9780MUX-IPGE-ASI Compact ASI/IP Re/De-Multiplexer

User Manual



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IMPORTANT SAFETY INSTRUCTIONS

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "Dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.

- Read these instructions
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC – SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE

WARNING

DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS ARE PLACED ON THE EQUIPMENT

WARNING

TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE

WARNING

THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE

INFORMATION TO USERS IN EUROPE

<u>NOTE</u>

CISPR 22 CLASS A DIGITAL DEVICE OR PERIPHERAL

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to the European Union EMC directive. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



EN60065 EN55103-1: 1996 EN55103-2: 1996

Safety 6 Emission 6 Immunity



EN504192 2005 Waste electrical products should not be disposed of with household waste. Contact your Local Authority for recycling advice

INFORMATION TO USERS IN THE U.S.A.

<u>NOTE</u>

FCC CLASS A DIGITAL DEVICE OR PERIPHERAL

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING

Changes or Modifications not expressly approved by Evertz Microsystems Ltd. could void the user's authority to operate the equipment.

Use of unshielded plugs or cables may cause radiation interference. Properly shielded interface cables with the shield connected to the chassis ground of the device must be used.



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REVISION HISTORY

REVISION

DESCRIPTION

DATE

1.0 First Release

Nov 2016

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1. OVERVIEW

• Flexible Solution

The 9780MUX-IPGE-ASI is part of the 9780 FR platform. A complete, flexible solution to concurrently demux and remux up to 4 x IP or ASI inputs across 4 x IP or ASI outputs. It's a highly flexible platform capable of supporting multiple input types including SPTS, MPTS, ASI, IP (Unicasts/Multicasts). The platform is also capable of supporting Statistical Multiplexing for encoding using Evertz 3480 Encoders*.

Controlled by the industry leading VistaLINK_® PRO CSM, the 9780 Multiplexer offers grooming and re-multiplexing of pre-encoded content in a new single or multi program transport stream ready to be broadcast across DVB-S, DVB-T, DVB-C and IPTV networks. The platform is enabled with Service, Socket, Port and Device level redundancy when paired with VLPRO CSM NMS.

Advanced Stream Processing

The 9780 Multiplexer supports advanced stream processing capabilities such as Program and PID remapping, DVB/ATSC table generation and per program bit rate limiting to stop over bit rate inputs from disrupting groomed outputs.

• In band Metadata Insertion

When paired with VLPRO CSM NMS, the 9780 Multiplexer can also support in band metadata insertion directly into a private PID. Downstream devices can receive this PID and process accordingly. Applications can vary from in band firmware upgrade or data tags.



Figure 1-1 : 9780MUX-IPGE Front Panel

Features & Benefits

- Program grooming and re/de-multiplexing with PID filtering
- Program and PID remapping
- Re-mux engine core with:

4 x SPTS/MPTS ASI inputs 4 x SPTS/MPTS ASI outputs 4 x SPTS/MPTS IP inputs 4 x SPTS/MPTS IP outputs



- Output TS bit rate configuration
- Per program bitrate limiting
- Inband metadata insertion to private PID*
- Internal TSM-Lite per stream: TS loss, CC, Bitrate
- Auto fail-over to the redundant incoming Transport via VLPRO CSM NMS
- 1:1, GbE Port and Socket redundancy via VLPRO CSM NMS
- 1:1, M:N Unit Redundancy via VLPRO CSM NMS

*Contact factory for additional details



Figure 1-2 : 9780MUX-IPGE Rear Panel

Control

- Full SNMP (Simple Network Management Protocol) support and integrated with the industry leading VistaLINK_ $_{\!\otimes}$ PRO system



2. GETTING STARTED

Upon unpacking, the user should find:

1 x 9780MUX-IPGE

2 x Power cords contained in a plastic bag

Locate a 1RU space in a 19" rack and install the unit. Remove the power cords from their package and connect each one to one of the two black power sockets on the rear plate of the 9780MUX-IPGE. Then connect the other end of each power cord to a power source that meets product requirements. Connecting to a power source should automatically power the device on. Should the device not start when connected to a power source, check that the power cords are firmly connected.

2.1. SET UP INPUTS AND OUTPUTS

- Connect the Ethernet cable to the CONTROL Ethernet port and the other end to an Ethernet switch. See Figure 2-1.
 - Connect Ethernet cables to desired ports and the other end to the Ethernet switch.



Figure 2-1 : 9780MUX-IPGE Rear Panel

Control: This connector allows for the 9780MUX-IPGE to be able to communicate with the computer, allowing for the user to control the 9780MUX-IPGE through the interface of choice.

Data Main: This RJ45 connector is for primary data output feed.

Data Backup: This RJ45 connector is the secondary data output feed. It can be configured to provide an exact copy of the Data Main.

DB9: This serial port is used for initial network configurations on the Control and Data ports.

Inputs & Outputs: The 9780MUX-IPGE provides 4 ASI and IP inputs and 4 ASI and IP outputs.

USB: The 9780MUX-IPGE provides two type A USB ports.



2.2. CONFIGURING THE CONTROL PORT

2.2.1. Configuring control port from the Front panel

Connecting the device to the computer:

Table 2-1 illustrates the different drop down menus for setting up the network configurations. Scroll between the menus by using the up and down arrow buttons and pressing Select to choose items or Esc to exit one back.

Main Button	Sub Menus						
	Network	Control	Netmask, IP Address, Gateway, DHCP				
		Data Main	Netmask, IP Address, Gateway, DHCP				
System		Data Backup	Netmask, IP Address, Gateway, DHCP				
		Apply Changes	Netmask, IP Address, Gateway, DHCP				

Table 2-1	l : Fro	ont F	Panel o	of 9'	780MUX	for	Network	Configuratio	on
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- 1. To check the IP address of the device, select the **System** button on the front panel of the encoder and scroll down to Control and press Select button. Scroll down to IP address and press select button. The IP address of the 9780MUX will be displayed.
- 2. Press "**ESC**" if no changes are required or "**Select**" to make changes to each octet of the IP address.
- 3. Once completed, navigate to the **Network** submenu and select **Apply** changes.
- 4. In the **Control** submenu, select **Reboot System** to make sure new settings are applied.
- 5. Plug in a standard Ethernet cable (CAT-5E) from PC's Ethernet network to the control port of the device.
- 6. On the computer screen, select "Start" in the bottom left corner. Then select "Control Panel". Search for "Network Connections" icon and double click it. Double click the interface icon "Local area connection" and click the "properties" button. Following that, select "Internet Protocol (TCP/IP4)" and click the "properties" button again. Select the button labelled "Use the following IP address" and click OK.
- 7. Verify that the computer is on the same control/management subnet as the 9780MUX. For example, if the 9780MUX's control/management IP address is 192.168.77.100, set the PC to 192.168.77.xxx where xxx is user's choice.
- 8. Now check communication with the device. Select "Start" in the bottom left corner of the computer screen. Then select "Run..." and in the space provided enter "cmd" followed by clicking the "Enter" button. In the command prompt, type "ipconfig" and push the "Enter" key. This will confirm that the IP address has been set. Type "ping" followed by the IP address and press the Enter key again, if the IP address replies as is shown in Figure 2-2, then it is connected.



Command Prompt

C:\Documents and Settings\jsbarmi>ping 192.168.77.25 Pinging 192.168.77.25 with 32 bytes of data: Reply from 192.168.77.25: bytes=32 time=2ms TTL=64 Reply from 192.168.77.25: bytes=32 time<1ms TTL=64 Reply from 192.168.77.25: bytes=32 time=1ms TTL=64 Reply from 192.168.77.25: bytes=32 time<1ms TTL=64 Ping statistics for 192.168.77.25: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 0ms, Maximum = 2ms, Average = 0ms C:\Documents and Settings\jsbarmi>

Figure 2-2 : Command Prompt

If "Request timed out" appears, then there is a network problem. Double check steps 1-3.

2.2.2. Configuring the control

- a. Plug in a standard Ethernet cable (Cat 5e) from computer's Ethernet port to the Ethernet port of the device.
- b. Power on the device. If there is any problem in powering up, contact one of the Evertz' person to find out about the problem.
- c. On the computer screen, select "Start" in the bottom left corner. Then select "Control Panel". Search for the "Network and Sharing Center" icon and double click it. Double click on "Change Adapter Settings". Select "Local Area Connection" and click the "properties" button. Following that, select "Internet Protocol (TCP/IP)" and click the "properties" button again. Select the button labelled "Use the following IP address" and click "ok". Enter in an IP address that is on the same subnet as the MUXIP with the same subnet mask and gateway.
- d. Now check communication with the device. Select "Start" in the bottom left corner of the computer screen. Then select "Run..." and in the space provided enter "cmd" followed by clicking the "ok" button. In the command prompt type "ipconfig" and push the Enter key, this will confirm the IP address has been set. Type in "ping" followed by the IP address of the MUXIP and press the Enter key again, if the IP address replies then you are connected. If "Request timed out" appears then there is a network problem.

Configure IP interfaces to the MUX

- a. Connect RS 232 cable to the MUX and set 115200 bitrate. Login and password is "customer".
- b. Type 1 to open Network Configuration menu.
- c. Type 1 to open Control port menu.



- d. Type 2 to set IP address
- e. Type 4 to set Gateway
- f. Type x to exit Control port menu
- g. Type x to exit Network Configuration menu.
- h. Type x to exit and save configuration.
- i. The same steps can be done for Data 1(Data Main) and Data 2(Data Redundant) interfaces.
- j. All other Data ports must be configured through VLPro. Data 3 and Data 4 are not defined in 9780MUX-IPGE as if the box only supports

2 1	92.168.241.100 - PuTTY	
* * *	* * * * * * * * * * * * * * * * * * * *	******
*		
*	Module Name:	3480FR
*	Control IP Address:	192.168.241.100 -
*	Data Main IP Address:	10.10.77.100
*	Data Redundant IP Address:	10.10.78.100
* * *	* * * * * * * * * * * * * * * * * * * *	***************
*		
(1)	Network Configuration	
x (2)	SNMP Configuraton	
(3)	Engineering Menu	
1.00	Freit	
(A) (N)	EXIC Evit without coving to bord drive	
()	Exit without saving to hard drive	
< <mark>-</mark>		
-		
*		▼

Figure 2-3 : Configure IP Interfaces to the MUXIP



3. TECHNICAL SPECIFICATIONS

3.1. INPUTS & OUTPUTS

- 2 x Gbe Ethernet data ports RJ45
- 4 x ASI inputs per TR 101 891 Min ASI Bitrate 100Kb/s per input Max ASI Bitrate 213Mb/s per input
- 4 x ASI outputs per TR 101 891 Min ASI Bitrate 100Kb/s per Output Max ASI Bitrate 100Mb/s per Output*

3.2. **RE-MUXING ENGINE**

Input formatMPTS or SPTS, VBR (Variable Bit Rate) or CBR (Configurable Bitrate)Output formatMPTS or SPTS, CBR (Configurable bitrate)

3.3. PROCESSING

- Program/PID grooming/Filtering
- Local generation of DVB/ATSC tables
- Per program bit rate limiting
- Inband metadata insertion*
- Statistical Multiplexing for Evertz 3480TXE encoders

3.4. ENCAPSULATION PARAMETERS:

- IP encapsulation: MAC802.3>IPV4>UDP>MPEG
- Destination IP Address (Unicast and Multicast)
- Destination UDP port
- Source UDP port

3.5. DE-CAPSULATION PARAMETERS

- Source IP Address (Unicast and Multicast)
- Destination IP Address (Unicast and Multicast)
- Join Multicast by providing correct messaging using IGMP
- Selection of the input format
- Selection of the UDP Ports
- Auto fail-over to redundant multicast address, service, socket, port and device via VLPRO CSM NMS



3.6. CONFIGURATION & MGMT

- 1 x Gbe Ethernet control port RJ45
- SNMP control and monitoring via VLPRO

3.7. ELECTRICAL

Input Voltage	Auto ranging 100-240VAC
Power	Up to 120W
EMI/RFI	Complies with FCC regulations for class-A devices
	Complies with EU EMC directive

3.8. PHYSICAL

Dimensions	19"W x 1.75"H x 18.75" D
Weight	17lbs. (7.7kg)

4. VISTALINK® PRO CONFIGURATION

The IP address of the 9780MUX should automatically appear in VistaLINK_® PRO Client window, along the left column under **hardware**. Should it not appear, open the VistaLINK_® PRO Sever window and click the **Discovery** tab. This will allow the user to search for the IP address of the device of choice. Under the **Range Discovery** tab, enter the range of the IP address of the 9780MUX and then push the Start button. This should contact the 9780MUX and allow communication with it through VistaLINK_® PRO.

Under device IP (3480FR) there are four different types of menus (Figure 4-1):

- **9780MUX Frame:** This section is used for general settings like: Status, Ethernet Ports, SNMP Configuration etc.
- **MUX General:** This section is used for general setting like: System info, Status and MUX Syncing.
- **MUX Input:** Each one of the input channels has its own menu for control, monitoring and alarming capabilities.
- **MUX Output:** Each one of the output channels has its own menu for control and monitoring output.



Figure 4-1 : VistaLINK_® PRO - Tree view

In the paragraphs below every single menu will be described in details.



4.1. 9780MUX-IPGE FRAME

4.1.1. Status Tab

	192.168.172.6	8 payam, 3480FR: Co	nfiguration	_ 🗆 X
FullRefresh 😋 💲 1.0 Apply 👲	😻 9xx 🔹 Competed (1		📉 Lagger 🧮	
Ethernet Ports Monitor	SNMP Configuration	Fault	Timing Configuration	Disk Info DNS Server
Status			Ethernet Ports Control	
Status				
TSMIP	Unavailable			
Encoder/Transcoder	Unavailable			
Statmux	Unavailable			
Mux	Available			
10Gig	Unavailable			
FLV package				
Identify Box Dis	able 🔽			
CPU Usage				
Memory Usage				

Figure 4-2 : VistaLINK_® PRO Hardware Configuration – Status Tab

The Status tab indicates the current status of the module including firmware installed on the box, CPU and memory usage in percentage.



4.1.2. Ethernet Ports Control Tab

-	🚍 192.168.172.68 payam, 3480FR: Configuration 💷 🗆 🗙						
Full Refresh	💲 1.0 Apply 🔹 🐇 Satus		4 2016-06-03) 🕺 🗙 Lager 📕				
Ethernet	Ports Monitor SNMP Co	nfiguration	Fault Timing Configuration	Disk Info DNS Server			
	Status		Ethernet Ports Control				
Main Default Ga		11 - C					
Default Gatew	vay None	10.00					
Data 1		Data 2					
IP Address	10.10.77.100	IP Address	10.10.78.100				
Netmask	255.255.255.0	Netmask	255.255.255.0				
Gateway	0.0.0.0	Gateway	0.0.0.0				
DHCP		DHCP					
Enable	Enable	Enable	Enable				
Data 3		Data 4					
IP Address	192.168.38.36	IP Address	192.168.39.36				
Netmask	255.255.255.0	Netmask	255.255.255.0				
Gateway	0.0.0.0	Gateway	0.0.0				
DHCP		DHCP					
Enable	Disable	Enable	Disable 🔹				
Control 1		Control 2					
IP Address	192.168.172.68	IP Address	192.168.37.36				
Netmask	255.255.255.0	Netmask	255.255.255.0				
Gateway	192.168.172.254	Gateway	0.0.0.0				
DHCP		DHCP					

Figure 4-3 : VistaLINK_® PRO Hardware Configuration – Ethernet Ports Tab

Default Gateway: The default value is none but user can specific a specific gateway IP.

This tab allows Mapping on the rear of the MUXIP to VLPro data port configuration. **DATA 3, DATA 4** and **Control Port 2 are not used**.

Control Port 1	Control Port 2	Data Port 1	Data Port 2	Data Port 3	Data Port 4
Control	NA	DATA1	DATA2	NA	NA

Table 4-1 : VistaLINK_® PRO Mapping to Rear to 9780MUX-IPGE

IP address: Self IP address of the port.

Netmask: The Netmask address which is 255.255.255.0 by default.



Gateway: Gateway IP address for this port.

DHCP check box: This check box can be Enabled or Disabled.

Note: Make sure only one Gateway IP address is assigned (The Gateway for control). Set the others to 0.0.0.0.

4.1.3. Ethernet Ports Monitor Tab

19	192.168.172.	68 payam, 3480FR: Configuration	۔ – ۲	⊐ ×
Full Refresh 😋 💲 1.0 Apply	👲 😻 Saus 🛛 Completed (11:57.24 2016-08-03)	Lagger	
Ethernet Ports Monitor	SNMP Configuration	Fault Timing Con	figuration Disk Info DNS Server	
Status		Ethernet Po	rts Control	
Data 1		Data 2		
Adapter Speed		Adapter Speed		
Adapter Duplex		Adapter Duplex		
Received Rate		Received Rate	0.000Mb/s	
Transmitted Rate		Transmitted Rate	0.000Mb/s	
Packet Information		Packet Information	on	
Data 3		Data 4		
Adapter Speed		Adapter Speed		
Adapter Duplex		Adapter Duplex		
Received Rate	0.000Mb/s	Received Rate	0.000Mb/s	
Transmitted Rate		Transmitted Rate		
Packet Information		Packet Information	on	
Control 1		Control 2		
Adapter Speed		Adapter Speed		
Adapter Duplex		Adapter Duplex		
Received Rate		Received Rate		
Transmitted Rate		Tra⊓smitted Rate		
Packet Information		Packet Information	on	

Figure 4-4 : VistaLINK_® PRO Hardware Configuration – Ethernet Ports Monitor Tab

The "Ethernet Port Monitor" tab indicates the current status of the Ethernet ports.

Packet Information: By enabling this field, the user can monitor the Packets specifications and also will be able to reset the Packets as is shown in Figure 4-5.

Received and Transmitted Error Packets and also Received and Transmitted Dropped Packets can be monitored here.



9780MUX-IPGE-ASI Compact ASI/IP Re/De-Multiplexer

Ethernet Ports Monitor	SNMP Configuration	Fault Timing Configuration	n Disk Info DNS Serv
Status		Ethernet Ports Contro	ol
Pata 1		Data 2	
Adapter Speed	1000Mb/s	Adapter Speed	1000Mb/s
Adapter Duplex		Adapter Duplex	Full
Received Rate		Received Rate	0.000Mb/s
Transmitted Rate		Transmitted Rate	0.000Mb/s
Packet Information		Packet Information	
Received Error Packets		Received Error Packets	0
Transmitted Error Packets		Transmitted Error Packets	0
Received Dropped Packets		Received Dropped Packets	0
Transmitted Dropped Packets		Transmitted Dropped Packets	0
	Reset Packets		Reset Packets
9ata 3		Data 4	
Adapter Speed		Adapter Speed	
Adapter Duplex		Adapter Duplex	
Received Rate		Received Rate	
Transmitted Rate		Transmitted Rate	
Packet Information		Packet Information	
Control 1		Control 2	
Adapter Speed	100Mb/s	Adapter Speed	
Adapter Duplex		Adapter Duplex	
Received Rate		Received Rate	0.000Mb/s
Transmitted Rate		Transmitted Rate	
Packet Information		Packet Information	
Received Error Packets			
Transmitted Error Packets			
Received Dropped Packets			
Transmitted Dropped Packets			
	Reset Packets		

Figure 4-5 : VistaLINK_ ${\scriptstyle \circledcirc}$ PRO – Ethernet Ports Monitor Tab – Packet Information



4.1.4. SNMP Configuration Tab

5		192.168.172.68 pa	nyam, 3480FR: Configuratio	on		_ 🗆 >
ull Refresh 😋 💲	1.0 Apply 👲 👔	Sas Completed (11:57	24 2016-08-03) 🛛 🗙	Lagger		
Ethernet Ports M	Ionitor	SNMP Configuration	Fault Timing Co	onfiguration	Disk Info	DNS Server
Statu	us		Ethernet F	Ports Control		
Trap Destinations						
Trap Destination 1	192.168.172.14	8 Delete	-			
Trap Destination 2	192.168.172.14	9 Delete				
Trap Destination 3	0.0.0.0	Delete				
Trap Destination 4	0.0.0	Delete				

Figure 4-6 : VistaLINK_® PRO Hardware Configuration - SNMP Configuration Tab

Trap Destination<1-5>: The user can define IP addresses of VLPro server where SNMP traps will be sent.

4.1.5. Fault Tab

This tab indicates the status of the ports and also allows the user to enable/disable traps to be sent upon fault detection.



Figure 4-7 : VistaLINK_® PRO Hardware Configuration - Fault Tab



4.1.6. Timing Configuration

	192.168.	172.68 payam, 3480FR: Configuration	_ 🗆 ×
Full Refresh 😋 🕤 1.0 Apply	🔸 😻 Saus 🛛 Complet	ad (11.57.24 2016-09-03) 🛛 🗙 Logger 🔳	
Ethernet Ports Monitor Status	SNMP Configuration	Fault Timing Configuration Ethernet Ports Control	Disk Info DNS Server
Timing Config			
Device Time	Wed Aug 3th 2016, 15.57.35		
Time Zone	Universal	T	
Time Settings	Month Day	Year Hour Minute Second	
(mm/dd/yy,HH:mm:ss)	June 🔽 1	2001 0 0	
	Set Device Time		
Time Source	NTP	T	
NTP Package Status	Installed		
NTP Config	100 100 171 000		
Server IP 1	192.168.171.200		
Server IP 2	0.0.0.0		
Server IP 3	0.0.0.0		
Add Server IP 1	Enable		
Add Server IP 2	Disable		
Add Server IP 3	Disable		
NTP Status Server IP 1			
Lu Cutu Tin	Paulut	-	
Jam System Time			

This section is an external package which has to be manually installed.

Figure 4-8 : VistaLINK_® PRO Hardware Configuration – Timing Configuration Tab



4.1.7. Disk Info

122	192.168.172.68 payam, 3480FR: Configuration 🗕 🗆						
Full Refresh	S 1.0 Apply 🛓	😻 Saus 🔷 Completed (11.5		💥 Lagger 🧮			
Etherne	t Ports Monitor	SNMP Configuration	Fault Tir	ning Configuration	Disk Info	DNS Server	
	Status		Eth	ernet Ports Control			
Disk Info							
	Name	Available Space	Total Space	Percentage Fre	e		
Disk 1							
Disk 2							

Figure 4-9 : VistaLINK_® PRO Hardware Configuration – Disk Info Tab

The functionality of this section will be added in the future.

4.1.8. DNS Server

	192.168.172.68 payam, 3480FR: Configuration	_ 🗆 ×
Fall Refresh 😋 💲 1.0 Apply 🔸	😻 Saus Completed ((11:57:24:2016-06-03) 🛛 🗶 Logar 🧮	
Ethernet Ports Monitor	SNMP Configuration Fault Timing Configuration Dis	sk Info DNS Server
Status	Ethernet Ports Control	
DNS Server		
Add DNS	Add	
DNS 1	Delete	
DNS 2	Delete	
DNS 3	Delete	
DNS 4	Delete	
DNS 5	Delete	

Figure 4-10 : VistaLINK_® PRO Hardware Configuration – DNS Server Tab

The functionality of this section will be added in the future.



4.2. 9780MUX-IPGE GENERAL

Right click on the "MUX General" on hardware tree and select View Configuration.

4.2.1. Status Tab

The status tab indicates all inputs and outputs with configured IP and bitrate.

tatus System	Mux Syncing											
tive inputs: 7							Active Outputs: 1					
Input	Activity	IP Address	Port	Ethernet Port	Monitor Enable	Ditrate	Output	Activity	IP Address	Port	Ethernet Port	Bitrate
					Enabled	19.101 Mopu					Data 1	19.393 Mbps
				Data t	Enobled	19.100 Mbps						30 000 Mbps
					Enabled	0.000 Mbps						30.000 Mbps
					tratled	5.980 Mops						30.000 Mbps
				Data 1		19.101 Mapra					Data 1	1 000 Mbps
				Data 1	Enabled	19.102 Mbps					Date 1	1.000 Mbps
				Data 1	Enabled	15.000 Mpps					Date 1	1.000 Mbps
				Doto 1	Enabled	15.000 Mkps			127 0 0 1		Data 1	1 000 Mbpr

Figure 4-11 : VistaLINK_® PRO – 9780MUX General - Status Tab

Input Status

Input: This field displays the index number of each IP input.

Activity: This field indicates the status of input which can be Active or Inactive.

IP Address: This field indicates the Source IP address of each IP input.

Port: This field indicates the Transport Protocol port of each IP input.

Ethernet Port: This field indicates the DATA GigE for each IP input.

Monitor Enable: This field indicates the Monitor status of each IP input which can be Enabled or Disabled.

Bitrate: This field displays the bitrate value (Mbit/s) of the monitored MPEG-2 TS.

The same definitions are applicable for Output Status columns.

4.2.2. System Tab

-		192.168.172.68 payam, MUX General: Configuration
Full Refresh 😋 💲 1.0 Apply 🚽	🗴 💇 🋥 Completed (12:01:41 2016-08-03)	X 10354 🔳
Status System Mux Synd	cing	
System Info		
System Model		
Firmware version		
System Control		
Reboot	Reboot	

Figure 4-12 : VistaLINK_® PRO – 9780MUX General - System Tab



System Model: This field indicates the Model's name.

Firmware Version: This field indicates the Firmware version of the device.

Reboot: This button allows the user to reboot the device.

4.2.3. MUX Syncing

			192.168.172.68 payam, MUX General: Configuration
Full Refresh 😋 💲 1.0 Apply 🛨 😻	Sa.s Completed (16.25.56 2016-08-10)	💥 Lagger 🔳	
Status System Mux Syncing			
Configuration Sync			
Enable			
3480MUX-IP Sync Destination 1	0.0.0.0		
3480MUX-IP Sync Destination 2	0.0.0.0		
3480MUX-IP Sync Destination 3			
3480MUX-IP Sync Destination 4	0000		
3480MUX-IP Sync Destination 5	0.0.0.0		

Figure 4-13 : VistaLINK_® PRO – 9780MUX General - Mux Syncing Tab

The Mux Sync is a useful function which needs to be used with VistaLink CSM. This feature allows configuration changes on the 9780MUX to dynamically be applied also on the other 3480/9780MUX sync destinations specified. This can be useful in a 1:1 MUX environment where all boxes are identical and changes in one box need to be done on all the other boxes and this feature does that automatically for the user.



4.3. 9780MUX-IPGE INPUT

Select "Mux Input" on hardware tree and right click of the mouse will open the pull down menu. By selecting "View Configuration..." and left click of the mouse; 9780MUX-IPGE Input Configuration Menu will open as shown in Figure 4-14.

Also, it is possible to configure each input by right click on the individual inputs on input tree which takes the user to input configuration window.

To input streams via a Gbe port, configure the input addresses first by specifying both the IP address and UDP/RTP port. The user may configure up to 4 inputs from the inputs tree in the left part of the Configuration menu.

	192.168.172.68 p	bayam, MUX Input [1]: Configur	ation			_ = ×
Full Refresh 🔉 💲 10 Apoly 🛨 😻 Status Completed (12:08:2:	5 2016-08-03) 🕺 🐹 Lagger 🔳					
Input View						
🔁 🐔 Inputs	1			Apply		
s ar input 1						
H = = Input 2 → = Input 3	Input Control View Fault S	Status View File Record View				
🕮 – 🗉 Input 4						
B - Ir Input 5	Input Mode		100			
	Input Monitor Enable	Enable	1.0	PID Display Mode	Decimal	
				TSID Display Mode	Decimal	V
	Input SHM Enable	Disable	V	Probe Mode		v
	Input SHM Source Number					
	Input State					
	Input Bitrate					
	Transport Stream ID					
	Network ID					
	Network Name					
	MPEG2 Packets					
	Input Packet Size					

Figure 4-14 : VistaLINK_® PRO – 9780MUX Input – Input View

Right side of the Configuration Menu includes (Figure 4-14):

Apply Button: Push this button after any changes at the Input Control View Tab. Note that some times it is needed to push the apply button on the top menu bar to make the changes.

Input Control View Tab: Each one of the input channels has its own menu for control and monitoring capabilities.

Fault Status View Tab: Each one of the input channels has its own menu for alarming capabilities.

File Record View Tab: Records the file information associated with the selected input.



4.3.1. Input Control View Tab

			Apply		
nput Control View Fault St	atus View File Record Vi	ew			
Input Mode	ASI				
Input Control			Input Template		
Input Monitor Enable	Enable	V	PID Display Mode	Decimal	V
Input SHM			TSID Display Mode	Decimal	V
Input SHM Enable	Disable	V	Probe Mode	ATSC	T
Input SHM Source Number					
Input Monitor					
Input State					
Input Bitrate					
Transport Stream ID					
Network ID					
Network Name					
MPEG2 Packets					
Ionut Backet Size					

Figure 4-15 : VistaLINK_® PRO –Mux Input - Input Control View Tab

Input Select

Input Mode: This drop down menu allows the user to select the input mode which can be IP and ASI.

Note: Input 1, 2, 3 and 4 are ASI+IP and inputs 5, 6, 7 and 8 are IP only.

Input Control

Input Monitor Enable: The user can Enable or disable the Input Socket.

Input SHM

Input SHM Enable: This should be disabled for the standalone 9780MUX.

Input SHM Source Number: This field will be ignored as above parameter should be disabled for normal function.



Input Monitor

Input State: This field shows the current state of input which can be either Active or Inactive.

Input Bitrate: This field indicates total input bitrate in kbps.

Transport Stream ID: This field shows the current bitrate of the input ASI stream.

Network ID: This field shows the decimal value for Transport Stream Network ID. For example, corresponds to one entire satellite of transponders.

Network Name: This field shows the network name like "BBC" if it is available.

MPEG2 Packets: This field shows the number of MPEG2 packets which is received.

Packet Framing: This field displays the type of framing being used. It can be either UDP or RTP.

Input Packet Size: This field indicates normal TS packet size 188.

Input Template

PID Display Mode: This field allows the user to set PID display mode which can be Decimal or Hex.

TSID Display Mode: This field allows the user to set the TSID display mode which can be Decimal or Hex.

Probe Mode: This drop down menu allows the user to set the Probe Mode. Possible options are ATSC, DVB and MPEG.

9780MUX-IPGE-ASI Compact ASI/IP Re/De-Multiplexer



If Input Mode is set to IP, the Input Control View configuration will be as Figure 4-16.

			Abbiy		
put Control View Fault S	tatus View File Record View				
nput Select					
Input Mode	IP				
nput Control			Input Template		
Input IP Address	239.1.2.3		PID Display Mode	Decimal	-
Input Port Number	1234		TSID Display Mode	Decimal	T
Input Monitor Enable	Enable		Probe Mode	ATSC	V
Ethernet Port	Data 1		IGMPv Mode	V2	-
PTP Domain Number			IGMPv3 Mode		
UTC Offset Mode	Auto	T	IGMPv3 Mode	Exclude	T
			IGMPv3 SSM Source 1	0.0.0	
nput SHM			IGMPv3 SSM Source 2	0.0.0.0	
Input SHM Enable	Disable		IGMPv3 SSM Source 3	0.0.0	
Input SHM Source Number			IGMPv3 SSM Source 4	0.0.0	
nput Monitor			IGMPv3 SSM Source 5	0.0.0.0	
Input State			IGMPv3 SSM Source 6	0.0.0.0	
Input Bitrate			IGMPv3 SSM Source 7	0.0.0.0	
Transport Stream ID			IGMPv3 SSM Source 8	0.0.0.0	
Network ID			IGMPv3 SSM Source 9	0.0.0.0	
Network Name			IGMPv3 SSM Source 10	0.0.0.0	
MPEG2 Packets			IGMPv3 SSM Source 11	0.0.0.0	
Packet Framing			IGMPv3 SSM Source 12	0.0.0.0	
Input Packet Size					

Figure 4-16 : VistaLINK® PRO –Mux Input - Input Control View Tab – Input Mode IP

Input IP Address: This control allows the user to set the IP address of input.

Input Port Number: This control allows the user to set the Port number of input.

Input Monitor Enable: This dropdown menu allows the user to enable the input monitor.

Ethernet Port: This dropdown menu allows the user to set the Ethernet port. Possible options are Data 1 and Data 2.

PTP Domain Number: This control allows the user to set the PTP Domain number.

UTC Offset Mode: This dropdown menu allows the user to set the UTC offset mode.

If Probe Mode is set to ATSC, The IGMPv mode should be set (Figure 4-16).

IGMPv Mode: This field allows the user to set the IGMPv mode. Possible options are V2 and V3. (For V3 use panel below to set mode and SSM)





IGMPv3 Mode

IGMPv3 Mode: This dropdown menu allows the user to set the mode to Exclude.

IGMPv3 SSM Source 1 - 12: There are up to 12 different sources IP for current socket

4.3.2. Fault Status View Tab

This section allows the user to enable faults for both ASI and IP inputs.





Trigger Fault Enable

Continuity Count: By checking the box, enable triggering on Continuity Counter Error.TS Sync Error: By checking the box, enable triggering on TS Sync bite (0x47) Error.TS Bitrate: By checking the box, enable triggering on wrong TS Bitrate.

4.3.3. File Record View Tab

Input Control View Fault Status View File Record	Apply		
Start Stop			
Base File Name			
Max Duration	Sec		
Max File Size	MBytes		
Free Disk Space	MBytes		
File Size	MBytes		
		ownload	Remove

Figure 4-18 : VistaLINK_® PRO –Mux Input - File Record View Tab

This tab records the file information associated with the selected input.



4.4. 9780MUX-IPGE OUTPUT

In Output section, the user can define 9780MUX output functionality by grooming multiple services to one MPTS or forming a single SPTS from the input MPTS. There is a tree of 8 MUX outputs under 9780MUX-IP output menu.

There are two views for every MUX which are Offline Output view and Active Output view.

🗄 📟 MUX Output [2]
MUX Output 1
- MUX Output 2
- MUX Output 3
- MUX Output 4
MUX Output 5
MUX Output 6
MUX Output 7
MUX Output 8

Figure 4-19 : VistaLINK_® PRO - MUX Output Tree View

Right click on the MUX Output will take the user to the Output Configuration window (Figure 4-20) where the user can configure all the outputs there and the user can click on each output for individual configuration.

Also, it is possible to configure each output by right click on the individual outputs on Output tree which takes the user to Output configuration window as is shown in Figure 4-21.

15	192.168.172.68 payam, MUX Output [2]: Configuration									
Full Refresh 😋 🛇 1.0 Apply 🐓 Status Complet	ed (12:16:00 2016-08	-03) 🗙 Logge	· 🔳							
Search Input 🥄				Search Output			۹,			
⊞– ++ Input 1 - ASI (19.10 Mbps) ⊞– -++ Input 2 - 239.173.51.11:1234 (19.10 Mbps) – -++ Input 3	Output 1 Output 8	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7			
 Input 4 - ASI (5.98 Mbps) Input 5 - 239.173.51.11:1234 (19.10 Mbps) Input 6 - 239.1.23.1234 (19.10 Mbps) Input 7 - 239.11.51.11:1234 (15.00 Mbps) Input 8 - 239.14.51.11:1234 (15.00 Mbps) 										

Figure 4-20 : VistaLINK_® PRO - MUX Output Configuration window



9780MUX-IPGE-ASI Compact ASI/IP Re/De-Multiplexer

Search Input Output Input 2. 239 1735 1115230 (19 10 Map) Input 3. 239 1735 1115230 (19 10 Map) Input 4. 236 (58 Map) Input 4. 236 (58 Map) Input 5. 239 1735 1115230 (19 10 Map) Input 5. 239 1735 1115230 (19 10 Map) Input 6. 239 1735 1115230 (19 10 Map) Input 6. 239 1135 1115230 (19 10 Map) Input 6. 239 1135 1115230 (19 10 Map) Input 8. 239 1145 1111234 (15 00 Map) Input 8. 239 1145 1111234 (15 00 Map) Input 8. 239 1145 1111234 (15 00 Map) Input 8. 239 1145 1111234 (15 00 Map) Input 8. 239 1145 111234 (15 00 Map) Input 8. 239 1145 111234 (15 00 Map) Input 8. 239 1145 111234 (15 00 Map) Input 8. 239 1145 111234 (15 00 Map) Input 8. 239 1145 111234 (15 00 Map) Input 8. 239 1145 11124 (15 00 Map) Input	trus Full Referen 😋 😋 1.0 Apply 🔶 Searce Comple	192.168.172.68 payam, l ted (16:04:41_2016-08-10)	MUX Output [2], MUX Output 1	: Configuration		_ ¤ ×
Active Offline Octput Active Active Octput Active Active Active Offline Active Offline Active Offline Octput Active Active Octput Active Temport Stream D Stream O Stream	Search Input			Output 1		
 • Ingul 4 - ASI (5 80 Maps) • Ingul 5 - 239 17.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 5 - 239 17.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 9 - Address • Odgul Ward • Ingul 8 - 239 14.53 (1 11:1234 (1 5 0.0 Maps)) • Ingul 9 - Address •		Active	Offline	UDP Data Aut Output	to Switch Capture Advanced Pro	Fault
Primary IP Address 239.1.103.11 Primary Port 1234 Change Source IP False Source IP 127.00.1	Input 4 - ASI (5.98 Mbps) Input 5 - 239.173.51.11:1234 (19.10 Mbps) Input 6 - 239.1.2.3:1234 (19.10 Mbps) Input 7 - 239.11.51.11:1234 (15.00 Mbps) Input 8 - 239.14.51.11:1234 (15.00 Mbps)	Series Constraints (Program 4 (Create), PMT:64 Series Constraints (World), PMT:80 Series Constraints (Plus), PMT:95 PC Series Constraints (Plus), PMT:95 Ser	PCR 65 PCR 81 CR 97	Output Stream Bitrate (kbps) Transport Stream ID Output Mode Packet Format TS Packets Per IP Primary Interface	ASI and Primary IP 19392.658 2207 MPEG UDR 7	
Load from Preset Save to preset				Primary IP Address Primary Port Change Source IP Source IP	2391.103.11 1234 False 127.0.0.1	
				Load from Preset	Save to preset	

Figure 4-21 : VistaLINK_® PRO - MUX Output Configuration window

4.4.1. Offline Output View Tab

The user can configure all the output specifications through this section. Once it is done, the output should be saved as a preset. Each preset can be load again by pressing the "Load from Preset" button in both Offline and Active outputs.



4.4.1.1. Offline Output\Output Tab

		Output 1	
Active	Offline	Output Advanced Pr	ogram UDP Data
Program 3 (WCNY-HD), PMT	:48 PCR 49	Output Stream	ASI and Primary IP
Program 4 (Create), PMT:64	PCR 65	Bitrate (kbps)	19392.658
Program 5, PMT:80 PCR 81		Transport Stream ID	2207
Program 6, PMT:96 PCR 97		Output Mode	MPEG
		Packet Format	UDP
		TS Packets Per IP	
		Primary Interface	Data 1
		Primary IP Address	239.1.103.11
		Primary Port	1234
		Change Source IP	False
		Source IP	
			20125
<u>0, "m</u>		Load from Preset	Save to preset
Edit Output Programs	Remove Output Element		Clear

Figure 4-22 : VistaLINK_® PRO - Offline Output - Output Tab

Output Stream: This drop down menu allows the user to select the output stream.

Bitrate (kbps): This control allows the user to set the bit rate for offline output mode.

Transport stream ID: This control allows the user to set the transport stream ID for offline output mode. Each Broadcaster needs to have unique TS ID for each type of service.

Output Mode: This control allows the user to set the output mode for offline output mode. Possible options are MPEG, DVB and ATSC.

Packet Format: This dropdown menu allows the user to set the packet format for Offline output mode. Possible options are UDP and RTP+UDP.

TS Packets Per IP: This control allows the user to set the TS packets per IP for each offline output.

Primary Interface: This dropdown menu allows the user to set the primary interface which can be Data1 or Data 2 (Data 3 and Data 4 are not supported on this device).

Primary IP address: This control allows the user to set the destination IP of the socket via primary interface.



Primary Port: This control allows the user to set the destination UDP/RTP of the socket via primary interface.

Changes Source IP: It can be either false or true.

Source IP: This field indicates the Source IP address.

Save To Preset: By pressing this button after configuring all output specifications, the user can save them as a Preset and assign them a name in the new appeared window. (Figure 4-23)

Load From preset: By pressing this button, the user can load a preset from saved presets (Figure 4-24).



Figure 4-23 : VistaLINK® PRO - Save or Rename a Preset



Figure 4-24 : VistaLINK_® PRO - Load or Rename a Preset



4.4.1.2. Offline Output\Advanced Tab

		Output 1		
Active	Offline	Output Advanced Prog	ram UDP Data	
Program 3 (WCNY-HD), PM	1T:48 PCR 49	PCR Offset (msec)	0	
📧 🤐 Program 4 (Create), PMT:6	4 PCR 65	Null Bitrate (kbps)	1.000	
Frogram 5, PMT:80 PCR 81		PSIP Table Source	GuideBuilder 1	-
Program 6, PM1:96 PCR 97		GuideBuilder 1 IP Address	192.168.11.1	
		GuideBuilder 1 Port	1234	
		STT Restamp	On	-
		EBP	Disable	v
		Genlock	Disable	
		Standalone LTC	Disable	-
		LTC	Disable	
		LTC Pid		
		LTC Mode		
		PTP for PCR	Disable	-
		PTP Input Number		
		PTP Mode	UTC	V
		Auto Jam	Disable	v
		Load from Preset	Save to pr	reset
Edit Output Programs	Remove Output Element		Clear	

Figure 4-25 : VistaLINK_® PRO - Offline Output - Advanced Tab

PCR Offset (msec): This control allows the user to set the PCR offset in milliseconds.

Null Bitrate (kbps): This field allows the user to set the Null Bitrate in kbps.

PSIP Table Source: This dropdown menu allows the user to set the PSIP table source. Possible options are Guidebuilder1, 2 and None.

Guidebuilder 1 IP Address: This control allows the user to set the IP address for GuideBuilder 1.

GuideBuilder 1 Port: This control allows the user to set the port number for GuideBuilder 1.

STT Restamp: This dropdown menu allows the user to turn On or Off the STT Restamp which is used for ATSC PSIP table insertion application.

EBP: This dropdown menu allows the user to enable or disable the EBP.

Genlock: This dropdown menu allows the user to enable or disable the Genlock.

Standalone LTC: This dropdown menu allows the user to enable or disable the Standalone LTC.

LTC: This dropdown menu allows the user to enable or disable the LTC.

LTC Pid: This field indicates the LTC Pid.



LTC Mode: This field indicates the LTC mode.

PTP for PCR: This dropdown menu allows the user to set enable or disable the PTP for PCR.

PTP Input Number: This field allows the user to set the PTP Input number.

PTP Mode: This control allows the user to set the PTP mode. Possible options are UTC and TAI.

Auto Jam: This dropdown menu is a custom application and should be disabled.

4.4.1.3. Offline Output\Program Tab

In this tab for modifying the fields, the user should select a program from program trees at the left side.



Figure 4-26 : VistaLINK_® PRO - Offline Output - Program Tab

Limit Program Bitrate: This field allows the user to define the bitrate limit for each program in Kbps. Program Bitrate Limit (kbps): This field allows the user to put a limit for a specific program bitrate in Kbps.

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PCR Frequency: This field allows the user to set the PCR Frequency. The frequency will be at the maximum range if the program number is more than 5.

4.4.1.4. Offline Output\UDP Data Tab

		Output 1	
Active	Offline	Output Advanced P	rogram UDP Data
🗉 🚟 Program 3 (WCNY-HD), PM	MT:48 PCR 49	Mode	Disable
Program 4 (Create), PMT:6	4 PCR 65	Interface	
Program 5, PMT:80 PCR 81	the way on	IP Address	
Program 6, PMT:96 PCR 97		S Port	
		Program Number	
		Pid	
		PCR Pid	
		PMT Pid	
		Max Bitrate (bps)	10000
<u> </u>		Load from Preset	Save to preset
Edit Output Programs	Remove Output Element	3	Clear

Figure 4-27 : VistaLINK_® PRO - Offline Output - UDP Data Tab

Mode: This dropdown menu allows the user to enable or disable the UDP data mode. If it is set to Enable, allows the user to configure the fields.

Interface: This dropdown menu allows the user to set the UDP data interface.

IP Address: This field allows the user to set the UDP data IP address.

Port: This field allows the user to set the UDP data port number.

Program Number: This field allows the user to set the UDP data program number.

Pid: This field allows the user to set the UDP data Pid.

PCR Pid: This field allows the user to set the UDP data PCR Pid.

PMT Pid: This field allows the user to set the UDP data PMT Pid.

Max Bitrate (bps): This filed allows the user to set the UDP data Max Bitrate.



4.4.2. Drag and Drop

There are 8 possible inputs to the current output 9780MUX. The user can drag and drop one or multiple inputs, programs or Pids to the output window in order to create output SPTS or MPTS service accordingly. When the user drag and drop input to the output window, a table will be opened as is shown in Figure 4-28.

Edit Program(s)		المتعاولة المراجع	alexant (02)		1111 - 11 - 11 - 11 - 11 - 11 - 11 - 1							×
Expand All	Collapon All	Input	Program Index	Program Number	Program Name	PMT PID	PCR PIB	PID	PID Stream Type	PID Share	Select	Change View Descriptors
Diffi Program 3 (//	CNY-HO], PMT: 48 PCR 49	2		3	WONY-HD	40	49				2	Edit Program Descriptors (4)
49 MPEG-2	Video								MPEG-2 Video			Edit 11d Deporiptors (4)
CO St AC3 Aut	dio								AC3 Audio			
53 AC3 AUG	dio								AC3 Audio			
100 54 AC3 Auc	dio								AC3 Audo			
Program 4 (Cr	reate), PMT 64 PCR 65				Create							
ES MPEG-2	Video								MPEO-2 Video			
C III AC3 Aud	dio								AC3 Audo			Edit Fid Descriptors (3)
10 M ACI Aud	dio								AC3 Audo			Edil Fid Descriptors (3)
😑 🖽 Program 6, PM	IT BO PCR BI											Edit Program Descriptors (1)
II MPEG 2	Video								MPEO-2 Video			Edit Fid Descriptory (4)
I ACT AN	dio								ACB Audio			
TO IS ACT AUC	dio								AC3 Audio			Edit Pid Deperiptors [3]
CI ISS Program 8, PM	IT 96 PCR 97											Edit Program Descriptors (1)
MIPEG-2	Video								MFEG-2 Video			
740 HIND ACO AN	adio							100	AC3 Audio			Edit Pid Descriptors (3)
										_	ÓK	encet

Figure 4-28 : VistaLINK_® PRO - Edit Program(s) Window

In this table the user can modify:

- Program Number
- Program Name
- PMT PID
- Video PID
- Audio PID
- Data PID

If the output mode is **ATSC**, the Add program(s) window will be as is shown in Figure 4-29.

Add Program(s) / FIC	96)														-
Expand All	Collapse All	Input	Program Index	Program Number	Program Name	PMT PID	PCR PID	PID	PID Stream Type	PID Share	Select	Change/View Descriptors	Service Type	Minor Channess	hidden Flag
iiiii Program 16		6	51	16		216	116				2	Edit Program Descriptors (0)	0	50	1
110 HL264 Vid	felo (1.0700 Mbps)								H.264 Video			Edit Hid Descriptors (0)			
									MPEG-1 Audio			Edit Pid Descriptors (0)			
Lilli Program 15												Edil Program Descriptors (2)			
115 11.264 Vid									H 264 Video			Edit Pid Descriptors (0)			
2501 MPEG-1	Autio (0 1870 Mbps)								MPEG-1 Audio			Edit Pid Descriptors (0)			
Program 14												Edit Program Descriptors till			
114 H.264 Vid	fee (0.9230 Maps)								H 264 Video			Edit Pid Descriptors (0)			
10 2401 MPEG-1									MIPEG-1 Audio			Edit Pid Descriptors (0)			
Program 13												Edit Program Descriptors (0)			
THE REPORT VIE									H 264 Video			Edit Phil Descriptors (0)			
	Audio (0 1540 Mitps)								MPEG-1 Audo			Edit Pid Descriptors (0)			
Program 12												Edit Program Descriptors (0)			
112 H.264 Vid	ieo (0.9410 Mops)								H.264 Video			Edit (Nd Descriptors (0)			
2201 MPEG-2									IIPEG-2 AAC Audo			Edit Pid Descriptors (0)			
Elli Program 11												East Program Descriptors (D)			
111 IL264 Vid									H 264 Video			Edit Pid Descriptors (0)			
2101 MPEG-2	AAC Audio (0 2530 Mbp								MPEG-2 AAC Aude			Entit Pid Descriptors (0)			
Dis Program 10												Edit Program Descriptors (0)			
110 H.264 Vid	teo (0.5450 Maps)								H 254 Video			Edit Pid Descriptors (0)			
100 2001 MPEG-2	AAC Audio (0.0470 liftg								MPEG-2 AAC Audo			Edit Pid Descriptors (0)			
Ein Program 9												Edit Program Desuriptors (5)			
101 H.264 Vid									H 284 Video			Edit Pid Descriptors (0)			
(1) 1501 MPEG-2	AAC Audio (0 2500 Mbp								MPEG-2 AAC Audo			Edit Pid Descriptors (0)			
Program &												Edit Program Descriptors (0)			
108 H.264 Vid									H 264 Video			Edit Pid Descriptors IDI			
1001 AC3 AU									AC3 Audio			Edit Pid Descriptors m			
Lili Program 7												Edit Program Descriptors (1)			
107 H264 Vid	teo (0.65%0 Mbps)								H 264 Video		1	Edit Pid Descriptors (0)			
													Make Addive		Cancel

Figure 4-29 : VistaLINK_® PRO – Add Program(s)/PID(s) window - ATSC Output Mode



If the output mode is **DVB**, the Add program(s) window will be as is shown in Figure 4-30.

		Input	Program Index	Program Number	Program Name	PMT PID	PCR PID	PID	PID Stream Type	PID Share	Select	Change/View Descriptors	Provider Name	Service Type
ILE Program 16				16		216	/119				12	Edit Program Descriptore (0)		0
THE HIR HIR WICH	NO (0.6933 M0ps)								H 264 Video			Edit Put Descriptors (0)		
TED DEOT MIREG-S									MPEG-1 Audio			Edit Pirt Descriptors (0)		
Program 15												Edit Program Descriptors (1)		
11514264 Vide									H.264 Video			Edit Pid Descriptors (0)		
10 2501 MPEG-11	Audio (0.1870 Maps)								MPEG-1 Audio			Edit Put Descriptors (0)		
Program 14												Edit Program Descriptors (7)		
11411.204 Vide									II.254 Video			Edit Pid Descriptors (D)		
109 2401 MPEG-1.									MPEG-1 Audio			Edit Pid Descriptors (0)		
Program 13												Edit Program Descriptors (0)		
TIT H264 Vide									H 284 Video			Edit Pid Descriptors (0)		
THE BOILMPEG-1	Audio (0.1830 Mops)							2301	MPEG-1 Audio			Edit Pid Descriptors (0)		
Program 12												Edit Program Descriptors (0)		
112 11264 Vide	ee (0.0550 Mitps)								H 264 Video			Edil Pid Descriptors (0)		
19 2201 MPEG 2	AAC Audio (0.0520 Nbs								MPEG-2 AAC Audio			Esit Pid Descriptors (0)		
Program 11												Edit Program Descriptors (0)		
TTL HARA Vide									H 264 Video			Edit Pad Descriptors (0)		
10 2101 MPEG-2	AAC Audio (0.0550 Mbp								MPEG-2 AAC Audio			Edit Pid Descriptors (0)		
Program 10												Edit Program Descriptors (0)		
110 H.254 Vide									H 264 Video			Edit Pid Descriptore (0)		
TO 2001 MPEG-2	AAC Audio (0.0500 Mto								MPEG-2 AAC Audo			Edit Pid Descriptors (0)		
Program 9						209						Edit Program Descriptors (0)		
100 H264 Vide									H.264 Video			Edit Pid Descriptors (0)		
100 1101 MPEG-2	AAC Auttin (0.0530 Mbp								MPEG-2 AAC Aude			Edit Put Descriptors (0)		
Program &												Edit Program Descriptors (7)		
105 8.264 Vide	so (0.9740 Nops)								H 264 Video			Edit Pid Descriptors (0)		
101 AC3 Aud									AC3 Audio			Edit Pid Descriptors (0)		
Program 7												Edit Program Descriptors (0)		
NO NUMBER Vide	to (0.9310 Mops)								H 264 Video			Edit Pid Descriptors (R)		

Figure 4-30 : VistaLINK_® PRO – Add Program(s)/PID(s) window - DVB Output Mode

Within this table the user has the ability to change or view the Program descriptors by pressing the buttons under the Change/View Descriptors column for each program or Pid.

Madd Descrip	tors to Program Number 3 from Input 1	×
Descriptor 1	050447413934	
Descriptor 2	1006c0afc8c	F
Descriptor 3	a31101656	
Descriptor 4		
Descriptor 5		
Descriptor 6		
Descriptor 7		
Descriptor 8		
Descriptor 9		
Descriptor 10		
	OK Cancel	

Figure 4-31 : VistaLINK $_{\otimes}$ PRO - Edit Program Descriptor

Edit Program Descriptors: Add, edit or remove Program descriptors in the PMT table to a maximum of 10 descriptors per program.



🚾 Add Descript	ors to Pid Number 49 from: (Input 2 - Program Number 3) 🗙
Descriptor 1	
Descriptor 2	000000000000000000000000000000000000000
Descriptor 3	
Descriptor 4	
Descriptor 5	
	OK Cancel

Figure 4-32 : VistaLINK_® PRO - Edit PID Descriptors

Edit PID Descriptors: Add, edit or remove Elementary Stream descriptors to a maximum of 5 per PID.

4.4.3. Active Output\Output Tab

The user can configure the outputs through Active Output too but it is not allowed to configure or modify all the specifications on the Active mode.

Push "Load from Preset" button in order to activate new configuration as shown in Figure 4-33.

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Figure 4-33 : VistaLINK_® PRO – Mux Output - Output Tab

4.4.3.1. Active Output\ Output Tab

Output stream: This drop down menu allows the user to select the output stream.

Bitrate(kbps): This field allows the user to set socket output Bitrate in Kbps.

Transport Stream ID: This filed allows the user to set the transport stream ID. Each broadcaster needs to have unique TS ID for each type of service.

Output Mode: This dropdown menu allows the user to set the output mode. Possible options are MPEG, DVB and ATSC.

Packet Format: This field indicates the packet format.

TS Packets Per IP: This field indicates TS packets per IP.

Primary Interface: This dropdown menu allows the user to select primary data Ethernet port which can be Data 1 or Data 2.

Primary IP Address: This filed allows the user to set the destination IP of the socket via Primary interface.



Primary Port: This field allows the user to set the destination UDP/RTP of the socket via Primary interface.

Change Source IP: This dropdown menu is used in specific custom applications and should be disabled.

Source IP: This field indicates the source IP address.

Load from Preset: This button allows the user to load a preset from saved presets and also rename a preset.

Save to Preset: This button allows the user to save the configuration to a preset or rename a preset.

Start: By pushing the Start button, the user can start the stopped program.

Stop: By pushing the Stop button, the user can stop the running program.

Start Jam: This button is used for a specific custom application and should be ignored.

Note: According to output stream selection, different fields can be configured.

4.4.3.2. Active Output\Advanced Tab

		Output 1				
Active	Offline	UDP Data	Auto Switch	Capture	Fault	
		Output	Advanced	î I	Program	
Program 4 (Create), PMT:6	64 PCR 65	PCR Offset (msec)				
Program 5 (World), PMT:8	0 PCR 81	PMT Period (msec)				
Program 6 (Plus), PMT:96	PCR 97	PAT Period (msec)				
Non-program PIDs		Null Bitrate (kbps)	1.000			
		PSIP Table Source	None		-	
		STT Restamp				
		EBP	Disable		V	
		Genlock		Disable		
		Standalone LTC	Disable		T	
		LTC	Disable		-	
		LTC Pid				
		LTC Mode				
		PTP for PCR	Disable		-	
		PTP Input Number				
		PTP Mode	итс		v	
		Auto Jam	Disable		-	
		Load from Preset	Save to pre:	set		
View Output Programs	Remove Output Element	Start	Stop		Start Jam	

Figure 4-34 : VistaLINK_® PRO – Mux Output - Advanced Tab



As mentioned before, the user is not allowed to configure or modify the entire field in Active output section. Some of the field here are for monitor only.

PCR Offset (msec): This field indicates the PCR Offset in millisecond.

PMT Period (msec): This field indicates the PMT Period in millisecond.

PAT Period (msec): This field indicates the PAT Period in millisecond.

Null Bitrate (kbps): This field allows the user to set the Null Bitrate in kbps.

PSIP Table Source: This dropdown menu allows the user to set the PSIP table source. Possible options are None, GuideBuilder1 and GuideBuilder2.

STT Restamp: This field indicates the STT Restamp.

EBP: This dropdown menu allows the user to disable or enable the EBP.

Genlock: This field indicates the Genlock status.

Standalone LTC: This dropdown menu allows the user to enable or disable the Standalone LTC.

LTC: This dropdown menu allows the user to enable or disable the LTC.

LTC Pid: This field indicates the LTC Pid.

LTC Mode: This field indicates the LTC mode.

PTP for PCR: This dropdown menu allows the user to disable or enable the PTP for PCR.

PTP Input Number: This field indicates the PTP input number.

PTP Mode: This dropdown menu allows the user to set the PTP Mode. Possible options are UTC and TAI.

Auto Jam: This field should be disabled.



4.4.3.3. Active Output\Program Tab

		Output 1			
Active	Offline	UDP Data	Auto Switch	Capture	Fault
Program 3 (WCNY-HD), PM	1T:48 PCR 49	Output	Advanced	Pro	ogram
Program 4 (Create), PMT:6	4 PCR 65	Limit Program Bitrate			
Program 5 (World), PMT:80	PCR 81	Program Bitrate Limit (k	(bps)		
Program 6 (Plus), PMT:96 P	PCR 97	PCR Frequency		Select Progra	
Kon-program PIDs					
		Load from Prese	t Save to pre	eset	
View Output Programs	Romotio Cutruit Flomoot				

Figure 4-35 : VistaLINK_® PRO – Mux Output - Program Tab

For modifying the fields in this section, the user should select a program from program trees at the left side.

Limit Program Bitrate: This field allows the user to define the bitrate limit for each program in Kbps.

Program Bitrate Limit (kbps): This field allows the user to put an additional limit for a specific program bitrate in Kbps.

PCR Frequency: This field allows the user to set the PCR Frequency. The frequency will be at the maximum range if the program number is more than 5.



4.4.3.4. Active Output\UDP Data Tab

his section will create a program with the following information (Figure 4-36). It should be disabled as it's for a custom application.

		Output 1		
Active	Offline	UDP Data	Auto Switch	Capture Fault
Program 3 (WCNY-HD), PM	/IT:48 PCR 49	Output	Advanced	Program
Program 4 (Create), PMT:6	4 PCR 65	Mode	Enable	
Program 5 (World), PMT:80) PCR 81	Interface	Data 1	~
Program 6 (Plus), PMT:96 P	PCR 97	IP Address	0.0.0.0	
Non-program PIDs		2 Port	1234	
		Program Number	10	
		Pid	120	
		PCR Pid	121	
		PMT Pid	122	
		Max Bitrate (bps)	10000	
		Load from Preset	Save to pre	set
View Output Programs	Remove Output Element	Start	Stop	Start Jam

Figure 4-36 : VistaLINK_® PRO – Mux Output - UDP Data Tab

Mode: This dropdown menu allows the user to enable or disable the UDP data mode. If it is set to Enable, allows the user to configure the fields.

Interface: This dropdown menu allows the user to set the UDP data interface.

IP Address: This field allows the user to set the UDP data IP address.

Port: This field allows the user to set the UDP data port number.

Program Number: This field allows the user to set the UDP data program number.

Pid: This field allows the user to set the UDP data Pid.

PCR Pid: This field allows the user to set the UDP data PCR Pid.

PMT Pid: This field allows the user to set the UDP data PMT Pid.

Max Bitrate (bps): This filed allows the user to set the UDP data Max Bitrate.



4.4.3.5. Active Output\ Auto Switch Tab

It should be disabled as it's for a custom application.

		Output 1			
Active	Offline	UDP Data	Auto Switch	Capture	Fault
FIND Program 3 (MCNY-HD)	PMT:48 PCR 49	Output	Advanced	Pro	ogram
Program 4 (Create), PMT:	64 PCR 65	Enable	Enabl	e	•
Program 5 (World), PMT:	30 PCR 81	Mode	Auto	Manual Return	
Program 6 (Plus), PMT:96	PCR 97	Main Preset Select	1: AS	l + IP Main 343	
Non-program PIDs		C Backup Preset Select	3: AS	I + IP Backup 343 +	TRIVENI 🗖
		Config Select	Main		
		Input Loss Period (sec	conds) 30		
		Current Config		Main	
		Load from Prese	et Save to pr	eset	
View Output Programs	Remove Output Element	Start	Stop		Start Jam

Figure 4-37 : VistaLINK_® PRO – Mux Output – Auto Switch Tab

4.4.3.6. Active Output\ Capture Tab

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Figure 4-38 : VistaLINK_® PRO – Mux Output - Capture Tab

Base File Name: This field allows the user to set a base file name for capture.

Max File Size: This field allows the user to set the Maximum file size of capture.

File Size: This field indicates the file size of capture.

Start Capture: This button allows the user to start capturing.

Stop Capture: This button allows the user to stop capturing.



4.4.3.7. Active Output\Fault Tab



Figure 4-39 : VistaLINK_® PRO – Mux Output - Fault Tab

Output: This trap will be triggered when Output is not present.

Meta Data: This trap will be triggered when Meta data is not present.

4.4.4. Adding Input on the Output section

This section allows the user to configure or modify the input settings. By clicking the "Configuration" button, the user will have access to the input window configuration.

Note: Make sure that input is enabled and input mode is IP or ASI and probe mode is ATSC.





Figure 4-40 : VistaLINK_® PRO - Configuring Input in Output Window

Input Mode: This dropdown menu allows the user to set the input mode. Possible options are IP, ASI, File and Delay.

Input IP Address: This filed allows the user to set the IP address for input.

Input Port Number: This control allows the user to set the input port number.

Input Enable: This dropdown menu allows the user to enable/disable the input.

Ethernet Port: This dropdown menu allows the user to set the Ethernet port.

Probe Mode: This dropdown menu allows the user to set the Probe Mode.

4.4.5. Search input and output

The user can search for a specific input or output. The parameters for search are:



4.4.5.1. Search Output

			Search Output			
Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7
Output 8						
Sarbaro						

Figure 4-41 : VistaLINK_® PRO - Search Output

If the user right clicks on the search output section, a search assistant icon will show up.

				Search Assistant	Ctrl+H	٩,
Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7

Figure 4-42 : VistaLINK $_{\ensuremath{\$}}$ PRO - Search Output – Search Assistant

By clicking on the Search Assistant, a window will appear which helps about search output options as is shown in Figure 4-43.

itput Terms		Operators		
<u>Key</u>	Description	<u>Operator</u>	Description	
Output	[Output Number]	([Open Bracket]	
State	[Output State])	[Closed Bracket]	
Stream	[Output Stream]	== / =	[Equals]	
IP	[Primary IP]	!=	[Not Equals]	
" Dort	Deimany Derti		[Contains]	
POIL	(Primary Portj	l:	[Not Contains]	
Interface	[Primary Interface]	&& / &	[And]	
Mode	[Output Mode]	1/1	[07]	
amples				
State == Active	Output == 4	Stream == Primary	IP == 239.71.29.15	
IP : 239	Interface == Data 1	Mode == MPEG	Port == 1234	
State == Active	e && Output == 4	Stream == Primary	&& Mode == MPEG	

Figure 4-43 : VistaLINK_® PRO – Output Search Assistant



4.4.5.2. Search Input



Figure 4-44 : VistaLINK_® PRO - Search Input

If the user right clicks on the search input section, a search assistant icon will show up.



Figure 4-45 : VistaLINK_® PRO - Search Input – Search Assistant

By clicking on the Search Assistant, a window will appear which helps about search input options as is shown in Figure 4-46.

<u>Key</u>	Description	<u>Operator</u>	Description		
Input	[Input Number]	([Open Bracket]		
State	[Input State]	j j	[Closed Bracket]		
InMode	[Input Mode]	==/=	[Equals]		
IP	[17]	1-	[Lequale]		
Port	[Input Port Number]	17	[NOL EQUAIS]		
InEnable	[Input Enable]	·	[Contains]		
Ethernet/Eth	[Ethernet Port]	1:	[Not Contains]		
Mode	[Probe Mode]	&& / &	[And]		
File	[File Name]		[Or]		
amples					
State == Active	Input == 4	InMode == IP	IP == 239.71.29.80		
IP : 239	InEnable == true	Mode == MPEG	Port == 1234		
State == Activ	e && Input == 4	IP : 239 F	Port == 1234		





4.4.6. View output program button

By clicking the View Output Programs button, the user can edit the defined programs in new appeared window (Figure 4-47).



Figure 4-47 : VistaLINK_® PRO - View Output Program\Edit Program(s) window

In this table, the user can modify any field which is modifiable. Any field that has the different color and border and also check boxes are modifiable. Like below:



Expand All and Collapse All buttons, allow the user to expand and collapse the program tree.

Under the Change/View Descriptors column, the user can change or view the program descriptors by clicking on Edit Program Descriptors buttons which will open a window as is shown in Figure 4-48.

MAdd Descrip	tors to Program Number 3 from Input 1	×
		-
Descriptor 1	050447413934	
Descriptor 2	1006c0afc8c	
Descriptor 3	a31101656	
Descriptor 4		
Descriptor 5		
Descriptor 6		
Descriptor 7		
Descriptor 8		
Descriptor 9		
Descriptor 10		
	OK Cancel	

Figure 4-48 : VistaLINK_® PRO - Edit Program Descriptor window

9780MUX-IPGE-ASI Compact ASI/IP Re/De-Multiplexer



Also, it is possible to add, edit or remove Pid Descriptors in the PMT table to a maximum of 5 descriptors per Pid by clicking on the Edit Pid Descriptors button under Change/View Descriptors column as is shown in Figure 4-49.

Madd Descripte	ors to Pid Number 49 from: (Input 2 - Program Number 3)
Descriptor 1	
Descriptor 2	
Descriptor 3	
Descriptor 4	000000000000000000000000000000000000000
Descriptor 5	
	OK Cancel

Figure 4-49 : VistaLINK_® PRO - Edit PID Descriptors



4.4.7. Remove Output Program/Pid

By selecting a Program or Pid and clicking Remove Output Program Button, it is possible to remove that program/pid as is shown in Figure 4-50.

It is also possible to remove an output program by selecting it and pressing "Delete" key.



Figure 4-50 : VistaLINK_® PRO - Remove Output Program/Pid



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5. UPGRADE PROCEDURES

5.1. UPDATING VLPRO SERVER JAR

Products from Evertz are constantly evolving and new features are often added. It is therefore important to update Jar files in use to provide access to all the latest features or enhancements. It will also be necessary to add Jar files for new products.

To perform a JAR update, ensure that all VLPro clients are closed (those clients which are not closed will automatically be disconnected as soon as the VLPro Server is restarted). Maximize the VLPro Server window from the windows task bar, select *Help>Apply Update>Product* from the menu (Figure 5-1).

VistaLINK PRO Server	Contraction of the local division of the loc	-	
File Tools Help			
Status Activa	ate License og	🧟 Clients 🔊 (liscovery
DBAdmin:			
Database: The Apply	opdate 🕨 🐺	Patch	
E-mail System: Logge	er Settings 🥁	Product	Description
Logging System Monito	oring 🍒	Database	Completed sending message "DBAdmin completed"
MVP Ack Syster Network: About	i		Sending message "DBAdmin completed"
Network.	12.00.00	2016-07-29	DBAdmin completed
	12:00:00	2016-07-29	Pare DBAdmin logs to 5000 megs allocated of disk space
Expires on 19-09-2020 Evertzinternal-2020-09-19	12:00:00	2016-07-29	DBAdmin scan of Audit log completed
5 General Clients	12:00:00	2016-07-29	DBAdmin moved 0 audit records to archives.
5 Plus Clients	12:00:00	2016-07-29	DBAdmin created archive list of 0 items. Scan 1
- Third Party Devices	12:00:00	2016-07-29	DBAdmin extracted records from audit log. Building archive file. Scan 1
Licensed Features	12:00:00	2016-07-29	DBAdmin scanning records from audit log. Scan 1
Auto Response	12:00:00	2016-07-29	DBAdmin scan of Alarm log completed
Cause/Effect	12:00:00	2016-07-29	DBAdmin initiating scan of Audit log
MIB Parsing	12:00:00	2016-07-29	DBAdmin moved 0 alarm records to archives. Elapsed timed: 0 seconds
SLA	12:00:00	2016-07-29	Alarm batch deletion: Scan pass = 1 of 0
Thumbnail	12:00:00	2016-07-29	Alarms to archive/export/offload: 0
Web Service	12:00:00	2016-07-29	DBAdmin initiating scan of Alarm log
	12:00:00	2016-07-29	DBAdmin scan of Element log completed
System Statistics	12:00:00	2016-07-29	DBAdmin scanning records from element log. Scan 1
	12:00:00	2016-07-29	Sending message "DBAdmin starting scan of logs. See VLProServer log for details"
	12:00:00	2016-07-29	DBAdmin initiatino scan of Element loo
			Details Clear

Figure 5-1 : VistaLINK_® PRO Server

A window will appear as shown in Figure 5-2. Navigate to the location of the new JAR file and double click to select the file. The window will automatically close and the update will be applied in the background.



💆 Open	-							l	x
Look In: 🔒	MUXIP-10GE			-	R	6			
📔 JAR									
File Name:	[
Files of Type:	jar directory,	.jar, *.zip							
						Op	en	Canc	el

Figure 5-2 : VistaLINK_® PRO - Applying JAR Updates

The user will be prompted to restart the server to enable the change to take effect. Apply as many JAR updates as required before restarting the server.

Shutdown the server by selecting from the menu: File>shutdown Server. Now re-open the server, it is normal for the start up to take marginally longer while each individual update is being applied. Once complete, you may restart the VLPro Clients. As the client restarts, the user will experience a short delay while the update is applied. A prompt will appear confirming that the updates have been applied.



5.2. FIRMWARE UPGRADE

The firmware in the MUXIP-10GE is contained on a FLASH EPROM. From time to time firmware updates will be provided to add additional features to the unit. The firmware update can be initiated using the VLPro.

The user will need the following in order to update the Firmware:

• New firmware supplied by Evertz. Firmware comes as a .deb archive file.

To upgrade the Firmware, navigate to *Version Information* by right-clicking on the IP address of the frame.



Figure 5-3 : VistaLINK_® PRO – Selecting Version Information

This will launch the window where the user can see the version information associated with each menu on the MUX.



12	Version Information >										_ 🗆 ×
Drop Hardware from Navigation Tree here											
Select hardware from the tree to display inventory and version information. You may also drag hardware from the main navigation tree into the view to selectively upgrade hardware.											
Filter 💿 Supported 💿 Active	Upgrade	Configuration									
🖂 🔚 Hardware	Product		3480FR			VLPro Jar Name		VLProProd_3480FR		Version	268
1 -	Up Host	IP Slot	Sw Major	Sw Minor	Pnt Nu	Sw Build	Bd Build	Bd SerNu	Bd Name	Bd Revision	Fm Creati
WIX General	192.1	68.172.68 0	1	00		442					
📼 MUX Output											
T 7											
Save Inventory								Select All	Deselect All	Upgrad	e Close

Figure 5-4 : VistaLINK_® PRO – Selecting Card for Upgrade

Select the 3480FR(Frame) and the box highlighted in the image above. This will cause the *Upgrade* button to become available. Selecting the *Upgrade* button will open the *Firmware Upgrade* window where the user can locate the firmware and select it for upgrade.

The Second Secon											
Drop Hardware from Navigation Tree here											
Select hardware from the tree to display inventory a	and version information. You may also dr	rag hardware from t	ne main navigation tre	e into the view to selectively upg	rade hardware.						
Filter 💿 Supported 💿 Active	🖏 Upgrade Firmware	Upgrade Firmware									
🗆 🏧 Hardware	3480FR	oress 'Start'	Version	268							
3480FR		Ret Nor						Em Creati			
🔲 🚛 MUX General											
MUX Input	Host IP	Slot	Status	Progress			98				
	192.168.172.68										
	Terminate Active Ungrades			Start Star	Close	1					
TTTT				Stop	<u></u>	2					
Save Inventory					Select Al	I Deselect A	All Upgrad	e Close			

Figure 5-5 : VistaLINK_® PRO – Selecting File for Firmware Upgrade



101		Version Ir	formation					_ 🗆 ×
		Drop Hardware from	Navigation Tree here					
Details					_			
Select hardware from the tree to display inventory and	Select firmware file							
Filter 💿 Supported 💿 Active	Look In: 🔒 9780MUX			🗊 💩 👔	B	· 4		
🖂 🚛 Hardware						30FR	Version	268
🛓 - 🚾 3480FR						Bd Name	Bd Revision	Fm Creati
							80	× *
🖳 🖏 MUX Output								
1								
ŝ								
						- II		
	Files of Type: All Files				10			
				ОК	Cancel	i []		
🐺 🕂 👘								
Save Inventory					Sele	ct All Deselect A	Upgrade	e Close

Figure 5-6 : VistaLINK_® PRO – Selecting Firmware File for Update



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