

# CORIOmaster

Streaming Media & 4K Playback Module





# CORIOmaster — Creating Memorable Video Experiences



CORIOmaster is the industry's most versatile, cost effective and easy-to-use stand-alone video processor for the creation of high impact, tailored video experiences.

With CORIOmaster, you can easily implement streaming media and local playback mixed with traditional video sources all within one chassis.

## Traditional AV

Simple, secure, direct connect using proven connections and formats.

Modularity, HDMI, DVI-U and SDI connectivity with flexible hardware.

Combine with HDBaseT / proprietary AV extension or streaming encoders.

Future proofed using low latency, field upgradeable FPGA architecture.

## Streaming media enabled AV

Uses generic IT networking for super-flexible solution models.

Use existing cabling and commercial off-the-shelf (COTS) hardware.

Easily reach anywhere in your network or even globally.

Fully future proofed for new formats, resolutions and encoders.

CORIOmaster can accommodate numerous I/O configurations in the 16 universal video slots available; when inserted, the modules are automatically recognized & configured. This flexibility allows end user configurations to be based on their own needs.



## Streaming media with CORIOmaster

Streaming video has quickly become a vital communication tool, making it easy for businesses and organizations to engage viewers around the world to ensure messages are seen and absorbed through high quality clips and still images. Combining the power of streaming digital video with the vast reach of the Internet creates endless possibilities for directly delivering messages straight to viewers.

### CORIOmaster Advantages

- Connectivity** - using standard AV connectivity, streaming media or local media store.
- Flexibility** - modular solution that can integrate seamlessly with streaming technology.
- Reach** - Local, near local or global reach options.

CORIOmaster simplifies streaming with a solution that makes delivering high quality video to a worldwide audience both easy and affordable. These streaming capabilities open up a host of new horizons where signals can come locally from within your facility or from any location globally. With CORIOmaster, you can easily implement streaming media to seamlessly blend your media streams with local media and AV connections for a best-in-class hybrid solution.

Additionally, CORIOmaster's streaming media capabilities also allow the flexibility of streaming traditional AV signals, such as HDMI. Simply add a Magenta Encoder-100 and any signal can stream to the cloud. 3rd party streaming engines such as WOWZA add further flexibility for streaming to laptops, tablet computers and mobile phones.

## Edge-blend example:



## CORIOmaster Streaming Media & 4K Playback Module

The Streaming Module is a powerful addition to the CORIOmaster, CORIOmaster mini and CORIOmaster micro family that allows streaming inputs as well as playback of local media from internal storage or USB3.0 devices. The module is quite simply a game changer and adding this module opens up a world of new possibilities for your CORIOmaster deployments. Create simpler systems, eradicate wires, make powering-up really simple and ease your control pain by using a single device.

- Combine Streaming, File Playback and Still Images for each Video Channel
- 2 Video channels 4K/30 & HD or Dual HD Media playback
- Dual Channel HD streaming over IP
- 8K Still Image support



## The Perfect Partner gear for CORIOmaster

You don't need to be a networking expert. Our Magenta Encoder 100 is automatically discovered and easily configured with CORIOmaster.



- The perfect partner gear for CORIOmaster** - For super easy set ups, the CORIOgrapher software will automatically recognize your Magenta ENCODER-100, even if it is on a different subnet!
- Encoding Capability** - Up to full 1080p/60 and 1920 x 1200 video and audio using H.264 compression procamp control for changes to brightness, contrast, saturation and hue. Supports widescreen and standard aspect ratios at all standard resolutions.
- Remote System Management** - Feed remote locations with content from your CORIOmaster. Stream a CORIOmaster output to be able to monitor your systems remotely or view on your PC or mobile devices.

## CORIOgrapher Design and Control Software:

It's easy to make a complex IP control interface – our team of Interface Designers have worked tirelessly to make it a breeze to handle IP feeds using CORIOgrapher!

### IP Stream and Local Media Management

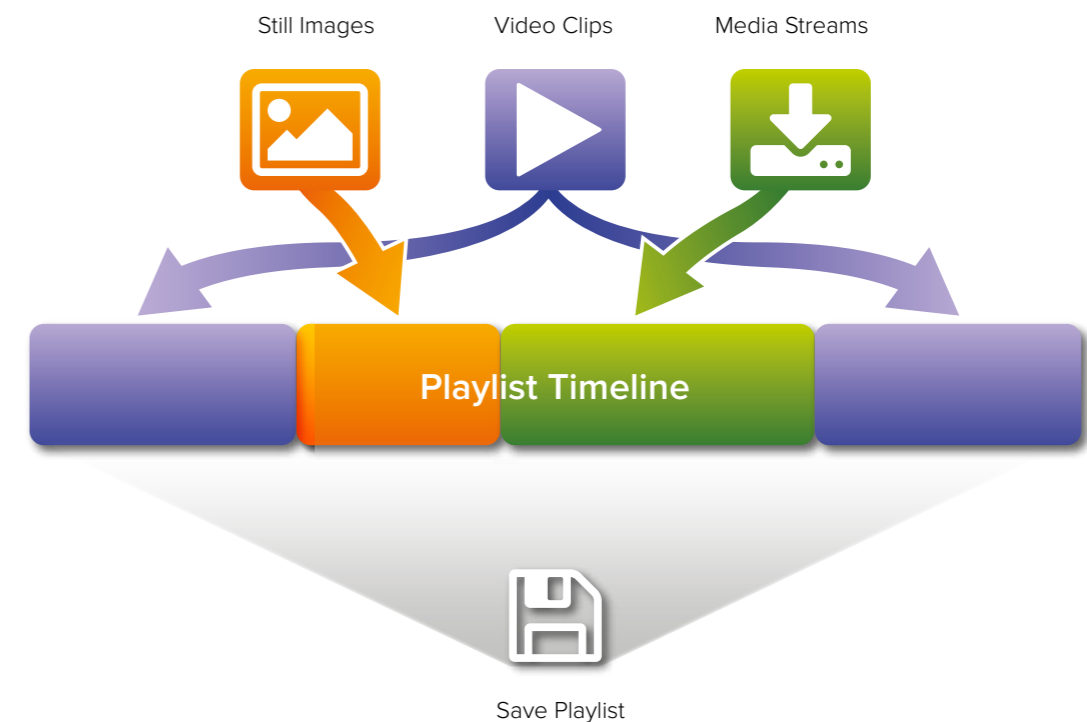
From CORIOgrapher, simply navigate to your media streams and if you are using a Magenta Encoder 100 – it will be automatically recognized!

In order to manage IP feeds of differing resolutions, you can set a master resolution for the playlist. All shown IP feeds and/or local clips and stills will be up/down/cross converted to a unified resolution using the high quality, award winning CORIO scaling engine. You can navigate to media stored on the streaming module and/or USB drive. Your media will be displayed in the CORIOgrapher browser either as an icon or a detailed text listing.



### Playback Control

Furthermore, more IP feeds and locally stored media can also be ordered in a playlist and then played out in a queue. You can even build your playlists in the background for later playback as a queue or even modify them on the fly during playback.





# Applications

## Retail

This eye catching video experience is a standalone CORIOmaster system that works without the need for any intervention – just power it up and it plays a queue of IP streams together with locally stored still and video clips – it couldn't be easier to set up, manage or control!

### CORIOmaster Advantages

- Integrated source, playlist and presets with eye catching transitions
- Simple to program & easy to manage remotely less hardware needed
- Smaller space requirements
- Quiet in use – approx. 46 dB (the same noise level as your office air conditioning)



## Control Room

Here we have a traffic control room fed with a hybrid of IP camera feeds and classic AV inputs which are displayed in multiple windows onto three UHD/4K displays using CORIOmaster.

### CORIOmaster Advantages

- Simple to set up IP feeds
- Easy orchestration of inputs for control wall set up
- Queues can be used to switch between IP feeds and locally stored still image and video material
- Presets give quick access to different video layouts
- Borders can be animated to highlight particular feeds



## Stadium

To the right is an example of a large LED wall at a stadium where we mix SDI broadcast cameras with video sources distributed via the network, creating a versatile and immersive experience.



## Higher Education

Education systems must be able to take feeds from anywhere in the building or even globally as well as allowing for local "bring-your-own-device" monitoring or contribution.

### CORIOmaster advantages

- Simple to set up IP feeds
- Easy orchestration of inputs for control wall set up
- Presets give quick access to different video layouts to highlight particular feeds
- Borders can be animated to highlight particular feeds



## Technical Specifications

### Magenta Encoder-100

Video Input:	HDMI w/ L-PCM audio
Resolutions:	up to 1920x1080p60, 1920x1200
Video Output (loop out):	HDMI w/ L-PCM audio, w/ optional scaling;
Preview mode:	HDMI & VGA
Resolutions:	up to 1920x1080p60, 1920x1200
Audio Support:	L-PCM audio via HDMI
Audio Line-In:	3.5mm analog stereo audio
Audio Line-Out (loop out):	3.5mm analog stereo audio
Network Connector:	RJ45
Compression Standard:	H.264/MPEG4 Part 10 (AVC)
Bit Rates:	100Kbps to 20Mbps
Power:	100-240V AC In, 5VDC Out, 15W DIN4 Locking power connector
<b>Environmental:</b>	
Operating Temperature:	0 to 45° C
Non-Operating:	-40 to 55° C
Operating Humidity:	20 to 80% (non-condensing)
Non-Operating Humidity:	5 to 95% (non-condensing)
MTBF:	135.05 years @ 40° C
Fanless:	(no moving parts)
Warranty:	2 years
<b>Product Item Number</b>	
ENCODER-100	Magenta Encoder 100



### Streaming Media & 4K Playback Module

AV over IP	
Interface	1 x GbE Ethernet Port
Video Decoding	H.264 (Main, High), MPEG4, H.265/HEVC <sup>1</sup> (Main)
Bit Rates	Up to 25Mbps per stream
Colour Depth	4:2:0, 4:2:2
Supported Resolutions	Configurable to 1920x1080p60
Unicast Streams	RTSP, RTMP, HTTP, MPEG-TS
Multicast Streams	RTSP, MPEG-TS
Control Interface	via CORIO grapher v2
<b>Media Handling</b>	
External	1 x USB 3.0 Interface
Supported devices	Flash file systems FAT, FAT32, ext3, ext4, NTFS
Internal	High speed storage up 128GB <sup>3</sup>
Remote	File transfer supported <sup>3</sup>
Maintenance	through CORIO grapher v2
<b>Media/Images</b>	
Interfaces	USB3.0, internal storage, network
Video Codecs	H.264 (CBP, Main, High), H.265/HEVC <sup>1</sup> (Main)
Video Formats	mp4, mov, mkv, m4v, ts, mts, m2ts, mt2
Playback Bit Rates	Single stream to 100Mbps, Dual Streams to 40Mbps
Still Image	JPEG, PNG, BMP
File Playback Resolutions Supported	
Up to 3480x2160 @ 30fps	Up to 1
Up to 1080p60@60fps	Up to 2
Up to 7680 x 4320	Still images <sup>2</sup>
Playback Interface	via CORIO grapher v2
<b>Product Item Numbers</b>	
CM-AVIP-IN-1USB-1ETH	Module with 16GB storage
CM-AVIP-IN-1USB-1ETH-128	Module with 128GB storage
C3-540	CORIO master
C3-510	CORIO master mini
C3-503	CORIO master micro
ENCODER-100	Single channel encoder

<sup>1</sup> Planned update via Firmware

<sup>2</sup> Images will be rendered to 4K

<sup>3</sup> Future Release

