

UTAH-400/MV

MULTI-VIEW DISPLAY PROCESSORS



The UTAH-400/MV Multi-View Display Processors work together with the UTAH-400 Series 2 Routers and the SC-4 control system to provide a fully integrated multi-view display solution. Connection of signals from the router to the processor is handled by the MV-Link connection system that replaces 12 coax cables with a single small diameter multiconductor cable, tremendously simplifying system installation and reducing cost.

The control system integration means that labels from the router control system are automatically passed to the display processor for use as signal identifiers in the multi-view display, eliminating the need to manually update the labelling lists or to execute an update procedure when the router system labels are revised.

UTAH-400/MV FEATURES

- TWO PACKAGES AVAILABLE -- 16 INPUTS IN 1RU AND 32 INPUTS IN 2 RU
- AUTOMATIC SIGNAL FORMAT DETECTION ON EACH INPUT
- BUILT-IN CAT-5 DVI/HDMI EXTENDERS ON EACH OUTPUT
- DISCRETE, EMBEDDED, OR MIXED AUDIO MONITORING
- LOW LATENCY -- SINGLE FRAME PROCESSING DELAY
- MULTIPLE OUTPUTS AVAILABLE IN EACH UNIT
- FULL-FEATURED ALARM PROCESSING FOR AUDIO AND VIDEO
- EASY TO USE INTERACTIVE SCREEN LAYOUT TOOL

The UTAH-400/MV Multi-Viewers bring unparalleled convenience and ease of use to the complex job of setting up a router-based multi-view display system. By combining an interactive display design tool with the flexibility of an “any picture anywhere” architecture, this system makes it simple to design screen layouts that place the pictures, meters, alarm and tally indicators, and extra items like clock and logo displays.

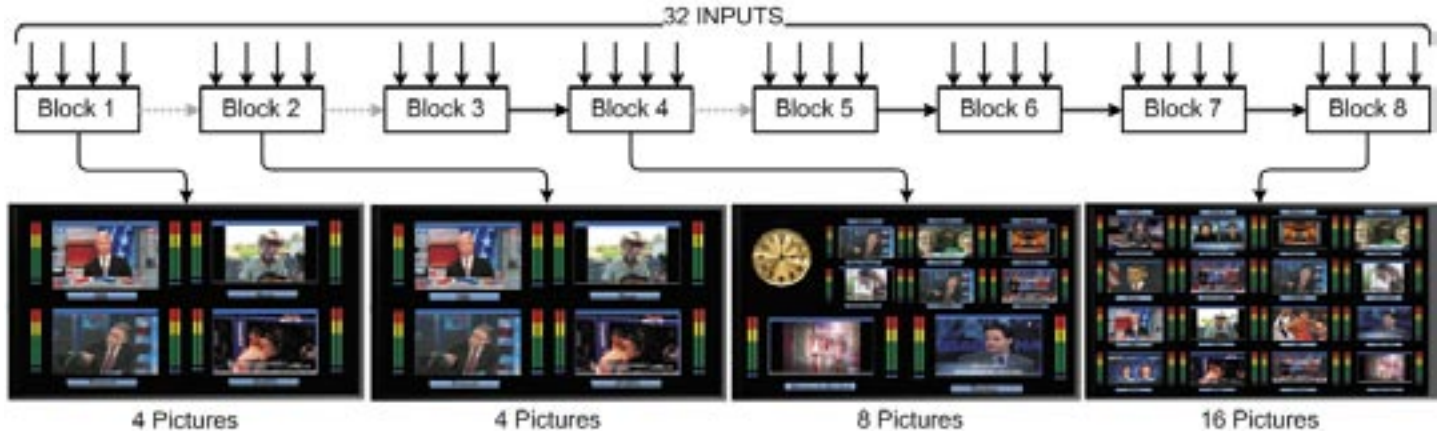
Using the unique drag and drop interactive GUI, the user can see in real time the results of his actions and can easily trim picture size and positioning to create exactly the right layout in a matter of minutes. The tools also allow the user to import graphic elements into the display layout to further customize the design.

The processor’s direct interface to the Utah SC-4 control system ensures that router input and output labels are automatically updated as system configuration changes are made, no need to update manually or to perform a special operation to keep the labelling systems in sync.

The UTAH-400/MV has a complete set of monitoring tools for each input, giving the operator the ability to see a full range of alarms for error conditions in audio and video signal elements. Additionally, GPI contacts for each input allow presentation of On-Air or other indicators as required.

FLEXIBLE MULTI-OUTPUT ARCHITECTURE

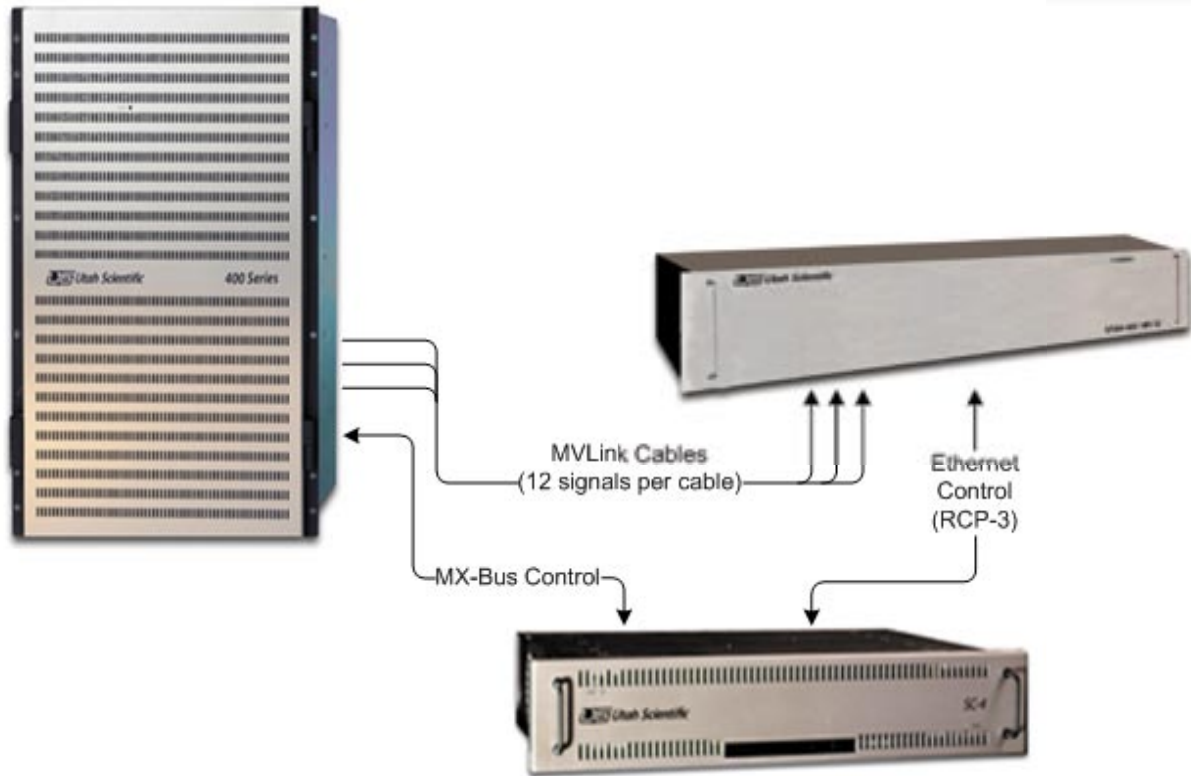
The Utah Scientific MV-Series multi-viewers offer multiple outputs from each unit. The MV16 model offers four outputs and the MV32 model offers eight. There is one output associated with each block of four inputs. The four-input blocks are cascaded within the unit to add up to the total number of inputs. The output of each block has access to all of the inputs upstream from it. Thus, a 16 input unit can produce four quad-split displays, two eight picture displays, etc.



SYSTEM CONNECTIONS

The Utah Scientific MV-Series multi-viewers can be interfaced directly to Utah routing switchers via MV-Link connections, available on all UTAH-400/Series 2 video switching matrices. This direct interface provides a cost reduced, multi-viewer/routing solution, with compelling integration advantages including the ability to have duplicate coax copies of the signals being fed via MV-Link to the multi-viewer, greatly reducing the requirement for router outputs to feed the display system.

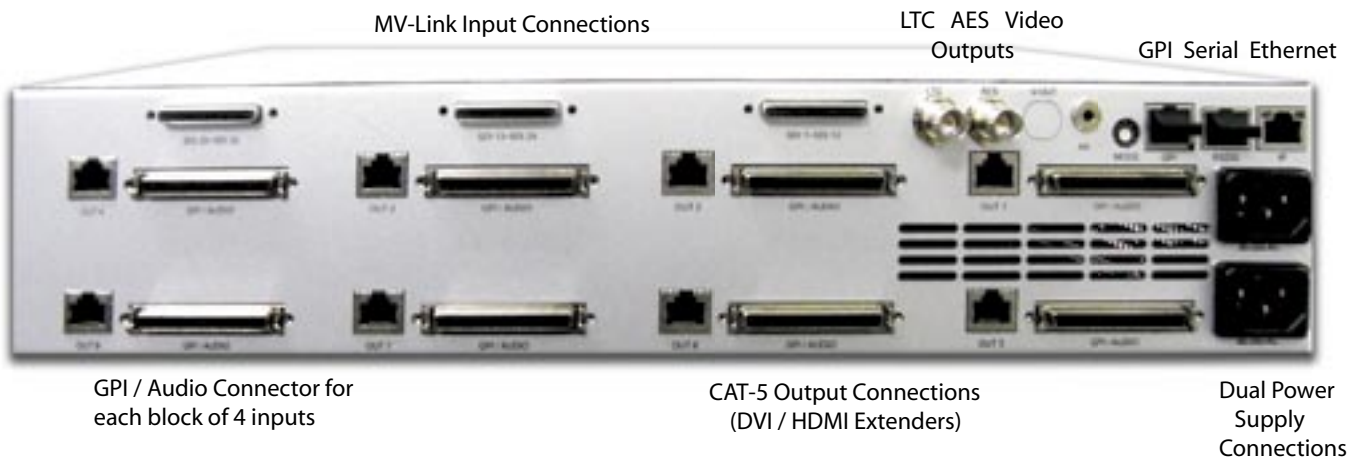
Outputs from the router to the multi-viewer are handled by the DO-400/12 Multi-rate Differential Output card and MV-Link rear panel assemblies. The rear panel replaces the regular output connectors with a Multi-viewer/Router interconnect



Link (MV-Link) electrical connector. Each UTAH-400 MV-Link rear panel allows 12 router outputs to be connected to the multi-viewer with a single multi-core cable. The 2 RU MV-32 can accept up to 32 UTAH-400 routing switcher outputs. (3 DO output modules and MV-Link rear panels). The 1 RU MV/16 can accept up to 16 UTAH-400 routing switcher outputs (2 DO output modules and MV-Link router rear panels). The MV-Link rear panel is also available with 12 HD-BNC connectors in addition to the MV-Link connector for use when outputs are to be fed to router destinations as well as to the multi-viewer.

The UTAH-400/MV communicates with the router's SC-4/400 control system using RCP-3 protocol over Ethernet. This control interface allows quick access to any source on the router and provides mnemonic label tracking for each Multi-viewer image. The control interface also allows the LU-400 to save the UTAH-400 source assignments as part of a "display layout" preset. When a display layout preset is recalled, the UTAH-400 switches the appropriate sources to the multi-viewer inputs.

UTAH-400/MV-32 REAR PANEL



UTAH-400/MV Technical Specifications

Inputs:	MV-Link HD/SD-SDI SMPTE 424M, 292M, 259M
Optional Coax inputs:	
Equalization:	120m at 2.97 Gbps, 140m at 1.485 Gbps, 400m at 270 Mbps (Belden 1694A)
Return Loss:	>15db up to 1.5Gbps, >10db up to 3G
Outputs:	DVI, HDMI, VGA (option), SDI (option) Built-in CATx Extender Up to 35 feet, 115 feet with optional receiver
Output Resolution:	800 x 480 to 2048 x 1080 (1080p)
Embedded Audio:	SMPTE-272M-A
AES Audio:	4 channels / video input (2 pairs, balanced / unbalanced)
Analog Stereo:	4 channels / video input (balanced / unbalanced)
General Purpose IO:	Up to 40 inputs with DB9 connectors
Serial Port:	RS232 with RS422 or RS485 option Connector: RJ45 Baud Rate Up to 115200 Supported Protocols: TSL, TSI, AXP
Ethernet:	100 Base-T Connector: RJ45 Supported Protocols: UTAH RCP-3, TSL, AXP,
On Screen Display:	Customized borders, labels (4 / window), fonts, tally LEDs, clock faces, logos, UMD, OMD, IMD, dynamic UMD
Alarms:	No audio, audio high / low, No video, video black, video frozen, WSS, AFD
Power:	MV16: 110W, 90-250V 50/60 Hz Redundant power supply optional MV-32 200W, 90-250V 50/60 Hz Redundant power supply included
EMI/RFI:	Complies with FCC Part 15, Class A, CE, EU EMC, C-tick
Physical:	MV16: 1RU, 4.5cm (1.75") x 50cm (19.7") D MV32: 2RU, 9.0cm (3.50") x 59cm (23.25") D

OPTIONAL CONFIGURATIONS

The UTAH-400/MV Processors are also available with standard BNC rear panels instead of the MV-Link connections.

Designed for use with earlier Utah Scientific routers as well as for stand-alone display processor applications, the BNC versions offer the same control system integration and the full feature set of display controls, alarms, etc. as the MV-Link versions.

UTAH-400 Series 2 Video Rear Panel Assemblies

