Table of Contents

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1. Introduction

1. Information

This manual provides how to use the recording function of ANT-3100 (Encoder) and camera series.

2. USB Device

USB hard disk or 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 Linux PC. However, only memory stick with FAT32 file system can be read in Windows PC. In case of formatting through True Manager, the disk is formatted as EXT3. File system could be unstable and easy to be broken if you format the disk in FAT32 on Windows PC.

2. Connecting Disk and Checking Status

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.

Video Surveillance - Microsoft In	nternet Explorer		
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주소(D) 🍓 http://192,168,10,135/index,html		💉 🄁 이동	연결 »
System Video Audio Record Disk Information	Setup Network Serial Event Memory stick detected Disk Size : 0.96 G	Live View Change User Preset Record User Apply Search Page	

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

Address: 192.168.10).77	System ID: Video Server
Model: TCS-200	Type: Encoder	Firmware Version: Encoder:V1.T050
Disk Status : USB	Disk available	
Disk Size : 23	32.88 G	
Free Space : 17	72.85 G	

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
Dials forms at was deal	Diele is attached, but the time of the file sustains is
Disk format needed	Disk is attached, but the type of the file system is
Unknown disk type detected	unknown or damaged.
USB Disk available - (format is	Disk is available, but formatting is recommended.
recommanded)	
USB Disk available	Available to be used for recording
Disk formatting – Start	Disk is being formatted.
Disk formatting – Progressing	System should not be turned off during formatting.
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	Disk is detached during operation or there is
	damage on the file system. If it happens while disk
	is connected, it is recommended to format the disk.

3. Recording Setup

Refer to the following figure for confirguration of recording. After changing any configuration, press **Apply** button.

				Setup		Live V	iew Cha	nge User
System	Video	Audio	Network	Serial	Event	Preset	Record	User
Record						Apply	Search	n Page
Disk Inforn	nation							
			USB [Disk availab	le			
			Disk Si	ize : 232.88	IG			
			Free Sp	iace : 172.4	9 G			
General								
	Use Re	ecord 🔿 (Off 💿 On					
	Over	rwrite 🔿 C	Off 💿 On					
	Max File	Size 100M	vl bytes 🛛 🗸	1				
		-						
Event Type)							
	Event Ty	ype 1 🔲 S	ensor1 🔲 Se	ensor2 🔲 N	1otion 🔲	Video Loss		
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	Pre-event	Time Non	e 💙					
P	ost-event	Time Non	e 💙]				
Schedule ⁻	Table							
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General

- It can be configured whether recording function will be used or not.
- The action on disk full situation can be configured also. Recording stops automatically when **Overwrite** is **Off** and there are less than 100MB free space in the disk. If **Overwrite** is **On**, the oldest data is deleted first on disk full situation. Free space of 300MB is maintained without recording data on it for normal operation.
- **Max File Size** is the menu for limitting the size of AVI file. If it is set a small size, file is created in small size and but numbers of file will be increased. If the

recording time is over 10 minutes, new file will be created even though file size is smaller than size of file set in **Max File Size**.

Event Type

- Three recording modes are supported in ANT-3100: 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 / Post Event Time** specifies the duration of recording before and after an event happens and they are applied to 4 event types commonly.

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, CMS/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 the status of recording

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

주소(<u>D</u>)	🕘 http://192,168,10,89/	· · · · · · · · · · · · · · · · · · ·
02 118	Live View	Setup Change User
	Video Server	View Size ○X1/2 ○X1 >X2
	A A	

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

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oups ×	Server Channels	Peripherals					\frown						
All Servers	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 (k
(63(Connected	89	1	1	OK		ON	3828	30	0	0	0	0
	Disconnected	77											
	Disconnected	100											
	Disconnected	98											
	Disconnected	96											
	Disconnected	101											
	Disconnected	130											
	Disconnected	131											
	Disconnected	133											
	Disconnected	134											
	Connected	135	1	2	OK			1418	30	0	0	62	
	Connected	136	1	1	OK			888	30	0	0	62	
	Disconnected	137											
	Disconnected	138											
	Connected	139	1	1	Loss			0	0	0	0	0	
	Disconnected	211											
	Disconnected	221											
	Disconnected	231											
	Disconnected	232											
	Disconnected	233											
	Disconnected	234											
	Disconnected	235											
	Disconnected	236											
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4. Search and Playback

Recorded File

- Recorded video and audio data can be saved as AVI format in 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 by serious of events happening continuously can be merged to a sigle AVI file depending on pre/ post event time setting. The size of file is limitted to 10 ~ 200MB or 10 minutes.
- In case of continuous recording, AVI files are created in series and the size of each is limitted 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.

🗿 Search Root Page - Microsoft Internet Explorer 📃	
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	~
Search Page	
2008_03_03	
H 4 (1) F F	91

- First, choose the date for search and the list of AVI files will be shown.

The file n	ame shows the date and time: "Date	e_Begin Time_End Tir
Search Pa	age – Microsoft Internet Explorer	
뒤로 • (🕥 - 💽 🛃 🏠 🔎 검색 👷 즐겨찾기 🍕	3 🗟 • 🍒 🖬 • 🗔 👋
oot >:	> 2008 03 03	
501 -	2000_03_03	
Delete		
	File Name	Size
	080303_165722_165731.avi	1.30 M
	080303_165355_165608.avi	22.51 M
	080303_165143_165213.avi	4.48 M

- 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 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 web is disabled during downloading and it is also not allowed 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 **Delete** button.

Root >	> 2008 03 03	
NUOL 22	2000_03_03	
Delete		
	File Name	Size
	080303_165722_165731.avi	1.30 M
	080303_165355_165608.avi	22.51 M
	080303_165143_165213.avi	4.48 M

- It is possible to delete multiple files at once.

5. 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 **Tools** menu.

🚭 True Manag	er								
<u>G</u> roup <u>S</u> erver	<u>Tools View H</u> elp								
Groups	Upgrade	annels Perip	pherals						
All Servers	<u>D</u> isk Manage	D N	Name IP/Domain Name	MAC Address	Model	Туре	Firmware	Start Up Time	^
L test	Ping Test Network Test System Test Log Reboot	1 be be be be be be be	89 192,168,10,89 77 192,168,10,77 100 192,168,10,77 98 192,168,10,98 96 192,168,10,96 101 192,168,10,91 130 192,168,10,101 130 192,168,10,131	00:1C:63:A3:00:04	TC5-200	Encoder	Encoder:V1.T046	2008/03/12 15:57:26	
	Qptions	ed 1 red 1 red 1 red 1 red 1	192.168.10.133 134 192.168.10.134 135 192.168.10.135 136 192.168.10.136 137 192.168.10.136 137 192.168.10.137	00:1C:63:A3:05:57 00:1C:63:A3:05:27	TCS-200 TCS-200	Encoder Encoder	Encoder:V1.T047 Encoder:V1.T047	2008/03/12 16:09:55 2000/01/12 14:44:47	
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- Check the status of the disk in the dialog and press **Disk Format** to format the disk.

Disk Manag	e		X
Address: 192.	168.10.89	System ID: Video Server	
Model: TCS-20	00 Type: Encoder	Firmware Version: Encoder:V1.T046	
Disk Status :	USB Disk available	/	
Disk Size :	76.69 G		
Free Space :	41.11 G		
	Disk Format	Close	

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

6. Trouble Shooting

- There may be a damange in the file system if you turn off the power of ANT-3100 or disconnect USB memory stick or USB HDD while data is being writen.
- In case of FAT32, recording can't be done normally if the file system is damanged. 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 be recovered by itself. The recovery is executed at initialization of the system. Recording is not performed while recovery is in progress.