

Surpassing PVM: The LUMA monitors story



Video professionals know that the quality of their work largely depends on their ability to monitor that quality at every stage of production. And almost everywhere people work with video, the choice has been Sony's PVM series production video monitors. The PVM series was famous for its Emmy® Award winning Trinitron® picture tube and honest rendition of focus, framing, exposure, contrast and color.

Over the decades, the needs of video professionals have evolved. The seismic shift from standard definition to high definition now requires monitors with far higher resolution. Environmental concerns now demand lead-free electronic components, hastening the sunset of the cathode ray tube. For Sony, these new realities were just the beginning. Sony technologists were also determined to surpass their previous standard of excellence. That's how Sony's latest LUMA™ LCD monitors came to be.

Far beyond PC monitor performance

Sony engineers started with the LCD panel itself. LCD panels vary greatly in terms of viewing angle, contrast, switching speed and resolution. Sony set high standards to meet all of these performance categories for the monitor it wanted to take to market. For example, PC monitors are designed to serve a single operator, almost always viewing head-on. But a broadcast control room monitor wall displays many pictures to many technicians, almost always viewing off-axis. While high switching speed is irrelevant for viewing typical PC applications, it's crucial for the accurate display of fast motion. Likewise, high panel contrast is an absolute requirement for monitoring picture contrast, highlight and shadow detail. And where lesser monitors might conceal issues in HD focus, aliasing and camera performance, the Sony 24-inch LMD-2450W LUMA monitor (viewable area measured diagonally) reveals them for all to see. An exceptional 1920 x 1200 panel displays HD signals with pixel-for-pixel clarity. And 1080/60P input capability goes beyond conventional HD, to accommodate the latest video source material.

The challenge of uniformity

The color reproduction of LCD monitors can vary dramatically from manufacturer to manufacturer, and from model to model within a single brand and even among identical models purchased at the same time! In professional video, monitors must agree. That's why Sony developed an exclusive technology to match color from monitor to monitor and from room to room. With Sony's ChromaTRU™ system, you can critically match the color of any number of LUMA monitors. And Sony created a 10-bit engine that renders color and grayscale with remarkable nuance.



Must-have features

The LUMA monitors incorporate features that are crucial for video production. These include marker settings for safe area and 4:3. A tally lamp helps identify the program image in multi-monitor live broadcast control. Closed-caption display enables you to monitor this government-mandated signal. Blue-only mode assists you in critically accurate monitor setup. Adjustable gamma enables you to tweak grayscale reproduction, while selectable color temperature adjusts the white point.

Sony's latest LUMA monitors also offer multi-image display, for two video pictures side-by-side. Built-in waveform monitoring helps confirm the integrity of your video signal while stereo audio metering and stereo sound do the same for your audio signal.

Flat-out advantages

As anyone who has ever lifted a 32-inch CRT monitor knows, flat-screen monitors also have tremendous practical advantages. Beyond smaller size and lighter weight, flat screens have far lower power consumption -- a major factor in control rooms and mobile broadcast units that operate literally hundreds of monitors.

Unlike CRTs, LCDs have inherently lower glare, which means perceived contrast is less affected by ambient light. Because there's no phosphor decay, the image is also flicker-free. And while the accurate geometry of CRT images is subject to the whims of beam deflection circuitry, LCD screens consistently reproduce images with 100% geometric accuracy.

The conclusion is clear

The quality of your work depends on the quality of your video monitors. So demand color accuracy and repeatability. Demand the setup, control and monitoring features a true production environment needs. Choose production video monitors as if your reputation were at stake. Because it is. Insist on Sony LUMA monitors. For more information, visit www.sony.com/luma.