

Reports from the SMPTE Technology Committees



Patrick Waddell

Waddell is manager, standards and regulatory, at Harmonic Inc. in Sunnyvale, CA.

A veteran of the broadcasting and performing arts industries, Waddell has over 30 years experience serving a variety of staff and freelance positions with a number of different facilities. A second-generation broadcaster, his primary area of expertise is digital video system implementation for broadcast television. Waddell joined Harmonic in December 2000, where he is responsible for compliance with industry standards and government regulations. Previously, he worked at Sony. Waddell serves as Harmonic's representative to a number of industry standards bodies, including SMPTE, SCTE, DVB, and the ATSC. He currently serves as Chair of the ATSC's TSG/S6, the Specialist Group on Video/Audio Coding. Waddell earned a BSEE degree from the University of California, Santa Barbara and did graduate studies in Technical Production for Live Performance at San Jose State University.

Data Essence Technology (D27)

Chaired by Patrick Waddell

Overview

The technology committee on Data Essence is concerned with matters that are not video, audio, or metadata. The classic examples are teletext, subtitling, closed captioning, and interactive television (ITV).

Much of this area of focus intersects with standardization conducted by other Standards Development Organizations (SDOs), such as the Advanced Television Systems Committee (ATSC), Society of Cable Telecommunications Engineers (SCTE), Consumer Electronics Association (CEA), and Digital Video Broadcasting/European Telecommunications Standards Institute (DVB/ETSI).

Work Completed

The recent work of the committee resulted in the publication of Recommended Practice for "Vertical Ancillary Data Mapping of ANSI/SCTE 104 Messages" as RP 2010. This is an important adjunct to the efforts of S22-10 developing the BXF data exchange standard (see the S22 report), as RP 2010 assists in the conveyance of ad insertion data from automation systems to compression systems.

While technically still in progress at this writing, the revision of SMPTE 334M is in final comment resolution, and publication is expected following the June Television Engineering meetings. This work resulted in SMPTE 334M becoming a two-part document, SMPTE 334-1 and SMPTE 334-2, with the first part containing much of the material in the previous 334M, while part 2 added material previously in CEA-708 (Chapter 11 of CEA-708-B). An additional Recommended Practice (RP 2007) contains the remaining CEA-708 Chapter 11 material, documenting two caption protocols.

Work in Progress

The committee continues to work on clarifying the carriage of U.S. DTV Closed Captions (CEA-708) in the broadcast facility, including revising SMPTE 333M and EG43.

Additional projects are under way to document carriage of DVB/SCTE VBI data in VANC, which provides a standardized mechanism to avoid the necessity of reconstructing digital samples of analog waveforms (which are then returned to digital payloads). This will also assist with the HD transition in Europe, where several of these payloads (such as teletext) are required by regulators. Another project is documenting the carriage of VANC data packets in an MPEG-2 transport stream.