



Euphonix MC Controller, System 5-MC Console

FIELD TEST

by [Barry Rudolph](#)

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The MC Media Application Controller and System 5-MC represent Euphonix's vision of the future of audio/video production control. That future is already here with the workstation operator confronted with modern media production's reliance on multiple computers, different operating systems and many different applications running concurrently to complete a masterwork. A project could require: Final Cut Pro for editing picture; a Pro Tools HD DAW for recording and assembling ADR and Foley stems; Logic Pro or Digital Performer for MIDI sequencing; and Nuendo 3 for editing and mixing the final surround sound master.



Both the MC and System 5-MC offer efficient, seamless and simultaneous control of multiple DAWs and video applications running on both MACs and PCs with full high resolution metering, EQ and pan graphical curve displays, and real-time plug-in and automation interactivity. Communication between computers/applications and the MC and System 5-MC is accomplished over only a single high-speed Ethernet network and Euphonix's EuCon protocol. Existing owners of System 5 P/F mixing consoles can upgrade with EuCon connectivity to any workstation by the end of the first quarter of 2006.

The high-speed EuCon control protocol is integrated into (so far) Steinberg's Nuendo 3.1 (or higher), Merging Technologies' Pyramix by way of their OASIS protocol and Digital Audio Denmark's product line including the

eight-channel AX24 mic pre-amp.

For non-EuCon applications such as Pro Tools, Logic Pro, Digital Performer and Final Cut Pro, the HUI, Mackie Control protocol (over Ethernet) along with keyboard macros for the MC's 56 SmartSwitches are used.

THE MIGHTY MC

The MC has a familiar look as it's also the center section of a System 5-MC mixing console. Perfect for project studios and post film/TV editorial use, the MC stands alone with its internal power supply, computer and hard drive. Software updates can be accomplished using a USB Flash drive or Internet download. Apart from a talkback audio output jack, power and a USB port, the only other external connection is the Ethernet connector. A flat-panel LCD screen monitors connected apps and computers. When you change applications, a DVI switcher adjusts the display to the appropriate software/computer.



The MC's layout is modular: Each section has a Setup button that immediately shows that section's status and configuration on a compact 1,024 X 768 touchscreen for directly programming the control surface. The screen shows each networked workstation's setup; file management; system setup, preferences, track selection and management; flip or the swapping of System 5-MC faders and knobs; and soft-key setup for function assign and keyboard assign to SmartSwitches. The

touchscreen also allows naming, storing, recalling and deleting Edit Control banks, soft-key banks, user sets and application sets. You can also set up preset layouts to control and assign tracks.

The MC offers four levels for controlling all apps and computers: a QWERTY keyboard, SmartSwitches for programmable keystrokes, HUI and Mackie Control command protocol over Ethernet and high-speed network control of EuCon-aware apps. The full-sized QWERTY keyboard is flanked on the left and right by two identical edit control modules each with identical, four-button Kensington jog wheel/trackball assemblies. Dual trackballs can be used or either ball swapped out for a jog wheel insert. Simply exchanging the trackball with a jog wheel accommodates both left and right-handed operators--right-handed people usually have the jog wheel on the left and the trackball on the right.

SMARTSWITCHES

MC's open architecture allows you to program or map any DAW commands assigned to keystrokes in their respective application programs to any of the SmartSwitches. You can assign any keystroke command to any SmartSwitch, including transport controls.

Each SmartSwitch button has a backlit LCD window with the name and/or designated icon describing its function. You can control the window's color, font size and style, or develop your own icon library in any bit-mapping application. Each control module is augmented by 16 SmartSwitches--10 directly above the jog wheel

or trackball inserts and six more to either side. I found that this simple-to-learn, intuitive arrangement was also easy on my carpal tunnels.

An efficient and basic setup (which comes with the MC) for right-handed person would be: on the left side would be the jog wheel and the 16 SmartSwitches programmed and associated with jogging and editing commands such as zoom, grid size, fade in/out, slip etc. Then on the trackball right side the 16 switches would be programmed with transport and locate commands like play, return to zero, go to locate position etc.

Six more banks of 24 SmartSwitches above the keyboard are used for all other key commands. Each bank can also have a sub-bank for nearly limitless functionality. You can map any of these switches and store them in Application sets. Also, any switch can be "locked" so that it always performs the same function no matter which application is onscreen. This locking feature is ideal for a EuCon-controlled DAW's transport controls.

The MC comes with a large number of pre-built Application sets. (Download more at www.euphonix.com.) You can modify these and re-save them as your own personal set that travels with you; they can be stored externally to a USB Flash drive.

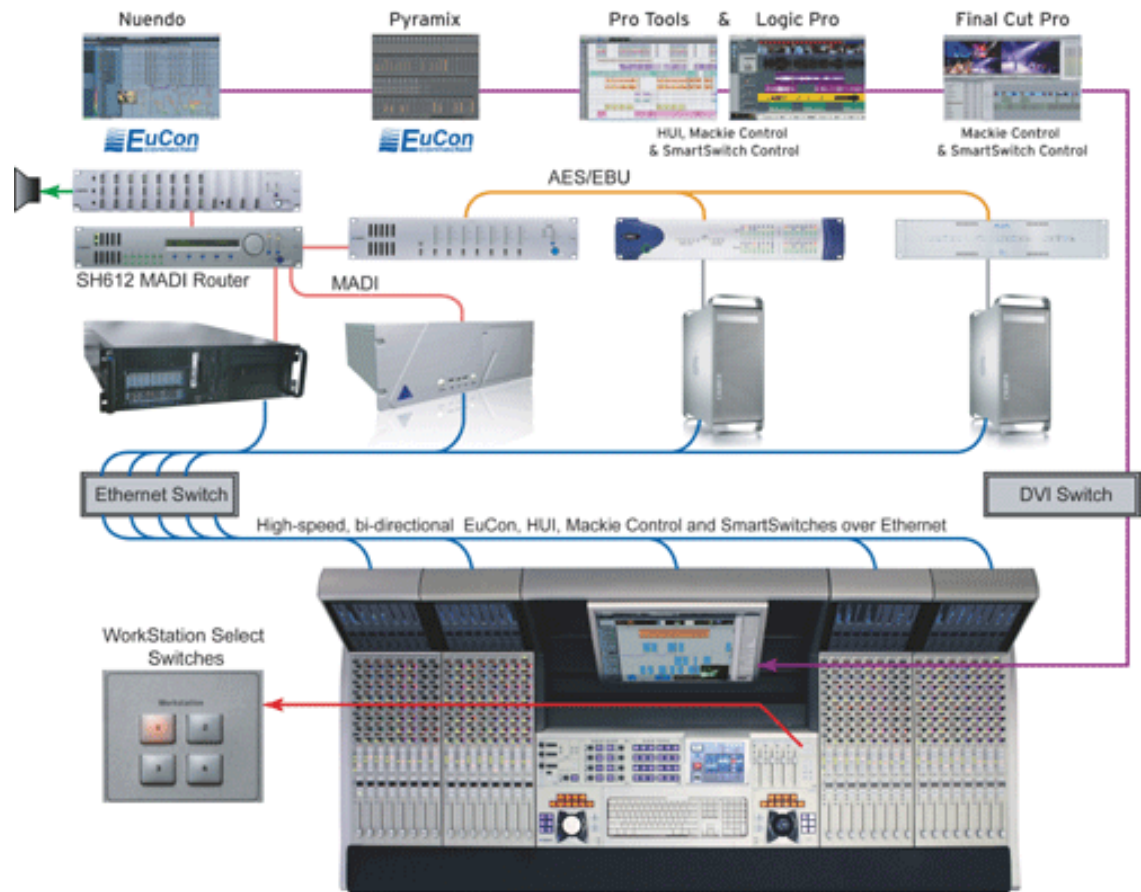
HUI AND MACKIE CONTROL

To the left of the six banks of 24 SmartSwitches are a set of eight shaft encoders (called Soft Knobs) each with lighted buttons and eight SmartSwitches. The only knobs on the MC, these are for control of EuCon-enabled applications--mainly to adjust plug-ins, aux sends, mix groups, routing and inserts. These knobs can also be mapped for HUI and Mackie control protocol. This protocol allows control over fader level, touch sensing, pan, aux send control, solo, plug-in selection, parameter control, record arm, automation from the System 5's channel strips and faders.

EUCON PROTOCOL

The EuCon protocol is a fast, high-resolution, powerful technology that can boost the speed and creative quality of your workflow. When connected to a EuCon-enabled app, control becomes total and complete. There is continual, high-speed, bi-directional communication from the surface to the application with no latency or feeling of detachment. Using this system for mixing was my best experience yet with a DAW controller. The controller's instant, glitch-free response allowed me the freedom of a totally musical approach with my mixing fader gestures, without thinking about or compensating for the system.

The high-speed connection allows for real-time, high-resolution, multiformat metering and for both pan and EQ graphical displays on the System 5-MC's 1,024 X 768 TFT channel screens. Furthermore, the edit/jog/shuttle wheel can be used for real-time trim head/tail, fade head/tail, position, zooming, clip gain, slip and more. Full live adjustment (with no latency) of your favorite plugins inserted into channel strips is also a reality.



The MC stand-alone has a section fitted with four assignable faders that are identical to those on the System 5-MC. These faders control track levels in both EuCon and HUI applications. Just as in the System 5-MC, there are Solo, Mute, Select, Record keys and read/write automation switches. LED meters indicate input level to that fader. Nudge and Bank buttons move these four faders down the tracks in your session. All track faders have the Euphonix Wave key--a button with the Euphonix logo on it. When pushed, it causes that track to become "in focus"--in the center of the LCD screen with all applicable editing SmartSwitches and touch screen ready for your input.

STUDIO MONITOR PRO

Comprehensive monitor routing and control are handled by Studio Monitor Pro software, which resides in the DAW's application or in a secondary, dedicated monitoring workstation, and controls audio routing between apps that support ASIO or Core Audio hardware and the actual hardware I/O boxes. Its interface module is located on the MC's surface; use the touchscreen to set control room sources and listen to external audio inputs without starting up any DAW apps. There is provision for a talkback mic and multiple speaker outputs, comprising main, alt 1 in 5.1 and alt 2 in stereo, each with level, mute and dim. An upcoming Version 2 will offer 7.1 monitoring.

SYSTEM 5-MC

A System 5-MC mixing console would comprise at least one MC and any number of "bucket of eight" CM408T channel strip modules. Each CM408T has its own internal processing unit, is individually powered and communicates over a single Ethernet cable. On the System 5-MC, the section with four assignable faders on the MC is replaced with a module, with two fully automatable, motorized joystick panners.

A popular configuration is two CM408Ts on either side of the MC for a total of 32 channel strips. Frame width sizes are: 16 faders would be five feet, 32 faders runs seven feet, and 48 faders at nine feet. Other customized frame options are: angled sections, speaker shelves, script trays and a producer's tables with built-in monitors. In the System 5-MC's frame, space for up to a 30-inch flat panel (user's choice) DVI monitor is allowed and I like that the screen and Vesa mount are recessed down well below the sight line of the center-channel monitor speaker.

System 5-MC strips are compatible with existing standard System 5 consoles including moving faders, eight touch sensitive knobs and TFT displays. Cosmetic differences from System 5 include a higher resolution channel TFT and thinner knobs with LED display rings rather than the 'Fat' knobs used previously.

[Note: A new, hybrid option for the standard range of System 5 consoles will be introduced at NAB 2006, letting an operator mix faders controlling multiple DAWs on the surface next to Euphonix DSP faders. — Eds.]

EXPANDED LOCAL CONTROL

Each of the eight channel strips in a CM408T has eight, touch-sensitive knobs easily switched by way of a row of lighted switches between controlling an EQ, dynamics plug-in (or any other plug-in), pan, aux sends, and bus routing. Each of these functions, when selected, changes the backlit color of the knob--red is Aux control, blue is EQ or green for plug-in etc. There are six different colors to instantly tell the operator what function the knob is selected to control. A knob's function is also clearly indicated by a four-character display next to it. The channel strip's individual TFT display graphically shows the EQ curve, dynamics and panning used as well as all the parameter names and values.

The channel strip finishes with the Swap button that changes, either individually or globally, to a second layer with eight more audio sources. This feature effectively doubles the input channels of the CM408T.

Any track can be brought up on any of the 100mm faders and saved as a "Layout" and surround sources up to 7.1 are controlled from a single strip--always with the channel's TFT display showing that channel's output on up to eight meters. A four-character LED dual designation display shows track name while the TFT repeats the channel's status and name up to 14 characters long.

I liked, especially for mixing, the stereo LED input meter that runs along side, parallel to the fader to always indicate audio to that channel even if you have it muted. I also like that the aforementioned Wave key is available for every track fader to quickly "see" that track's status on the LCD screen at any time.

BRIDGING THE GAP

The MC and System 5-MC present a completely different approach to audio/video control, made possible by Euphonix's development of the extensible EuCon protocol. EuCon bridges the application/workstation gap by allowing the MC and System 5-MC to connect their control surfaces to multiple disparate applications running on different workstation computers. The System 5-MC combines a traditional console mixing worksurface with the MC's intelligent key-command layout of any application's recording, editing and mixing functions. Able to support any current and future workstations, both systems are ergonomically designed to enhance creativity and improve work quality and speed.

Prices: MC, \$19,995; System 5-MC, priced depending on configuration.

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