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Discover all aspects of motion image technology

IEEE has partnered with the Society of Motion Picture and Television Engineers® (SMPTE®) to bring a century of groundbreaking standards and peer-reviewed articles in the field of motion imaging to the IEEE *Xplore* digital library.

The SMPTE Digital Library:

- **Provides key research** on creation and delivery of quality images from camera to display
- **Opens business opportunities** by using industry-accepted standardized methods
- **Describes state-of-the-art workflows** for content creation and distribution
- **Encourages system interoperability** of products within the marketplace
- **Accelerates innovation** by understanding the media technology landscape
- **Increases productivity** by providing access to previous research, avoiding redundant efforts

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- Audio
- Broadband
- Compression
- Control Systems
- Digital Cinema
- Display
- File and Image Formats
- Film
- Networks
- Projection
- Recording
- Test and Measurement
- Time and Sync
- Video

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Quick Facts

Focuses on innovative content for technologies within the communications, media, and entertainment industries

Unlimited, full-text access to all SMPTE standards, journal articles, and conference papers

More than 1,100 standards documents, including the iconic SMPTE Color Bars® Television Test Patterns, SMPTE Time Code®, and SMPTE Timed Text®

The peer-reviewed *SMPTE Motion Imaging Journal*—more than 23,200 articles with a backfile to 1916

Perpetual access to journal articles published between 1916 and 2016 is also available

SMPTE conference proceedings, including the Annual SMPTE Technical Conference and Exhibition—more than 1,800 papers with a backfile to 1969

Complete package available exclusively in IEEE *Xplore*

About SMPTE

SMPTE is the global society of media professionals, technologists, and engineers, delivering the tools, expertise, education, and access vital to career success in the digital entertainment industry.

For a custom quote, contact an IEEE Sales Representative.

SMPTÉ® Digital Library

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SMPTÉ standards help members of the motion-imaging industry and related fields achieve interoperability, accelerate time to market, and pursue new revenue streams with confidence. Popular SMPTÉ standards include:

- **SMPTÉ Digital Cinema Packaging (DCP):** Industry recommended standards in captioning, object-based audio, stereoscopic 3D, and higher frame rates (HFR).
- **SMPTÉ Color Bars® Television Test Patterns:** The consistent reference point for more than four decades to ensure color is calibrated correctly on broadcast monitors, programs, and video cameras, and displayed beautifully for consumers.
- **SMPTÉ Time Code®:** Gives every frame of video its own unique identifying number, making digital editing possible, and enabling the association of other data to make audio and video even more meaningful, accurate, and repeatable.
- **Electro-Optical Transfer Function (EOTF) and High Dynamic Range (HDR):** Enables viewers to see a wider color range from the brightest whites to the darkest blacks, providing a substantial enhancement to HD or UHDTV pictures.
- **Serial Digital Interface (SDI and HD-SDI):** Well-established family of standards in the broadcasting industry for digital video interfaces used in broadcast-grade video.
- **Interoperable Master Format (IMF):** To solve the issue of the creation of multiple versions of a film, all individual assets are stored individually and represent the inventory required to produce any required version.
- **Material eXchange Format (MXF):** A very flexible file transfer format that permits interoperability of content among various applications used in the television production chain, and enhances operational efficiency and creative freedom.
- **SMPTÉ Transport of High Bit Rate Media Signals over IP Networks:** Creates a standardized framework for the transport of video over Internet Protocol (IP) networks that facilitates multipoint transmission, which is a critical enabler in monetizing content and advertising in new ways across multiple screens such as computers, smartphones, and tablets.
- **Compression Systems:** SMPTÉ has standardized five VC standards: VC-1 to VC-5 to provide well-reviewed documentation and enhanced interoperability.
- **Coding of Tactile Essence:** Standards regarding the capture, insertion and/or encoding into the broadcast, transmission, decoding, and conversion of the tactile or haptic feeling and impact of a live event.

SMPTÉ standards help make high-quality motion-imaging content possible:

SMPTÉ standards touch nearly every piece of motion imaging content consumed by billions of viewers around the world, ensuring that content is seen and heard in the highest possible quality on any display. Their standards are behind many types of technologies and events including the color bars television test pattern, live sportscasts in high definition, movies in 3D, downloaded/streamed content to a device, live sporting/music events, and closed captioning, among others.

Available in the IEEE *Xplore* digital library

IEEE *Xplore* includes top-ranked journals and technology research that is cited in patents three times more than any other publisher. With more than 5 million full-text documents, IEEE *Xplore* is your gateway to more than 30% of the world's current literature in electrical engineering, electronics, and computing.

Award-winning SMPTÉ

Since its founding in 1916, the Society has earned an Oscar® and multiple Emmy® Awards for its work in advancing moving-imagery education and engineering across the communications, technology, media, and entertainment industries.

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