

ACTI NVR User's Manual Version 2.3.05

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Overview

ACTi NVR Architecture

ACTi NVR is a windows-based program that provides full functionality IP-based network video surveillance. It consists of several modules, such as: ACTi NVR Server, ACTi NVR Workstation, ACTi Web Client and ACTi Utility Suite.

ACTi NVR Server

NVR Server includes several Win32 services. These programs start automatically when the computer boots up and operate in the background, without requiring login by Administrator. The server configurations are done by NVR Workstation or NVR Web Clients. The services are:

Active Event Manager

Event Manager handles events and responses, and executes all rule-based reactions.

Active Schedule Service

Schedule service provides recording and scheduling management.

Active Service Manager

This program monitors the other software service modules. If the other services are down, it will automatically restart them.

Active Streaming Service

Streaming engine handles connection to ACTi IP devices and provides video stream to multiple clients.

Active Message Engine

Message engine maintains proper background communication between the various win32 services.

ACTi NVR Workstation

NVR Workstation includes a set of programs that provide interface between users and the NVR server. NVR Workstation may be installed on the same PC as the NVR server, or they may be installed separately and connect to NVR Server via network. For NVR Professional, workstation and server are bundled together and must be on the same PC. They are:

Active Setup



This module includes both Camera Setup and System Setup. Users can add and setup cameras and devices, configure system parameters and e-maps here.

Active Monitor



In this module you can see live view from cameras and devices, perform PTZ operations with mouse or Joystick, view system log, receive alert on the Event panel, setup view layouts or survey with pre-defined multi-layout tour.





You may find and playback existing recordings in this module. Up to 4 channels may be played back synchronously. Snapshots or excerpted video segments can be taken from playback files. Recorded files can also be exported to AVI format here.

Active Map



You can see camera deployment on maps here. Live video feed may also be displayed right on the e-maps. Cycling map tour views are also defined here.

NVR Web Client

NVR Web Client is the web version of interface to access NVR. You do not have to install any program to use Web Client, just Open IE 8.0 or IE 9.0 and type in the server web address/port to login. Almost all of NVR workstation's functions can be accessed on Web Client, except a few minor restrictions.

Hardware System Requirements

The performance of NVR is largely determined by the hardware PC capability. The table below provides basic guideline for selecting proper hardware. The minimum required hardware will provide acceptable performance for systems that use mostly MPEG4 streams. Surveillance systems that use primarily H.264 streams should satisfy Recommended PC Spec for good performance.

Channel numbers	1-16 channels		s 1-16 channels 17-64 channels		els
PC Spec	CPU	Memory	CPU	Memory	
Server PC with	Intel Core 2 Duo	4GB	Intel Core i7-920	6GB	
Local Client	2.66 GHz 32-bit	RAM	2.67 GHz 64-bit	RAM	
Server PC without	Intel Core 2 Duo	4GB	Intel Core 2 Duo	4GB	
Local Client (NVR Enterprise)	2.4 GHz 32-bit	RAM	2.4 GHz 32-bit	RAM	
Remote Client PC	Intel Core 2 Duo	4GB	Intel Core i7-920	6GB	
(NVR Enterprise)	2.66 GHz 32-bit	RAM	2.67 GHz 64-bi	RAM	

Fig. 1 System Requirements

NOTE: The required free space of the disk drive where NVR is installed should be **at least 40 GB** at all times. It is suggested that NVR program and the recording data be stored on separate disk drives.

NOTE: These specifications are based on following camera settings:

Single stream mode: 1280x1024, 3Mbps, 18fps, MPEG-4

Dual stream mode: 1280x1024, 3Mbps, 18fps, H.264 (recording); 640x480, Quality: 100, 18fps, MJPEG (live view).For more details about system requirements, please refer to Project Planner on www.acti.com

NOTE: Live view for multiple channels require good hardware for smooth performance. If your live view performance is not satisfactory, please reduce the number of channels viewed at the same time, and use Layout Tour to scan through all the channels instead.

NOTE: When CPU power is not enough to provide smooth live view, NVR will decode only one frame per second to save computing power. This is done to ensure that recording is always properly processed. In extreme cases, like when viewing 64 Megapixel H.264 video streams at the same time, PC will be overloaded and NVR will stop operation. This is a common limitation imposed upon all Windows based video management programs. Enhancement for this limitation will be available in the next version of NVR.

NOTE: PC Spec requirements are the same for 32-bit and 64-bit systems.



Operating System and Browsers Supported

NVR works with windows-based PCs for both 32 bit and 64 bit systems. The versions supported are listed as below.

NVR requires Internet Explorer 8.0 or 9.0 to work. Internet Explorer 7.0 and below are no longer supported. For 64 bit systems, 32 bit IE is required.

OS	Version	32 bit	64 bit
	Ultimate sp1	Y	Y
Windows Vista	Enterprise sp1	Y	Y
	Business sp1	Y	Y
Windows Server 2003	Standard sp2	Y	N/A
	Enterprise sp2	Y	N/A
Windows XP	Professional sp3	Y	N/A
Windows Server 2008	Standard	Y	Y
Windows Server 2006	Enterprise	Y	Y
Windows 7	Professional	Y	Y

Fig. 2 List of Supported Operating Systems

Editions Explained

ACTi NVR comes in two versions, Enterprise and Professional.

Professional Version provides full functionality on a single PC. You record and access the videos on the same computer.

Enterprise Version provides remote access from another PC. User may connect to Server by either Workstation or Web Client. Recording is done on the server. Enterprise version is divided into Server and Workstation. Remote users do not need to install NVR Server.

Function Overview

Version	NVR Professional	NVR Enterprise		
	Single Package	Server	Workstation	Web Client
Live View	Y		Y	Y
Record	Y	Y		
Playback	Y		Y	Y
Setup	Y		Y	Y *
Remote Access			Y	Y

* Some functions cannot be setup through web client and must be configured via workstation.



Keyboard Shortcuts

NVR provides many keyboard shortcuts to save your time. Here's a list of the available hotkeys.

Keyboard Shortcut	Description		
F5	Refresh. This will restart the application session, and		
	starts from login page.		
Ctrl+F6	Toggle Video display stretch		
Ctrl+F7	Create snapshot		
Ctrl+F8	Toggle start / stop tour.		
Ctrl+F9	Show / hide camera tree panel		
Ctrl+F10	Cancel auto-login mode during login		
Ctrl+F11	Show / hide title bar		
Ctrl+F12	Toggle full-screen mode		
ESC	Cancel full-screen mode; return to normal mode. This		
	function is only valid in full-screen mode		

Fig. 3 Keyboard Shortcut List



Installing

If you are using ACTi NVR CD-ROM, just follow the auto run sequence. If you downloaded NVR from our website, please run the installer .exe file included. Users that start from auto run will see the first three screens described below. Users that install directly from the installer files will proceed directly to installation. If you are using the enterprise version, please first install windows IIS server (Refer to the How to Setup IIS Server document. After you have IIS setup then you should install NVR Server, and lastly workstation. For remote user you may only install workstation as long as you can connect to the server.

Before actual installation, you will be asked to register online. Registering provides many benefits, including online customer help desk, e-Newsletter and free software downloads. You may choose to Skip and proceed to NVR installation.

User Registration Notice			
ACTi encourages users to do on-line registration to get following benefits:			
-Receive eNewsletter			
-Get updated product infor	mation		
-Download latest software			
-Download software patch and service pack			
-Get on-line Technical Support			
-Get training material and	on-line training		
Register on-line	Skip		

The next screen will show the Installer. Choose the software you wish to install on this PC. Please refer to the previous section if you do not know what version to install. (If you downloaded ACTi NVR from the website, you may have a single software package, without multiple choices. In this case just click install.)

Note: Be sure to have at least one NVR Server in your system to record video. If you are installing Enterprise Server, you must also install NVR workstation in the same machine to access server settings.





For installing Workstation, just follow the on screen instructions. For installing NVR Enterprise Server or NVR Professional, please see sample screen from NVR Enterprise Server setup, and follow below steps:





Backup

If you are doing a fresh install, you may ignore this section.

If you are upgrading from a previous version of NVR or otherwise doing a re-install, then it would be best to backup existing settings before installing. Please note that NVR 2.3 has a slightly change database structure. You must use the latest version of Backup Wizard that comes with the NVR 2.3 for backup and restore. During NVR 2.3 installation, the existing database will be converted to the new format, and your existing data will still be accessible by the upgraded version.

Click "Step 1: Backup Database" to launch Backup Wizard. Select the version of NVR installed on the current PC. Use the closest one if you do not find an exact match. *Enter the correct NVR IP address, NVR Admin account and password.* Then choose the destination folder for backup files (Default folder is C:\backup).

NOTE: Please use Backup Wizard v2.0.22 or later version to restore and backup your NVR.

For detailed instructions, please see Backup Wizard User's Manual.

SQL

NVR 2.3 requires SQL database engine to work. The NVR installer will automatically install Microsoft SQL 2005 Express SP3 on your PC. Please follow all on-screen instructions.

If you have already installed Microsoft SQL 2005, please be sure to upgrade it to SP3. During NVR installation, NVR will need to log in to Database Server. Please provide your own password for Login ID "sa", instead of the default password for fresh SQL installs.

IIS Server

NVR 2.3 requires Microsoft IIS server to operate. You need to install and configure IIS before installing or upgrading your NVR. If you are using Windows 7 / Windows Vista / Windows Server 2008, IIS installation will be automatically covered by the install shield. For other Operating systems, Please refer to the document "How to Setup IIS Server" for detailed instructions. Please note that 64-bit systems are configured slightly different from 32-bit systems.

Ports and Firewalls

Several ports are needed to transmit data for NVR. Please properly configure the firewalls on the Server PC, Workstation PC and the routers in between. Blockage in any point of the way will prevent NVR from functioning properly.

Port Name & Number	Workstation		& Number Workstation Web Client		Client
	Local	Remote	Local	Remote	
HTTP Port (Default 80)	No Need	Required	Required	Required	
Control Port 6001	No Need	Required	Required	Required	
Streaming Port 6002	No Need	Required	Required	Required	
Message Port 8001	No Need	Required	Required	Required	

If you encounter any connection issue, please make sure that you have enabled these ports to pass through. Even if your firewall is turned off. Occasionally, you may need to allow unlimited access through firewall for NVR core services. This is required if you use RTP protocol for communication. You can go to Control Panel \rightarrow Windows Firewall \rightarrow Allowed Programs to add the following two programs to the allowed list:

C:\Program Files\NVR\ActiveStreamEngine\ActiveStreamingService.exe C:\Program Files\NVR\ActiveScheduleService\ActiveScheduleService.exe

Sample screenshots from Windows 7 are shown below. The steps are similar in other versions of windows OS



Step 1: Control Panel \rightarrow Windows Firewall \rightarrow Allow a program through Windows Firewall.



Step 2: Allow another program

💭 🗕 🔐 « Windows Fire 🕨 Allowed Programs 🛛 👻 🍕	Search Control Panel	
Allow programs to communicate through Windows To add, change, or remove allowed programs and ports, click Chan What are the risks of allowing a program to communicate?	Firewall ge settings.	nge settings
Allowed programs and reatures:		
Name	Home/Work (Private)	Public _
BranchCache - Content Retrieval (Uses HTTP)		
BranchCache - Hosted Cache Client (Uses HTTPS)		
BranchCache - Hosted Cache Server (Uses HTTPS)		
BranchCache - Peer Discovery (Uses WSD)		
Connect to a Network Projector		
Core Networking	\checkmark	
Distributed Transaction Coordinator		
File and Printer Sharing		
□ HomeGroup		
□ iSCSI Service		
Key Management Service		
Media Center Extenders		- T
	Details	Remove
	Allow anothe	r program
	ОК	Cancel



Step 3: Browse to the target program. In this sample Active Streaming Service is shown.

Add this into the list of allowed programs.

Contraction of the second seco	Add a Program Browse	rograms	trol Panel	€y Search ActiveStreamEngine ♀
Allowed progra	Organize 🔻 New	folder		······································
Name BranchCac BranchCac BranchCac BranchCac Connect to	★ Favorites ■ Desktop ▶ Downloads ₩ Recent Places	Name ServerConfiguration	Date modified 4/30/2010 9:11 PM 4/19/2010 6:56 AM	Type Size 1 File folder 1 Application 333 KB
 ✓ Core Netw Distributed File and Pri HomeGrou isCSI Servic Key Manag Media Cen 	 ibraries i Documents J Music i Pictures i Videos 			
	F	 ✓ File name: ActiveStreamingService 	111	✓ Applications (*.exe;*.com;*.icd) ✓ Open Cancel
			OK Cancel	

Step 4: Streaming Service is added to the allowed programs list. Do the same for Active Scheduling service.

🖉 🐨 🐨 Windows Fire 🕨 Allowed Programs 🛛 👻 🍫	Search Control Panel	
llow programs to communicate through Windows F add, change, or remove allowed programs and ports, click Change hat are the risks of allowing a program to communicate?	irewall settings.	nge settings
Allowed programs and features:		
Name	Home/Work (Private)	Public 🔄
Secure Socket Tunneling Protocol		
Secure World Wide Web Services (HTTPS)		
SNMP Trap		
☑ StreamingService		
Windows Collaboration Computer Name Registration Service		
Windows Firewall Remote Management		
Windows Management Instrumentation (WMI)		
Windows Media Player		
Windows Media Player Network Sharing Service		
Windows Media Player Network Sharing Service (Internet)		
Windows Peer to Peer Collaboration Foundation		
Windows Remote Management		
	Details	Remove
	Allow anothe	er program
	ОК	Cancel



Disabling UAC in Windows Vista and Windows 7

UAC (User Access Control) is a security setting that restricts access in Microsoft Windows Vista. *You must disable UAC before installing NVR in Windows Vista and Windows 7.* You may disable UAC through Windows control panel, or through the TweakUAC tool that comes with NVR.

•	TweakUAC
	Turn User Account Control (UAC) on or off:
	 Turn UAC off now This will completely disable all UAC functionality. (Windows restart required)
	Switch UAC to the quiet mode This will keep UAC on, but suppress the elevation prompts for the administrators.
	Leave UAC on This will leave the full UAC functionality enabled.

TweakUAC will launch automatically during install if you still have UAC on. Choose Turn UAC off now.", then restart the computer before continuing installation. You may choose to turn UAC back on with TweakUAC after NVR has been fully installed.

NVR Main Program

After you completed setting up SQL server, disabling UAC for Vista / Win7 and setting up IIS server, you can proceed to install NVR. Please follow the on-screen instructions. For NVR Server, the recommended path is C:\Program Files\NVR. You can change the destination folder path if you really need to.

NVR will need to log into the SQL server during installation.

If you are doing a fresh install, just use the default account / password. If you have your own "sa" password, use this instead of the default password. If you forgot the password for "sa" account, please select Windows Authentication instead. When you use Windows Authentication, just use your windows login account / password. Please see following image.



Database Server	an see and as the star time as the d				
Select database s	erver and authentication method	and the second second			
Select the database server to install to from the list below or click Browse to see a list of all database servers. You can also specify the way to authenticate your login using your current credentials or a SQL Login ID and Password.					
Database Server:					
(local)\SQLEXPRES	5 -	Browse			
If an SQL passv Windows Authe	ord error appears,or if you forget the password, ntication Mode to login	please use			
Connect using:					
Windows authe	ntication credentials of current user				
Server authent	cation using the Login ID and password below				
<u>L</u> ogin ID:	sa				
Password:	•••••				
InstallShield	< Back Next >	Cancel			

After installing NVR Server or workstation, system will ask you to reboot your PC. Please reboot for proper operation afterwards.

Restore old setting to NVR Database

If you have backed up your old database before installing the new NVR SP3 and somehow require restoring it, please use the latest version of Backup Wizard to restore and recover old settings.

You can find Backup Wizard in NVR Workstation, or the Utility folder in original install files. Please refer to Backup Wizard User's Manual for detailed instructions.

License

ACTi NVR software has 16 channel / 32 channel / 48 channel / 64 channel packages. For NVR Enterprise it is free for up to 16 channels. **For more than 16 channels, you have to purchase a license key.** Please contact our sales representatives for Enterprise Version 32/48/64 channel license keys. Professional version is free for up to 64 Channels.

Version	NVR Professional	NVR Enterprise		
Channels	Single Package	Server	Workstation	
16	Free	Free	Free	
32 / 48 / 64	Free	License Required	Free	

Fig. 4 License Requirements for each version

How does registration work

During registration, your license key is matched against the MAC address on the Network Interface Card (NIC) on your computer. This MAC address is used as the Machine Key. This matching record will be stored on the ACTi web server. *If your computer has more than one network card, only the network card with the smallest MAC address will be used.*

If your Server PC has multiple network cards, you will need to disable the extra network cards which you do not intend to register. Please refer to the support document "<u>How to Disable and</u> <u>Enable Multiple Network Cards</u>" on ACTi Knowledge base website for more information.

Online Registration

This is the recommended and easiest way to register NVR on your PC. You will need to have internet connection to register this way. Please log into NVR with Active Setup, Click on the Setup System symbol and then click on the license tab. (See following image)

X (۵ 🕭 🎇 🔨 🚳 کې کې
amera Groups	User Roles \Users \Storage Management \Joystick \View Layouts \View Tours \Language \Service License
Inline Registration	Offline Registration Apply
Register Onlin	10
MAC Address : 0 License Key:	0-1F-16-14-39-DC
MAC Address : 0 License Key: 00E9L-PIYP0-EPI	0-1F-16-14-39-DC

Fig. 5 Online Registration



Click the Online Registration on the horizontal menu under the tabs. Make sure your computer is connected to internet and enter the License Key. Click Apply to connect to Registration Center. Your License Key and MAC address (NVR automatically reads the Network card with the smallest MAC Address number on your PC) will be recorded.

Offline Registration (Through ACTi website)

If your PC cannot connect to the internet (e.g. in a restricted military base), then you should register offline. You may obtain an activation key from ACTi website with another PC that has internet connection, and activate your NVR license on the server PC off-line.





			About ACTi Join Us Contact Us Sitemap Find ACTi Si				ales Where to Buy	Language 🔻		
Connecting Vision			PRODUCTO	Get	Full Product Info	rmation in Produc	ct Matrix	DA DTUED	Sauth ACT	
		VIDEO CLIPS	PRODUCTS	SOLUTION	TRAINING	SUPPORT	NEWS	PARTNER	Search ACTL	go
Support										
Documents & Downloads	0	NVR Softw	are Regis	stration						
Product Resource Matrix		License Key								
Knowledge Base		Machine Key (M/	AC Address)	<u> </u>			Submit	Clean		
Technical Guide			· ·							
Customer Services	0	Activation Key:						A		
Customer Helpdesk										
Customer Feedback Form										
License Registration								-		
	-									
lools & Utilities	0	NVR License r	egistration							
Project Planner		NVR License C	ffline Registratio	n is used when S	erver is locate	d in network no	t connecte	d to public		
Troubleshoot Tool		internet (i.e. Mil	itary Base).							
Policies	0	Offline Activati	on							



Fig. 6 Offline Registration

Verify your license

Once you've successfully registered your NVR, you will receive a notification message as shown here.

Register Successfully Please check ActiveSetup - System - Field.	License
	ОК

You may check your current NVR license from Active Setup \rightarrow System Setup \rightarrow System tab



Keep Event Log for (day): *	Keep Recording Log for (day): *	Keep System Log for (day): *	
45	45	180	
NVR Streaming Port: * 6002	NVR Control Port: * 6001	MessageEngine Port Number: * 8001	
Monitor Setting			
OSD - [FPS]	OSD - [Camera Name]	Popup message when event trigger	
Event status on Camera Tree	Show motion region in Active-Monitor		
Decode I Setting			
Lower display frame rate when CPU usage	is above 80 %	Lower display frame rate when current layout is above 38 -	
System E-Mail Setting			
SMTP Server	SMTP Port	Sender Email Address Sender Name	
	25		
SMTP Authenticate	SMIP Oser Name	SMTP Password	
System FTP Setting			
FTP Server	Port	Upload Folder.	
	21		
UserName	Password		
License Information			
Product		Shinning Date	
Floduci		endpand end	

Fig. 7 Verifying License Registration Info

If you encounter any error message, please report on our Customer Help Desk:

http://www.acti.com/support/case/index.asp



NVR Quick Start

This section will demonstrate the fundamentals of how to setup your security surveillance system with ACTi NVR. We will guide you through the basic steps required to setup your surveillance system. This section will only explain the necessary part of the User Interface, and will not detail every function. For a complete list of functions please see the User Interface Explained section.

Logging In

The default login User Account and Passwords are: Admin/123456

You can use either workstation or web client to access NVR. We will describe how to use Workstation at this moment. Web client access will be covered in later sections.

 Click on one of the four NVR Workstation icons on your desktop, or go to Start → Program Files → NVR Workstation and select one of them. We'll use Active Setup for now, as we're just starting to configure the system.



2. The login screen will be displayed as below

Login				
User Account *	Admin			
Password *	•••••			
Server IP Address *	localhost			
Server HTTP Port *	80			
Application *	NVR			
Language *	English (United States) 💌 😽			
Preview Mode *	Advanced			
Https Support				
Auto login with this account				
Save as Default				
Use CTRL+F10 to cancel auto-login mode.				
	L	ogin		

Fig. 8 Login Screen (NVR Workstation)

- 3. For the Server IP address, you need to add the port number after the IP address. If your workstation and server are located on the same computer, you may either use 127.0.0.1 or the actual network address of your Network card. The port to use is the HTTP port. If your HTTP port used is the default port 80, you can just enter the IP address and omit the port number. If you are logging in to NVR server from a workstation located on a separate PC, please make sure the IP and the HTTP port are correct, and that the router or firewall allows traffic at this port.
- 4. Preview Mode: There are two different levels of complexities in the live preview available. For NVR Workstation, you will always use the "Advanced" mode that comes with the full features. For NVR Web Client, you may also choose to login with the basic preview mode.
- 5. If you check the Checkbox for HTTPS support, you will log into NVR with HTTPS protocol that encrypts the data transmitted between NVR Client and Server. Before enabling this support on Login page, you should configure the related HTTPs settings in IIS.
- 6. You may choose to check the box "Auto login with this account". NVR will then remember the settings you used to login this time, and automatically login in future startups, saving you valuable time. Please note that if your workstation will be accessed by more than one individual, then you may not want everyone to be able to auto-login with the default account. In this case you should use the Save as Default as described below.

If you decide to cancel auto-login in the future, you may press Ctrl-F10 during login process. The NVR will still start automatically that time. But when you login again, it will again require you to type in your information manually.

7. Selecting "Save as Default" will store the parameters you used this time for Language, server IP, Port, User Name, application and Preview mode for future use. The next time you login, everything except the password will be filled in automatically. This is useful if there is a main user for this PC, but others may also gain access to this PC. In such cases you do not want to breach security protocols by automatically logging in without verifying if the user has permission to use this account. This method provides convenience with proper security safeguard

Adding cameras to NVR System

Adding cameras Automatically via Active Setup

- 1. Login to Active Setup
- 2. As your system is currently empty and there are no cameras in the NVR camera tree, you will see the Camera Setup section and "Add New Camera" displayed prominently. You may add cameras manually or automatically. Assuming your cameras are in the Local Area Network, and not over the internet, we will start with Auto. If your cameras are located over the internet or in other LANs, please use manual. For now, select "Auto" and click "Next Step".

	× 🚳 💰 🐝		Admin as Administrator 2010年4月4日下午 05:45:10
Refresh Camera ID 💌	Camera		
🏠 Camera Tree 🔤	Cancel		
	Add ⊂ Manua ☞ Auto	New Camera Description Search Device States are on the same network segment. User can see the search window pop-up as below NOTE: IP cameras VideO severs not on the same network segment as the NVR can't be found by this search function.	

Fig. 9 Add New Cameras - Auto

 A message will appear when searching for devices. Once the search is complete a list of available devices will be shown. You may click on the title header to sort by that column. Click again to sort in the reverse order.

Camera							
Add New	Camera Cancel						
ID	Hostname	CLAN IP Address	• WAN IP Address	Channel No	MAC Address	Product ID	Camera ID
1	ACTi		€ 10.1.1.99	1	00:0F:7C:00:00:01	TCM4300 Megapixel IP Cube Camera	
2	ACTi		● 10.1.1.98		00:0F:7C:02:98:5D	ACD2000 4-CH IP Quad Video Server	
3	ACTi		10.1.1.93	1	00:0F:7C:02:82:8C	ACM3001 IP Dome	1 2
4	ACTi		€ 10.1.1.80	16	00:0F:7C:01:1F:C5	ACD2400 16-CH Video Server	4
5	ACTi		© 10.1.1.80	15	00:0F:7C:01:1F:C5	ACD2400 16-CH Video Server	6 7 ≡

Fig. 10 Auto Search Camera List



- 4. Click on the row of the camera you wish to add to the system. That row will be highlighted. A drop-down list will appear in the Camera ID column of the current highlighted row. Click on it to expand and select the available channel no. Repeat this step until you've added all devices you wish to include in the NVR system.
- 5. Click "Add New Camera" to add selected devices into NVR system. The devices will be added to your camera tree according to the Camera ID you've assigned.

You may add further cameras by going to Active Setup $\rightarrow\,$ Camera Setup $\rightarrow\,$ Camera $\rightarrow\,$ New.

Adding cameras Manually

If your camera is not within the same LAN segment (i.e. over the internet), it will not be searchable by NVR. In this case you need to add it manually.

- To add a camera manually, go to Active Setup → Camera Setup → Camera → New → Manual
- 2. The camera setting page will appear as below. The most important settings are the Protocol, Camera IP, HTTP Port, username and Password. These five fields are required for NVR to communicate with the device. Click "Get Device Setting" and NVR will automatically contact the device, to fill in the other fields.

NOTE: If any one of the five fields is incorrect, you will not be able to connect with the device. When you have any device connection problem, please check these settings.

amera: 1 Media Source Information		
Connection Setting		Production Setting
Camera ID:	1	
Protocol:	ТСР	Camera Name:
Camera IP:	192.168.0.1	Camera Model:
Http Port:	80	Production ID:
User Name:	Admin	Connection Timeout
Password:		OSD Position:
Connection Type:	Get Video from Current NVR	Camera Groups:

Fig. 11 Add New Cameras – Manual

 Once NVR finds the device, it will open the Advanced setting Tab. Click "live view" below the view window to see real-time video from the camera so that you may verify this is the device you intended to add.



edia Source Info	ormation				
Ivanced Setting					
ideo Quality.	Video Adjustment(Attributes).	Conne	ection Port.	Live View	
ideo Encoder	H264	_		1	22:Camera-1 2010-04-04 19:44:49 (GMT+08:00)
tream Mode	SINGLE	-			
nalog Video	NTSC				
PS	15				
Resolution	N1920x1080	-			
litrate Mode	Constant	-			
laximum Bitrate	UNLIMITED	-			and the second sec
lit Rate	3Mbps	3			
					Live View Close
					Show Basic Settin

4. Click open the expand arrows on the right of Media Source information tab, and you will see that the Production Setting fields have been automatically filled up by NVR.

amera 7 : ACTi Media Source Information		
Connection Setting		Production Setting
Camera ID:	7	KCM5311
Protocol:	ТСР	A1D-311-V5.02.26-AC
Camera IP:	172.16.26.79	Camera Name: Camera-1
Http Port:	80	Camera Model: Megapixel IP Camera
User Name:	Admin	Production ID: KCM5310 Series
Password:	•••••	Connection Timeout: 5
Connection Type:	Get Video from Current NVR	OSD Position: Upper left
		Camera Groups:
		M No Crown

5. Click "Apply" to save settings to NVR and finish manually adding this camera.



Add or configure cameras via Copy setting

A third way is to utilize the Copy Setting function to add device to the NVR.

 Go to Active Setup → Camera Setup → Camera. You must first select one camera from the camera tree to copy settings from.



2. Click "Copy Settings", and the copy setting screen will appear as below.



3. You may select the types of settings you wish to copy from the item list below. You need to select at least one type of settings to proceed. The Camera Data Target may be a new device, or it may be an existing camera. If you select "Add New Device", then a new camera will be created. If you select a particular existing camera, then the settings in NVR for that camera will be overwritten.

Camera Data Target	== Add New Device == 💌
	== Add New Device ==
	1 : Entrance 1
	2 : Entrance 2
	3 : Entrance 3
	4 : Entrance 4



Configuring Access Rights

In NVR, the access rights are managed by a combination of Camera Groups and User Roles. User Roles define what functions are allowed for each user. Camera Groups define to what cameras the user may apply these functions upon.

This means that different users may be able to use the same set of functions on different groups of cameras. An example will be the guards located at building one and building two of a business complex. They will belong to the same user role, but have access to different camera groups. Both will be allowed to see live view, perform PTZ operations, take snapshots and export evidence. But they may perform these functions only to the cameras in the building they are responsible for. They will not be able to change the camera or system settings, which are reserved for the system administrators.

Defining Camera Groups

Setup Camera Group Basic Info

1. Please go to Active Setup \rightarrow System Setup \rightarrow Camera Groups

Camera Groups User Roles User Roles User Roles Camera Group Information	Jsers \Storage Management \Joystick \View Layouts
Group Name:* Entrance Camera Groups	Group Description: All entrances
Group Name	Group Description
Entrance	All entrances
Basketball Court	South Court
Canteen	Building one Canteen
Car Park	

- 2. Type in the Group name and the Group Description. The Group name is mandatory, while the description may be omitted.
- Click "Apply" to save the currently typed group name/description as a new camera group. Camera groups already in the system will be displayed below in the camera groups table.

Setup which groups does each camera belong

Each Camera may belong to multiple groups. This is configured in Active Setup \rightarrow Camera Setup \rightarrow Camera \rightarrow Detailed description setting \rightarrow Camera Groups.



Select the Camera Groups for each camera to belong to. Click "Apply" to save settings. Every camera that has not been specially reassigned will automatically belong to the section named "No Group". This means that "No Group" will contain all devices unless the administrator has unchecked the check box from specific cameras.

	🧭 🏹	🚳 🛐 🎊		
Refresh Camera ID 💌	Camera Re	ecord Configuration 🔪 Sc	hedule \ Motio	on \PTZ \PTZ Preset \I
🏠 Camera Tree 🗖	New Delete	e Delete All Web Confia	urator Copy Se	ettina Apply
🖃 🛶 MediaSource	Camera 1 : E	ntrance 1		
🗆 🚮 ALL CAMERA	Media Source	Information		
 I. Entrance 1 	Media Source			
 ④ ④ 2. Entrance 2 	Basic Setting.		Detail Description Se	tting.
 Image: Second second				
 Image: The second second	Camera ID:	1	ACM8211	
(1) 🧔 5. Basketball Court	Protocol:	ТСР	A1D-220-V3.11.13	3-AC
(j) 🌮 6. Basketball Court	Camera IP:	10.1.1.40	Camera Name:	Entrance 1
 4 4 5 6 7. Canteen 1 	Http Port:	80	Camera Model:	Megapixel IP PTZ Camera
 40 8. Canteen 2 	User Name:	Admin	Production ID:	ACM8210 Series
 ④ Ø. Canteen 3 	Password		Connection	
🕕 😲 10. Car Park 1	Connection		Timeout:	5
🕕 😅 11. Car Park 2	Type:	Get Video from Current NVR	OSD Position:	Upper right 🗨
 ①			Camera Groups:	
①			No Group	Entrance 🗌 Basketball Court

Defining User Roles

1. Please go to Active Setup \rightarrow System Setup \rightarrow User Roles

🎽 🤇 👁	퇃 🎇 🔨	🍕 🔊 🕺	Š			admin as Administra 2011年1月19日上午 05:03
era Groups User Ro	les Users Storage	Management \Joy	stick View Layouts \\	/iew Tours Langua	ge Service License	System
v Apply						
ser Roles						
ole Name: *			Role Description:			
			1			
ermissions Settings						(
C Setup	E Setup System	Setup Camera	🕅 Setup Map			
Monitor	View Tours	Take Snapsho	t FTZ Operation	Event Panel	Manual Record	System Monitor
Playback	Export	Take Snapsho	t			
eMap Viewer						
Role Name	Role Desc	ription	Permissions Setting	3		
Role Name Administrator	Role Desc	ription or Group	Permissions Setting Setup Setup System, Setup Monitor View Tours, Take Sna	o Camera, Setup Maj apshot, PTZ Operatio	o n, Event Panel, Manua	Record, System Monitor
			Export, Take Snapsh eMap Viewer	ot		
Guest	Guest Grou	р	Monitor			
StandardUser	Standard Us	ser Group	Monitor View Tours, Take Sna Playback eMap Viewer	apshot, PTZ Operatio	n	
Supervisor	Supervisor C	Group	Setup Setup System, Setup Monitor View Tours, Take Sna Playback Evoort Take Snapph	Camera apshot, PTZ Operatic	in	



- 2. There are four pre-defined roles. There may be more than one user in a given user role. Administrator is the role that controls the whole system. Setups are only allowed for the administrator. Standard User can operate the view and see the playbacks. Supervisor can do what Standard User can do, plus export evidence and take snapshots. Guest users can only see the live view.
- 3. If you have other combinations of allowed functions in mind, then you may create a new User Role by typing the Role Name, Role Description and selecting the intended functions in the list below. You need to first check the boxes to the left to enable the module, then select the detail operations allowed for this role. Then click Apply to add this role to the User Role list.

Defining Users

You may add users to NVR system by going to Active Setup \rightarrow System Setup \rightarrow Users You may configure the User Account, User name, password, email Address, User Role and Descriptions here. The camera groups available to this user are also selected here.

	. 🌮 🚿	Adm 2010年5月
Camera Groups User Roles Users Storage Manage	ement \Joystick \View Layouts \View Tours \Lan	guage \Service \License \System
New Delete Apply		
User Information		
User Account* [1-31] Characters Holmes	User Name:* [1-31] Characters Tony Stark	Password:* [1-63] Characters
Email Address:* robin@aschool.com	User Role:* StandardUser	Description:
Default Layout.*		
*Please configure the camera group permission before s Camera Group Permissions:	etting Default Layout.	
M No Group	✓ Entrance	Basketball Court
User List		
User Account	User Name	User Role
Admin	Admin	Administrator
Holmes	Tony Stark	StandardUser
Guard1	Guard1	Guard
Batman	Dark Knight	Supervisor

View Live Video

Now that you've added your devices to NVR, you should go to Active monitor to test the connection.

Display selected Camera

- 1. Start Active Monitor and login.
- 2. The interface is shown as below. To the top left is the camera tree. Above the video display windows are the layout selection tab.



- 3. There are two ways to see live view from your camera. You may click and drag the appropriate camera from the camera tree to the view window, or select the view window then double click on the camera you wish to add.
- 4. You may arrange the channels by clicking and dragging them to different view windows.



Recording and snapshots

There are three ways to record video. Before recording video, please go to System Setup \rightarrow Storage to configure your disks.

ew By Ci	amera S	Special D	ay Cop	/ Camera	Setting	Delete	e Ap	ply																
amera	1 : AC	Ti Ca	mera 1																					
Schedu	ıle																							
Sch	edule						C Ev	vent with S	treaming	9									C Delet	te				
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	2
un																								T
n																								
on e																								
on e ed																								
on e ed u																								
on Ie ed U																								

To record by schedule, you should go to Camera Setup \rightarrow Schedule

For continuous recording, first click on radio "Schedule" then click and drag over the scheduler to setup. For Event only recording (Triggered by motion detection / Digital inputs/ PIR), click on "Event with Streaming" and setup the time segments. Each segment represents 20 minutes. Time segments left blank will not be recorded.

If you wish to record a give channel while viewing live video, first select the channel to record by clicking on the view window. Then just click on the record icon to start manual recording. By default, manual recording will continue automatically for 5 minutes then stop.



To take snapshots, you should click the snapshot button instead.





View recorded video

To view recorded video, you may either use the Active Player, or the Utility program "Archive Player". Use Active player when you wish to search for some specific event but do not know the exact original recording file. Use archive player when you have already located the file and wish to perform further processing.

Export Video as Evidence

To export video as evidence, you should first locate the file via Active Player.

If the format you need is AVI or RAW, you may export directly from Active Player. If you need JPEG files, you may also use Media Converter to convert part of the video into JPG images.



NVR Operation Explained

Camera Setup

Camera

Cameras are the fundamental building blocks of surveillance systems. This section describes how to:

- 1. Add or delete camera/ video server to NVR system
- 2. Sort through the various methods of connection to your camera/ video server.
- 3. Fine tune device through the Advanced Setting tab.
- 4. Configure camera groups, frame rates and other settings.
- 5. Save setup time by copying settings across cameras.

Each camera is configured separately. You should first select a camera to access its settings.

Add New Camera

There are two ways to add devices into the system, auto or manual. Use auto search if your cameras are located in the same subnet as your NVR server. If your cameras / video servers are located outside of local subnet or if you are unable to find it via auto search, then please use connect to it by Manual Add. You need to know the IP address of the device to add it manually.

If you are just starting to use NVR and have no camera in your system, you will see the Add New Camera screen automatically when you use active setup. If you already have devices in your NVR system, then click "New" under the Camera tab to add new camera.



Fig. 12 Camera Setup - Add New Camera



Auto Scan

Select 'Auto' and click 'Next Step' to start auto scan. NVR will take a short while to look for devices on your network. Only devices on the same subnet can be found. A list of available cameras and video servers will be displayed once the search is complete.

4	Camera Add Ne	a ew Camera ² Canc	el (•								
8	ID	Hostname	©LAN IP Address	⊙WAN IP Address	Channel No	MAC Address	Product ID	Camera ID				
	1	Camera	C 192.168.0.201)	0	00:0F:7C:00:2F:42	SED3200 Video Decoder					
	2	Camera	C 192.168.0.200	€ 10.0.0.1	0	00:0F:7C:00:7F:EE	SED3320 Video Decoder					
	3	Camera		• 10.1.1.101		00:0F:7C:03:74:94	ACD2100 1-CH Video Server	16 💌				
	4	Camera		€ 10.1.1.102	1	00:0F:7C:03:79:57	ACD2200 4-CH Video Server					



- Add New Camera: After you've selected all the devices you wish to add to NVR and which channel ID should they be assigned to, click here to add the selected devices into NVR database.
- 2. **Cancel:** Click this button to abort adding devices and return to the Add New Camera screen.
- 3. List of Cameras/Video servers: Here is a list of devices found over the network. You may click on the row of the device you wish to add, and User can see the list of all the IP cameras / video servers found. You may click the column heading to sort by each column.
- 4. LAN/WAN IP Address: Most devices have a single IP address. Some devices provide two IP addresses identified as LAN or WAN. Please click on the radio button to select the IP address you want to connect to. In most cases this would be the WAN address.
- 5. **Camera ID:** When you select the row of the device you wish to add, a drop-down list will appear to the right in the Camera ID section. Select an unused camera ID to refer to this device in NVR.

The column "Channel No" is used for multiple channel Video Servers. One video server may connect to many analog cameras, and they are identified by the Channel No. You may add each Channel No. as a separate Channel in NVR.


Manual

Select 'Manual' and click 'Next Step' in the Add New Camera screen to proceed.

Add N	ew Camera
ি Manual	
⊂ Auto	Manual Al settings go with an individual camera. User has to select a camera and start this settings.
	Next Step

Fig. 14 Camera Setup - Manual

Please fill up the "Connection Setting" of the camera. Then Click "Get Device Setting" to read the other settings from your device.

Media Source Inf	formation		ŝ
Connection Setting		Production Setting Frame Rate Setting	
Camera ID: Protocol: Camera IP: Http Port: User Name: Password: Connection Type: NVR IP: NVR User Name: NVR Password: NVR Password: NVR Streaming Port: NVR Control Port: ©Reset [7] Get D	1 TCP 10.1.1.25 80 Admin Get Video from NVR 172.16.2.88 Admin 6002 6001 Device Setting	 Use FPS Setting Frame Mode: Camera Name: Camera Model: Camera Model: Constant Live View: 30 Production ID: Connection Connection Scheduled Record: Camera Groups: No Group Entrance Basketball Court Canteen Car Park Sidewalk Corridor Premises 	
Advanced Setting	g		

Fig. 15 Camera Setup – Manual - Connection Settings

- Web Configurator: Click this button to open web configurator of the camera/video server. Some detailed settings are only through the web configurator and not through NVR.
- 2. Apply: After finishing all the setting, click this button to add camera/video server to NVR



- 3. Cancel: Click this button to cancel adding camera/video server
- 4. Camera ID: Select the new camera ID to assign to the camera.
- 5. **Protocol:** Select a streaming protocol to connect the camera with. You may choose between TCP, RTP or HTTP.
- 6. Camera IP: Enter the camera's IP address or host name
- 7. **Http Port:** Enter the HTTP port for IP cameras/ video servers. Most cameras use the default port number of 80.
- 8. User Name: Enter the user name to login the camera.
- 9. Password: Enter the password to login the camera.
- 10. **Connection Type:** This is the method of connection between NVR and the camera / video server.
 - Get Video from Device: The video stream will be sent directly from the camera / video server. If you use this method, each user will establish a separate connection to the device. Please be careful not to overload the camera with too many viewers at the same time.
 - II. Get Video from NVR: When you use this method, options 11~15 will show up. This allows you to get video stream by logging to another NVR system. Then user has to fill up all these fields to access the assigned NVR. Please make sure you have the proper access rights on the target NVR. You should also verify the port settings and the firewall forwarding configurations on all the routers between your current NVR PC and the target NVR PC.
 - III. Get Video from Current NVR: The video stream will be sent from the current NVR you are logged in. This is the recommended method unless your installation requires many NVR servers.
- 11. NVR IP: Enter NVR server IP address.
- 12. NVR User Name: Enter the user name to login to the target NVR Server
- 13. **NVR Password:** Enter the password to login to the target NVR Server
- 14. NVR Streaming Port: Enter the streaming port for the target NVR Server
- 15. NVR Control Port: Enter the control port for the target NVR Server
- 16. Reset: Reset all the fields to default value
- 17. Get Device Setting: Get Setting information from device

After you have filled in the Connection Setting and completed getting device settings, your screen will be similar to the figure below. You can click to open/close Media Source Information section and the Advanced Setting section.



nera 2 : ACTi			
dia Source Information			
		Production Setting	Frame Rate Setting.
imera ID: otocol: imera IP: ip Port: er Name: ssword: innection Type: /R User Account:	2 TCP 172.16.26.12 1012 Admin Get Video from NVR 169.254.100.12 Admin	ACM8511 A1D-220-V3.13.16-AC Camera Name: Camera-1 Camera Model: IP PTZ Camera Production ID: ACM8510 Series Connection Timeout 5 OSD Position: Upper left Camera Groups: V No Group	Use FPS Setting Frame Mode: Constant Live View: 5 • Remote Live View: 5 • Scheduled Record: 5 • Event Record: 5 •
/R Password: /R Streaming Port: /R Control Port: eset Get Device Settin	6002 6001		
IR Password: IR Streaming Port: IR Control Port: eset Get Device Setting vanced Setting teo Quality. Video Adju teo Encoder IMPEG4 ream Mode SINGLE	6002 6001 tmert(Attributes). Conner	ction Port: Live View	8
IR Password: IR Streaming Port: IR Control Port: eset Get Device Setting ranced Setting Ieo Quality. Video Adju Ieo Encoder IMPEG4 ream Mode SiNGLE vaneed Video NTSC arme Mode Constant vS S solution N460x480 trate Mode Constant vitae Mode Constant vitae Mode Constant vitae Mode Constant vitae Mode Constant	tmert(Attributes).	tion Port. Live View 2:Camera-1 2011-08-12	1555557 Image: State Stat



Click the "Apply" button to add device to NVR system.

Adding Video Streams from a Multi-channel Device

There are devices that output more than one video streams to NVR server. For example, a video encoder converts a number of analog video signals into the same amount of IP video streams; certain high megapixel cameras such as ACTi KCM-5111, supports outputting multiple VGA streams cropped from a single high resolution video source. These multiple streams come from a single device are managed as different cameras by NVR server.

Video Encoder

Adding a stream from one video server is the same as adding a single camera.

1. If you use auto scan to add a new stream, assign a Camera ID to it and click "Add New Camera".

Camera							
Add New Camera	ancel						
ID	Hostname	LAN IP Address	WAN IP Address	Channel No	MAC Address	Product ID	Came
1	ACTi	© 192.168.0.100	10.0.0.1	1	00:0F:7C:01:18:CF	CAM5321 IP Camera	
2	ACTi		172.16.26.8	1	00:0F:7C:05:19:AD	ACM3701 Megapixel IP Dome	
3	ACTi		IT2.16.26.9	1	00:0F:7C:02:98:5D	ACD2000 4-CH IP Quad Video Server	
4	ACTi		172.16.26.9	1	00:0F:7C:04:87:A7	TCD2100 1-CH Video Server	
5			◎ 172.16.26.10		00:0F:7C:03:D2:33	ACD2300 8-CH Video Server	
6	ACTi		172.16.26.10	2	00:0F:7C:03:D2:33	ACD2300 8-CH Video Server	10 11
7	ACTi		172.16.26.10	3	00:0F:7C:03:D2:33	ACD2300 8-CH Video Server	13
						ACD2300	46

 If you add a new stream manually, input the connection settings and click "Get Device Setting". After the page refreshes, input the channel number of the stream, and then click "Apply".

Camera			
Web Configurator Apply Cancel			
Camera : 10			
Media Source Information			۲
Connection Setting	P	oduction Setting Frame Rate Setting.	
Camera ID: 10	•	Use FPS Setting	
Protocol: TC	P • 0	amera Name: Frame Mode:	
Camera IP: 172	2.16.26.94	amera Model: 1-CH Video Server -	
Http Port: 00	F	roduction ID: Live View: 30	
User Name: Add	min	onnection Timeout 5 Remote Live View. 30	
Password:		SD Position: Upper left Scheduled Record: 30	
Connection Type: Ge	t Video from Current NVR 🔹	amera Groups: Event Record: 30	
		No Group	
Parat Gat Davice Satting			
Reset Serve Setting			
Advanced Setting			8,
*Please get device setting first and make sure you see the live view of camera I	before changing the camera	configuration.	
*Get Video from current NVR will use login IP as NVR IP.			
If your NVR IP has been changed, please do not forget to get device setting an	nd apply again.		
Camera			
Web Configurator Apply Cancel			
Camera : 10			
Media Source Information			
Connection Setting		Production Setting	Frame Rate Setting.
Camera ID:	10	✓ ACD2400	Use FPS Setting
Protocol:	TCP	 A1D-220-V3.13.16-AC 	Frame Mode:
Camera IP:	172.16.26.94	Camera Name: ACT	Constant
Http Port:	80		live View
Channel No:	1	Califera moder. Tokon video server	Romoto Livo View: 20 -
Lieschome:	1 denie	Production ID: ACU2400 Series	Coho data d Davard
User Name.	Aunin	Connection Timeout: 5	Scheduled Record: 30 -
Password	•••••	OSD Position: Upper left -	Event Record: 30 👻
Connection Type:	Get Video from Current M	VR Camera Groups:	
		V No Group	
Reset Get Device Setting			
index outperfections			

Cameras with multiple VGA streams

When you first add a camera supporting multi- VGA stream mode, the mode is not recognized by NVR until NVR gets the device settings. Before getting these streams, you should enable the multi-streaming mode on the device, then add the channels the way you add a new camera in NVR. Below is an example of adding six channels of VGA streams output from an ACTi KCM-3911 hemispheric camera:

- 1. On camera's firmware page, set the Stream Mode as "6 Streams" and configure the VGA streams.
- 2. In NVR Camera Setup, add this camera and click "Get Device Setting". The Stream Mode is detected and displayed as "6VGA", then click "Apply".

Camera Record Configuratio	n \Schedule \Motion \PTZ \PTZ F
New Delete Delete All Wel	b Configurator Copy Setting Apply
Camera 6 : ACTi KCM-3	3911
media Source information	n
Advanced Setting	
Video Quality.	Video Adjustment(Attributes).
Video Encoder	H264
Stream Mode	6VGA 👻
Analog Video	NTSC
FPS	6 🗸

Fig. 17 Camera Setup – Get Stream Mode setting

 The setting page will refresh, please type the VGA stream ID in "Channel No." column (The ID number should correspond to your settings in camera firmware) and click "Apply".

Camera Record Configuration Schedule Motion PTZ PTZ Preset Preset	Tour Event Manager
New Delete Delete All Web Configurator Copy Setting Apply	
Camera 8 : Camera-1	
Media Source Information	
Connection Setting	
Camera ID:	8
Protocol:	ТСР 🔻
Camera IP:	172.16.26.97
Http Port:	80
Channel No:	2
User Name:	Admin

Fig. 18 Camera Setup – Input Channel Number for VGA Stream

4. To continue adding another VGA stream, click "copy settings" to copy all the settings of this camera to a New Device, and modify the Channel No.



Production Setting

Production Setting	
TCM4201 A1D-310-V4.07.	10-AC
Camera Name:	Entrance 3
2 Camera Model:	Megapixel IP Cube Camera
3 Production ID:	TCM4200 Series 🗸
Connection Timeout:	5
OSD Position:	Upper left 🔹 👻
6 Camera Groups	E
🗌 No Group	🗹 Entrance 🛛 🗖 Basketball Court
Canteen	🗆 Car Park 🛛 🗖 Sidewalk
Corridor	Premises

Fig. 19 Camera Setup - Production Setting Tab

- 1. **Camera Name:** Enter the name of the camera. This name should be descriptive so that you know where the camera is located.
- Camera Model: Select the device type of the IP cameras / video servers. If the setting here does not the device, you may not be able to use the full function properly. In most cases this is automatically filled in when you perform Get Device Setting and you don't need to worry about it.
- 3. **Production ID:** This is a more detailed parameter on what product series does the camera belong to. In most cases you will not need to edit it.
- 4. Connection Timeout: Enter the amount of time without response for NVR to consider the device to be disconnected (in seconds). We recommend you to set different values for different types of connection. The default setting is 5 seconds. For devices located over the internet, you may wish to increase this value to allow for occasional internet lags.
- 5. **OSD Position:** for devices with OSD (On Screen Display), this determines where to show them. In most cases you do not need to edit this value.
- Camera Groups: Select the camera groups for this device to belong to. One camera may belong to many camera groups at the same time.



Frame Rate Setting – Dual Stream enabled

By using different streams for recording and live view, you may use different values so that the live view stream is smaller in size with lesser frame rate to save decoding CPU power and bandwidth. Meanwhile the recording stream can be larger and have more FPS so that if you have clear images when you need to retrieve evidence. For devices with dual stream functionality, use the following steps to access settings in both streams.

- 1. Add camera into NVR
- 2. Go to Web Configurator via NVR UI or by directly typing in the ip address.
- 3. Go to setup \rightarrow Video & Audio \rightarrow Video \rightarrow compression \rightarrow Stream 2 enabled (Check)
- 4. In NVR Camera Setup, get device setting.
- 5. Configurations for both streams will appear in advanced section. Edit and apply to camera from here.
- 6. You may now select which stream to do live / record with.



Frame Rate Setting – Single Stream with constant frame rate

For Dual stream devices with only stream one enabled, the frame rate will be selected in the video quality section in Advanced setting, after Get Device Setting.

Video Adjustment(Attributes).
H264
SINGLE
13 👻
N1280x720 -
1.2Mbps 👻

Fig. 20 Camera Setup – Frame Rate Setting – Stream 1 only

Frame Rate Setting – Single Stream with constant and variable frame rate

For devices without dual streaming and variable frame rate option, you may check the "Use



FPS setting" button to enable alternative frame reading from NVR side.

Frame Rate Settin	g.
☑ Use FPS Se Frame Mode:	etting
Constant	
Live View:	8 🔻
Remote Live View:	8 🔻
Scheduled Record:	8 🔻
Event Record:	8 🔻

Fig. 21 Camera Setup - Frame Rate Setting

IMPORTANT: It is highly recommended that users use Get Device Setting before making configuration changes, and use "Apply" after the changes are made. This way the status of IP Camera can be synchronized to the NVR Server.

Advanced Setting

edia Source in	formation				
Ivanced Setting	g				
'ideo Quality.	Video Adjustment(Attributes).	Connection Por	Live View		
lideo Encoder	H264	1	3:E	Entrance 3 2010-04-30 16:42:44 (GMT+08:00)	
itream Mode	SINGLE	1			
nalog Video	NTSC	j l			
PS	15				
Resolution	N1920x1080			ALL DE CONTRACTOR	
litrate Mode	Variable				
ideo Quality	High				
ntrate Mode fideo Quality	Variable 👱				

Fig. 22 Camera Setup – Advanced Setting - Video Quality

There are several tabs available under advanced setting. Please always use "Get Device Setting" before reviewing this section so that the information represented is up to date. Some settings may not be edited through NVR and will need to be changed through the web configurator.



Video quality tab:

- 1. Video Encoder: Show the codec of camera/video server
- 2. Stream Mode: Show whether the streaming mode is single or dual.
- 3. **FPS:** User can see the FPS (Frames Per Second) on this IP camera here. To modify it, select the new one and click the Apply button.
- 4. **Resolution:** User can see the Resolution on this IP camera here. To modify it, enter desired resolution and click the Apply button.
- 5. Bitrate Mode: Select Bitrate Mode of camera/video server
- 6. Video Quality: Select the expected video quality of camera/video server



Fig. 23 Camera Setup – Advanced Setting – Video Adjustment

Video Adjustment tab:

- 1. **Brightness:** Adjust the brightness value either by clicking on the bar or selecting from the drop down list.
- 2. **Saturation:** Adjust the Saturation value either by clicking on the bar or selecting from the drop down list.
- 3. **Contrast:** Adjust the Contrast value either by clicking on the bar or selecting from the drop down list.

NOTE: Some devices do not allow setting for some of these values.



Habb Graamy+	Video Adjustment(Attributes).	Connection Port.	Live View
Register Port	6000		3:Entrance 3 2010-04-30 16:44:26 (GMT+08:00)
Control Port	6001		
Streaming Por	t 6002		
induiteast Poir	5000		
			Live View Close
			Live View Close Show Basic Setting

Fig. 24 Camera Setup – Advanced Setting – Connection Port

Connection Port tab:

Settings in this section are read-only. To modify them, please use the web configurator to access camera firmware directly over Internet Explorer.

- 1. Register Port: User can see the current register port on this IP camera here.
- 2. Control Port: User can see the current control port on this IP camera here.
- 3. Streaming Port: User can see the current Streaming port on this IP camera here.
- 4. **Multicast Port:** User can see the current multicast port on this IP camera here.

Delete Camera

This section describes how to delete a camera. There are several options when deleting a camera/video server. You may select a single camera first and click the 'Delete' button to decide what settings to delete. If user wants to delete all cameras and video servers, click the 'Delete All' button.



Fig. 25 Camera Setup - Delete Camera

- 1. Delete a single Camera/video server: Click this button to remove this device from NVR.
- 2. Delete All: Click this button to delete all of the cameras and video servers in the camera list

NOTE: Please be very careful when you select this option. This delete is irreversible. We recommend you to backup your data with backup wizard before using the Delete All option. Even if you have kept a backup with the backup wizard, it will only save your camera settings, and will not retain your video recordings if they are also deleted.

After you clicked the 'Delete' button, you will see three options with different settings to delete. Please select one method to delete.



mAfter user click 'Delete All' button, the three options will also show up. Please select one method to delete. Deleting cameras will also remove them from Layouts and View Tours, but will not remove the maps or the camera groups they are involved in.





Copy Settings

When setting a large number of devices, many settings will be the same across cameras, and it is sometimes tiresome to repeat everything again and again. You can use the Copy Setting function to save the hassle of needless repetition.

a	Can	nera	Reco	on Schedule Motion PTZ PTZ Preset Preset Tour Event Manager	
ų	Ap	ply	Cancel		
1	C	Сору	Setting		۲
		Camer	ra Data Source 2.ACTi	camera 2 Camera Data Target 1: ACTI Camera 1 - 3	
1					
		🗆 lt	em List		۲
4	•	•	Connection Setting	Protocol, Camera IP, OSD Position, Channel No, User Name, Password, Connection Type, NVR IP, NVR User Account, NVR Password, NVR Streaming Port, NVR Control Port, Connection Timeout, Http Port, Register Port, Control Port, Streaming Port, RTSP Port, Multicast Port, URI Path	
			Production Setting	Camera Model, Production ID, Dual Stream Settings, Video Encoder, Stream Mode, Analog Video, Frame Mode, FPS, Resolution, Bitrate Mode, Maximum Bitrate, Bit Rate, Video Quality	
- 1			Frame Rate Setting	Use FPS Setting, Live View, Remote Live View, Schedule Record, Event Record	
- 1			Video Adjustment	Brightness, Saturation, Contrast	
			Group Setting	Camera Groups	

Fig. 26 Camera Setup - Copy Setting

- 1. Apply: Click this button after you have selected the types of info to copy.
- 2. Cancel: Click this button to cancel copy settings
- 3. **Camera Data Target:** Select one camera/video server to copy data to. If you select Add New Device, a new device will appear with the same settings as your current camera. You may wish to modify the settings from there.

Camera Data Target 2 : Entrance 2 2 : Entrance 2	<u> </u>	🗌 Item List
3 : Entrance 3 4 : Entrance 4 5 : Basketball Court 1 6 : Basketball Court 2		Connection Setting
ne, OSD Position, Cha 7 : Canteen 1 ssword, NVR Streamin 8 : Canteen 2 treaming Port, RTSP P 9 : Canteen 3	ass' rt, C Path	Production Setting
al Stream Settings 10: Car Park 2 11: Car Park 2 12: Sidewalk 1 13: Sidewalk 2	ite N	Frame Rate Setting
ive View, Schedule Re 14: Corridor 1 15: Corridor 2 16: Corridor 3		Group Setting

4. **Items:** Check the settings that you want to copy. Some detailed settings require you to first select Camera model to be able to include them in copy settings.



Record Configuration

This section describes how to configure video recording for each camera.

ا کې کې 🏹 🌭 🕺	<u>*</u>		admin as Admin Friday, August 12, 2011 3:48	histrator 6:49 PM
Camera Record Configuration	Schedule Motion PTZ PTZ Preset Preset Tour Event Manager			
Apply				
Camera 5 : ACTi				
Record To				۲
2 Recording Path:	Recordings\Channel5 (<\$DRIVE_ID>\Recordings\Channel5\Channel<\$CAMERA_ID>\)	3 File Type:*	.raw	
		A Snapshot File Type:*	.jpg 💌	
Flush File Frequency:				۲
5 Frequency of flush record file:*	10min 💌			
Event Recording Buffer and	Duration:			۲
Pre-event recording buffer:*				
Post-event recording buffer:*	30sec (Time interval of event trigger will also follow with the setting.)			

Fig. 27 Camera Setup - Record Configuration

- 1. **Apply:** Click this button to save the settings after you've done configuration.
- Recording path: This is the path where all recordings for this channel are stored. This is read-only and cannot be edited. This can only be modified in Setup System → Storage management.
- 3. File Type: This shows the file type for recordings. Currently only .RAW format is allowed.
- 4. **Snapshot File Type:** Please select the file type for snapshots. You may choose between .JPG file and .BMP file.
- Frequency of flush record file: This is the length of each video recording segment. Shorter segments create more files, and may overload Microsoft SQL server in extreme cases. Please set this to at least 10 minutes unless there is special requirement. Recommended value is 30 minutes per video segment.
- 6. Pre-event recording buffer: NVR keeps a short cache of video received from devices. If an event is triggered, NVR will automatically store the pre-event buffer along with the recording of the event itself. E.g. Digital input is triggered when the gate is forced open. A recording of the five seconds before the door is forced will be added to the video record.
- 7. **Post-event recording buffer:** This determines how long after the event is triggered should be included in the event recording file.

NOTE: You should only use recording by event scheduling if activity is NOT frequent and spaced far apart enough for significant storage space savings. If you expect to encounter frequent short triggers, you should use scheduled recording to keep track of the whole time period. An example would be the entry of a retail shop during business hours.



Schedule

This section describes how to configure the recording schedule for the IP camera / video server. There are two ways to setup recording schedule:

- 1. Weekly Schedule: This marks the weekday and time to record and will be repeated every week.
- 2. Special day: This marks special record schedules for individual days. On such days the Special day schedule will override the Weekly Schedule.

When you select the Schedule Section, you will see the weekly schedule view. The schedule is broken down in 20 minute segments.



Fig. 28 Camera Setup - Schedule – Weekly View

To change the assigned record method for each time segment, click the radio button, then click and drag across the schedule to change the color.

- 1. View By Camera: Click this button to configure recording schedule of this camera
- 2. **Delete:** Click this button to remove all weekly schedules of this camera. Please note that you still need to click "Apply" to confirm editing. Special day schedules are not affected.
- 3. **Apply:** Click this button to save the settings.
- 4. Schedule: The camera will record continuously during your designated period.
- 5. **Event with Streaming:** NVR will keep receiving video from cameras, but will not record unless events are triggered. This method saves the storage space and keeps only the relevant video.
- 6. **Delete:** The camera will not perform any recording during the selected time period.

After configuring the recording schedule, if you need to copy the schedule to other cameras, you can click 'Copy Camera Setting' button to replicate the schedule across many devices.



	amera	Spec	ial Day	/ Cop	y Came	ra Se	tting	Ap	ply	۷.																													
amera	2 : A	CTi	cam	era 2						_																													
Car	mera																																						
🗆 1 : A	ACTI C	amera	1			3 : A	СТі					Γ	4:	ACT	i					Г	5 : A	СТІ						5 : A	СТі										
🗆 7 : A	ACTi					9 : A	CTi																																
Schedu	ule																																						
C Sch	edule									C Ev	ent	vith \$	Stre	amin	g															•	elete								
	(1	2	3		4	5		6		7		8		9	1	10	11		12	1	13	14	1	15	16		17		18	19	9	20		21		22	
Sun									\square																								Ш			4	4	4	4
Mon							++	\square	++		+		+		+		$\left \right $				++		+		$\left \right $					+					-	#	-	+	⊢
Ned							+		+		+		+		+		+	+					+		+		-									H	╋	+	┢
Thu									Ŧ			H					H								H											Ħ	Ŧ		┢
		Ħ							Ħ			T													Ħ											Ħ		+	F
Fri																											 												



- 1. **Copy Camera Setting:** Click this button to copy setting from this device to others. Please note that if you selected Copy Camera setting during Weekly Schedule, only the weekly schedule will be copied. The special day settings of the target cameras will not be changed.
- 2. **Apply**: Once you completed the choices, click apply to save settings to target cameras.
- 3. **Camera:** Check the Cameras to copy schedule to. You may also click the checkbox in front of Camera to select all devices.
- 4. **Schedule:** You may adjust your schedule before copying to devices.

Note: After you modify the recording schedule and click 'Apply', it would only save to the assigned cameras but not to the original camera.



Special Day

Sometimes you need to override the weekly schedule during special days. This is where you should go for such settings.



Fig. 30 Camera Setup - Schedule - Special Day

To change the assigned record method for each time segment, click the radio button, then click and drag across the schedule to change the color.

- 1. **Special Day:** Click this button to establish schedule for special days. This schedule will override weekly schedule settings.
- 2. **Delete:** Click this button to remove all special schedules of this camera. Please note that you still need to click "Apply" to confirm editing. Weekly schedules are not affected.
- 3. **Apply:** Click this button to save the settings.
- 4. Schedule Calendar: Select the day to edit with the calendar here.
- 5. Schedule: The camera will record continuously during your designated period.
- 6. Event with Streaming: NVR will keep receiving video from cameras, but will not record unless events are triggered. This method saves the storage space and keeps only the relevant video.
- 7. Delete: The camera will not perform any recording during the selected time period.
- 8. Schedule table on Special Day: After you've selected the day to edit, this is where you edit schedule for that day.
- 9. Special Day List: A list of all special day schedules are shown here.

You may perform Copy camera setting in the same way as the weekly schedule. Only the special day schedules will be copied if you select copy camera setting here. Please see the sample screenshot below.



Motion

This section describes how to setup motion detection for this camera with NVR. Before configuring motion detection, first make sure you can connect properly to the IP camera / video server and get device settings. This section covers both video motion detection and PIR (Passive Infrared) motion sensors. PIR is available only for some models.

Camera 5 : ACTi			
Motion Setting	Enable Me	tion	
5:ACTi 2011-08-12 13:27:31	C Mot	on 1 Event	1
	Sensitivi 70 Name MD1	F Timer (sec)*	Threshold (%)*
	T Mot	on 2 Event	

Fig. 31 Camera Setup - Motion - Get motion setting

- Get Motion Setting: Click this button to connect to retrieve motion detection setting from the device and see live view. The parameters of each motion region from the device will be displayed to the right. In this stage red motion region borders will show up if you have previously configured motion detection in NVR and applied it to both device and NVR. You can check if the current setting detects video motion satisfactorily. If you wish to modify the motion detection settings, click "Motion Setup".
- 2. **Motion Setup:** After you retrieved motion setting from device, click this button to start setting up motion detection or PIR motion sensor. The previously grayed out check boxes for each region will be enabled now. In this stage you may configure the size and location of each individual region. Please see screenshot on the next page.



Camera Record Configuration Schedule Motion PTZ PTZ Pres Get Motion Setting Apply 2	et \Preset Tour \Event Manager							
Camera 5 : ACTi	3							
Motion Setting	I ■ Enable Motion	Enable Motion						
5:ACTi 2011-08-12 13:41:52	4 ☑ Motion 1 Event		۸					
3-4	Sensitivity*	Timer (sec)*	9 Threshold (%)*					
	Mame MD1	8 Description						
	Motion 2 Event		8					
	Sensitivity* 70	Timer (sec)*	Threshold (%)*					
Note: Please make sure current machines IP address is on the same	MD2	Description						
segment as the IP camera or video server.								
Click [Apply] button will reboot the camera, please wait for few minutes	Motion 3 Event		۲					
	Sensitivity* 70	Timer (sec)*	Threshold (%)*					
	Name MD3	Description						

Fig. 32 Camera Setup – Motion - Motion Setup

After you click the Motion Setup button, the 'Apply' button will show up and replace 'Motion Setup'. Then you can start to configure motion (and PIR) detection

1. Get Motion Setting: Click this button to connect to retrieve motion detection setting from the device and see live view. In Active-Monitor, while the motion detection is active, a red rectangle representing the motion region will appear during live view if there is motion activity.

Note: If the motion detection region was configured only in camera and not through NVR, the live view camera title bar will turn red, but the motion region rectangle will not show up in Active Monitor live view.

- 2. Apply button: Click this button to save the settings to camera and NVR.
- **3.** Enable Motion: This checkbox disables / enables all the motion functions. Before modifying the motion region settings, please check this checkbox first.
- 4. Enable / Disable Motion Event: Check this box to enable / disable individual motion detection area. By enabling this, you can see a rectangle appearing in the preview window, and start setup this individual motion detection region.
- Sensitivity: Enter the sensitivity level of this motion detection region. Higher sensitivity levels are more easily triggered, but may give more false alarms. Sensitivity may range from 1-100.
- 6. Name: Enter the name of this motion detection region. This is the name that will be shown in Event manager and the Active Monitor event panel when motion activity is detected.
- **7. Timer:** The interval before the next motion detection can be triggered again. The range of available value is 1-300 seconds.
- 8. Description: Enter more detailed description of this motion detection area. Both the



name and the description will be shown in the event manager.

- 9. Threshold (%): Enter the threshed level of this motion detection region. Lower threshold levels, which mean that smaller portion of the motion region would be considered as motions, are more easily triggered, but may give more false alarms. It may range from 1-100.
- **10.** Motion Region: Click and Drag to setup the location and size of the target motion region in view window.

After you've completed setup, please click "Apply" to save into to camera and NVR. This process may take a short while. If you have pressed "Get motion setting" and leave the page without applying, the system will provide a warning message to urge you to save all changes.

If you have changed the motion detection settings via the web configurator, please remember to come back to NVR and press Get device settings, then click apply to save to NVR. This is to ensure that the settings in NVR are always in sync with the device.

NOTE: For ACTi TCM/TCD model devices, motion detection is available when codec is either H.264 or MPEG4. MJPEG does not support motion detection.



PTZ

This section describes how to set the PTZ (Pan/Tilt/Zoom) parameters for this camera. IP PTZ cameras may be controlled directly. Or you may use a video server to either connect to an analog PTZ camera or an analog PTZ camera plus a PTZ platform. You need to complete setup in this section to enable PTZ Preset and Preset Tour sections. If the parameters here are incorrect, the device will not respond properly to your PTZ commands.

46.4						
Camera	a 1 : ACTi Camera	11				
🗵 Ena	able PTZ					
• Ven	idor: *	Protocol: *	C PTZ FI	e:(PTZ File has to	o be on local drive.)	
DynaCo	lor 💌	4 DynaColor -				
	10.4					
Address	SID: ^	Parity: *	G BaudRate:		Absolute Position	
1.						
PTZ Co	ommand					
PTZ Co	ommand Name	PTZ Command	#	Name	PTZ Command	
PTZ Co	Mame Wash	PTZ Command FF01000418001D	#	Name Vipe	PTZ Command A00000000A080800FFAF00	
PTZ Co # Ex. 1	Name Wash	PTZ Command FF01000418001D	6	Name Vipe	PTZ Command A0000000000080800FFAF00	
PTZ Co # Ex. 1 2	Mame Wash	PTZ Command FF01000418001D	6 7	Name Vipe	PTZ Command A00000000A080800FFAF00	
PTZ Co # Ex. 1 2 3	mmand Name Wash	PTZ Command FF01000418001D	6 7 8	Name Vipe	PTZ Command A000000000080800FFAF00	
PTZ Co # Ex. 1 2 3 4	Mand Name Wash	PTZ Command FF01000418001D	6 7 8 9	Name Vipe	PTZ Command A00000000A080800FFAF00	

Fig. 33 Camera Setup - PTZ setup

- 1. Apply button: Click this button after you finish setup to save the settings
- 2. Enable/Disable PTZ: Click this to enable or disable the PTZ function of this device.
- 3. **Vendor:** Select the vendor of the PTZ device/ speed dome you wish to control. You may select the device type directly if it is listed here.
- 4. **Protocol:** Select the protocol of the PTZ device/ speed dome.
- 5. PTZ File: If the protocol for your PTZ device is not within the previous list, you can import a new protocol file to control the PTZ device / speed dome. Commands in PTZ file will override the protocol previously selected. For details about the protocol file format, please contact our technical support. PTZ file setup is not available for Web Clients.
- 6. Address ID: Enter the address ID of the PTZ device / speed dome.
- 7. **Parity:** Enter the parity of the PTZ device / speed dome.
- User Command List: If your speed dome or PTZ device has a special function not supported in the standard protocol. Ex: Activate the wiper to clean the window of the PTZ. User can manually input the command to activate the wiper for later selection in PTZ controls.
- 9. **Baud Rate:** Enter the baud rate of the PTZ device/ speed dome. This option appears only for certain models.



10. Absolute Position: Check this box to enable PTZ by absolute positioning. This option

appears only for certain devices

Camera 3 : TCM-6630			
✓ Enable PTZ			
♥ Vendor.* TCM-6600 -	Protocol: * DynaColor -		
Address ID: *	Parity: * N81 •	BaudRate:* 19600 ▼	Absolute Position

NOTE: To use the PTZ functions of <u>ACTi KCM cameras</u> in NVR, you have to match the camera's PTZ Vendor and Protocol profile with NVR's. Default is Vendor: <u>ACTI</u> and Protocol: <u>ACTI</u>.

NOTE: To use the PTZ functions of <u>ACTi TCM-6630 speed dome camera</u> in NVR, please make sure you match the settings of Vendor, Baud rate and Protocol on camera control protocol switch (on bottom of the device), camera firmware and NVR.



PTZ Preset

This section describes how to setup PTZ preset points, auto scan and the OSD (On Screen Display) settings of the camera. Some devices may not support all functions listed here.

Live	View Close Opply	Scriedule	Motion VPIZ Preset	reset tour verent manager	
Ca	mera 6 : Basketball (Court 2			
In	nage Preview		۲	6 OSD Setting	۸
4 6 «	Basketball Court 2 201	10-04-29 16		OSD On Move Up Move Left Move R OSD Off Move Down	Enter Leave
			I	PTZ Operation	۲
		2		Move Up Zoom Move Left Move Right Zoom Move Down Zoom C	ln Dut
AMA .	A PT	4		Auto Scan Start Scan Stop Scan	۲
*Afte	r setting or deleting press	et point, ple	ase click "Apply" to save.	✔ Start Scan Stop Scan	(1): [PTZ] - Goto Pres
*Afte 8 #	r setting or deleting prese Preset	et point, ple	ase click "Apply" to save.	✔ Auto Scan	ی ار ا: [PTZ] - Goto Pres
*Afte 8 # 1	r setting or deleting press Preset	et point, ple	ase click "Apply" to save. Preset	✔ Auto Scan	ی 1): [PTZ] - Goto Pres
*Afte 8) # 1 2	r setting or deleting prese Preset site1	et point, ple	ase click "Apply" to save.	✔ Auto Scan	ی 1]: [PTZ] - Goto Pres
*Afte 8 # 1 2 3	r setting or deleting preser Preset site1	et point, ple # * 1; 9 * 1; 10 * 1; 11	ase click "Apply" to save.	Auto Scan Start Scan Stop Scan [*]: Set Preset[*]: Clear Preset[# Preset 17 25 18 26 19 27	
*Afte 8 # 1 2 3 4	r setting or deleting preset Preset site1 4 3 site2 4 3 site3 4 4 site4 4 4	et point, ple # * 1; 9 * 1; 10 * 1; 11 * 1; 12	Arrow Click "Apply" to save.	# Preset # Preset 17 25 18 19 27 20	(1): [PTZ] - Goto Pres
*Afte 8 # 1 2 3 4 5	r setting or deleting press Preset site1	et point, ple	Aase click "Apply" to save.	# Preset # Preset 17 25 18 26 19 27 20 28 21 29	I]: [PTZ] - Goto Pres
*Afte 8 # 1 2 3 4 5 6	r setting or deleting press Preset site1 4 3 site2 4 3 site3 4 3 site4 4 4 3 site5 4 3	et point, ple	Preset ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1;	# Preset # Preset 17 <	(1): [PTZ] - Goto Pres
*Afte 8 # 1 2 3 4 5 6 7	r setting or deleting prese site1 4 site2 4 site3 4 site4 4 site5 4 site3 4 site4 4 site5 4 site3 4 site4 4 site5 4 site3 4 site3 4 site4 4 site3 4 site3 4 site4 4 site3 4 site4 4 site3 4 site3 4 site4 4 site3 4 site3 4 site4 4 site3 4 site3 4 site3 4 site4 4 site3 4 s	et point, ple # 9 10 11 12 13 14 15	Preset ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1; ✓ × 1;	# Preset # Preset 17 <	11: [PTZ] - Goto Press 11 11 11 11 11 11 11 11 11



- 1. Live View: Click this button to see live view from camera
- 2. Close: Click this button to stop previewing current camera in live preview window
- 3. Apply: Click this button after you've completed setup to save the settings
- 4. **Image Preview:** You can see the camera preview here
- 5. **OSD setting Control Panel:** For devices that provide On Screen Display control (OSD), you may open control panel and configure the camera via OSD here.
- PTZ Operation Control Panel: You may control camera movement in this panel. Please note that if the device does not support zoom, then the zoom in / zoom out buttons will not show up.
- 7. **Auto Scan Panel:** You may setup Auto scan parameters in this panel. For some devices and PTZ protocol, you can only start or stop the auto scan. The camera will automatically scan between the left extreme and the right extreme position; for other cases, you may



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set the **Starting Point** and **Terminal Point** for the auto scan to repeat between. The Auto Scan panel for such devices will look like below.

Auto Scan	
Starting Point Terminal Point	Start Scan Stop Scan

Use the PTZ Operation buttons to move to desired Scan Start Point then click "Starting Point", and set the "Terminal Point's well, click "Apply" to save the settings.

8. **Preset Points Setup Panel:** Here you may perform setups and operations about PTZ preset points.

To setup a PTZ Preset point, move the camera to your desired view angle (including pan, tilt and zoom) via the PTZ control panel. After you're satisfied with the view, please enter a name for the Preset point and click this button to save the settings.

Click this button to delete this Preset point from both NVR and Device

J: Click this button to go to the preset point

NVR supports up to 32 Preset Points. Some devices may not support that many Preset Points.

NOTE: After you finish setting or deleting preset points, please click "Apply" to ensure the changes are properly saved.



Preset Tour

Preset Tour is a preconfigured PTZ sequence that directs the camera to cycle through multiple preset PTZ views, including where to look and how long to look at each location. You may configure the preset points to go to in the previous PTZ Preset section. Make sure you configure PTZ and PTZ Preset sections correctly before setting up Preset Tours.

Camera Record Configuration	Schedule Motion PTZ PTZ	Preset Tour Event Manager	
New Tour Delete Tour	Add Preset 4 Delete Preset 4 App	ly	
Camera 6 : Basketbal	Court 2		
Tour Information			۸
Tour ID: *	Tour Name: *	Description:	
6 1	Parking Lot	8 Parking Lot for staffs and students	
Tour List			•
🚺 Preset ID	Name	Dwell Time(second)	
1	site 1		
2	site2	15	
Toucha			
Tour List			۸
🐠 Tour ID	Tour Name	Description	
1	Parking Lot	Parking Lot for staffs and students	
2	наш way		

Fig. 35 Camera Setup - Preset Tour

- 1. **New Tour:** Click this button to create a new tour. Enter the Tour Name and Description, then click "apply" to add a new tour to the tour list.
- 2. Delete Tour: Click this button to delete the currently selected tour from the tour list.
- 3. Add Preset Point: Click this button to add preset point to the current tour. After you click this button, you will enter the subsection showing the available preset points.

Cam	iera \Record Conf	iguration \Schedule \Motion \PTZ \PTZ Preset Preset Tour \Event Manager \	
Add	d Return		
A	vailable Preset	List	
	Preset ID	Name	1
	I	site 1	1
	2	site2	
	□ 3	site3	
	□ 4	site4	
	□ 5	site5	

You may click the checkbox in front of each preset point to select it. When you've selected all



the presets points you wish to add, click "Add" to add them to the preset point list. Click Return to return to preset tour page without making any changes.

- 4. **Delete Preset Point:** Click this button to delete preset points of a tour.
- 5. Apply: Click this button to save all current settings. If you are editing an existing tour, you may change the tour name, description and preset setting. If you just clicked "New tour", then pressing apply will add the new tour to the tour list. Be sure to click Apply after you finished setup, before configuring something else.
- 6. **Tour ID:** Each preset tour has a unique preset tour ID stored in the system. The ID column is entered automatically by the system
- 7. **Tour Name:** Enter the name of this preset tour
- 8. Description: Enter the description of this preset tour
- 9. **Preset Points Sequence Control Panel:** You may rearrange the preset point sequence here. First click on the row of the preset point you wish to move, then click the buttons to move to top, move up, move down or move to bottom of list.
- 10. Preset ID list: All the preset points included in this tour are listed here. Click on the appropriate row to edit that preset point. You may setup how long will the PTZ camera stay at each point by selecting from the drop down Dwell time list. Default dwell time is 30 seconds. You may change the value here, but do not use dwell time smaller than 15 seconds unless absolutely necessary.
- 11. **Tour ID list:** All tours currently configured are listed here. You may select each tour to edit the details.

Event Manager

Event Manager describes how NVR responds to events from devices. You may configure the event types and the responses to these events. An example would be for NVR to record video when motion detection from camera is triggered, and send email to alert the supervisor.

Event List

Event list panel gives an overview on event setup for this device. The Event type column is the original trigger from the device. The Name is shown on the Event panel so that you may easily decide what exactly happened.

mera 1 : Entrance 1					
vent List					
Event Type	Name	Description	Action	Mail	
MD1	Door1				
MD2	MD2				
MD3	MD3				
DI1	DI1				
Video Loss	Video Loss				
Video Recovery	Video Recovery				
Network Loss	Network Loss				
Network Recovery	Network Recovery				
Action	*	5 🔽 Notification via E-N	lail		

Fig. 36 Camera Setup – Event Manager - Setup

- Delete: Click this button to delete all the settings on the event. Settings on other events are not influenced. (e.g. only settings for MD1 are removed, while settings on MD2 and DI 1 are kept)
- 2. Apply: Click this button to save settings to NVR and device
- 3. **Event type:** User can see the list of event type here and select the event user wants to trigger to modify it. The Action and Mail checkboxes indicate if there is any response currently configured for this type of event.
- 4. **Enable Action:** After selecting an event, first user has to enable the function by checking it and then select which action to take upon event.
- 5. Enable E-Mail Notification: If you wish to send email notification, you need to first enable

it by checking the checkbox.

6. **Copy Settings:** Once you completed setup for a camera which you'd like to apply to other cameras, click here. A dialog window will pop up as below. Select the target cameras to apply settings to. You may click on the dropdown list to select all cameras or a single device to copy to.

Copy Setting				
Data Source	Entrance1			
Camera	Select All	•		
		Apply	Cancel	



Note: When cameras have PIR, an additional event type PIR will show up. User can take it as one of the events and set actions for it.

Event List					۸
Event Type	Name	Description	Action	Mail	
MD1	MD1				
MD2	MD2				
MD3	MD3				
PIR	PIR				
Video Loss	Video Loss		Π		
Video Recovery	Video Recovery				
Network Loss	Network Loss				
Network Recovery	Network Recovery				

Fig. 38 Camera Setup – Event Manager - PIR



This section lets you select which action to take upon event.

Actions

* 🚺 🗹 Action Record (Please use scheduler to setup the period of time where Event Manager will take effect) 2 🗹 Snapshot 3 🗹 Trigger DO1 for 1 Seconds [1-*] 4 🗹 Trigger DO2 for 1 Seconds [1-*] 5 C Beep for 1 Seconds [1-*] 1 times [1-*] 6 C Play Audio File for 🖞 times [1-*] Audio File C:\WINDOWS\Media\ding.wav Only Supports .WAV File 7 💿 Don't Beep B C Hot-Spot Window Dwell Time 30 Seconds [1-*] 9 C Pop-up Window Dwell Time 30 Seconds [1-*] 🛈 💿 None 🚺 🗹 PTZ PTZ Setting 😰 Switch to Camera: 6-Hallway 🔽 Preset 1-site 1 for 10 Seconds [1-*] then switch to Preset 1-site 1 • 🚯 🗹 Upload snapshot to FTP (Please enable snapshot function first in the Action panel.) (Please configure FTP settings in Setup System / System page.) 🕑 🗹 Execute Command C:\Alert.exe Fig. 39 Event Manager Setup – Action Tab

- 1. Action: Check this box to enable the following responses. Existing settings are still kept if
- you disable action responses by clearing the checkbox. The settings will be grayed out as a result.
- 2. Snapshot: Click to enable / disable Snapshot when this event occurs
- 3. **Trigger DO1:** Click to enable / disable DO1 when this event occurs. You may also setup the duration for DO1 to be triggered.

- 4. **Trigger DO2:** Click to enable / disable DO2 when this event occurs. You may also setup the duration for DO2 to be triggered.
- 5. **Beep:** Click to setup NVR to beep upon event. User can also select how many times does it beep and the duration of each beep.
- Play Audio File: Click to setup NVR to play your desired audio file for a number of repetitions. User can enter the path of the audio file to be played. Please note that you may either beep or play audio file, but cannot do both at the same time.

NOTE: Play Audio File function only works on NVR Workstation, not on Web Client.

- 7. Don't beep: Click to disable beep function of NVR.
- 8. Activate Hot-Spot Window: Click to display video from the camera on Hot-Spot window upon event. (The upper left main preview window). You may also select the duration for the video to display on the Hot-spot window.
- 9. Activate Pop-Up Window: Click to display video form the camera on the event pop-up window upon trigger. You may also select the duration for video to be displayed in the Pop up window. Please note that you may activate either the Hot Spot window or the Pop-up window, but not both at the same time.
- **10. None:** Click here to disable both Pop-up and Hot-Spot windows.
- 11. **Enable PTZ Command:** Upon event, NVR can move specific camera to specific PTZ presets. Check this box to enable this function.
- 12. **Camera Channel and Preset number:** Select which camera to move and which PTZ preset to go to. Please note that you need to configure PTZ presets for that camera first.
- 13. Upload Snapshot File to FTP Site: Click to enable NVR to upload FTP to a FTP site upon this event. You need to configure FTP settings in System Setup → System for this to function correctly. Please also make sure the FTP server setting is correct and the folder access rights are properly configured.
- 14. Enable Execute Command and enter its File Path: Click to enable NVR to execute a certain command upon this event. This is a very power function. User can use it to integrate NVR's event handling with other programs. User can enter the path of the command to be executed upon event.



Mail Notification Setup

This section lets you setup the E-mail notification.

Mail To	Admin		
3 Subject	Door Open		
Message	Alert! Lab Front Door is open! Security Guard is checking!	<u>^</u>	
Attac	I Snapshot (Please enable snapshot function firs	st in the Action panel.)	

- 1. Notification via E-Mail: Check this box to enable email notification upon event.
- 2. **Mail to:** Click to select which users of NVR to send E-mail notification to upon this event. All these E-mail accounts are from the NVR user list.
- 3. **Mail Subject:** Click to select the Mail subject to use. To avoid accidentally blocking the message, you may wish to include special words, and use the words to do white listing on your mail server.
- 4. Mail Message: Write the message body of your email here.

NOTE: Only Alphabets, numbers, dash and underscore are allowed in Mail Subject / Message. Special characters are not allowed.

 Attach Snapshot File: Click to select whether to include Snapshot in E-mail upon event. Attach Snapshot File option can only be enabled when Snapshot is enabled in the Action tab.

NOTE: Event responses will only be triggered when the trigger time falls within either the "Scheduled" Recording or the "Event with Streaming" Recording period. There must be video stream from device when the event happens for event responses to work.

System Setup

Camera Groups

Camera Group is an important layer of Camera management for NVR. User Permissions, View Layouts and e-Maps are all based upon camera groups. Designing proper data groups in advance is very important. One camera can belong to multiple groups at the same time, and there's no limit to number of camera groups. Here's how to setup Camera Groups.

	🔨 🐼 🔊
nera Groups User Roles Users Ste	orage Management \Joystick \View Layouts \View Tours \Language \Service \License \Syste
v Delete Apply 🔮	
amera Group Information	
roup Name:*	Group Description:
levators	2
amera Groups	1
amera Groups Group Name	Group Description
amera Groups Group Name Elevators	Group Description
amera Groups Group Name Elevators Floors	Group Description
amera Groups Group Name Elevators Floors Backyard	Group Description
amera Groups Group Name Elevators Floors Backyard Entrances	Group Description

Fig. 41 System Setup - Camera Groups

- 1. **Group Name:** Enter the user group name for a new camera group or to modify existing camera group.
- 2. Group Description: Enter the description of this camera group.
- 3. **Group List:** User can see all the groups already created here.
- 4. Apply button: When you first enter the Camera group screen, you are by default in a "ready to add new group" mode. You can just enter a group name and click "Apply" to add a new camera group. You may also select a group from the list of existing camera groups below and edit the group. Always click "Apply" before leaving to preserve changes you've made.

IMPORTANT: Please do not delete default Camera Group. Default Camera Group is "No Group".



User Roles

nera Groups User Reles	Users Storage Management	t \Joystick \View Layouts	View Tours Language Serv	ice License System		
w Delete Apply D Iser Roles Role Name: * StandardUser			Role Description: Standard User Group			
Permissions Settings						
🗆 Setup	Setup System	🗐 Setup Camera	🗆 Setup Map			
Monitor	View Tours	Take Snapshot	PTZ Operation	Event Panel	Manual Record	System Monitor
Playback	Export	Take Snapshot				
🗹 eMap Viewer						
Role Name	Role Descr	iption	Permissions Settings			
Administrator	Administrato	r Group	Setup Setup System, Setup Cam Monitor View Tours, Take Snapshot Playback Export, Take Snapshot eMap Viewer	era, Setup Map , PTZ Operation, Event Pan	el, Manual Record, System Mor	nitor
Guest	Guest Group)	Monitor			
StandardUser	Standard U	ser Group	Monitor View Tours, Take Snapsl Playback eMap Viewer	not, PTZ Operation		
			Setup Setup System, Setup Cam Monitor	era		

Fig. 42 System Setup - User Roles

- 1. Role Name: Enter the role name for a new user role.
- 2. Role Description: Enter the description of this user role.
- 3. **Permission Selection Panel:** Select the range of permission for each user role here.
- 4. **User Role List**: You can see all the existing roles and their permission settings here.
- 5. **Apply:** When you first enter the User Role screen, you are by default in a "ready to add new User Role" mode. You can just enter a Role name and click "Apply" to add a new User Role. You may also select a group from the list of existing user roles below and edit the role permissions. Always click "Apply" before leaving to preserve changes you've made.

NOTE: Please do not change default User Roles. Default User Roles are: Administrator, Guest, Standard User and Guard.



Users

	S	Admin as Administrator 2011年1月21日下午 03:51:46
Camera Groups User Roles Users Storage Manager	nent \Joystick \View Layouts \View Tours \Lang	uage \Service \License \System \
New Delete Apply 🕕		
User Information		۲
User Account* [1-63] Characters	User Name:* [1-31] Characters Dark Knight	Password:* [1-63] Characters
Email Address:*	User Role:* Supervisor	Description:
Default Layout* Ent1 These configure the compare group permission before out	ting Default Levent	
Camera Group Permissions:	ung Delaut Layout.	
M No Group	Entrance	Basketball Court
User List		۲
User Account	User Name	User Role
Admin	Admin	Administrator
Holmes	Tony Stark	StandardUser 🖓
Barman	Dark Knight	Supervisor

Fig. 43 System Setup - Users

- 1. **User Account:** Enter the user account for a new user or modify an existing user. This user account will be used for this user to login the NVR system.
- 2. **User Name:** Enter the user name of this account. This name is a reference data for this account and will NOT be used for user to login NVR in the future.
- 3. **Password:** Enter the password for this user account to login to NVR system.
- 4. **E-mail Address:** Enter the E-mail address for this user. This may be used for administrative purposes. Please note that when email is sent from event manager, the emails are sent to the email stored here for the user account.
- 5. User Role: Select the user role for this user.
- 6. **User Description:** Enter the description for this user.
- 7. **Default Layout:** Select the layout to see upon login here.
- 8. **Camera Group Permission:** You may assign which camera groups are available to this user. The user will not be able to see cameras outside for their permission.
- 9. User List: User can see all the info on existing users here.
- 10. Apply: When you first enter the Users screen, you are by default in a "ready to add new User" mode. You can add new user by clicking "Apply" after filling in the required fields. You may also select a user from the list of existing users and edit the roles and permissions. Always click "Apply" before leaving to preserve changes you've made.

NOTE: Please assign the correct Camera Groups to the user account created.

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Storage

This section describes how to manage storage space in NVR. Please note that this section only deals with the overall storage rules, and not storage of individual channels.

Please note that as NVR continuously writes and deletes file from the disk drive, using a removable disk may risk losing recording when device is removed while being accessed.

Camera Groups \User F	Roles \Users Storage Mar	agement \Joystick \View La	ayouts \View Tours \Language \	Service License System
Apply 1				
Storage Managemer	nt			۸
2 Recording Path : Recording Only alphabets, number The max length of recording (<sdrive_d>\recording\Cl</sdrive_d>	ngs rs, underscores and dashes a rding path will be 50 byte. hannel<\$CAMERA_ID>\) (ex:C:\rec	re allowed ording\Channel1\)		
3 Manual Record Duration :	5 Mins			
4 Recording delete rule:	Keep 1 C	lays GB) (Keep recording until disk f	ree space is smaller than Reserve Sp	pace, then delete the earliest recordings.)
5 Snapshot delete rule:	Keep 30 Days			
Cleanup Space(GB)	e Management Pain: Intervention Interventin Intervent Interventin Intervention			
Selected Disk Drive	Capacity			🔞 Shift down Shift up 👔
Drive Name	Used Space(%)	Free Space(MB)	Total Space(MB)	Reserve Space(GB)
C:	31%	35309	51199	20
New Delete 9				
OAvailable Disk Drive	Capacity			۱
Drive Name	Used Space(%)	Free Space(MB)	Total Space(MB)	Reserve Space(GB)
D:	9%	92208	101425	20

Fig. 44 System Setup - Storage Management

- 1. Apply: Click this after you've completed setup to save modified settings.
- Recording Path: This is the folder path where the recordings from NVR will be stored.
 This section will be inserted between the drive letter and the Channel number subfolders
- 3. **Manual Record Duration:** During manual recording in Active Monitor, this is the duration when recording will automatically end if not stopped by user. If the user forgets to end the manual recording, this prevents the recording from taking up unnecessary space.
- 4. Recording Delete Rule: There are two ways to delete recordings. The first one is to decide a number of days of videos to keep, and delete recording files older than this. The second option is to keep recording until the disk is almost full, and then delete the earliest



recording files. NVR will always delete old files when available space is lower than reserve space. Select the checkbox for Keep Days to add an additional space management mechanism. When both are active, NVR will start to clear old files when any of the criterion is reached.

- 5. **Snapshot delete rule:** This field defines how long will snapshots be kept on the disk drive. Set the number of days to keep snapshots here.
- 6. Cleanup Space (GB): This is only used when recording delete rule is Reserve Space. Once free space on the drive is lower than reserve space, the system will delete the earliest recordings. This is the amount of space to clean out each time. Setting cleanup space too small will result in over frequent deletes.
- 7. Selected Drive: Here you can see the storage space information for your disk drives.
- 8. **Shift drive up / down:** If you have multiple drives in your system, this changes the priority in which they are used.
- 9. New / Delete: These two buttons control whether a drive is added to the system. To add new disk to be used for NVR storage, select a disk below and click "New". To remove a drive from use, select a disk above and click "delete". Please note that removing a disk will remove database logs of all recordings from that disk. The files will still remain in the disk, but will no longer be searchable and will not be automatically deleted by NVR upon low disk space.
- 10. **Available Disk Drives:** These are the drives detected by NVR, but not yet included for video storage use.

Note: When deleting storage drive from system, NVR will delete all recorded logs on this disk.



Joystick

stick			
4	5 Button	Function	
1112	1	== No Function ==	
The second se	2	== No Function ==	
	3	== No Function ==	
	4	== No Function ==	
	5	== No Function ==	
1	6	== No Function ==	
3	7	== No Function ==	
5	8	== No Function ==	
78	9	== No Function ==	
	0 10	== No Function ==	
	11	== No Function ==	
	12	== No Function ==	

Fig. 45 System Setup - Joystick

- Select joystick of IP Desktop: NVR supports two joystick providers, IP desktop/Logitech. Please select the correct model.
- 2. **Select joystick of Logitech:** NVR supports two joystick providers, IP desktop/Logitech. Please select the correct model.
- 3. **Apply:** Confirm the settings after you've configured the joystick.
- 4. **Joystick Picture:** When any joystick is selected, user can see a representative picture of the joystick here.
- 5. **Button setups:** You may configure the joystick buttons to perform specific actions. Please the dropdown list in the next page for details.

Other joysticks are also supported, but they may not offer 3-dimentional operation. The user may need to define zoom in and zoom out with specific buttons. USB joystick shown here may be obtained from <u>www.chproducts.com</u> or other online distributors.

Note:

- 1. Joystick Setup is available only through workstation and not available through web client.
- 2. Please always connect the joystick to PC before you run NVR.


Button	Function	
1	== No Function ==	•
2	[PTZ] - Pan Right [PTZ] - Tilt Up	*
3	[PTZ] - The Down [PTZ] - Zoom In	
4	[PTZ] - Zoom Out [PTZ] - Focus In	
5	[AUDIO] - Mute On	
6	[AUDIO] - Mute Off [DO] - Trigger DO1 On [DO] - Trigger DO1 Off	ш
7	[DO] - Trigger DO2 On	
8	[DO] - Trigger DO2 Off [SNAPSHOT] - Take a Snapshot	
9	OSD Off	
10	OSD UP OSD DOWN	
11	OSD CEPT OSD RIGHT	
12	Enter Leave ICHANNEL1 - Move Previous	
	[CHANNEL] - Move Next	F
	[PTZ] - Goto Preset-1 [PTZ] - Goto Preset-2	
	[PTZ] - Goto Preset-3	
	[PTZ] - Goto Preset-4	
	[PTZ] - Goto Preset-6	-

Fig. 46 System Setup - Joystick - Dropdown features menu



View Layouts

This section describes how to setup view layouts. View layouts are predefined arrangements of cameras in a single screen. Each screen may contain multiple cameras, and the location of each camera in each layout can be configured.

amera Groups:* Mame: * Description: In Entrance Image: *	ayout Configuratio	n							Ś
Image: state stat	amera Groups: * 11.Entrance	4 Nam Entr	ne: * ance		6	Layout Style: *	6	Description:	
iew Layout List: View Layout ID Name Default Description Layout Style Camera Groups Camera(s)				[1] - Entrance	e 1 💌	[2] - Entrand	ce 2 💌		
ew Layout List: View Layout ID Name Default Description Layout Style Camera Groups Camera(s)			([3] - Entrance	3 🔽	[4] - Entrand	ce 4 💌		
ew Layout List: View Layout ID Name Default Description Layout Style Camera Groups Camera(s)			L	[1] - Entrance [2] - Entrance	2			I	
e <mark>w Layout List:</mark> View Layout ID Name Default Description Layout Style Camera Groups Camera(s)				[3] - Entrance [4] - Entrance	4				
ew Layout List: View Layout ID Name Default Description Layout Style Camera Groups Camera(s)									
ew Layout List: View Layout ID Name Default Description Layout Style Camera Groups Camera(s)									
ew Layout List: View Layout ID Name Default Description Layout Style Camera Groups Camera(s)									
ew Layout List: View Layout ID Name Default Description Layout Style Camera Groups Camera(s)									
View Layout ID Name Default Description Layout Style Camera Groups Camera(s)	ew Layout List:								2
	View Lavout ID	Name	Default	Description	Layout Style	Camera Groups	Camera(s)		
	1	Entrance			4	Entrance	1,2,3,4		

Fig. 47 View Layouts

- New button: Click this button to create a new view layout. When you enter the View Layout screen, it is by default in the "New" mode. Select the camera group, choose a layout style, provide a name to the layout and assign at least one camera to the view before clicking "Apply" to add a new layout.
- 2. **Delete Button:** If you have selected one layout from the list below, this button will appear. You can click this to delete the layout from list.
- 3. **Camera Groups:** Select the camera group you wish to view from the drop down list. Only cameras in the camera group can be assigned to the windows in the view layout.
- 4. Name: Enter the name for a new layout list or to modify an existing view layout.
- 5. Layout Style: Select the number of channels to see in this view layout.
- 6. **Description:** Enter descriptions for this view layout here.
- 7. Layout Setting: Pick the cameras to view in each window for this view layout. Only



cameras in the selected camera group are available. You may assign the same camera to more than one window. Please note that if you assign one camera to more than one window, the streaming load will be increased.

- 8. **View Layout List:** User can see the existing view layout list here. Click on the row of the target layout to edit.
- 9. **Apply Button:** Click button to confirm and save the settings. If the View Layout screen is in the "New" mode, clicking Apply will add a new layout.



View Tours

This section describes how to setup View Tours (Layout tours). View Tours are a predefined sequence of view layouts that will be displayed in the Active Monitor. It is useful when you need to monitor a large number of channels and also want enough detail in each view. Make sure you configure View Layouts correctly before setting up View Tours.

Arrona Groups User Ro New Tour Delete Tour	Add Layout Delete Layout Apply	Joystick View Layouts Vie	ew Tours Language \Service \License \Sys	stem
Tour Information				۲
Tour ID: *	Tour Name: * Tour 1	Description Office		
Layouts In This Tour				7 * * * * *
Name	Description	Layout Style	Dwell Time(second)	
Entrance		4	30	
Premises			8 <u>30</u> −	
				*
Tour List				•
Tour List	Tour Name	Description		



- 1. **New Tour:** Click this button to create a new layout tour. Enter the Tour Name and Description, and then click "Apply" to add a new layout tour to the tour list.
- 2. Delete Tour: Click this button to delete the currently selected tour from the tour list.
- 3. Add Layout: Click this button to add layout to the current layout tour. After you click the button, you will enter the subsection showing the available layouts.

Ad	Add Return				
١	/iew Layout List				
	View Layout ID	Name	Layout Style	Camera Groups	
	□ 1	Entrance	4	1,2,3,4	
	☑ 2	Premises	8	3,4,6,10,14,15,16,11	

Check the checkboxes in front of each layout to select it. When you've selected all the layouts you wish to add, click "Add" to add them to the layout tour. Click Return to return to View Layout tour page without making any changes.



- 4. Delete Layout: Click this button to delete layouts from a layout tour.
- 5. **Tour Information:** Each layout tour has a unique view layout ID stored in the system. The column ID is assigned automatically by the system. Each tour also has a tour name and description.
- 6. Layouts in This Tour: All the layouts included in this tour are listed here. Click on the appropriate row to edit that layout.
- Layout Tour Sequence Control panel: You may rearrange the layout sequence here.
 First click on the row of the Layout Tour you wish to move, then click the buttons to move to top, move up, move down or move to bottom of list.
- Dwell Time: You may setup how long should Active Monitor stay in each layout by selecting from the drop down Dwell time list. Default dwell time is 30 seconds. You may change the value here, but do not use dwell time smaller than 15 seconds unless absolutely necessary.
- 9. **Tour List:** All layout tours currently configured are listed here. You may select each tour to edit the details.
- 10. **Apply:** Click this button to save all current settings. If you are editing an existing tour, you may change the tour name, description and Layout Tour setting. If you just clicked "New tour", then pressing apply will add the new tour to the tour list. **Be sure to click Apply after you finished setup, before configuring something else.**

Note: If you remove a camera that is part of a layout, the window for that removed camera will display a black video when viewed.



Language

This section describes how to translate and modify the embedded texts through the language section of NVR.

nguage		
ase do not contain any symbols in your translation,or it will not be read $r,>,8$	lable by our software system.	•
Keyword	English	6 Language English (United States)
ID_1_WINDOW_VIEW	1-Window View	1-Window View
ID_10_WINDOW_VIEW	10-Window View	10-Window View
ID_12_WINDOW_VIEW_WIDESCREEN	12-Window View for Widescreen	12-Window View for Widescreen
ID_16_WINDOW_VIEW	16-Window View	16-Window View
ID_1STRECORDPATH	Recording Path	Recording Path
ID_25_WINDOW_VIEW	25-Window View	25-Window View
ID_2NDRECORDPATH	2nd Recording Path	2nd Recording Path
ID_36_WINDOW_VIEW	36-Window View	36-Window View
ID_4_WINDOW_VIEW	4-Window View	4-Window View

Fig. 49 System Setup - Language

1. **Settings button:** Select the language you wish to use in from the full list. You may translate the list once you opened it.

Apply						
Lang	uage List					
	Arabic (Yemen)	V	Chinese (PRC)	\checkmark	Chinese (Taiwan)	
\checkmark	Czech		Danish	\checkmark	Dutch (Standard)	
\checkmark	Finnish		French (Standard)	\checkmark	German (Standard)	
\checkmark	Greek		Hungarian	\checkmark	Indonesian	
\checkmark	Italian (Standard)		Japanese	\checkmark	Polish	
\checkmark	Portuguese (Portugal)		Romanian	\checkmark	Russian	
\checkmark	Spanish (LatinoAmerica)		Spanish (Mexico)	\checkmark	Spanish (Spain)	
\checkmark	Swedish		Thai	\checkmark	Turkish	
\checkmark	Vietnamese					

Fig. 50 System Setup – Language - Language List

- 2. **Reset button:** Restore the fields back to default settings.
- 3. **Export button:** Export current language to an XML file for editing. Click here and a select path and filename to export. This is available only to workstation, not to Web Client.



Export	
File Type Path File Name	XML D:\Desktop\NVR_Data\Export Langua Browse Export_fr.xml
It may take fe	ew minutes to export language.
	Export Cancel

- 4. **Import button:** Select a translated XML file to import. You may update support for new languages or change the more up to date translated version for your language this way.
- 5. Apply button: Confirm and save current settings.
- 6. Language: Show the keyword list of the selected language to edit.



Services

This section describes how to start / stop the various NVR component services. Occasionally, some minor errors in NVR operation can be easily fixed by stopping and restarting individual services.

For security reasons, this section is only available to workstation running on the same PC as the NVR server. You cannot access this through web Client.

Came	Camera Groups User Roles Users Storage Management Joystick View Layouts View Tours Language Service License System							
Refre	sh 🚺							
Se	Services							
		Service Name	Service Description	🕖 Service Status	Service	Action		
0		ActiveEventManager.EXE	Active Event Manager	Running	Start Service	Stop Service		
6	_	ActiveScheduleService.EXE	Active Schedule Service	Running	Start Service	Stop Service		
4	800	ActiveServiceManager.EXE	Active Service Manager	Running	Start Service	Stop Service		
6	1	ActiveStreamingService.EXE	Active Streaming Service	Running	Start Service	Stop Service		
6	B ,	ActiveMessageEngine.EXE	Active Message Engine	Running	Start Service	Stop Service		

Fig. 51 System Setup - Service

- 1. Refresh: Click to refresh the status of all services.
- ActiveEventManager.EXE: Event Manager handles events and responses, and executes all rule-based reactions.
- ActiveScheduleService.EXE: Schedule service provides recording and scheduling management.
- 4. ActiveServiceManager.EXE: This program monitors the other software service modules. If the other services are down, it will automatically restart them.
- 5. ActiveStreamingService.EXE: Streaming engine handles connection to ACTi IP devices and provides video stream to multiple clients.
- 6. ActiveMessageEngine.Exe: Message engine maintains proper background communication between the various win32 services.
- 7. **Service Status:** Current status of each service is shown here. They may be either Running, Pending, Stop Running, stopping and stop.
- 8. Service Action -Start Service button: Start Service
- 9. Service Action Stop Service button: Stop Service



System

This section describes how to setup system-wide basic parameters.

С	amera Groups \User Roles \U	sers \Storage Management \Joystick \View Layouts \View	/ Tours \Language \Service \License] System
,	Apply 🕑		
	System Property		
1	Keep Event Log for (day): * 45	Keep Recording Log for (day): *	Keep System Log for (day): * 180
4	NVR Streaming Port: * 6002	NVR Control Port: * 6001	6 MessageEngine Port Number: * 8001

Fig. 52 System Setup - System - System Property

System Property: NVR system setup

- 1. **Keep Event Log for (day):** The number of days to keep event logs for. The default is 45 days. Event logs older than this date will be deleted.
- 2. **Keep Recording Log for (day):** The number of days to keep recording logs for. The default is 45 days. Recording logs older than this date will be deleted.
- 3. **Keep System Log for (day):** The number of days to keep system logs for. The default is 180 days. System logs older than this date will be deleted.
- 4. NVR Streaming Port: NVR Streaming Port. Default 6002
- 5. NVR Control Port: NVR Control Port. Default 6001
- 6. Message Engine Port Number: NVR Message Engine Port. Default 8001

Monitor Setting			۲
OSD - [FPS] Event status on Camera Tree	 OSD - [Camera Name] Show motion region in Active-Monitor 	Popup message when event trigger	

Fig. 53 Monitor Setting

- 1. **OSD [FPS]:** Select this checkbox to display real time Frames Per Second info for each channel on Active Monitor preview windows.
- OSD [Camera Name]: Check this box to show camera names on the preview window in Active Monitor. The location of the OSD text is defined in Camera Setup → Camera → Media Source Information → OSD Position
- 3. **Popup Message when event trigger:** A warning message will popup in Active Monitor when an event is trigged. A sample message is shown below.

🙋 Warning		X
	Camera: 1:Entrance 1 Event: MD1	

- 4. **Event status on Camera Tree:** Check this box to enable cameras with recently triggered events to highlight and flash on the Camera Tree.
- 5. Show motion region in Active-Monitor: Check this box to show the motion regions in Live View.



Decode I Setting

✓ Lower display frame rate when CPU usage is above 80

☑ Lower display frame rate when current layout is above 36 👤

Fig. 54 Decode I Setting

This section controls the maximum number of videos to display before NVR starts to skip frames in video. Skipping frames protect your PC from overloading. This sacrifices live view smoothness to ensure that your computer will have enough resources to properly record all video feeds.

There are two ways to do this, both are defaulted as enabled:

- 1. Lower display frame rate when CPU usage is above a certain percentage.
- 2. Lower display frame rate when displaying layout of more than a number of channels.

Please be sure that you enable at least one of the protection mechanisms here. This protection will work only for MPEG4 and H.264 codecs, not for MJPEG.

System E-Mail Setting	•	•	
SMTP Server	25 SMTP Port	Sender Email Address	4 Sender Name
SMTP Authenticate	6 SMTP User Name	SMTP Password	

Fig. 55 System Setup - System - System E-Mail Setting

System E-Mail Setting: User can set an e-mail account for NVR to send notification when events are triggered.

- 1. **SMTP Server:** Enter the SMTP server address to send E-mail.
- 2. SMTP Port: You may configure the SMTP port here. Default is 25
- 3. SMTP authentication: Enable this checkbox if the SMTP server requires authentication.
- 4. Sender E-mail Address: Enter the E-mail address to send E-mail from.
- 5. SMTP User Name: Enter a SMTP user account.
- 6. Sender Name: Enter a name for NVR to send E-mail from.
- 7. **SMTP password:** Enter a password to login SMTP server with.

	System FTP Setting			
•	FTP Server	3	Port: 21	Upload Folder:
e	User Name	4	Password	

Fig. 56 System Setup - System - System FTP Setting System

FTP Setting Section: This section includes a FTP account for NVR to send notification



when events are triggered.

- 1. FTP Server: Enter a FTP server address for NVR to upload data.
- 2. User Name: Enter the FTP user name to login FTP server with.
- 3. Port: Enter the port number to upload files to FTP.
- 4. Password: Enter the password for NVR FTP account
- 5. Upload Folder: Enter the FTP folder path to upload files onto.

License Information				
Product	APP2000	Shipping Date	2010/ 4	
Serial Number	1	Channel Number	64	

Fig. 57 System Setup - System - License Information

License Information:

You may review the software license information here, including shipping date and Channel Number.

Available Disk Drive Capacity

(🕽 Drive Name 🛛 🧕 🌔	2 Drive Space 🛛 (3) Free Space(MB)	Total Space(MB)
	C:	30%	35721	51199
	D:	9%	92208	101425

Fig. 58 System Setup - System - Available Disk Drive Capacity

This is the list of detected disks on this PC.

Workstation Settin	ng
Default Export path	D:\NVR_Data\
(including export file, export system log, manual snapshot and local record)	
Fig. 59 S	System Setup - System - Workstation Setting

Default Export path: You may select the default export path for the data to export to. This is only available on the workstation interface and not available for web client.

Camera Model	update	
OSource File Path	2	Import 3

Fig. 60 System Setup - System - Camera Model Update

Camera Model Update: You may update supported device list to NVR by uploading a new Camera Model file. Click the text field to select file to import. This is only available on the



workstation interface and not available for web client.

Map Setup

E-Map Setup

The purpose of the E-map system is to help the guard have better overview of the physical locations of all the cameras in the monitored area. The E-map system may contain one or several images (jpeg or gif) of the territory map, floor plan, etc which can be filled with the icons of the cameras together with small live preview windows for each camera on the map.

Each image in the E-map system will be linked to a certain camera group – you can pick the cameras only from that camera group to fill the image with camera icons. It is possible to define convenient hyperlinks that help you switch between the maps with a single click.

In order to set up the E-map system, you have to use the Workstation that is located in the same PC with the NVR server. Before you proceed with creating the maps, please make sure you have already created the necessary camera groups and added the cameras into those groups. Once the E-map is properly setup, you may access it from other PCs by either workstation or web client.

To start with E-map setup, go to Active Setup \rightarrow Setup Map \rightarrow Map Manager \rightarrow Add Map.

Map Manager Map Tour				
Add Map Apply				
Map Information			۲	
Map Name - 💌 Map Image File		Map Description		
(File name must be in English. Gif files larger than 1920x1080 m	(*.jpg, *.gif) ay not display correc	:tly.)		
L Display Camera ID and name on eMap Viewer(Apply	to all maps)			

Fig. 61 Map Setup - Map Manager (Before adding any map)

Before you add any map in the system, the Map Name dropdown list will be empty. Click "Add Map" to select the camera group you wish to monitor and the map image file you wish to show.



Tips to setup: Before you start, make sure you have your camera groups configured correctly. Please also add the cameras to their proper camera groups. Prepare the map images so that each camera group is shown in full on a single map.

Add Map

Once you have clicked [Add Map], you will see the list of camera groups.

Map Manager Map Tour				
Add Cancel				
	Map Name	Map Image File		
0	No Group	InitialMap.jpg		
0	Elevators	InitialMap.jpg		
© 🚯	Floors	A InitialMap.jpg		
0	Backyard	InitialMap.jpg		

Fig. 62 Map Setup - Adding Map Image File

- 1. Pick a camera group, for example "Floors" by clicking the radio button.
- 2. Click on the map image file field to the right 4 to select the map you need. Before you change, it will show "initialMap.jpg".
- 3. A browse window will pop up for you to select the map image on your local hard drive.
- 4. Once the needed map image has been selected, press the [Add] button. The Map Information page will appear together with the map image you had just chosen.

Only alphabets, numbers, dashes, underscores or spaces can be used in file name. You can press [Cancel] button to stop adding new maps.

Edit Map

Map Information		*
/lap Name	Map Description	
1-No Group 💌	Default Group	
1-No Group		
area map.ipo	(* ing * gif)	

Fig. 63 Map Setup - Selecting Map



You may select one of the maps you have already added to the system and edit settings in this screen. You may add cameras and arrange their icons / mini previews on the map here.

The drop down list ⁽⁶⁾ will show the maps you've already added by the camera group name. Pick the map you want to add cameras to, and press [Add Camera]. The description for the camera group will also show to the right in Map Description.

Note: [Add Camera] button will only appear after you have added at least one camera into the camera group that you are using for current map.

Add Cameras

Map Manager Map Tour				
O Add Cancel				
	Camera ID	Camera Name	Camera IP	
□ 2	7	Canteen 1	10.1.1.55	
	8	Canteen 2	10.1.1.88	
	9	Canteen 3	10.1.1.101	

Fig. 64 Map Setup - Adding Cameras to Map

Check the cameras **(2)** that you want to add to the given map and press [Add]. Alternatively, you may cancel the adding process by pressing [Cancel] button.







After adding the cameras, you will be redirected back to the Map Information screen where the newly added cameras are placed over the map image. Note that each camera on the map appears twice – one as a camera icon to be positioned on the map ① and another one with the small preview window to be placed anywhere you like. ② We recommended you to put it as close as possible to the camera icon so it is clear to the user which preview represents which camera. You may also want to leave a little space to the right of cameras so that the popup camera information window does not interfere with the live image in Active Map. You can drag and drop the cameras around the map to position them. The currently selected camera will be highlighted with a green border. You may also move the live preview windows by the same means. Note that there is no actual live preview during Setup stage. You will be able to see live preview later on when you start using the ActiveMap.

By checking the checkbox (3) [Display Camera ID on eMap Viewer], the camera icons shown on the Active Map with live previews will contain the camera IDs for better recognition

It is also possible to add the viewing direction arrows for each camera icon on the map. In the camera information section, click on the drop down list under ④ [Direction] and choose one of the 8 possible directions: [Upper left], [Up], [Upper right], [Right], [Lower right], [Down], [Lower left], [Left]. As soon as you select any of the directions, the arrows indicating view angle ⑤ will appear beside the camera icon. Press [Apply] to save the changes when finished with all the icons.

The live preview images can be resized by pressing [Resize] **6** button. There are three sizes available – [Small], [Medium] and [Large]. The default size is [Small].

On the Camera Information section you can also find Camera ID and Camera Name. These items are not editable under E-map system. You have to go to the Camera Setup page to edit the name and ID if necessary.

If you want to replace the existing map image, just click on the file name and the file browsing window will pop up.

You can delete the camera from the map by pressing [Delete Camera] button if necessary. Please note that it will not delete the camera from the NVR system, but only from the current E-map.

You can delete the map by pressing [Delete Map] button if necessary.



Add Map Link

If you want to have convenient hyperlinks to switch between the current map and other maps with a single click, then you have to add Map Link. Press [Add MapLink] button and check the map you want to link to.

NOTE: [Add MapLink] button will only appear after you've created more than one map.

Map Manager	Map Tour	
Add Cance		
	Map ID	Map Name
	11	Entrance
	13	Canteen

Fig. 66 Map Setup - Selecting Map

Check the maps you want to create links for, and press [Add]. Only maps you've already added to the e-Map system will be shown here. Camera groups that are not represented by maps will not be available for selection.

An icon representing map link will appear on the map information page once you've added the MapLink. Occasionally the MapLink icon may appear outside the actual map image. In that case, please use scroll down to find the map link icon and drag it to your desired location. Press [Apply] to save the changes.

You can delete the Map Links by pressing [Delete MapLink] button if necessary.

The typical situation where the map link is needed is when there is one map for the large area (for example a school's campus) and several other maps containing floor plans of each building in the area. Map link can also be used when the area is too big so that it has to be divided into several smaller maps.



Map Tour

If there are two or more maps in the system, and you would like to switch between them regularly, then you can setup an automated Map Tour. You can decide which maps should be included to the tour and for how many seconds will each map be displayed before switching to the next one.

Open Map	Tour tab	and press	[Add]
----------	----------	-----------	-------

Map Ma	lap Manager Map Tour		
Add	Cancel		
		Map Name	Dwell Time(Seconds)
		Entrance	10 💌
		Canteen	10 💌
		Premises	10 💌

Fig. 67 Map Setup - Selecting Map to add into Map Tour

Put the checks into checkboxes for the maps you want to be added to the tour. Dwell time indicates how long the screen will display this given map before switching to the next.

Once you have added the maps you wish into the Map Tour, you can re-arrange the order of maps by using the following arrow keys on the right side of the window: You may also select each row and redefine the dwell time.



Fig. 68 Map Setup - Changing sequence in Map Tour

You can run the Tour later on ActiveMap by pressing the following [Patrol] button:



Once you have added the maps to the Map Tour, the option of deleting the maps from the Tour will appear – the [Delete] button. Click [Delete] to remove one or more maps from the Tour.

Active Monitor

Active Monitor is the interface where you see the live views from your cameras. It is where most of the security professionals access the surveillance system. Aside from keeping an eye on the video, you may also cycle through View layouts, drag and drop various cameras to the screen, review a log of events, take snapshots, control PTZ cameras, start or stop recording on a given channel, trigger Digital output and broadcast or talk to specific cameras.

First we provide an overview of the UI elements, and then we describe the functions in each section.



Fig. 69 Active Monitor

- 1. **About Us:** Click on the logo to bring up the About Us dialog box which contains software version, system information, technical support, knowledge base and other details about the software.
- 2. Active Monitor Toolbar: Contains buttons to operate in Active Monitor application
- 3. **Personal Profile:** Click on this to bring up Personal Profile settings; you may change the password for the current user.

4. PTZ/Event Layout Control: Click on the buttons to hide or show the sections of side panel devoted to these functions. The figure below shows the different configurations available when either PTZ or Event panel is hidden from view. Hiding sections you do not use will provide more space for the camera tree.



Fig. 70 Active Monitor - Side panels

- 5. Camera Panel: The Camera tree is displayed here. .
- Event Panel: Displays a real time log of events from devices, including motion detection, Digital input, PIR, Video loss/recovery and Network Loss/recovery events. You may click on each item to see further details.
- 7. **PTZ Panel:** PTZ operations are controlled here.
- 8. Layout Manager: Controls the various window layouts
- 9. Video Window: Each video window displays live view from one device. The round dot on the top right of video window is grey when not connected to device, yellow when connected without video, green when receiving video and flashing yellow when cannot be displayed due to lack of memory.
- 10. **Change Layout:** You may select a layout from this dropdown list to change the view. The layouts here need to be setup first in the View Layouts section in System Setup.

Active Monitor Toolbar



Fig. 71 Active Monitor - Active Monitor Toolbar

- 1. Active Monitor: Click to go to Active Monitor. As you are already in Active monitor, this will not change your current view.
- 2. Active Player: Click to go to Active Player to search and playback video recordings.
- 3. Active Map: Click to go to Active Map and view video overlaid upon physical map.
- 4. Active Setup: Click to go to Active Setup and configure the Camera, system or E-Map settings.
- 5. Full Screen: Click to bring the video into full-screen mode. To return, press ESC.
- 6. Snapshot: Takes a single screenshot at maximum resolution for the selected video window. (CTRL-F7) The screenshot is saved in JPG format. It will be saved in a folder named "NVR_Data" on your workstation local computer's desktop and cannot be searched by NVR Server. For example, C:\Documents and Settings\<Windows login/user name>\Desktop\NVR_Data.
- Manual Record: Click to record the current selected channel immediately. The recording will be stored on NVR server PC and can be searched by NVR Server. A red indicator will show on the top right of video channels currently being recorded.

3:Entrance 3 2010-04-30 20:43:06 (GMT+08:00)

- 8. Disconnect This Camera: Click to stop video streaming for the selected channel.
- 9. Disconnect All Cameras: Click to stop video streaming for all channels.
- 10. Trigger DO: Click to trigger DO (Digital Output) of the selected channel.
- 11. System Monitor: Click to bring up system log.
- 12. Talk: Click and hold to talk to the selected video device; release mouse to end transmission. Depending upon how your device is set up, you may be able to only hear, only speak, or talk in both directions.
- 13. **Broadcast:** Pressing this icon enables broadcasting to all video devices that appear in this layout. What you speak will be heard over all cannels in current layout, but you cannot hear from them.
- 14. **Volume Control:** Turn audio signal on/off and adjust the volume. New channels are set to Mute On as default (No Sound).







Fig. 72 Active Monitor - Camera Panel

- 1. **Refresh:** Refresh the camera list. You should refresh when you have made some changes to camera parameters in Camera Setup.
- 2. **Sort By:** You may sort the camera list in different ways. Select the criterion to sort by from the drop down list.

Fig. 73 Active Monitor - Camera Panel - Sorting the Camera Tree

3. **Camera Tree:** List of cameras added into NVR. Note that there is an ① icon to the left of each camera in the list. Clicking the ① icon displays a popup info panel with basic information about the camera as shown in the figure below. If "Event on Camera Tree" is enabled in System setup, then cameras with current events will highlight and flash.

🕕 🌺 1. Entrance 1

④ ④ 2. Entrance 2



🖃 🛶 MediaSource
🖃 📊 ALL CAMERA
① A 1. Entrance 1
① MediaSource X
(i) Megapixel IP PTZ Camera
Camera ID 1
Name Entrance 1
(1) (2) IPi. Basketba 10.1.1.40
Channel No. 1
FPS 30
Resolution N720x480
③ Bitrate teen 21.2 M
 ④ Ø Canteen 3



Event Panel

	ear			
CH 3	3 10 10 10 10 10 10 10 10 10 10 10 10 10	Entrance 3 MD1	2010/04/30 16:34:02	
CH 5	3 10 10 10	Basketball Court 1 NetworkRecovery	2010/04/30 16:33:54	
CH 5	3 10 10 10 10	Basketball Court 1 NetworkLoss	2010/04/30 16:33:52	
CH 3	3 10 10 10 10	Entrance 3 PIR	2010/04/30 16:33:51	
СН	۲	Canteen 1	2010/04/30	Ŧ

Fig. 75 Active Monitor - Event Panel - Camera Panel

Events are special conditions that require attention, either from device or from the system. Event Panel keeps a real time log of recent events. The most recent events are listed at the top of the scroll-down list. Each entry describes the Channel ID, the Camera Name, the type of event and the time. You may click on the "Clear" button to clear the log entries in the event list.

By the side of each entry there are two clickable icons, <a> and Iclicking the

Clicking the kinetic constant of the playback window which shows the recording for this particular event. The mini-preview window and the playback window are shown in the following two figures.

www.acti.com





Fig. 76 Active Monitor - Event Panel - Event Preview window



Fig. 77 Active Monitor - Event Panel - Event Playback window



If you have configured a Pop-up window in the Event Manager Section for this camera, a window will pop up when the event is triggered. If more events are triggered before the first one times out, a logs show the events at the side of the pop-up window. You may click upon each event in the window to switch between them. Shown below is the popup window for multiple events.



Fig. 78 Active Monitor - Event Panel - Event Popup Mini-Preview

- 1. **Mini Preview window:** This window will automatically popup if configured to do so in event manager.
- 2. List of triggered event: Each entry records the camera name, event type and dwell time.
- 3. Live preview: Here is the actual preview window of the channels with recent events.

NOTE: For PTZ cameras, you may also use mouse for PTZ controls in pop-up preview window.

PTZ Panel

To use the PTZ control functions of PTZ cameras in Live view, please first configure the PTZ protocol settings in NVR Setup System \rightarrow PTZ setup page.



Fig. 79 Active Monitor - PTZ Panel

- 1. OSD: Click here to open On Screen Display for PTZ devices that use OSD menus.
- 2. **Digital Zoom:** Enable the Digital Zoom function for this device. You may zoom in, zoom out and perform digital pan/tilt with this channel. You must zoom in first with Digital zoom to perform digital PTZ.
- Mouse PTZ: Enable PTZ control by mouse on the preview screen. Available only for PTZ cameras. When you perform Mouse PTZ, your cursor icon will change with your position in view. Depending upon its position on screen, the PTZ camera will Pan/Tilt with different speed or zoom in/out. The below overlay image shows some of the possible cursor images.





Fig. 80 Active Monitor - PTZ Panel - Mouse PTZ

- 4. **Tour:** Select PTZ Preset Tour from this drop down list. You can setup the Preset tour for each camera in Camera Setup.
- 5. Control Pad: Click on this wheel to control PTZ movements.
- 6. Zoom In/Out: If the camera has controllable zoom, this will zoom the lens in or out.
- 7. Focus In/Out: If the camera has controllable focus, this will shift the focus of the camera. Please note that if you use manual controlled focus, then auto-focus has to be disabled on the camera side via web configurator. Otherwise the camera will return to the auto-focus value once you finished the focus command.
- 8. Iris In/Out: If the camera has controllable iris, this will modify Iris level.
- 9. Pan: Set the Pan speed of the control pad.
- 10. **Tilt:** Set the Tilt speed of the control pad.
- 11. **Goto:** Go to a preset point. Just select the target from the drop down list. You must first setup the preset point through NVR to use this.
- 12. Action: If you have special PTZ commands entered here, you may select from the drop down list to issue that particular command.



Adding cameras into preview windows

ActiveMonitor		
	🕻 🔝 📼 🧭 🕸 do: 🔯 🏂 🏂 💭	admin as Administrator Tuesday, May 04, 2010 5:00:40 PM
Event PTZ		User Defined 💌
Refresh Camera ID -		
🏠 Camera Tree 🔄		
🖃 🛶 MediaSource	2	
🛈 🗉 🔛 ALL CAMERA		
(1) 🖉 1. Entrance 1		
 Imance 4 		
 		
Clear		
CH (2) Entrance 1 2010/04/30 ^ 1 1 19:29:11		
CH (2) Entrance 2 2010/04/30 2 (4) MD1 19:29:07 E		
CH ③ Basketball Court 1 2010/04/30 5	••	**
CH ③ Basketball Court 1 2010/04/30 5 ▶ NetworkLoss 19:29:05		
CH Entrance 3 2010/04/30 • OSD Digital Zoom Mouse PTZ •		
Pan TR 1 2 3 4 5 1 1 2 3 4 5 Goto V Actor		

Fig. 82 Active Monitor - Playback window

Users can add cameras into the preview window by simply dragging the camera from camera tree and drop it onto the preferred window. A red border will show on the window where preview will be displayed.

You may also first click on the preferred preview window then double click on the camera you wish to display there.



Personal profile

admin as Administrator Tuesday, May 04, 2010 5:00:40 PM

Fig. 83 Active Monitor - Personal Profile

Personal Sett	Personal Settings			
User Name	admin			
User Roles	Administrator			
Old Password				
New Password				
Re-Type Password				
		Apply	Cancel	

Fig. 84 Active Monitor - Change Password

Users may change their password in the Active Monitor by clicking the personal profile at the top-left corner of the Active Monitor; a window will pop upon click with slots for password confirmation and change.

Layout manager is a toolbar where you can quickly switch between frequently used layouts.

1. **Patrol:** Click here to select the view layout tour to use. You may click "Cancel" to close the patrol dialog window. Click Patrol again to stop layout tour.



- 2. 1 window view
- 3. 4 window view
- 4. 9 window view
- 5. 16 window view
- 6. 25 window view
- 7. 36 window view
- 8. 49 window view



- 9. 64 window view
- 10. 6 window view
- 11. 8 window view
- 12. 10 window view
- 13. This is the subsection where you select the stream or channel ID to display on the current preview window. If you are using a Dual-stream device, you may setup two different streams in Camera Setup. By default NVR will accept live view only on media 1, while recording can be done with either Media 1 or 2. In active Monitor, channels with dual streams will by default preview in media 1. You may temporarily change the displayed video stream to media 2 by clicking on "2" here. This does not affect the recording, and the live view will still use media 1 when you next refresh this layout. This way you may verify that media 2 is acceptable to your recording needs, but do not need to keep decoding a larger video stream in live view.



System Monitor

You may review, search and export system logs from System Monitor.

	System Monitor	2		6 6 5			
J	Recorded	DateTime: 2010/4/5 00	• 2010/5/	5 00 - Camera ID: Search Export			
ļ	🗿 🛯 🔹 Page 1	/ 65 🕨 🔰 🛛 Displaying	data 1.50 / 3203 7				
¢	Camera ID	Camera Name	Record Type	File Location	Start Time	End Time	Duration 🖴
	11	Car Park 2	Schedule	C:\Recordings\Channel11\Channel11_20100430211231.raw	2011-01-12 16:06:50	2011-01-12 16:07:02	00:12
	14	Corridor 1	WithStreaming	C:\Recordings\Channel14\Channel14_20100430211037.raw	2011-01-12 16:06:37	2011-01-12 16:06:49	00:12
	2	Entrance 2	WithStreaming	C:\Recordings\Channel2\Channel2_20100430211035.raw	2011-01-12 16:06:37	2011-01-12 16:07:04	00:27

Fig. 85 Active Monitor - System Monitor

8. Type of log: Select the type of log you wish to display

System Monitor
Recorded
Recorded
Deleted
Alarm
Motion
PIR
Network Loss/Recovery
Video Loss/Recovery
User Operation

Fig. 86 Active Monitor - System Monitor - Select Type of Log

- 9. Date & Time: Enter the start and end time filter to limit your search results.
- 10. **Camera ID:** Enter a specific Camera ID here if you wish to limit the search to a particular camera.
- 11. Search Button: Press the button to search the logs according to the filter.
- 12. **Export Button:** Export the logs into XLS file. Pressing the button will pop up a window for you to confirm the path and name of the export file. This function is only available through workstation, not Web Client.

Export		
File Type Path File Name It may take fo	XLS D:\NVR_Data\System Log\ ExportLog.xls ew minutes to export system log	Browse.
	Export	Cancel

Fig. 87 Active Monitor - System Monitor - Export



- 13. Navigation buttons: Click here to move through the pages of records
- 14. **Displaying Data:** Here you can see the record numbers being displayed.
- 15. **Records:** Display the search result according to the search filters. The results may contain different fields depending upon the type of log filter.

Active Player

Active Player is the NVR module that processes recorded clips. You may search, playback and export video through Active Player. You may search by time period, by snapshot, by time bar and by event. Playback may include up to 4 channels synchronized playback or up to 36 individual clips. Video clips may also be exported in either RAW or AVI formats.

Overview



Fig. 88 Active Player - Overview

- 1. **About Us:** Click on the logo to bring up the About Us dialog box which contains software version, system information, technical support, knowledge base and other details about the software.
- 2. Active Player Toolbar: Contains buttons to operate in Active Player application
- 3. **Personal Profile:** Click on this to bring up Personal Profile settings; you may change the password for the current user.
- 4. Layout Manager: Control various window layouts and 4-channel synchronized playback.
- 5. Camera Panel: The Camera tree is displayed here.
- Open/Digital Zoom / Export: Open local file to playback. Once file is open, you may perform digital zoom or export to local PC. Digital zoom is performed in the same way as in Active Monitor.



- 7. Clip Information: Displays start, end and current date and time of the archive.
- 8. Playback Panel: Playback operations are performed here.
- 9. Video Window: Active window that plays recorded archive.
- 10. Quick Search Bar: Quick search with channel, date, time, event criteria.
- 11. **Archive Time Bar:** Displays time segments with recordings in the time bar. Each type of recording is represented in a different color.

Active Player Toolbar



- 1. Active Monitor: Click to go to Active Monitor. As you are already in Active monitor, this will not change your current view.
- 2. Active Player: Click to go to Active Player to search and playback video recordings.
- 3. Active Map: Click to go to Active Map and view video overlaid upon physical map.
- 4. Active Setup: Click to go to Active Setup and configure the Camera, system or E-Map settings.
- 5. **Full Screen:** Click to go to full-screen mode. The entire video layout will be enlarged together, not just video in the window. (CTRL-F12) To return, press ESC.
- 6. Snapshot: Takes a single screenshot at maximum resolution for the selected video window. (CTRL-F7) The screenshot is saved in JPG format. It will be saved in a folder named "NVR_Data"on your workstation local computer's desktop and cannot be searched by NVR Server. Filepath example → C:\Documents and Settings\<Windows login/user name>\Desktop\NVR_Data
- 7. Disconnect This Camera: Click to stop video playback for the selected channel.
- 8. Disconnect All Cameras: Click to stop video playback for all channels.
- 9. Video Search: Click to search video recording files.
- 10. **Snapshot Search:** Click this button to search and browse snapshots taken by the system, and bring up related archive playback.
- 11. **Volume Control:** Turn audio signal on/off and adjust the volume. New channels are set to Mute On as default (No Sound).



Video Search

💓 🤇	ی 💽 💽 🎯 🕒 🎯	o 🥺 😻 💊 👯			adr Tuesday, May C	nin as Administrator 04, 2010 5:00:40 PM
Search 5						×
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3 🔽 Camera						۲
🗷 1:Camera-1 🕕	Z:Entrance 2 ①	3:Entrance 3 (1)	4:Entrance 4 ①	5:Basketball Court 1 ①	6:Basketball Court 2 ①	
7:Canteen 1) 8:Canteen 2 (1)	9:Canteen 3 🕕	10:Car Park 1 ①	11:Car Park 2 (1)	12:Sidewalk 1 ①	
13:Sidewalk 2	14:Corridor 1 (1)	15:Corridor 2 ①	16:Corridor 3 ①			
4 Time Period						۲
Start Time 201	10/03/30 00 • 00 • End Tim	e 2010/04/30 00 • 00 •	Include video that began	before this time period		
Search 6	Return 🕖					

Fig. 89 Active Player - Video Search

- 1. Video Search: Click to show the Video Search screen as shown above.
- 2. **Record Type:** Select the types of recordings to include in search. You may select between Schedule / DI / Motion and PIR / Manual.
- 3. **Camera:** Select the cameras to include in search. Beside each camera there is an icon, you may click on it to see camera information tab.
- 4. **Time Period:** Mark the Start and end date/time for this search. Video that began before the starting time will be included unless "Include video that began before this time period" is unchecked.
- 5. Search: Click to search video archives according to the filter above
- 6. Return Button: Click to return to main page



Video Search Result

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Camera Name	Record Type	File Location	Start Time	End Time	Download 🕧
. ACTi	Manual	D:\Recordings\Channel5\Channel5_20100429135336_M.raw	2010/04/29 13:53:36	2010/04/29 13:54:58	Download
1. Car Park 2	Manual	C:\Recordings\Channel11\Channel11_20100429210046_M.raw	2010/04/29 21:00:46	2010/04/29 21:00:52	Download
. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430104709.raw	2010/04/30 10:47:09	2010/04/30 10:57:08	Download
. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430104810.raw	2010/04/30 10:48:10	2010/04/30 10:58:09	Download
. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430105709.raw	2010/04/30 10:57:09	2010/04/30 11:07:08	Download
. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430105810.raw	2010/04/30 10:58:10	2010/04/30 11:08:09	Download
. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430110709.raw	2010/04/30 11:07:09	2010/04/30 11:17:08	Download
. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430110810.raw	2010/04/30 11:08:10	2010/04/30 11:18:09	Download
. Entrance 4	Manual	C:\Recordings\Channel4\Channel4_20100430111227_M.raw	2010/04/30 11:12:27	2010/04/30 11:12:32	Download
. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430111709.raw	2010/04/30 11:17:09	2010/04/30 11:27:08	Download
. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430111810.raw	2010/04/30 11:18:10	2010/04/30 11:28:09	Download
. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430112709.raw	2010/04/30 11:27:09	2010/04/30 11:37:08	Download
. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430112810.raw	2010/04/30 11:28:10	2010/04/30 11:38:09	Download
. Camera-1	Schedule	C:\Recordings\Channel1\Channel1_20100430113501.raw	2010/04/30 11:35:01	2010/04/30 11:45:00	Download
. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430113709.raw	2010/04/30 11:37:09	2010/04/30 11:47:08	Download
. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430113810.raw	2010/04/30 11:38:10	2010/04/30 11:48:09	Download
Comoro 1	Schodulo	C:\Pocordings\Chappol1\Chappol1_20100430114501_raw	2010/04/20 11-46-01	2010/04/30 11-55-00	Download

Fig. 90 Active Player – Video Search result

- 1. Camera Name: Display the camera name that matches the search criteria
- 2. **Recording Type:** Displays the recording type. This value can be Schedule, Manual or event.
- 3. File Location: Displays physical file location in NVR Server.
- 4. Start Time / End Time: Displays start / end date/time of the video clip
- 5. End Time: Displays end date/time of the video clip
- 6. Page Indicator: User may go to different pages of the search result here.
- 7. **Download:** Download video file to your local drive.
- 8. Return: Click to return to search page



Play Archive from Search Page

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ch					
arch Result					
14 4 Page	/ 162 🕨 🔰 Di	splaying data 1-20 / 3237			
Camera Name	Record Type	File Location	Start Time	End Time	Download
11. Car Park 2	Manual	C:\Recordings\Channel11\Channel11_20100429210042_M.raw 1	2010/04/29 21:00:42	2010/04/29 21:00:45	Download
11. Car Park 2	Manual	C:\Recordings\Channel11\Channel11_20100429210046_M.raw	2010/04/29 21:00:46	2010/04/29 21:00:52	Download
3. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430104709.raw	2010/04/30 10:47:09	2010/04/30 10:57:08	Download
4. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430104810.raw	2010/04/30 10:48:10	2010/04/30 10:58:09	Download
3. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430105709.raw	2010/04/30 10:57:09	2010/04/30 11:07:08	Download
4. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430105810.raw	2010/04/30 10:58:10	2010/04/30 11:08:09	Download
3. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430110709.raw	2010/04/30 11:07:09	2010/04/30 11:17:08	Download
4. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430110810.raw	2010/04/30 11:08:10	2010/04/30 11:18:09	Download
4. Entrance 4	Manual	C:\Recordings\Channel4\Channel4_20100430111227_M.raw	2010/04/30 11:12:27	2010/04/30 11:12:32	Download
3. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430111709.raw	2010/04/30 11:17:09	2010/04/30 11:27:08	Download
4. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430111810.raw	2010/04/30 11:18:10	2010/04/30 11:28:09	Download
3. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430112709.raw	2010/04/30 11:27:09	2010/04/30 11:37:08	Download
4. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430112810.raw	2010/04/30 11:28:10	2010/04/30 11:38:09	Download
1. Camera-1	Schedule	C:\Recordings\Channel1\Channel1_20100430113501.raw	2010/04/30 11:35:01	2010/04/30 11:45:00	Download
3. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430113709.raw	2010/04/30 11:37:09	2010/04/30 11:47:08	Download
4. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430113810.raw	2010/04/30 11:38:10	2010/04/30 11:48:09	Download
1. Camera-1	Schedule	C:\Recordings\Channel1\Channel1_20100430114501.raw	2010/04/30 11:45:01	2010/04/30 11:55:00	Download
3. Entrance 3	Schedule	C:\Recordings\Channel3\Channel3_20100430114709.raw	2010/04/30 11:47:09	2010/04/30 11:57:08	Download
4. Entrance 4	Schedule	C:\Recordings\Channel4\Channel4_20100430114810.raw	2010/04/30 11:48:10	2010/04/30 11:58:09	Download

Fig. 91 Active Player – Play Archive from Search Page

After clicking the link from the search page, user can see the file information on the screen first, and playback will begin when the file is ready.


Snapshot Search

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N	Z DI	Motion and PIR					
6	<mark>6)</mark> ⊽ Camera &						
Ŀ	1:Camera-1 ①	2:Entrance 2 ①	☑ 3:Entrance 3 ①	✓ 4:Entrance 4 ①	5:Basketball Court 1 ①	6:Basketball Court 2 ①	
R	7:Canteen 1 🛈	Reanteen 2 (1)	9:Canteen 3 ①	10:Car Park 1 ①	11:Car Park 2 ①	12:Sidewalk 1 ①	
N	13:Sidewalk 2 ①	14:Corridor 1 ①	15:Corridor 2 ①	16:Corridor 3 (1)			
Ø Ti	me Period						۲
	Start Time 2010/03/30	00 • 00 • End Tim	e 2010/04/30 00 • 00 •				
	Search Re	eturn 🔞					

Fig. 92 Active Player – Snapshot Search

- 1. Snapshot Search: Click on Snapshot Search button to start search
- 2. **Event Type:** Displays the recording type. This value can be Schedule, Manual or event.
- 3. **Camera:** Select the cameras to include in search. Beside each camera there is an icon, you may click on it to see camera information tab.
- 4. **Time Period:** Mark the Start and end date/time for this snapshot search.
- 5. **Search:** Click to search snapshot archives according to the filter above
- 6. Return Button: Click to return to main page





Fig. 93 Snapshot Preview

 Thumbnail List: You may see the thumbnail image of the snapshots from the search results. In each thumbnail the type of event is listed at the top left. Beside the event type there is a small "Play" icon. You may click on the "Play" icon or double click on the thumbnail to playback that video. The video playback will start from the time of snapshot. The time of snapshot within that video is shown below the thumbnail.



2. **Snapshot View:** When you click on one thumbnail, a preview image the original snapshot will be displayed below in the Snapshot view area. You may see the physical file location below the snapshot, and click the link to the right to download snapshot file.

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Playback Control Panel



- 1. **Start Time:** Displays video clip start time
- 2. **Current Time:** Displays the date / time of the current video playback.
- 3. End Time: Displays end time of the video clip
- 4. **Playback scroll bar:** Shows the time bar of current video clip. Click and drag to change video segment to view.
- 5. **Previous recording:** Click this button to go to the recording file before the current one.
- 6. **Play backward**: Click this button to play backward.
- 7. Local Record: Click this button to record from the playback file. Click again to stop recording. This file is located in local PC, and cannot be search from NVR. When local record is in effect, the playback speed is automatically locked into 1x normal. Click on the Local Record button again to finish local record. This is a useful way to retrieve a segment out of a long video archive clip. The save path will be displayed at the bottom.
- 8. **Stop:** Click this button to stop playback.
- 9. **Pause:** Click this button to pause playback.
- 10. Play: Click this button to play forward.
- 11. **Next recording:** Click this button to go to the recording file after the current one.
- 12. **Speed bar:** This bar shows how fast this recording is being played. User can click the button on this bar to change playback speed. F to the left means frame-by–frame.





Export

Export	
1 File Type	© RAW ○ AVI
2 Path	C:\Users\Neil.Chuang\Desktop\NVR_ Browse
3 File Name	Channel7_20100429152552_M_EX.raw

Active Player - Export

Select a video window with a clip already playing, then click on the Export button in the main screen to export video. You may specify the following info:

Export 4

Cancel 6

- 1. File type of the Export file
- 2. Export destination path
- 3. Name of the Export file
- 4. Start Exporting
- 5. Cancel Export

NOTE: You may export video only from Workstation, not from Web Client. The original file must be located on the same PC as the workstation. If you are connecting to the server from a remote workstation, then you may open the files from Server, but will not be able to export them. If there are local recording files on the remote workstation PC, then the remote workstation user can export from these files, but not from files on NVR Server.

NOTE: To play the exported .AVI file, you must have FFDShow or DivX codec installed in your computer. They can be found over the internet at the following sites: http://sourceforge.net/projects/ffdshow/

http://www.divx.com/en/software/divx-plus/codec-pack



Time Based Search Bar



- 1. **Camera ID:** Shows the camera currently being displayed. To select the camera, click the camera name on the device tree.
- 2. Search time: Select the time for time bar starting point
- 3. **Search event:** Choose the types of recordings to include in the search
- 4. View-by-hour button: Change the scale of the time bar to one hour.
- 5. **View-by-day button:** Change the scale of the time bar to 24 hours.
- 6. **Search button:** Search for video with the above filter and display below.
- 7. **Time bar:** The video clips found by the above filter will be displayed here. You can see the time and type of recording available at a glance.
- 8. **Show previous section:** Go to the previous section. If the time scale is hour, the time bar will go back one hour. If it is day, it will go back by one day.
- 9. **Show next section:** Go to the next section. If the time scale is hour, the time bar will go forward one hour. If it is day, it will go forward one day.
- 10. File Information: Shows the recorded, date and time of the recording file.

Note: The time displayed is based upon device time, not NVR PC time.



Channel Layout



- 1. 1-Window View: Shows a single channel; video is not expanded if maximum resolution of the source video is reached.
- 2. 4-Window View: Shows a maximum of 2x2 video channels at one time.
- 3. 9-Window View: Shows a maximum of 3x3 video channels at one time.
- 4. 16-Window View: Shows a maximum of 4x4 video channels at one time.
- 5. 25-Window View: Shows a maximum of 5x5 video channels at one time.
- 6. 36-Window View: Shows a maximum of 6x6 video channels at one time.
- 7. 6-Window View: Shows one video channel with a larger view, and 5 others at a lower resolution.
- 8. 8-Window View: Shows one video channel with a larger view, and 7 others at a lower resolution.
- 9. 10-Window View: Shows two video channels with a larger view, and 8 others at a lower resolution.
- 10. Synchronous Button: 4-channel synchronized playback.

NOTE: The Synchronous Button will be enabled only when there are files being played back.

Synchronous Playback

4-channel synchronous playback function allows user to review what happened at a give time from four different cameras. Synchronized playback works by first finding the time you wish to investigate from a "Sync Main" channel. Then you may add up to three other reference channels that will synchronize with the Sync Main channel. These other channels are called Sync Follower.

Open file/Drag-drop channel



There are three ways to start a sync playback, first you need to define a "**sync main**" for other channels to sync with.

- 1. Drag: You may drag a channel into one of the 4-window view
- 2. Open: You can open a file from archive to sync with
- 3. Search: Your selected search result will be the main file to sync from.

Note: You may sync to a maximum of 4-channels at one time.



Finding your time and Synchronize



Fig. 94 Finding Sync Main start point

Here are the steps to prepare for synchronized playback.

- 1. Choose Video Screen: Open a recording in the view window to use as Sync Main.
- 2. Playback Time: Find the time you want to sync/view from Playback Control Panel
- 3. Time Bar: Or find the time you want to sync/view from Time Based Search Bar
- 4. Synchronize Button: Then click on the synchronize button to confirm the current channel as Sync Main.



Sync Main and Sync Follower

	s 🖸 🐼 🥸 🔍 🕵 💯	admin as Administrator 2010年4月30日下午07:21:23		
Refresh Camera ID 💌				
MediaSource Min ALL CAMERA ① 🌺 1. Entrance 1	Sync Main O	Sync Follower 2		
①	Camera Name: MediaSource > 14.Corridor 1 Current Time: 2010/04/30 19:17:42 Source File Path: C:\Recordings\Channel14\Channel14_2 0100430191740.raw	Camera Name: MediaSource > 14.Corridor 1 Current Time: 2010/04/30 19:17:42 Source File Path: C:\Recordings\Channel14\Channel14_2 0100430191740.raw		
 (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	Sync Follower 🔮 🛛 🖂	Sync Follower 🔮 🛛 🖂		
① ● 14. Corridor 1 ① ● 15. Corridor 2 ① ● 16. Corridor 3 Open Digital Zoom Export Start Time Now End Time 2010/04/30 2010/04/30 2010/04/30 19:17:40 19:17:42 19:19:39	Camera Name: MediaSource > 15.Corridor 2 Current Time: 2010/04/30 19:17:42 Source File Path: C:\Recordings\Channel15\Channel15_2 0100430191624.raw	Camera Name: MediaSource > 16.Corridor 3 Current Time: 2010/04/30 19:17:42 Source File Path: C:\Recordings\Channel16\Channel16_2 0100430191550.raw		

Fig. 95 Sync Main and Sync Follower

- 1. Sync Main: This is the Main channel/file that the other channels would synchronize to.
- 2. Sync Follower 1: Drag/add the channel you want to synchronize with Sync Main here.
- 3. Sync Follower 2: Drag/add the channel you want to synchronize with Sync Main here.
- 4. Sync Follower 3: Drag/add the channel you want to synchronize with Sync Main here.

If the channel you drag into Sync Follower view windows does not have recording at the time selected, then it will show as "Sync Fail". You will need to find another channel with recording at the same time to do Sync Playback.

Note: You may only have one channel acting as Sync Main. Once a channel is defined as Sync Main, you need to first click "Cancel" below to exit Sync Playback mode before disconnecting the Sync Main channel.



Sync Playback



- 1. Play: Click this button to play forward.
- 2. Pause: Click this button to pause playback.
- 3. Stop: Click this button to stop playback.
- 4. Play backward: Click this button to play backward.
- 5. Cancel: Cancel sync playback.
- 6. Synchronization Button: Start or Stop sync playback.
- 7. Disconnect all Channels: disconnect all channels and cancel sync playback.
- 8. Disconnect Channel: You may disconnect all sync followers except sync main.

Note: Under Sync Playback mode you may not use Search and Snapshot view button. While Sync Playback (Play/Pause) you may drag/add more channels to empty ones or replace original ones.

Active Map

Active Map viewer shows live video overlaid upon area maps. It can help you get a much better visualization of your surveillance system. You can also navigate between several maps or cycle through maps on a preset tour. This section describes how to operate the e-Map system via Active Map. Before using Active Map, please be sure to setup your Camera Groups and e-Map properly.

Map Overview

The Active map screen is divided in two parts. To the left is the camera tree sorted by Camera Groups. To the right is the map view area.



Fig. 96 Active Map - Active Map Overview

- 1. **Camera Tree:** The cameras are shown in camera groups here. Select each camera group to show the map linked to that particular group.
- Camera: Icons representing each camera is shown here on the map. Arrows indicating the direction they point to may also be shown if it is configured in the map setup section.
 Double click on camera icon to show mini-preview.
- 3. Live View Window: These windows display the live view from cameras. If an event is currently active, the bar at the top will turn red. Related event symbol will appear beside it, and red rectangle will appear for Motion Detection or PIR events.
- 4. Camera Info: if your mouse hovers over the camera, then a popup text box will show up



with information on this camera.

- 5. **Event rectangle**: If an event is currently being triggered for a certain camera, it will be highlighted on the map with a red square.
- 6. **Event Symbol:** When event is happening to a certain camera, small symbols of the event type will show beside the camera and the camera live view. This allows the user to identify what happened to the camera swiftly.
- 7. Full Screen: Click here for full screen mode. To return, pres Esc.
- 8. **Map Tour:** Click here to start the predefined Map tour. Please go to Map Setup section for details.
- 9. Live View Start / Stop: Click here to toggle live view from all cameras.

Mini Preview

To get a more detailed view on a certain camera, there are two ways to bring up the mini preview window.

- 1. Double-clicking on camera icon, or
- 2. Double-clicking on the live preview window



Fig. 97 Active Map - Mini Preview Window

- 1. Mini-Preview Window: Mini-preview window displays with larger display window.
- 2. Audio Control: User may turn on/off audio transmissions here.

NOTE: You may also control PTZ cameras via on-screen mouse PTZ.



Web Client

Introduction

NVR Web Client is an alternative to NVR Workstation. It provides access to NVR through Internet Explorer 8.0 or 9.0. The layouts and functions are almost the same as NVR workstation with a few restrictions. User will only need to install a small ActiveX control add-on to IE without requiring any desktop application.

Connecting to NVR as a Web Client

- Open your Internet Explorer Browser (Only IE 8.0 and 9.0 are supported. Firefox / Safari / Chrome or other browsers may not access NVR web client.)
- In the address bar, type in the web address of the NVR server. If the HTTP port it uses is the default 80 then you do not need to add any port number. If the HTTP port it uses has been changed, please add a colon and the port number after the IP address.

Sample Scenarios:

http://127.0.0.1 (Local host, used when running web client on the NVR Server PC.)



http://127.0.0.1:3456 (Local host, HTTP Port changed to 3456) http://192.168.0.200 (Connecting to NVR server from another PC over LAN) http://192.168.0.200:3456 (Connecting to NVR server from another PC over LAN, HTTP Port changed to 3456)

 If you are logging in for the first time, a warning bar will appear in the page. Click to install the ActiveX control and run the add-on to access NVR. This installation is secure, and you will only need to install once for each PC.

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🍘 Web Configurator - Version v3.0 - Windows Internet Explorer	
🕒 🗸 🖉 http://10.1.1.111/cgi-bin/videoconfiguration.cgi	👻 😒 🐓 🗙 🚰 Google 🖉 🗸
😭 Favorites 🛛 🙀 🗃 Suggested Sites 🔻 😹 Web Slice Gallery 👻	
Heb Configurator - Version v3.0	🚹 👻 🖂 👻 🔤 👘 👻 Page 👻 Safety 👻 T <u>o</u> ols 🕶 🔞 👻
1 This website wants to run the following add-on: 'nvEPLMedia.ocx' from 'A O Corporation'. If you trust the websit	e and the add-on and want to allow it to run, click here 🗙



4. The Web Client login screen is shown below.

Login					
User Account *	Admin				
Password *					
Server IP Address *	10.1.1.107:80				
Application *	NVR				
Language *	English (United States) ▼ ● Basic ○ Advanced				
Preview Mode *					
Auto login with this account					
Save as Default					
Use CTRL+F10 to cancel auto-login mode.					
	Login				

Fig. 98 Web Client – Login Screen

There are two important differences between the login screen of Web Client and Workstation.

Firstly the Server IP Address/port is not editable as you have already decided how to access your server when you typed in the address bar. Secondly the Preview mode now has two options, Basic and Advanced. Advanced mode is almost the same as NVR workstation. Basic mode is used when you want to restrict access or for simple observers.



5. Once you've logged into Web Client, it looks exactly like the NVR workstation. The default login connects you to the Active Monitor if you do not have access right to Active Monitor, it will connect you to modules where your account has permission to.



Fig. 99 Web Client – Basic Mode



Fig. 100 Web Client – Advanced Mode

Web Client Restrictions

Below is a List of functions available to Workstation and not to Web Client

- In Setup Camera → Event Action → Beep and play audio file, Play audio file is not available to Web Client.
- 2. In Setup System \rightarrow PTZ setup, you may not use PTZ file function from Web Client.
- 3. In Setup System \rightarrow System, Camera Model Update is not available to Web Client.
- 4. In Setup System, Joystick setting is not available to Web Client.
- 5. In Setup System \rightarrow System, Default Export Path is not available to Web Client
- 6. You may not export files from Web Client, including Language files, Raw/AVI files and system logs.
- 7. You may not setup eMap from web client



ACTi Utility Suite

Aside from NVR, we also provide a set of utilities to help round out the features. Here is a brief introduction to the utility programs. For details, please go to the respective user's manual.

IP Utility

IP Utility helps you find cameras over LAN network, and allows for multiple camera firmware upgrades at the same time. You may also backup and restore device settings through IP Utility. Often it is faster to use IP utility to check if your device is properly running then go through NVR.

Media converter

Media converter helps you process your recorded files into your desired format. You may convert between RAW / AVI / MP4 / JPG formats. You may also trim a section out of the original video for your convenience

Backup Wizard

Backup Wizard provides a convenient way to safeguard your NVR settings. In case of any troubleshooting needs, you may also provide a backup file for easier troubleshooting.

Streaming Explorer

Streaming explorer is a handy little tool to control camera directly. It is especially useful when testing PTZ or OSD functions, as it does not include bulky setup steps, but goes directly to camera control.

Archive Player

Archive Player allows you to view recorded video in detail. When you need to present evidence to Law Enforcement authorities, sometimes they do not have proper software to view .RAW or .AVI files. This is a little program to pack along with the recording of the suspect so that they can work with you and enhance security.