



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
EBA165

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
SHELLY MURRAY
304-558-8801

RFQ COPY

TYPE NAME/ADDRESS HERE

Heartland Video Systems
1311 Pilgrim Rd.
Plymouth, W.I. 53073
Phone: 920-893-4204
Fax: 920-893-3106

EDUCATIONAL BROADCASTING
AUTHORITY
600 CAPITOL STREET

CHARLESTON, WV
25301-1223 304-558-3400

DATE PRINTED 08/20/2008	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
BID OPENING DATE: 09/30/2008		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		205-16		
<p>THE WV PURCHASING DIVISION, FOR THE AGENCY, WV EDUCATIONAL BROADCASTING, IS SOLICITING BIDS FOR A CONTRACT TO PROVIDE AN ATSC COMPLIANT MULTIPLEXING/RE-MULTIPLEXING/PSIP GENERATING SYSTEM.</p> <p>ATTACHMENTS: SPECIFICATIONS PURCHASING AFFIDAVIT</p> <p>INQUIRES: WRITTEN QUESTIONS SHALL BE ACCEPTED THROUGH CLOSE OF BUSINESS ON 9/11/2008. QUESTIONS MAY BE SENT VIA USPS, FAX, COURIER, OR EMAIL. IN ORDER TO ASSURE NO VENDOR RECEIVES AN UNFAIR ADVANTAGE, NO SUBSTANTIVE QUESTIONS WILL BE ANSWERED ORALLY. IF POSSIBLE, EMAIL QUESTIONS ARE PREFERRED. ADDRESS INQUIRES TO:</p> <p>SHELLY MURRAY DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25311 FAX: 304-558-4115 EMAIL: SHELLY.L.MURRAY@WV.GOV</p>						
MULTIPLEXING / RE-MULTIPLEXING GENERATING SYSTEMS						

RECEIVED

2008 SEP 30 A 10:12

PURCHASING DIVISION
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE *[Signature]* TELEPHONE **920-893-4204** DATE **9-29-08**

TITLE *Outside Sales* FEIN **39-1917289** ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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VENDOR

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SHIP TO

**EDUCATIONAL BROADCASTING
 AUTHORITY**
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CHARLESTON, WV
25301-1223 304-558-3400

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/20/2008				

BID OPENING DATE: **09/30/2008** **BID OPENING TIME 01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>TO CONTACT YOU REGARDING YOUR BID: <i>Phone: 920-893-4204 or email: tdemarco@hvs-inc.com or fax: 920-893-3106</i></p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY): <i>Tony DeMarco</i></p>						
***** THIS IS THE END OF RFQ					EBA165 ***** TOTAL:	<u>\$ 34,587.59</u>

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

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EBA165 PSIP Generating System Pricing Page

PSIP Generating System Base Bid	\$ <u>35,587.59</u>
Optional Trade-in allowance "Amber"	\$ <u>0.00</u>
Optional Trade-in allowance "Pearl"	\$ <u>-1,000.00</u>
Total (Base Bid minus Trade-in Allowance)	\$ <u>34,587.59</u>

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

VENDOR OWING A DEBT TO THE STATE:

West Virginia Code §5A-3-10a provides that: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

West Virginia Code §21-1D-5 provides that: Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and is in compliance with the requirements as stated.

Vendor's Name: Hartland Video Systems

Authorized Signature: Tony DeWitt Date: 9-29-08



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 CHARLESTON, WV
 25301-1223 304-558-3400

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09/16/2008				
BID OPENING DATE: 09/30/2008		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 1						
THIS ADDENDUM IS ISSUED TO ADDRESS QUESTIONS RAISED PRIOR TO THE QUESTION SUBMISSION DEADLINE OF 9/11/2008 AND TO REPLACE THE VENDOR PREFERENCE CERTIFICATE FROM THE ORIGINAL REQUEST FOR QUOTATION WITH THE ATTACHED VENDOR PREFERENCE CERTIFICATE.						
ATTACHMENTS: QUESTIONS AND ANSWERS VENDOR PREFERENCE CERTIFICATE						
THE BID OPENING DATE REMAINS: 9/30/2008						
0001	1	LS		205-16		
MULTIPLEXING / RE-MULTIPLEXING GENERATING SYSTEMS						
EXHIBIT 10						
REQUISITION NO.: EBA165						
ADDENDUM ACKNOWLEDGEMENT						
I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.						
ADDENDUM NO. S:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>[Signature]</i>	TELEPHONE 920-893-4204	DATE 9-29-08
TITLE Outside Sales	FEIN 39-1917289	ADDRESS CHANGES TO BE NOTED ABOVE

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LINE	QUANTITY	UQP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
NO. 1					
NO. 2					
NO. 3					
NO. 4					
NO. 5					
<p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.</p> <p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p><i>Tony DeWitt</i> SIGNATURE</p> <p><i>Heartland Video Systems</i> COMPANY</p> <p><i>9-29-08</i> DATE</p> <p>REV. 11/96</p> <p>----- END OF ADDENDUM NO. 1 -----</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS		
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Transport Stream Re-multiplexer TSM-2800



Overview

Logic Innovations' second generation eight-input Transport Stream re-Multiplexer provides extensive table processing and stream grooming capabilities for combining and manipulating streams. Support for opportunistic data and PSIP insertion provide operators with the ability to tailor streams for local broadcasts and fully utilize available bandwidth.

Applications

ATSC & DVB Terrestrial Broadcast – Combines and grooms streams from multiple sources including encoders, video servers, and data sources into a single output transport stream. PSIP/SI Insertion is supported w/ either an external generator (ASI or Ethernet).

DVB Satellite – Combines multiple input channels into a single output for improved transponder utilization.

CATV – Combines input from multiple transponders for insertion into CATV trunk.

Capabilities

- Combines HDTV, SDTV, PSIP, data, and multi-program transport streams into a single output multiplex
- Transport stream and channel re-branding, including network information
- Automatic PID conflict resolution
- Provides a universal "post insertion" capability for inserting externally generated tables (PSIP, SI, RCS)
- Blocks irrelevant or unwanted programs and associated program data
- Configurable output data rate for re-rating based on requirements
- NCR generation for RCS applications

Key Features

Multiple Input and Output Options

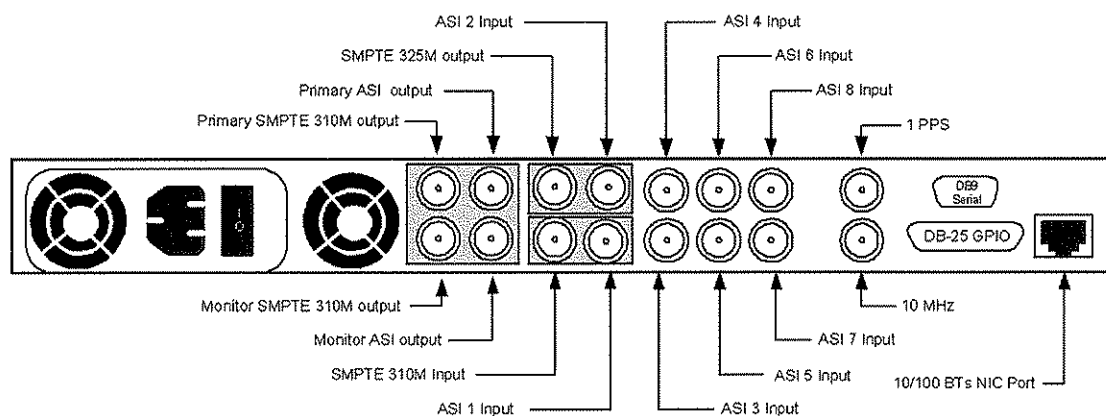
- Up to eight licensable input ports
- Input port #1 also supports SMPTE 310M
- Dual DVB-ASI and SMPTE 310M output ports
- DVB-ASI outputs mirror SMPTE 310M content
- SMPTE 310M interfaces operate at 19.392658 or 38.7853 Mbps
- One ASI/SMPTE 325M flow control output for opportunistic data insertion
- Multiple time source options for time-table re-stamping (sources include SNTP or ATSC/DVB time-tables on input)
- 10 MHz and 1PPS inputs for NCR clock synchronization

Easy to Configure and Manage

- Front panel control for local operation
- Web-based graphical user interface
- SNMP remote management

Technical Specifications

	Input Specifications	Output Specifications
Number of Transport Streams	8	1 repeated on dual ASI ports and dual SMPTE 310M ports, if activated
Interfaces	8 Max 7 dedicated ASI 1 selectable ASI or SMPTE 310M	4 Max, configuration dependent 2 dedicated ASI 2 selectable SMPTE 310M 1 dedicated ASI SMPTE 325M
ASI Data Rates	to 213 Mbps, ASI burst or spread mode	to 213 Mbps, ASI spread mode
SMPTE 310M Rates	19.39 or 38.78 Mbps	19.39 or 38.78 Mbps
Fault, Inputs and Output	Isolated Short/Open Detect,	Summary Form C contact



Physical Characteristics

User Interface Front Panel Control/Status, Web-based graphical user interface, and SNMP remote management

Enclosure 19" Rack-mount, 1 RU high
Depth: 15.5" (39.37 cm)
Height: 1.75" (4.45 cm)
Width: 17" (43.18 cm) w/ Faceplate:
19" (48.26 cm)

Weight 12.5 lbs (5.57 Kg)

Environmental

Temperature 0° - 50° C
Humidity 5% to 95% non-condensing
Shock 3.5 g @ 10ms duration
Vibration 0.5g @ 22-100 Hz
Power 85-265 VAC/50-60Hz, 50 watts
Air Flow Side inlet to back forced air



An SYS Technologies Company

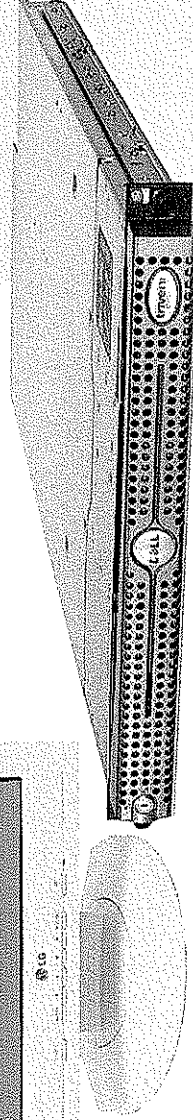
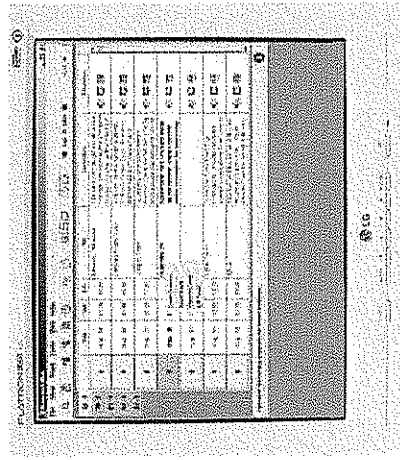
9980 Carroll Canyon Road, Suite 100, San Diego, CA 92131
Toll-free: 888.345.6442 Phone: 858.805.6300 Fax: 858.805.6340
sales@logici.com
www.logici.com • www.systechnologies.com

About Logic Innovations

Logic Innovations is a leading provider of products that enable delivery of rich media services over broadband networks. Logic Innovations' areas of expertise include digital audio/video and data communications technologies such as MPEG, DVB, and ATSC. Founded in 1986, and headquartered in San Diego, Logic Innovations is a division of SYS Technologies.



GuideBuilder™ 3.0



**PSIP
Generation System
for DTV Broadcasters
and Cable**

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GuideBuilder Makes PSIP Easy

The GuideBuilder™ system generates accurate Program and System Information Protocol (PSIP) data and provides an intuitive interface for managing program event information. PSIP is the foundation for ATSC digital television transport streams and is now mandated by the FCC—errors in PSIP data can cause serious problems, such as DTV tuners not finding your channel, closed captions not appearing, or programs not being listed in electronic program guides (EPGs). With cable carriage of OTA broadcasts, PSIP also is growing in importance for digital cable.

GuideBuilder can import program data from many different sources, including listing services and traffic systems. Local or customized data can be manually entered into the system as well. The GuideBuilder system

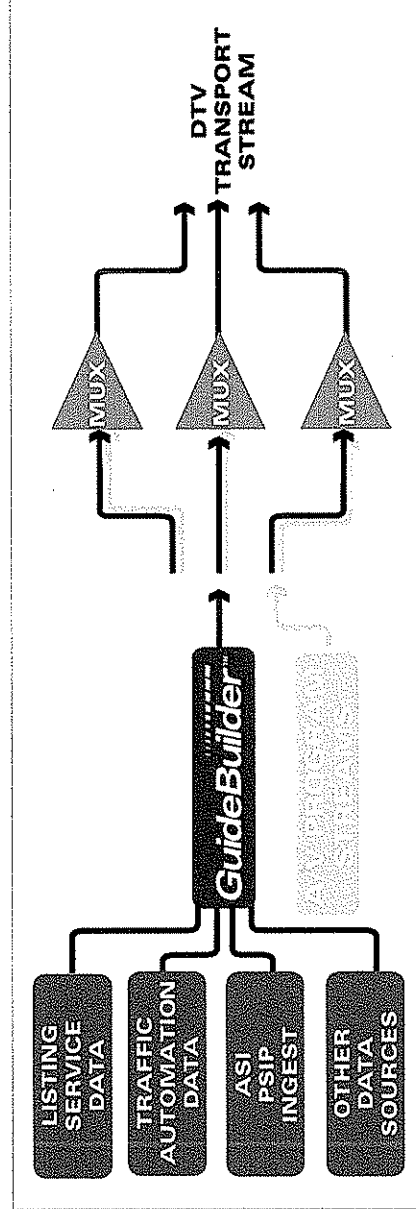
helps you retain your branding in EPGs by grouping all your offerings under your existing channel number, regardless of the frequency assigned to the digital broadcast, protecting channel identity in a competitive marketplace.

Versatile GuideBuilder is the industry leader in PSIP generation and management, and is now available at three levels—Lite, Basic and Pro—to cover the entire value spectrum while ensuring compliance with ATSC guidelines.

GuideBuilder™ 3.0

HIGHLIGHTS

- Meets the FCC PSIP requirements
- Intuitive user interface eliminates the need for extensive knowledge of ATSC standards
- Flexible editing options accommodate overruns and last-minute changes
- Automatic data importing is compatible with many input sources and provides scheduled periodic updates
- Flexible architecture helps you distribute effort conveniently within your organization
- Supports wide range of configurations from single stations to centralcasting PSIP from a single operations center to multiple stations
- Consistent PSIP and PSI generation prevents errors in the transport stream
- PSIP generation is now a core broadcast function, GuideBuilder supports high reliability configurations
- Open-system development and integration makes GuideBuilder compatible with all popular MPEG-2 encoders and multiplexers

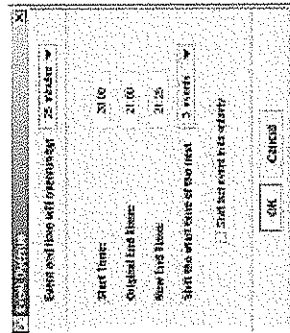


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Navigating the Schedule

Program Data at a Glance

The Program Editor window presents program data in an easy-to-understand format. Search tools and intuitive displays make it simple to navigate through complicated program listings.



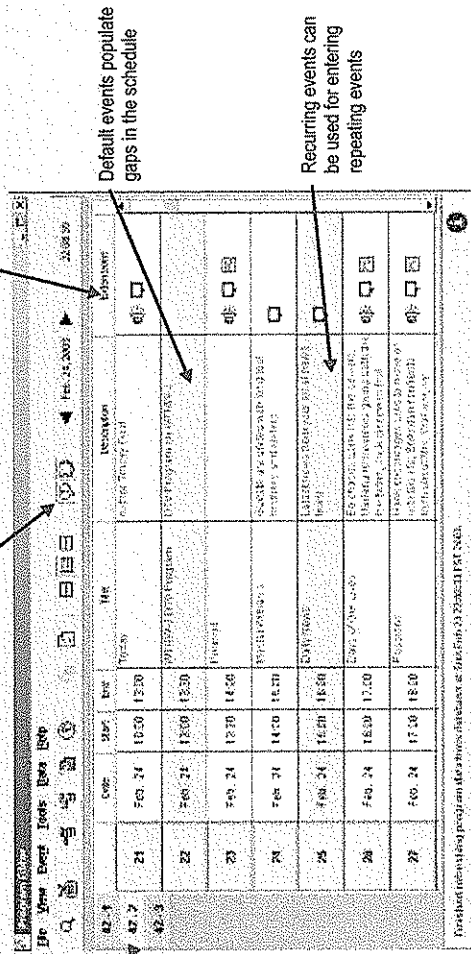
If events run over, update the event schedule with the Event Overrun feature.

Last Minute Edits and Overruns

When program events change, you can easily edit manually. The Event Overrun feature changes the end time of a program when it overruns the schedule, and automatically shifts subsequent events.

Customized columns let you view only the information you need

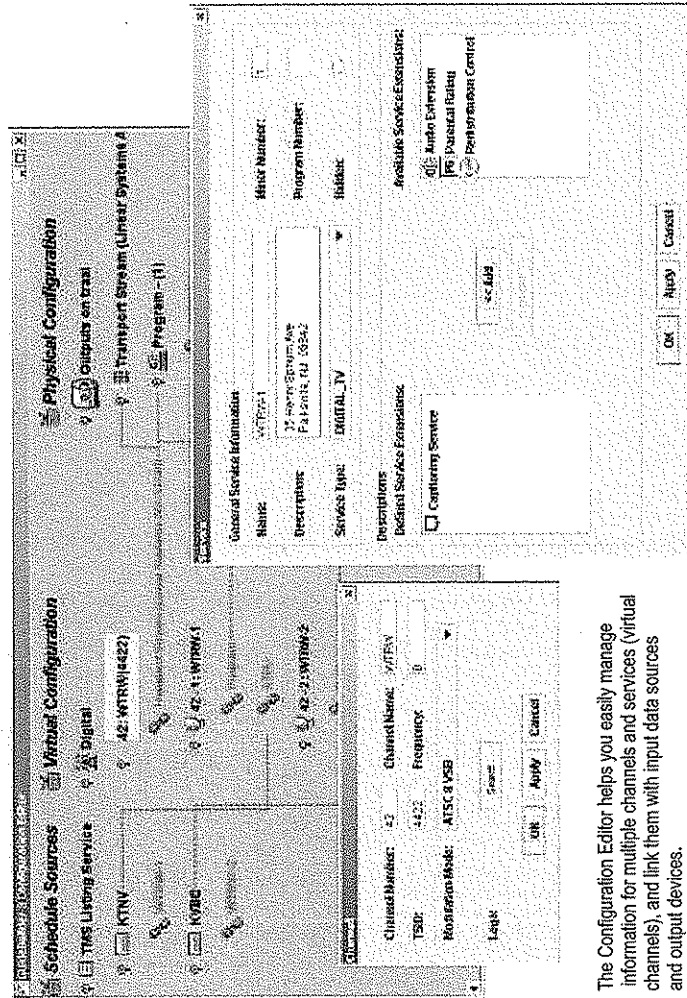
Rating, caption, broadcast flag and audio information is available at a glance



Default events populate gaps in the schedule

Recurring events can be used for entering repeating events

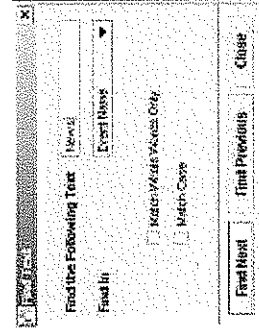
The GuideBuilder Program Editor provides comprehensive program data in one window.



The Configuration Editor helps you easily manage information for multiple channels and services (virtual channels), and link them with input data sources and output devices.

Search Options

The "Find Text" search option makes it easy to navigate through program data. Search for program names or descriptions by keywords.



Quickly search through event names and descriptions with the Find Text feature.

Multiple Channels and Services

GuideBuilder has all the power and capability you need to edit and manage multiple channels and create detailed service descriptions for robust and informative EPGs.

GuideBuilder™ 3.0

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Managing the Data Flow

Continuous Playback with Constant Updates

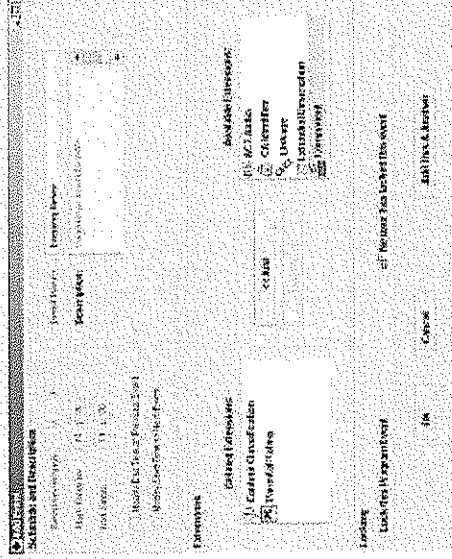
GuideBuilder is designed to ensure consistent PSIP data generation and continuous playback of data.

The client-server architecture of GuideBuilder supports centralcasting configurations and provides fault-tolerant features, including the ability to send out data from an internal carousel in a multiplexer. This allows the multiplexer to continue sending data if the GuideBuilder machine is disconnected.

Integrated with a Wide Range of Broadcast Equipment

GuideBuilder has been developed with an open system approach, providing a high-performance PSIP bit-stream generator that can be integrated with the following vendors:

- Harris
- Harmonic
- Tandberg
- Motorola
- Tiernan/Radyne Comstream
- SkyStream
- Thomson Broadcast
- Logic Innovations
- BigBand Networks
- Terayon
- Thales



The Add Event window allows you to specify detailed event information and produce accurate PSIP program data.

Easily Add Events

The Add Event window lets you add events to the program schedule quickly and accurately. Detailed entry options allow you to describe audio, captioning, broadcast flag and rating information for all events in a virtual channel, and to create specific settings for individual events.

Import Data with One Click

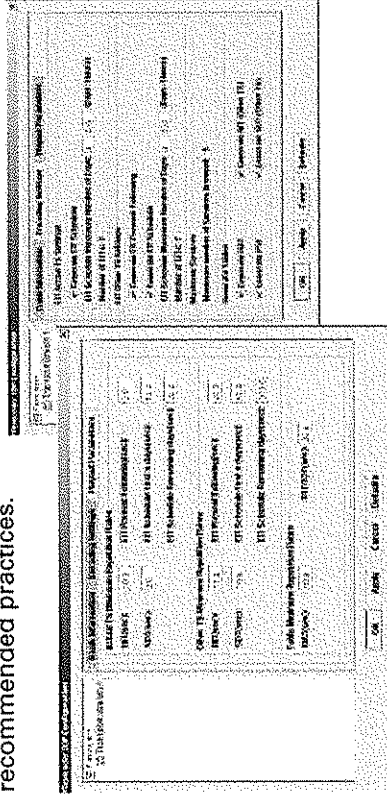
Import data from any of these sources with a single click:

- Tribune Media Services (TMS)
- TV Guide
- ATSC PMCP
- Generic
- OSI
- ProTrack
- Harris Traffic
- Scout
- Storet
- DecisionMark
- VCI
- PSIP Ingest

Or set up automatic periodic updates for a hands-off approach. Third-party data formats can also be easily translated and then imported to the GuideBuilder system.

Advanced Encoding Controls

The output encoding interface lets you control the playout rates to keep them compliant with ATSC DTV standards and recommended practices.



The Playout Parameters and Encoding Parameters allow you to control cycle times, playout rates, number of EITs, PIDs and bit rates, providing complete control over your bandwidth usage.

GuideBuilder™ 3.0

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Model Configurations

Available Features

	Life	Basic	Pro
PSIP Features			
Core PSIP tables	✓	✓	✓
Ability to generate PAT and PMT PSI tables	✓	✓	✓
NCTA-CEA PSIP Agreement	✓	✓	✓
ATSC PSIP Recommended Practice	✓	✓	✓
Full, dynamic PSIP	✓	✓	✓
Program Information			
Days of EPG information	16	16	16
Program event names	✓	✓	✓
Extended text descriptions	✓	✓	✓
Dynamic captioning, audio, ratings and redistribution control descriptors	✓	✓	✓
"Hide Guide" support	✓	✓	✓
Digital services per stream	1	3	Unlimited
Analog services per stream	1	1	1
Additional digital and analog services	*	*	*
Input			
Manual event editing plus choice of TMS, TV Guide, DecisionMark or PMCP	✓	✓	✓
Add choice of other input interfaces [†] , for 2 nd included interface		✓	✓
PSIP Ingest	*	*	*
Additional traffic and listing import interfaces	*	*	*
Prioritization of multiple input sources	✓	✓	✓
Time Code interface	*	*	*
Output			
ASI, Ethernet, or RS-422 output	✓	✓	✓
Synchronization with multiplexer or encoder	*	*	*
Output transport streams standard	1	1	1
Optional extra transport streams available			*
Workflow			
Remote user interfaces	✓	✓	✓
Time-saving event overrun management, recurring events, and default background events in manual editing interface	✓	✓	✓
Localized user interfaces for non-English languages	*	*	*
Field upgradeable to higher model	*	*	n/a

All GuideBuilder models provide compliance to the FCC PSIP requirements, DTV channel tuning information, up to 16 days of schedule information plus dynamic description of closed captioning, audio, broadcast flag, and V-chip ratings for program events.

GuideBuilder Lite also provides program event names for display in EPG; an Editing interface, for manual entry and editing of event information; and an interface for importing information from TMS, TV Guide, DecisionMark, or PMCP.

GuideBuilder Basic adds full support for the ATSC PSIP Recommended Practice, including extended event descriptions. Data input automation and integration with other broadcast and programming systems are available.

GuideBuilder Pro offers advanced capabilities, including additional choices for the 2nd included input interface; full, dynamic PSIP generation; unlimited services; and the option for multiple output transport streams.

✓ Standard feature included with model

* Option available to add to standard configuration

† Available interfaces include Scout, Stoner, Harris Traffic, ProTrack, Generic, OSI, VCI

Technical Specifications

General

Operating system Windows® 2000
AC power input 250W@115/230 VAC, 50/60Hz

Options

- Dual power supply
- Raid 1

Data Communications

DVB ASI 75 Ω BNC connector
Max send: +5V, 220 mA
Typical send: +12V, 75 mA / -12V, 7.2 mA
Max bitrate: 270 Mbps
Typical bitrate: 250 Kbps
Single channel synchronous HDLC
Sync clock rate 250 Kbps (configurable)
Typical bitrate - 120 Kbps

RS-422 10/100 BaseT Ethernet 2 x RJ-45 connection
Serial Port 9 pin
USB 1 front and 1 rear

Physical

Width 17.6" (447 mm) - fits 19" standard rack
Height 1.67" (43mm) - 1RU
Depth 30" (762 mm)
Weight 35 lbs (16 kg)

Operating Environment

Temperature 50°-95° F (10°-35° C)
Humidity 8% - 80% RHNC

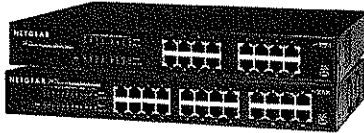
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DIGITAL®

Triveni Digital, Inc.
40 Washington Road
Princeton Junction, NJ 08550 USA
Tel: 609-716-3500
Fax: 609-716-3503

Web: www.TriveniDigital.com
E-mail: info@TriveniDigital.com

Take Gigabit to the Desktop



NETGEAR's JGS500 Gigabit Switch Series gives your office network a megaboost of speed and capacity that is within your budget. With up to 48 Gbps of bandwidth, these 16- and 24-port switches can blast 2000 Mbps per port while their affordable prices enable you to put them everywhere. Use it to take Gigabit Ethernet directly to the desktop! Standards-based for easy integration of 10, 100, and 1000 Mbps devices, these unmanaged, rack-mountable switch feature 10/100/1000 automatic speed and full/half-duplex sensing plus Auto Uplink™ on every port. Users can take advantage of their ability to deliver large amounts of multimedia, image, and video information in no time at all. Ideal for workgroups, labs, departments, or growing offices looking for outstanding performance at a low price.

High Capacity

1000 Mbps speeds and a switching capacity of up to 48 Gbps meet the performance needs for even the most bandwidth-hungry applications. The JGS500 series are perfect for graphics, multimedia, and other applications that have to move large files across the network quickly.

Affordable

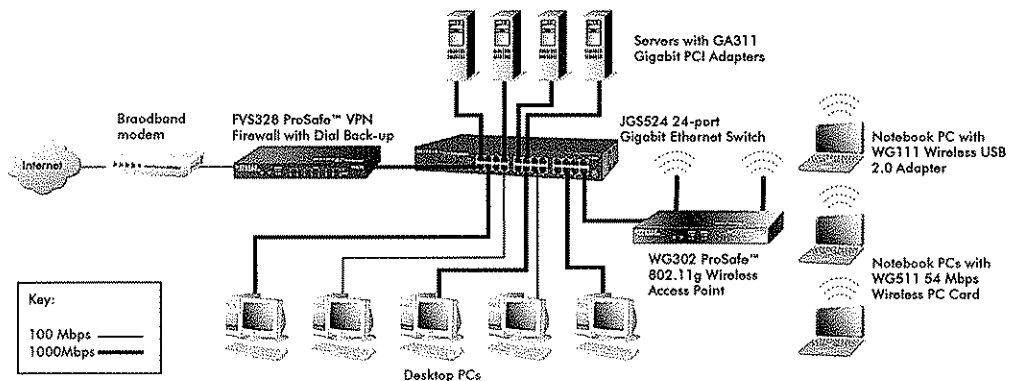
Aggressive prices enable your workgroup, department or small network to ramp up to Gigabit speeds, even all the way to the desktop.

Flexible

Each port is equipped with automatic speed and duplex sensing, plus Auto Uplink to adjust for straight-through or crossover cables to make the right link. Standards-based design makes it easy to combine 10, 100, and 1000 Mbps devices on your network.

Convenient

Easy to set up and easy to use, these unmanaged switches have per port LED's for effortless network monitoring. Compact enough for desktop but comes with a rack mount kit. Compatible with PC, Macintosh, Linux, and Unix operating systems.



1-888-NETGEAR (638-4327)
Email: info@NETGEAR.com



Technical Specifications**• Network Ports**

- JGS516: 16 10/100/1000 Mbps twisted-pair
- RJ-45 ports
- JGS524: 24 10/100/1000 Mbps twisted-pair
- RJ-45 ports

• Performance

- Switching bandwidth:
JGS516: 32 Gbps
JGS524: 48 Gbps
- Forward rate (1000 Mbps port):
1,480,000 packet per sec
- Forward rate (100 Mbps port):
148,000 packets per sec
- Forward rate (10 Mbps port): 14,800 packets per sec
- Latency (1000 to 1000 Mbps): 20 μ s max
- Packet Buffer Memory: 2 Mb
- MAC address database: 8,000
- Mean Time Between Failure (MTBF):
87,600 hours
- Acoustic Noise: 40 dB

• Power Consumption

- 100~240V; 50-60Hz; plug is localized to country of sale
- JGS524: 40W max
- JGS516: 25W max

• Standards Compliance

- IEEE 802.3i 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet
- IEEE 802.3ab 1000BASE-T Gigabit Ethernet
- IEEE 802.3x Flow Control

• Status LEDs

- Unit: power
- Per network port: Link, Activity, Speed

• Physical Specifications

- Dimensions (h x w x d):
43 x 330x 207 mm (1.7 x 13 x 8.2 in)
- Weight: 2.4 kg (5.3 lbs)

• Environmental Specifications

- Operating temperature: 0 to 40° C (32 to 104° F)
- Operating humidity: 90% maximum relative humidity, noncondensing
- Storage temperature: -20 to 70° C (-4 to 158° F)
- Storage humidity: 10 to 95% Relative Humidity

• Electromagnetic Compliance

- CE mark, commercial
- FCC Part 15 Class A
- VCCI Class A
- EN 55022 (CISPR 22), Class A, EN 50082-1,
- EN 55024
- C-Tick

• Safety Agency Approvals

- UL listed (UL 1950)/cUL
- IEC950/EN60950

System Requirements

- UTP Category 5 cables or better
- Network card for each PC or server

Warranty

- NETGEAR Lifetime Warranty†

ProSupport™ Service Packs Available

- **On Call 24 x 7**
 - PMB0331-100 (US)
 - PMB0331 (non-US)
- **Xpress HW**
 - PRR0331

Package Contents

- 16- or 24-port Gigabit Ethernet Switch (JGS516 or JGS524)
- Power adapter
- Installation guide
- Rack-mount kit
- Warranty/Support information card

NETGEAR Related Products

- Copper Gigabit PCI Adapter (GA311)
- 5-port Gigabit Ethernet Switch (GS105)
- 8-port Gigabit Ethernet Switch (GS108)
- 16-port Gigabit Ethernet Switch (GS116)

Ordering Information**• JGS516**

- North America: JGS516NA
- Europe: JGS516-100EUS
- Asia: JGS516AU
- Japan: JGS516-100JPS

• JGS524

- North America: JGS524NA
- Europe: JGS524-100EUS
- Asia: JGS524AU
- Japan: JGS524-100JPS



NETGEAR®

4500 Great America Parkway
Santa Clara, CA 95054 USA
1-888-NETGEAR (638-4327)
E-mail: info@NETGEAR.com
www.NETGEAR.com

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*Free basic installation support provided for 90 days from date of purchase. Advanced product features and configurations are not included in free basic installation support; optional premium support available.

†Lifetime warranty for product purchased after 05/01/2007. For product purchased before 05/01/2007, warranty is 2 years.

D-JGS516/JGS524-1



Heartland Video Systems, Inc.

Broadcast & Professional Solutions

CONVERSION • TRANSMISSION • COMPRESSION • MONITORING
AUTOMATION • STORAGE • ROUTING • INTEGRATION

September 29th, 2008

Jeremy Scott
WVPBS
124 Industrial Park Road
Beaver, WV. 25813

Steve Chapman
WV Public Broadcasting
600 Capitol St.
Charleston, WV. 25301

Jeremy and Scott,

Thank you for the opportunity to respond to you bid solicitation EBA165 and EBA165-1. Heartland Video Systems is an authorized reseller of the products and services listed within this bid response.

The system proposed is a full turn-key multiplexing and PSIP generating system. The multiplexer will provide capacity of up to 8 ASI inputs and PSIP carouseling. The PSIP generator will provide dynamic ATSC tables for all services and will provide these tables to the Logic Innovations multiplexer via IP.

HVS has provided numerous multiplexers and PSIP generators throughout the United States for ATSC and non-ATSC applications. We carry an inventory of loaner equipment to assist with any situations that may arise and our engineering staff offers first line support on the systems we provide.

Please feel free to contact me at any time with any questions or comments on our response.

Sincerely,

Tony DeMarco
Outside Sales
Heartland Video Systems

1-800-332-7088

www.hvs-inc.com

CORPORATE OFFICE

1311 Pilgrim Road, Plymouth, WI, 53073
(800) 332-7088, (920) 893-4204, Fax (920) 893-3106

IOWA OFFICE

375 Collins Road NE, Suite 114, Cedar Rapids, IA, 52402
(319) 294-1360, (800) 332-7088, Fax (319) 294-1341



1-800-332-7088
www.hvs-inc.com

QUOTE

Quote # WISQ13720
Doc Name WV Public Multiplexing/PSIP System
Date 09/29/08
Sales Rep. Tony DeMarco
Terms Net 30 upon acceptance

Quote To:

State of West Virginia
Shelly Murray
2019 Washington St. East
Charleston, WV 25311
USA

Ship To:

State of West Virginia
Shelly Murray
2019 Washington St. East
Charleston, WV 25311
USA

(304)558-8801

Qty	Manuf	Model	Description	Unit Price	Ext. Price
Logic Innovations Multiplexer with PSIP Carouseling					
1	Logic Innovations	TSM-2800-8	Transport Stream Multiplexer (8 Input)	\$12,228.26	\$12,228.26
4	Logic Innovations	EXT-MAINT-WAR	1 yr silver extended maintenance/warranty with purchase, Years 2-5. 24x7 technical support option not available.	\$1,385.87	\$5,543.48
Triveni Guidebuilder Pro with IP Output					
1	Triveni	GDBR-IP	GuideBuilder - Editing Interface - IP output - 1U Low Cost Single Power Server HW, SMPTE Time Code Card is not available.	\$8,788.04	\$8,788.04
1	Triveni	GDBR-INTF-PRT	ProTrack Interface Module	\$1,739.13	\$1,739.13
4	Triveni	ESSP-GDBR	GuideBuilder Enhanced System Support Plan - for new GuideBuilder and GuideBuilder Hardware Upgrades, Years 2-5. 24x7 technical support option not available.	\$1,652.17	\$6,608.68
Trade-in Credit for Existing Pearl PSIP Generator					
1	HVS	Credit	Credit to be applied to current quotation for return of existing Pearl PSIP generator to HVS. Trade-in credit for Amber mux not available.	-\$1,000.00	-\$1,000.00
Shipping					
1	Shipping		Shipping cost assumes ground shipping.	\$200.00	\$200.00
System Integration					
1	HVS	HVS3	All equipment will be configured and tested at HVS facility prior to shipment. System interconnect and rack elevation drawings will be generated and provided to customer. Equipment will be shipped to customer for customer installation and interconnection. Phone support and internet control session will be provided to assist with final commissioning.	\$480.00	\$480.00

TOTAL DOES NOT INCLUDE SHIPPING OR TAX, IF APPLICABLE

Total \$34,587.59

PROPOSALS FROM HEARTLAND VIDEO SYSTEMS INC. (HVS) ARE VALID FOR 30 DAYS.

Charge Card Fees: A 3% fee will be added to all charge card payments.

Restocking Fees: A 15% restocking fee will be charged for items returned unopened and within 30 days of shipment date with approval.

Quote accepted for order by: _____ Date: _____

Heartland Video Systems, Inc.

Corporate Office:
1311 Pilgrim Road, Plymouth, WI 53073, (800) 332-7088 or (920) 893-4204, Fax(920) 893-3106

IA Office:
375 Collins Rd NE Ste 114, Cedar Rapids, IA 52402, (319) 294-1360 or (800) 332-7088, Fax(920) 893-3106

WISQ13720

Page 1



Heartland Video Systems

1-800-332-7088
www.hvs-inc.com

QUOTE

Quote To:

State of West Virginia
Shelly Murray
2019 Washington St. East
Charleston, WV 25311
USA

Ship To:

State of West Virginia
Shelly Murray
2019 Washington St. East
Charleston, WV 25311
USA

Quote # WISQ13772
Doc Name WV Public Options
Date 09/29/08
Sales Rep. Tony DeMarco
Terms Net 30 upon acceptance

(304)558-8801

Qty	Manuf	Model	Description	Unit Price	Ext. Price
Optional: Triveni Guidebuilder Pro Redundant with IP Output					
1	Triveni	GDBR-RE-IP	GuideBuilder - Editing Interface - IP output - Fault Tolerant - 1U Server HW includes Raid Level 1 and Dual Power Supply. Includes first year of ESSP.	\$11,717.39	\$11,717.39
1	Triveni	GDBR-INTF-PRT	ProTrack Interface Module	\$1,739.13	\$1,739.13
4	Triveni	ESSP-GDBR	GuideBuilder Enhanced System Support Plan - for new GuideBuilder and GuideBuilder Hardware Upgrades, Years 2-5. 24x7 technical support option not available.	\$1,652.17	\$6,608.68
Optional: Netgear GigE IP Switch					
1	Netgear	JGS516	16 port 10/100/1000 Rackmountable Gigabit Ethernet Switch	\$280.00	\$280.00
1	Netgear	PMB0331NA	3 Year ProSupport Maintenance Contract - OnCall 24x7 - Category 1. 5 year option not available.	\$124.99	\$124.99

Note: Optional items should be added or used to replace an item on quote WISQ13720 if needed. This quotation does not included required integration.

TOTAL DOES NOT INCLUDE SHIPPING OR TAX, IF APPLICABLE

Total \$20,470.19

PROPOSALS FROM HEARTLAND VIDEO SYSTEMS INC. (HVS) ARE VALID FOR 30 DAYS.

Charge Card Fees: A 3% fee will be added to all charge card payments.

Restocking Fees: A 15% restocking fee will be charged for items returned unopened and within 30 days of shipment date with approval.

Quote accepted for order by: _____ Date: _____

Heartland Video Systems, Inc.

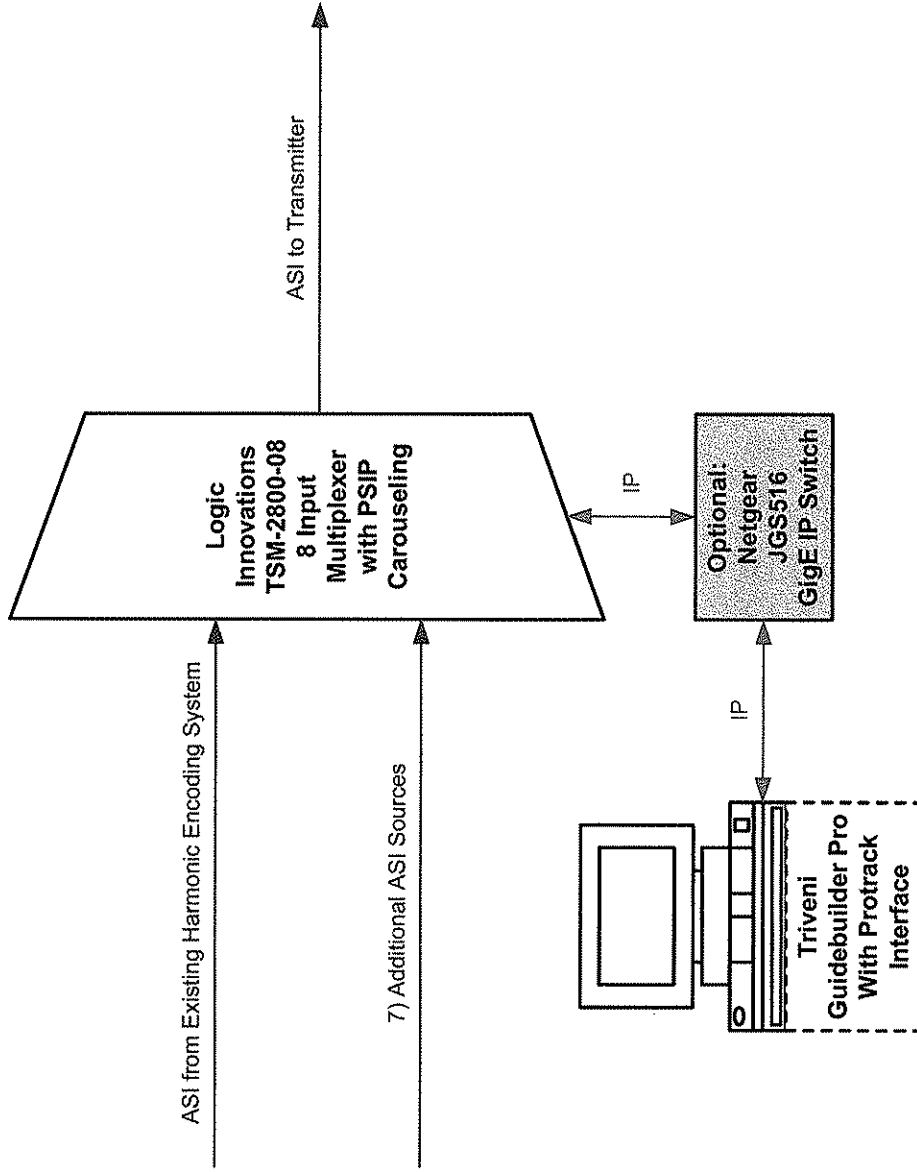
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WISQ13772

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West Virginia Public Multiplexing/PSIP System



Legend


	HD-SDI, SDI		Analog Video
	Digital Audio		Analog Audio
	Control, IP		SMPTE-310, ASI

CONVERSION
COMPRESSION
AUTOMATION
TRANSMISSION
STORAGE
ROUTING
MONITORING
INTEGRATION

BROADCAST & PROFESSIONAL SOLUTIONS

BROADCAST & PROFESSIONAL SOLUTIONS



With a combined 70+ years of broadcast experience, Heartland Video Systems has developed and serviced a vast Broadcast & Professional customer base across the United States. Heartland Video Systems specializes in the areas of Conversion, Compression, Routing, Transmission, Monitoring, Storage, Automation and System Integration. 

Broadcast Equipment Sales

- Coding/MPEG
- Crowave
- Monitoring & Control
- Servers & Storage
- Terminal Gear & Accessories
- Routing Switchers/Master Control
- Bandwidth/EAS
- Logging
- Fiber Optic & IP Transmission

Broadcast Equipment Integration

- System Consultation
- System Design
- System Documentation
- Integration of Equipment
- Customer Training & Troubleshooting
- Factory & Site Acceptance Testing
- Follow-Up Support & Remote Troubleshooting

Primary Integration Segments

MPEG Encoding

- Configuration of HD & SD MPEG Encoding Systems
- Configuration & Optimization of Multi-Pass Statistical Multiplex Configuration
- Integration & Configuration of PSIP Generation
- Redundant System Design & Configuration

Satellite and IP Delivery Systems

- System Design and Circuit Specification
- IP Network Configuration including Rate Shaping & VLANs
- System Monitoring
- System Acceptance Testing

Crowave Systems

- Path Analysis
- System Design including Redundancy
- Configuration & Integration
- Path Alignment
- Site Acceptance Testing & Training

Studio Systems

- Design & Consultation to Maximize Workflow Productivity
- Equipment Selection for Optimum Value
- System Documentation (CAD Drawings, Rack Elevations, Cable Lists)
- Equipment Installation & Site Acceptance Testing

Consultation



Contact us at 800-332-7088
www.hvs-inc.com

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