YOUR IDEAL LECTURE CAPTURE APPLIANCE

Matrox® Monarch™ LCS

Simple to integrate. Easy to operate. Affordable.

IT administrators will find this reliable, standalone network appliance simple to set up and integrate into any open Video Management System (VMS) or Lecture Management System (LMS). Monarch LCS lets you easily define profiles for live streamed and recorded lectures by mixing camera and presentation material from SDI and HDMI sources. Once configured, this versatile H.264 encoding appliance can be operated by anyone at the push of a button. And it won't break your budget!

Variety of Operating Modes

Complex recording equipment is no longer required to effectively capture presentations in lecture halls. A typical setup would consist of video and audio of the presenter and a computer source with supporting material which can be mixed into a single webcast. The operator can select a number of operating modes that include layouts such as Picture-in-picture and Side-by-side. If the operator prefers to dynamically change the inputs throughout the lecture, the Monarch LCS also offers Switcher mode. With very little set up time, the Monarch LCS can be configured to capture and deliver content such as presentations and seminars in many appealing layouts.

Viewer Defined Layouts

Keep your audience fully engaged by putting the control in their hands. In Isolated mode, the appliance provides two independent video files or streams. This feature, when used with a compatible 3rd party player, enables the viewer to select their preferred layout. The synchronized streaming or recording of Monarch LCS' dual inputs are invaluable when such players are used. By aligning video inputs, the viewer can seamlessly switch to their preferred layout while maintaining perfectly synced audio and video.

Easy to Operate

Matrox Monarch LCS can be controlled and configured via the Monarch LCS Command Center using any device on the network that supports a standard web browsing application such as a tablet. The interface is designed for operator ease-of-use and features one-click operation to start encoding from anywhere within the user interface. A number of typical streaming and recording presets are provided that define all of the encoding parameters, including resolution and bitrate. Encoding parameters can be customized and combined with destination and operating mode settings and saved as a unique profile. If the device must be accessed by different users, profiles can be instantly recalled without having to re-enter data.

Simple to Integrate

Designed to work in network environments, Monarch LCS is a network appliance that facilitates a seamless integration into existing infrastructures managed by third party asset management solutions, such as OpenCast VMS and Moodle LMS software. In addition, the scheduler feature* supports open source iCal software such as Google calendar which allows you to create a schedule, export to an .ics file format, and easily import to the device. Schedules can be imported at any time and Monarch LCS can be configured to periodically retrieve schedules on your network.

Uncompromising Quality

Offering unprecedented quality, Monarch LCS can share up to 20 Mb/s of encoding capacity across its two H.264 encoding channels. Each independent channel has individual bitrate/quality settings and benefits from powerful scaling, deinterlacing, and noise reduction engines that ensure only pristine images are sent to the encoders. When the highest quality is required, each encoder can be set to encode at 1080p30 resolutions.

Set Your Destinations

This dual encoder offers multiple destination options when streaming or recording. When set to recording, an encoding channel captures content in MOV or MP4 files to ensure that video files can be played on virtually any player. Recordings can be stored on local USB drives, SD cards, or network-mapped drives and made available immediately to an LMS or VMS for distance learning. For streaming purposes, the encoders use either RTMP or RTSP protocol to deliver live streams to local media servers or cloud-based CDNs.

The scheduler feature will be available in a future release of Monarch LCS.

Flexible Inputs

Monarch LCS can support productions with two HDMI video sources or one SDI and one HDMI video source. Embedded or analog audio can be selected as the audio source. By supporting video camera signals that are either SDI or HDMI, this lecture recorder gives operators the flexibility to select what is best for that installation. SDI signals can travel more than 300 feet (100 meters) over coaxial cable, which is ideal if the camera is mounted a long distance from the encoder. When cable lengths are not an issue, HDMI cameras may prove the most affordable option, particularly in larger installations.

Frame Synchronization Between Inputs

The ultimate lecture viewing experience can only be guaranteed when computer, video and audio content is synchronized before encoding. However, computer and video feeds rarely share the same resolutions and frame rates. The Monarch LCS accepts these different feeds and synchronizes them before encoding, delivering perfectly timed video and audio, regardless of the operating mode. Built-in frame syncs also correct any signal discontinuity at either input, ensuring uninterrupted streaming and recording operations.

Live Production Preview Output

Both SDI and HDMI outputs are active and can be mapped to either inputs, a useful feature for driving in-house projections. The HDMI output also gives the operator the option of selecting the production output at the frame size of the encoding parameters, enabling them to preview content that will be sent to the remote viewer.

Remotely Manage Your Device

The Matrox Utils application allows operators to remotely scan and find all Monarch LCS devices present on their network. The Utils application will also scan the attached Monarch LCS and notify the operator if the unit is up to date with its installed firmware version and will also update the device automatically to ensure that it has the latest software release. The Matrox Utils Application can also be used to reboot Monarch LCS devices present on the network.

Versatile API for Your Environment

Contractors or in-house IT specialists can take advantage of Monarch LCS Dev Tools, which includes automatic configuration tools and the Monarch LCS Control API, to provide operators with a unified, consistent and branded experience. Individuals do not need to interact with the Monarch LCS Command Center web UI, simplifying enterprise-level and centrally administered deployments.

Control with Crestron

The Monarch LCS Control API is an ideal way to integrate Monarch LCS functionality into an existing classroom, boardroom or other space equipped with a Crestron control system. Monarch LCS registered users are invited to download a sample SIMPL module written to run on Crestron 2-Series® and 3-Series® Room Media Controllers.

Robust and Practical Design

Powerful and robust, Monarch LCS storage ports are located on the front of the device along with three simple one-touch buttons that offer an alternative to the Web based UI control. All connectors are located at the back, including the locking power connector, which ensures that Monarch LCS can just as easily be located on a desktop as in a rack. A 1RU tray can fit up to two units.

MATROX MONARCH LCS CONNECTIONS

Front View

Back View

1) Power LED
2) Input Selection Button
3) Switch Button
4) Start/Stop Encoder Button
5) USB Port 1
6) USB Port 2
7) SD Card Slot
8) Power Connector
9) Gigabit Ethernet Port
10) RS-232 Connector
11) HDMI Input B Connector (with embedded audio)
12) HDMI Output Connector (with embedded audio)
13) HDMI Input A Connector (with embedded audio)
14) SDI Output Connector (with embedded audio)
15) SDI Input A Connector (with embedded audio)
16) Analog Audio Output (stereo)
17) Analog Audio Input (stereo)

matrox®
Digital Video Solutions

Dual-Input Modes of Operation

Picture-in-picture mode
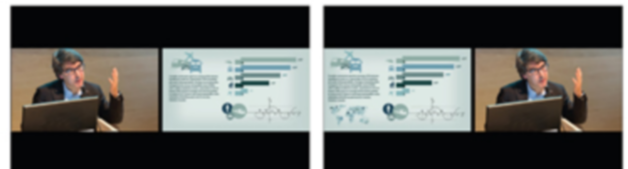
Video cropping not applied

Side-by-side mode
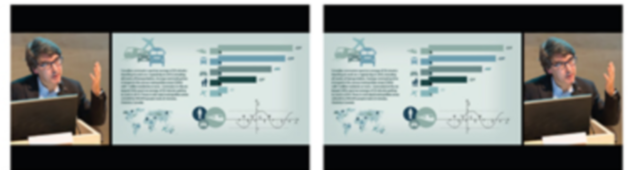
Video cropping enabled by preset

Dual isolated mode

Inputs sent to separate encoders

Switcher mode

Dynamically switch between inputs, selected input sent to encoder