Etere ETX

Ready for Today and Tomorrow

ETX Automation

- Software-only product
- No special hardware
- Multiple codecs
- MIXED I/O
- SDI
- IP
- NDI
- Supports Microsoft ReFS File System

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ETX

- ETX base allows insertion of all the standard channel graphics
- Fixed/animated graphics on up to 8 layers
- Insert crawls
- Graphics can be imported in any format using Etere interface and distributed to any Playout using Etere Media Manager
- A low-res copy is generated for preview
- Graphics are stored on the hard drive, with unlimited expansion
- Live signal can be pass-through to insert graphics

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Benefits of ETX Solution

- ETX boasts good graphic functionality unlike anything in the market today
- Its seamless integration with other modules in the Etere Ecosystem makes it an indispensable and worthwhile investment
- More than just a playout solution, the ETX is a stable foundation for users to deliver content 24/7 for both TV and Radio

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Rich Features & Cost-Effective

- Rich, fully automated graphics at a fraction of standard CG cost
- Fully automated workflows save money on manpower
- AE graphics provide the best looking graphics using an authoring tool that everybody loves and without dedicated h/w on every channel

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MULTI-Format & HD Enabled

- Real-time Up and Down converter
- SD, HD and 4K in a single license
- Aspect ratio converter
- SD HD and 4K back to back playout
- IP In/Out
- SDI In/Out
- NDI In/Out

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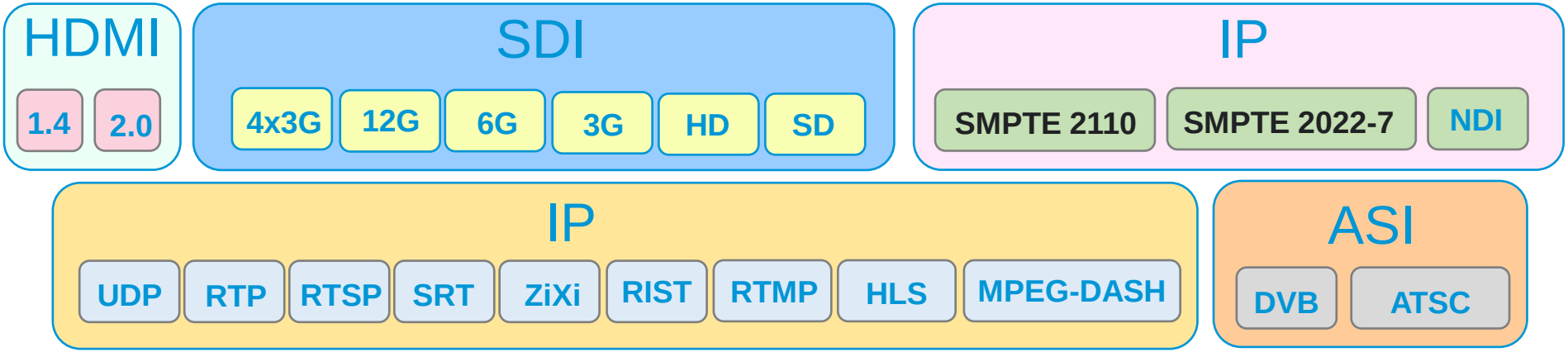
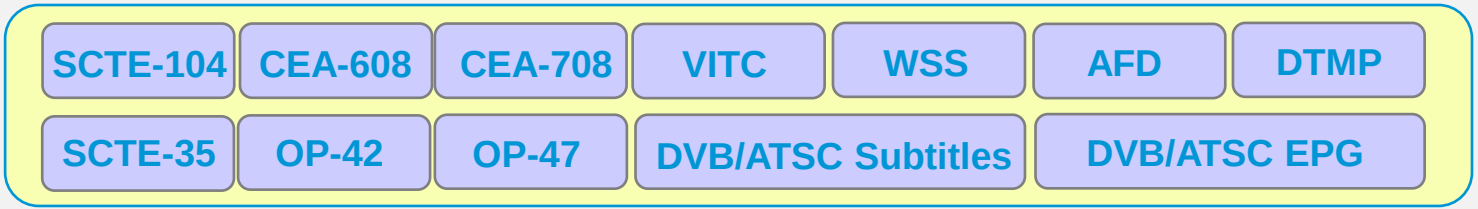
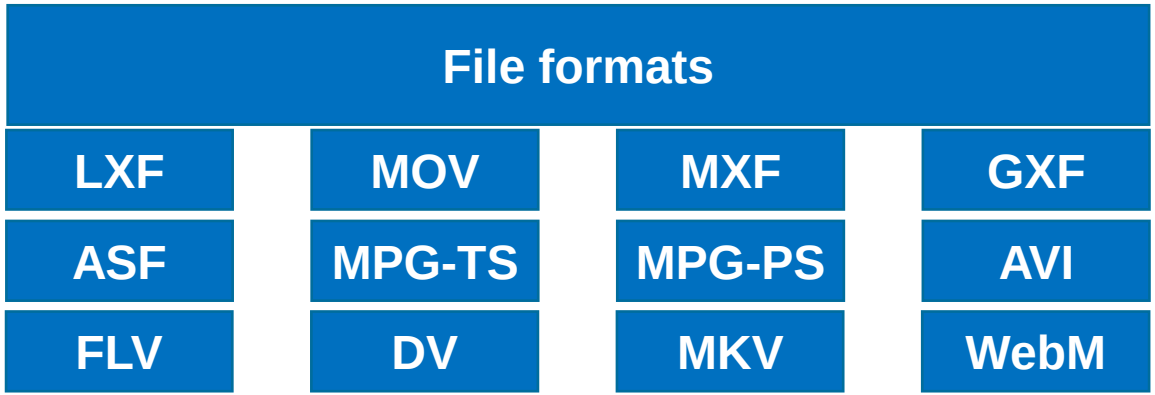
I/O Interface and Protocols for Media Data



I/O ANC Data and MPEG-2 Data Embedded



File Formats



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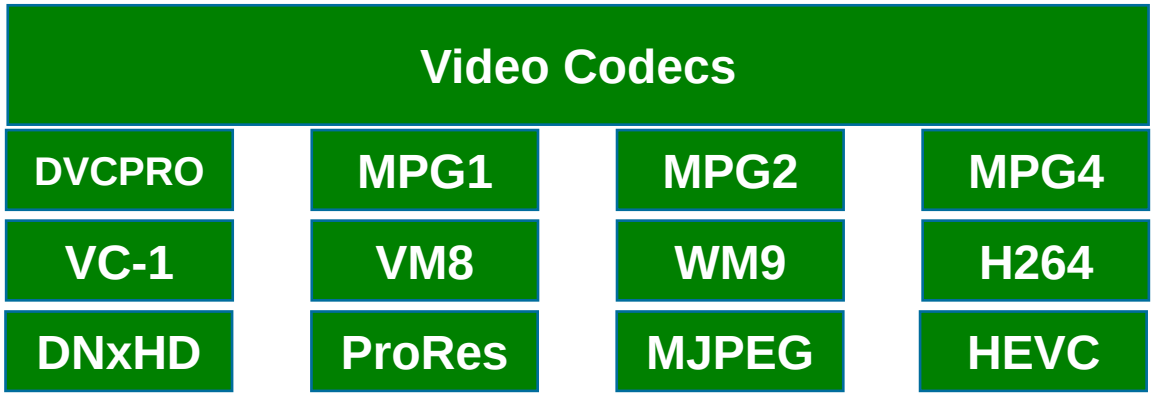
Video Codecs



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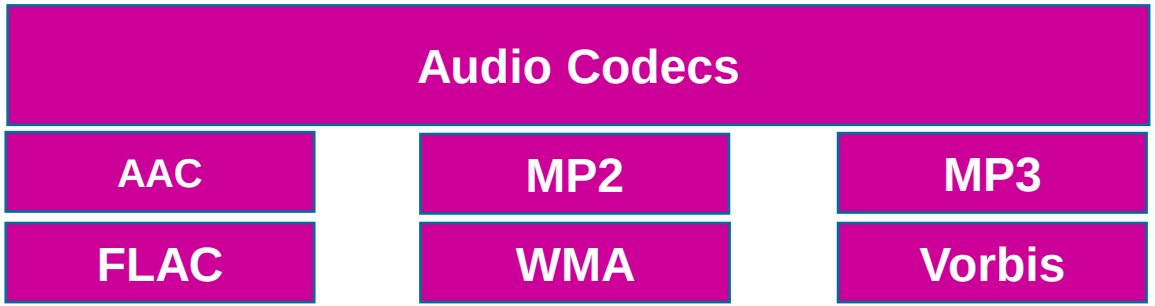
Audio Codecs



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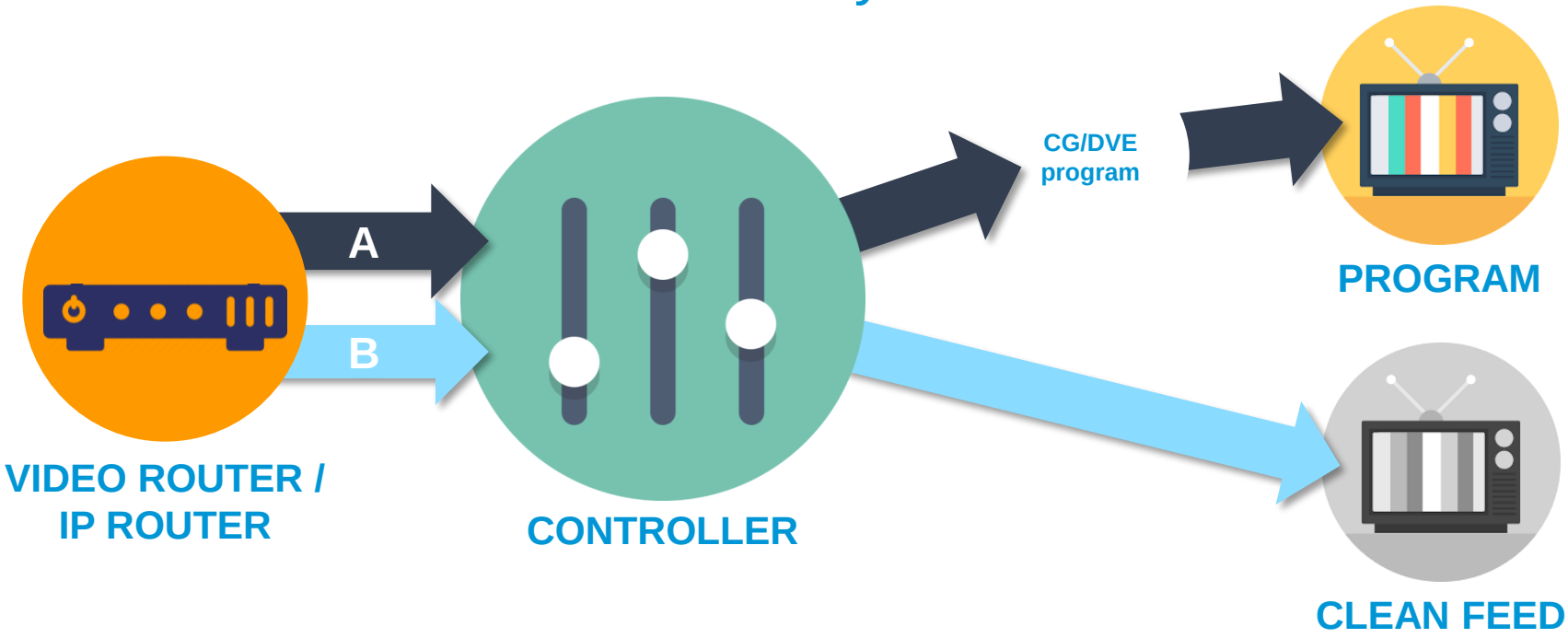
Etere Playout



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Etere Master Control Limited

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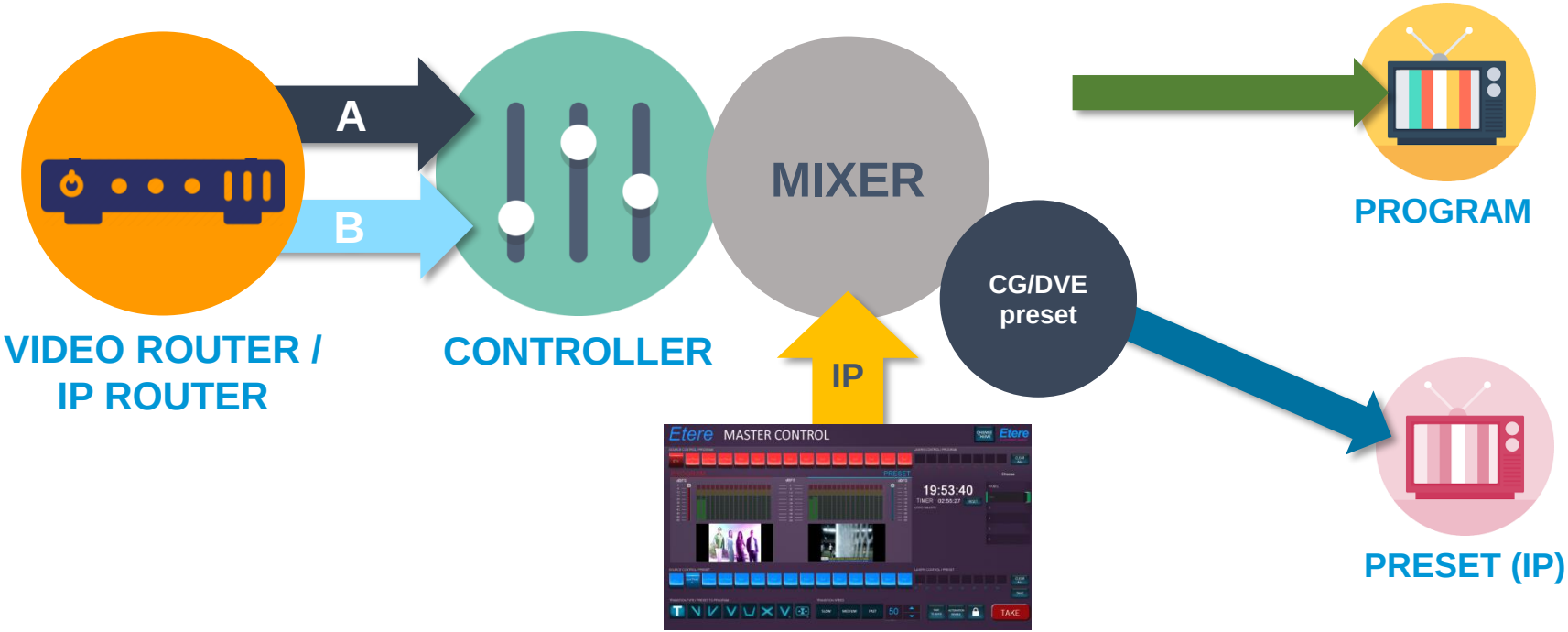
Etere Master Control Full



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ETX MC Panel

- Up to 6 TV channels managed from the same panel
- Audio output control for PGM and PST
- Configurable background colour
- Fastest response

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Features

- Program and preset bar
- Audio level set for every input
- Audio shuffle set for every input
- Selectable transition speed
- Up 8 layers of graphics on preset and program
- Automation off
- Supports Microservices
- Supports 64-bit

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Etere MASTER CONTROL

EXIT

CHANGE THEME

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SOURCE CONTROL / PROGRAM

ETX | Live input A | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned

PROGRAM

dBFS 0 -6 -12 -18 -24 -30 -36 -42 -48 -54 -60

PRESET

dBFS 0 -6 -12 -18 -24 -30 -36 -42 -48 -54 -60

LAYERS CONTROL / PROGRAM

01 02 03 04 05 06 07

CLEAR ALL

TAKE

23:00:13

TIMER 01:20:59

RESET

Choose

ETX1 - MAIN

ETX2 - CLONE

ETX3- MAIN

ETX3 - CLONE

5

6

LOGO GALLERY

LAYERS CONTROL / PRESET

01 02 03 04 05 06 07

CLEAR ALL

SOURCE CONTROL / PRESET

ETX | Live input A | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned | Not Assigned

SOURCE CONTROL / AUDIO

SOURCE CONTROL / OPTIONS

TRANSITION TYPE / PRESET TO PROGRAM

TRANSITION SPEED

SLOW | MEDIUM | FAST | 50

FADE TO BLACK

AUTOMATION DISABLE

TAKE

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IP Ready

- IP and SDI at the same time
- Multiple IP streams with different resolution and format
- Support standard RTP/RTSP protocols
- Multiple independent streaming servers

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Benefits of ETX with IP Outputs

- Allows you to better support multiple encode formats at output of facility
- Non-proprietary IP infrastructure means less costly system
- Fully redundant systems
- Simpler to implement

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Fully Integrated With High Service Quality

- Integration with ETX_M and Etere SNMP monitoring solutions increases operational efficiency:
- Enables scalability: Operators can monitor more channels
- Augments quality of service

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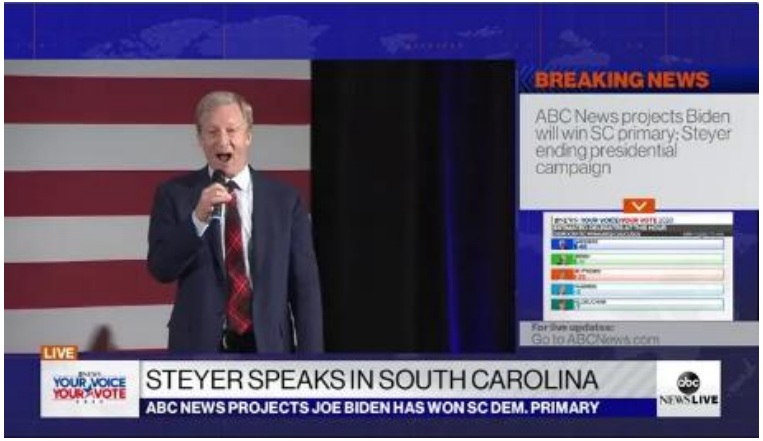
Picture-in-Picture (PIP) Playout

- Empowers content creators with the tool-set to insert live video streams and images over a video broadcast
- Deliver live newsroom content with multi-camera coverage streams on a single screen
- Customisable and configurable settings, including the size and position of the video streams
- Manage interactive programs with multiple integrations of live-streaming elements, including text, video, and images
- Live streams can be programmed with audio and video transition times or have the audio on mute during streaming
- Seamless integration with Etere Executive Scheduling
- Manage advertisement insertions for live streams
- Quick selection of pre-configured layout templates
- SDI/IP/NDI support for live streaming



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Live and Closed Caption Insertion

- Insert multi-languages closed and live caption via ETX inserter
- Add captions in CEA 608, CEA 708, VANC for HD, line 21 (NTSC), and VBI (for SD) standards directly to Etere ETX
- Live subtitles are always in sync with the video
- Subtitles can be speech-to-text, typing or preload

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Etere Moves to IP/NDI

Planning a Broadcast System Without SDI

Why Move to IP Now?

- IP migration is increasingly a reality
- Aspen & AIMS are obsolete
- SMPTE 2110 is too FAR away to be a standard
- SMPTE 2110 is 3 times more expensive than SDI
- So the idea is to create a cheaper & more effective IP solution for playout/Media Asset Management
- Leverage the advantages of IP, lower your operating & maintenance costs NOW

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Benefits of IP/NDI

- Lower costs by up to 50%
- IP infrastructure is easier to build
- Easy to expand
- Easy to connect

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Etere for SDI over IP

- Requires only standard Gigabit network
- Does not require traditional SDI hardware, cables or other accessories
- Inexpensive and low TCO
- Open to the future, manages SD/HD/4K signals without any changes

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Etere is VM Compatible

- Uses Virtual Machine (VM) for any scope
- Only Multiviewer requires the SDI cards
- Virtual environment to manage your Media Asset Management, Ingest, Transcoding and Playout
- Cost savings of more than 50% in hardware & maintenance

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Network Device Interface (NDI)

- Etere is compatible with NDI technology since 2014
- NDI is a royalty-free standard by NewTek
- NDI can be a complete replacement of SDI
- Use standard Gigabit Network
- Fault tolerant

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NDI Bandwidth Samples

Example ETX with NDI video stream	Approximate Bandwidth Required
1 x UHDp60 video stream	250 Mbps
1 x UHDp30 video stream	200 Mbps
1 x 1080p60 video stream	125 Mbps
1 x 1080i60 video stream	100 Mbps
1 x 720p60 video stream	90 Mbps
1 x SD video stream	20 Mbps

Bandwidth Requirements:
The approximate bandwidth required per NDI video stream for common video resolutions and frame rates

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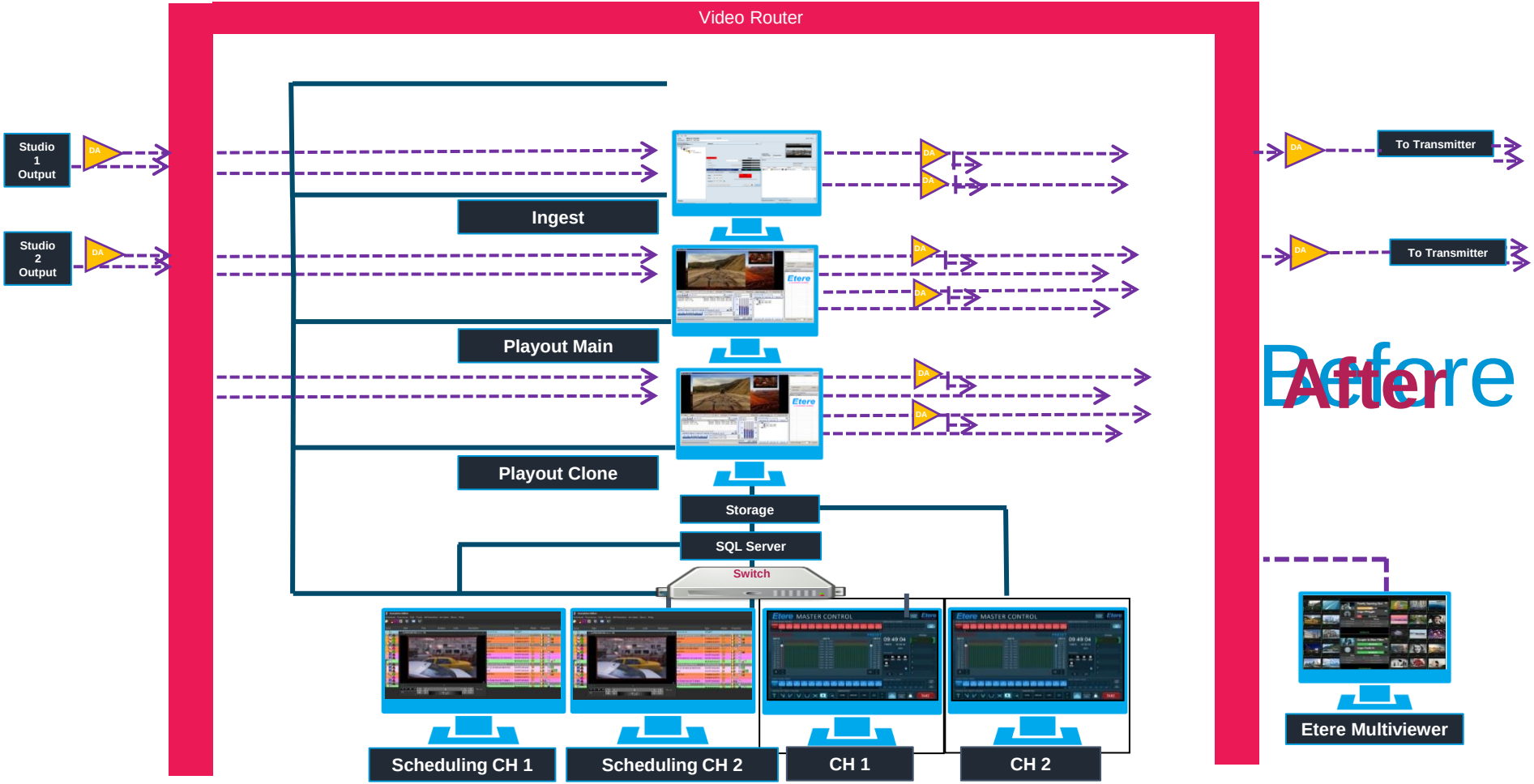
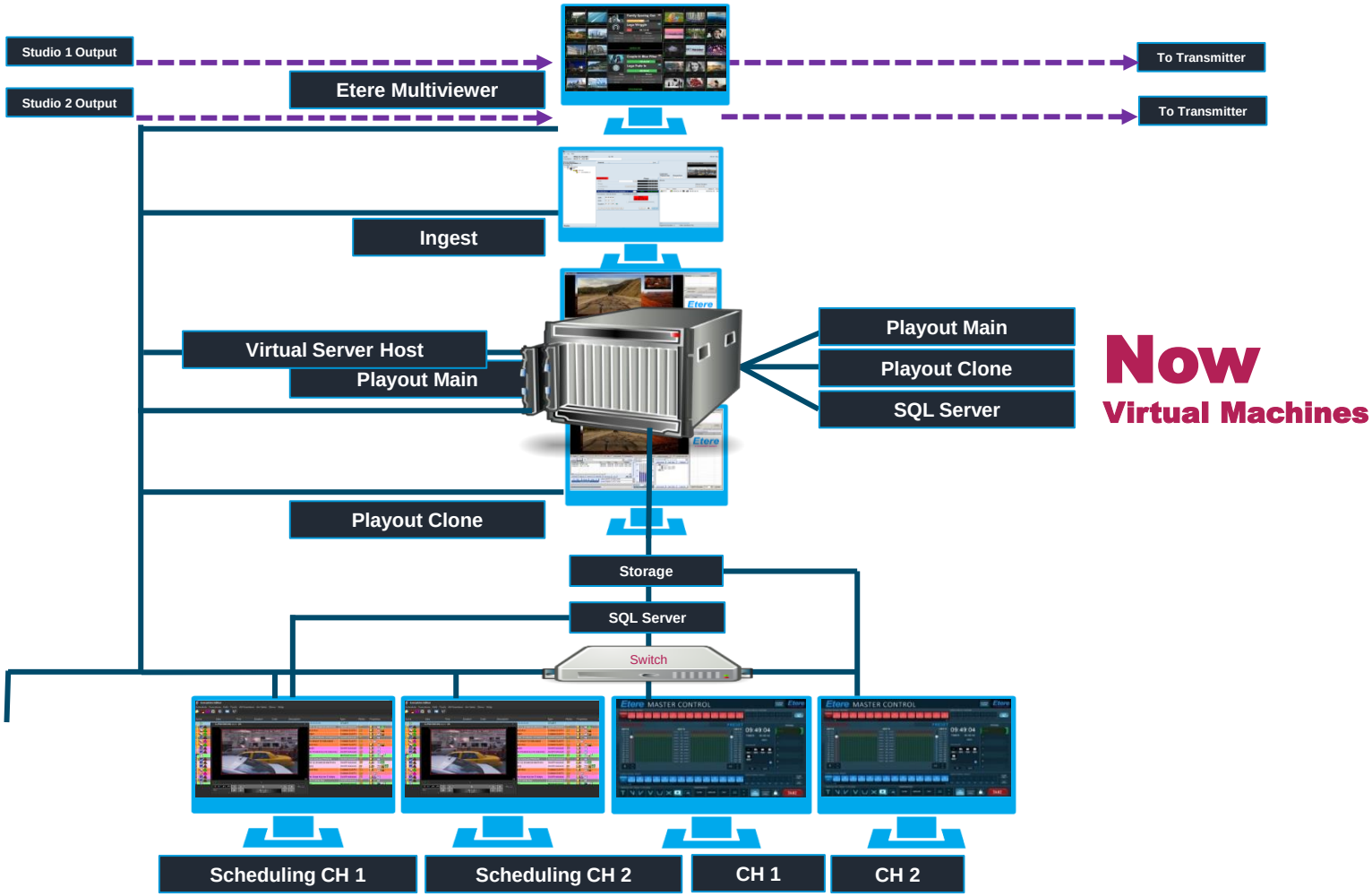

Video Router
Studio 1 Output
Studio 2 Output
DA
Ingest
Playout Main
Playout Clone
Storage
SQL Server
Switch
Etere
Etere MASTER CONTROL
Scheduling CH 1
Scheduling CH 2
CH 1
CH 2
To Transmitter
To Transmitter
Before
After
Etere Multiviewer


Studio 1 Output
Studio 2 Output
Etere Multiviewer
To Transmitter
To Transmitter
Ingest
Virtual Server Host
Playout Main
Playout Main
Playout Clone
SQL Server
Playout Clone
Storage
SQL Server
Switch
Scheduling CH 1
Scheduling CH 2
CH 1
CH 2
Now
Virtual Machines

Etere ETX-M

Multiviewer

Etere ETX-M Multiviewer

- Automatic email alerts
- Record simultaneously for live video & network video broadcast
- Compatible with ALL stream types including H.264
- Customizable buffering including low delay & user-defined speeds

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Etere ETX-M Multiviewer

- Manage multiple inputs of network & live video sources for simultaneous broadcast
- 4K resolution monitoring
- Up to 9 display monitors
- Up to 30 video streams in real-time
- Includes ETX Legacy Converter
- Notification alerts with detailed reports
- Customizable and color-coded alerts
- Manage IO sources -UDP/RTP/RTSP/RTMP/SRT/SDI/SMPTE 2110

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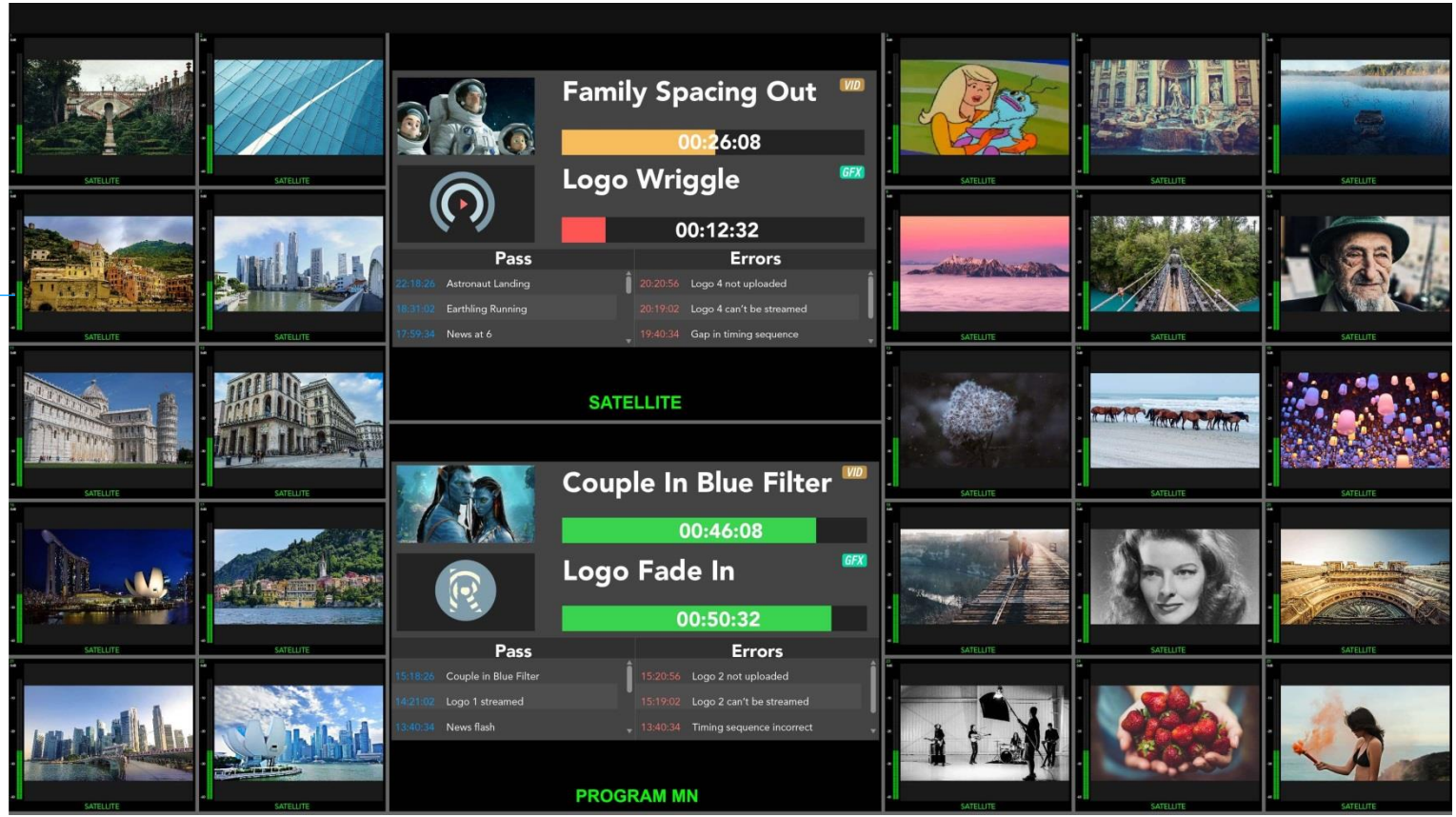
Loudness Control



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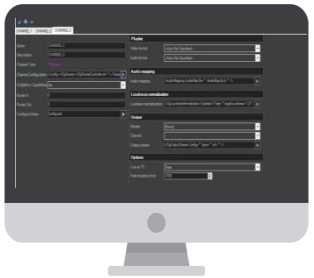
Improves Operational Efficiency

ETX M
MULTIVIEWER

ETX MASTER
CONTROL

Alarms, status and critical information shared across systems



ETERE
SYSTEMS

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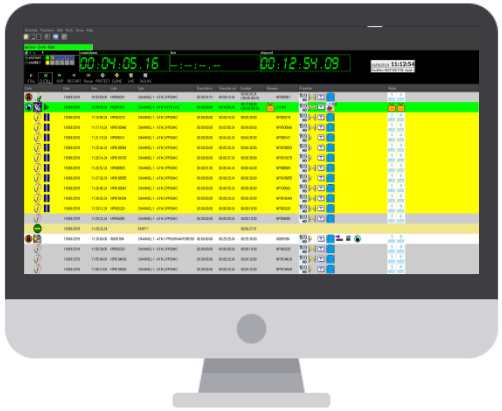
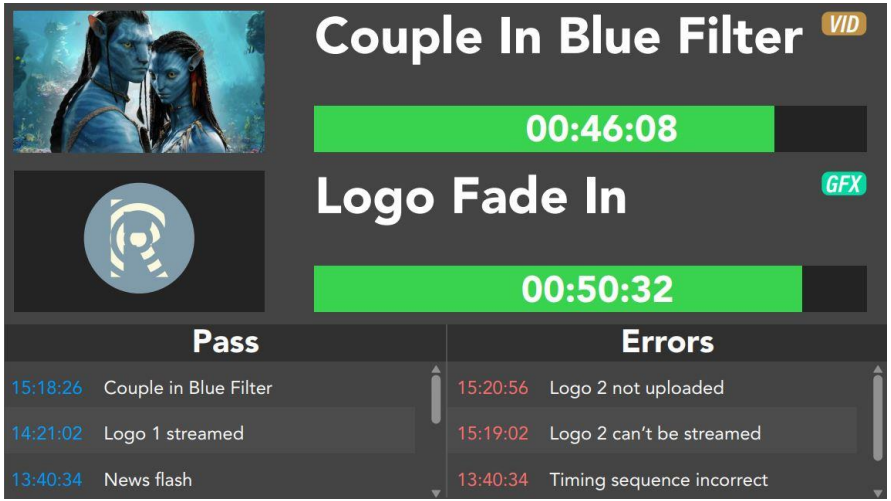
Integration



Missing Media Alerts

Next Event Soon Trigger

Clip Names and Countdowns



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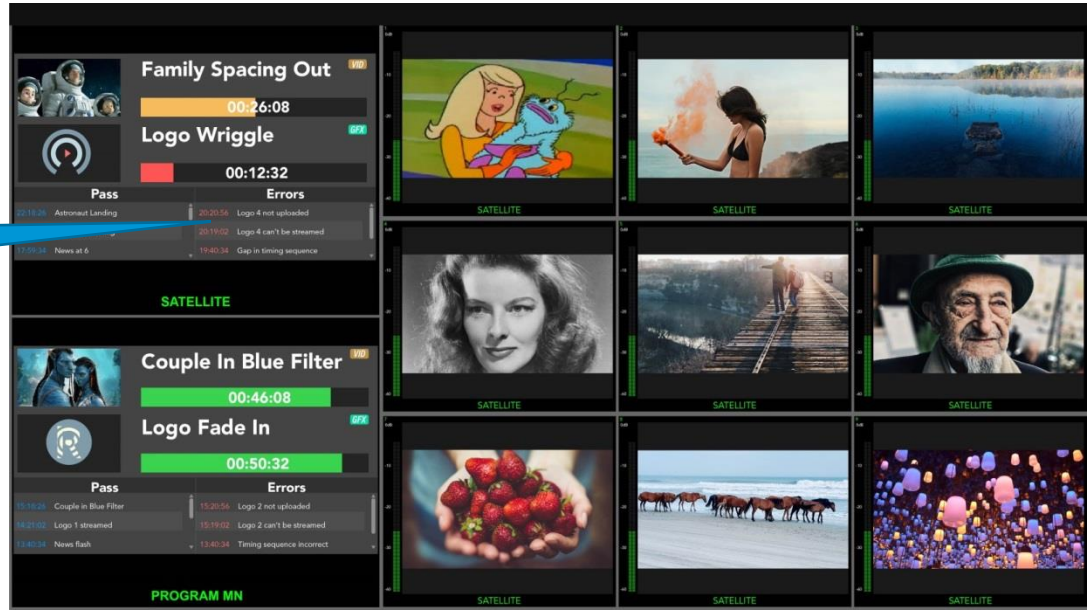
SNMP Monitoring



Alerts Generated on Multiviewer

SNMP Console

System tells SNMP

- **Cue Insertion**
- **Cue Extraction**
- **Cue survives compression**
- **Cue extracted by IRD**

Multi Time Zones Clock

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Etere ETX Time Delay

- Etere ETX Time Delay allows you to perform a delayed transmission while simultaneously ingesting media files
- Supports SDI, IP, NDI input and output to give you maximum flexibility to choose the system that best fits your needs
- Prevents bloopers, nudity, or other undesirable material from making it to air with live streaming
- Built-in configuration for delay duration and transition time
- Creates shortcut paths that will auto-start the ingest or playout immediately after launch

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Etere ETX Time Delay

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Etere ETX Legacy Converter

- ETX Legacy Converter
- Converts SDI in & SDI out in NDI streams
- Converts IP in out to NDI streams
- Uses UDP/RTP/RTSP/RTMP
- It can easily manage 20+ channels, limited only by the Network interface speed
- Software can be embedded in ETX-M IP Multiviewer to limit connection & bandwidth

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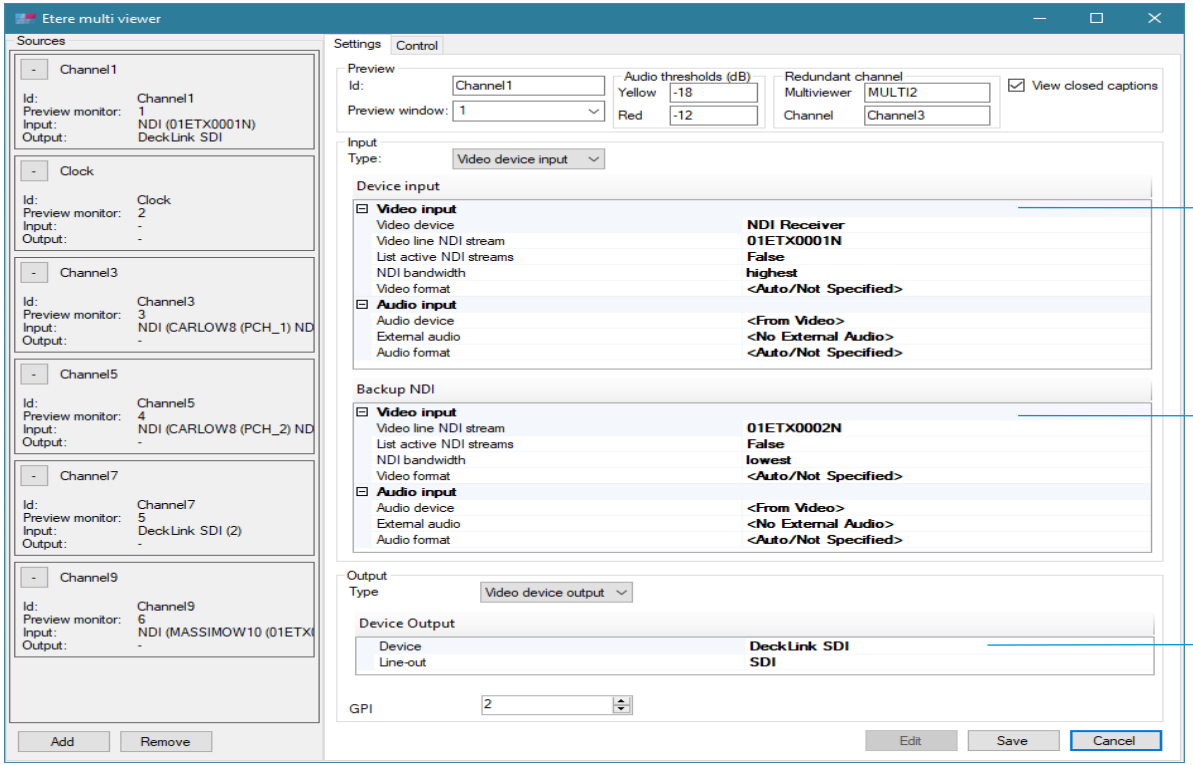
ETX Legacy Converter



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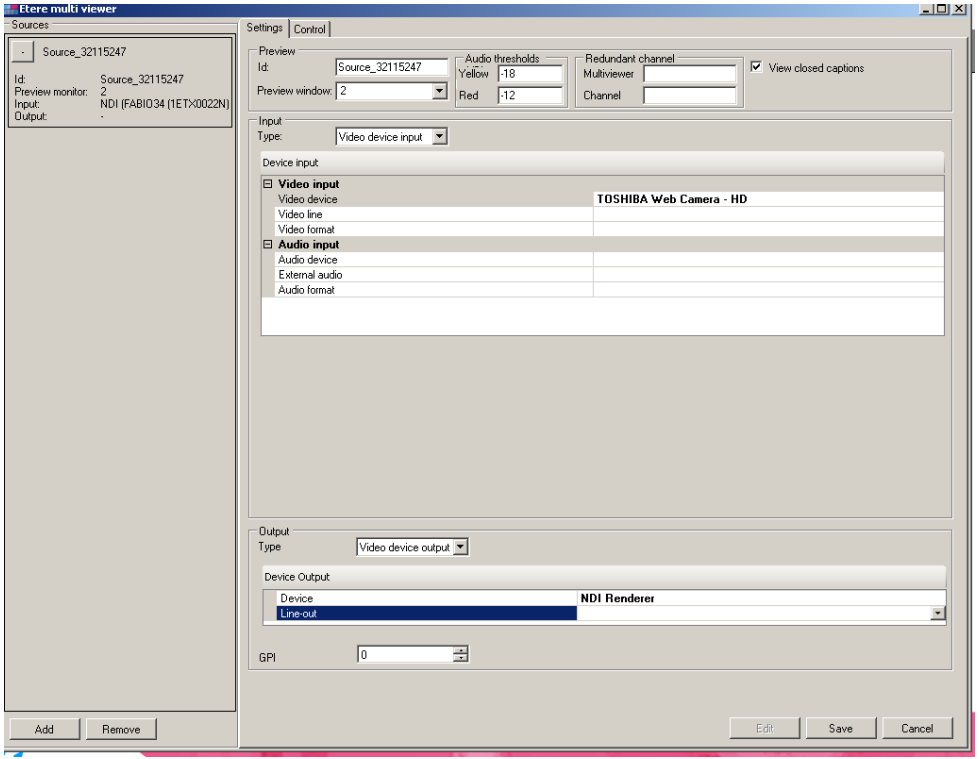
Legacy from SDI to NDI



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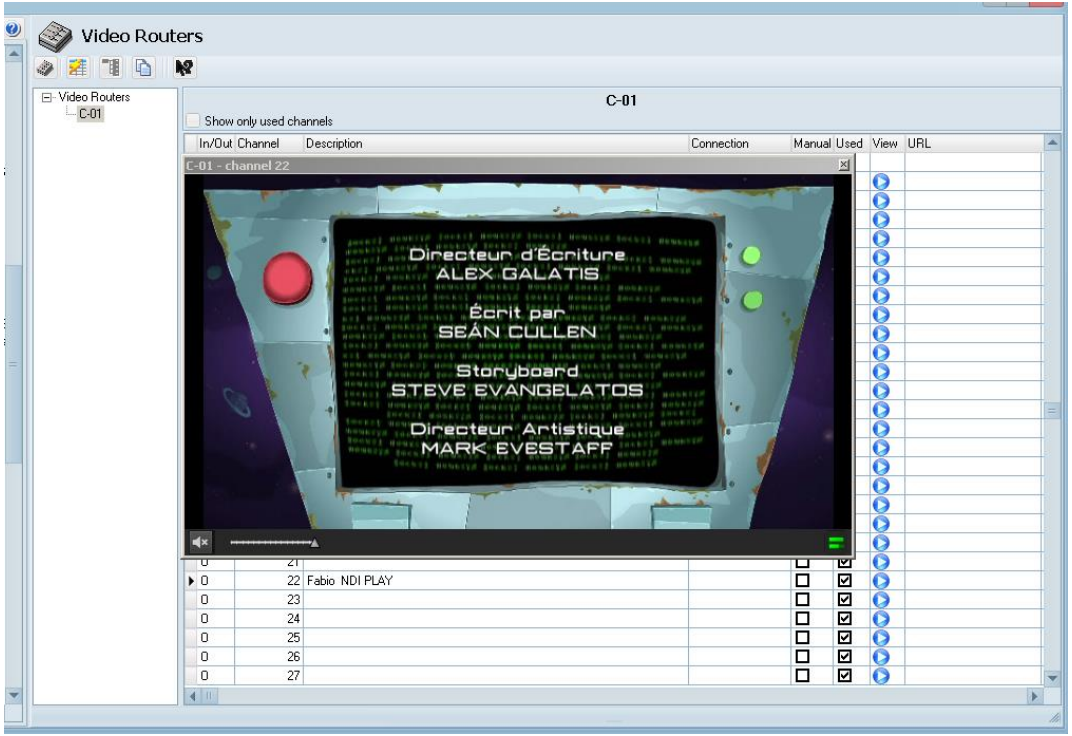
Router Monitoring



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Etere IP Bandwidth and Compatibility

- Manage multiple inputs & outputs ports
- Bandwidth consumption is only limited by the sources in use
- IP data packets are automatically processed, sorted & delivered
- Point-to-point IP connection with failovers
- Automatic re-connections

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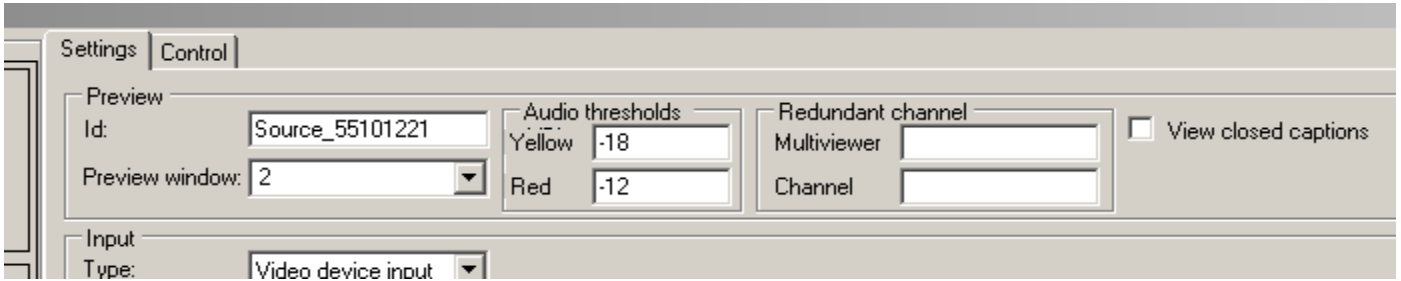
Redundancy and Other Settings

- Etere ETX-M IP Multiviewer allows a main and BKP process
- To have an output in any case
- Closed caption preview is inserted automatically
- Audio custom loudness level for alert



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www.etere.com

Thank you