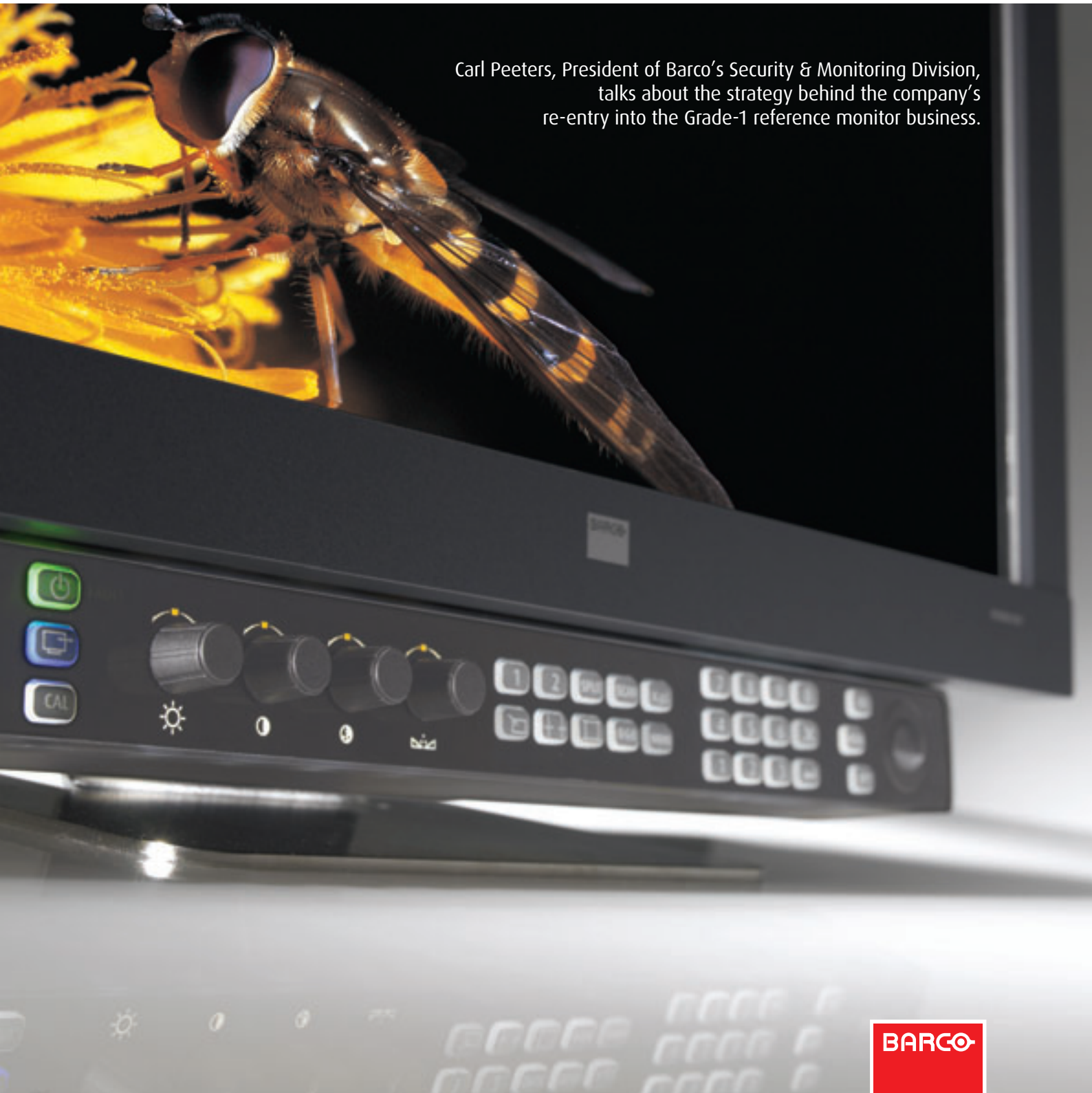


# Barco's High-Definition reference monitor

New Grade-1 LCD captures Barco's broadcast expertise

Carl Peeters, President of Barco's Security & Monitoring Division, talks about the strategy behind the company's re-entry into the Grade-1 reference monitor business.



At this year's National Association of Broadcasters' NAB, 14-17 April 2008, Barco builds on its established reputation in color monitoring with the introduction of its RHDM-2301 Reference Monitor. Carl Peeters, President of Barco's Security & Monitoring Division, talks about the strategy behind the company's re-entry into the Grade-1 reference monitor business.



Carl Peeters: "Although our last 'official' Barco-developed Grade-1 reference monitor was launched some years ago we have continued to develop the core technologies needed to create market-leading calibration solutions."



The RHDM-2301 is the latest evidence of this 'red thread' through Barco's broadcast display and visualization solutions, which started nearly 40 years ago when the company created the world's first state-of-the-art reference monitor. This true Grade-1 LCD reference monitor

helps complete Barco's vision of end-to-end calibrated solutions for broadcast and audiovisual professionals.

### The reference for broadcast visualization

Barco has a long history of manufacturing display technology for the broadcast market. Barco developed specific driving schemes delivering perfect gray and color tracking for CRT displays in the late seventies. This made Barco the recognized brand for good skin tone reproduction. With the introduction of the first self-calibrating broadcast monitor in the eighties, broadcast professionals were delighted to finally use a zero-maintenance product. Barco elaborated on that success with the introduction of a dedicated color imaging display family.

### Re-entering the reference monitor market

Thanks to recent advances in LCD technology and Barco's continuous R&D efforts, Barco is now re-entering the reference monitor market, with the first

true Grade-1 LCD display for the professional broadcast market.

"A number of factors have affected the timing of this new development," says Mr. Peeters. "The key one is technical. Until now, CRT displays have been the only serious choice for professional, Grade-1 calibration duties. Now we can capitalize on advances made in LCD technology to match, or exceed, the performance of Grade-1 CRT displays. We believe the RHDM-2301 will set a new standard in the professional broadcast market - drawing on our deep calibration expertise in other fields, such as healthcare and air traffic control."

Another key factor is the market: the industry is in rapid transition to digital broadcast, high-definition TV with very high resolution and wide aspect ratio. New reference solutions are needed as CRT monitors finally become obsolete.



## Standing out in three ways

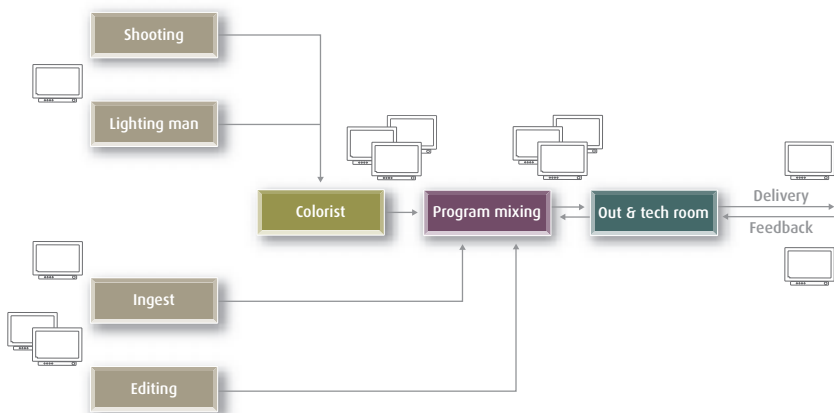
Barco's new reference monitor addresses three critical issues for providing Grade-1 performance from an LCD solution: color accuracy, image stability and motion handling.

Mr. Peeters: "For color accuracy, we have introduced 10-bit panel technology and 48-bit image processing capabilities (16 bits per color). Thus the RHDM-2301 can truly reproduce a possible 1,024 levels per color, resulting in over a billion possible colors and gray scales. The used wide-gamut LED backlight allows achieving any current color standard, such as EBU, ITU, SMPTE and



even DCI. Each monitor is factory-calibrated using a three-dimensional look-up table, using a high-precision spectrometer and a proprietary calibration algorithm."

The RHDM-2301 has been designed to ensure that colors stay true over time. To make sure what you see is really



what you get, the RHDM-2301 has integrated advanced calibration sensor technology. This technology makes sure that the display remains calibrated in a wide temperature range and for a long time, which minimizes the need for frequent maintenance or recalibration. Motion handling is excellent thanks to the high-speed 120Hz panel and scanning LED backlight technology. The panel can be driven in real interlaced mode (with black-line insertion), to provide CRT-like motion performance and remove de-interlacing artifacts. The scanning backlight technology minimizes the LCD motion blur typically seen in LCDs. Both technologies provide the necessary ingredients to achieve reproduction of moving images with a quality never seen before on an LCD.

## The reference for color professionals

Barco's RHDM-2301 display will mainly be used in three application areas. The first application area is image acquisi-

tion and capture, where camera and lighting professionals need a reliable reference for the images being captured. The second area is production, where control room personnel need an accurate representation of incoming feeds for source quality validation and for program and output monitoring. The last one is post-production and editing, where high-grade color correction needs to take place before broadcast and storage.

As the most efficient common reference, Barco's RHDM-2301 display increases efficiency throughout a wide range of broadcast and post production applications.



## Reference monitors for the digital age

If anything, the need for high-quality, high-reliability reference monitors is greater now than it has ever been. Carl Peeters: "People expect so much more from visual media and entertainment, as High Definition digital broadcast TV, on-demand IPTV and digital cinema become the norms."

"In this modern broadcast and distribution environment, the number of images that need to be simultaneously viewed and controlled is increasing dramatically," Mr. Peeters continues. "Barco's networked visualization solutions enable production and master con-

trol rooms to be cost-effectively networked together. This improves operators' ability to monitor the broadcast process and visualize real-time video content, both in the control room and remotely on PCs and other network-connected devices with user-friendly interfaces. This enables anyone, anywhere to view program content from any screen."

In addition, Barco has been the leading proponent of multi-view display technology in broadcast environments – and the high-grade calibration these systems need.

Carl Peeters: "But there will always be a need for single-view Grade-1 reference monitors where accurate, reliable color balance is a must, not an option."



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The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.  
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