : Video image of the last frame is shown when there is a disconnection.
 - Black Screen: Black Screen is shown when there is a disconnection.

❑ LED

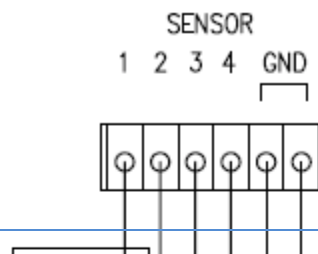
- Select from Video, Audio and Serial to be indicated by Data LED. When you have selected data (Video or Audio or Serial) communication between the encoder and the decoder, the Data LED will indicate the status.

Appendix

1. Appendix A : Sensor and Alarm Port

□ Sensor Port

- **Terminal Type**
 - Voltage Rating: 150VAC
 - Current Rating : 2A
 - Color : Red
- **Sensor Signal Input Type**
 - NO Contact Signals
- **Connection to External Device**



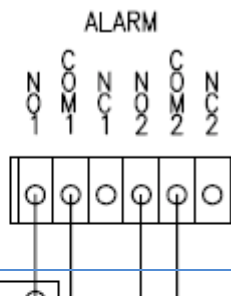
□ **Alarm Port**

- **Terminal Type**
 - Voltage Rating: 150VAC
 - Current Rating : 2A

- **Relay Type**
 - Contact Rating : 1A 30VDC
 - Switching Power : Max 30W 62.5VA
 - Switching Voltage : Max 60VDC

- **Alarm Signal Output Type**
 - NO/NC Contact Signals

- **Connection to External Device**



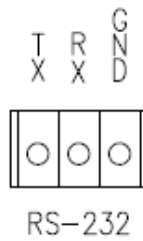
2. Appendix B : Serial Port

RS-232 Port

Port Type

-3 PIN

-Pin Arrangement



-Pin Description

Pin NO	Pin Name	Description
1	TX	RS232 TX(Transmit)
2	RX	RS232 RX(Receive)
3	GND	Ground

RS-422/485 Port

RS-422/485 TERMINALS



- **Port Type**

- 4 PIN

- Pin Diagram

- Pin Description

Pin No.	Pin Name	Description
1	RX-	RS422 RX-
2	RX+	RS422 RX+
3	TX-	RS422 TX- or RS485 TRX- selectable by S/W Setup
4	TX+	RS422 TX+ or RS485 TRX+ selectable by S/W Setup