

SMPTE Committee on Networks and File Management, N26

Hans Hoffmann

The technology committee on file management and networks is working presently in three main areas: file management including protocols, networks, and interfaces for compressed and uncompressed content; metadata transports; and requirements for service-level definitions.

With regard to file management, efforts to standardize an enhanced version of FTP, called FTPplus, and a reliable point-to-multipoint file transfer protocol (XTP) continue. With regard to file formats for professional applications in Television, N26 produced a standard for the General Exchange Format (GFX, SMPTE 360M).

A number of documents were developed in the area of networks and interfaces. Some cover the physical domain only, e.g., a four-circuit fiber-optic connector, whereas others cover specifications for complete interfaces and the transport/mapping of compressed and uncompressed signals. In accord with this, remarkable progress was made with standards for metadata transports (as ancillary data, embedded in MPEG-TS or audio channels, etc.) and for the identification of uncompressed signals in raster-based interfaces (video payload identification). With regard to service-level agreements, N26 determined that there is a need for a user requirement document reflecting the issues of telecommunication-to-studio interfaces, particularly with regard to jitter and wander characteristics.

Concerning new work items, N26 will continue its efforts toward the standardization of the previously mentioned FTPplus and enhanced File Transfer Protocols. Moreover N26 has also started to concentrate on the issue of 24p and is charged with developing an interface for 24p applications. Other work items are located in audio interface area, mapping of HD compressed signals into SDTI-based interfaces, high bit-rate streaming interfaces (dual link SMPTE 292M) as well as in high bit-rate networks.

Standards Developed or Under Development

N26.022-2274B Proposed SMPTE Standard Four-circuit Fiber Optic Connector. Trial publication.

Proposed SMPTE Standard—Object Data Format for the Exchange of DV-based Audio, Data, and Compression Video using ATM Common Layer over ATM AAL1. Trial publication.

SMPTE-2206B, Proposed Standard for Television—Serial Data Transport Interface (Revision of SMPTE 305M), Second Draft. Trial publication SMPTE 305M-2000.

N26.009-2218B, Proposed SMPTE Standard for Transport of MPEG-2 Recoding Information through HDTV Interfaces, Third Draft. Trial Publication SMPTE 351M.

N26.011-2231B, Proposed SMPTE Standard for Transport of MPEG-2 Recoding Information as Ancillary Data Packets, Fourth Draft. Trial publication SMPTE 353M.

N26.020-2159B Proposed SMPTE Standard—Source

Image Format Mapping for 540Mbit/s. Trial publication SMPTE 347M on hold, problem with references.

N26.021-2120B Proposed SMPTE Standard—Payload Identification for Digital Television Interfaces. Trial publication SMPTE 352M, not posted, problem with references.

Proposed Revision to 297M: Serial Digital Fibre Transmission System for SMPTE 259M Signals. Trial publication.

N26.024-2221B, Proposed SMPTE RP for Ancillary Data Mapping over MPEG-2 Video Elementary Stream Editing Information. Trial publication RP212 not posted.

N26.480-2153B Proposed SMPTE Standard for Television—540 Mbit/s Serial Digital Interface. Trial publication SMPTE 344M.

N26.016 Proposed SMPTE Standard for TDM and Generic Data over HDTV Interfaces. Trial publication SMPTE 346M. Comments were received regarding bandwidth/bit-rate definition editorial change. (Michel Poulin)

New Ballots

Mapping of Compressed HDCAM Data into SDTI.

Non-synchronized Mapping of KLV Packets into MPEG-2 System Streams.

Mapping of KLV Packets into SMPTE 291M. This document has passed TC with some editorial changes and is now in the standards committee.

Revision of SMPTE 339 Format for non-PCM Audio and Data in AES3 also went to the Standards Committee.

Other New Action Points

Revision of SMPTE 292. SMPTE has received a letter from Trompeter regarding the definition of the physical interconnect parameters in the standard. Discussion expected in March 2001.

24p issue: The AHG on 24p will likely come up with substantial changes required in some of the existing interface standards. The project on revision of SMPTE 299M "24 Bit Audio Format for HDTV Interfaces" is therefore on hold since impact is expected.

Optical Interfaces: SMPTE has received an input letter from Delta System regarding the optical interface specification for SMPTE 259M signals. This letter will be used for future discussion.

Revision of SMPTE 272M (Michel Poulin): Letter from IBA was received.

IEEE Jitter and Wander document: The chair will cross-check this document against the relevant SMPTE standards.

AHG on IFL/Jitter Management/Etc.

The former AHG on IFL (Jim Waschura, Chair) is now working with the Jitter and Wander AHG on the definition of a user requirement document reflecting the issue of telecommunication-to-studio interfaces.