

New York February 2017

The New York Section held a joint meeting with the Society for Information Display's (SID) Mid-Atlantic Chapter on 2 February at Columbia University. This was the latest in a series of joint meetings of the two organizations, all of which have focused on display technology. Seventy-five people attended in person, with another 98 participating via SID's webinar facilities, which they graciously made available to us.



Photo Credit: Mark Forman

(L-R) Gary Mandle, R. Norman Hurst, Howard Witherspoon, and William Miller.

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There were three presentations. The first, by Gary Mandle of Sony, focused on high dynamic range (HDR) technology, including wide color gamut. He noted that there are multiple approaches to HDR, including perceptual quantization, hybrid log-gamma and others, and that the differences between these and what we now call standard dynamic range (SDR) are much greater than just an extension of the brightest and darkest values that can be displayed. Mandle illustrated these with block diagrams of the signal processing in the various HDR systems, showing the differences among them and the legacy SDR to which many are accustomed.

The second presentation, by R. Norman Hurst of SRI, concerned developing test signals to evaluate the implementation of HDR, including verification of proper signal representation and conversion as well as display capability. He noted that developing these test patterns

was far more complex than simply scaling existing SDR patterns to HDR. Hurst pointed out that one complicating factor is the lack of a common standard for diffuse white as opposed to specular white, and a common understanding of the magnitude of the difference between diffuse and specular white. He also described the specific features of his test patterns and how they were designed to detect and display specific signal errors.

The third presentation was by Howard Witherspoon of DesignLED U.S., which specializes in large-scale flexible displays fabricated with surface-mount LED technology. The company's

rubber substrates can be bent into arbitrary curves, allowing designers a large amount of flexibility. Witherspoon provided illustrations, showing examples of these displays, including several that have been used as scenic elements in television productions, on walls and desk fronts.

Before and after the meeting, DesignLED provided technical demonstrations of flexible displays and SRI's test patterns on one of the Sony HDR displays.

—William Miller
Meeting Producer and SMPTE
Membership VP

Pittsburgh February 2017

The Pittsburgh Section meeting on 2 February was held in the WPXI-TV Community room in Pittsburgh, PA. This event, which had 40 people in attendance, was promoted as "HDR Night" in Pittsburgh with two separate presentations on HDR video. After a networking hour with food and drinks, courtesy of Evertz, Section Chair Ed Fraticelli gave a brief business presentation, updating members on upcoming events.

The first presenter, John Humphrey from Hitachi, gave a basic overview of HDR technology

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John Humphrey presents "HDR on HD Video Systems" to a packed house at the Pittsburgh Section's February event held at the WPXI-TV Community Room.

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and standards, without delving into numbers and curves. This was followed by a discussion on the use of HDR on standard HD video systems. Thom Belford from OSEE Americas spoke next, providing further details on HDR displays and the processing systems used to get HDR signals to those displays. Both speakers also dispelled some myths surrounding HDR. A Q&A session followed the presentations.

SMPTE

—Ed Fraticelli
Section Chair