NVE Series
User's Manual

UDP Technology

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1. Software Development Kit

1.1. SDK Layout

A list of the files provided with the NVE is as follows.

{SDK Root}

This is the root path of SDK.

1.1.1. {SDK Root}/BIN

This folder contains binary files.

{SDK Root}/BIN/DEMO Vxxxx

File	Description
PrismII.exe	Powerful Windows GUI demonstration application that uses UDA5 ([UDP Co.]'s own API). ● Related manuals: PrismII.exe section in this manual ● Related files: UdaNVE.dll, [CardManagers], [Filters], *.xml, IPAdminTool.dll
RTSPExTest.exe	You can test RTSP commands by using this application. ● Related manuals: NVE RTSP Reference Manual
StartUDA5.exe	A startup exemplar application that shows you how you can use UDA5 API. ● Related manuals: UDA5 manuals.
RecorderTest.exe	A test program for recording external USB device.

{SDK Root}/BIN/FIRMWARE

Folder	Description
[FIRMWARE K600]	Contains the interim firmware image file for updating the protected firmware from non-protected firmware ● Related manuals: TN0090E
Firmware Kxxx	Contains firmware image file. The last digits represent firmware version number. For example, the firmware version of 'Kernel16X617' is 617 in decimal.

OCX Vx.x.x.x	ActiveX file for web pages (UMC.cab)
WebPage Vx.x.x	Web pages The latest kernel no longer contains web pages in it. You need these files under this folder to update web.
brand-default.conf	It is for customizing brand name and model name.
UMCVx.x.x.cab.wrp-CAP.enc	Encrypted ActiveX with company code 000000
WebpageVx.x.x.wrp-CAP.enc	Encrypted Webpage with company code 000000
Kernel16xXXX	Encrypted Kernel with company code 000000

{SDK Root}/BIN/FIRMWARE

Folder	Description
[FIRMWARE(Package) Kxxx]	Contains the packaged firmware that contains kernel, webpage and ActiveX. ● Related manuals: TN0090E

{SDK Root}/BIN/LIB

Folder	Description
[UdaNVE DLL Vxxxx]	This folder contains C header files, library file and DLL file for UDA5 API, UdaNVE.dll. ● Related manuals: UDA5 SDK Standard Manual-Eng.pdf ● Related files: UdaNVE.dll, Cmn5BoardLibEx.h, Cod5BoardLibEx.h, Net5BoardLibEx.h, UdaNVE.lib
IPAdminTool	IPAdminTool library files (IPAdminTool.dll, IPAdminTool.lib) and a header file.(common.h)

{SDK Root}/BIN/TOOLS

File	Description
IPAdminTool.exe	This tool configures and manages NVE devices. This folder also contains ActiveX component, UMC.cab. When you get new SDK, you have to update ActiveX also. See 'IPAdminTool User's Manual-Eng.pdf' for the detailed information on updating ActiveX component. ● Related manuals: IPAdminTool User's Manual-Eng.pdf
ProtectTool	This tool is used for encrypting and packaging the component with company code.

1.1.2. {SDK Root}/DOC

File	Description
UDP Media Control.chm	SDK manual for using ActiveX component.
NVE Series User's Manual-Eng.pdf	This document. It contains general information on NVE1000/2000/4000 and IPC module.
PrismII User Manual-Eng.pdf	Manual for PrismII operation.
UDA5 Cod5 API Reference-Eng.pdf	API reference of Cod5 for UDA5.
UDA5 Net5 API Reference-Eng.pdf	API reference of Net5 for UDA5.
UDA5 NVE SDK Manual-Eng.pdf	It contains specific information of UDA5 for NVE devices.
UDA5 SDK Standard Manual-Eng.pdf	It contains general information of UDA5 SDK document.
NVE RTSP Reference Manual.pdf	RTSP API reference.
IPAdminTool User's Manual-Eng.pdf	User's manual for IPAdminTool.
NVE HTTP API Manual-Eng.pdf	HTTP API reference.
NVE Web Page User's Manual.pdf	User's manual for web pages.
IPC module Hardware Manual.pdf	Hardware manual for IPC module.
NVE Series Hardware Manual-Eng.pdf	Hardware manual for NVE1000/2000/4000.
IPC1100 Hardware Manual.pdf	Hardware manual for IPC1100
IPC3100 Hardware Manual.pdf	Hardware manual for IPC3100
IPC3500 Hardware Manual.pdf	Hardware manual for IPC3500
IPC4100 Hardware Manual.pdf	Hardware manual for IPC4100
IPC4500 Hardware Manual.pdf	Hardware manual for IPC5100

{SDK Root}/DOC/Technical Notes

This folder contains additional technical articles.

1.1.3. {SDK Root}/SRC

File	Description
IPAdminTool SRC Vxxxx	The source code of IPAdminTool
MgrNVE SRC Vxxxx	The source code of MgrNVE.dll, which is executed inside PrismII.exe. All of the main features of PrismII is implemented in this DLL.
PrismII SRC Vxxxx	The source code of PrismII.exe. PrismII.exe is a framework.
RTSPExTest Vxxxx	The source code of RTSPExTest.exe.
RTSPoverHTTP SRC Vxxx	The source code of RTSP over HTTP
SerialTest SRC Vxxx	The source code of Serial Test
StartRTSP SRC Vxxxx	See below section for detailed information.
StartUDA5 SRC Vxxxx	StartUDA5 is considered as a startup exemplar that makes you familiar with UDA5 API.

Detailed information on *StartRTSP SRC Vxxxx*

StartRTSP demonstrates how you can make a simple RTSP application using C socket functions. This

sample source code can be built as a client PC program (Windows) and an add-on application (Linux) in NVE.

- This program executes several RTSP commands and saves 10-second stream.
- You have to modify the IP address and the port number, because the IP address and port number are hard-coded in the source code.
- Only RTSP/RTP/UDP protocol is implemented.
- Media data transferred are as following:
  - MPEG-4: bin and idx files are generated. Use ConvertToAvi.exe to convert the saved file to AVI file.
  - PCM: PCM wave file.
  - Event: Messages are printed to console. Refer 'RTSP Method Reference manuals' for the detailed information.

1.1.4. /Library/NVE Add-on Application

This folder contains build tools to build add-on application. The build tools are gcc cross compiler and sdelinux library.
This folder is not included in the NVE SDK. This is provided based on the request.

2. Software Operation Description

2.1. Firmware, webpage, and ActiveX Update

To upload firmware, webpage and active X in NVE series, you need to access NVE on the web. And IP utility, **IPAdminTool** is provided for that. For detail description of update of firmware, webpage and Active X, refer to the **TN0090E [NVE] How to Update the protection model firmware.pdf**
And about how to use the IPAdminTool, you can refer to ***IPAdminTool User's Manual.pdf*** as mentioned section **2.3 IPAdmin Tools.**

2.2. IP Address Setup

In order to setup the IP Address for each NVE system, it can be done both on the web page and IPAdminTool. Refer to the below manuals in the SDK.

NVE Web Page User's Manual.pdf : refer to **4.3. Network Setup**
IPAdminTool User's Manual.pdf : refer to **3.1 IPAdminTool**

2.3. IP Admin Tools

IP Admin Tool is for searching IP products on the intranet. It gives information of IP address, subnet mask, gateway, MAC address and so on (refer to ***IPAdminTool User's Manual.pdf*** in ***{SDK Root}\DOC*** \ for more detailed information.)

3. SDK Guide

3.1. SDK Manual

3.1.1. SDK Hierarchy

Three types of Software Development Kits (SDK) that are provided for application development are listed below. SDK sample programs to assist users are listed in parentheses.

- RTSP SDK
- UDA5 SDK (PrismII.exe)
- HTTP-API

Figure 1 illustrates the relationship between the three SDK types. At the lowest level, Real Time Streaming Protocol (RTSP) and Real time Transport Protocol (RTP) are used to initiate and direct delivery of streaming multimedia data from media servers and to deliver real-time data over the network, respectively.
At the next level, COD5 and NET5 APIs in UDA5 SDK may be used to compress video/audio data obtained from the RTSP/RTP layer and to generate various data over the network.
The NVE Series also has an HTTP based application programming interface. The purpose of the HTTP-API is to make it easier for developers to build applications that support NVE products

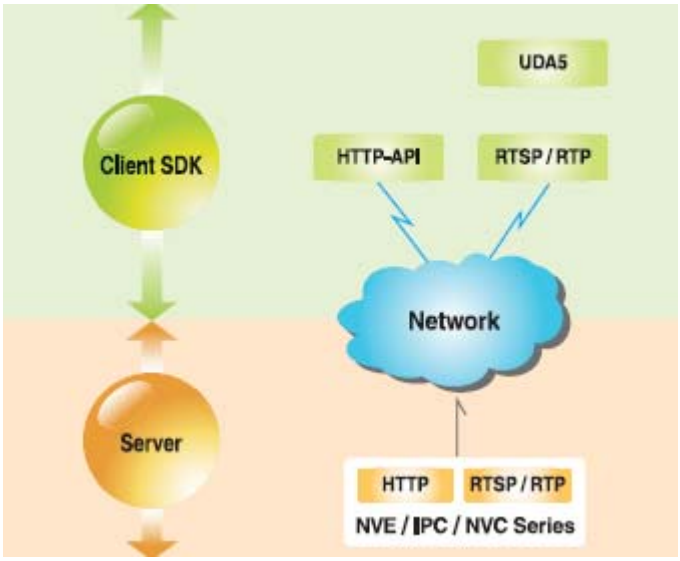


Figure 1. SDK Hierarchy

3.1.2. RTSP

Client application may be developed using the RTSP-based programming method.
For more details, refer to the following documentation:

- Real Time Streaming Protocol - RFC2326
- Session Description Protocol - RFC2327
- {SDK Root}/DOC/NVE RTSP Reference Manual.pdf

3.1.3. UDA5

UDA5 is an integrated SDK developed by UDP. It consists of five different API sets that generate, compress and transmit audio/video data and send it through the network. All UDP products were designed to work with a combination of these API sets. For NVE, only COD5 and NET5 API sets are used.

- COD5: Generates compressed audio/video data
- NET5: Generates various data over networks

For more details, refer to the following files:

- {SDK Root}/DOC/UDA5 Cod5 API Reference-Eng.pdf
- {SDK Root}/DOC/UDA5 Net5 API Reference-Eng.pdf
- {SDK Root}/DOC/UDA5 NVE SDK Manual-Eng.pdf
- {SDK Root}/DOC/UDA5 SDK Standard Manual-Eng.pdf

3.1.4. HTTP-API

This NVE HTTP-API provides functionality for requesting images, controlling network camera functions (PTZ, DI and DO) and setting/retrieving internal parameter values.

For more details, refer to the following files:

- {SDK Root}/DOC/NVE HTTP-API manual-Eng.pdf

3.2. Description of SDK Sample Programs

3.2.1. PrismII.exe

In order to use any encoder in NVE Series with PrismII, the NVE Card Manager and required filters must be registered in PrismII. Only the method for using the NVE Card Manager is described herein. For details on how to use PrismII and the filters, refer to the following file:

- {SDK Root}/DOC/PrismII User Manual-Eng.pdf

Connection

STEP 1 Execute {SDK Root}/BIN/DEMO/***PrismII.exe***.

STEP 2 In the PrismII select a server to connect in the server list (1) shown below and select channels to add in (2). The default ***User ID*** is ‘root’ and ***User PW*** is ‘pass’. To connect to server manually, check ***Manual*** (3) and then type URL in ***URL*** edit box (4).

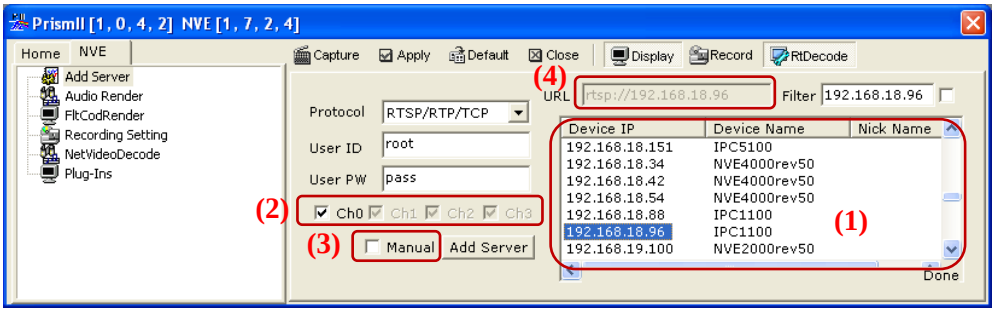


Figure 2. Select the server to connect

STEP 3 Click ***Add Server*** (1) to connect selected channels. NVE channels that have been connected will then be displayed in (2).

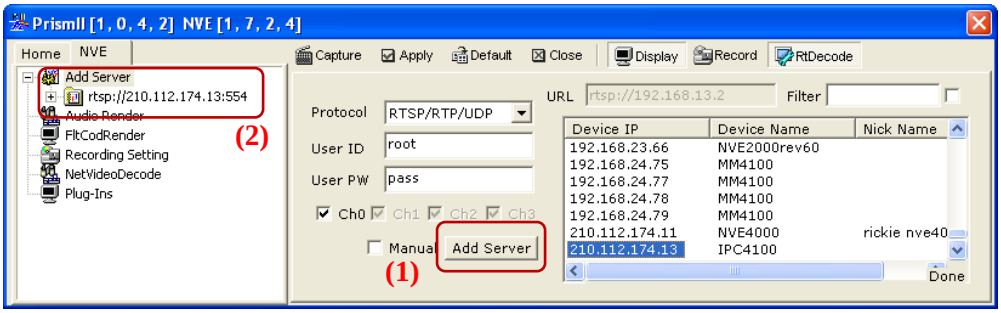


Figure 3. Connection to NVE

STEP 4 To delete a server, select it and click ***Delete Server*** in the bottom right corner of PrismII, as shown in Figure 4.

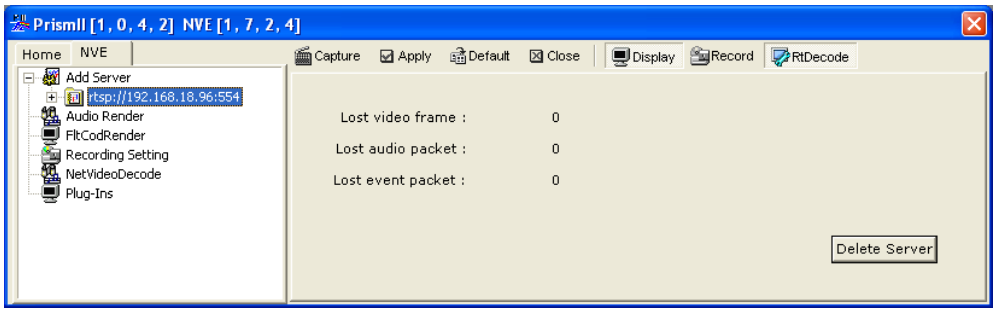


Figure 4. Connected Server Deletion

STEP 5 If ***Capture*** is clicked as shown in Figure 5, video data transmitted from all the connected channels of the NVE will be displayed.

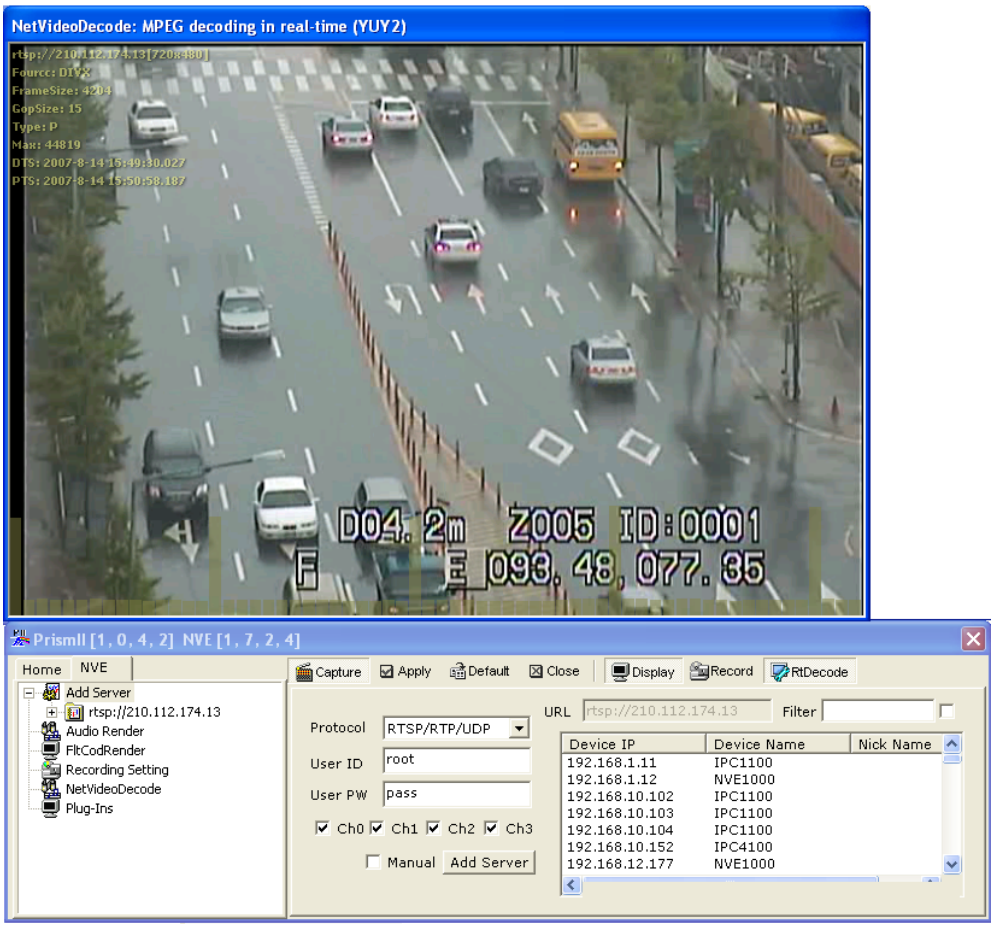


Figure 5. NVE RTDecode Screen

Changing Settings

STEP 1 Change settings as needed from the screen shown in Figure 6 and then click ***Apply***.

Video Settings

Using the sliders in the video settings page, you can adjust the color and sharpness.

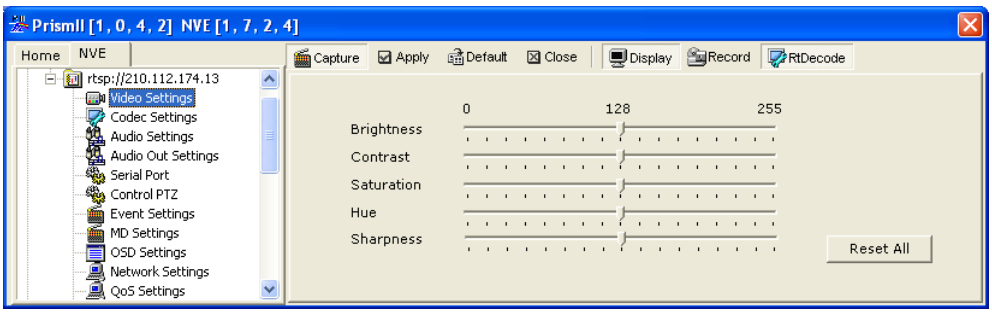


Figure 6. Video Settings

The range of each value is 0 to 255 and default value is 128. All of the values are applied immediately if they are adjusted. For sharpness, actual value that can be treated as meaningful is shown in the following table.

Caution!
If your item is one of the IPC series or NVE100 with PAL video format, Hue value adjustment doesn't work at all. This is because of the characteristic of the decoder chip built in IPC series and NVE100. If your video format is NTSC, it has no problem in hue value adjustment.

Sharpness

HW	UDA5
0	0~9
1	10~26
2	27~43
3	44~60
4	61~77
5	78~94
6	95~111
7	112~128
8	129~145
9	146~162
10	163~179
11	180~196
12	197~213
13	214~230
14	231~247
15	248~255

Codec Settings

Codec settings page provides options for video encoding.

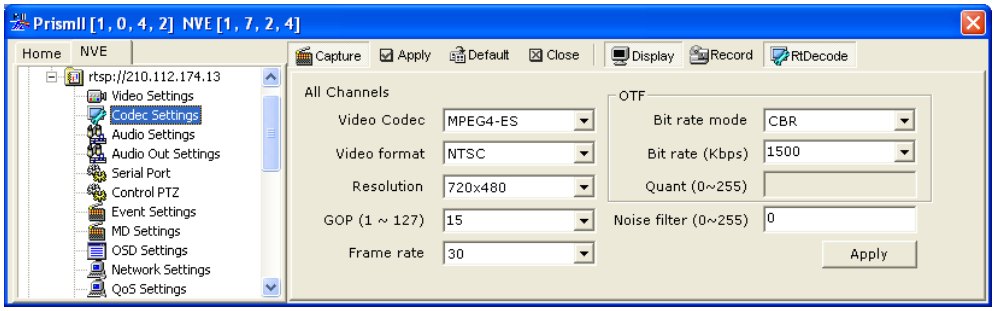


Figure 7. Codec Settings

Video Codec:
MPEG-4 and MJPEG are supported. The default codec is MPEG4.

Video format:
The video format is detected automatically when the device is booting up. This can be change by a user.

Resolution:
The supported resolution is as follow.

	NTSC	PAL
D1	720x480	720x576
VGA	640x480	640x480
QVGA	320x240	320x240
4CIF	704x480	704x576
2CIF	704x240	704x288
CIF	352x240	352x288
QCIF	176x112	176x144

GOP:
GOP is I frame interval. The range is from 1 to 255. If GOP size is 1, only I frame is generated.

Frame rate:
This value represents the encoded frame per one second and this is limitation by hardware.

Video Format	Available frame rate
NTSC	30, 15, 10, 7.5, 6, 3.75, 2, 1
PAL	25, 12.5, 8, 6.25, 5, 4, 3, 1

Bit rate mode:
CBR and VBR are supported. The default mode is CBR.

Bit rate:
This is available only when the bit rate mode is CBR The rage is 256 Kbps to 10Mbps. Type the bit rate manually to set it bigger than 5000.

Quant:
This is available only when the bit rate mode is VBR. The range is from 0 to 255. The lower value makes better images.

Noise Filter:
The range is from 0 to 255 but actually this value will be treated as one of five different levels as in the following table. The lower value represents a lower filtering of noise.

Noise Filter

HW	UDA5
0	0 ~ 31
1	32~95
2	96~159
3	160~223
4	224~255

To apply the changed value, click the apply button in the codec setting page or click the apply button in the toolbar.

Audio Settings

The audio setting page provides the options for the audio input.

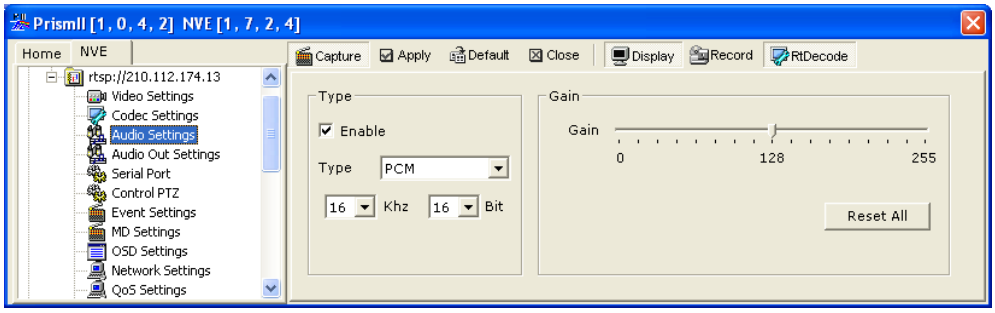


Figure 8. Audio Settings

Audio Out Settings

The audio out setting page provides the options for the audio output.

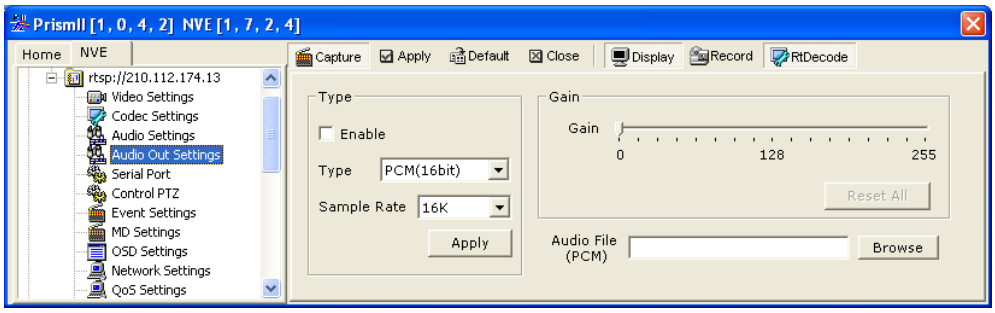


Figure 9. Audio Out Setting

PrismII includes the audio data for testing the audio out. If an audio file is loading, the audio file plays to the audio out instead of the built-in audio data. The loaded wave file must be 16 bit, 16KHz wave form.

Serial Port

The Serial port page provides options of the serial port – RS-485 and RS232C.

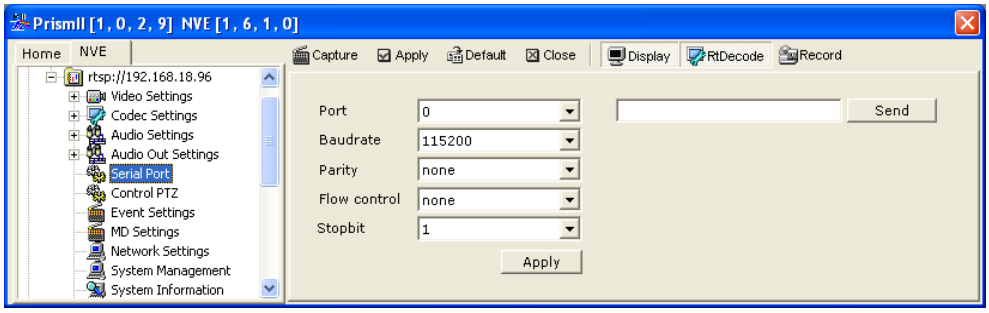


Figure 10. Serial Port

The port 1 indicates RS-485 and the port 0 indicates RS-232C(console). For testing the serial port, you can send the ASCII string using ***Send*** edit box and ***Send*** button.

Control PTZ

PTZ camera movement can be controlled in the Control PTZ section as follows.
Click ***U***, ***D***, ***L*** or ***R*** for regular movements and ***u***, ***d***, ***l*** or ***r*** for fine adjustments. Use **+** and **-** to zoom in and zoom out.
To use the PTZ keyboard, select a suitable COM port from the combo box in the ***Serial To Network*** section and then click ***Open*** as shown in Figure 9. After opening the COM port, the PTZ camera can be controlled by the PTZ keyboard.

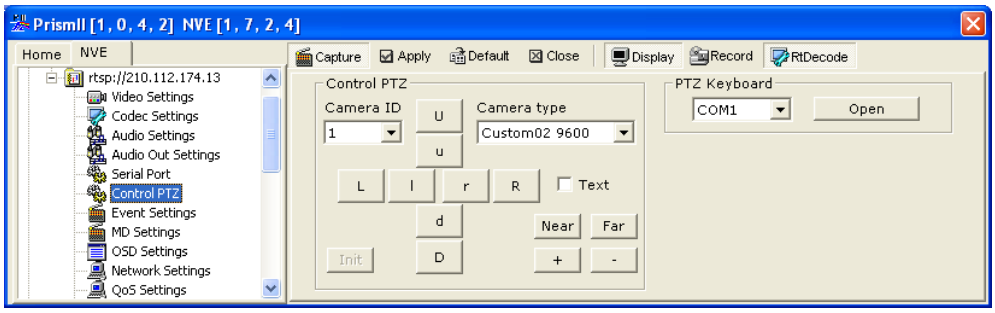


Figure 11. Control PTZ

Event Settings

The event settings page displays the video status, the D/I status and the D/O status and controls the D/O status.

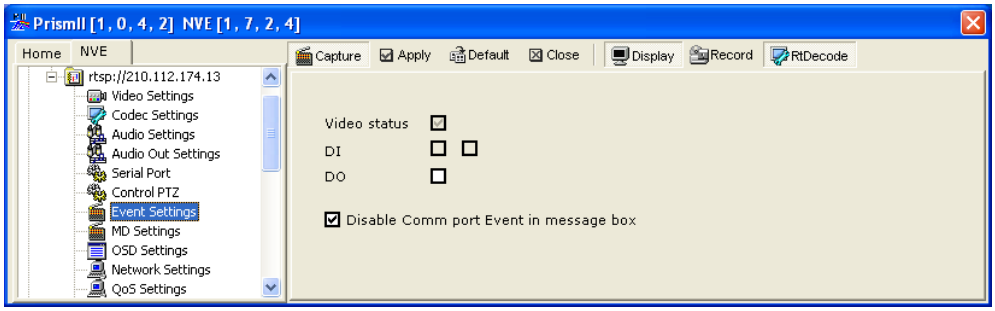


Figure 9. Event settings

MD Settings

The MD setting page shows the motion detection area which is set and provides the option for MD.

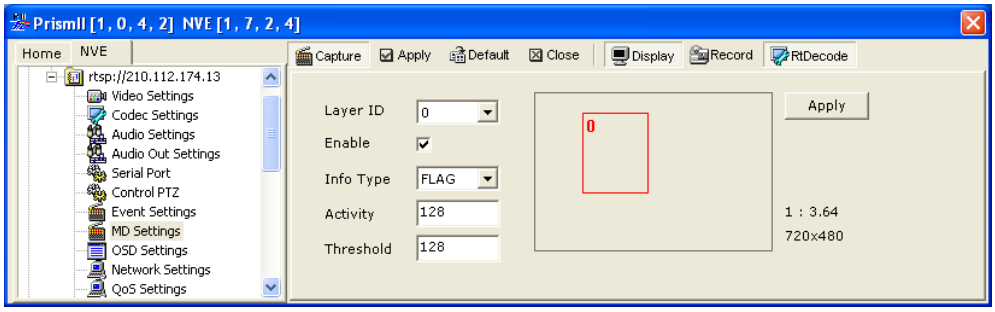


Figure 103. MD settings

Layer ID:
Three layers are supported and each layer can have different activity and threshold. MD area consists of the macroblock as 16 pixels by16 pixels. The number of the macroblock is changeable depend on the image size.

Activity
The activity specifies the proportion of the macroblocks which is motion-detected in the MD area. The rage of the activity is 0 from 255, and lower values represent more sensitive performance.

Threshold
The threshold specifies the sensitivity of each macroblcok and has 0 to 255. Lower values represent more sensitive performance.

Info Type
The motion detection information that is received is different depend on ***Info Type***.

Info Type	Motion detection information
FLAG	Layer ID
COUNT	Layer ID + Macroblcok Count
BITMAP	Layer ID + Macroblcok Count + Bitmap
CONTINUOUS	Layer ID + Macroblcok Count

To set the MD area, drag the mouse after click the left button of the mouse. If unchecking ***Enable***, all of the MD areas are deleted.

OSD Settings

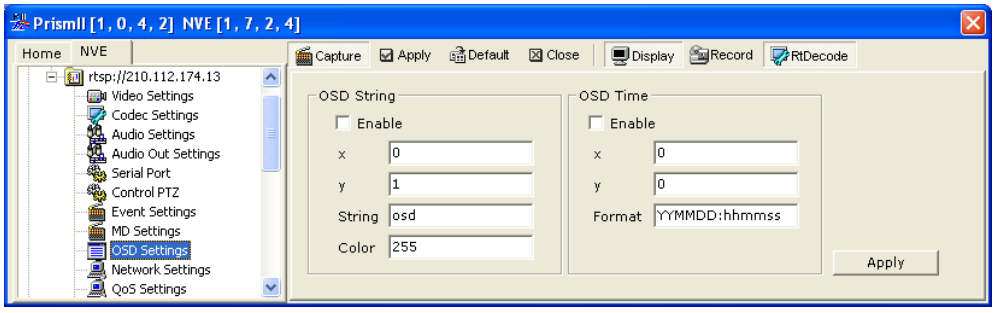


Figure 114. OSD Settings

OSD String
x : x coordinate as character unit
y : y coordinate as character unit
String : ASCII character string
Color : grey scale color from 0 to 255. 255 is white and 0 is black.

OSD Time
OSD time is refreshed per 1 second. Only YYMMDD:hhmmss format is supported.

Network Settings

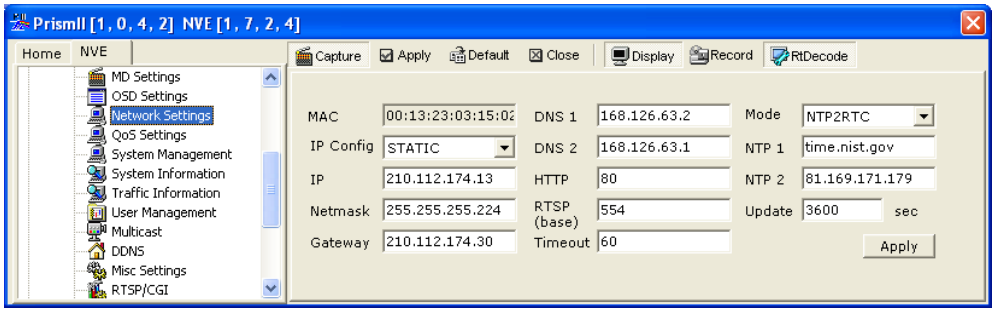


Figure 125. Network Setting

IP Config/IP/Netmask/Gateway
If IP config is DYNAMIC, IP address, netmask and gateway are received from a DHCP server. If IP config is STATIC, you have to input the IP address, netmask and gateway manually as IPv4 format(e.g. 192.168.18.96). .

HTTP:
This is the port number for HTTP.

RTSP:
This is the port number of first channel for RTSP. If a device has one more channel, the port number of next channel succeeds the port number of the first channel.
For example, if the port number of first channel is 554, the second channel's is 555.

System time configuration
To set the system time, three modes are provides as following table.

Mode	Description
NTP2RTC	Change the system time and RTC to time retrieved from NTP server.
RTC	Change the system time to time retrieved from RTC.
NTP	Change the system time to time retrieved from NTP server.

Up to three NTP servers are supported, but PrismII provides the interface for two NTP servers. Both URL and IP address are available as the address of NTP server.

QoS Settings

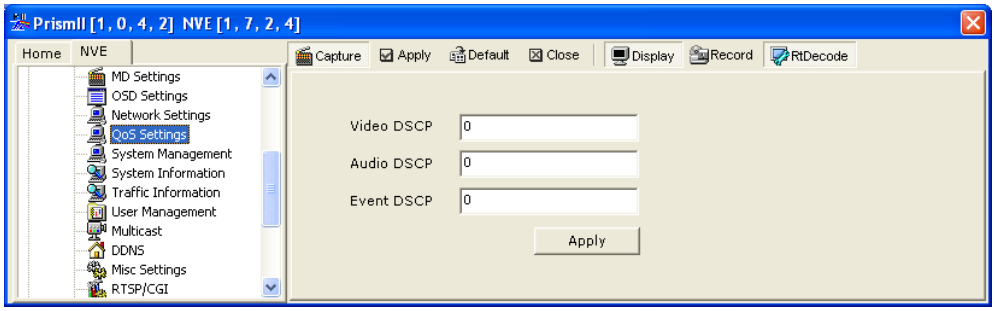


Figure 13. Qos Setting

UDP use DiffServ model for implementing QoS and currently video, audio and event classed are supported.

Video DSCP:
dscp of video packet
Audio DSCP:
dscp of video packet
Event DSCP:
dscp of video packet

DSCP values should be specified in decimal number converted from original 6 bit binary digit. Default value is 0, which means 000000 for DSCP value. To set the device to support Expedited Forwarding, the recommend value for DSCP is 46(=101110).

System Management

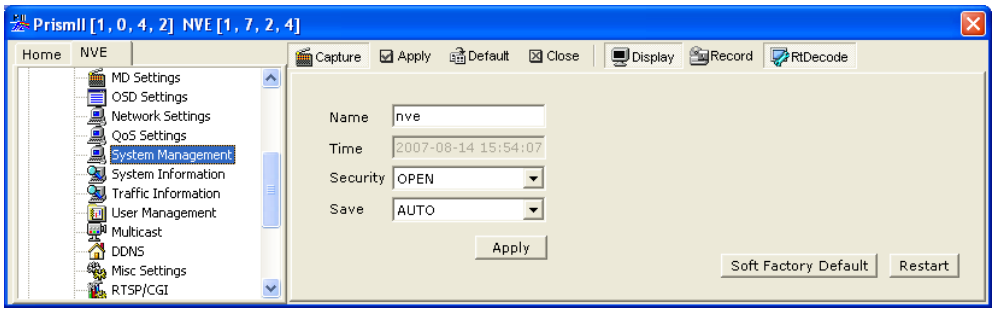


Figure 147. System management

Name
Name specifies the system name for distinguishing among other devices.

Time
This displays the current system time of the device.

Security
Three types are provided for logging-in the device as follow.

Security Type	Description
OPEN	Can control all of functions without logging-in
LOGIN_ONLY	Can control all of functions with logging-in.
LOGIN_ACCESS	Can control functions as depending on user's security level.

For detailed information about the user's security level, refer to "User Managements".

Save
The save mode specifies the time for storing a changed configuration.

Save Mode	Description
AUTO	A configuration is saved automatically whenever the configuration is changed.
MANUAL	A configuration is saved when the client requests to save it.

Software Factory Default
If you execute **software factory default**, all environment variables except variables at below table are restored to default value. More specifically, all variables stored in the NVRAM and configuration files are deleted.

Keyword	Name

HARDWARE_INFO	firmware_version
	hw_revision
	model_id
	max_video_ch
	max_audio_ch
	max_video_out_ch
	max_video_loopback_ch
	max_audio_out_ch
	max_di
	max_do
	max_serial_port
	has_factory_default
	has_watchdog
	has_rtc
	usn.b[#]
	user_region.b[#]
	information_string
ACTIVATE	code
NETWORK	mode
	ipaddr
	subnetmask
	gateway
	mac
	pppoe_id
	pppoe_pswd
	http_port
	rtsp_port
SYSTEM_MGR	time
DDNS	address
	user_id
	user_pw
	dns_name

For more information about hardware factory default, please refer to the NVE Series Hardware manual.
When you use the hardware factory default, the following variables are also changed.
Network: **mode**(DHCP, fixed), **subnetmask, gateway, http_port, rtsp_port.**

Restart
If clicking ***Restart***, a device is rebooted.

System Information

Press the ***HW Info*** button to get string of hardware information..

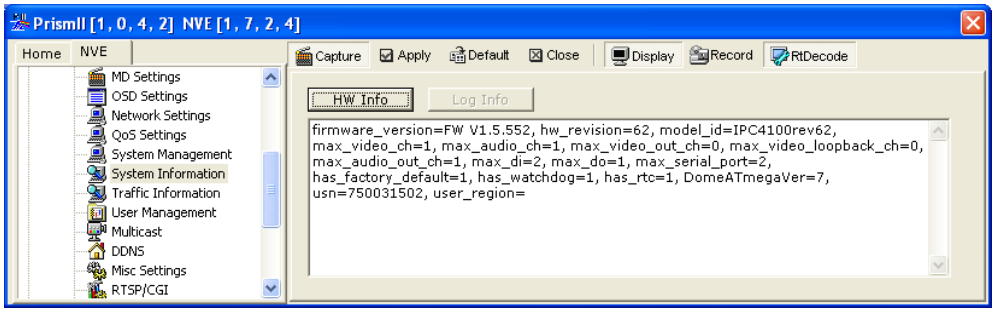


Figure 18. System Information

Traffic Information

This page shows the bitrate of each media type – a video, an audio and an event.

User Management

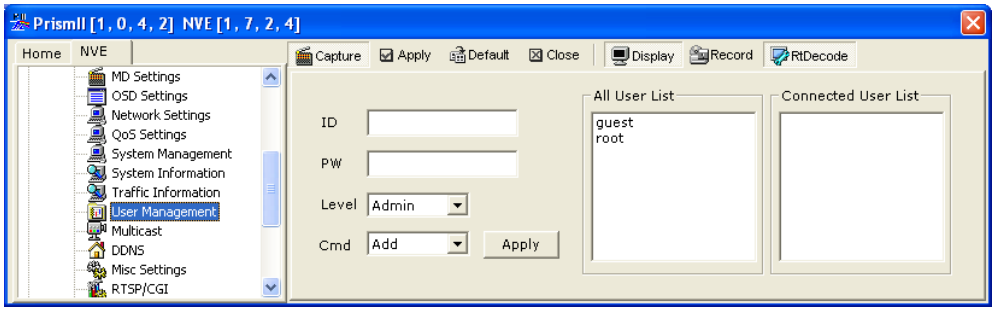


Figure 1915. User Management

Two users are provided as default.

ID	Password	Security Level
root	pass	Admin
guest	-	Guest

Accounts can be created up to 10 including two default users. ID is a text string up to 32 drawn from the alphabet (a-z, A-Z) and digit (0-9) and is case sensitive. The first character must be an alpha character. Password is a text string from 3 to 9 draw from the alphabet (a-z, A-Z) and digit(0-9) and is case sensitive.

Note : To use accounts, security type must be LOGIN_ONLY or LOGIN_ACCESS.

Adding user
1. Type ID and password.
2. Select security level.
3. Select ***Add*** command.
4. Click ***Apply***

Deleting user
1. Select a user to delete in All User List.
2. Select ***Delete*** command.
3. Click ***Apply*** button

Modifying user information
1. Select a user to modify in All User List
2. Modify password or security level.
3. Select ***SetInfo*** command
4. Click ***Apply*** button

Multicast

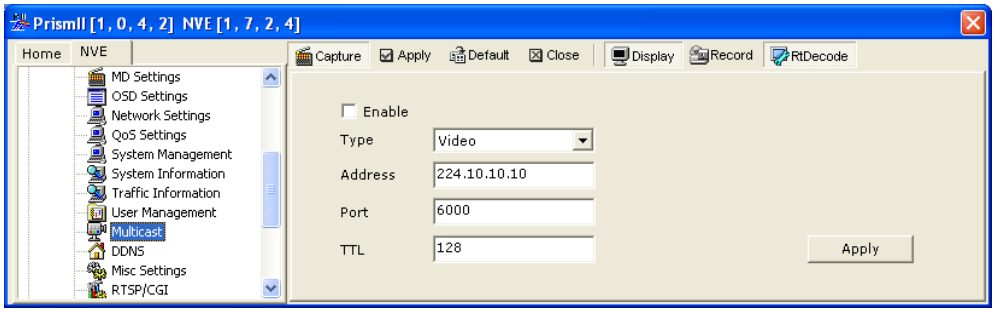


Figure 2016. Multicast settings

Multicasting setting helps to reduce the load of your system. To enable this, check on the ***Enable*** and set the values below.

Type
Select the type you want
Address
Set the address of the server
Port
Set the port number
TTL
As multicasting can increase the load of network, you can set the TTL(time to live) value and it controls the scope of the routers to pass by.

DDNS

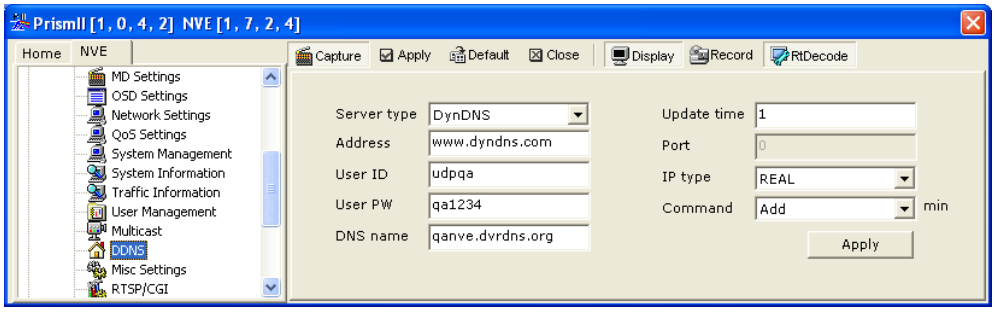


Figure 21. DDNS settings

Following fields should be filled in to use DDNS. To set up this, user must visit first dyndns.com and register for DDNS service.

- Server Type : DynDNS (No other settings allowed)

- Address:www.dyndns.com (No other servers allowed)
- User ID: your user ID which you created at the Dyndns.com (e.g. udpqa)
- User PW: your password which you registered at the Dyndns.com (e.g. qa1234)
- DNS name: your dynamic domain host server name. (e.g. jeffrey.podzone.org)
- Update time : Specify how often NVE/IPC check the dynamic domain server (unit:minuite)
- IP Type (Real/Local) : Real represent that the device's public IP that is seen by DDNS server will be registered to the DDNS server. If you select Local, private IP of device will be registered.
- Command (Add/Delete/Modify) : You can add, delete, or modify ddns setup information in NVE/IPC

Note : Only one dynamic host name can be stored. Therefore, if you made error while typing in the fields above or when you need to change some of fields afterwards, you cannot use **add** command. User should delete the setting and add again or should use **modify** command.

Encryption

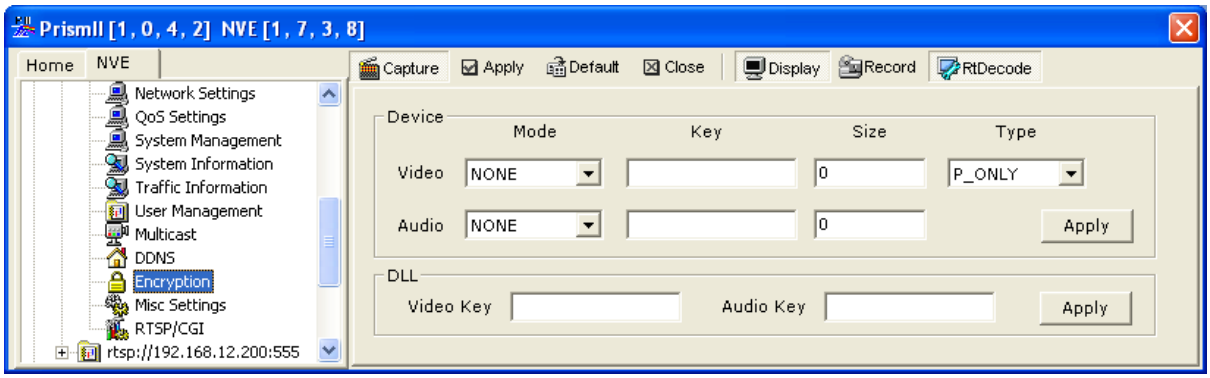


Figure 22. Encryption

When video and audio signals need to be encrypted with proper method, users can use this function. NVE series support AES_CBC for encryption. Video and audio can be controlled separately by setting **key**, **size** and **type** values at the **Device.**

Mode
NONE : default value. To stop the encryption of video or audio, choose NONE and press the ***Apply***.
AES_CBC : Choose AES_CBC as an encryption method

Key
Enter the key you want to designate. The value must be less than 16 bytes

Size
RTP video packet size to encrypt
0 means all parts of packets except for RTP header are encrypted. AES gets only 16 as a unit, only multiple of 16 are available as a value of the **Size**

Type
I_ONLY : encrypt only I frame
P_ONLY : encrypt only P frame
ALL : encrypt all frames

DLL
To encrypt the frames and reflect on the DLL of prism, users can control it in this menu.
For encryption, press ***Apply*** without any keys in the video key or audio key of DLL.
For deciphering, set the same key you set on the Device. And press ***Apply***
(To activate this, the **mode** shouldn't be **NONE*)***

Miscellaneous Settings

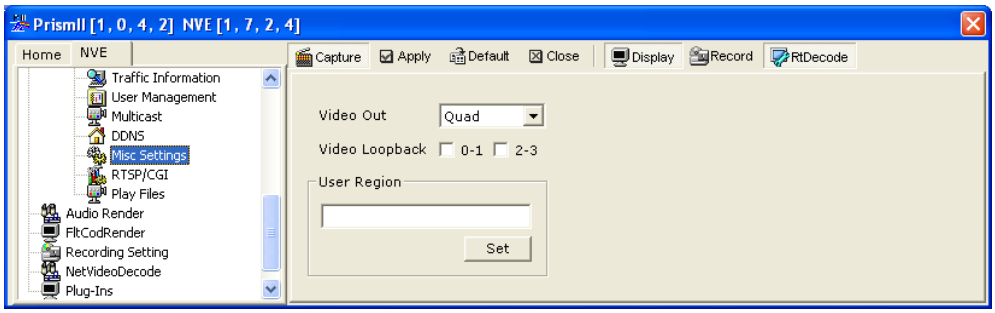
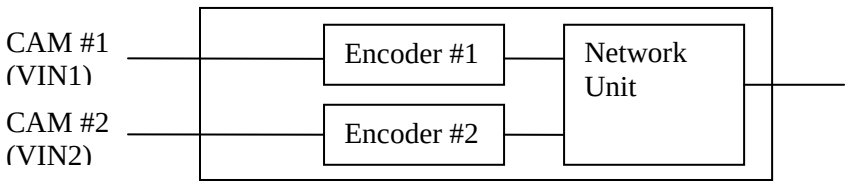


Figure23. Miscellaneous settings

Video Out
Only NVE4000 supports the external video out as multi-view(Quad) and switching-view. Multi-view(Quad) displays 4 channel on the external video out. Switching-view displays the selected one channel on the external video out.

Video Loopback
The video loopback is related to the dual stream. The dual stream is for making two streams of different video settings (image size, codec type, frame rate and so on) using one video source. For using dual stream, it needs to set video loopback function which is to link one input (VIN1) to the other input (VIN2).

Single Stream Mode



Dual Stream Mode

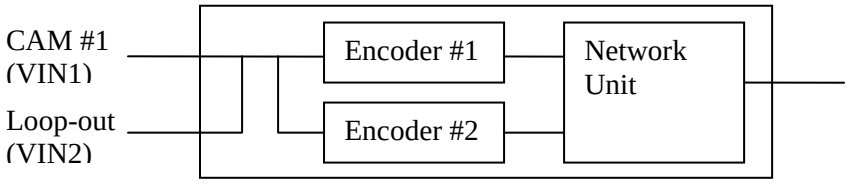


Figure 2417. Dual stream of NVE2000

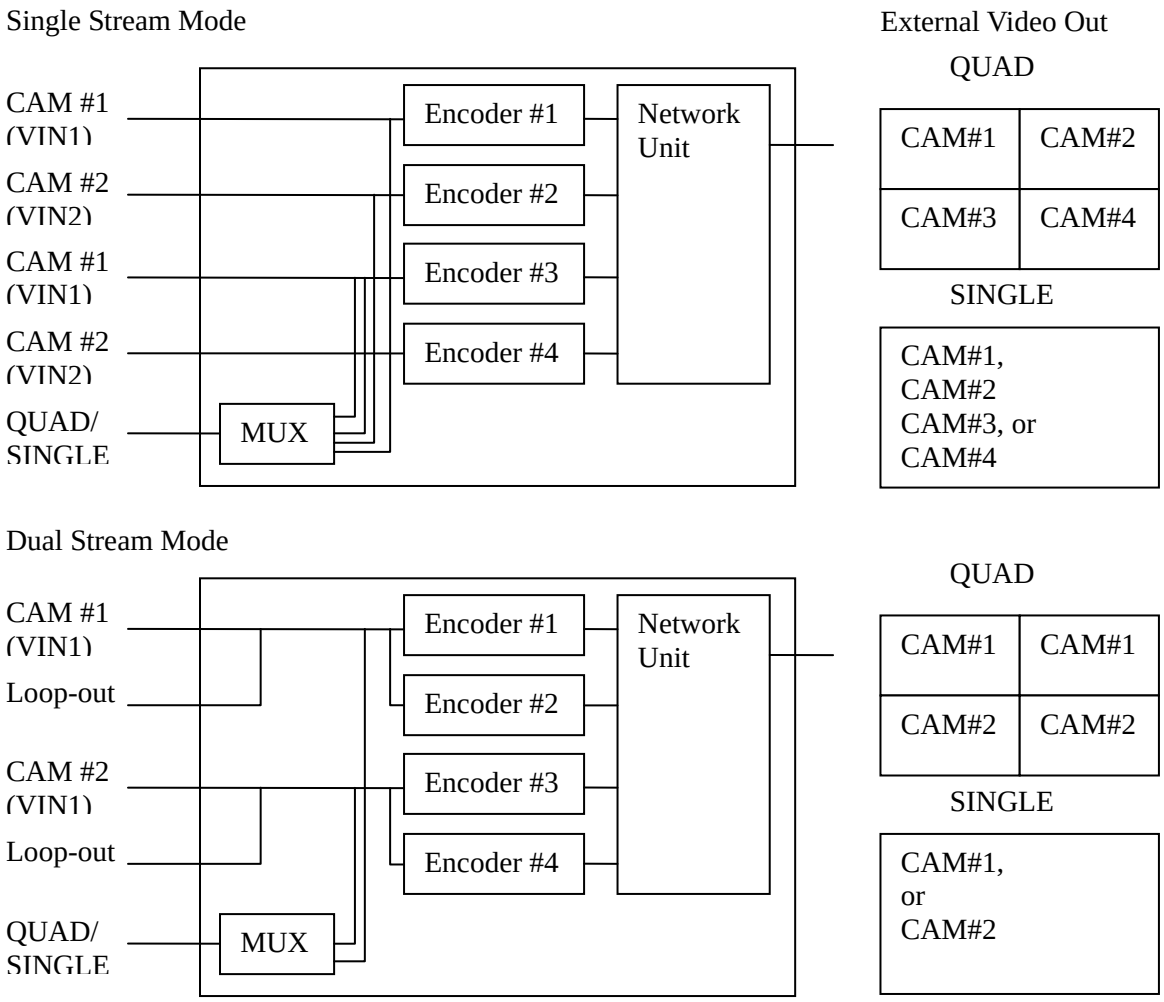


Figure 25. Dual stream of NVE4000

RTSP/CGI

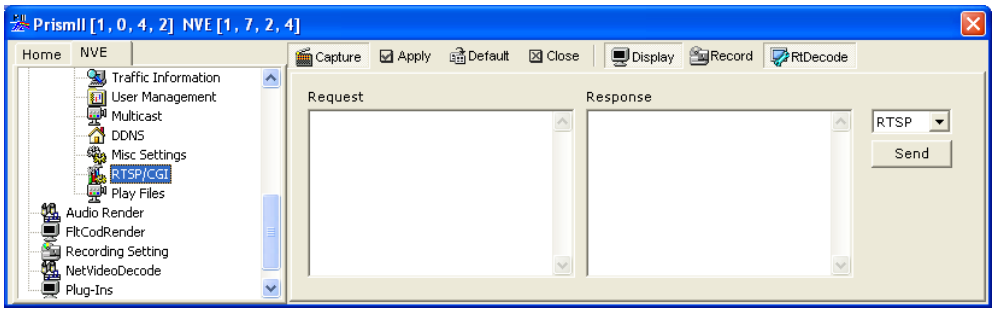


Figure 26. RTSP/CGI

This page can send end RTSP and CGI.

1. Select RTSP and CGI which you want to send.
2. Write the command in request edit box.
3. Click the ‘Send’ button.
4. If success, the response regarding the command is returned in the response edit box.

Example

RTSP

Request
EXT_CMD /mpeg4/1/media.amp RTSP/1.0
CSeq: 5
CmdCount: 3
GET HARDWARE_INFO firmware_version

Response
RTSP/1.0 200 OK
CSeq: 5
Date: Fri, Aug 10 2007 08:49:08 GMT
CmdCount: 1
GET HARDWARE_INFO firmware_version.s="FW V1.5.551"

CGI

Request
/axis-cgi/admin/date.cgi?action=get

Response
HTTP/1.0 200 OK
Cache-Control: no-cache
Pragma: no-cache
Date: Mon, 13 Aug 2007 04:33:48 GMT
Accept-Ranges: bytes
Connection: close
Content-Type: text/plain
\r\n
Aug 13, 2007 04:33:4

Revision history

Rev.	Date	Description
A	2006-06-16	Created.
B	2006-08-11	Updated Firmware version, added IP Admin Tool.
C	2006-09-07	Added some features in the PrismII. Removed web page settings.
D	2006-11-08	Added Audio Settings(Enable/Disable,Type,Sample Rate) Added System Information Added User Management Added Miscellaneous Setting(User Region)
E	2007-02-23	Changed to a new document format. Rewrote paragraphs for the current SDK.
F	2007-04-23	Updated the usage of “PrismII.exe”.
G	2007-06-25	Added MD settings. MD settings is available from Kernel16X531
H	2007-08-28	Updated for Kernel 17X569
I	2007-12-12	Review and correct the errata
J	2008-01-10	Added Encryption setting
K	2008-01-17	Added the differences between hardware factory default and software factory default
L	2008-02-29	Corrected serial port setting
M	2008-04-22	Hue unavailable to change for PAL with NVE100 & IPC series
N	2008-08-07	AxPrisme.exe and related source codes are deleted from SDK ConvertToAvi.exe and related SRC Vxxxx are deleted from SDK.