

# **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



### **ETX**



- ETX base allows insertion of all the standard channel graphics
  - Fixed logo Up to 8 layers
  - Animated logo Up to 8 layers
  - Crawls
- Graphics can be imported in any format using Etere interface & distributed to any Playout using Etere Media Manager
- A low-res copy is generated for preview
- Graphics are stored on hard drive so unlimited space
- Live signal can be pass-through to insert graphics

## **Benefits of ETX Solution**



- ETX boasts great 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

#### Keep A High Audience with Low Costs



- 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





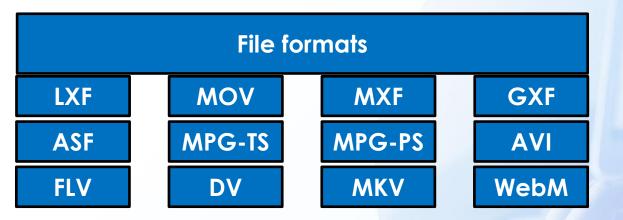
## **MULTI-Format & HD Enabled**



- 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

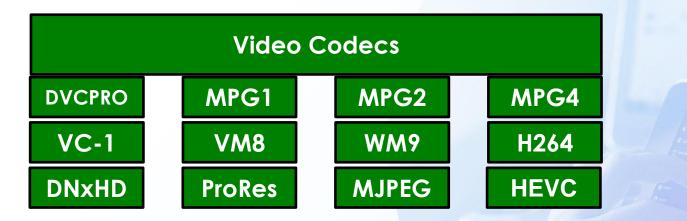
#### **File Formats**





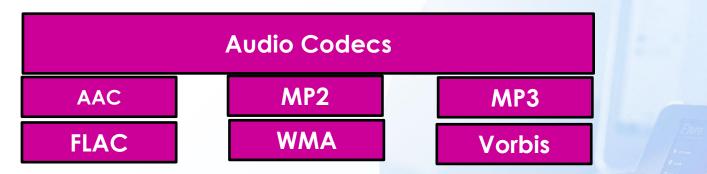
#### **Video Codecs**

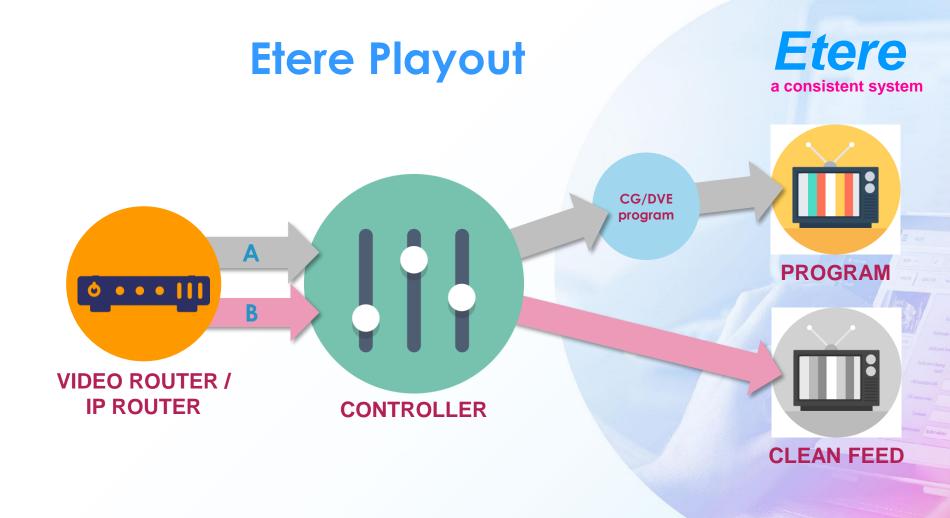




#### **Audio Codecs**

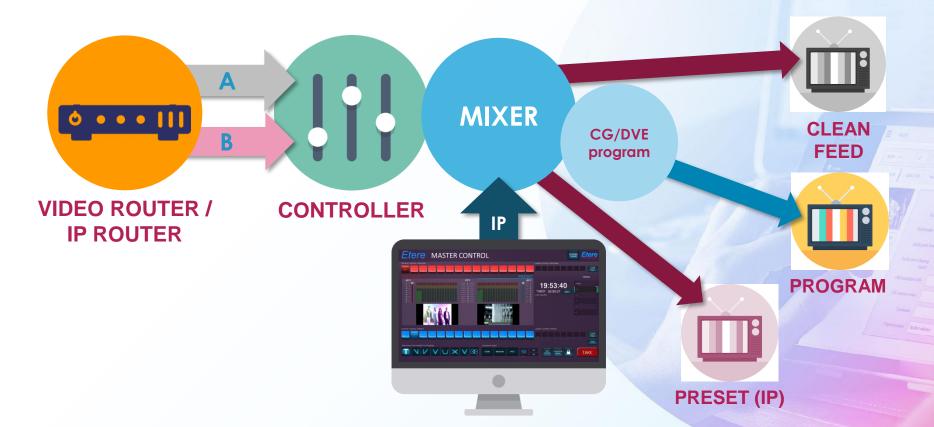






#### **Etere Master Control Limited**







### **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



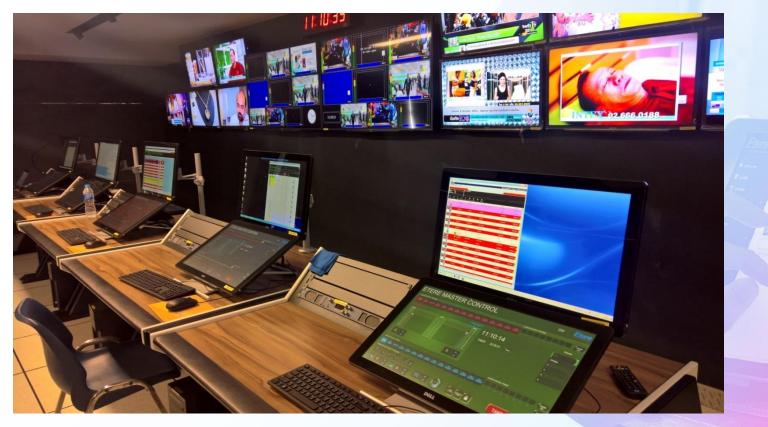
#### **Features**



- 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







#### Etere a consistent system

# LAVERS CONTROL/PROGRAM LAVERS CONTROL/PROGRAM Model Marcol Marc

**Etere** MASTER CONTROL

dBFS

SOURCE CONTROL/PROGRAM

dBFS

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## **Etere**

#### a consistent system





**Etere** 

CHANGE THEME

#### **Etere** MASTER CONTROL







#### **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

## **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



#### **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





## **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 dead
- 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

## **Benefits of IP/NDI**

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



### **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

## **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

## 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



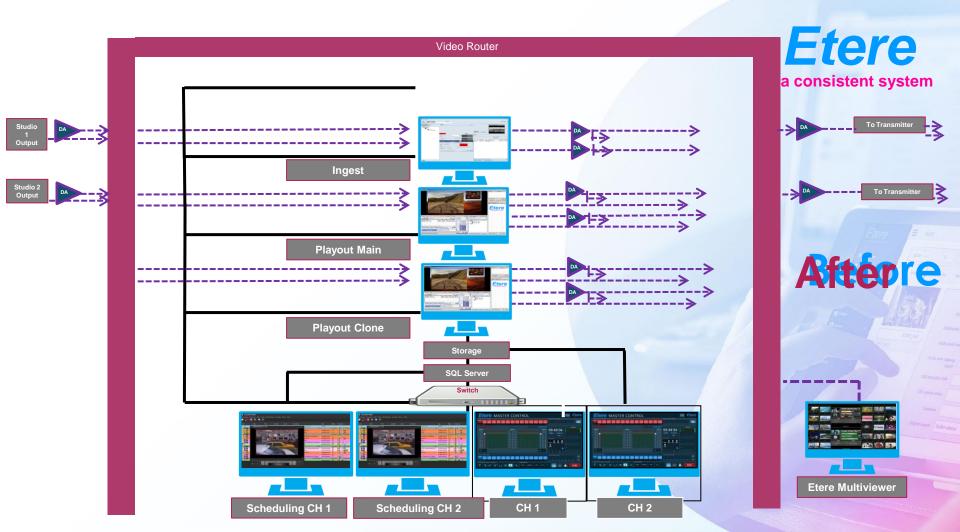
## **NDI Bandwidth Samples**

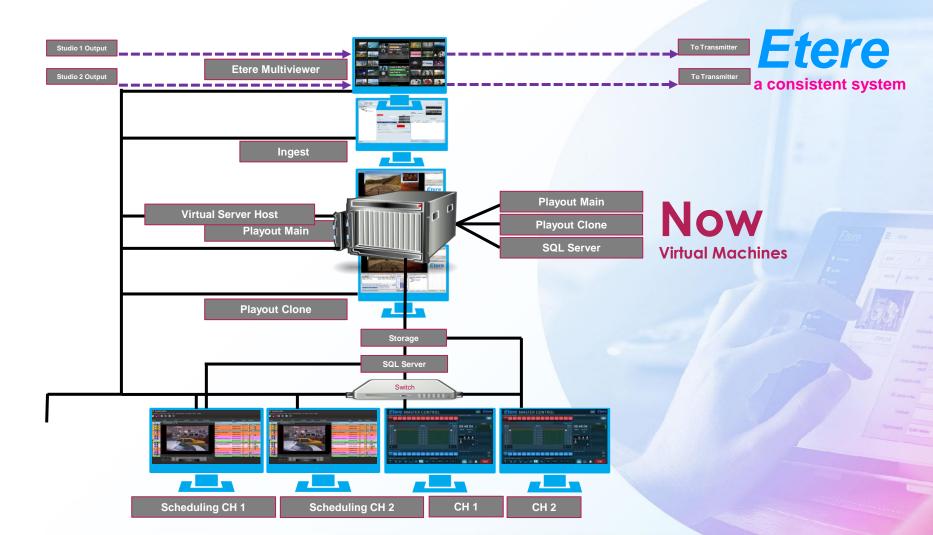


Example ETX with NDI video stream	Approximate Bandwidth Required
1 x UHDp60 video stream	250 Mbps
1 x UHDp30 video stream	200 Mbps
1 x 1080p60 video stream	125 Mbps
1 x 1080i60 video stream	100 Mbps
1 x 720p60 video stream	90 Mbps
1 x SD video stream	20 Mbps

Bandwidth Requirements:

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







## 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
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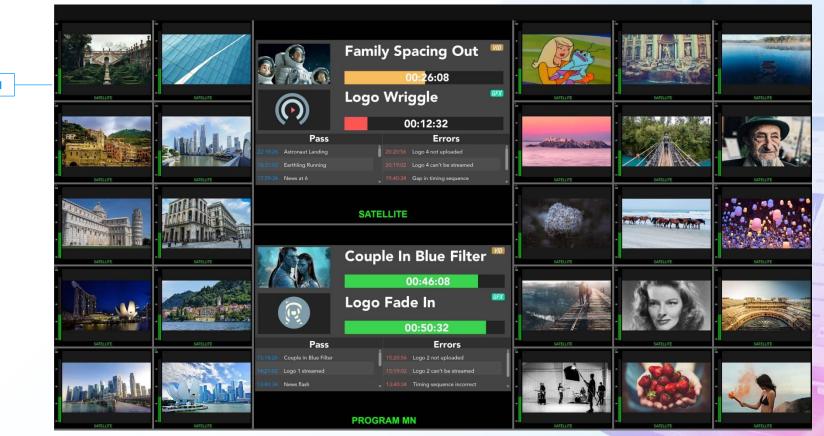


### **Etere ETX-M Multiviewer**



- 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

Etere a consistent system



**Loudness Control** 

#### **Improves Operational Efficiency**



#### ETX M MULTIVIEWER



ETX MASTER CONTROL



Alarms, status and critical information shared across systems



#### ETERE SYSTEMS

#### Integration



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## **SNMP** Monitoring





#### **Multi Time Zones Clock**



# 11:31:55 Monday, 25 September 2017 03:31:55 Monday, 25 September 2017

## **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

#### **ETX Legacy Converter**



📰 Etere multi viewer	– 🗆 X	
Sources	Settings Control	
Channel1  Id: Channel1  Preview monitor: 1  Input: NDI (01ETX0001N)  Output: DeckLink SDI	Preview  Channel1  Audio thresholds (dB)  Redundant channel    Id:  Channel1  Yellow  18    Preview window:  1  Red  -12    Input  Channel3  Channel3	
- Clock Id: Clock	Type: Video device input ~ Device input	Main
Preview monitor: 2 Input: - Output: -	Video input  NDI Receiver    Video device  NDI Receiver    Video line NDI stream  01ETX0001N    List active NDI streams  False	Main
Channel3  Id: Channel3  Preview monitor: 3  Input: NDI (CARLOW8 (PCH_1) ND  Output: -	NDI bandwidth  highest    Video format <auto not="" specified="">    Image: Autio input  Image: Auto auto auto auto auto auto auto auto a</auto>	
Channel5  Id: Channel5  Preview monitor: 4  Input: NDI (CARLOW8 (PCH_2) ND  Output:	Backup NDI	Backup
Channel7  Id: Channel7  Preview monitor: 5  Input: DeckLink SDI (2)  Output: -	NDI bandwidth  lowest    Video format <auto not="" specified="">    Audio input     Audio device  <from video="">    External audio  <no audio="" external="">    Audio format  <auto not="" specified=""></auto></no></from></auto>	
Channel9  Id: Channel9  Preview monitor: 6  Input: NDI (MASSIMOW10 (01ETX)  Output: -	Output Type Video device output ✓ Device Output Device DeckLink SDI Line-out SDI	Output
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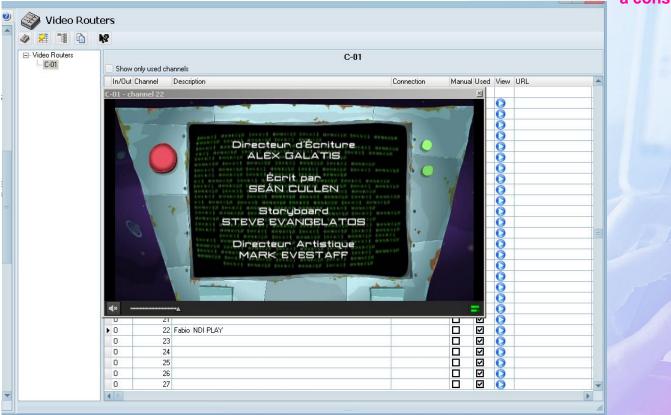
## Legacy from SDI to NDI



Etere multi viewer	
	Settings Control
Source_32115247        Id:      Source_32115247        Preview monitor:      2        Input:      NDI (FABI034 (1ETX0022N))	Preview      Source_32115247      Audio thresholds      Redundant channel        Id:      Source_32115247      Yelliow      18      Multiviewer      Multiviewer      Channel        Preview window:      2      Red      12      Channel      Channel      Channel
Output:	Input Type: Video device input
	Device input
	Video input    Video ine    Video Ine    Video format    Audio device    External audio    Audio format
	Output    Type    Video device output    Device Output    Device output
	GPI 0
Add Remove	Edit. Save Cancel

#### **Router Monitoring**





#### 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

### 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

_	Settings Control						
	Preview Id: Preview window:	Source_55101221	•	Audio Yellow Red	thresholds	Redundant channel View closed caption	ns
	Input Type:	Video device input	•				-2