

# Section Meetings



Mike Hughes speaks to Detroit Section members.

## Detroit December 2004

Twenty-five SMPTE members and guests attended the meeting in the comfortable cafeteria of GTN in Oak Park, MI, on December 14. Mike Hughes, vice-president of product development for Maximum Throughput, presented “Sledgehammer: The Intersection of Video and Data Networks.” Hughes spoke of the need for different kinds of material in our pipelines—digital video and audio, image files, plus many other forms of data—to be accessible to all users concurrently, and of the unified and shared storage and retrieval environment provided by Maximum Throughput’s Sledgehammer. Interesting and useful insights were offered by GTN staff who use the equipment daily.

—Chuck Reti, Section Chair

## Detroit January 2005

Fifteen members and guests braved near-zero temperatures to meet at the Farmington Schools Training Center in Farmington, MI, for a program on monitoring and measurement of standard- and high-definition SDI video.

Greg Martin, account manager, and Karl J. Kuhn, application engineer, both from Tektronix, presented a “short form” version of the day-long DTV Measurement seminar that was being held the following day. The session began with a review of the basics of analog and SDI signals, color space and gamut, signal timing, and component/composite signal formats. Kuhn provided in-depth discussion on A/D, D/A conversion, factors contributing to signal degradation, error detection and correction, and a refresh of luminance and chrominance sampling schemes. Both presenters then demonstrated signal monitoring equipment and displays of waveforms representing correct signals and those with various kinds of errors, notably jitter.

—Chuck Reti, Section Chair

## Hollywood January 2005

The Section had its first meeting of 2005 on January 18 at the Academy of Motion Picture Arts and Sciences’ Linwood Dunn Theater. The subject was “Film Stocks—Yesterday, Today, and Tomorrow.”

Following the opening cartoon, the 1943 Academy Award winning Tom and Jerry “Yankee Doodle Mouse,” Section Chair Dan Rosen presented a plaque of appreciation to Alan Masson, who recently retired after 35 years at Kodak. Masson has been a long-time active member of the Section, having served in numerous executive positions.

Masson opened the presentations with a history of film stocks used in motion pictures, from the beginning, around 1900, until today. These were illustrated by film clips from *Marie Antoinette* (1938, demonstrating black and white), *Dixiana* (1930, two-color Technicolor), *Lassie Come Home* (1943, three-strip and monopack Technicolor), and *Athena* (1954, Eastman Color). All film clips were courtesy of Warner Bros.

Vince Carabello, Jr., followed, covering the variety of films available from Agfa. The next presenter, Mike Miyaki, gave a detailed slide show presentation of the structure of Fuji’s color films.

Pre-show refreshments were hosted by Kodak, in honor of Masson’s long service.

—Richard P. May, Past Chair

## Hollywood February 2005

The February meeting entitled “The Latest in Film Scanning Technology and Applications,” included representatives from Thompson/Grass Valley, Cintel, Filmlight, and Arri. These companies presented solutions that provide new approaches to the digital revolution, which has greatly changed the way day-to-day services are performed in motion pictures and television. Gone are the days of telecine, which has been replaced by datacine, and scanner.

One technology that has sustained the industry through generations of video technology is film. More than 100 years of history and art have been captured on this medium, and it continues to be used today. The tools used to extract the images captured on film must now perform to a greater degree than ever before. This is due, largely in part, to electronic methods of post-production and distribution, which carry a far greater level of detail and resolution, not only in commercial theaters but directly to the home as well. These digital representations of the film image have also enabled new businesses in restoring the older, worn-out film, so that movies can continue to entertain, and that the art of yesterday will never go away.

The evenings presentations demonstrated a wide variety of technologies and an even wider variety of business models that a facility can choose from in order to fit best into its own business model. Discussions included bit-depth, grain treatment, storage, and the speed of the film

scanning throughput. Presenters included Mike Wright, Sandi Lozano, and Craig Nichols from Thompson/Grass Valley, Adam Welsh from Cintel, Craig Risebury from Filmlight and Richard Antley from Arri. The presentations were followed by a Q & A session.

The meeting was sponsored by THX, which provided gift bags and snacks, and also gave away a THX jacket as a door prize.

—Rick Dean, Section Manager

## Ohio January 2005

The first meeting of the year, which was combined with Ohio Chapter 52 of the Society of Broadcast Engineers, was held on January 20 at Industrial Video Corp. in Columbus.

Fifty members and guests listened to Munira Jaffar, Nextel, deliver an interesting and informative presentation covering subject areas such as the 2004 NAB, MSTV, and Nextel proposals for the Broadcast Auxiliary Systems Relocation. This included an overview of the approach Nextel would employ if it were to undertake the clearing of the BAS Band as a result of being granted rights to replacement spectrum at 1990-1995 MHz. Past considerations such as non-interference with local emergency channel assignments, such as police, fire, ambulance, etc., were also covered, as well as a compensation scheme proposal worked out by Nextel with broadcasters in each DMA market within the U.S. These are frequencies currently being used by TV stations in each market to feed ENG signals from the field for their local news stories.

—Gene L. Batey, Secretary/Treasurer

## Philadelphia January 2005

Bill Weber and WHYY in Philadelphia hosted the January meeting, with refreshments provided by Canon.

Larry Thorpe of Canon gave a presentation entitled "The Critical Need for HD Lens Testing." Thorpe argued that a television lens is in fact a complex transmission system and that image quality is predetermined by the performance characteristics of the lens. Optical design is really the science of optimizing the many variables involved in processing images. The modulation transfer function (MTF) is the most common measure of lens quality. However, the way that lens and camera manufacturers use it makes it difficult to truly compare performance. The MTF of a lens varies across the image plane, with focal length and zoom, and is also dynamic with object dis-



Larry Thorpe

tance and aperture setting.

Furthermore, although MTF is associated with picture sharpness, sharpness is proportional to the area under the MTF curve. Thorpe said that this fact makes the MTF at 200, 400, and 600 TVL more critical to picture quality than the more often quoted MTF at 800 TVL. So what does all this mean for lens testing? First, lenses cannot be compared using a single MTF measurement. Second, because each element in the video chain has its own MTF, different lenses must be compared using the same equipment. Third, lenses must be evaluated with both large and small charts and should be evaluated on waveform monitors, not picture monitors, as picture monitors have their own MTF that can affect the results.

—Dave Muckel, Secretary/Treasurer

## Toronto December 2004

Approximately 100 members attended the Section meeting held at the Rogers Communications Centre of Ryerson University. Titled "Controlling Image Quality and Monitoring in a Digital World," the program included two paper presentations and a "Practitioner's Session." The event was organized by Reid Robertson, Panasonic Canada, and Brad Fortner, Ryerson University, to add to the knowledge base of HDTV imagery among Toronto Section members.

David Corley, DSC Laboratories, began the program by presenting a paper he co-authored with Shirley Li, titled "Controlling Image Quality in a Digital World." The presentation identified seldom recognized problems and provided practical solutions and control procedures that apply to both digital and film images being produced for electronic distribution.

Michael J. Martin, Mican Communications Inc., followed with a technical paper titled "Generation Display Technology," which explored the impact of upcoming technological developments and how they directly shape the role and application of a picture monitor. He also shared comments, opinions, and theories on the future of monitoring images, which he had solicited from a variety of recognized industry experts.

Following the coffee break sponsored by Ryerson's Food Services department, Reid Robertson offered a practitioner's session, which outlined the procedure for calibrating a lens on an HDTV camera using a ChromaDuMonde chart. The session was made possible by support from Canon Canada, DSC Laboratories, Fujinon Canada, Panasonic Canada, Ryerson University, and Tektronix Canada.

—Brad Fortner, Publicity



David Corley