AVerMedia

NV 1000/3000/5000/7000 Digital Video Recording System

User's Manual

FCC NOTICE

This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial, industrial or business environment. This equipment can generate, use and radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION ON MODIFICATIONS

To comply with the limits for the Class A digital device, pursuant to Part 15 of the FCC Rules, this device must be installed in computer equipment certified to comply with the Class A limits. All cables used to connect the computer and peripherals must be shielded and grounded. Operation with non-certified computers or non-shielded cables may result in interference to radio or television reception.

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

CE NOTICE

This is a Class A product.

DISCLAIMER

No warranty or representation, either expressed or implied, is made with respect to the contents of this documentation, its quality, performance, merchantability, or fitness for a particular purpose. Information presented in this documentation has been carefully checked for reliability; however, no responsibility is assumed for inaccuracies. The information contained in this documentation is subject to change without notice.

In no event will AVerMedia be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use this product or documentation, even if advised of the possibility of such damages.

TRADEMARKS

AVerMedia is a trademark of AVerMedia[®] TECHNOLOGIES, Inc. IBM PC is a registered trademark of International Business Machines Corporation. Microsoft is a registered trademark and Windows is a trademark of Microsoft Corporation. All other products or corporate names mentioned in this documentation are for identification and explanation purposes only, and may be trademarks or registered trademarks of their respective owners.

COPYRIGHT

2005 by AVerMedia[®] TECHNOLOGIES, Inc. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means without the written permission of AVerMedia[®] TECHNOLOGIES, Inc.

TABLE OF CONTENTS

	Pack	age Co	ontents for NV 1000	vii				
	Pack	age Co	ontents for NV 3000	. viii				
	Pack	age Co	ontents for NV 5000	. viii				
	Package Contents for NV 7000ix							
	NV 1000/ NV 3000 Video Capture Card Specificationsx							
	NV 5	5000 Vic	deo Capture Card Specifications	x				
	NV 7	7000 Vic	deo Capture Card Specifications	xi				
	Man	ual Con	ventions	xi				
	LIMI	TED W	ARRANTY	. xiii				
СН	ΑΡΤΙ	ER 1 II	NSTALLING HARDWARE	16				
	1.1	Hardw	are Recommendations	16				
	1.2	NV 10	00/3000/5000/7000 Hardware Installation Combinations	17				
	1.3	NV 10	00 DVR Hardware Installation	19				
	1.4	NV 30	00 DVR Hardware Installation	20				
	1.5	NV 50	00 DVR Hardware Installation	23				
	1.6	NV 70	00 DVR Hardware Installation	28				
		1.6.1	Installing One AVerMedia NV 7000 Video Capture Card	28				
		1.6.2	Installing 4 NV 7000 Video Capture Cards	29				
		1.6.3	Installing an I/O Card	30				
	1.7	Conne	ecting the Watchdog line	32				
		1.7.1	Connecting the Watchdog line to NV 1000/3000/5000	32				
		1.7.2	Connecting the Watchdog line to NV 7000	33				
	1.8	Conne	ecting Cameras and TV-out Cable	34				
		1.8.1	Connecting Cameras and TV-out Cable to NV 1000/3000/5000	34				
		1.8.2	Connecting Cameras and TV-out Cable to NV7000	34				
	1.9	Conne	ecting External Sensors/Relays to NV1000/3000/5000/7000	37				
		1.9.1	Connecting External Sensors/Relays to NV1000/3000/5000	37				
		1.9.2	Connecting External Sensors/Relays to NV7000	41				

AVerMedia NV1000/3000/5000/7000 User's Manual

	1.10	Conne	cting POS (Not Supplied)	.43
СН	APTE	ER 2 IN	STALLING SOFTWARE	14
	2.1	Installir	ng NV1000/3000/5000 Application Software	.45
		2.1.1	Installing NV1000/3000/5000 Application in Windows 2000/XP	.46
	2.2	Installir	ng NV 7000 Application Software	.49
		2.2.1	Installing NV7000 Application in Windows 2000/XP	.50
	2.3	Installir	ng NV1000/3000/5000 Driver	.53
		2.3.1	Installing NV1000/3000/5000 driver in Windows 2000	.53
		2.3.2	Installing NV1000/3000/5000 driver in Windows XP	.55
	2.4	Installir	ng NV7000 Driver	.58
		2.4.1	Installing NV7000 driver in Windows 2000	.58
		2.4.2	Installing NV7000 driver in Windows XP	.60
	2.5	Remov	ing Video Capture Card Driver	.62
СН	APTE	ER 3 C	ONFIGURING THE SYSTEM	53
	3.1	Loggin	g in for the first time	.63
		3.1.1	Introducing the Functions buttons on Display/Playback	.64
	3.2	Configu	uring DVR	.69
		3.2.1	System Setting	.70
		3.2.2	Camera Setting	.74
		3.2.3	Recording Setting (Video and Audio)	.77
		3.2.4	Network Setting	.84
		3.2.5	Schedule Setting	.86
		3.2.6	Backup Setting	.92
		3.2.7	Sensor Setting	.94
		3.2.8	Relay Setting	.97
		3.2.9	Alarm Setting	.98
		3.2.10	User Setting	105
СН	APTE	ER 4 U	SING THE SYSTEM10)7
	4.1	How to	Monitor the Videos	107
		4.1.1	Select the Split Display Mode	107
		4.1.2	Full Screen Display	110
		4.1.3	Auto Scan	110

		4.1.4 Alarm Status and Reset						
4.	2	How to	Playback the Videos111					
		4.2.1	Setting the Video Playback Date and Time111					
		4.2.2	Playing the Videos113					
		4.2.3	Catching Desired Videos					
4.	.3	Play Ba	ackup Video Files116					
4.	.4	Search	ing Desired Videos118					
4.	.5	Using I	E-Map127					
4.	.6	Using I	PTZ Camera128					
4.	7	Using I	Event Log Viewer131					
		4.7.1	Checking Event Logs					
		4.7.2	Checking Operation Logs					
		4.7.3	Checking POS Logs					
		4.6.4	Checking System Logs					
		4.7.5	Check Network Logs					
4.	.8	Using I	POS135					
4.	9	Using I	Network Server136					
4.	.10	Using F	Functional Keys137					
4.	.11	Checkir	ng System Information138					
CHAF	PTE	ER 5 U	SING REMOTE PROGRAM 140					
5.	.1	Using \	NebCam141					
5.	.2	Using t	he Remote Console151					
		5.2.1	System requirement					
		5.2.2	Using Display from Remote Console152					
		5.2.3	Using Playback from Remote Console155					
5.	.3	Hand	y View158					
5.	.4	Using	PDA Viewer158					
	APPENDIX A REGISTERING DOMAIN NAMES166							
APPE	ENC	DIX B I	MAGE VERIFICATION168					

PREFACE

Welcome to the realm of AVerMedia. AVerMedia DVR digital surveillance system, composed of one 32-bit PCI Video Capture Card, works as a digital video surveillance system. It enables you to capture true color images and real-time videos from 4-16 camera inputs simultaneously.

With the latest Motion Detection technology, once any movement is detected in the monitoring area, AVerMedia DIGITAL SURVEILLANCE SYSTEM automatically starts recording and triggers an alarm. You no longer need to monitor every single moment of the day; the system automatically alerts you when specified events occur.



Package Contents for NV 1000

AVerMedia NV 1000 DIGITAL SURVEILLANCE SYSTEM package includes the following items :

- 1. 1 AVerMedia DVR Video Capture Card
- 2. 1 Audio + I/O Card
- 3. 3 Video Extension Card connection cables
- 4. 1 Audio Card connection cable
- 5. 1 I/O connection cable
- 6. 3 AVerMedia DVR Video Extension Cards
- 7. 1 30 CM Watchdog line
- 8. 1 Quick Start Guide
- 9. 1 Software CD (including driver, application software and 1 User's Manual

Package Contents for NV 3000



AVerMedia NV 3000 DIGITAL SURVEILLANCE SYSTEM package includes the following items :

- 1. 1 AVerMedia DVR Video Capture Card
- 2. 1 30 CM Watchdog line
- 3. 1 20 CM Video signal line
- 4. 1 Software CD (including driver, application software and 1 User's Manual
- 5. 1 Quick Start Guide

Package Contents for NV 5000



AVerMedia DIGITAL SURVEILLANCE SYSTEM package includes the following items :

- 1. 1 AVerMedia DVR Video Capture Card
- 2. 1 30 CM Watchdog line
- 3. 1 20 CM Video signal line
- 4. 1 Software CD (including driver, application software and 1 User's Manual
- 5. 1 Quick Start Guide

Package Contents for NV 7000



A complete NV 7000 surveillance system package includes the following items:

- 1. 1 NV 7000 Video capture card
- 2. 1 I/O card
- 3. 1 Video and audio connection cable
- 4. 1 30 CM Watchdog line
- 5. 1 20 CM Video signal line
- 6. I/O connection cable
- 7. Quick Start Guide
- 8. 1 Software CD

If there is any damage, shortage or inappropriate item in the package contents, please contact with your local dealer.



NV 1000/ NV 3000 Video Capture Card Specifications

Product	Video Card	Specifications
NV 1000 NV 3000	1 card	One Video Capture Card with 4 BNC connectors and 1 TV-out slot.

NV 5000 Video Capture Card Specifications



Product	Video Card	Specifications
NV 5000	1 card	One Video Capture Card with 4 BNC connectors and 1 TV-out slot.



NV 7000 Video Capture Card Specifications

Manual Conventions

The following conventions are used throughout this manual.

Туре	Stands for	Example
[paren.]	Keys on the keyboard	[Enter]
"Quotes"	Words to be typed in	"AVerMedia"
Italic	User in each authorization level	Administrator
Bold	Name of a dialog, Sections/Option title in the dialog/Field names/Buttons	Schedule Backup
Underlined	Table columns	<u>Start</u>

Caution Message: These messages are to advise you to proceed carefully. Failure to pay attention could result in damage to the system and may put personnel and environment at risk.



Informational Message: These messages are intended to provide additional information for the purpose of clarification.

LIMITED WARRANTY

AVerMedia TECHNOLOGIES, Inc. warrants that this product to be free of defects resulting from faulty manufacturing or components under the following terms:

WARRANTY LENGTH

Labor is warranted for 15 months from the date of purchase.

Replacement products will be warranted for the remainder of the 15-month warranty period or 30 days, whichever is longer.

WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser.

WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

- 1. Any product on which the serial number has been defaced, modified, or removed.
- 2. Damage, deterioration, or malfunction resulting from:
 - A. Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification, or failure to follow instructions included with the product.
 - B. Misapplication of service by someone other than the manufacturer's representative.
 - C. Any shipment damages. (Claims must be made with carriers.)
 - D. Any other cause that does not relate to a product defect.
- 3. Cartons, cases, batteries, cabinets, tapes, or accessories used with the product.
- AVerMedia TECHNOLOGIES, Inc. does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose.

WHAT WE WILL AND WILL NOT PAY FOR

We will pay labor and material expenses for covered items. However, we will not pay for the following:

- 1. Removal or installation charges.
- 2. Shipping charges.
- 3. Any incidental charges.

EXCLUSION OF DAMAGES

THE MANUFACTURER'S SOLE OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT AT OUR OPTION. THE MANUFACTURER SHALL NOT, IN ANY EVENT, BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE (INCLUDING, BUT NOT LIMITED TO, DAMAGES RESULTING FROM INTERRUPTION OF SERVICE AND LOSS OF BUSINESS) OR LIABILITY LIMITATIONS OF IMPLIED WARRANTIES.

There are no other oral or written warranties, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. Any implied warranties are limited in duration to 15 months from the date of purchase.

STATE LAW AND YOUR WARRANTY

This warranty gives you specific legal rights, and you may also have other rights granted under state law. These rights vary from state to state.

CONTACT INFORMATION

Taiwan & International No. 135, Jian Yi Rd., Chung Ho City, Taipei, Taiwan TEL: 886-2-2226-3630 FAX: 886-2-3234-4842 Web Site: www.avermedia.com

Chapter 1 Installing Hardware

AVerMedia digital surveillance system is a digital surveillance system that supports Windows 2000/XP. Please follow the steps to install the hardware.

1.1 Hardware Recommendations



Please make sure you follow the minimum system requirement when putting together a PC for the NV series product. For a list of recommended motherboards, graphics cards, please go to: http://www.avermedia.com/nvd/hardware-recom.htm

Before you begin, please verify that your computer hardware specifications can meet your AVerMedia digital surveillance system requirements.

CPU	Pentium [®] 4 2.8GHz or above recommended				
Motherboard	Intel 865, 875, 915 Chipset				
	(VIA/SiS/ALi chipset motherboards temporarily not supported)				
OS	Microsoft [®] Windows 2000 Pro./XP Pro.				
Expansion Slots	1 / 2 / 3 / 4 × 32-bit PCI 2.1 compliant slots				
RAM	DDR 512MB or above				
Hard disk	120 GB of free hard disk space, at least 60GB free space for each partition.				
Media	CD-ROM drive				
VGA	16-bit high color SVGA graphic card with DirectDraw & YUV rendering capability, 64MB video memory at least				
Audio	Sound card and speakers				

For the latest information, please check

www.avermedia.com/nvd/hardware-recom.htm

1.2 NV 1000/3000/5000/7000 Hardware Installation Combinations

The following instructions are for installing Video Capture Cards into the AVerMedia DVR digital surveillance system.

The DVR system has a powerful surveillance function and a flexible combination when you install the hardware. This table shows the numbers of audio devices, video channels, sensor inputs and relay outputs in different hardware combinations.

Hard	dware Combinat	ions				
Video Capture Card Numbers	Video Extension Card Numbers	Audio / IO Card Number	Number of Video channels	Number of Audio channels	Sensor Inputs	Relay Outputs
	1 2	0	8	0	0	0
		1	8	1	4	3
1		0	12	0	0	0
1	2	1	12	1	4	3
	3	0	16	0	0	0
	3	1	16	1	4	3

NV 1000 system hardware installation combinations:

NV 3000 system hardware installation combinations:

Hardware Co	ombinations	Number of Video	Number of Audio	Sensor	Relay Outputs	
Video Capture Card numbers	I/O + Audio Card Number	channels	channels	Inputs	Outputs	
1	0	4	0	0	0	
	1	4	1	4	3	
	0	8	0	0	0	
2	1	8	1	4	3	
	2	8	2	8	6	
	0	12	0	0	0	
3	1	12	1	4	3	
	2	12	2	8	6	
	0	16	0	0	0	
4	1	16	1	4	3	
	2	16	2	6	6	

Hard	dware Combinat	ions	Number of			
Video Capture Card numbers	Video Extension Card numbers	Audio / IO Card Number	Number of Video channels	Number of Audio channels	Sensor Inputs	Relay Outputs
	0	0	4	0	0	0
	0	1	4	4	4	3
	1	0	8	0	0	0
1	2	1	8	4	4	3
1		0	12	0	0	0
	2	1	12	4	4	3
	3	0	16	0	0	0
	3	1	16	4	4	3
	0	0	8	0	0	0
2	U	1	8	4	4	3
2	2	0	16	0	0	0
	2	1	16	4	4	3

NV 5000 system hardware installation combinations:

NV 7000 system hardware installation combinations:

Hardware Combinat	ions		Number of	Sensor	Relay
Video Capture Card numbers	IO Card Number	Video channels	Audio channels	Inputs	Relay Outputs
1	1	4	4	4	4
2	1	8	8	4	4
2	2	8	8	8	8
3	1	12	12	4	8
	2	12	12	8	8
	3	12	12	12	12
4	1	16	16	4	4
	2	16	16	8	8
	3	16	16	12	12
	4	16	16	16	16

1.3 NV 1000 DVR Hardware Installation



Before installing the video card, turn off the computer's power, unplug the power cable and disconnect all other cables attached to the back of the computer.

Please follow the steps to install the system.

- 1. Remove the PC case cover.
- 2. Remove brackets for the PCI expansion slot. Save the screws.
- 3. Connect the Video Extension Cards and NV 1000 Video Capture Card with the connection cable.
- 4. Connect the Audio Card with the connection cables.
- 5. Insert the Video Capture Card, Video Extension Cards and the Audio Card into the available PCI slots and fix them.



1.4 NV 3000 DVR Hardware Installation



Before installing the video card, turn off the computer's power, unplug the power cable and disconnect all other cables attached to the back of the computer.

Users can purchase optional I/O Audio Cards if it is necessary.

1.4.1 Install One Video Capture Card and One Audio Card (Optional)

- 1. Please follow the steps to install the system. Remove the PC case cover.
- 2. Remove 2 brackets for the PCI slots. Save the screws.
- 3. Connect the Audio Card and the Video Capture Card with the connection cable.
- 4. Insert the Video Capture Card and I/O Audio Card and fix them.



1.4.2 Install 2 Video Capture Cards and 2 Audio Cards

- 1. Please follow the steps to install the system. Remove the PC case cover.
- 2. Remove 4 brackets for the PCI slots. Save the screws.
- 3. Connect the Audio Card and the Video Capture Card with the connection cable.
- 4. Connect the 2 Video Capture Cards with a connection cable. Insert all the cards and fix them.





Chapter 1 Installing Hardware

1.4.3 Install 4 Video Capture Cards

Please follow the steps to install the system.

- 1. Remove the PC case cover.
- 2. Remove 4 brackets for the PCI slots. Save the screws.
- 3. Connect the Video Capture Cards with Connection cables.
- 4. Connect the 2 Video Capture Cards with a connection cable. Insert all the cards and fix them.





1.5 NV 5000 DVR Hardware Installation

1.5.1 Installing One AVerMedia DVR Video Capture Card



Before installing the video card, turn off the computer's power, unplug the power cable and disconnect all other cables attached to the back of the computer.

Please follow the steps to install the video capture card.

- 1. Remove the PC case cover.
- 2. Remove a bracket for the PCI expansion slot. Save the screw.
- 3. Insert the Video Capture Card into the available PCI slot and fix it.
- 4. The lower-right picture is the back panel of the Video Capture card.



NV 5000 Video Capture Card



1.5.2 Installing Optional I/O Audio Card and Video Extension Cards



Before installing the video card, turn off the computer's power, unplug the power cable and disconnect all other cables attached to the back of the computer.

Users can purchase an optional I/O Audio Card and Video Extension Cards if it is necessary.

1. Installing 1 Video Capture Card and 1 optional I/O Audio Card

For users who want to install 1 optional I/O Audio Card, please follow the steps.

- 1. Remove the PC case cover.
- 2. Remove 2 brackets for the PCI slots. Save the screws.
- Insert the Video Capture Card and I/O Audio Card in PCI slots and fix them.
- 4. Connect the 2 cards with the I/O cable.
- 5. The back panel of the cards is shown as below.



2. Installing 3 Optional Video Extension Cards

For users who want to install the Video Capture Card and 3 Video Extension Cards, please follow the steps.

- 1. Remove the PC case cover.
- 2. Remove 4 brackets for the PCI slots. Save the screws.

3. Insert the Video Capture Card and Video Extension Cards into the available PCI slots and fix them.

It is important to fix the cards in sequence to avoid video transmission trouble.

- 4. Connect the 4 cards with I/O cables as the following picture.
- The lower-right picture is the back panel of 1 Video Capture card and 3 Video Extension Cards.



3. Install 1 Optional I/O Audio Card and 1 Video Extension Card

Please follow the steps to install the cards.

- 1. Remove brackets of PCI slots.
- Insert the Video Capture Card, I/O Audio Card, and the Video Extension Card into the slots and fix them. The sequence of each card is as the lower-right picture.
- 3. Connect the cards with the connection cables as the lower-left picture.

Chapter 1 Installing Hardware



4. Installing 2 Video Capture Cards and 2 Video Extension Cards

For users who install 2 Video Capture Cards, please follow the steps.

- 1. Remove the brackets of PCI slots.
- Insert the Video Capture Cards and Video Extension Cards into the PCI slots in sequence and fix them. You will see the back panel of each card as the lower right picture.
- Connect the 2 Video Capture cards with the connection cable as the lower left picture.

AVerMedia NV1000/3000/5000/7000 User's Manual



1.6 NV 7000 DVR Hardware Installation

1.6.1 Installing One AVerMedia NV 7000 Video Capture Card



Before installing the video card, turn off the computer's power, unplug the power cable and disconnect all other cables attached to the back of the computer.

- 1. Remove the computer cover.
- 2. Remove a bracket for the PCI expansion slot. Save the screw.
- Insert the video capture card into the available PCI expansion slot and fix it as the right picture shows.



1.6.2 Installing 4 NV 7000 Video Capture Cards



Before installing the video card, turn off the computer's power, unplug the power cable and disconnect all other cables attached to the back of the computer.

For users who install more than 1 Video Capture Cards, please follow the steps.

- 1. Remove the computer cover.
- 2. Remove a bracket for the PCI expansion slot. Save the screw.
- Connect cards with video lines as the right picture shows.



1.6.3 Installing an I/O Card

Each Video Capture Card can come with an optional I/O card that enables to connect sensor inputs and relay outputs. For NV7000 users who only install an optional I/O card, please follow the steps.

- 1. Remove the computer cover.
- 2. Remove 2 brackets for PCI expansion slots. Save screws.
- Connect the 2 cards with the I/O cable as the right picture shows.



 Insert the video capture card and the I/O card into the available PCI expansion slots and fix them.



1.7 Connecting the Watchdog line

1.7.1 Connecting the Watchdog line to NV 1000/3000/5000

After you finish installing the Video Capture Card, Video Extension Cards or the I/O Audio Card, please connect the reset cable of the PC case to the Video Capture Card, and then connect the Video Capture Card and Motherboard with the Watchdog line as the following picture.



After connecting the Watchdog line and Reset Cable of the PC case, replace the PC cover and reconnect all the cables.

1.7.2 Connecting the Watchdog line to NV 7000



Before installing the video card, turn off the computer's power, unplug the power cable and disconnect all other cables attached to the back of the computer.



When you install <u>ONE</u> NV 7000 video capture card, please follow the instruction to connect the Watchdog line.

Remove the reset cable connector of your computer case, and plug in the slot. Please plug Watchdog cable connectors in both Video Capture Card slot and motherboard slot as the right picture.



When you install <u>FOUR</u> NV7000 video capture cards, please follow the instruction to connect the Watchdog line.

Remove the reset cable connector of your computer case, and plug in the slot. Plug Watchdog cable connectors in a slot of one Video Capture Cards and plug another connector into motherboard slot as the right picture.



1.8 Connecting Cameras and TV-out Cable

1.8.1 Connecting Cameras and TV-out Cable to NV 1000/3000/5000

After you finish installing the cards, please connect the BNC cable and the TV-out cable to the Video Capture Card as below figure. When you attach cameras to BNC connectors, please follow a numerical order indicated on the below figure to avoid transmission problem. Cameras need to be connected in sequence from the top to the bottom BNC terminals per card, starting from the left side to the right side on the chassis.



1.8.2 Connecting Cameras and TV-out Cable to NV7000

After you finish installing the video capture cards, please connect cameras, microphones, TV monitor, alarms and sensors as the following illustration.



You must attach each camera and audio channel to the BNC connectors of the Video Capture card in a specific order to avoid transmission problems. The Video Capture card is stacked vertically into the chassis. Each Video Capture Card can support up to 4 cameras and 4 audio channels. 1 BNC cable contains 4 video connectors for cameras and 4 audio connectors for audio cameras.

The sequences of each camera connector and audio connector are marked on the cable. When you connect the connectors, please follow the numbers, which marked on the BNC cable.



Video capture card numbers	Came a connecting sequence of BNC camera connector	Audio co⊨necting sequence of BNC audi ⊣ connector
Video	Came a 1 to Camera 1	Audio 1 to Audio Channel 1
Capture Card 1	Came a 2 to Camera 2	Audio 2 to Audio Channel 2
	Came a 3 to Camera 3	Audio 3 to Audio Channel 3
	Came a 4 to Camera 4	Audio 4 to Audio Channel 4
Video	Camera 1 to Camera 5	Audio 1 to Audio Channel 5
Capture Card 2	Camera 2 to Camera 6	Audio 2 to Audio Channel 6
	Camera 3 to Camera 7	Audio 3 to Audio Channel 7
	Camera 4 to Camera 8	Audio 4 to Audio Channel 8
Video	Came a 1 to Camera 9	Audio 1 to Audio Channel 9

Chapter 1 Installing Hardware

Capture Card 3	Came a 2 to Camera 10	Audio 2 to Audio Channel 10
	Came a 3 to Camera 11	Audio 3 to Audio Channel 11
	Came a 4 to Camera 12	Audio 4 to Audio Channel 12
Video Capture Card 4	Camera 1 to Camera 13	Audio 1 to Audio Channel 13
	Camera 2 to Camera 14	Audio 2 to Audio Channel 14
	Camera 3 to Camera 15	Audio 3 to Audio Channel 15
	Camera 4 to Camera 16	Audio 4 to Audio Channel 16

1.9 Connecting External Sensors/Relays to NV1000/3000/5000/7000

1.9.1 Connecting External Sensors/Relays to NV1000/3000/5000

The I/O Audio card enables you to connect 4 sensor inputs and 3 relay outputs. You need to use 1 D-type 15 Pin connector cable to connect the external I/O box and the I/O Audio card as below.



The optional I/O Audio card allows you to connect 4 audio inputs. Connect the audio cables to audio inputs if necessary.

The pin signal assignment of the external I/O box is as followed.

Sensor Inputs

You can attach external sensors such as infrared sensors, smoke detectors, proximity sensors, door sensors to the AVerMedia digital surveillance system's input-signal connectors on the I/O Audio Card. These devices trigger the system to respond with a predefined action (e.g. record video).


Sensor Inputs for External I/O Box

Relay Outputs

You can also attach external output control devices such as alarms to the AVerMedia digital surveillance system's output connectors (relay outputs). You can then configure the system to activate or deactivate these devices. Each AVerMedia video card supports 3 relay outputs. Two of them are normally open relays with one being a togqle switch.



Relay Outputs for External I/O Box

Pin Signals and Specifications

The pin signals and specifications for the external I/O Box and the D-type 15-pin connectors are described below.

A. Sensor Input Specification

Absolute Maximum Ratings

	J-			(*** *** *)
Parameter		Symbol	Rating	Unit
	Forward Current	lF	50	mA
Input	Reverse Voltage	VR	6	V
	Power Dissipation	P	70	mW

Electrical/Optical Characteristics

(Ta=25°C)

(Ta=25°C)

	Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
	Forward Voltage	VF	-	1.2	1.4	V	IF=20mA
Input	Reverse Current	IR	-	-	10	A	VR=4V
-	Terminal Capacitance	Ct	-	30	250	pF	V=0, f=1KHz
	Collector Dark Current	ICEO	-	-	100	nA	VCE=20V
Output	Collector-Emitter Breakdown Voltage	BVCEO	35	-	-	V	Ic=0.1mA
ō	Emitter-Collector Breakdown Voltage	BVECO	6	-	I	V	IE=10 A
	*Current Transfer Ratio	CTR	50	-	600	%	IF=5mA, VCE=5V RBE=
s	Collector Current	Ic	2.5	-	30	mA	IF-SITIA, VGE-SV KBE-
Characteristics	Collector-emitter Saturation Voltage	VCE(sat)	-	0.1	0.2	V	IF=20mA, Ic=1mA
raci	Isolation Resistance	Riso	5×10^{10}	1011	-		DC500V, 40~60% R.H.
Cha	Floating Capacitance	Cf	-	0.6	1.0	pF	V=0, f=1MHz
Transfer (Cut-off Frequency	fc	-	80		KHz	VcE=5V, Ic=2mA RL=100 , -3dB
Trar	Response Time (Rise)	tr	-	4	18	S	VCE=2V, IC=2mA
	Response Time (Fall)	tr	-	3	18	S	RL=100

*CTR= Ic 100%

Relay Output Specification

Surge strength: 1500 VAC

Nominal power: 200mw ~ 360mw

Operating power: 110mw ~ 200mw

B. COIL RATINGS (at 20 °C)

Coil Nominal Voltage (VDC)	Coil Resistance (Ω±10%)	Pick-up Voltage (VDC)	Drop-Out Voltage (VDC)	Nominal Current (mA)
5	125	3.75	0.5	40
* Max Conti	nuous Voltage a	at 20°C : 110%	6 of Coil Nomina	I Voltage

C. CONTACT RATINGS

Contact Arrangement	1 Form C (SPDT)	
max. Switch Power	125VA 60W	
max. Switch voltage	125VAC 30VDC	
max. Switch current	1A	
Contact Resistance	≦ 100m Ω	
Desistive Lond	1A/125VAC	
Resistive Load	1A/30VDC	
Contact Material	AgNi10	

D. External I/O Box pin signals

Pin #	Definition
1	INPUT SIGNAL 1+
2	INPUT SIGNAL 2+
3	INPUT SIGNAL 3+
4	INPUT SIGNAL 4+
5	OUTPUT 3 – Normally Closed
6	INPUT SIGNAL 1-(GND)
7	INPUT SIGNAL 2-(GND)
8	INPUT SIGNAL 3-(GND)
9	INPUT SIGNAL 4-(GND)
10	OUTPUT 3 – Common
11	OUTPUT 1 – Normally Open
12	OUTPUT 1 – Common
13	OUTPUT 2 – Normally Open
14	OUTPUT 2 – Common
15	OUTPUT 3 – Normally Open

1.9.2 Connecting External Sensors/Relays to NV7000

The I/O Audio card enables you to connect 4 sensor inputs and 3 relay outputs. The pin signals for the I/O card are as followed. Please follow the pin signal assignments to connect the devices.



Pin #	Definition	Pin #	Definition
1	Sensor 1 input signal	11	Relay Normal Close 1
2	Sensor 1 output signal	12	Relay Comment 2
3	Sensor 2 input signal	13	Relay Normal Open 2
4	Sensor 2 output signal	14	Relay Normal Close 2
5	Sensor 3 input signal	15	Relay Comment 3
6	Sensor 3 output signal	16	Relay Normal Open 3
7	Sensor 4 input signal	17	Relay Normal Close 3
8	Sensor 4 output signal	18	Relay Comment 4
9	Relay Comment 1	19	Relay Normal Open 4
10	Relay Normal Open 1	20	Relay Normal Close 4

Sensor Inputs

You can attach external sensors such as infrared sensors, smoke detectors, proximity sensors, door sensors, etc., to the AVerMedia NV7000's input-signal connectors on the I/O card. These devices trigger the system to respond with a predefined action (e.g. record video).

Relay Outputs

You can also attach external output control devices such as alarms to the AVerMedia NV7000's output connectors (relay output). You can then configure the system to activate or deactivate these devices.

Chapter 1 Installing Hardware

Absolute Maximum Ratings

Parameter		Symbol	Rating	Unit
	Forward Current	lF	50	mA
Input	Reverse Voltage	VR	6	V
	Power Dissipation	P	70	mW

Electrical/Optical Characteristics

	Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
-	Forward Voltage	VF	-	1.2	1.4	V	IF=20mA
nput	Reverse Current	IR	-	-	10	A	VR=4V
-	Terminal Capacitance	Ct	-	30	250	pF	V=0, f=1KHz
	Collector Dark Current	ICEO	-	-	100	nA	VCE=20V
Output	Collector-Emitter Breakdown Voltage	BVCEO	35	-	-	V	Ic=0.1mA
ō	Emitter-Collector Breakdown Voltage	BVECO	6	-	-	V	IE=10 A
	*Current Transfer Ratio	CTR	50	-	600	%	IF=5mA, VCE=5V RBE=
s	Collector Current	Ic	2.5	-	30	mA	IF=DITIA, VCE=DV RBE=
Characteristics	Collector-emitter Saturation Voltage	VCE(sat)	-	0.1	0.2	v	IF=20mA, IC=1mA
ract	Isolation Resistance	Riso	5×10^{10}	1011	-		DC500V, 40~60% R.H.
Cha	Floating Capacitance	Cr	-	0.6	1.0	pF	V=0, f=1MHz
Transfer (Cut-off Frequency	fc	-	80		KHz	VcE=5V, Ic=2mA RL=100 , -3dB
Trar	Response Time (Rise)	tr	-	4	18	S	VCE=2V, IC=2mA
	Response Time (Fall)	tr	-	3	18	S	RL=100

*CTR= IC 100%

Relay Output Specification

Surge strength: 1500 VAC

Nominal power: 200mw ~ 360mw

Operating power: 110mw ~ 200mw

(Ta=25℃)

(Ta=25°C)

1.10 Connecting POS (Not Supplied)

Some users may install POS (Point of Sales) to facilitate the sales management. The system saves your time to install the POS system. Just connect your DVR system and POS with a RS232 cable as the following illustration.



Connect the RS232 connectors to both POS and the digital surveillance system's COM ports respectively.

This chapter describes how to install the Video Capture Card driver and required software to start and use AVerMedia DVR system.



Please update Windows patches and your Graphic Card driver before installing the DVR software.

Before you install the software that comes on the CD, please download the latest software from our website at the site listed below:



Worldwide

http://www.avermedia.com/cgi-bin/support_download.asp

US/CANADA

http://www.aver.com/support

2.1 Installing NV1000/3000/5000 Application Software

Once you have successfully completed installing Video Capture Cards, please follow the steps to install the DVR software first. After you completed the software installation, please install the driver.



Please disable hyper threading from your system BIOS before proceeding to install the software and driver for the NV product line.



Make sure to install the application before you install the driver to avoid unnecessary trouble.

2.1.1 Installing NV1000/3000/5000 Application in Windows 2000/XP

After installing the hardware properly, please power on your computer and follow the steps to install the application.



If you have only one single hard drive, please divide the hard drive into two partitions. Install the Operating System onto the first partition (usually C drive) and use the second partition as your storage area for audio/video files and system log data. Remember to format both partitions into NTFS. Doing so will maintain an optimized system for your security needs.

1. Insert the Software CD to your CD-ROM driver and click Install Surveillance System to continue.



2. Click **Next** to continue.

AVerMedia NV1000/3000/5000/7000 User's Manual

3. Click **Yes** to accept the agreement. Click OK to continue.

4. Enter the Company Name and CDKey.

5. Enter User Name and Password. Click **Next** to continue.

6. Select a program folder. Click **Next** to continue.

Phease real	d the following license agreeme	nt carefully.		
Press the PAGE DOWN key to see the rest of the agreement.				
A) feedbacks	Technologies INC. LICENSE	ACREEMENT		-
LICENSE / to install th "Materials" copy, mod provided in AVerMedia	AND CONFIDENTIALITY: AV- le enclosed software and relate ") onto a single computer for yo ky, sell, transfer or disclose any his Apprennent. You may only a Technologies, Inc. products.		es, Inc. grants you ollectively, the su may not use, is except as a connection with	the right
	TIONS: You may not			~
Do you acc setup will c	cept all the terms of the preced lose. To install NV5000 System	ng License Agreen 1, you must accept	ent? If you choos this agreement.	eNo, the
InstallShield				
		< <u>D</u> ack	Yes	No
NV5000 Inst	allation			
Edit Data Enter reque	ssted data.			
Please type	e your name, company name ar e CD. The user name you type	d serial number. Th	e secial number is	labeled on the
cover or m	e c.b. The user name you type	nere wa be the sys	rem Manager or tr	e program.
Company	1			
CDKEY	00000-111111-22222			
InstallShield				
110100010000		< Back	L North	Court 1
		< Dack	Next >	Cancel
NV5000 Inst	allation			
	allation m Manager Password			
Enter Syste	m Manager Password	tor. Please use the	User ID and pass	word to log in
Enter Syste		tox. Please use the	User ID and pass	word to log in
Enter Syste Please entr the program	m Manager Password er a password for the Administra n and add new users.	tor. Please use the	User ID and pass	word to log in
Enter Syste	m Manager Password er a password for the Administra n and add new users.	dor, Please use the	User ID and pass	word to log in
Enter Syste Please entr the program UserName	m Manager Password er a password for the Administra n and add new spers.	ior, Please use the	User ID and pass	word to log in
Enter Syste Please entr the program	m Manager Password er a password for the Administra n and add new spers.	ior, Please use the	User ID and pass	word to log in
Enter Syste Please entr the program UserName	m Manager Password er a password for the Administra n and add new spers.	dor, Please use the	User ID and pass	word to log in
Enter Syste Please entr the program UserName	m Manager Password er a password for the Administra n and add new spers.	dor, Please use the	User ID and pass	ward to log in
Enter Syste Please entr the program UserName	m Manager Password er a password for the Administra n and add new spers.	itor. Please use the	User ID and pass	word to log in
Enter Syste Please entr the program UserName	m Manager Password er a password for the Administra n and add new spers.			
Enter Syste Please entr the program UserName	m Manager Password er a password for the Administra n and add new spers.	tics: Please use the	User ID and pase	Kend to kig in
Enter Syste Please entr the program UserName	m Manager Password er a password for the Administra n and add new spers.			
Enter Syste Please entr the program Use/Name Password	na Manager Password ne apassered for the Administr n and add new sates.			Cancel
Enter Syste Please entr the program UseName Passwood InstallSheld	m Manager Password er a password for the Administra and add rene users.			Cancel
Enter Syste Place entr Ibe program UseName Passwood InstatSheld	m Manager Password er a password for the Administra and add rene users.			Cancel
Enter Syste Place ent the program UseName Patzwood InstaliShedd NVS000 Inst Solect Prog Place sole	m Manager Password m apassend for the Administr n and add new sizes. T Saturdion page Folder at a program foldes.	< Back	Next>	Cancel
Enter Syste Please entri the program UseName Password InstatSheld MV5000 Inst Solect Prog Phase sele Select Prog Phase sele Select Prog	In Manager Personned are apparent for the Administration or and add new stores. T T Paralletica page Folder cot a program folder. did program folder.	< Back	Next>	Cancel
Enter Syste Please entr I be program UseName Password InstallSheld Password InstallSheld Please entr Please entr Please entr Select Prog Please entr Select Prog Please entr Select Prog	m Manager Password m apassocid for the Administra and add remuses.	< Back	Next>	Cancel
Enter Syste Please entry the program UseNane Passwood InstallSheld NV5000 Inst Select Prog Please sele Select Prog Please sele Select Prog Please sele Select Prog Please sele Select Prog Please sele Select Prog	In Manager Personnel an adament for the Administration and add new sates. T Addition Addit Addition A	< Back	Next>	Cancel
Enter Syste Please entri the popular Useblane Password InstalSheld RV5000 Inst Select Pro- Select Pro- Selec	m Manager Pesswood re apassonol for the Administration of add free votes.	< Back	Next>	Cancel
Enter Syste Please entri the program UseName Passwood InstalSheld 	m Manager Pesswood re apassonol for the Administration of add free votes.	< Back	Next>	Cancel
Enter Syste Please entri the popular Useblane Password InstalSheld RV5000 Inst Select Pro- Select Pro- Selec	m Manager Pesswood re apassonol for the Administration of add free votes.	< Back	Next>	Cancel
Enter Syste Please entri the program UseName Passwood InstalSheld 	m Manager Pesswood re apassonol for the Administration of add free votes.	< Back	Next>	Cancel
Enter Syste Please entri the program UseName Passwood InstalSheld 	m Manager Pesswood re apassonol for the Administration of add free votes.	< Back	Next>	Cancel
Enter Syste Please entri the program UseName Passwood InstalSheld 	m Manager Pesswood re apassonol for the Administration of add free votes.	< Back	Next>	Cancel
Enter Syste Please entri the program UseName Passwood InstalSheld 	m Manager Pesswood re apassonol for the Administration of add free votes.	< Back	Next>	Cancel

7. Select a video system, and click **Next** to continue.

8. Select the Video Extension Card quantity and click **Next** to continue.

- 9. The system starts installing the application.
- 10. Select "Yes, I want to restart my computer now" and click Finish to complete the installation.



NV5000 Installati

The system will reboot automatically to initiate a new setting after you finish the installation. You will see on your desktop. Please install the driver before using the application.

2.2 Installing NV 7000 Application Software

Once you have successfully completed installing Video Capture Cards, please follow the steps to install the DVR software first. After you completed the software installation, please install the driver.



If you have only one single hard drive, please divide the hard drive into two partitions. Install the Operating System onto the first partition (usually C drive) and use the second partition as your storage area for audio/video files and system log data. Remember to format both partitions into NTFS. Doing so will maintain an optimized system for your security needs.



Make sure to install the application before you install the driver to avoid unnecessary trouble.

2.2.1 Installing NV7000 Application in Windows 2000/XP

After installing the hardware properly, please power on your computer and follow the steps to install the application.

1. Insert the Software CD to your CD-ROM driver and click Install Surveillance System to continue.

- 2. Click Next to continue.
- Install Surveillance System Browse User's Manual Install Adobe Reader Install PDA Viewer Browse CD NV7000 Installati 2 Welcome to the InstallShield Wizard for NV7000 The InstallShield® Wizard will install NV7000 on your computer. To continue, click Next. <Beck Next> Cancel 00 Installation License Agreement Please read the following license agreement carefully Press the PAGE DOWN key to see the rest of the agreement. edia Technologies INC. LICENSE AGREEMENT . LICENSE AND CONFIDENTIALITY: AVerMedia Technolog Note and common tourn to enternation of the second pro-enternation of the second seco k, th RESTRICTIONS: You may not ou accept all the terms of the preceding License Agreen p will close. To instal NV7000, you must accept this agr ent? If you choose No. the < Back Yes No

AVerMedia Digital Video Recorder

3. Click **Yes** to accept the agreement. Click OK to continue. 4. Enter the **Company Name** and **CDKey.**

5. Enter User ID and Password. Click Next to continue.

NY7000 Installation	X
Edit Data	The second se
Enter requested data.	a state of the sta
Ph	the Western State of the State of the second
of the CD. The uner name you turne here will be	mber. The serial number is labeled on the cover e the System Manager of the program.
or the c.o. The user name you type here will b	e me system manager or me program.
Company ABCD	
Company Proce	
CDKEY	
InstalShield	
	<back. next=""> Cancel</back.>
NV7000 Installation	×
Enter System Manager Password	
	and the second se
Please enter a password for the Administrator.	Please use the User ID and password to log in
the program and add new users.	
User ID 1	
Password	
InstalShield	
The second se	
	<back next=""> Cancel</back>
NY7000 Installation	×
Select Program Folder	And a second sec
Please select a program folder.	
These select a program total.	
Setup will add program icons to the Program F name, or select one from the existing folders in	older listed below. You may type a new folder
name, or select one from the existing folders in	 Elick Next to continue.
Program Folders:	
NV7000	
January	
Existing Folders:	
	the second s
Accessories Startup	
InstalShield -	
	<back next=""> Cancel</back>
	< Back Next> Cancer
	Cancel
NF2000 Testallation	
NY7000 Installation	(Back Next) Lancer
NV7000 Installation Setup Status	
Setup Status	×
	×
Setup Status	×

51N

Cancel

 Select a program folder. The default program folder name is NV 7000.Click Next to continue.

7. The system starts installing the application.

9. Select "Yes, I want to restart my computer now" and click Finish to complete the installation.



The system will reboot automatically to initiate a new setting after you finish the installation. You will see on your desktop. Please install the driver before using the application.

AVerMedia NV1000/3000/5000/7000 User's Manual

2.3 Installing NV1000/3000/5000 Driver

2.3.1 Installing NV1000/3000/5000 driver in Windows 2000

After the software installation, the system will reboot. Remove the software CD in the CD-Rom. The Windows system automatically detects a new hardware and show the following dialog box.

Click Yes to continue the installation.



You will see the system installing the video driver as the right picture.



After finishing the installation, you will see the same dialog appears again. Repeat the same procedure until all the video drivers have been completely installed.

Continue to install the audio driver. You will see the right dialog box. Click **Yes** to continue the installation.



You will see the right picture when the driver is installing.

Found New Hardware	
WDM Audio source for ARGUS	
Installing	

After finishing the first installation, you will see the same dialog appears again. Repeat the same procedure until all the video drivers have been completely installed.

After you finish the installation, please check the device manager to see if all the drivers are successfully installed.



When your drivers are successfully installed, click to run the surveillance system.

2.3.2 Installing NV1000/3000/5000 driver in Windows XP

After the software installation, the system will reboot. Remove the software CD in the CD-Rom. The Windows system automatically detects a new hardware and shows the right dialog box.

Please click **Cancel**. The system will start to search for the video driver. You will see the following dialog box.

After the searching, you will see the right dialog box.





Please click **Continue Anyway** to install the driver. The system will show the installation status.



You will see the following dialog box. Click **Finish**.



Repeat the same procedure until all the video drivers have been completely installed.

After the video driver installation, the system will request to install the audio driver.

You will see the right dialog appear on the screen. Please click **Cancel**.

Found New Hardware Wi	izard
	Welcome to the Found New Hardware Wizard The wated helps you initial inflware for WDM video source for APIGUS
	If your hardware came with an installation CD or floppy disk, insert it nom.
	What do you wan't the wizard to do? ③ Install the software automatically (Recommended) ④ Install from a list or specific location (Advanced) Click Next to continue.
	(East Net) Canod

The system will search for the Audio driver. You will see the right dialog box.

Please wait while the wizard searches	
WDM audio source for ARGUS	
	2
	(gack Next) Cancel

After the searching, you will see the right dialog box. Please click **Continue Anyway** to install the driver.



The system will show the installation status. Click **Finish**.



Repeat the same procedure until all the audio drivers have been completely installed.

After the audio driver installation, please check the device manager to see if all the drivers are successfully installed.



When your drivers are successfully installed, click to run the surveillance system.

2.4 Installing NV7000 Driver

2.4.1 Installing NV7000 driver in Windows 2000

After the software installation, the system will reboot. Remove the software CD in the CD-Rom. The Windows system automatically detects a new hardware and shows the following dialog box.

1. Click **NEXT** to continue the installation.



The system will start to search for the driver.



3. Click **Continue Anyway** to install the driver.

Hardware Installation

It is software you are installing for this hardware:
Video source for ARGUS-R

has not passed Windows Logo testing to verify its compatibility
with Windows XP: [Tell me why this testing is important.]

Continuing your installation of this software may impair
or destabilize the correct operation of your system
either immediately or in the future. Microsoft strongly
recommends that you stop this installation now and
contact the hardware vendor for software that has
passed Windows Logo testing.

Continue Anywey
STOP Installation

4. Click Finish.



The system may repeat the driver installation according to the quantities of cards.

After you finish the installation, please check the device manager to see if all the drivers are successfully installed.



When your drivers are successfully installed, click to run the surveillance system.

2.4.2 Installing NV7000 driver in Windows XP

After the software installation, the system will reboot. Remove the software CD in the CD-Rom. The Windows system automatically detects a new hardware and shows the right dialog box

Please click Cancel. The system will 1. start to search for the video driver. You will see the following dialog box.

After the searching, you will see the 2. right dialog box.

Please click Cancel . The system will start to search for the video driver. You will see the following dialog box.	Found New Hist dware Witzerd Welcome to the Found New function Generative Mitzerd Mitzer Witzerd Witzerd helps pool initial software not. Witwide source for ARGUS-Ri Witwide source for MRGUS-Ri Install the software automatically (Recommended) Install the software
After the searching, you will see the right dialog box.	Found New Hardware Wizard Please wait while the wizard searches
Please click Continue Anyway to install the driver. The system will show the installation status.	Continue Anywer STOP Installation

3.

4. Click Finish.



The system may repeat the driver installation according to the quantities of cards.

After you finish the installation, please check the device manager to see if all the drivers are successfully installed.



When your drivers are successfully installed, click **E** to run the surveillance system.

2.5 Removing Video Capture Card Driver

On occasion, it may become necessary to remove your video card software driver. To remove the driver, follow the steps described below.

- 1. Click Start and then go to settings to open Control Panel.
- 2. Double click Add/Remove Program icon.
- Depending on your DVR version, select NV5000 or NV 7000. Click Add/Remove button to uninstall the program.

The operation system will request to reboot to initiate a new setting.

Chapter 3 Configuring the System

Before you start running the DVR system, please set your monitor resolution to 1024 x 768 and the color to 16-bit true color or above.

3.1 Logging in for the first time

Click to initiate AverMedia DVR system. The system will request an authorization when you initiate the system for the first time. Enter the User ID and password that you set during the software installation.

Authorization	
Please enter you	ır user ID and password.
User ID	1
Password	****
	OK Cancel

If you have successfully logged in, the Monitor Screen will appear.



3.1.1 Introducing the Functions buttons on Display/Playback



The application screens used in this manual are from NV 5000 system.

Monitor Screen



The functions of buttons on the Monitor Screen are as followed.

1. Exit

Click this item to minimize or exit the system. The DVR system will confirm your authorization before it shuts down. Enter your user ID and password and click **OK**. You can find the software information and update the latest software version in "**About**" dialog.

2. Split Screen Display



The DVR system provides 6 split display modes for your selection. You can select one of the split display modes by clicking the following icon.

AVerMedia NV1000/3000/5000/7000 User's Manual

1-Cam display

4-Cam split display

9-Cam split display

📕 16-Cam split display

8-Cam split display

13-Cam split display

If you only have 4 cameras connected, the 8-Cam/9-Cam/13-

Cam/16-Cam split display modes will be disabled automatically.

3. Date/Time/Free Space 2004/08/02 13:15:05 Free Space=4.61 GB

This bar shows the current time, frame size and the hard disk's free space.

4. Recording

Click et again to start recording. The button turns red when it is recording. Click it again to stop.

5. E-Map 📽

Click either to load your desired map according to your demands. You can change an E-map and locate cameras, sensors, and relays to desired positions. The DVR system can support up to 8 E-maps. Load BMP or JPG files as E-Maps.

6. Network

Click 2 to allow inbound connections. When this function is enabled, the button turns red. Click it again to disable all inbound connections.

7. System Configuration

You can configure camera setting, record setting, network setting, schedule setting, backup setting, sensor setting, relay setting, alarm setting and user setting by clicking button.

8. PTZ 💷

Click to configure an appointed PTZ camera. It will pop-up a PTZ setup dialog. Users can configure a PTZ camera according to their demands.

9. Display/Playback

Users can switch between **Monitor Screen** and **Playback Screen by** clicking the buttons.

10. Camera ID 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

In the Camera ID area, you can see number icons of the cameras. Under 1-Cam

display mode, you can click a desired button to play the desired channel. After you click the icon, it turns yellow. If you assign a split display mode and appoint a camera number, the icon group of the cameras will turn yellow altogether.

11. Event Log 🔍

You can check **Event**, **Operation**, **POS** (**Point of Sales**), **System** and **Network** logs by clicking this icon. The Event Log Viewer dialog will appear. Select a desired date and an log item, the lower table will show all logs of the assigned event.

12. POS (Point of Sales)

DVR provides a function of POS to record sales records including the items, time, and quantities. When the cashier scans the barcodes of goods, the related sales information appears on the mapped channels. You can use POS to search an appointed purchase record or trace abnormal purchase records to avoid the loss of money.

13. Auto Scan 🤍

Click this button to start Auto Scan. It will cycle the screens according to the split display mode.

14. Full Screen mode 🥌

Click this button to turn to full screen mode.



The icon shows which relays that are triggered. Once the relays are triggered, the indicators will turn yellow according to the relay number. The top-down array of the indicators are from the left top to the right down.

16. Sensors 💷



The icon shows which sensors that are triggered. Once the sensors are triggered, the indicators will turn yellow according to the sensor number. The top down array of the indicators are from the left top to the right down. For advanced alarm

information, please click to view the alarm status.

17. Audio Volume Adjustment

Click the icon to adjust the audio volume to a proper volume. You can Mute the channels by selecting the Mute box.

۸	udio Setting		×
	Volume		
	Channel 1	I Mute	
	Channel 2	I Mute	
	Channel 3	I Mute	
	Channel 4	I Mute	
		OK Cancel	

Playback Screen



Drag the scroll box to go forward/backward to the desired event.

19. Playback Control Buttons

Begin: Move to the beginning of the video recording.



Previous: Go back to the previous frame.

Slower: Play the video recording at the speed of 1/2x, 1/4x, or 1/8x

Chapter 3 Configuring the System



Rewind: Play the video file reversely.

Pause: Stop playing the recording file.

Play: Play the recording file.

Faster: Play the video recording at the speed of 2x, 4x, or 8x.

Next: Go to the next frame.

End: Go to the end of the video recording.

20. Select Play Date

You can play an appointed recording by assigning a playing date. Click with the select a desired date to play the recording.

21. Date/Time /Play Speed Status 2004/04/14 09:00:18.904 ×1

This bar shows the recording date, time and play speed of the data.

22. Time Buttons 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 15 17 18 19 20 21 22 23

The DVR system adopts 24-hour as time format. A blue bar on top of a time button indicates that there are videos during the time period. Click the desired time button to play back the videos that were recorded during the appointed time. The blue bar above the selected button will turn red.

23. Intelligent Search

DVR enables users to appoint a desire area to detect motion in the appointed area. Once the system detects motion in that area, it stops. Click and the system will skip to the next motion event in that area.

24. Event Search

Users can appoint your system to search a desired event. Click common to setup the camera and the desired event you want to search. Click common to search.

25. Find Next 💷

When you enable Intelligent Search or Event Search, you can click for the next search or the next event.

26. Visual Search

The system provides several time modes for visual searching, such as searching by day, searching by hour, searching every 3-minute, searching every 10-second and searching by second. The system will keep a stream of static pictures under the visual search mode so that you can find out the process of the desired event

through these serial images.

27. Event Log 🔍

Click **Click** to see **event**, **operation**, **POS**, **system** or **network** logs. Select date and an event item. The system will show the logs in the lower table in the Event Log Viewer dialog.

28. Save

The DVR system allows you to save static recording images. You can catch a recording image and save it as a BMP or a JPG file.

29. Print 💷

Print the image by clicking

30. Set Segment 🥯

You can catch a desired segment of the recording file by setting segments. Click to mark the beginning/ending of a segment. You will see a \square and \square on the slider. To cancel the triangles, click \square again.

31. Output Segment

After you finish setting the segment, you can output the desired segment by clicking . The system appears a dialog to ask for the storage path.

The system will name the output segment according to the time of the video.

32. Audio Volume Adjustment

Click the icon to adjust the audio volume to a proper volume. You can mote the channels by selecting the Mute box.

3.2 Configuring DVR

When you first use the DVR system, please follow the steps to finish your

configuration. Move the cursor to the *button*, and it turns purple. Click it to turn it red and you will see DVR Configuration Setup dialog.



3.2.1 System Setting

Click

to configure basic settings.

System Setting			
Storage Path			
Folder Name	Free Space	Disk Space	🗖 Desktop Lock
C:\Data	2.653G	4.887G	🔽 Beep if no signal
D:\DATA	133.859G	144.161G	☑ Ask for password when login
			Date Format mm/dd/yy 💌
			AutoScan Period 3 🛓 Sec.
Add	Delet	e	UPS
			Enable
Language			Vendor
Language Eng	lish	•	Model
			Capacity
Video Standard			Shutdown when capacity below
• NTSC	C PAL		50 %
			OK Cancel Default

1. Storage Path

You can see the current storage path. To change the path or add a new storage path, please click **Add** and select a desired folder. To delete a path, please select the path and click **Delete**. There must be at least one storage path.

The system will automatically recycle the oldest recorded file in storage path when free space is not enough to record one hour data.

Free space of each storage need to have at least 8 GB in the beginning.

Folder Name	Free Space	Disk Space
C:\Data	7.719G	12.291G
Add	De	lata

2. Desk Top lock

The DVR system provides a desktop lock function to avoid any mischievous system shutdown. You can select "Desktop Lock" to lock the tool tray on desktop to avoid

unauthorized users using hot keys (Ctrl + Alt + Del) or to shutdown the DVR application.

🔲 Desktop Lock

3. Beep if no signal

You can tick the box to enable the function, Beep if no signal, and click **OK** to keep the setting. Click the box again to cancel it.

Beep if no signal

4. Ask for password when login

You can tick this box to enable this function, **Ask for password when login**, and click **OK** to keep this setting. When this function is enabled, users need to enter a password when they login. To disable this function, please cancel the box.

Ask for password when login

5. Date format

You can appoint the date format by dragging the list. Select an ideal format.



6. Auto scan period

You can appoint the auto scan period when enabling this function. Click \ddagger to adjust the time period and click **OK** to keep the setting. The system will display the cameras, stay for an appointed period and then cycle the next batch of cameras automatically.

AutoScan Period	3	
	1	-

7. Language

You can click the drop-down list to select a desired language. The default language is English.

Language		
Language	English	•
		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)

8. Video System

Please select a proper video system according to your local video system. For NTSC system, please select NTSC. For PAL system, please select PAL. If you choose a wrong video system, the video recording will not appear normally.

Video Standard		
C NTSC	• PAL	
-		

9. UPS (Uninterruptible Power Supply)

It enhances security for the system to warn administrators and users if AC power fails. It also enables the system to shutdown before the end of battery backup power is reached. The UPS device should be connected to your computer (refer to your UPS user's guide) before the presetting of this task.

- A. Check **Enable** to activate UPS meanwhile the **Vendor** as well as **Model** of your UPS will appear in the individual boxes if your UPS is completely connected.

Enable		
Vendor	BEAM TEC	
Model	BS-1200	
Capacity	1200 VA (700W)	
Shutdown wh	en capacity below	
	50	%



The UPS application must meet Window NT or above system requirements. Windows 2000 or Windows XP are recommended.
3.2.2 Camera Setting

Click	to set up the can	neras.	
Camera Setting			
ALL			
		₩,₩,₩	
🔽 Enable			
Camera			
🔽 Display			
Name	Camera 1		
Comment			Canera 1 12/12/00 320x240 0K/0K +
	1		
-Video Adjust	ment		
Bright		- 50	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	_		
Contrast		- 50	
Hue		- 50	
Saturation		- 50	
🔽 Noise Re	duction		
💌 Auto Brig	htness Control	🔽 Night View	
			Cancel Default

1. Camera lcons

The bar below shows cameras that are connected to your DVR systems. When the number inside the camera icon lights up, it means the camera is connected to the system. A DVR system supports up to 16 cameras.

To set up the camera, just click desired camera icon. When you configure an appointed camera, the camera icon turns red. Right click to select multiple camera icons or tick "**All**" box to select all cameras. When you select all cameras, the screen inside the window will show "Multiple channels".

2 Enable

After you select a camera icon, you can decide to enable this camera or not. Tick the box to enable this camera and then click **OK** to keep the setting. To disable the camera, just leave the Enable box blank.

3 Camera

Display: After enabling the camera, the default setting allowed you seeing the real-time video on the screen. If you need video recorded but don't want to show the real-time video, uncheck the **V** Display box..

Name: Enter a name for the camera.

Comment: Enter some descriptions for the camera.

Click limit to enter the camera name and comment if you don't have a keyboard.

	1	2 3		4	5	6	7	8	9	0	-	=	Ba	ckSpace
Tab	q	1	1	e	r	t	у	u	i	0	p	[]]	E
Cap	s	a		d	f	8	; h	i j	k	1	;	1	Τ	Enter
Sh	ift		z	x	с	v	Ъ	n	m	,		1		Shift

4 Video Adjustment

You can adjust the following items of a video.

Brightness: Drag the scroll box to adjust the brightness of the image when you enable the display. The higher the number is, the brighter the video is. The right figure next to the Brightness bar shows the brightness scale of the video.

Contrast: Drag the scroll box to adjust the contrast of the image when you enable the display. The right number next to the Contrast bar shows the contrast percentage of the video.

Hue: Drag the scroll box to adjust the hue of the image when you enable the display. The right number next to the Hue bar shows the hue scale of the video.

Saturation: Drag the scroll box to adjust the saturation of the image when you enable the display. The right number next to the Saturation bar shows the saturation scale of the video.

5 Noise Reduction

The DVR provides a feature, Noise Reduction, to reduce image noises of channels, thus the video images will become clearer.

Select "**Noise Reduction**" box to enable this function on Camera Setting dialog. When Noise Reduction is enabled, the system will filter unnecessary noise and

Chapter 3 Configuring the System

make video image clearer when you preview or playback the video file.

6 Auto Brightness Control and Night View

The video image quality of outside cameras may be affected by insolation and weather, thus the image can be too strong or too weak. The system provides "Auto Brightness Control" to improve image quality and avoid vague images when the objects are too bright or too dark. Select "Auto Brightness Control". When video signals from cameras are too strong or too weak, the system will help adjust to a proper brightness according to the real situation.

When **Auto Adjustment Control** is enabled, you can select "**Night View**" to intensify the night view image. "**Night View**" enables users to see objects clearer in dark places. When Night View is enabled, you will find objects brighter and the image qualities improve. The following images indicate the difference before and after enabling the Night View function.



Comerce 5

Before using Night View

After using Night View

Click **OK** to keep the adjustments after you adjust the camera settings.

3.2.3 Recording Setting (Video and Audio)

Recording Setting	-
Recording Mode 00 01 02 03 04 03 04	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Enable Audio None Motion Detection Sensitivity 70	Mask/Shield Edit
Quality	
	Color
Frame Rate	🕫 Red 🔿 Green 🔿 Blue
	F Enable Shield
Video Size	Edit
C 320 x 240	C Mask C Shield
€ 640 x 480 € 640 x 480 €	Clear
C 640 x 480 (Enhance)	
Compression Type	
• MPEG4	
C MJPEG	OK Cancel Default

Click _____ to configure the recording setting.

1 Camera Icons

The bar below shows cameras that are connected to your digital surveillance system. When the number inside the camera icon lights up, it means the camera is connected to the digital surveillance system. It supports up to 16 cameras. The number on the left lower corner represents the video size of the channel.



Chapter 3 Configuring the System

To set up the camera, just click the desired camera icon. When you configure an appointed camera, the camera icon turns red.

Right click to select multiple camera icons or tick "**All**" box. When you select all cameras, you will see the following picture.

Recording Setting	
	ݥݵݭݵݾݵݥݵݥݵݾݥݵݾݥݵݥݵ
Recording Mode 00 01 02 03 04 05 06 07 08 09 10 11 AM. PM.	
Motion Recording	
C Smart Recording	Multiple channels !
□ ⊂ No Recording	
Enable Audio None Motion Detection Sensitivity 70	
in the second se	Mask/Shield Edit
Quality	🗖 Enable Mask
	🔽 Show Mask
	Color
Frame Rate	C Red C Green C Blue
	Enable Shield
Video Size	Edit
C 320 x 240	C Mask C Shield
 640 x 480 640 x 480 (Enhance) 	Clear
I Enable Deinterlace	
Compression Type	
© MPEG4	
C MJPEG	OK Cancel Default
Sheet and the second	

When you select all cameras, the screen inside the window will show "Multiple channels".

2 Recording Mode

The system provides a time bar for recording selection. Each block represents one hour and the hours count from 00:00 to 12:00. On the left side of the time bar, you can tell the AM/PM marks.

	00	01	02	03	04	05	06	07	08	09	10	11
AM.												
PM.												

Users can define the recording mode in appointed hours according to their demands. The default setting is always recording which means the blocks on the time bar are all blue.

You can select one of the recording modes:

Always Recording: The system will record this appointed channel when it starts to monitor. When it starts to record, a red triangle mark appears at the upper-left corner on each screen of the channel. The recorded video file will be kept to the appointed storage path.

Click
Cl

Motion Recording: The system will record once it detects any motion. The DVR system will record 10 frames before the motion is detected. When it starts to record, a red triangle mark appears at the upper-left corner on each screen of the channel. The recording files will be kept to the appointed storage path. Under this recording mode, the DVR won't record any video unless it detects any motion.

Smart Recording: The system records one frame per second if it does not detect any motion. When the system detects motion, it will keep on recording until the motion stops.

No Recording: The system won't record this channel's video.

Click O to set 24-hour recording mode, or you can click \Box to change recording mode for each hour separately.

Click Default to return to "Always recording" if you want to cancel previous recording mode.

3 Enable Audio:

For NV1000/3000/5000 users, select an audio channel to map the video channel if you want to monitor and record the audio of this appointed channel with video. NV1000/3000/5000 system allows 4 audio channels. Users can select <u>ONE</u> desired channel and map it to the video channel that is monitoring. A red triangle mark will be at the upper-left corner on each screen of the channel. Cancel it if you don't want to monitor and record audio. When you connect to the Audio/ IO card, the function will be activated.

For NV 7000 users, click the box and the correct audio source if you want to monitor and record the audio of the appointed channel.

4 Motion Detection

You can drag the scroll box to adjust the motion detection sensitivity to your desired scale. When it detects a motion, a green triangle mark appears at the upper-left corner on each screen of the channels. The higher the value is, the better the sensitivity the system can detect. The figure on the right side shows the sensitivity scale.

5 Quality

You can adjust the video quality by dragging the scroll box. The scale ranges from 0 to 100. The higher the value is, the better the video quality becomes. The right figure shows the current quality scale.



The file size of quality 100 will be larger, and it will shorten the recording time.

6 Frame Rate

This sets the number of images per second of video that is recorded. You can adjust the video frame rate to your desired rate by dragging the scroll box. The frame rate ranges from 1 to 30 (For NTSC, it is 1-30;For PAL, it is 1-25). The higher frame rate, the larger the recorded files.



The max frame rate will vary from different product configuration.

7 Video Size

For NV 1000/3000/5000 users, the system provides 3 sizes for selection: 320 × 240, 640 × 480, 640 × 480 (enhanced). Though the default system camera setting is resolution 320x240, the system supports up to 16 cameras of

resolution 640x480. You can modify the setting to resolution 640x 480 for a better video image quality.

The higher resolution will result in a larger video size. **640x480 (enhanced)** mode provides a higher video quality than 640x480 mode, thus the image quality will be better;however, the file size recorded by 640x480 (enhanced) mode will become larger.

When you adopt 640x480 (enhanced) mode, the system provides a "**Deinterlace**" function to make the video clearer when the system records moving objects. "**Deinterlace**" enables the system to eliminate some disturbing lines and make the video clear and smooth

For NV 7000 users, the system provides 2 sizes for selection: 352×240 , 720×480 (NTSC) or 720 x 576 (PAL). The higher resolution will result in a larger video size. When you adopt 720 × 480 (NTSC) or 720 x 576 (PAL) mode, the system provides a **Deinterlace** function to make the video clearer when the system records moving objects.

When the system is recording objects of a moving process, it records 30fps or 25fps every second depending on the visual systems (NTSC/PAL). Each frame will consist of two sub-frames, or "fields". When these fields are merged into the full frame, interlace lines appear where the fields differ (usually due to motion). When you select "**Deinterlace**", the system will de-interlace the lines and make the motion smoother.

When you select 640x480 (enhanced) mode, the system will allow you to tick Enable Deinterlace to enable this function.



Resolution 640 × 480 mode will occupy much CPU resource. When you select this video size, please check your hardware specification to avoid unnecessary trouble.

8 Compression Type

The system provides 2 compression types: **MPEG4** and **MJPEG**. If you select **MJPEG** (lower compression ratio), the file size is bigger. If you select **MPEG4** (higher compression ratio), the recorded file will be smaller.



NV 7000 only supports MPEG4 compression format.

9 Mask/Shield Edit

Tick Shield or Mask box according to your demands.

10 Mask: Tick Mask box to enable this function. You can tick "Show Mask" and select a color. Move your cursor to the screen and then click the left button to mask a specific area. To cancel the mask area, you can select Mask in Mask/Shield Edit column and then click Clear.

When you enable Mask and assign a masked area, the system will **NOT** detect any motion in the masked area. When it detects motions outside the marked area, the upper-left corner of the screen will appear a green triangle mark.



Once the area is marked as a mask area, there won't be any motion detection. The images of the masked area will be meshed.

Shield: Tick the Shield box to enable Shield. Move your cursor to the screen and then click the left button to shield a specific area. The marked area will be shielded. That means the DVR system doesn't show, detect and record the shielded area. To cancel the shielded area, you can select Shield in Mask/Shield Edit column and then click Clear.



NV 7000 does not provide the Shield function.



OK

Please use Shield very carefully to avoid missing any important video data.

Gamera 1 03/09/00	
Mask/Shield Edit Enable Mask	
	Green C Blue
✓ Enable Shield Edit	
C Mask	Shield

Click OK to save settings. You will return to the DVR configuration setup screen. Click

to return the main menu. You need to click

Monitor Screen to record the video, and the system will begin to record according to the settings here.

While the recording task is in process, the icon turns red. Click the icon again to stop the recording task. The icon will return to gray.

3.2.4 Network Setting

Click **Click** to start the networking configuration.

All	
Transmitting Cameras	
P1 P2 P3	14 15 16 17 18
F9 F10 F1	1 F 12 F 13 F 14 F 15 F 16
Server Configuration -	
IP	192.168.153.185 💌
PORT	0000
Webcam PORT	80
Enable Handy View	*
Dynamic DNS	
Domain Name	
Password	
Voice Phone	
P Talk to Web-Clien	t
PORT	9999

Transmitting Cameras

Transmitting cameras allow users to monitor remotely. You can decide which cameras can be remotely monitored. Tick "all" box to select all camera numbers, or select the desired camera numbers respectively.

Server Configuration

IP: You need to enable remote view server via TCP/IP. The system will catch the fixed IP address automatically.



If you have two Network Interface Cards in the system, it will catch the first IP. Execute "IPCONFIG" in Command Prompt to know the IP sequence.

Port: Please enter the port for a remote console. The default port is 8080.

WebCam PORT: Please enter the WebCam port. The default port is 80.

Enable Handy View: The system provides "Handy View" function to enable remote users to use a PDA or a mobile phone for remote monitor. Select the item, **Enable Handy View**, to enable remote users to connect the DVR server by PDA or mobile phone. For more information, please check **5.3 Handy View**.

Dynamic DNS: If your system uses a dynamic IP address, please go to <u>http://ddns.avers.com.tw</u> and register a dynamic domain name and password first. Select this item and enter the proper domain name and password to enable dynamic DNS. If you enable this function without entering the domain name and the password, the system will show an error message. For more information, please refer to Appendix **A Registering Domain Names**. DDNS provided by other DDNS provided are acceptable.

After you finish the network configuration, click to keep the settings. You will return to the Monitor Screen. Click to enable inbound connections from the client.

Voice Phone: The system provides a 2-way audio function to enable **ONE** WebCam user to have a free talk with **ONE** server user each time by using microphone via Intranet or Internet. Thus, a remote user and the DVR user can talk to each other directly by microphone via network.

Select "**Talk to Web-client**" to enable the administrator to talk to the client PC user, thus they can communicate via network. The default port is 9999.

If the server user does not want to talk to the Web client user, don't select "**Talk to Web-client**". The server user can still hear the voice from the web client user, but he/she cannot answer the voice phone.



Before using the 2-way audio, please make sure both the speakers and microphones of your client PC and servers are working properly.

Click to keep the setting or cancel to cancel the setting.

3.2.5 Schedule Setting

Click to setup Schedule. You can schedule recording, backup or reboot schedule by day or by period. Click or to adjust to a proper month. The system will mark the present date.

•		Aug	ust, 2	004		Þ
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	31
1	2	3	4	5	6	7
8	9	Ф	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

You will see a drop-down list on the upper right place. Drag the list to select a schedule task. The items in the list are below.



Record: If you select **Record** as the task, the system will have all cameras start recording at the scheduled time. The task you set here has higher priority than the

recording mode you set for each camera. That means, even if you have set the camera to "**Motion Recording**" mode, the cameras will still start "**Always recording**" mode at the scheduled time.

Click **Save** to store the schedule setting of this task. Click **Clear** to remove all schedule setting of this task.

Sun Mon Tue Wed Thu Fri Sat 25 26 27 28 29 30 31 1 2 3 4 5 6 7 5 6 7 8 9 10 11 8 9 4 5 6 7 5 6 7 8 9 10 11 8 9 4 12 13 14 15 16 17 18 19 20 21 19 20 21 22 23 24 25 26 27 28 29 30 1 2 23 24 25 26 27 28 29 30 1 2 24 25 26 27 28 29 30 1 2 23 24 25 26 27 28 29 30 1 2 23 24 25 26 27 28 29 30 1 2 23 24 25 26 27 28 29 30 1 2 <td< th=""><th></th></td<>	
25 26 27 28 29 30 31 1 2 3 4 1 2 3 4 5 6 7 5 6 7 8 9 10 11 8 9 40 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 25 26 27 28 26 27 28 29 30 1 2 23 24 25 26 27 28 29 30 1 2 23 24 25 25 20 21 12 22 23 24 25 26 27 28 29 30 1 2 29 30 3 4 5 6 7 8 9 9 Backup To F:Data 00 01 02 03 04 05 06 07 08 09 10 1	
8 9 10 11 12 13 14 15 16 17 18 15 16 17 18 19 20 21 19 20 21 22 23 24 25 22 23 24 25 26 27 28 29 30 1 2 29 30 31 3 4 5 6 7 8 9 Backup To F:Data 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 25 27 28 29 30 1 2 Backup To F:Data 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 <	
15 16 17 18 19 20 21 19 20 21 22 23 24 25 22 23 24 25 26 27 28 29 30 1 2 29 30 31 3 4 5 6 7 8 9 Backup To 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22	
22 23 24 25 26 27 28 29 30 1 2 29 30 31 3 4 5 6 7 8 9 Iackup To F:\Data 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22	
29 30 31 3 4 5 6 7 8 9 Backup To F:\Data 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22	
Backup To F:\Data 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22	
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22	
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22	
18/08 Sup	23
18/09 Mon	
18/10 Tues	
18/11 Wed	
18/12 Thur	
18/13 Fri	
18/14 Sat	

Backup: If you select **Backup** as the task, the system will have cameras start backup all data at the scheduled time. Please assign a storage path for backup files. It will detect the video files in the assigned folder and then check which files that the system needs to backup. Thus, it will copy the un-backup video data to the desired destination.

Click **Save** to store the schedule setting of this task. Click **Clear** to remove all schedule setting of this task.



_		Aug	ust, 2	2004					S	epte	mb	er, 2	200	4	▶			ebo	101		-	1
Sun I							Su	n M	lon	Tue				Fri	Sa	_		0	w	ЕЕК	LY	
25	26	27	28	29	30					-	1		2	3	4							
1	2 9	3	4	5	6	7	5		6	7	8		9	10 17	11			0	10	IE T	IME	
8 15	9 16	17	11 18	12 19	13 20		13 19		13 20	21	15		16 23	24	25	-						
	23	24	25	26	27		21		27	28	29		30	1	2							
29	30	31	23	20		20	3		4	5	6		7	8	9							
20		•.								0				0								
08/08 Su	_	00 0				D5 06			_								 				_	
08/09 Ma	n																					
08/10 Tu	es																					
08/11 We	d																					
08/12 Th	ır																					
08/13 Fri	t																					
08/13 Fri 08/14 Sa																						
-																						
-																						

Reboot: If you select **Reboot** as the task, the system will reboot at the appointed time. Once it reboots the system successfully, the system will not reboot again in the same hour.

Click **Save** to store the schedule setting of this task. Click **Clear** to remove all schedule setting of this task.



If your Windows[®] operation system requests User name and Password to logon, please enter the administrator's name and Password for the OS. Thus the DVR system won't be hanged to the Windows[®] logon screen when it reboots.

•		Aug	ust, 2	2004						S	epte	mb	er, i	2004	4	▶				nat	ner	etw	10	1
Sun M							Sat	Su	n M	lon	Tue	We	ed 1		Fri	Sa				G	w	ЕЕК	1Y	
	26	27	28	29	30		31					1		2	3	4								
-	2	3	4	5	6		7	5		6	7	8		9	10	11				C	0	IE T	IME	
	9 6	17	11 18	12 19	13		14 21	12 19		13 20	14 21	1!		16 23	17 24	18								
	23	24	25	26	27		21 28	26		20 27	21	29		23 30	24	2								
	30	31	23	20		r	20	3		4	5	6	-	7	8	9								
_0								0			2	0			2	0								
	(0 0	1 02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
18/08 Sun						_			_							_	_		_					
18/09 Moi	1																							
18/10 Tue	s																							
18/11 We																								
18/12 Thu	r																							
18/13 Fri			_																					
)8/14 Sat																								

Enable Network: When you select Network and set a schedule in **Schedule Setting**, the system will allow inbound connections to monitor remotely during the appointed period of time. After the appoint time, the connection service will be stopped.

Click **Save** to store the schedule setting of this task. Click **Clear** to remove all schedule setting of this task.

If you enable the Network function manually before schedule time, the connection service will not be stopped after the appointed time.

		Aug	ust, 2	2004						S	lepte	mb	er, 2	2004	4	₽			Isa	ore .	Alar	m 🔻	1
Sun I							at	Su	n₩	lon	Tue				Fri	Sa			G	w	ЕЕК	LY	
25	26	27	28	29	30		31	-		~	-	1		2	3	4							
1 8	2 9	3	4	5 12	6 13		7 4	5 12		6 13	7 14	8 1!		9 16	10 17	11 18			0	0	NE T	IME	
0 15	9 16	17	18	12	20		21	19	-	13 20	21	22		23	24	2!							
	23	24	25	26	27		28	26		27	28	29		30	1	2							
29	30	31	20	20				3		4	5	6		7	8	9							
08/08 Su	n	00 0	1 02	00	04	00	00	01	00	00	10			10		10	10	 10	10	20			
08/09 Ma	_																						
08/10 Tu	es																						
08/11 We	ed																						
08/12 Th	ur																						
08/13 Fri																							
08/14 Sa	t																						

Disable Alarm: The **Disable Alarm** will disable the alarm function temporarily during the assigned period of time. Users can fully use this function and avoid unnecessary alarms during specific time. After the appointed time, the alarm function will execute automatically as it is configured.

There are 2 schedule modes to run the assigned task.



Weekly: Move the cursor to mark the desired time and date. The system will execute the same task automatically every week. Click Clear to clean the previous schedule setting. For instance, if you would like to assign DVR to record from 6:00 AM to 12:00 AM through Monday to Friday, you can mark the schedule as the above picture. Click **OK** to keep the setting. DVR will execute the task from 6:00 AM to 12:00 AM every week.

You can only set future dates for a schedule. Dates in the past are not accepted.

One Time: When you select **One Time** as a single schedule unit, it means the system executes the recording only one time during the appointed hours. You can move your cursor to the calendar and appoint a specific date and time to record. Click **Save** to keep the setting or click Clear to clear the setting. The above figure shows a schedule by day. You can set multiple dates for a single task. DVR will execute the task at the appointed schedule automatically.

3.2.6 Backup Setting

Click to backup the recording files. The Backup Setting dialog will appear.



1. Calendar

Choose a backup date. The circled date is consistent with the system date.

2. Backup files Information

Selected Files: Blue blocks mean that there are video recording data during the period of time. Select the desired blue blocks to backup the recording. The selected files will turn red. The DVR system will calculate the number of backup files automatically and calculate the required space.

Required Space: The size of selected files.

3. Auto Partition

Tick the box and select the below partition category, the system will backup and divide its recording files in proper sizes to facilitate burning into portable media.

For example, if you backup the files in CD-R partition, it will backup and pack the files into several folders. Each size is smaller than 650Mb.

4. Delete files after Backup

Delete files after Backup: Tick **Delete files after Backup** to delete the selected files after backup. Cancel the tick to keep the file in the server.

5. Select backup files storage path

Click to select backup files storage path.

6. Backup Table

At the bottom of backup setting page, you can see a table. Below are the names of each item in the table.

00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 Recording Time



The following table shows the system recorded Channel 1 to Channel 4's video files during 8 A.M. to 11A.M.

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
01																								
02																								
03																								
04																								

Click the blue blocks to assign the desired backup files. The appointed backup files turn red. Click **Cancel** to clear all the selected files. After backup files are selected, the system will calculate the file quantities and required space automatically, and show the results on the screen. Click **Backup Now** to backup the selected files.

3.2.7 Sensor Setting

Click to set up sensors. This function will be activated after IO devices in the system are installed correctly.

Sensor Setting	
Sensor	01 🔹
name	back door
🔽 Enable	
Content	
Card No.	1
Input No.	1
Comment	alarm when it is opened
Test	Low Stop
	OK Cancel

1. Sensor ID

Assign a sensor by clicking the drop-down menu Sensor01 , and enter its name in the name field.

2. Enable

Tick **Finable** to enable this sensor. Cancel the tick to disable the sensor.

3. Content

After you enable the appointed sensor, the system will automatically show the Card No. and Input No. in the following Content column. Enter the comment in the blank.

The following illustrations of the sensor inputs describe the pin assignments.



External I/O box for NV 1000/3000/5000



The optional NV 7000 I/O card

Pin #	Pin # Definition		Definition	
1	Sensor 1 input signal	11	Relay Normal Close 1	
2	2 Sensor 1 output signal		Relay Comment 2	
3	3 Sensor 2 input signal		Relay Normal Open 2	
4	Sensor 2 output signal	14	Relay Normal Close 2	
5	Sensor 3 input signal	15	Relay Comment 3	
6	Sensor 3 output signal	16	Relay Normal Open 3	
7	Sensor 4 input signal	17	Relay Normal Close 3	
8	Sensor 4 output signal	18	Relay Comment 4	
9	Relay Comment 1	19	Relay Normal Open 4	
10	Relay Normal Open 1	20	Relay Normal Close 4	

The following table shows NV 7000 I/O card pin assignments.

4. Test

After installing the sensors, you can test the sensors immediately. Click **T**est to find the sensor status: **High** electricity(Red) or **Low** electricity(Green).

Click

OK

to finish the setting or click

lick Cancel

to cancel the setting.

3.2.8 Relay Setting

Click 📃 to se	et up relays.
	Relay Setting
	Relay05
	name parking lot
	₩ Enable
	Content
	Card No. 2
	Input No. 1
	Comment
	Test High Stop
	OK Cancel

1. Relay ID

Assign a relay by clicking the drop-down menu^{Relay05}, and enter its name in the name field.

2. Enable

Tick **Finable** to enable this relay. Cancel the tick to disable the relay.

3. Content

After you enable the appointed relays, the system will automatically show the Card No. and Input No. in the following Content column. You can see the following illustration of the relay inputs. Enter the comment in the blank.

	Content		
	Card No.	2	
	Input No.	1	
	Comment	The door is opened.	
	D-Typ	pe-15 Pin Connector	
Relay Out	put 1	7 2 3 4 5 6 7 8 9 10 1 1 2 1 8 4 15	y Outputs 3
Relay Out	put 2	V	
	Relay Outpu	uts for External I/O Box	
			Test (C) (

4. Test



After finish configuring sensors and relays, you can go to Alarming Setting to set alarms. When the appointed events happen, the system will alert.

3.2.9 Alarm Setting

Click to setup alarm setting. You can setup the alarm settings of camera and sensor.

Alarm Setting	
Select Device Camera 💌	
	ŵ ŵ ŵ ŵ ŵ ŵ ŵ ŵ ŵ
00 01 02 03 04 05 06 07 08 09 10 11 12	13 14 15 16 17 18 19 20 21 22 23
Conditions	
☑ Motion Detected	Video Loss
Action Relay Output V 1 V 2 V 3 V 4 V 9 10 V 11 V 12 V V Out Launch E-Map Enlarge Camera View	
🗖 Play Warning Sound	Detail
☑ Make Phone Calls	Detail
🔽 Send E-Mail	Detail
File Transmission via FTP	Detail
✓ Start Recording	Detail
	OK Cancel Default

- 1. Select Device: Click the drop-down menu Camera to select camera or sensor.
- Select Camera: The bar below shows cameras that are connected to your DVR system. When the number inside the camera icon lights up, it means the camera is connected to the DVR system. The DVR system supports up to 16 cameras.



To set up the camera, just click desired camera icon. When you configure an appointed camera, the camera icon turns red.

3. **Enable Time:** Click the desired time block to turn it white. That means the alarm is canceled during the assigned hour. To enable the setting, click it again and the block will return to blue.

00 01 02 03	04 05	06 07	08 09	10 1	11 12	13 14	15 :	16 17	18 19	20 21 3	22 23

4. **Conditions:** This column shows the alarm triggered condition. Tick Motion or Video Loss boxes as the condition.

Conditions	
Motion	🗆 Video Loss

- **Motion:** When you click Motion as an alarm condition, the system will treat motion as an event to trigger the alarm.
- Video Loss: When you click Video Loss as an alarm condition, the system will treat Video Loss as an event to trigger the alarm.

5. Action:

You can set up multiple alarm actions to warn the administrator if the alarm conditions are satisfied.

-Action-		
	Relay Output	
	▼1 ▼2 □ 3 □4 □	
	□ 9 □ 10 □ 11 □ 12 □	13 🗖 14 🗖 15 🗖 16
	🔲 Launch E-Map	
	🔲 Enlarge Camera View	
	🗌 Play Warning Sound	Detail
	🔽 Make Phone Calls	Detail
	🔽 Send E-Mail	Detail
	File Transmission via FTP	Detail
	🔽 Start Recording	Detail

- Relay Output: Select the relay output numbers. Output relays when the alarm is triggered.
- **TV Out**: Select this item to output the video to a TV set. The system will skip to the event channel immediately when an alarm event happens.
- Launch E-MAP: The system will launch E-MAP when an alarm event is happened. The camera icon blinks when the alarm is triggered.
- Enlarge Camera View: Tick the box to enable Enlarge Camera View. Cancel the tick to disable the function. If you select Video Loss as the only alarm condition, this function will be disabled.
- Play Warning Sound: Tick the box to enable Play Sound alarm. Cancel the

tick to disable the function.

Click Detail	to set up the directory.					
	Alarm Sound Setting					
	F:\//v5000\//v5000(0914II)\bin\Alarm\beep.w					
	Record Play					
	OK Cancel					
Click 💻 to assig	In the path of an assigned .WAV file. Click Play to					
play the .WAV file	e. You can also click Record to create a new file. The					
system pops up t	he following sound recorder.					
	test - Sound Recorder Image: Content of the second se					
	Position: Length. 0.00 sec. 11.25 sec.					
To record a new sound file, you can click to record a new						
recording. When	you finish the recording, click to stop. Go to File					
and then select S	Save. The system will request a file name and directory to					
keep the file. It returns to the Alarm sound dialog when you finish this step.						

Click **OK** to keep the setting or **Cancel** to cancel the setting.

• **Call Out:** Tick the box to enable **Call Out setting**. Cancel the tick to disable the function.

Click **Detail** to set up a Call Out setting. You will see the following dialog.

Number	Comment	
<	10	į
Add	Aodify Remove T	est

Click ddd to add a new **Call Out setting**.

Enter Phone Number, Comment and click to import the voice file.

Call Out Setting	
Phone Number	54236688
Comment	testing room
Voice File	
F:\WV5000\WV500	00(0914II)\bin\Alarm\AlarmS
(Record	
	OK Cancel

If you need to record your voice file, click **Record**. The sound recorder will appear.



To record a sound file, you can click

to record a new recording.

When you finish the recording, click **I** to stop. Go to **File** and then

select Save. The system will request a file name and directory to keep the

file. It returns to the "Call Out List" when you finish this step. Click

OK to keep the setting or Cancel to cancel the setting.

Number	Comment
54236688	testing room
<	
Add	lodify Remove Test

You will see the new setting in the table below.

Click **Modify** to adjust the setting, or **Remove** to delete the setting if necessary. To test the setting, you can select the item and click **Test**.

Click OK	to keep the setting or	Cancel	to cancel the setting.
----------	------------------------	--------	------------------------

• Send E-Mail: Tick the box to enable E-Mail alarm. The system will send an email and attach an alarm picture when the alarm is triggered. Cancel the

tick to disable the function. Click Detail to set up an E-mail alarm. You will see the following dialog.

A. Mail Server

SMTP Server: Enter your SMTP server and port.

Authentication: Please tick the "Authentication" box when your mail server requests an authentication. If you don't tick this box, you can not enter ID

Mail Server		
SMTP Server	mail.test.com.tw	: 25
✓ Authentication	an	
ID	test	
Password		-
Mail		
From:	test@test.com.tw	
To:	help@help.org	
cc:		
Subject	help!	
Message	Please check the system	1
	SI OK	Cancel

and Password.

ID and **Password**: Enter your **ID** and **password** of SMTP server so that the system can send the alarm by E-mail.

B. Mail

From: Enter the mail sender's E-mail address.

To: Enter the main receivers' email address.

CC: Enter the copy list of mail receivers.

Subject: Enter the E-mail title.

Message: Enter the message.

Click	ОК	to save the	setting or	Cancel	to cancel the setting.
Files	Transmissi	on via FTP:	Click	Detail	to setup the FTP settings.

You will see the FTP setting dialog.

FTP Setting	
FTP Server	61.12.124.30
Port	21
ID	public
Password	****
	OK Cancel

FTP Server: Enter the FTP server IP.

Port: Enter the port of FTP protocol.

ID: Enter your ID for FTP server.

Password: Enter the password.

Click **OK** to finish the settings. If you cannot enter the information by keyboard, click by to enter the information.

 Start Recording: Tick the box to enable Record. Click Detail to select cameras, and set post-alarm recording time.

3.2.10 User Setting

User Setting		
Level	Name	Comment
Administrator User	1 dfgdfg	
Add	Delete Edit	

Click <u>Add</u> to add a new user. You will see the following screen.

•	User				9	Adm	ninistra	ator					
Cont	ol Right-												
~	System	Settin	3	•	Play	back				₩ E-	Мар		
•	Record			~	Pow	er OF	F			Г Ва	ackup		
	Network			•	PTZ					I Se	hedu	ller	
		2	era ▼ 3 ▼ 11						1.0				17
lame		123					word			***	*		_
Comm	ent	user	•			Cont	tirm word			***	*		

Please follow the steps to set user settings.

1 Authorization Level

Select the authorization level as User or Administrator. Only the Administrator can change the user settings.

Authorization Level		
O User	Administrator	

2 **Control Right**

Tick the user's control rights according to your demands.

Chapter 3 Configuring the System

Control Right		
🔽 System Setting	Playback	🔽 Emap
Record Control	Power OFF	🔽 Backup
☑ Network Control	PTZ Control	Scheduler

3 Remote Visible Cameras

The DVR provides a feature to allow different users to see different channels via WebCam and remote console. The administrator can create and define remote users' authorization level to differentiate their control rights. For instance, you can let lesser important users to monitor limited channels via remote monitoring by selecting specific transmitting cameras. Thus, they are allowed to see limited channels. You can provide a higher authorization level for important users to see all channels by ticking "**all**" box.

mote v	isible came	era ——					
₽1	₽ 2	ы з	☑ 4	₽ 5	F 6	7	v 8
P 9	I 10	₽ 11	№ 12	I 3	▼ 14	I 15	I 16

4 Name, Password, Comment and Confirm Password.

Enter the user name, password and comment. After the setting, enter the password again to confirm the authorization.

	Name Comment	test	Password Confirm Password	****
Click	^{ок} to sa	ve the setting or	Cancel	to cancel the setting.

Chapter 4 Using the System

4.1 How to Monitor the Videos

Please switch to **Monitor Screen** to monitor all channels in real-time. The system provides a function of real-time monitoring.

4.1.1 Select the Split Display Mode

Before you use full screen display to monitor the videos, you can select the display mode by clicking one of the split display mode buttons. There are 6 split display modes to choose from:

1-Cam display

4-Cam split display

8-Cam split display

9-Cam split display

13-Cam split display

16-Cam split display

Select a split display mode to view the channel.

1-Camera Display

Click to view an image from a single camera. If you install several cameras, you can click the camera number buttons **112233**...**16** to switch to a specific camera. You can play the audio and video at the same time only under 1-Cam display mode.

4-Cam Split Display

Click to split the screen into a 4-Cam split display.



When the quantities of enabled cameras are more than the split screens, the system will show different batches of cameras under 4-Cam split display mode. For instance, if you enabled 16 cameras and click 4-Cam split display mode for 4 times, the batches of display will be Camera 1 - 4, Camera 5-8 and so on as the above illustration.

If you only have 4 cameras connected, the 8-Cam/9-Cam/13-Cam/16-Cam split display modes will be disabled automatically.

8-Cam Split Display

Click display.



The system will display the first batch of cameras, Camera 1 to Camera 8, and then turns to the next batch of cameras, Camera 2 to Camera 9 and so on. The above picture illustrates the sequences of 8-Cam split display.

9-Cam Split Display

Click to split the screen into a 9-Cam split display.

1	2	3		8	9	10
4	5	6	-	11	12	13
7	8	9		14	15	16

If you select a 9-Cam split display mode, the 2 display batches will be Camera 1-9 and Camera 8-16. When you click the camera number buttons, the system will show one of the batches.



The appointed channels will be shown at the top left screen in turns according to their sequence as the above picture. The system will display the first batch of cameras, Camera 1 to Camera 13, and then turn to the next batch of cameras, Camera 2 to Camera 14, and so on.

16-Cam Split Display

Click I button to split the screen into a 16-Cam split display.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

The system will display all cameras as the above picture.
4.1.2 Full Screen Display

On the **Monitor Screen**, you can click () to switch to a full screen display.



You will see the system turning to a full-size display. To monitor a specific channel, move the cursor to the desired channel and click the left button to switch the desired channel to full screen. Click again to return to the multi-display mode. Right click your mouse to return to the Monitor Screen.

4.1.3 Auto Scan

Click On the **Monitor Screen** to enable "**Auto Scan**". The system will cycle the channels according to the split display mode in sequence.

When the quantities of enabled cameras are more than the split screens, the split screens will cycle different batches of cameras. Please refer to **4.1.1** for the batch cycles in different split display modes. The camera ID icons turn yellow when the cycled channels are displayed. You can set up the auto scan period in system setting dialog.

4.1.4 Alarm Status and Reset

When the alarm is triggered, you can see the red sparkling arrow on the Monitor Screen.

1	×	1	
			The section of
-			

Click the arrow to see the alarm status dialog.

Alarm Status	
<04/11/24 10:49:46> Alarm reset. <04/11/24 10:50:32> Alarm reset. <04/11/24 10:50:37> Alarm reset. <04/11/24 10:50:37> Camera <04> motion detected !!! <04/11/24 10:50:38> Alarm reset. <04/11/24 10:50:38> Alarm reset. <04/11/24 10:50:38> Camera <04> motion detected !!! <04/11/24 10:50:38> Camera <04> motion detected !!! <04/11/24 10:50:38> Camera <04> motion detected !!! <04/11/24 10:50:34> Alarm reset. <04/11/24 10:50:34> Alarm reset. <04/11/24 10:50:34> Alarm reset.	
<04/11/24 10:51:11> Alarm reset. <04/11/24 10:55:02> Camera <04> motion detected !!! <04/11/24 10:58:30> Camera <04> motion detected !!! <04/11/24 10:51:31> Camera <04> motion detected !!! <04/11/24 11:01:31> Camera <04> motion detected !!! <04/11/24 11:12:34> Camera <04> motion detected !!! <04/11/24 11:10:12> Camera <04> motion detected !!! <04/11/24 11:19:12> Camera <04> motion detected !!! <04/11/24 11:19:12> Camera <04> motion detected !!! <04/11/24 11:13:38> Camera <04> motion detected !!! <04/11/24 11:37:08> Camera <04> motion detected !!!	
Reset Save Clear Close	

Reset: reset the triggered alarm status and cancel alarm actions. All previous alarms will be halted.

Save: save the alarm status as a text file.

Clear: clear the logs.

Close: exit the Alarm Status dialog.

4.2 How to Playback the Videos

4.2.1 Setting the Video Playback Date and Time



	•		1	۱ugi	ıst,	200	4						Sep	tem	ber,	200	14	I	Þ					
	Sur	Mo	n T	ue '	We	i Th	u	Fri	Sat	S	un	Мог	Tu	eΜ	/ed	Thu	Fr	i S	Sat		_	Ca	ance	;I
	25	26		27	28	2		30	31						1	2	3		4					
	1	2		3	4	5		6	7		5	6	7		8	9	10		11					
	8	9		D	11	13	_	13	14		12	13	14		15	16	17		18					
	15	16		17	18	1		20	21		19	20	2		22	23	24		25					
	22 29	23 30		24 31	25	2	b	27	28		26 3	27 4	21 5		2 9 6	30 7	1		2 9					
	29	J	J.	31							j	4	5		b	1	ö		9					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2																								
13																								
4																								
15																								
6																								
17																								
8																								
9																								
0																								
1																								
2																								
3																								
4																								
5																								
6																								

Click 🚺 🕨 to select a date. You will see	in the lower table. The blue
block means the channel has recording data du	Iring the period of time. Move the
cursor to desired blue blocks and select them.	The selected blocks will turn red.
Click to play the selected videos.	

4.2.2 Playing the Videos



Click is to play the file. The selected button will then turn in red. You can use the playback control panel buttons to control the play mode. The functions of each button are below.

- Begin: Move to the beginning of the video recording.
 - Previous: Go back to the previous frame.
- Slower: Play the video recording at the speed of 1/2x, 1/4x, or 1/8x
 - Rewind: Play the video file reversely.
- Pause: Stop playing the recording file.
- Play: Play the recording file.
- **Faster:** Play the video recording at the speed of 2x, 4x, or 8x.
- Next: Go to the next frame.
 - End: Go to the end of the video recording.

After you click the play button, you will see a blue bar on top of a 24-hour time button.

00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23

The blue bars indicate that there are recorded videos during the time periods. If there are no video files recorded during your appointed time, you can not click the time button. Click the desired time button to play back the videos that were recorded during the appointed hour. The blue bar of the selected button will turn in red immediately when you click the time button.

When you play back the recording file, you can use the scroll box to drag it to go forward/backward to the desired video. The system shows the recording resolution of each channel and the frames on the upper left corner of each screen.

When you play the video in 1-Cam mode, you will see some color blocks on the slider. BLUE blocks mean recorded videos are available. Green blocks mean there is detected motion during the time segment. Black blocks mean no data recorded. Yellow blocks mean alert events videos are available.

When you play the video, the DVR system will show the date, time, and play speed status. As you see this bar 2004/08/02 13:20:45.064 \times 1 means the video was recorded at 13:20:45.064, 2nd August 2004. 1 x means the speed of video playback. This is the normal playback speed. If you see 1/2 x, 1/4 x, or 1/8 x on the status bar, this means the play speed is 1/2, 1/4 or 1/8 times of the normal speed. If you see 2 x, 4 x, or 8 x on the bar, that means the play speed is 2, 4 or 8 times of the normal speed.



Right click to select an area, the system will enlarge that area for your further analysis.

4.2.3 Catching Desired Videos

4.2.3.1 Output AVI files

When you find a desired video and need to catch the film, you can use "Set Segment" and "Output Segment" to save the desired video as an AVI file.

AVerMedia NV1000/3000/5000/7000 User's Manual

Under 1-Cam display, you can catch a desired file by setting segments. Select a video playback date and time and click 📰 to play back the recorded video.

Drag the slider to the desired position and then click \bigcirc to mark the beginning of a segment. You will see a pink triangle \square on the slider. Drag the slider to the desired position and then click \bigcirc again to mark the end of a segment. You will see the other pink triangle on the slider, for example, \square

Click again to cancel the marked segment. After you finish the segment, the system will play the appointed video repeatedly.

Click for the appointed segment. You will see the following dialog.

Save As	<u>? ×</u>
Save in: 🖄 My Documents	▼ ← 🗈 🖆 💷 -
≧MY Pictures NVSK_EN	
File name: 2004_8_10_14_7_46	Save
Save as type: AVI File (*.AVI)	Cancel

The default file name will be the recording time. Select the storage path and click

Save to output the video file. The system will name the output segment according to the recording time. You can save the video segment to hard disks, USB Flash disk or other network devices.

4.2.3.2 Save Static Images

Sometimes it is necessary to catch static images from the recorded videos.

The DVR system allows you to catch the static images. Users can save the image as a 1-Cam display image or a split display image. Click et al. to save the playback screen as a BMP or JPG file when you play back video recording.



The DVR provides a watermark proof function to avoid any unauthorized image forgery. The system can embed watermark proof in the image file. Only BMP files can be embedded with watermark. For more information, please check Appendix B Image Verification.

4.2.3.3 Printing Static Images

You can print the image files by clicking 💷 button.

Before you print, please check the printer. If you never install any printer before, follow the instructions to install the printer. After successfully install the printer, you can start to print the images.

4.3 Play Backup Video Files

After you backup the data, use the application ,QLogViewer, to play the audio. Go to your assigned backup folder to run QLogViewer. When QLogViewer is running, please click to assign your desired video file.



- Begin: Move to the beginning of the video file.
- Previous: Go back to the previous frame.
- Slower: Play the video recording at the speed of 1/2x, 1/4x, or 1/8x
- Play: Play the video file.
- Stop: Stop to play the video file.
- Faster: Play the video recording at the speed of 2x, 4x, or 8x.
 - Wext: Go to the next frame.

H

- End: Go to the end of the video recording.

segment in a blue bar. To cancel the segments, click Magain.

• **Output Segment:** After setting segments, click it to output the desired video segment as an AVI file. The system appears a dialog to ask for the storage path. The system names the output segment according to the time of the video.

Save: Click the button to save the playback screen as a BMP or JPG file.

Print: Print the current image.
Video Slider: Move the bar left/right to fast search a
desired event.

Playing Time/Speed: This indicator shows the
playing time and speed.

Play File: This indicator shows the directory of the
backup video file.

4.4 Searching Desired Videos

Depending on users' demands, The DVR system provides the following smart ways: **Intelligent Search**, **Event Search**, **Visual Search** and **Event Log** to find the desired videos from the recorded videos.

AVerMedia NV1000/3000/5000/7000 User's Manual

4.4.1 Intelligent Search

Click and it turns green when this function is enabled. Adjust the sensitivity first, higher number accompanies with higher sensitivity.

Search Sensit	ivity Setting		
Sensitivity:]	70	Use Default
List			
Search Duratio	on Setting		
Begin Time:	8/10/2004 -	5:51:23	BAM 📫
End Time:	8/10/2004 -	5:51:23	BPM 🛓
Search Interv	ral: 30 sec	onds	

Move the cursor to the desired channel and click the mouse and drag to mark an area. A red frame appears on the display. The screen of the assigned channel also appears "**Intelligent Search**" in red on the lower left corner. When there is a motion event inside the marked area, the Monitor Screen will pause. If it is not a desired event, click is to find next.

Camera 3	
202	
Taxabigent Date ch	

If you would like to find out a searching list, tick "List" box, the items in the Searching Duration Setting will be enabled.

Search Duration Setting							
Begin Time:	8/10/2004 🗸	5:51:23 AM	*				
End Time:	8/10/2004 👻	5:51:23 PM	*				
Search Interval: 30 seconds							

Select the **Begin/End Time** and enter **Search Interval**. Click **OK**. The system will show a **Search List** dialog that lists the desired events.

		n, VL= Video Loss P=POS	
	Event	Time	^
1	M	2004 09/21 14:01:25	
2	M	2004 09/21 14:01:55	
3	М	2004 09/21 14:02:36	
4	М	2004 09/21 14:03:08	
5	M	2004 09/21 14:03:39	
6	M	2004 09/21 14:04:34	
7	М	2004 09/21 14:05:30	
8	М	2004 09/21 14:07:14	
9	M	2004 09/21 14:08:25	
10	M	2004 09/21 14:08:57	
11	М	2004 09/21 14:09:27	
12	М	2004 09/21 14:10:34	
13	M	2004 09/21 14:11:05	
14	M	2004 09/21 14:11:35	~
<		· · · · · · · · · · · · · · · · · · ·	

Select an event and double click. The system will show the video of the event.

4.4.2 Event Search

Click Click to use Event Search.

An Event Search Setting dialog appears. Select sensor events, motion events, video loss events, and POS events according your demands.



The screen of the assigned channel appears "Event Search" in red on the lower left corner. Click **OK** and **ON** to search events. Once the system finds the events, it will be paused. Click **ON** again for next event search.

AVerMedia NV1000/3000/5000/7000 User's Manual

Event Search Set	ting 🔀
_ Searching Co	ndition
E Sensor	T Motion T Video Loss
F POS	Finding Text
Coutput Even	
Begin Time	2004/11/10 🔽 上午 07:38:28 💌
End Time	2004/11/10 🚽 下午 07:38:28 📩
Searching Int	erval 30 Seconds
	OK Cancel

If you want to find a searching list, tick **Output Event List** box, and the **Searching Duration** items will be enabled. Select the **Begin/End Time** and enter **Search Interval**. Click **OK** to start searching.

After setting the event search, the system will appear a following event list.

	Event	Time
1	м	2004 08/09 14:14:38
2	М	2004 08/09 14:15:20
3	м	2004 08/09 14:15:51
4 5	M	2004 08/09 14:16:21 2004 08/09 14:16:55
		Str

This list shows all events. Select an appointed event to play back the video.

4.4.3 Visual Search

Visual search provides serial static images to help analyze the differences in the same channel. The system provides 5 different time modes for visual searching: searching by day, searching by hour, searching by every 3 minutes, searching by

every 10 seconds and search by second.

Click Click Click Click	/isual Search".	The following dial	og will appear.
	Visual Search Setting	×	
	Camera	1 -	
	25 Days before	8/10/2004 💌	
		OK Cancel	

Select a camera and assign a date. The system keeps the videos that are 25 days earlier than the appointed date. Click **OK** you will see the following images.

4	SELECT (Date)	ហ	me: 2004/11/17	\otimes
2004/10/25	2004/10/26	2004/10/27	2004/10/28	2004/10/29
No Data	No Data	No Data	No Data	No Data
2004/10/30	2004/10/31	2004/11/01	2004/11/02	2004/11/03
No Data	No Data	No Data	No Data	No Data
2004/11/04	2004/11/05	2004/11/06	2004/11/07	2004/11/08
No Data	No Data	No Data	No Data	No Data
2004/11/09	2004/11/10	2084/11/11	2004/11/12	2004/11/13
No Data	No Data	No Data	No Data	No Data
2004/11/14	2004/11/15	2004/11/16	2004/11/17	
No Data	No Data	No Data		

In **"Visual search by day**" mode, the serial static images are recorded by date. The system will show the 1st recorded video that is recorded after 12:00 PM in each day. Each picture shows its recording date on the upper left corner. If there is no data, the display will show "**No Data**". Meanwhile, you will see the upper grey bar shows the date of the selected image. Exit the screen by clicking or return to the previous screen by clicking Move the cursor to a desired date and click it. It turns to the "**Searching by hour**" mode. There are up to 24 screens on the display. The system presented the 1st video image in each hour. As you see the following picture, the system recorded the videos from 9:00 to 14:00. Each picture shows its recording time on the upper left corner. If there is no data, you will see "**No Data**" on the display. You can click to return to **Visual search by day** or to exit visual search.

4	SELECT (Hour)	Ti	me: 2004/11/18 09:	XX:XX 😣 🖌
2004/11/18 00:00	2004/11/18 01:00	2004/11/18 02:00	2004/11/18 03:00	2004/11/18 04:00
No Data	No Data	No Data	No Data	No Data
2004/11/18 05:00	2004/11/18 05:00	2004/11/18 07:00	2004/11/18 08:00	20074/77/16 diffee
No Data	No Data	No Data	No Data	
norisità tono	2007/1110 1200		2007// 5718 Taint	
2004/11/18 15:00	2004/11/18 16:00	2004/11/18 17:00	2004/11/18 18:00	2004/11/18 19:00
No Data	No Data	No Data	No Data	No Data
2004/11/18 20:00	2004/11/18 21:00	2004/11/18 22:00	2004/11/18 23:00	
No Data	No Data	No Data	No Data	

Select the desired hour and click the mouse, you will see the following picture. The system shows the picture for 3 minutes.



As you see the above picture, the system recorded the videos from 12:00 to 13:00. There are 20 screens on the display at most.

Each picture shows its recording time on its upper left corner. If there is no data,

you will see "**No Data**" on the display. You can click to return to the

Video search by hour or

to exit visual search.

Move the cursor to a desired picture. Click it and the system will show the display that is recorded every 10 seconds.

AVerMedia NV1000/3000/5000/7000 User's Manual



As you see the above picture, the static images are recorded every 10 seconds. The system recorded the videos from 12:00 AM to 12:02 AM. When you search video by every 10 seconds, the system will record a frame every 10 seconds. There are 20 pictures on this screen at most.

Each picture shows its recording time on its upper left corner. If there is no data,

you will see "No Data" on the display. You can click to return to Video

Search by minute or to exit visual search.

Select a desired picture and click it to show the "Video search by second" screen.



As you see the above picture, the static images are recorded by second. The system recorded the videos from 12:00:00 to 12:00:09. When you search video by second, the system will record a frame every second. There are 10 pictures on this screen at most.

Each picture shows its recording time on its upper left corner. If there is no data, you will see "**No Data**" on the display. You can click to return to **Video** search by 10-second or to exit visual search. Click the mouse again to play the video.

If you want to search for another channels or date, you should click and enter visual search again.



4.4.4 Searching Events by Event Log Viewer

You can also use Event Log Viewer to track the desired event. Click is to see the Event Log Viewer dialog.

AVerMedia NV1000/3000/5000/7000 User's Manual

s
s
s
s
s

Select **EVENT** and the desired **Date**. Double click the desire event in the table. The system will show the video of the assigned event if there is recorded files.

4.5 Using E-Map

E-Map provides a completely configured map where all cameras, sensors, and relays are set.

Click to set up the E-map.



- Select a button from 1 2 3 4 5 6 7 8 to set up your E-map. When you click 1 button, the left-top corner will appear "Area 1" in blue. Click 1 to load an E-map. The system supports up to 8 E-maps. The map must have been saved in JPG or BMP format and file size is smaller than 200KB.
- Click to arrange Cameras, Sensors, and Relays by dragging and buttons to the E-map to indicate actual locations of camera, sensor and relay devices. When you drag the camera icon to the desired E-map, the right windows will show images from the appointed camera if the enabled camera is connected to your digital surveillance system.

To delete the buttons, drag them back to the column where they were previously taken or click reset all icons. You will see your desired camera image at the right corner.

3. The lower-right column shows the information of cameras, relays and sensors when the system detects a video loss or sensors and relays are trigged. The icons on the E-map will turn red and blink.

Click to save your current setup and leave E-map.

4.6 Using PTZ Camera

If you connect PTZ cameras to your DVR system, click and on the Monitor Screen and setup PTZ cameras first. You will see a controller after pressing the button.



Click IP to configure PTZ cameras as the above picture. A PTZ setup dialog appears.

Select Camera	15 💌	🔽 Use PTZ
Connection Sett	ings	
COMPort	COM1 💌	Save
Camera ID	1 •	
Protocol	2:Pelco-P	-
Preset Settings Preset Number	2 💌	Save
DwellTime	3 💌	
Dweining		
Preset Name	2	

Please set up the following items before using PTZ cameras.

1. Select Camera

Tick Use PTZ box to enable the function. Select a camera in the drop-down list.

2. Connection Settings

- A. Select a **Com Port** where the PTZ camera connector is connected.
- B. Select a Camera ID from the drop-down list.
- C. Assign the Protocol. Please select your **PTZ Model** (refer to your PTZ camera spec.) from the menu. Click **Save** to keep settings.

COMPort	COM1 💌	Save
ID	2 💌	
Protocol	2:Pelco-P	-

3. Preset Settings

- A. Move the camera to the position (refer to the control panel below)
- B. Choose a preset number from the drop-down list to set the monitoring position.
- C. Set up the **Dwell** time for the camera to stay (1~60 seconds) at one position before rotating to the next position.

- D. Determine a Preset Name for the position.
- E. Click **Save** to keep the setting.

Preset Settings –		
Preset Number	2	Save
DwellTime	3 💌	
Preset Name	2	

After you finish the above steps, repeat the same procedure to setup another PTZ camera until you finish all PTZ cameras. Click OK to finish the setting or Cancel to cancel it.

After the settings, you can start to use the PTZ controller.



- 1. **PTZ Setup**. Click IP to configure PTZ cameras. After the settings, you can start to use the PTZ controller.
- Zoom in / Zoom out. You can click P / f to size up / to size down the image. These buttons provide the function to adjust the focal distance of lens to size up / to size down the image.
- 3. Focus in / Focus out. Click 🎮 / 🥄 to adjust the focus to produce a clear image.
- 4. **Camera Number**. The white number inside the controller represents the PTZ camera number.
- 5. Direction buttons. You can use the 8 direction buttons to adjust the

direction of PTZ camera lens.

- 6. Auto pan. After you setup Preset position numbers and the auto pan path group, click to monitor positions in sequence.
- 7. Auto pan path group. After setting up Preset position numbers from the server, you can enable the auto pan path group function according to your demands from the client. Click _____, and you will find the PTZ camera lens cycles to the desired positions and stays for the appointed time that you setup from the server. Users can click the 4 auto pan path group buttons at the same time to monitor the 16 Preset positions cyclically.
- 8. **Preset position numbers**. Users can appoint Preset positions of the PTZ camera lens from the server. Follow the steps to set Preset position numbers.

A. Select a desired preset number.

B. Click direction buttons to adjust the PTZ camera lens to a proper position

C. Click III to keep the assigned preset position number setting.

Repeat the same steps to set all preset position numbers.16 Preset position numbers are the maximum for a PTZ camera. Click the Preset position numbers to make the lens move to the desired positions.

- Moving speed of camera lens. After you setup the preset position numbers, you can adjust the moving speed of camera lens by clicking the direction buttons to speed up/down the movement of lens.
- 10. Save. After you determine the preset position, please click setting.
- 11. Exit. Click this icon to close PTZ camera controller.

4.7 Using Event Log Viewer

Click the Event Log Viewer dialog. The Event Log Viewer shows event logs, operation logs, POS logs, system logs and network logs.

4.7.1 Checking Event Logs

SYSTEM C NETWORK				Refresh
	Time	Camera	Туре	Event
1	2004/08/10 17:19:07	01	EVENT	Video Loss
2	2004/08/10 17:19:07	02	EVENT	Video Loss
3	2004/08/10 17:19:07	07	EVENT	Video Loss
4	2004/08/10 17:19:07	08	EVENT	Video Loss
5	2004/08/10 17:33:02	01	EVENT	Video Loss

Select Event and a desired date, the lower table will show all event logs. You will see the event time, camera, type and event in the table. To check event logs of another day, just select the desired date and then click referse to update the logs.

4.7.2 Checking Operation Logs

Select **Operation** and a desired date, the lower table will show all Operation logs. You will see the time, type and event logs. The system will keep all event logs such as network on/off, system setup, start/stop record and so on. To check the logs of another day, just select the desired date and then click **Refresh** to update the logs.

	ent Log Viewer EVENT © OPERATOIN © POS Date 8/10/2004					
o s	ystem () network			Refresh		
	Time	Camera	Туре	Event		
1	2004/08/10 09:42:59		OPERATION	Network ON		
2	2004/08/10 15:30:11		OPERATION	Start Record		
3	2004/08/10 15:30:11		OPERATION	Network ON		
4	2004/08/10 17:04:48		OPERATION	Enter Setup		
5	2004/08/10 17:07:29		OPERATION	Enter Setup	_	
6	2004/08/10 17:09:04		OPERATION	Enter Setup		
7	2004/08/10 17:09:56		OPERATION	Enter Setup		
8	2004/08/10 17:11:50		OPERATION	Enter Setup		
9	2004/08/10 17:13:14		OPERATION	Network OFF		
10	2004/08/10 17:13:15		OPERATION	Stop Record		
11	2004/08/10 17:15:25		OPERATION	Start Record	-	
•						

4.7.3 Checking POS Logs

Select **POS** and a desired date, the lower table will show all POS logs. You will see the time, type and event logs. The system will keep all POS logs. To check the logs of another day, just select the desired date and then click

Event Log Viewer X C EVENT C OPERATOIN © POS Date 8/10/2004 × C SYSTEM C NETWORK Refresh Time Camera Type Event

Refresh to update the logs.

4.6.4 Checking System Logs

Select **System** and a desired date, the lower table will show all system logs such as DVR on and off. You will see the time, type and event logs. To check the logs of another day, just select the desired date and then click **Refresh** to update the logs.

Ever	t Log ¥iewer			
с e	VENT O OPERATOIN	Date 8/10/2004		
⊛ s	SYSTEM O NETWORK		Refresh	
	Time	Camera	Туре	Event
1	2004/08/10 15:30:09		SYSTEM	Start DVR
•		_		

4.7.5 Check Network Logs

Select Network and a desired date, the lower table will show all network logs

such as Network on/off and remote login. You will see the time, type and event logs. To check the logs of another day, just select the desired date and then click Refresh to update the logs.

Event	t Log ¥iewer				
o ev	/ENT O OPERATOIN	Date 8/10/2004	•		
े Sh	/STEM © NETWORK			Refresh	
	Time	Camera	Туре	Event	
1	2004/08/10 14:39:08		NETWORK	Remote Login (1)	
2	2004/08/10 14:43:40		NETWORK	Remote Login (1)	
3	2004/08/10 17:03:01		NETWORK	Remote Login (1)	
4	2004/08/10 17:06:30		NETWORK	Remote Login (1)	
5	2004/08/10 17:08:15		NETWORK	Remote Login (1)	
6	2004/08/10 17:09:52		NETWORK	Remote Login (1)	
7	2004/08/10 17:11:39		NETWORK	Remote Login (1)	
8	2004/08/10 17:16:05		NETWORK	Remote Login (1)	
9	2004/08/10 17:26:48		NETWORK	Remote Login (1)	
10	2004/08/10 17:30:26		NETWORK	Remote Login (1)	
11	2004/08/10 17:32:16		NETWORK	Remote Login (1)	-

4.8 Using POS

After you connect the POS and the DVR system, click to enter POS Console Setting screen. Click Add to add a POS item.

Add	M	odify Delete	
Port	Skip	Channel	
COM1	0		
			Exit
	Port	Port Skip	Port Skip Channel

You will see the following dialog.

OS Mapping	E E
POS Name: POS 1	ОК
	Cancel
Use COM Setup	
Map to Channel	
	7 8

Please configure the following items.

POS name: Enter the POS name.

Use COM: Select a COM port from the drop-down list. The COM port number will vary according to the user's hardware.

Skip first...lines: Click $\stackrel{\clubsuit}{\Longrightarrow}$ to adjust a desired number. The appointed number of lines will be skipped when receiving the POS data.

Map to Channel: Tick the boxes to make the POS mapped to the channels. The

POS information will show on the appointed channels.

After you finish the settings, click **OK**. You will return to POS console setting dialog. Click Add to add a POS setting and repeat the above procedure.

To modify the setting, please select the desired item and then click <u>Modify</u> to adjust the settings. If you wish to delete the setting, please select the unwanted item and then click <u>Delete</u>.

After finishing the settings, the POS information will be shown on the assigned channel and the system will record the information with video at the same time.

To search the POS event, you can use Event Search in **4.3.2 Event Search** to search POS keywords when you play back the video. When clicking POS event search, the **FINDING TEXT** is enabled for entering POS keyword. You can also check **4.3.4 Searching Events by Event Log Viewer** to get POS logs, and double click the log event to play the video recorded.

Note: For the POS recommendations, the Epson POS system is recommended.



You can monitor the sales records through point of sales system. As you finishing setting POS, all sales record will be shown on the appointed screen. The sales information will be recorded in the channel.

4.9 Using Network Server

Click on the Monitor Screen to allow network services. The icon turns red when you enable the network server. The digital surveillance system allows http inbound connections from client PC. For details, please refer to **Chapter 5 Using Remote Program**.

4.10 Using Functional Keys

The DVR system allows users to use functional keys to fast operate the application under Display mode. The following table shows functional descriptions of each function key.

Function Keys	Function description
F1	System Information
F2	Recording
F3	Network
F4	System Setting
F5	Switch to playback Mode
F6	Setting E-map
F7	Setting PTZ cameras
F8	Snapshot
F9	Switch to Full Screen
F11	Switch to Auto Scan

4.11 Checking System Information

Click F1 to see the system information. The system information includes status of CPU, RAM, VGA Memory, DirectX Version, Login ID, Production Version and Active Internet client connection.

Sy	stem Information		×
			1
	CPU	2.8 GHz	
	RAM	511 MB	
	VGA Memory	64 MB	
	DirectX Version	9.0	
	Login ID	1	
	Product Version	5.1.0009	
	Active Connection	1	
1		_	_
	OK		

Click **OK** to exit system information dialog box.

Chapter 5 Using Remote Program

Make sure that remote access service is enabled as **4.8 Using Network Server** mentioned before you open IE. Enter the server's IP address or domain name which is mentioned in **3.2.4 Network Setting** to remote access the surveillance system from anywhere.



You will find the following screen on your browser. Click **Yes** to allow the web component installation.



For Windows XP SP2 users, you will see "Internet Explorer- Security Warning" screen when you first time connect to the DVR. This is normal to see the security warning dialog. Click **Install** to install WebcamX.cab.



5.1 Using WebCam

After connecting to the surveillance server from the remote PC, enter the user ID and password to finish the authentication. Please refer to **3.2.10 User Setting** to set up new users.

A	uthorization		×
	User		_
	ID	123	
	Password	****	
		,	
	ОК	Cancel	1

After the authentication, you will see the below screen.



If the client PC supports DirectDraw, please click the DirectDraw button to use this function. You will have better video quality on WebCam.



Here is a simple illustration of WebCam.

- Monitor Screens: The screens show the allowed channels for remote monitoring. Users can monitor at most 16 channels according to the settings.
- 2. **DirectDraw:** Click **DirectDraw** to enable this function. When DirectDraw is enabled, the video images become smoother, and the button turns yellow.



Not all graphic cards support the DirectDraw function.

The following pictures show the differences before using DirectDraw.

AVerMedia NV1000/3000/5000/7000 User's Manual



Before using DirectDraw



After using DirectDraw

Click Click again to cancel the function.

- 3. Received file size: This shows the total size of the video files.
- 4. **Camera frames:** This shows the total frame rates of the channels.
- Split display mode. The system provides 4 split display modes: 1- Cam split display, 4-Cam split display, 9-Cam split display and 16-Cam split display. If you only connect 4 cameras, the 9-Cam and 16-Cam split display will be disabled automatically.
- Audio: If you select "Enable Audio" in 3.2.3 Recording Setting, you can choose to play the audio or mute the channel when you monitor the video. This function is enabled under 1-Cam display mode. Users can hear the audio when monitoring or playing the data.
- 7. Voice Phone: Click 2 to start 2-way audio. Please refer to 3.2.4 Network Setting.Make sure your microphone and speakers work before you use a microphone to talk to the server user. The button turns yellow when it is enabled. Click 2 again to cancel it.
- Record: Move the cursor to select a desired channel and click the button to record. The system provides you to save the desired recording as AVI files. Your system will appear a dialog to ask the storage path. The recording time is used as the file name to save the recording. You can also right click to start/stop recording.
- Select cameras to view. Click I[™] to enter Channel Monitor Screen. Click ✓ to enable or ^O to disable the channel on Display column. The camera names are set in server's settings.

Chapter 5 Using Remote Program

Add	Server Imp	ort	Export	
No.	IP Address	Camera Name	Display	Ŀ
01	192.168.153.185:80	Camera 1	V	
02	192.168.153.185:80	Camera 2	 V 	
03	192.168.153.185:80	Camera 3	×	
04	192.168.153.185:80	Camera 4	 V 	
05	192.168.153.185:80	Camera 5	 Image: A second s	
06	192.168.153.185:80	Camera 6	V.	
07	192.168.153.185:80	Camera 7	V	
08	192.168.153.185:80	Camera 8	V	
09	192.168.153.185:80	Camera 9	V	
10	192.168.153.185:80	Camera 10	 V 	15
44	100 100 100 100 100	C 44	1	-

To connect a different server, click Add Server to add new camera settings. Enter the new server IP address, Port, User Name and Password. Click **OK** to save the settings. You can connect up to 16 different servers.

Ac	ld Server		×
	Server		
	IP Address	61.48.123.22	
	Port	80	
	User		
	ID	admin	
	Password	****	
	ОК	Cancel	

You will see the cameras of the added server in the table. Click display mode to rotate cameras that surpass 16 channels.

Add	Server Imp	ort	Export	
No.	IP Address	Camera Name	Display	Ŀ
01	192.168.153.185:80	Camera 1	V	
02	192.168.153.185:80	Camera 2	 V 	
03	192.168.153.185:80	Camera 3	V	
04	192.168.153.185:80	Camera 4	V	
05	192.168.153.185:80	Camera 5	 	
06	192.168.153.185:80	Camera 6	V	
07	192.168.153.185:80	Camera 7	V	
08	192.168.153.185:80	Camera 8	V	
09	192.168.153.185:80	Camera 9	V	
10	192.168.153.185:80	Camera 10	V	
	100 100 150 105 00	~ **	1	
	ок	Cancel	4	

To save your time, you can keep the current setting as an encrypted text file by clicking the "**Export**" button. The system will request for a storage path and a file name. Select a file name and proper path to keep this current setting. When you open IE, just import the setting. Thus, you don't need to enter the server IP, account and password every time when you open IE.

- 10. **Full screen**. Click 🖾 to display full screen. Move the cursor to the screen and right click to return the browser.
- 11. **Snapshot**: Click to save the desired image. The system will save the image as a bmp file.



12. Select a PTZ camera. Click to show the PTZ camera controller.

After you select a PTZ camera, you will find the PTZ camera icons are enabled as the following picture. Here are the introductions of each icon.


 A. Select a PTZ camera. Click I to select a PTZ camera. You can click √ / to enable / disable the appointed PTZ channel on the Select column. Click OK to save.

PTZ Name	Select
Camera 3	0
Camera 5	✓

Note: Only PTZ cameras which are set from the server side will appear in this table.

- B. Focus in / Focus out. Click 🔀 / 🔀 to adjust the focus to produce a clearer image during surveillance.
- C. **Zoom in / Zoom out**. You can click **I** / **P** to size up / to size down the image. These buttons provide the function to adjust the focal distance of lens to size up / to size down the image.
- D. **Direction buttons**. You can use the 8 direction buttons to adjust the direction of PTZ camera lens during surveillance.
- E. **Preset position numbers**. Users can appoint Preset positions of the

PTZ camera lens from the server. 16 Preset position numbers are the maximum for a PTZ camera. Click the Preset position numbers to make the lens move to the desired positions.

- F. Auto pan path group. After setting up Preset position numbers from the server, you can enable the auto pan path group function according to your demands from the client. Click 1~4, and you will find the PTZ camera lens cycles to the desired positions and stays for the appointed time that you setup from the server.
- G. **Position status bar**. It shows the current position that the camera is monitoring.
- H. **Auto Pan**. After you setup Preset position numbers and the auto pan path group, click this button to monitor positions in sequence.
- I. When you monitor channels through a browser, you can save the recording data as AVI files. Move the cursor to the desired channel and right click to record. Assign the directory and file name to start recording. Right click the channel to stop the recording.

Users can also select the recording quality by right clicking the mouse. The DVR system provides 3 kinds of video quality modes: high, normal and low. Right click the mouse to select the video quality mode. When the recording quality is better, the file size will be larger.

13. **Remote setup.** Click Click to initiate remote setup. The modified settings that you made through the browser will be applied to your server. The system will request an authorization. Enter the User ID and Password and then click **OK**.

Authorization				
Please enter your user ID and password.				
User ID	1			
Password	****			
0	K Cancel			

You will see the below screen.

mera Name	Camera 1			
Enable	,			
amera Setting				
Camera Name				
🔽 Display				
Name Came	ra 1		111.12.051	
Comment				AN THE REAL PROPERTY
Video Adjustment —			15 50	A DESCRIPTION OF A DESC
Bright		- 60		
-				
Contrast		50		
Hue		50		
Saturation		- 50		
Dataration	-	,50		
	04 05 06 07	08 09 10 11	Quality	
AM.				
Always Rec	ording		Frame Rate	
C Motion Rec	ording			15
C Smart Reco	rding		- Video Size	
O No Recordir	ng		320 x 240	C 640 x 240
Enable Audio			C 640 × 480	Enable Deinterlace
Motion Detection			Compression Type	
			 MPEG4 	
Sensitivity -		70	C MJPEG	

This function enables you to setup the cameras settings and recording settings on the server side. Please refer to **3.2.2** and **3.2.3**.

14. **Remote E-Map**. Click to initiate the E-Map. You will see an E-Map screen.



When you click the camera icon to the desired E-map, the right windows will show images from the appointed camera if the enable camera is connected to your digital surveillance system.

15. **Remote Console.** Click ^{PEN} to initiate Remote console. The system will request an authorization. Entering User ID, Password and then click **OK**.

Authorization					
Please enter your user ID and password.					
User ID	1				
Password	****				
	OK Cancel				

Please refer to 5.2 Using Remote Console for more details.

Chapter 5 Using Remote Program

16. Event Log Viewer. Click Event to see the event log viewer. You will see the below dialog. Please refer to 4.5 Using Event Log Viewer for more details.

	YSTEM © NETWORK	Refresh		
	Time	Camera	Туре	Event
1	2004/08/10 17:19:07	01	EVENT	Video Loss
2	2004/08/10 17:19:07	02	EVENT	Video Loss
3	2004/08/10 17:19:07	07	EVENT	Video Loss
4	2004/08/10 17:19:07	08	EVENT	Video Loss
5	2004/08/10 17:33:02	01	EVENT	Video Loss

5.2 Using the Remote Console

Remote console can be regarded as a restricted DVR. It can record and play video data of remote server.

Please enter the server site when you open the browser. Enter the user ID and password to finish the authentication.

Authorization				
Please enter your user ID and password.				
User ID	1			
Password	****			
	OK Cancel			

After you login the system through a browser, click et a start the remote Console. Enter the User ID and password and click **OK** to start the remote console.

You will see the following remote Console screen.



5.2.1 System requirement

CPU: Intel P4 1.8GHz

Memory: 256MB

VGA: 16 bit high color SVGA graphic card with Direct Draw & YUV rendering capability.



Do not perform NV DVR and Remote Console at the same server.



5.2.2 Using Display from Remote Console

The functions of buttons on the remote console are below.

1. Exit 🎱

Click this item to exit the DVR system.

2. Split Screen Display

DVR provides 6 split display modes for your selection. You can select 1 /4 /9/ 16 split display mode by simply clicking the icon.

- 1-Cam Display
- 📕 4-Cam split display
- 9-Cam split display
- 🛄 16-Cam split display

3. Server Site and Transmission Information Provided States Building Building Control (1997)

This bar shows the DVR server site and the transmission speed of the recording video.

4. Recording

Click et a record the video recording that you can monitor through your Remote console. Remote console helps you to backup the video recording that you monitor.



You can only record the channels that are shown on the Remote Console screen.

5. E-Map 📽

Click E-Map button to load your desired map according to your demands..

6. Network

Network is enabled when it login. Click the button again to disable all inbound connections.

7. System Setup

You can change storage path, display language, and remote server IP to reconnect to the console. When you click this icon, you will see the following screen.

System Setting							
Storage Path							
	Folder Name	Free Space	Disk Space				
	C:\RemoteData	3.536G	9.767G				
Add Delete							
Language							
Language English							
-Remote Server							
	Server IP 127.0.0.1						
	Server Port 8	3080					
	OK Cancel Default						

8. Display

When you are running Remote console, the default screen will be Monitor Screen. You will see the button in green. When you switch to Playback screen, the button turns gray.

9. Playback

Click 📉 to switch to Playback Screen under Remote Console.

In Remote Console application, you can select to play remote video data of remote server or local data recorded.

The Remote console will pop up a schedule. Select a playback date and then click OK to continue.

10. Camera ID 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

In the No. area, you can see number icons of the cameras. Click a desired icon to display the channel. After you click the icon, it turns yellow. If you assign a split display mode and appoint a camera number, the icon group of the cameras will turn yellow altogether.

11. Full Screen

Click click to a full screen mode. Click the full screen again to return to remote console display mode.

1	F	1	
	35	35	3
		38	

12. Sensors

The icon shows which sensors that are triggered. Once the sensors are triggered, the indicators will turn yellow according to the sensor number.



13. Relays

The icon shows which relays that are triggered. Once the relays are triggered, the indicators will turn yellow according to the relay number.

14. Audio Volume Adjustment



Click the icon to adjust the audio volume to a proper volume. You can mote the channels by selecting the Mute box.

AVerMedia NV1000/3000/5000/7000 User's Manual

¥	udio Setting	
	Volume	
	Channel 1	
	Channel 2	
	Channel 3	
	Channel 4	
		OK

5.2.3 Using Playback from Remote Console

User can choose to play local video files or remote video files. Select a desired item and then click OK to continue the playback task.

Playback Mode			
 Local Pla Remote 			
(COK	Cancel		

You will see a playback screen as below. Here is the introduction of each button in Playback screen.



1. Audio Volume Adjustment

Click the icon to adjust the audio volume to a proper volume. You can mote the channels by selecting the Mute box.

2. Slider

Drag the slider to go forward or backward through the video of a selected video recording.

3. Time Button 00 01 02 02 04 06 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 22

A blue bar on top of a time button indicates that there are recorded videos during the time period. Click the desired time button to play back the videos that were recorded during the appointed time. The selected button will then turn in red.

A grey bar on top of a time button indicates that there are no video recordings during the time period. If there are no videos recorded during your appointed time, it won't show any image.

4. Split Screen Display

There are 6 split display modes to choose from:

- 📕 1-Cam display
- 4-Cam split display
- 9-Cam split display
- 16-Cam split display

Select a split display mode to view the channel. You can play the audio and video at the same time only under 1-Cam Display mode. When the quantities of enabled cameras are more than the split screens, the system will show different batches of cameras under 4-Cam/9-Cam split display mode. For instance, if you enabled 16 cameras and select a 4-Cam split display mode, the batches of display will be Camera 1 - 4, Camera 5-8 and so on. When you click camera 8, the DVR system displays the batch of Camera 5 to Camera 8. If you select a 9-Cam split display mode, the 2 display batches will be Camera 1-9 and Camera 8-16. When you assign a camera, the system will show one of the batches.

5. Date / Time / Speed Status 2004/04/14 09:00:18:904 ×1

This shows the date and time of recording of the current video file and the playback speed. There are 7 levels of playback speeds: 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, and 8x. The default setting is set at 1xnormal speed. Click or $rac{1}{100}$ to set the desired speed.

6. Playback Control Buttons

- Begin: Move to the beginning of the video recording.
 - **Previous:** Go back to the previous frame.

Slower: Play the video recording at the speed of 1/2x, 1/4x, or 1/8x

- Rewind: Play the video file reversely.
- Pause: Stop to play the recording.

Chapter 5 Using Remote Program



Play: Play the recording file.

Faster: Play the video recording at the speed of 2x, 4x, or 8x.

Next: Go to the next frame.

End: Go to the end of the video recording.

7. Date 🥯

Click this button to choose the date of the recorded files that you want to play back.

8. Camera ID 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Click the desired cameras from which to retrieve previously recorded videos. Video recordings from each chosen camera will be displayed in the split-screen video windows. The chosen camera icons will turn yellow.

5.3 Handy View

NV series provide easy connection. Users can use a PDA or a mobile phone to access the NV DVR through Internet. Just ensure your mobile or PDA connecting to Internet, enter "your website address/MOBLIE" to monitor the channels anytime anywhere. The website IP may vary according to your server IP address. For instance, you may enter <u>http://61.12.33.65/MOBILE</u> to access your server. You can watch the latest image by one camera. Click < > to change channels, and click REFRESH to reload the new camera image. Please check **3.2.4 Network setting** to enable Handy View.

5.4 Using PDA Viewer

"PDA Viewer" allows PDA users to monitor channels anytime anywhere as Internet is available.

Before you use PDA Viewer, please meet the PDA System Requirement.

OS: MS Windows CE 4.0 (PocketPC 2003)

CPU: ARM architecture

Follow the steps to install the PDA Viewer application before using a PDA to monitor live video.

AVerMedia NV1000/3000/5000/7000 User's Manual

A. Connect your PDA to your PC. Click Install PDA Viewer.

B. The system will automatically install the PDA Viewer application.

C. Click Next to continue.

D. Click **Yes** to continue the installation.



Chapter 5 Using Remote Program

E. The system automatically installs the application.

- F. The system appears an 'Install AVerMedia PDA Viewer using the default application directory? ' dialog box. Click Yes to use a default directory.
- G. The system continues to install the application.

 H. After finishing the installation, the system will show an "Application Downloading Complete" dialog, click OK.

Note: The system provides PDA-Viewer online download. Open IE and enter server IP. You will see the following screen.







Click the hyperlink, **Download PDA-Viewer**, to see the download screen. Click Yes to download PDA-viewer. The system will automatically install PDA-Viewer after the download is completed.

🎥 Internet Explo 🧣 🗮 📢 12:59
http://60.248.78.242/ 🔹 🧑
Download
Download the 1.46 MB file 'PDA- Viewer.cab' to the 'My Documents' folder in Main Memory?
Open file after download Yes Change Cancel



After the installation, you will see an icon on the PDA desktop. Make sure your PDA connect to Internet before you start monitoring.

BDA-Views	er 👘 🦞 🗱 ┥ 🗙 02:24	٩
Server IP	60.248.78.242	
Port	80	
ID	1	
Password		
Network Type	64K/Modem 👻	
OK	Cancel	
	•	J 🔺

Follow the steps to connect to the DVR server.

- 1. Click S on your PDA desktop.
- 2. Enter the server IP, Port, ID and password. Select a network type and click **OK**.



The screen will show "**Connecting to Server**". After you access the server, you can see the following screen.



1. Connecting DVR server : Click this button to set the server IP, port, ID and password.

🏂 PDA-View	er 🛛 🦞 🗱 ┥x 02:24 🚳	9
Server IP	60.248.78.242	
Port	80	
ID	1	
Password		
Network Type	64K/Modem 👻	
ОК	Cancel	
ay mode	: Click	to view an image

2. Display mode

single camera. Your PDA will show all camera screens in turn. To switch to 4-Cam display mode, click . You will the following screen. When the quantities of enabled cameras are more than the split screens, the system will show different batches of cameras under 4-Cam split display mode.



For instance, if there are 16 cameras connected to the server, you will see the batches of display will be Camera 1 - 4, Camera 5-8 and so on as the above illustration.

Zoom in / Zoom out (P): You can click (r 2) to size up / to size down the image when a PTZ camera is enabled. These buttons provide the function to adjust the focal distance of lens to size up / to size down the image. If there is no PTZ camera connected to the server, the buttons will

be disabled.

4. Snapshot: Click to save



The system will save the image as a bmp file. Click Save to keep the images.

- Focus in / Focus out EEE: When a PTZ camera is enabled, you can click I for adjust the focus to produce a clearer image during surveillance. If there is no PTZ camera connected to the server, the buttons will be disabled.
- 6. Full screen EXE: Click EXE to display full screen. Click the screen again to return to the system.



 Direction buttons You can use the 4 direction buttons to adjust the direction of PTZ camera lens during surveillance.



Use the tablet pan to click the screen for 4-5 seconds to change the video quality whether you are under 1-Cam display,4-Cam display or a full display screen.



You will see above screen. Select a proper video quality according to your demand.

Appendix A Registering Domain Names

DDNS (Dynamic Domain Name Service) is a data query service mainly used on the Internet for translating domain names into Internet addresses. It allows remote clients to intelligently search dynamic servers without any previous enquiring for servers' Internet addresses.

In order to take advantage of this intelligent service, first register your domain name on the following Web site: *http://ddns.avers.com.tw*.

1. User Login

Browse the website <u>ddns.avers.com.tw</u> with Microsoft IE or Netscape Navigator to access the following dialog.

User Login		
Serial No.		
Product	DX7000 💌	
	K Reset	

First input the serial number of your product and select the product name. Then click **OK** to login or **Reset** to clear the previous input.

2. Password

Set a password to secure your identification.

Input your password	
Password ***	
OK Reset	

3. User Information

Please provide the following user information, **Host Name**, **Password**, **E-mail**, **Company**, and **Country** to complete the registration process.



Note that Host Name and Domain Name (AVerMedia.avers.com.tw) are the replacement for Internet address while a remote client tends to search a dynamic server.

User Information			
	Host Name	AVerMedia	*
Do	main Name	avers.com.tw	
	Password	adak	*
Confirr	n Password	Jobek	*
	E_mail	odysseus@ms1.url.cor	*
	Company	AVerMedia	
	Company	Avenneula	
Country Taiwan			
OK Reset			

Appendix B Image Verification

- 1 ImageVerify is a watermark-checking program to identify the validity of a saved image (e.g. by snapshot).
 - a. Run the setup/start program

Click Start->Program files->NV->Image Verification to execute the program.

b. Load the image file to start verifying file

Source Image:	Processed Image:
Load Source Image	Verify Smoor Save Processed Image Quit About
Loso Source Image	TETRY SHOP TOURSED IMODE Quit About
Open	<u>? × </u>
	🚽 3½ Floppy (A:) 🔽 🔶 🖆 🖽 -
ImageVer	
🗳 temp02	
File <u>n</u> ame:	temp01
Files of type:	Bitmap Files (*.bmp)
	///

A. Verify image file. Click 'Verify Image' to begin the process.

P

驟 Image¥erification	×
Source Image:	Processed Image:
Load Source Image Verify Image Save Proce	ssed Image Quit About

B. ImageVerify returns a result.

(1) If the file is not modified, the same picture appears in the right side result picture box.

隈 ImageVerification	×
Source Image:	Processed Image:
Load Source Image Save Proce	ssed Image Quit About

(2) If the file is modified, a warning dialog appears. In the result box, the area that is being changed is highlighted.

Warning]	×
	The image is	invalid!
\cdot		
	OK	

Appendix B Image Verification

