

basic documents being proven in field implementations, DC28 has started looking at extensions and enhancements to the main standards. Studies and development are under way on a digital leader, white gamut, additional frame rates, and other tools for exhibition operations/management. Further, a separate Working Group dedicated to the topic of Stereoscopic D-Cinema has begun drafting documents to support this rapidly growing application.



Peter Dare

Dare was employed by Sony for close to 20 years, as senior vice president, technology. Prior to that, he worked at RCA, holding marketing and engineering management positions. Presently he is retired, and still consults for a number of industry-related companies. He is also vice chair of the ITU-R WP-6B committee.

File Management and Networking Technology (N26)

Chaired by Peter Dare

Introduction

The N 26 technology committee is broadly responsible for interfaces, as such, the portfolio of documents to be maintained is quite large, and expanding.

The committee's efforts during the past year were equally split between development of new interfaces and the maintenance of documents, referred to as five-year reviews and document revisions.

Of concern to the committee is a trend that appears to be expanding, whereby values of DIDs and SDIDs defined in SMPTE RP 291 are being used within the industry on an ad hoc basis. End users, manufacturers, and others involved are encouraged to register their applications following the normal procedures. Failure to do so could result in data collisions and failure of the application.

Work Undertaken

SMPTE 291M was reformatted into two parts: one part deals with the data format, while the second part, now an RP, provides a registry of Data Identification values (DIDs) and Secondary DIDs (SDIDs). This revision is now part of the standards contained on the SMPTE Standards CD-ROM.

SMPTE 297M: The optical interface for HDTV and SDTV serial signals has undergone a significant revision; it was recently approved. Publication is contained on the SMPTE Standards CD-ROM.

SMPTE 372M, 125M, and 325M are all undergoing revision. Publication of approved documents may take some time, particularly in the case of the revised 125M, where 625-line values have been inserted, as well as clarification of many other parameters.

SMPTE RD-014: This RDD documents extensions that have been made to GXF (SMPTE 360M-2004). The baseline standard GXF-2004 remains in force. It is expected that final publication of RDD-014 will not take place until third-quarter 2007.

VC-2 Compression Mapping: The work on mapping the VC-2 compressed data has yet to start; it is anticipated that work will begin in mid 2007.

VC-3 Compression Mapping: The work on mapping the compressed data into the SDTI stream is reaching a point for final N26 committee balloting to take place.

Five-Year Reviews were completed for approximately 12 documents. Many of the documents were archived as presented to the committee. Archived in SMPTE parlance simply puts a document into a state where it is no longer reviewed on a five-year basis. It is important to note that the document is still available from SMPTE and may be referenced normatively in other documents. A further series of five-year reviews is currently being undertaken.

A new compression engine VC-3 is under development in the SMPTE C24 technology committee. To provide an industry interface, N26 is undertaking the mapping of the compressed data onto the SDTV serial interface. This work is now entering the final phases of the approval process.

SMPTE RDD-10 "An Open Transport and Navigational Specification, Optionally Supporting Multiple Conditional Access Systems" is now available in the SMPTE suite of documents on the SMPTE standards CD-ROM.

SMPTE 2022

Part 1: "Forward Error Correction for Real-time Video/Audio Transport over IP Networks"

In many applications, errors are generally not acceptable; therefore support for some sort of Forward Error Correction (FEC) scheme may be required. The use of FEC as defined in this standard is recommended, but there are applications where occasional errors are preferable to the overhead of the FEC, so manufacturers may support a non-FEC mode.

Part 2: "Unidirectional transport of constant bit rate MPEG-2 Transport Streams on IP Networks"

This standard is intended for realtime audio/video applications such as contribution, distribution, and film. The applications addressed by this standard may employ any compression scheme that is supported by the CBR MPEG-2 transport stream. This standard defines two classes of devices. Class 1 supports 188 byte transport stream packets; class 2 supports 188-byte and 204- byte transport stream packets.

Both parts of this standard should be published by the third quarter of 2007.

SMPTE 425: The Single Link 3 Gbit/sec standard is now available on the SMPTE standards CD-ROM. This standard provides a single coaxial connection of equipment using 1920 x 1080 50/60P operation.

SMPTE RDD-011: Bitstream syntax and semantics for carriage of HDSDI ancillary data in an MPEG-2 transport stream. This RDD describes a bit stream syntax and semantics used to transmit SMPTE 291 formatted ancillary data (both VANC and HVANC) from the input of an encoder, through an MPEG-2 transport stream, and to reconstruct the ancillary data accurately at the output of a decoder. Publication of this RDD is expected in the third quarter of 2007.

Conclusion

As chairman of N 26 I would like to thank the participants for their understanding and professional approach to dealing with the many issues faced by the committee. All of the work is done on a volunteer basis. Thank you.