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REVISION HISTORY

<u>REVISION</u>	<u>DESCRIPTION</u>	<u>DATE</u>
1.0	First Release	Sept 2008
1.1	Updated VistaLINK [®] screen shots	Oct 2008
1.2	Updates to specifications and VistaLINK [®] descriptions	Jan 2009
1.3	Added section 8, “Configuring Multi-Image Display Products”	Mar 2009
1.4	Added section 7.2 to VistaLINK [®] chapter	April 2009
1.5	Updated Card Edge Control drawing, Figure 4-1. Updated number of LEDs in section 4.1.	June 2009
1.6	Updated Ethernet Network Connections section	May 2011
1.6.1	Removed Run/Upgrade info (Section 5.2)	May 2011
1.7	Updates made throughout VistaLINK section	August 2012

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Although every attempt has been made to accurately describe the features, installation and operation of this product in this manual, no warranty is granted nor liability assumed in relation to any errors or omissions unless specifically undertaken in the Evertz sales contract or order confirmation. Information contained in this manual is periodically updated and changes will be incorporated into subsequent editions. If you encounter an error, please notify Evertz Customer Service department. Evertz reserves the right, without notice or liability, to make changes in equipment design or specifications.

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1. OVERVIEW

Evertz' Nielsen Universal Reader module provides a solution for monitoring the presence of Nielsen codes from the broadcast path. The 7760ND-HD monitors both the video AMOL1/AMOL2 data as well as the audio NAES data and Watermark data. The 7760ND-HD accepts a base band video input transported on SD-SDI or HD-SDI with support for embedded audio.

The presence of codes and the value for the codes are then monitored/reported using various outputs from the device, these include logging and alarming exclusively using VistaLINK[®] PRO, on screen display (OSD) via the MVP, VIP and VIP-X monitoring products (see Table 1-1 below for details on what data each product can support). Also simple card edge status is available using the cards LEDs and dot matrix display.

Features:

- Auto sensing of HD and SD input formats
- De-embedding of program audio from SDI input
- Monitoring of Nielsen data (NAES) from PCM audio
- Monitoring of Nielsen data (AMOL1/AMOL2) from video content
- Monitoring of Watermark data (PC,FD) from PCM audio
- Proprietary data service output for OSD on VIP/MVP/VIP-X products
- Exclusive monitoring, alarming and logging using VistaLINK[®] PRO
- Reporting signal presence and SID presence via card edge LEDs
- Nielsen code reporting via card edge dot matrix
- Highly reliable, hot-swappable platform, including redundant power supplies
- Does not require the use of the 7700FC, supports VistaLINK[®] Pro connection via Ethernet

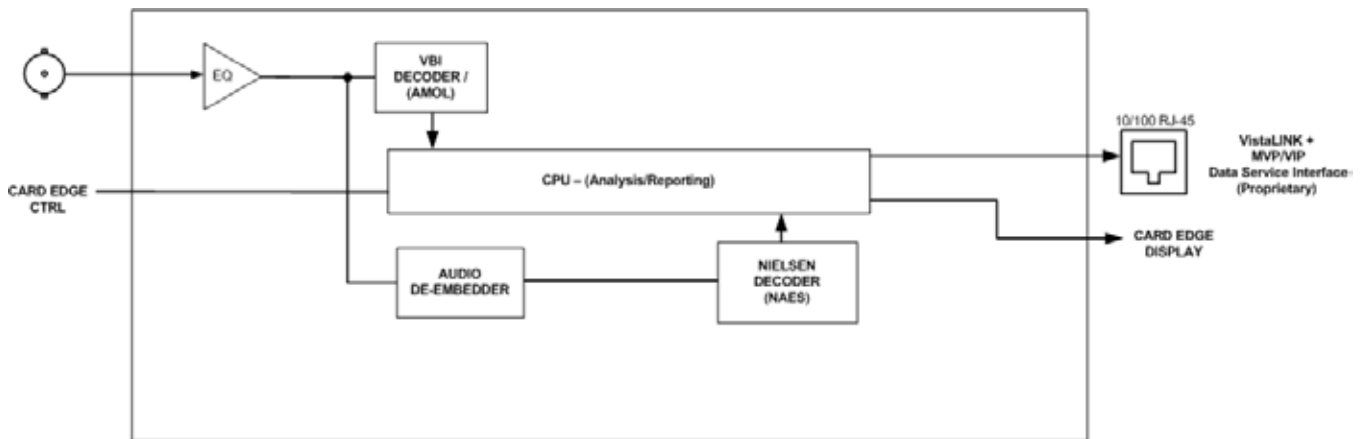


Figure 1-1: 7760ND-HD Block Diagram

The display of the monitored Nielsen data is available on various Evertz monitoring products. Each product can be setup to receive the monitored data distributed from the 7760ND-HD over the network.

Use this table to identify the level of support offered by Evertz' monitoring products:

Monitoring Product	AMOL1	AMOL2	NAES	Watermark
VistaLINK PRO®	Fully supported	Fully supported	Fully supported	Fully supported
MVP™	Fully supported	Fully supported	Fully supported	Fully supported
VIP-Advanced	Fully supported	Fully supported	Fully supported	Fully supported
VIP-X	Fully supported	Fully supported	Fully supported	Fully supported
VIP	Not available	Not available	Not available	Not available

Table 1-1: Nielsen Data Availability

2. INSTALLATION

The 7760ND-HD comes with a companion rear plate that has one HD/SD-SDI input (auto-sensing) with audio embedding and one Ethernet connector. The 7760ND-HD rear plate drawing is shown in Figure 2-1.

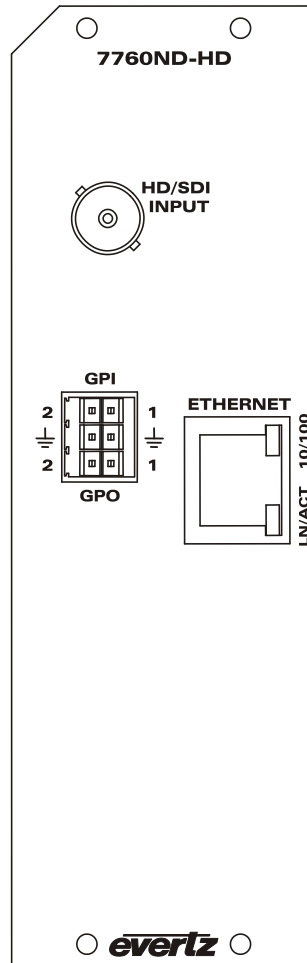


Figure 2-1: 7760ND-HD Rear Panel

2.1. VIDEO INPUT

HD/SDI IN: Input BNC connector for 10-bit serial digital video signals compatible with the SMPTE 292M or SMPTE 259M-C standard. The video standard must be set to match the input video format.

2.2. GENERAL PURPOSE INPUTS AND OUTPUTS

The GPI's are active low with internal pull up resistors (2k Ohms) to +5V. To make an input active, lower the signal to near ground potential (i.e. connect to shell or chassis ground). This can be done with a switch, relay, TTL drive, GPO output or other similar method. Figure 2-2 shows the input circuit for the general purpose inputs.

The GPO is active low with internal pull up (10k Ohm) resistors to +5V. When the output goes low it is able to sink up to 10mA. When high, the signal will go high (+5V). **Do not draw more than 100 μ A from the output.** Figure 2-3 shows the circuit for the general purpose output.



Please note that the GPI/Os are for future use only. They currently do not have functionality.

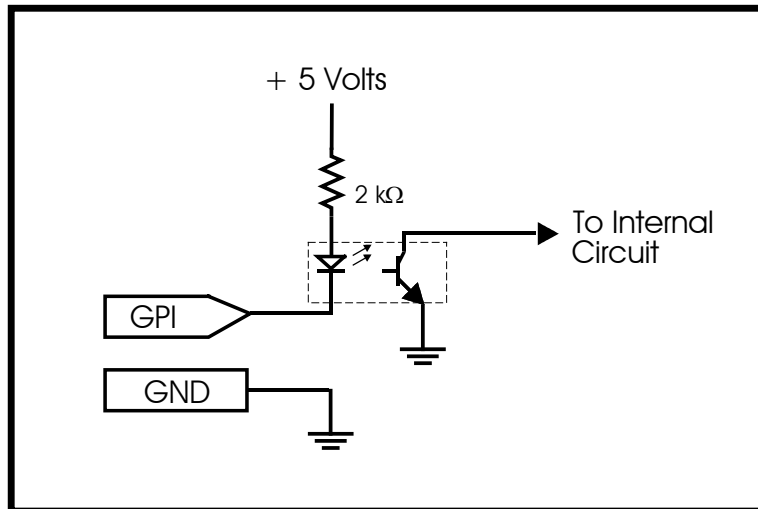


Figure 2-2: GPI Input Circuitry

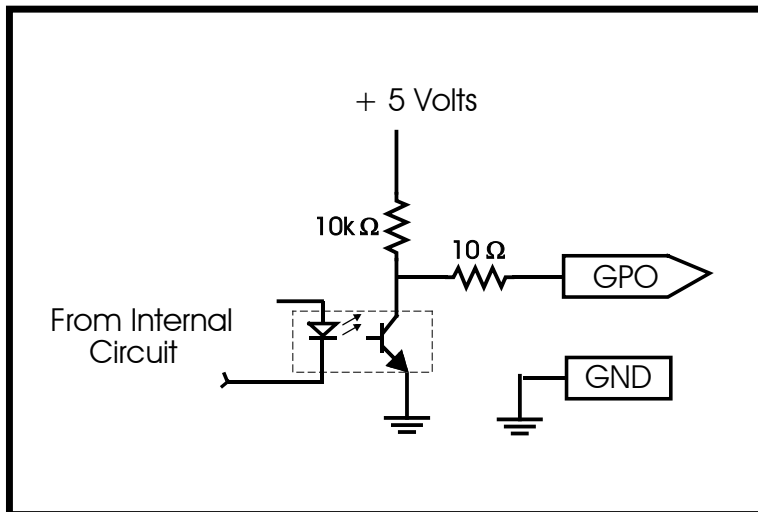


Figure 2-3: GPI Output Circuitry

2.2.1. GPI, GPO and Pin Assignment

The following table provides a description of the GPI and GPO pin assignments.

PIN#	Assignment
1	GPI1
2	GND
3	GPO1
4	GPI2
5	GND
6	GPO2

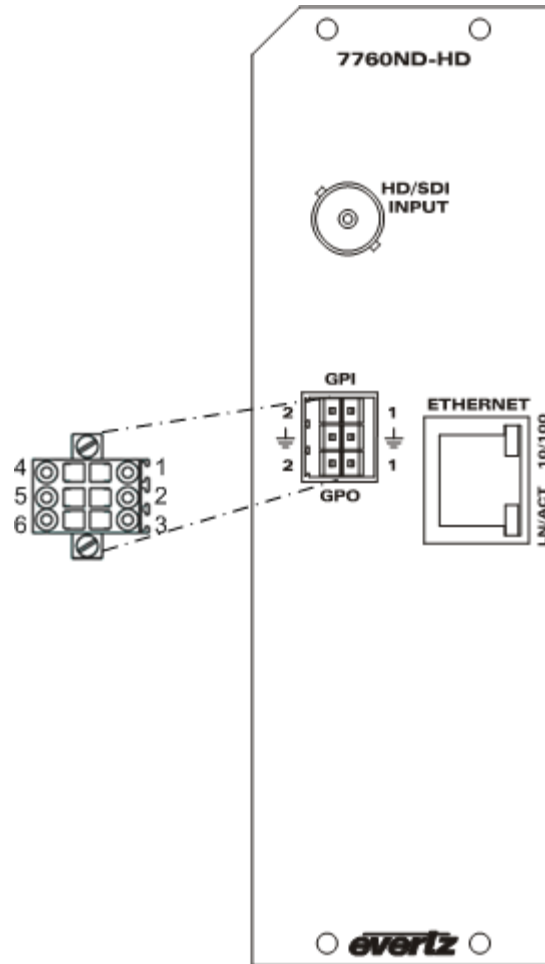


Figure 2-4: GPI and GPO Connections

2.3. ETHERNET NETWORK CONNECTIONS

The Ethernet port is an RJ-45 connector which facilitates control/monitoring via VistaLINK[®] PRO and therefore the use of a 7700FC is not required. It is also used to communicate to the multi-image display products and for FTP firmware upgrades.

Devices on the Ethernet network continually monitor the receive data path for activity as a means of checking that the link is working correctly. When the network is idle, the devices also send a link test signal to one another to verify link integrity. The rear panel is fitted with two LEDs to monitor the Ethernet connection. **These are not currently implemented at this time.**

3. TECHNICAL SPECIFICATIONS

3.1. INPUT SPECS

- 1x HD/SD-SDI input with support for embedded audio.

3.2. OUTPUT SPECS

- Proprietary data service output for OSD on VIP/MVP/VIP-X/ products. Exclusive VistaLINK[®] PRO logging and fault monitoring interface. Does not require the use of the 7700FC.

3.3. CARD STATUS

- Card edge dot matrix display, displays decoded Nielsen codes
- Input presence LED - red = missing, green = present
- SID (Nielsen code) presence LED - red = missing, green = present

Refer to section 4 for more information on the card edge display and LEDs.

3.4. ELECTRICAL

Voltage:	+12V DC
Power:	<26W
EMI/RFI:	Complies with FCC Part 15, Class A Multi-audio de-compressor module EU EMC Directive

3.5. PHYSICAL

Number of Slots: 2 (From the front view of the frame, the card must be in installed in the slot of the two slots – on the right-hand side)

4. CARD EDGE CONTROLS

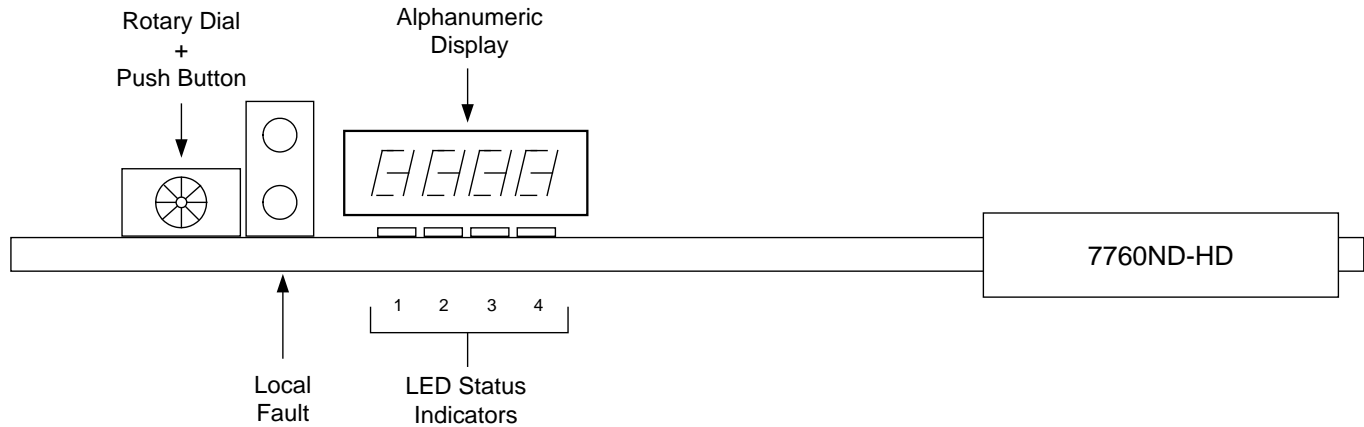


Figure 4-1: Card Edge Controls

ROTARY DIAL & PUSH BUTTON:

When this button is pressed, it will read the firmware version and IP address of the card.

FAULT STATUS (LOCAL FAULT):

MODULE OK: Green LED will be on when the module is operating properly.

LOCAL FAULT: Red LED indicates poor module health and will be ON during the absence of a valid input signal or if a local input power fault exists (i.e. a blown fuse). The LOCAL FAULT indication can also be reported to the frame through the FRAME STATUS jumper.

ALPHANUMERIC DISPLAY: **LOCAL** Status monitoring of AMOL, NAES and Watermark codes provided via the 4-digit alphanumeric display located on the card edge.

LED STATUS INDICATORS: The status indicators show the operational status of the card. Refer to section 4.1 for a description of the Audio LEDs.

4.1. AUDIO STATUS LEDES

The four LEDs identified in Table 4-1 indicate audio group presence:

Audio LED	Colour	Audio Group Status
1	Off	Group not present with channel 1.
	Green	Group present with channel 1.
2	Off	Group not present with channel 2.
	Green	Group present with channel 2.
3	Off	Group not present with channel 3.
	Green	Group present with channel 3.
4	Off	Group not present with channel 4.
	Green	Group present with channel 4.

Table 4-1: Audio Group Status LEDs

5. JUMPER CONTROLS

Several jumpers, located at the front of the module are used to preset various operating modes.

5.1. SELECTING WHETHER LOCAL FAULTS WILL BE MONITORED BY THE GLOBAL FRAME STATUS

The FRAME STATUS jumper determines whether local faults (as shown by the Local Fault indicator) will be connected to the 7700FR frame's global status bus.

FRAME STATUS: To monitor faults on this module with the frame status indicators (on the Power Supply FRAME STATUS LED's and on the Frame's Fault Tally output) install this jumper in the On position (default)

When this jumper is installed in the Off position local faults on this module will not be monitored.

6. CONFIGURATION SETUP

Before the user can adjust the card parameters using *VistaLINK*®, the user must first setup the card configuration using HyperTerminal. Follow the steps outlined below to perform initial card configuration.

1. Attach a serial ribbon cable to the J3 jumper on the top of the card, and plug the other end of the serial cable into the COM port on your computer.
2. Insert the card into the frame and power up the unit.
3. Open a HyperTerminal session and enter the following port settings into the properties window:

Baud	115200
Parity	None
Data Bits	8
Flow Control	None
Stop Bits	2

Once the settings have been entered select the “OK” button.

4. The user will be prompted to enter a username and password. Use the following username and password to login:

Login: customer
Password: customer

5. Once logged in, the user will be presented with a *Main setup Menu* screen as shown in Figure 6-1.

```
aco2 login: customer
Password:

Welcome to MontaVista(R) Linux(R) Professional Edition 4.0 (0501140).

                                #####
                                #####
                                #####-----^
:#####:  :###:  :#####:  :#####:  :#####:  :#####:
:#####:  :###:  :#####:  :#####:  :#####:  :#####:
#####   :###:  :#####:  :#####:  :#####:  :#####:
:#####:  :###:  :#####:  :#####:  :#####:  :#####:
#####   :###:  :#####:  :#####:  :#####:  :#####:
:#####:  :###:  :#####:  :#####:  :#####:  :#####:
:#####:  :###:  :#####:  :#####:  :#####:  :#####:
                                #####
                                #####
                                #####

                                Evertz Microsystems Ltd. 2008

-----
**** Main Menu ****
<1>  Network Setup
<2>  SNMP Setup
<3>  7760ND-HD Setup
<4>  Engineering Debug Tool
<5>  Command Line Debug Tool

<X>  Exit
<W>  Exit without saving to flash

> |
```

Figure 6-1: Main Setup Menu

6. The user must configure the network of the 7760ND-HD. To configure the network, select option <1> *Network Setup* from the main menu.
7. A *Network Setup* screen, as shown in Figure 6-2, will appear enabling the user to enter the appropriate network information.
8. The user must enter the IP Address, Netmask, Gateway, and Broadcast addresses for the card. Type the corresponding number of the desired address into the command line. For example, to set the IP Address in the Network Setup screen, select option <1> *IP Address*.
9. Once complete, the user will be prompted to enter the IP Address of the card. Enter the IP address and then press the enter key.

```
-----  
**** Network Setup ****  
  
<1>  IP Address  [192.168.245.20]  
<2>  Netmask    [255.255.192.0]  
<3>  Gateway     [192.168.192.10]  
<4>  Broadcast  [192.168.245.255]  
  
<X>  Exit  
  
> x  
-----
```

Figure 6-2: Network Setup Menu

10. Once all the settings for the *Network Setup* have been configured, the user can type **x** to exit the *Network Setup* configuration.
11. Next the user will need to configure the *SNMP Setup*. To do so, return to the main menu screen, as shown in Figure 6-1, and select option <2> *SNMP Setup*.
12. A *Trap Setup* Menu will appear as shown in Figure 6-3. To create a trap destination, select option <1> *Add Trap Destination*.
13. The user will be prompted to enter a destination IP address into the “Enter IP of New Destination” field.
14. The user can enter multiple trap destinations as outlined in steps 11 and 12. To remove a trap destination, select option <2> *Remove Trap Destination* from the menu.


```
-----  
**** Trap Setup Menu ****  
  
<1>  Add Trap Destination  
<2>  Remove Trap Destination  
<3>  Show All Trap Destinations  
  
<X>  Exit  
  
> 1  
> Enter IP of New Destination: 192.168.8.100
```

Figure 6-3: Trap Setup Menu

15. The user will be prompted to enter the destination IP address of the trap destination which they wish to remove.
16. The user can view the trap destinations assigned to the card by selecting option <3> *Show All Trap Destinations*. A list of trap destinations will be displayed as shown in Figure 6-4. To exit the *Trap Setup Menu*, select the <x> *Exit* and you will return to the Main Menu.

```
-----  
**** Trap Setup Menu ****  
  
<1>  Add Trap Destination  
<2>  Remove Trap Destination  
<3>  Show All Trap Destinations  
  
<X>  Exit  
  
> 3  
Trap #1: 192.168.8.16  
Trap #2: 192.168.8.100  
Trap #3: NONE  
Trap #4: NONE  
Trap #5: NONE  
Trap #6: NONE  
Trap #7: NONE  
Trap #8: NONE
```

Figure 6-4: Show All Trap Destinations

17. To set the destination IP of the associated VIP or MVP, the user must select option <3> *7760ND-HD Setup* from the Main Menu, as shown in Figure 6-1. To access this setup menu select option <3> *7760ND-HD Setup* from the Main Menu.
18. The 7760ND-HD Setup screen will appear as shown in Figure 6-5. To set the IP address of the VIP or MVP select option <1> *Set VIPA/VIPX/MVP Destination*.

19. User must select option <1> to enter *VIPA/VIPX/MVP Destination Address* into the command line and then press the <enter> key to apply the settings as shown in Figure 6-6.

```
-----  
**** 7760ND-HD Setup ****  
<1> Set VIP/MVP Destination [192.168.192.152]  
<X> Exit  
> █
```

Figure 6-5: VIP/MVP Setup Window

```
-----  
**** 7760ND-HD Setup ****  
<1> Set VIP/MVP Destination [192.168.192.152]  
<X> Exit  
> 1  
> Enter VIP/MVP Destination Address: 192.168.8.50  
  
-----  
**** 7760ND-HD Setup ****  
<1> Set VIP/MVP Destination [192.168.8.50]  
<X> Exit  
> x  
-----
```

Figure 6-6: Setting the VIPA/VIPX/MVP Destination Address

20. The basic configuration of the card is now complete. Once you have exited the sub-menus and you have returned to the Main Menu screen, the user can save the changes by selecting <X> *Exit* from the Main Menu options.
21. Once the user has exited the Main Menu, the changes will be saved and a message stating “Changes are saved!” will be displayed, as shown in Figure 6-7.



Please note if the user selects option <W> *Exit without saving to flash*, the changes made during the configuration process will be lost.

```
-----  
**** Main Menu ****  
  
(1) Network Setup  
(2) SNMP Setup  
(3) 7760ND-HD Setup  
(4) Engineering Debug Tool  
(5) Command Line Debug Tool  
  
(X) Exit  
(W) Exit without saving to flash  
  
> x  
Changes are saved!  
  
MontaVista(R) Linux(R) Professional Edition 4.0 (0501140)  
aco2 login: █
```

Figure 6-7: Exit to Save Changes

22. Once the changes have been saved, the user must power cycle the unit and remove the ribbon cable before proceeding to VistaLINK[®] configuration.

7. CONFIGURING USING VISTALINK®

7.1. WHAT IS VISTALINK®?

VistaLINK® is Evertz's remote monitoring and configuration platform which operates over an Ethernet network using Simple Network Management Protocol (SNMP). SNMP is a standard computer network protocol that enables different devices sharing the same network to communicate with each other. VistaLINK® provides centralized alarm management, which monitors, reports, and logs all incoming alarm events and dispatches alerts to all the VLPro Clients connected to the server. Card configuration through VistaLINK® PRO can be performed on an individual or multi-card basis using simple copy and paste routines, which reduces the time to configure each module separately. Finally, VistaLINK® enables the user to configure devices in the network from a central station and receive feedback that the configuration has been carried out.

There are 3 components of SNMP:

1. An SNMP manager, also known as a Network Management System (NMS), is a computer running special software that communicates with the devices in the network. Evertz VL-Fiber demo Manager graphical user interface (GUI), third party or custom manager software may be used to monitor and control Evertz VistaLINK® enabled fiber optic products.
2. Managed devices, (such as 7760ND-HD), each with a unique address (OID), communicate with the NMS through an SNMP Agent. The 7760ND-HD has a built in mini-Agent therefore it does not require a 7700FC, an Ethernet connection is made direct to the card.
3. A virtual database, known as the Management information Base (MIB), lists all the variables being monitored, which both the Manager and Agent understand. Please contact Evertz for further information about obtaining a copy of the MIB for interfacing to a third party Manager/NMS.


For more information on connecting and configuring the VistaLINK® network, see the 7700FC Frame Controller chapter.

7.1.1. Setting Up VISTALINK®

1. To access the card using VistaLINK®, the user must run the VistaLINK® server first followed by the VistaLINK® Pro Client.

To unlock the VistaLINK® server, enter *administrator* for the username and leave the password blank.

To access the VistaLINK® Pro Client, enter *administrator* for the username and leave the password blank.

2. Ensure that the latest 7760ND-HD jar file is loaded. Once the VistaLINK® Pro Client is launched the user can view the card in VistaLINK® by selecting the *Refresh Network View*  icon to discover the card. (Refer to section 7.2 of the VistaLINK® user manual for instructions on upgrading product jar files in VistaLINK®).
3. When the network is refreshed, the hardware in the Navigation Tree will be updated. The IP address of the card should be displayed with a plus sign '+' indicating that the card is present in VistaLINK®.

4. Click on the plus sign to expand the IP address and then right click on the 7760ND-HD hardware item. Select *View Configuration...* from the pop up menu that appears, as shown in Figure 7-1.

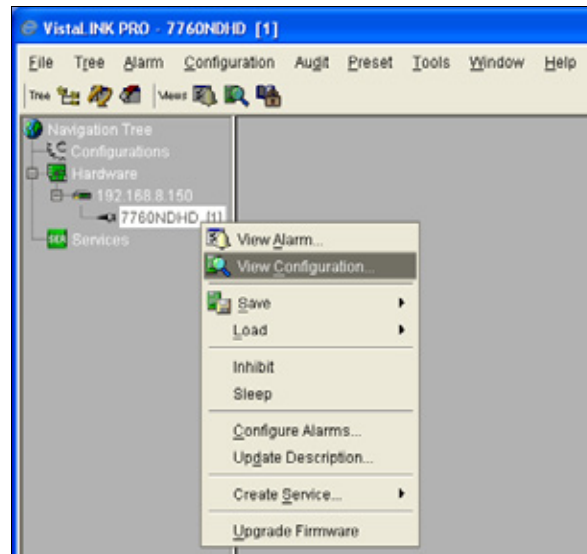


Figure 7-1: Select View Configuration

5. Once *View Configuration* is selected the user will be presented with the main configuration screen, as shown below in Figure 7-2.
6. The user can navigate through the tabs to adjust the configuration parameters. Please see sections 7.1.2 to 7.1.9 for more information on configuring the 7760ND-HD.

192.168.194.214, 7760NDHD [1]: Configuration

Refresh 1.0 Apply Status Completed 192.168.194.214 (16:52:21 2012-03-07) Logger

Watermark Fault Traps

Control | NAES Monitor | AMOL Monitor | Watermark Monitor | Fault Definitions | Data Logging | Video Fault Traps | Audio Fault Traps | NAES Fault Traps

Video

Input Video Standard Status: SD 525i/59.94
 Input Video Standard: Auto

Monitoring Device Control

Monitoring Device IP Address: 192.168.194.132

NTP Control

NTP Time: 03/07/2012 16:52:07
 NTP Source Control: Enable
 NTP Drift Threshold: 300 secs
 NTP Code Drift Duration: 1 times
 NTP IP Address: 192.168.194.8
 GMT Offset: -5 hours

Decode from Audio

Channel	Disable	Enable	SID	Level
Channel 1	<input type="radio"/>	<input checked="" type="radio"/>	100	<input type="radio"/> PC <input checked="" type="radio"/> FD
Channel 2	<input type="radio"/>	<input checked="" type="radio"/>	100	<input type="radio"/> PC <input checked="" type="radio"/> FD
Channel 3	<input type="radio"/>	<input checked="" type="radio"/>	100	<input type="radio"/> PC <input checked="" type="radio"/> FD
Channel 4	<input type="radio"/>	<input checked="" type="radio"/>	100	<input type="radio"/> PC <input checked="" type="radio"/> FD
Channel 5	<input type="radio"/>	<input checked="" type="radio"/>	0	<input type="radio"/> PC <input checked="" type="radio"/> FD
Channel 6	<input type="radio"/>	<input checked="" type="radio"/>	0	<input checked="" type="radio"/> PC <input type="radio"/> FD
Channel 7	<input checked="" type="radio"/>	<input type="radio"/>	0	<input type="radio"/> PC <input type="radio"/> FD
Channel 8	<input checked="" type="radio"/>	<input type="radio"/>	0	<input type="radio"/> PC <input type="radio"/> FD

Decode from Video

AMOL: Disable Enable

SID: 0

Figure 7-2: Main Configuration Screen

7.1.2. Control Tab

The *Control* tab (shown in Figure 7-3) allows the user to set the video standard, enable or disable decoding of audio channels, configure NTP time, set the SID for templating PC or FD code for NAES and Watermarking, and set the SID for templating AMOL code.

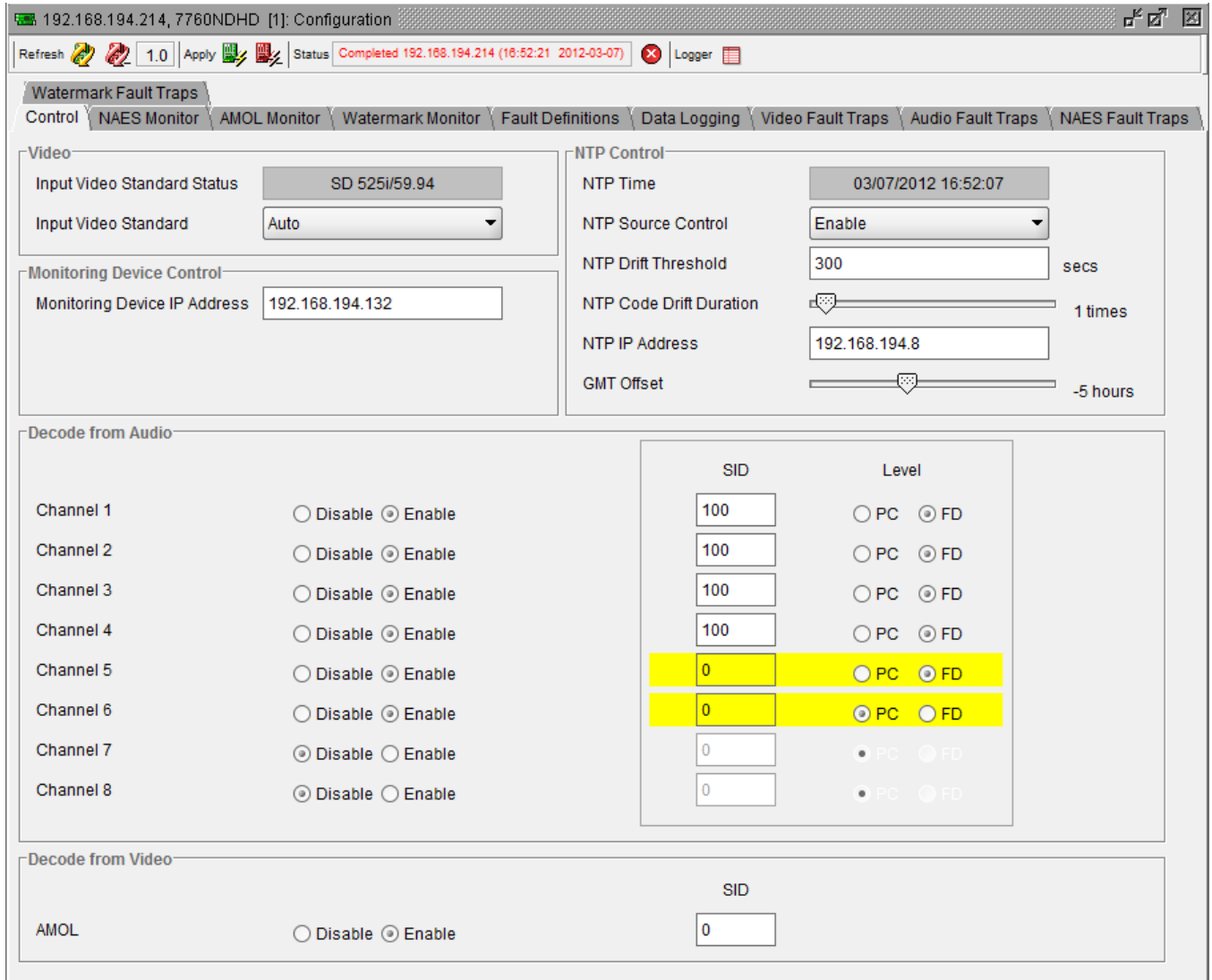


Figure 7-3: Control Tab

- **Input Video Standard Status:** This field displays the current video standard of the 7760ND-HD card.
- **Input Video Standard:** This drop down menu allows the user to select the appropriate video standard. The following is a complete list of video standard options:

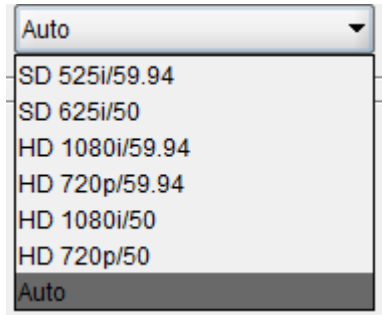


Figure 7-4: Video Standard Drop Down Menu



Note: Setting to auto sense 525, 720p or 1080i source.

7.1.2.1. NTP Control

- **NTP TIME:** Shows current time if NTP Source is enabled.
- **NTP Source Control:** Allows the user to enable and disable NTP source.
- **NTP Drift Threshold:** Allows the user to enter code drift time in seconds.



Note: The NTP Drift Threshold is used to verify if a time stamp for AMOL, NAES and Watermarking is drifting more than the acceptable duration.

- **NTP Code Drift Duration:** Allows the user to set the number of drifts. A fault will be triggered if the code drift happens more then the count set.
- **NTP IP Address:** Allows the user to set the NTP server IP address.
- **GMT offset:** Allows the user to offset the NTP time to match local time.

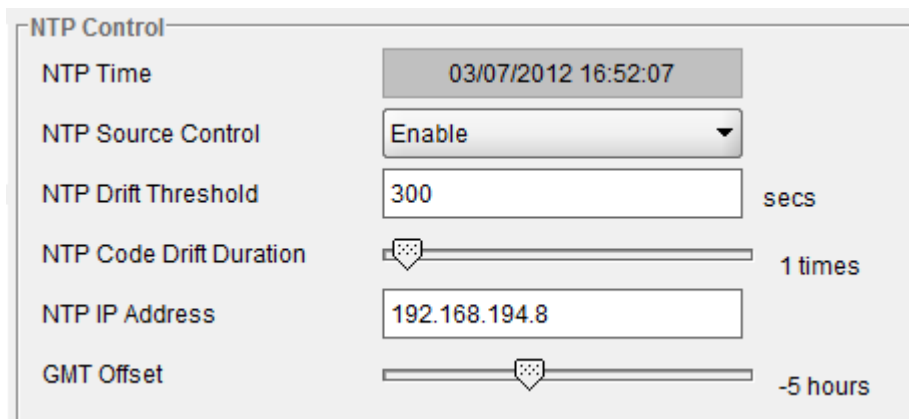


Figure 7-5: NTP Control

- **Decode From Audio:** Enables or disables which channels of audio are to be monitored. If the *Enable* radio button is selected, the corresponding audio channel will be monitored.

Decode from Audio

Channel 1	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel 2	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel 3	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel 4	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel 5	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel 6	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel 7	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Channel 8	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

Figure 7-6: Decode from Audio

- **SID Template Settings:** Allows the user to set the SID number and code type (PC or FD). It enables the user to exclusively monitor one SID code per audio channel (NAES Watermark).

SID	Level
<input type="text" value="100"/>	<input type="radio"/> PC <input checked="" type="radio"/> FD
<input type="text" value="100"/>	<input type="radio"/> PC <input checked="" type="radio"/> FD
<input type="text" value="100"/>	<input type="radio"/> PC <input checked="" type="radio"/> FD
<input type="text" value="100"/>	<input type="radio"/> PC <input checked="" type="radio"/> FD
<input type="text" value="0"/>	<input type="radio"/> PC <input checked="" type="radio"/> FD
<input type="text" value="0"/>	<input checked="" type="radio"/> PC <input type="radio"/> FD
<input type="text" value="0"/>	<input type="radio"/> PC <input type="radio"/> FD
<input type="text" value="0"/>	<input type="radio"/> PC <input type="radio"/> FD

Figure 7-7: NAES & Watermark SID Template Settings



Note: 7760ND-HD can decode NAES & Watermark code from maximum of 6 audio channel.

- **Decode From Video:** Allows the user to set the SID number for AMOL code. It allows the user to exclusively monitor one SID code.

Figure 7-8: AMOL SID Template Settings

7.1.3. NAES Monitor

The *NAES Monitor*: Displays information that is being read from the card. This tab only enables the user to view the status of the card, it does not enable configuration of the card. The fields will only display information if the audio was enabled and if the SID decoded matches the SID set in the *Decode From Audio* section under the *Control* tab.

Figure 7-9: NAES Monitor Tab



Note: If no code is present SID code Value will be “0” and default code type will be “PC”.



Note: To see new code click refresh button  . If no code is present fields will be clear or set to default depending on time set for NAES Code loss duration.

For the sake of brevity, only parameters for Channel 1 will be described below.

- **SID Code Value:** This field displays the Source Identification value for the selected channel.
- **Time Stamp:** This field displays the Time Stamp information (date and time) for the selected channel.
- **Code Type (Level):** This field displays the Code Type (Level). The code type will display one of the following levels: PC (Program Creator) or FD (Final Distributor).
 - **PC: Program Creator:** The *Program Creator* is defined as the station that the program was created by.
 - **FD: Final Distributor:** The *Final Distributor* is defined as the station that is broadcasting the NAES signal. The FD is not the originator of the program; however they are the station currently broadcasting the program.



Please refer to Nielsen for additional information regarding Code Type Levels.

- **Code Counter:** This field displays the number of codes being decoded by the card.
 - **Reset button:** Allows the user to reset the code count to 0.
- **Code Time Drift Amount:** This field displays the amount of code that has drifted compare to the current time.



Please Note: You must have NTP time connected to the 7760ND-HD and Nielsen Encoder.

- **Show Code String Button:** Allows the user to see NAES code string format.
 - **Refresh Button:** Allows the user to update current code string decoded.
 - **Close Button:** Allows the user to close Code string window.

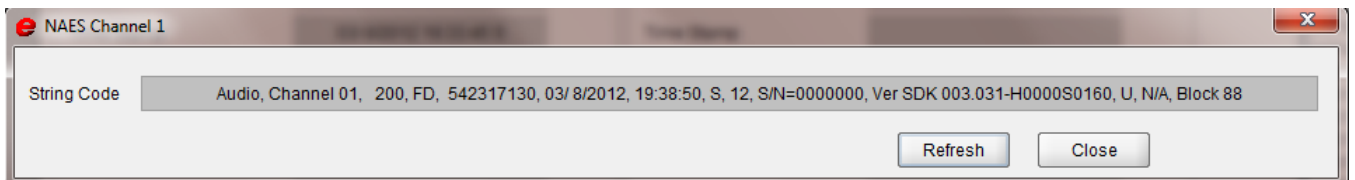


Figure 7-10: NAES Code String

7.1.4. AMOL Monitor

The *AMOL Monitor* tab (shown in Figure 7-11) displays the AMOL video information. This tab only enables the user to view the status of the card, it does not enable configuration of the card. The fields will only display information if the *Decode from Video* is enabled and the SID Decoded match the SID set in the *Decode from Video* option in the *Control* tab.

<p>Line 20 Field 1</p> <p>SID: 200</p> <p>Mode: FAST</p> <p>Time Stamp: 03/ 8/2012 19:43:51 S</p> <p>Code Counter: 95077 <input type="button" value="Reset"/></p> <p>Code Time Drift Amount: 0 seconds</p> <p><input type="button" value="Show Code String"/></p>	<p>Line 20 Field 2</p> <p>SID: 200</p> <p>Mode: FAST</p> <p>Time Stamp: 03/ 8/2012 19:43:51 S</p> <p>Code Counter: 95077 <input type="button" value="Reset"/></p> <p>Code Time Drift Amount: 0 seconds</p> <p><input type="button" value="Show Code String"/></p>
<p>Line 22 Field 1</p> <p>SID: 200</p> <p>Mode: FAST</p> <p>Time Stamp: 03/ 8/2012 19:43:51 S</p> <p>Code Counter: 95077 <input type="button" value="Reset"/></p> <p>Code Time Drift Amount: 0 seconds</p> <p><input type="button" value="Show Code String"/></p>	<p>Line 22 Field 2</p> <p>SID: 200</p> <p>Mode: FAST</p> <p>Time Stamp: 03/ 8/2012 19:43:51 S</p> <p>Code Counter: 95077 <input type="button" value="Reset"/></p> <p>Code Time Drift Amount: 0 seconds</p> <p><input type="button" value="Show Code String"/></p>
<p>AMOL General</p> <p>SER: 22056</p> <p>VERS: H0002-S0020</p>	<p>XDS</p> <p>SID: 200</p> <p>Mode: XDS</p> <p>Time Stamp: 03/ 8/2012 19:43:48 S</p> <p>Code Counter: 19015 <input type="button" value="Reset"/></p> <p>Code Time Drift Amount: 0 seconds</p> <p><input type="button" value="Show Code String"/></p>

Figure 7-11: AMOL Monitor Tab



Note: If no code is present SID code Value will be “0” and default code type will be “AMOL 1”.



Note: To see new code click refresh button . If no code is present fields will be clear or set to default depending on time set for Video loss duration.

- **SID:** This field displays the Source Identifier.
- **Mode:** This field displays the AMOL mode. The mode options are Slow, Medium, and Fast.
- **Time Stamp:** This field displays time stamp (date and time) information.

- **Code Counter:** This field displays the number of codes being decoded by the card.
 - **Reset button:** Allows the user to reset the code count to 0.
- **Line 20 Field 1:** This field displays the code string information for Field 1 of Line 20.
- **Line 20 Field 2:** This field displays the code string information for Field 2 of Line 20.
- **Line 22 Field 1:** This field displays the code string information for Field 1 of Line 22.
- **Line 22 Field 2:** This field displays the code string information for Field 2 of Line 22.
- **XDS:** This field displays the code string information for XDS.
- **Show Code String Button:** Allows the user to see NAES code string format
 - **Refresh Button:** Allows the user to update current code string decoded.
 - **Close Button:** Allows the user to close Code string window.
- **Amol General:** This field displays the Serial number and Version number of the Nielsen Encoder.

7.1.5. Watermark Monitoring

The Watermark *Monitor* tab (shown in Figure 7-12) displays the information that is being read from the card. This tab only enables the user to view the status of the card, it does not enable configuration of the card. The fields will only display information if the audio was enabled and if the SID decoded matches the SID set in the *Decode From Audio* section under the *Control* tab.

<p>Channel 1</p> <p>SID: 200</p> <p>Time Stamp: 03/8/2012 20:23:33 S</p> <p>Level: FD 1</p> <p>Counter: 40 <input type="button" value="Reset"/></p> <p>Time Drift Amount: 27</p> <p>Transmission Type: Real Time</p> <p><input type="button" value="Show Code String"/></p>	<p>Channel 2</p> <p>SID: 0</p> <p>Time Stamp:</p> <p>Level: PC</p> <p>Counter: 10498 <input type="button" value="Reset"/></p> <p>Time Drift Amount: 0</p> <p>Transmission Type: Real Time</p> <p><input type="button" value="Show Code String"/></p>
<p>Channel 3</p> <p>SID: 0</p> <p>Time Stamp:</p> <p>Level: PC</p> <p>Counter: 10495 <input type="button" value="Reset"/></p> <p>Time Drift Amount: 0</p> <p>Transmission Type: Real Time</p> <p><input type="button" value="Show Code String"/></p>	<p>Channel 4</p> <p>SID: 0</p> <p>Time Stamp:</p> <p>Level: PC</p> <p>Counter: 10759 <input type="button" value="Reset"/></p> <p>Time Drift Amount: 0</p> <p>Transmission Type: Real Time</p> <p><input type="button" value="Show Code String"/></p>
<p>Channel 5</p> <p>SID: 0</p> <p>Time Stamp:</p> <p>Level: PC</p> <p>Counter: 0 <input type="button" value="Reset"/></p> <p>Time Drift Amount: 0</p> <p>Transmission Type: Real Time</p> <p><input type="button" value="Show Code String"/></p>	<p>Channel 6</p> <p>SID: 0</p> <p>Time Stamp:</p> <p>Level: PC</p> <p>Counter: 0 <input type="button" value="Reset"/></p> <p>Time Drift Amount: 0</p> <p>Transmission Type: Real Time</p> <p><input type="button" value="Show Code String"/></p>

Figure 7-12: Watermark Monitor Tab



Note: If no code is present SID code Value will be “0” and default code type will be “PC”.



Note: To see new code click refresh button . If no code is present fields will be clear or set to default depending on time set for Watermark Code loss duration.

For the sake of brevity, only parameters for Channel 1 will be described below.

- **SID Code Value:** This field displays the Source Identification value for the selected channel.
- **Time Stamp:** This field displays the Time Stamp information (date and time) for the selected channel.
- **Code Type (Level):** This field displays the Code Type (Level). The code type will display one of the following levels: PC (Program Creator) or FD (Final Distributor).
 - **PC: Program Creator:** The *Program Creator* is defined as the station that the program was created by.
 - **FD: Final Distributor:** The *Final Distributor* is defined as the station that is broadcasting the NAES signal. The FD is not the originator of the program; however they are the station currently broadcasting the program.



Please refer to Nielsen for additional information regarding Code Type Levels.

- **Code Counter:** This field displays the number of code being decoded by the card.
 - **Reset button:** Allows the user to reset the code count to 0.
- **Code Time Drift Amount:** This field displays the amount of code that has drift compared to current time.



Please Note: You must have NTP time connected to 7760ND-HD and Nielsen Encoder.

- **Transmission Type:** This field displays if the code is decoded in real time.
- **Show code String Button:** Allows the user to see NAES code string format.
 - **Refresh Button:** Allows the user to update current code string decoded.
 - **Close Button:** Allows the user to close Code string window.

7.1.6. Fault Definitions

The *Fault Definitions* tab (shown in Figure 7-13) is used to define the faults.

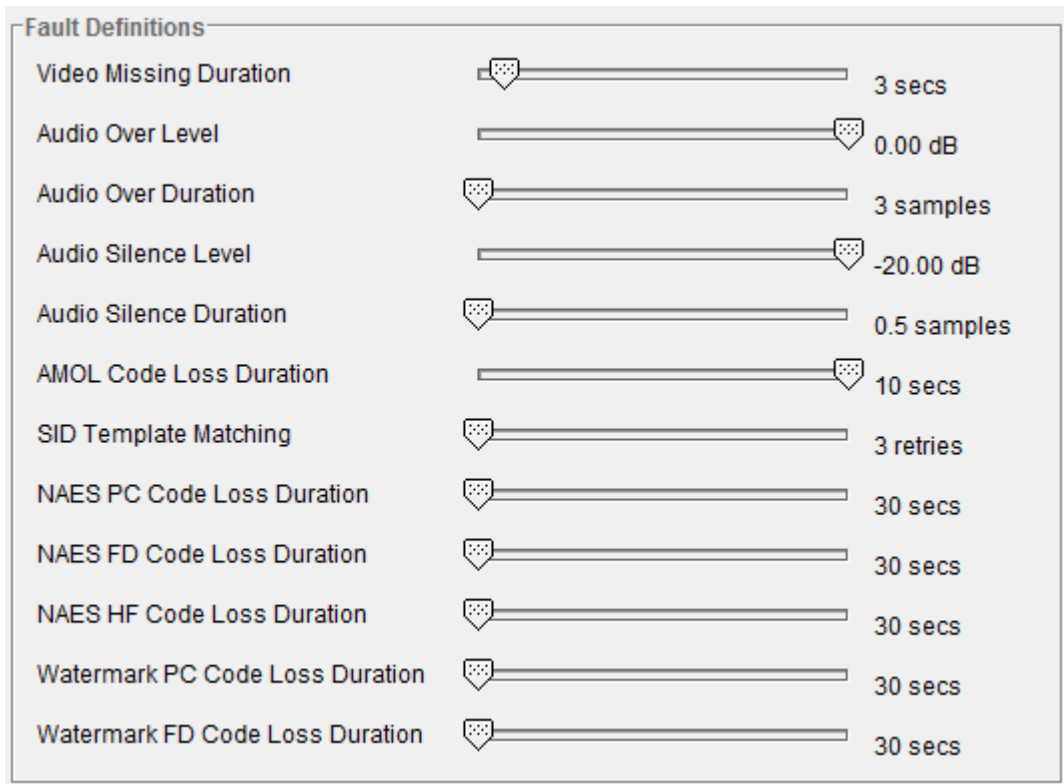


Figure 7-13: Fault Definitions Tab

- **Video Missing Duration:** This parameter enables the user to set the number of seconds that the video can be missing before the fault alarm is triggered. The *Video Missing Duration* ranges from 1 second to 30 seconds, in 1 second increments.
- **Audio Over Level:** This parameter enables the user to define the maximum audio level in dB. When the audio exceeds this level a fault alarm will be triggered. The *Audio Over Level* ranges from -30.00 dB to 0.00 dB, in 0.25 dB increments.
- **Audio Over Duration:** This parameter enables the user to define the number of samples that the audio must be over before the alarm is cleared. The *Audio Over Duration* ranges from 3 samples to 255 samples, in 1 sample increments.
- **Audio Silence Level:** This parameter enables the user to define the minimum audio level (in dB). When the audio falls below this level a fault alarm will be triggered. The *Audio Silence Level* ranges from -96.00 dB to -20.00 dB, in 0.25 dB increments.
- **Audio Silence Duration:** This parameter enables the user to define the number of samples that the audio must be under before the alarm is cleared. The *Audio Silence Duration* ranges from 0.5 samples to 127 samples, in 0.5 sample increments.
- **AMOL Code Loss Duration:** This parameter enables the user to set the duration (in seconds) that the AMOL code can be lost before a fault alarm is triggered. The *AMOL Code Loss Duration* ranges from 15 seconds to 30 seconds, in 1 second increments.

- **Template Duration:** This parameter enables the user to set the number of times the template can retry before a fault alarm will be triggered. The *Template Duration* ranges from 3 to 15 retries, in increments of 1.
- **NAES Code Loss Duration:** This parameter enables the user to set the number of seconds that the NAES code can be lost before a fault alarm is triggered. The *NAES Code Loss Duration* ranges from 30 seconds to 300 seconds, in 1 second increments.
- **Watermark Code Loss Duration:** This Parameter enables the user to set the number of seconds that the Watermark code can be lost before a fault alarm is triggered. The *Watermark code loss Duration* ranges from 30 seconds to 300 seconds, in 1 second increments.

7.1.7. Data Logging

The *Data Logging* tab (shown in Figure 7-14) allows the user to enable NAES, AMOL and Watermark code logging and monitor the status of each log.

The *NAES, AMOL and Watermark Code Logging Enable* section allows the user to select whether the code logging will be enabled. To enable a particular log, simply place a check mark beside the log you wish to enable. When a check mark is present, the data log is enabled. When a check mark is not present, the data log is disabled.

The *NAES, AMOL and Watermark Code Logging Status* section defines whether a code is present or missing. If the box is green, then the corresponding code is present. If the box is red, then the corresponding code is missing.

The *NAES, AMOL and Watermark Code Report* enables the user to log all SID codes or Template SID code only. (Shown in Figure 7-15).

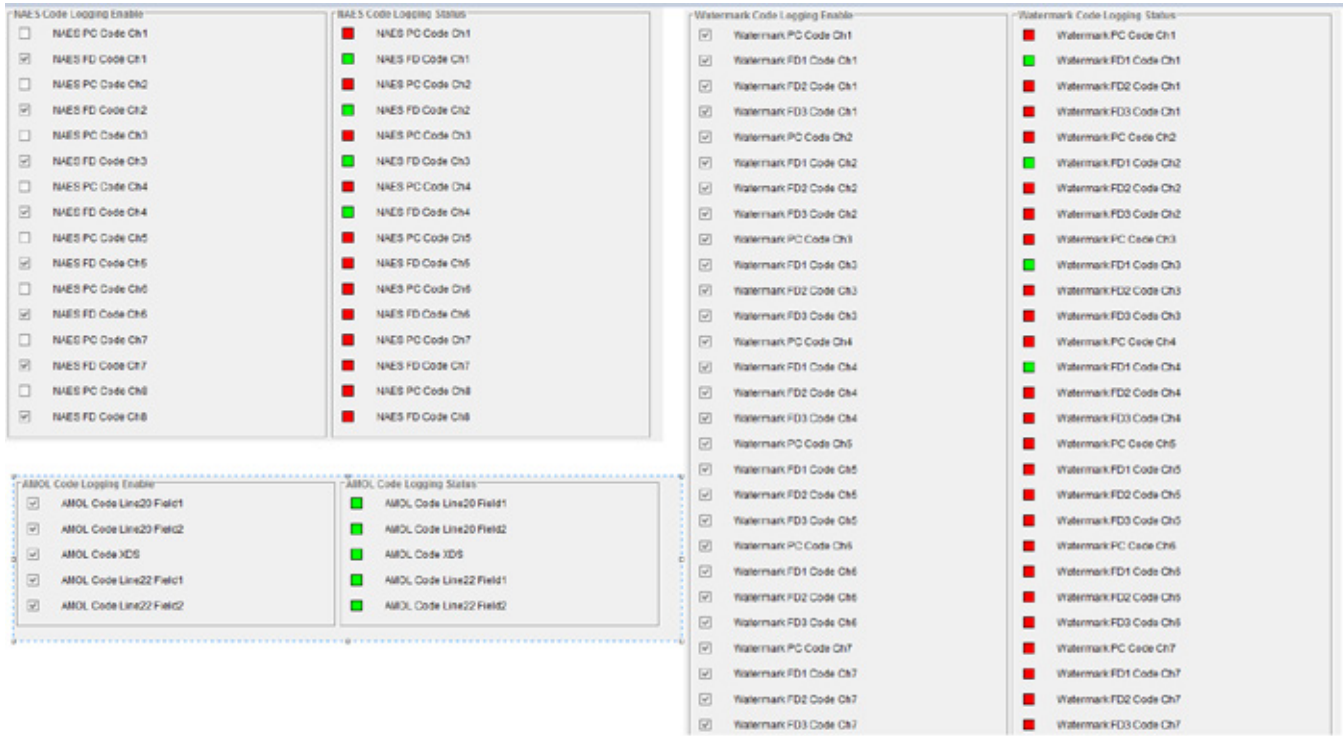


Figure 7-14: Data Logging

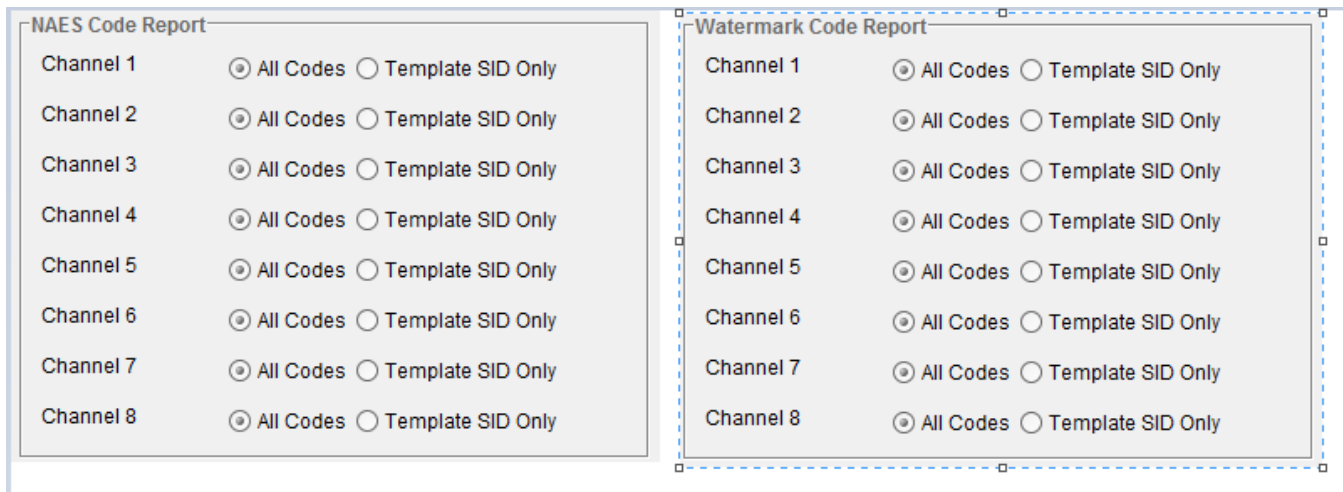


Figure 7-15: Code Report

7.1.8. Video Fault Traps

The *Video Fault Traps* tab (shown in Figure 7-16) allows the user to enable Video Alarm Entry traps as well as monitor the trap status. By placing a check mark beside the items in these sections the user will enable a trap to alarm. The *Trap Status* section allows the user to view the status of the traps.

If the box is green in the *Video Alarm Entry Trap Status* then the video alarm is present, if it is red then the video alarm is missing.

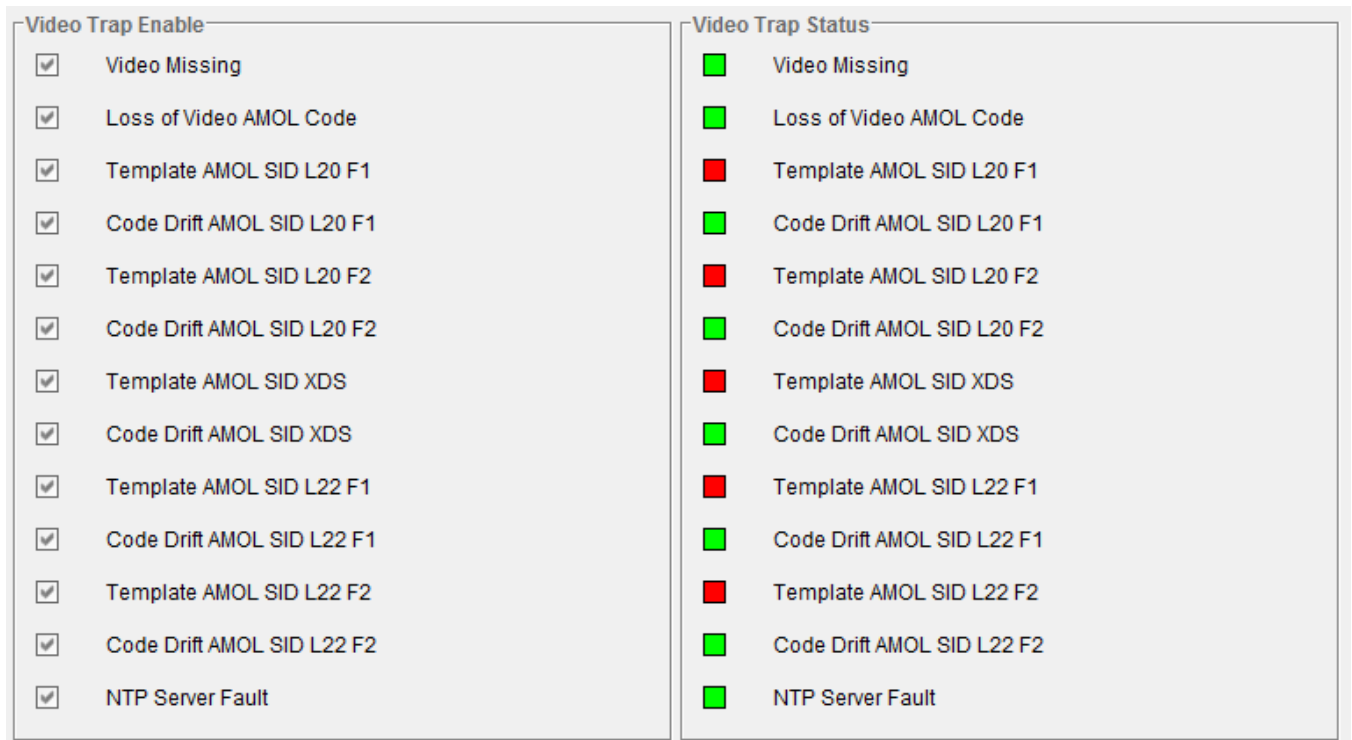


Figure 7-16: Fault Traps

7.1.9. Audio Fault Traps Ch 1-8

The *Audio Fault Traps*, allows the user to enable fault traps and view the status of fault traps for Channels 1 to 8 as shown in Figure 7-17.

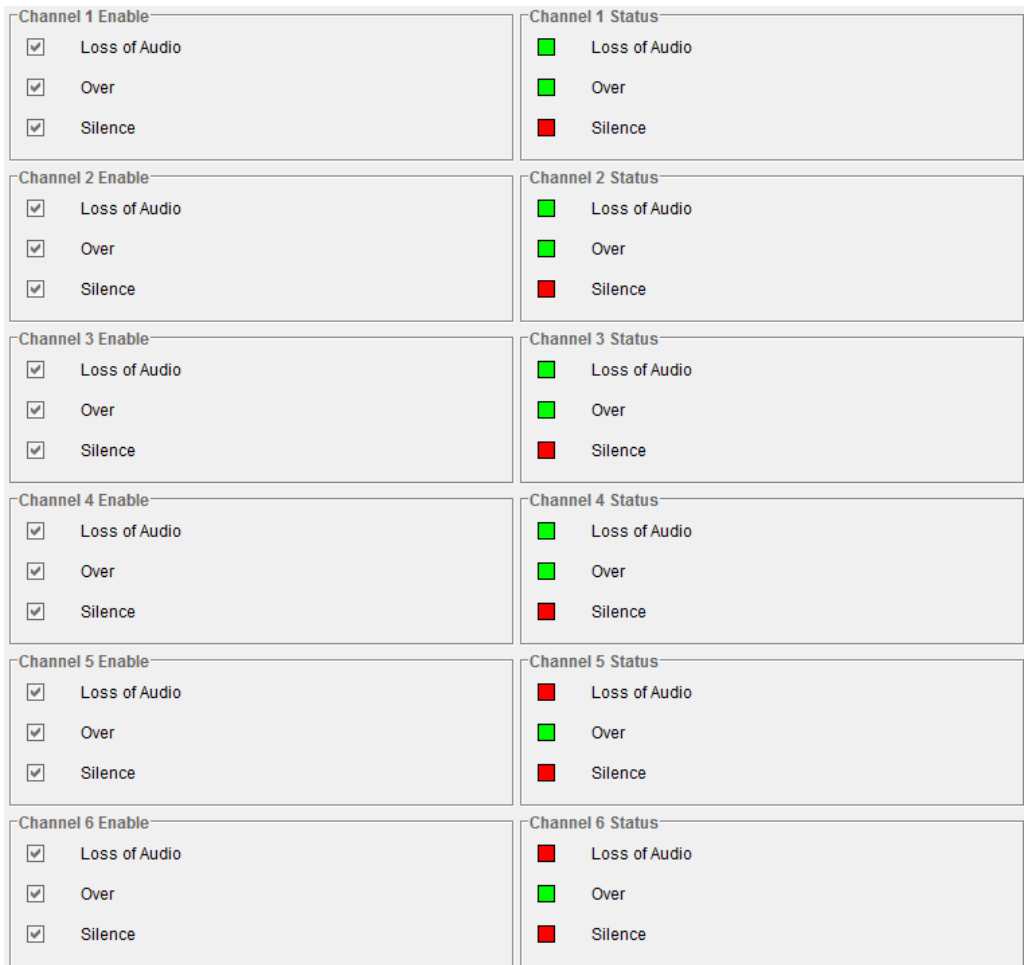


Figure 7-17: Audio Fault Traps

Controls for channels 1 to 8 are accessible under these tabs; however, for the sake of brevity, only Channel 1 will be described in this manual.

The *Channel 1 Enable* section provides the user with 3 Audio Fault Trap options, which are listed below:

- **Loss of Audio:** Placing a check mark in this box will enable the *Loss of Audio* fault trap.
- **Over:** Placing a check mark in this box will enable the *Over* fault trap.
- **Silence:** Placing a check mark in this box will enable the *Silence* fault trap.

The *Channel 1 Status* section displays the status of the Channel 1 parameters. The status section provides the same parameters as outlined above in the *Enable* section. The boxes corresponding to each parameter indicates whether the trap is missing or present.

- A Green status box indicates that the corresponding fault trap has no fault.
- A Red status box indicates that the corresponding fault trap has fault.

7.1.10. NAES Fault Traps

This section allows the user to enable fault traps and view the status of fault traps for NAES code Channels 1 to 8 as shown in Figure 7-18.

<p>Channel 1 Enable</p> <input checked="" type="checkbox"/> Loss of NAES PC Code <input checked="" type="checkbox"/> Loss of NAES FD Code <input checked="" type="checkbox"/> Template NAES PC Code SID <input checked="" type="checkbox"/> Template NAES FD Code SID <input type="checkbox"/> NAES PC Code Time Drift <input type="checkbox"/> NAES FD Code Time Drift	<p>Channel 1 Status</p> <input type="checkbox"/> Loss of NAES PC Code <input type="checkbox"/> Loss of NAES FD Code <input type="checkbox"/> Template NAES PC Code SID <input type="checkbox"/> Template NAES FD Code SID <input type="checkbox"/> NAES PC Code Time Drift <input type="checkbox"/> NAES FD Code Time Drift
<p>Channel 2 Enable</p> <input checked="" type="checkbox"/> Loss of NAES PC Code <input checked="" type="checkbox"/> Loss of NAES FD Code <input type="checkbox"/> Template NAES PC Code SID <input type="checkbox"/> Template NAES FD Code SID <input checked="" type="checkbox"/> NAES PC Code Time Drift <input checked="" type="checkbox"/> NAES FD Code Time Drift	<p>Channel 2 Status</p> <input type="checkbox"/> Loss of NAES PC Code <input type="checkbox"/> Loss of NAES FD Code <input type="checkbox"/> Template NAES PC Code SID <input type="checkbox"/> Template NAES FD Code SID <input type="checkbox"/> NAES PC Code Time Drift <input type="checkbox"/> NAES FD Code Time Drift
<p>Channel 3 Enable</p> <input checked="" type="checkbox"/> Loss of NAES PC Code <input checked="" type="checkbox"/> Loss of NAES FD Code <input type="checkbox"/> Template NAES PC Code SID <input type="checkbox"/> Template NAES FD Code SID <input checked="" type="checkbox"/> NAES PC Code Time Drift <input checked="" type="checkbox"/> NAES FD Code Time Drift	<p>Channel 3 Status</p> <input type="checkbox"/> Loss of NAES PC Code <input type="checkbox"/> Loss of NAES FD Code <input type="checkbox"/> Template NAES PC Code SID <input type="checkbox"/> Template NAES FD Code SID <input type="checkbox"/> NAES PC Code Time Drift <input type="checkbox"/> NAES FD Code Time Drift
<p>Channel 4 Enable</p> <input checked="" type="checkbox"/> Loss of NAES PC Code <input checked="" type="checkbox"/> Loss of NAES FD Code <input type="checkbox"/> Template NAES PC Code SID <input type="checkbox"/> Template NAES FD Code SID <input checked="" type="checkbox"/> NAES PC Code Time Drift	<p>Channel 4 Status</p> <input type="checkbox"/> Loss of NAES PC Code <input type="checkbox"/> Loss of NAES FD Code <input type="checkbox"/> Template NAES PC Code SID <input type="checkbox"/> Template NAES FD Code SID <input type="checkbox"/> NAES PC Code Time Drift

Figure 7-18: NAES Fault Traps

Controls for NAES code for channels 1 to 8 are accessible under these tabs; however, for the sake of brevity, only Channel 1 will be described in this manual.

The *Channel 1 Enable* section provides the user with 6 Fault Trap options, which are listed below:

- Loss of NAES PC Code:** Placing a check mark in this box will enable the Loss of NAES PC code trap

- **Loss of NAES FD Code:** Placing a check mark in this box will enable the Loss of NAES FD code trap
- **Template NAES PC Code SID:** Placing a check mark in this box will enable the Template NAES PC code mismatch trap. (SID Template must be enabled in control Tab)
- **Template NAES FD Code SID:** Placing a check mark in this box will enable the Template NAES FD code mismatch trap. (SID Template must be enabled in control Tab)
- **NAES PC Code Time Drift:** Placing a check mark in this box will enable the NAES PC code Time Drift trap. (Need NTP time)
- **NAES FD Code Time Drift:** Placing a check mark in this box will enable the NAES FD code Time Drift trap. (Need NTP time)

The *Channel 1 Status* section displays the status of the Channel 1 parameters. The status section provides the same parameters as outlined above in the *Enable* section. The boxes corresponding to each parameter indicates whether the trap is missing or present.

- A Green status box indicates that the corresponding fault trap has no fault.
- A Red status box indicates that the corresponding fault trap has fault.

7.1.11. Watermark Fault Traps

This section allows the user to enable fault traps and view the status of fault traps for Watermark code Channels 1 to 8 as shown in Figure 7-19.

<p>Channel 1 Enable</p> <input checked="" type="checkbox"/> Loss of Watermark PC Code <input checked="" type="checkbox"/> Loss of Watermark FD Code <input checked="" type="checkbox"/> Template Watermark PC Code SID <input checked="" type="checkbox"/> Template Watermark FD Code SID <input type="checkbox"/> Watermark PC Code Time Drift <input checked="" type="checkbox"/> Watermark FD Code Time Drift <input type="checkbox"/> Template Watermark Duplicate SID <input type="checkbox"/> Watermark Slot Full	<p>Channel 1 Status</p> <input type="checkbox"/> Loss of Watermark PC Code <input type="checkbox"/> Loss of Watermark FD Code <input type="checkbox"/> Template Watermark PC Code SID <input type="checkbox"/> Template Watermark FD Code SID <input type="checkbox"/> Watermark PC Code Time Drift <input type="checkbox"/> Watermark FD Code Time Drift <input type="checkbox"/> Template Watermark Duplicate SID <input type="checkbox"/> Watermark Slot Full
<p>Channel 2 Enable</p> <input checked="" type="checkbox"/> Loss of Watermark PC Code <input checked="" type="checkbox"/> Loss of Watermark FD Code <input checked="" type="checkbox"/> Template Watermark PC Code SID <input checked="" type="checkbox"/> Template Watermark FD Code SID <input checked="" type="checkbox"/> Watermark PC Code Time Drift <input checked="" type="checkbox"/> Watermark FD Code Time Drift <input type="checkbox"/> Template Watermark Duplicate SID <input type="checkbox"/> Watermark Slot Full	<p>Channel 2 Status</p> <input type="checkbox"/> Loss of Watermark PC Code <input type="checkbox"/> Loss of Watermark FD Code <input type="checkbox"/> Template Watermark PC Code SID <input type="checkbox"/> Template Watermark FD Code SID <input type="checkbox"/> Watermark PC Code Time Drift <input type="checkbox"/> Watermark FD Code Time Drift <input type="checkbox"/> Template Watermark Duplicate SID <input type="checkbox"/> Watermark Slot Full
<p>Channel 3 Enable</p> <input checked="" type="checkbox"/> Loss of Watermark PC Code <input checked="" type="checkbox"/> Loss of Watermark FD Code <input checked="" type="checkbox"/> Template Watermark PC Code SID <input checked="" type="checkbox"/> Template Watermark FD Code SID <input checked="" type="checkbox"/> Watermark PC Code Time Drift <input checked="" type="checkbox"/> Watermark FD Code Time Drift <input type="checkbox"/> Template Watermark Duplicate SID <input type="checkbox"/> Watermark Slot Full	<p>Channel 3 Status</p> <input type="checkbox"/> Loss of Watermark PC Code <input type="checkbox"/> Loss of Watermark FD Code <input type="checkbox"/> Template Watermark PC Code SID <input type="checkbox"/> Template Watermark FD Code SID <input type="checkbox"/> Watermark PC Code Time Drift <input type="checkbox"/> Watermark FD Code Time Drift <input type="checkbox"/> Template Watermark Duplicate SID <input type="checkbox"/> Watermark Slot Full

Figure 7-19: Watermark Fault Traps

Controls for Watermark code for channels 1 to 8 are accessible under these tabs; however, for the sake of brevity, only Channel 1 will be described in this manual.

The *Channel 1 Enable* section provides the user with 8 Fault Trap options, which are listed below:

- **Loss of Watermark PC Code:** Placing a check mark in this box will enable the Loss of Watermark PC code trap
- **Loss of Watermark FD Code:** Placing a check mark in this box will enable the Loss of Watermark FD code trap
- **Template Watermark PC Code SID:** Placing a check mark in this box will enable the Template Watermark PC code mismatch trap. (SID Template must be enabled in control Tab)

- **Template Watermark FD Code SID:** Placing a check mark in this box will enable the Template Watermark FD code mismatch trap. (SID Template must be enabled in control Tab)
- **Watermark PC Code Time Drift:** Placing a check mark in this box will enable the Watermark PC code Time Drift trap. (Need NTP time)
- **Watermark FD Code Time Drift:** Placing a check mark in this box will enable the Watermark FD code Time Drift trap. (Need NTP time)
- **Template Watermark Duplicate SID:** Placing a check mark in this box will enable the Watermark Duplicate SID trap.
- **Watermark Slot Full:** Placing a check mark in this box will enable the Watermark Slot Full Trap.

The *Channel 1 Status* section displays the status of the Channel 1 parameters. The status section provides the same parameters as outlined above in the *Enable* section. The boxes corresponding to each parameter indicates whether the trap is missing or present.

- A Green status box indicates that the corresponding fault trap has no fault.
- A Red status box indicates that the corresponding fault trap has fault.

7.2. CONFIGURING THE NORTHBOUND INTERFACE USING VISTALINK[®] PRO

The following steps are used to activate the *Northbound* interface:

1. From the VLPRO Server's main menu, select *Tools* → *Alarm Forwarding*.
2. Select the "Summary Alarms" tab.
3. Check the "Product Summary Alarm" checkbox.
4. Select the "Add" button.
5. Provide the *IP address*, *Alias* and *Port* for the 3rd party trap receiver.
6. Click "OK" to exit.

The VistaLINK[®] PRO Server will immediately begin transferring the Product Summary alarms.



The VistaLINK[®] PRO Server MIB, which describes the Northbound "Product Summary" alarm forwarding interface, is available upon request.

8. CONFIGURING MULTI-IMAGE DISPLAY PRODUCTS

8.1. CONFIGURING 7867VIP A12, 7867VIP A8/16/32-DUO, 7867VIP X-8/16/32 DEVICES

1. Use a web browser to open the configuration page for the 7867VIP A products. Any web browser will work. Type the IP address of the VIPA you wish to setup into the address tool bar.
2. The VIPA will serve back a configuration page (see Figure 8-1). Select the Nielsen setup category from the list.

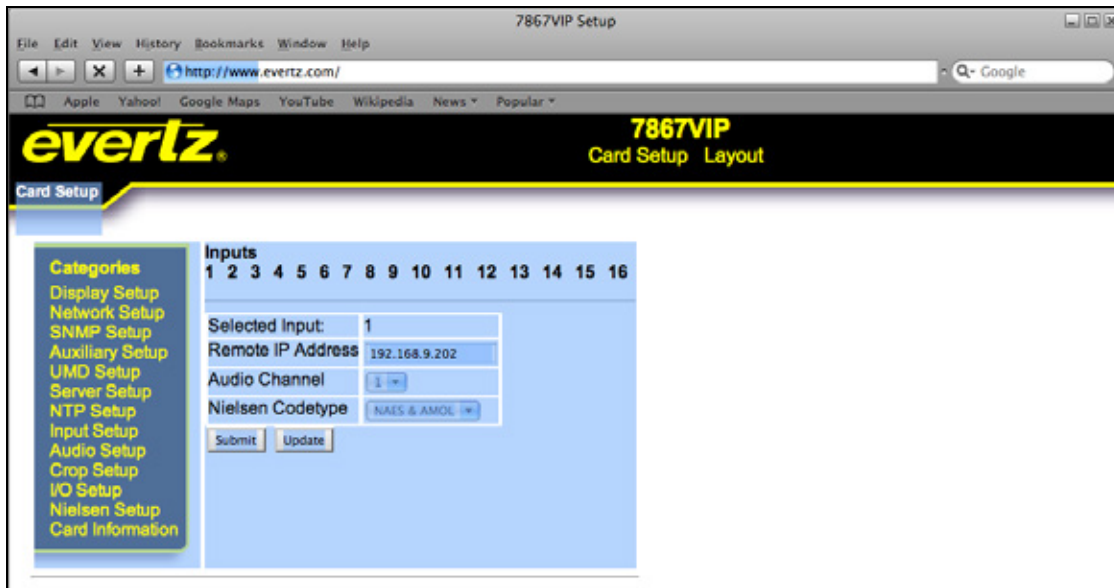


Figure 8-1: VIPA Configuration Page

3. Select the input of the VIPA that you intend to associate the Nielsen data decoded from the 7760ND-HD card.
4. Enter the 7760ND-HD's IP Address in the property box under "Remote IP Address."
5. Select which channel of audio you wish to monitor by selecting an audio channel from the drop down box.



Note: The 7760ND-HD can monitor all 8 channels of audio for NAES codes. The VIPA can only display the codes for a single channel.

6. Select which types of codes the VIPA is to display by selecting from the drop down "NAES", "AMOL", "NAES & AMOL"
7. Once form is complete click the "submit" button at the bottom of the page to send the settings to the VIPA.
8. Repeat step 1 to 6 for different inputs if monitoring more than one program.

9. Reboot the card once all inputs are configured.

8.2. CONFIGURING 7867VIPA'S / MVP OV'S USING THE SYSTEM CONFIGURATION TOOL

1. There are two system types; stand alone (on board server) and PC Server based. A single VIPA will run an "on board server." A collection of VIPAs under one system will run a "PC server." A small MVP will run an "on board server," and a large MVP system will run a "PC server". Identify which type of system is being configured and then follow the appropriate next step.
2. For "On board" server based configurations, open the System Configuration Tool (SCT). For PC based server configurations, open the *System Manager*. Please note that this may already be running. Therefore, you should start with the running software.
3. For "On board" server, enter the IP address for the VIP or MVP system into the SCT on the profiles page. Click on the "Get from Server" button at the top of the form.
4. In the *System Manager* double click on the system containing the hardware to be configured.
5. Go to the *hardware* tab and select the VIP device or OV input card to be configured. Click on the properties tab to bring up the configuration view for the hardware.
6. Select *Nielsen Monitoring* tab at the top of the form.

The screenshot shows a Windows-style dialog box titled "Properties: VIP". It has several tabs: "Spigot Props", "Audio Setup", "Data Services", "Crop Setup", "I/O Settings", and "Nielsen Monitoring". The "Nielsen Monitoring" tab is selected. Under this tab, there is a "Video Input" section with a grid of 16 numbered buttons (1-16). Below the grid are three input fields: "Remote IP Address" (containing "192.168.9.202"), "Audio Channel" (containing "1"), and "Code Type" (containing "NAES & AMOL"). At the bottom of the dialog are three buttons: "Defaults", "OK", and "Cancel".

Figure 8-2: VIP Properties Sheet

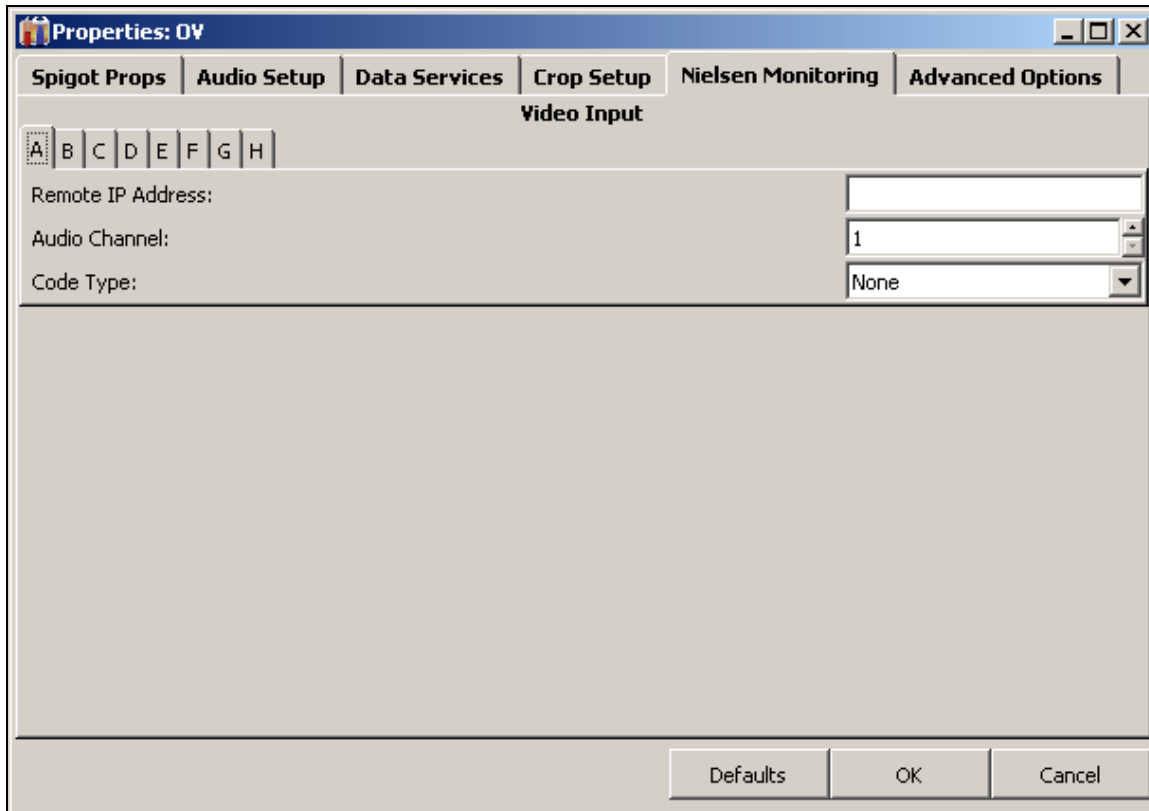


Figure 8-3: MVP OV Property Sheet

7. Select the input on the VIP or OV that the Nielsen data is to be associated to. For example, select input 1 to bring up the Nielsen Monitoring configuration view for that input.
8. Under *Remote IP Address* enter the IP Address for the 7760ND-HD card.
9. Under *Audio Channel* select which channel of audio you want the multi-viewer to display the decoded Nielsen codes from.
10. Under *Code Type* select NAES, AMOL, or Both from Nielsen Code type. This will determine what type of data can be displayed on the VIP or MVP. Please note: Only select the code type required to avoid excessive unwanted data from being sent over the network.

Repeat step 7 to 10 for different inputs if monitoring more than one program.

11. Once all configurations are complete click the OK button at bottom of the form.
12. For “On board server,” you must upload the new config back to the card; to do this make sure the IP address is still entered in the profile page for the “On board Server” and click the *Send to Server* button. Once configuration has been uploaded the card has to be power cycled for it to take effect.
13. In the *System Manager* simply acknowledge that the server must be restarted or click “Stop” and the “Start” on the top of the form to latch the changes into the system.

9. UPGRADING FIRMWARE

To upgrade the firmware on the 7760ND-HD unit follow the procedure outlined below:

1. Ensure an Ethernet cable is plugged into the rear of the unit and the frame is powered up.
2. Open a web browser and type the IP address of the card (set in section 6) into the URL address field.
3. An upgrade page will appear as shown in Figure 9-1.

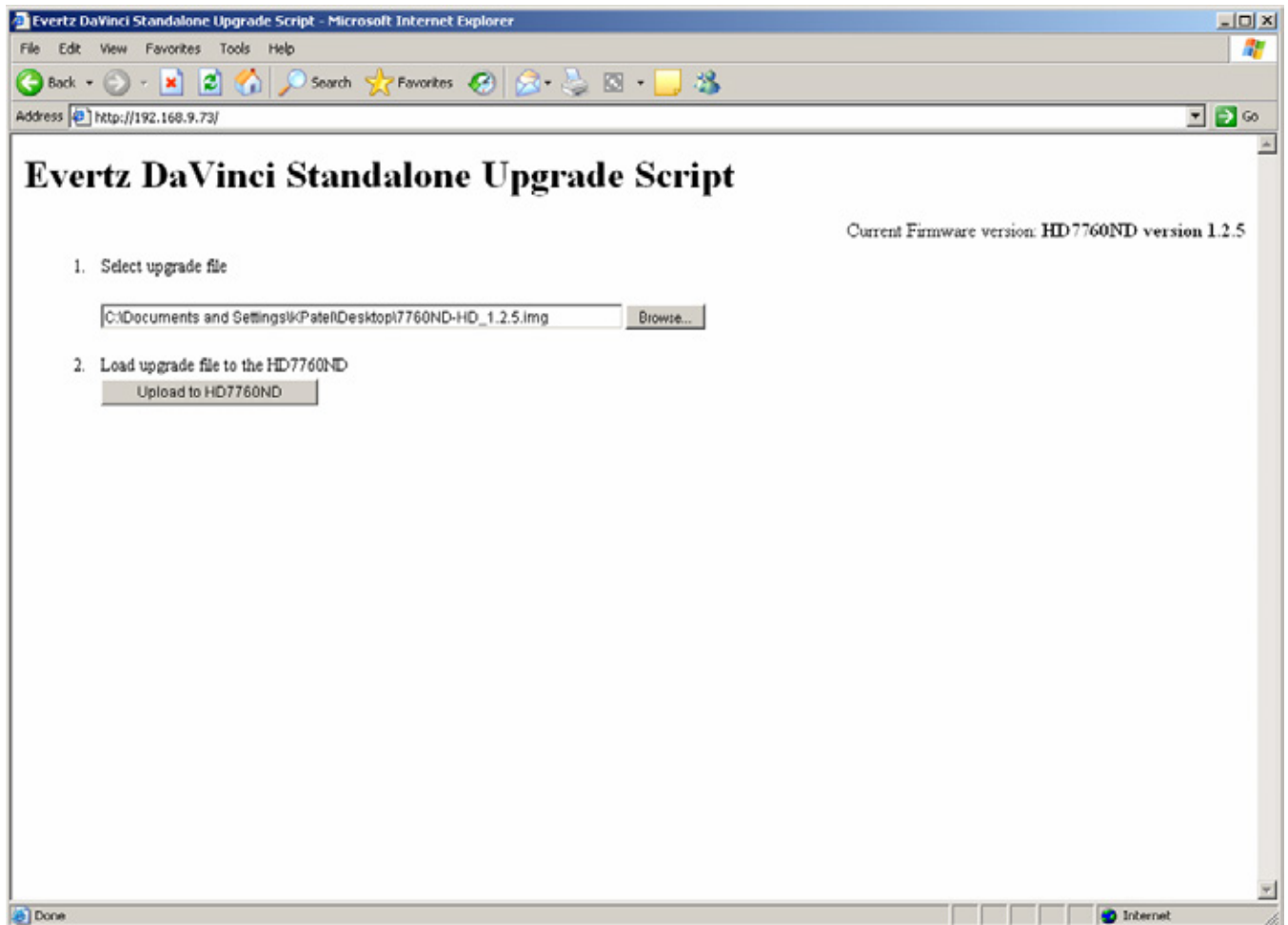


Figure 9-1: Upgrade Window

4. To load the firmware file, select the *Browse* button. A *Choose File* dialogue window will appear as shown in Figure 9-2.

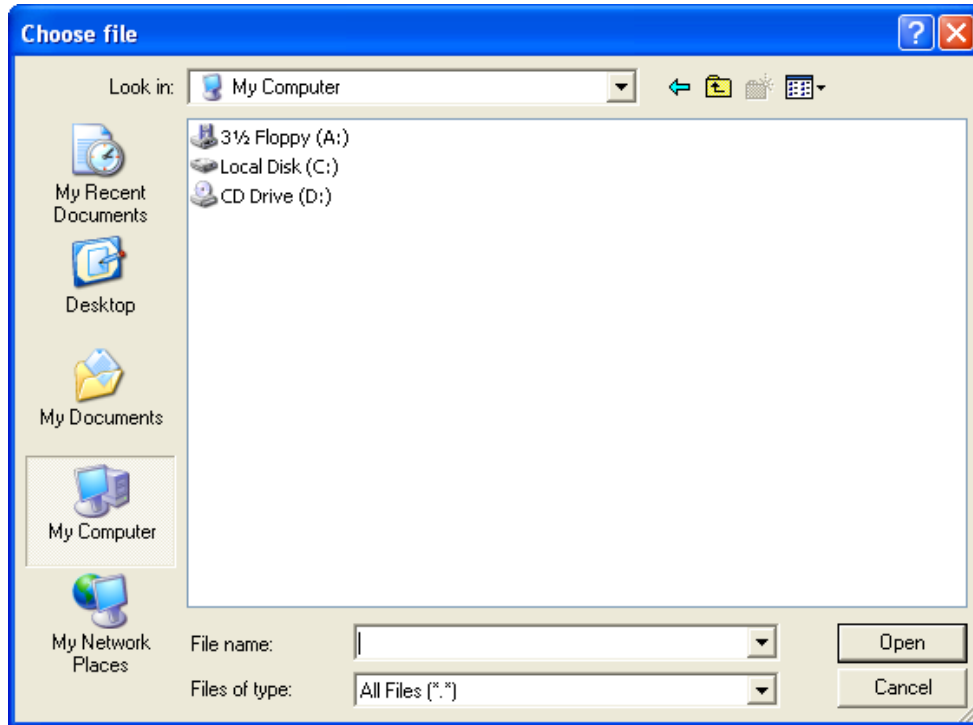
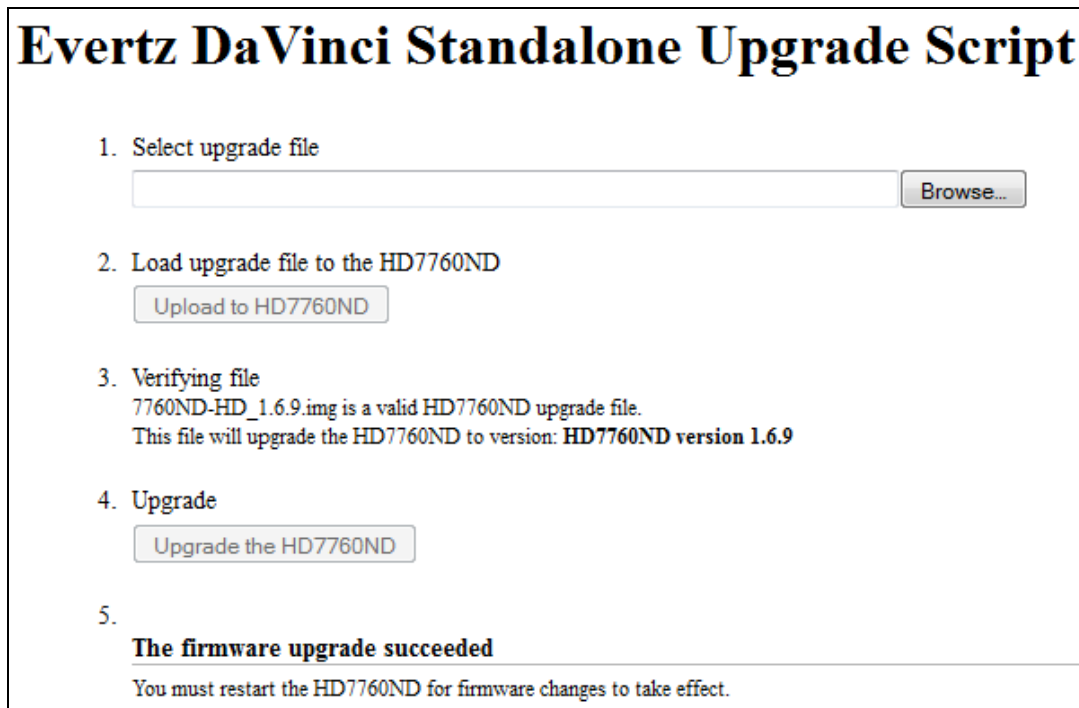


Figure 9-2: Choose File Window

5. Browse to the appropriate file and then select the *Open* button.



6. When prompted “Load upgrade file to the HD7760ND” click on **Upload to HD7760ND**.
7. When prompted “Upgrade” click on **Upgrade the HD7760ND**.

8. When the following message appears, **“The firmware upgrade succeeded”**, close the web browser and power cycle the 7760ND-HD.



Please note that the Upgrade Firmware window also displays the current version of firmware on the connected 7760ND-HD.

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