

AES STANDARDS COMMITTEE NEWS

Information regarding Standards Committee activities including meetings, structure, procedures, reports, and membership may be obtained via <http://www.aes.org/standards/>. For its published documents and reports, including this column, the AESSC is guided by International Electrotechnical Commission (IEC) style as described in the ISO-IEC Directives, Part 3. IEC style differs in some respects from the style of the AES as used elsewhere in this Journal. For current project schedules, see the project-status document on the Web site. AESSC document stages referenced are proposed task-group draft (PTD), proposed working-group draft (PWD), proposed call for comment (PCFC), and call for comment (CFC).

In Memoriam

Shortly before this *Journal* went to press, we received some sad news.

Daniel Queen, secretary of the AES Standards Committee 1980-2001, died on October 17 in Providence, Rhode Island, after a long illness. He had been living in Athens, Greece, for the past year, returning to the United States only two days before he died.

We are deeply saddened to hear this news. Dan's contribution to AES standards over many years has been immense and, personally, I don't know what I would have done without his help over the past year.

A fuller appreciation of Dan's life will appear in the next issue of this *Journal*.

MARK YONGE

The New AES Standards Internet Facilities, Mentioned in the September Issue, Are Now in Service

E-MAIL REFLECTORS

A total of 67 new e-mail reflectors—one for each of the currently active AES standards groups—have been in service since mid-September. Messages sent to a single group e-mail address are distributed to all members of that group to provide a fast and fluent medium for discussion of standards business. Additionally, the service operates more quickly and securely than before. Unsolicited e-mail and inappropriate content are filtered appropriately. All traffic is virus-checked.

WEB SITE

The new Web site, <http://www.aes.org/standards/>, was made public on 2002-10-02 and has two functions.

A public area provides general information, as previously, including information on standards projects and groups as well as the facility to download copies of published standards. The style and presentation of the site has been substantially updated to make access faster and more direct.

The AES Standards Web site will continue to be active as a responsive publication medium for news and public notices such as Calls for Comment. A Participate button provides general access to an on-line membership request form in addition to our established methods for membership request.

In addition to these public pages, there is a new Web area which provides services for AES Standards working groups.

A Log-In button allows members to access all of their registered groups, and their working documents, within a new secure Web area. Members will already have received their initial username and password. There is an automated option for members to request a password reminder and to change their username or password.

The new working area also allows members to check the status of their working groups and update their contact details directly.

Importantly, the new site allows us to exchange working documents more easily than before, replacing the FTP sites we have used previously.

Each group area has a link to a page showing all the current working documents for that group. The page is arranged so that subdirectories—for Task Groups, for example—appear at the top of the page. Documents for the main group are then shown. The list may be sorted by name, size or date; if you simply need to see the latest documents, you can simply sort by date to bring the newest to the top of the list, then click on the

documents you need to download them.

Please enjoy exploring this new facility. We now need to shut down the old e-mail reflectors and document FTP sites, which have served us so well over so many years.

MARK YONGE
AES STANDARDS SECRETARY

Report of the SC-03-02 Working Group on Transfer Technologies of the SC-03 Subcommittee on the Preservation and Restoration of Audio Recording meeting, held in conjunction with the AES 112th Convention in Munich, Germany, 2002-05-12

In the absence of the Chair and Vice Chairs, the meeting was convened by D. Schueller.

The agenda and report from the previous meeting were accepted as written.

Open projects

AES-X47 Minimum Set of Calibration Tones for Archival Transfer

D. Wickstrom published a working group draft in January with certain questions, none have been commented on by the group.

Current goal

A PWD is anticipated by 2002-09.

AES-X64 Test Methods and Materials for Archival Mechanical Media

The intent of the project is to re-press a metal master originating in the EMI factory, which complies to the IEC-98 standard for coarse groove recordings with bands of frequencies starting with a 1 kHz reference level signal and then in decreasing steps (18, 16, 14, 12, 10, 8, 6, 5, 4, 3, 2, 1 kHz; 700, 400, 200, 110, 50, 30 Hz).

It is further our intent to cut and press another test disk. The specifications for this second disc are:

—A sinusoidal sweep from 20 Hz to 20 kHz with constant velocity above 250 Hz. This would start with a 1 kHz tone and take 50 seconds for the sweep so allowing the use of the standard Bruel & Kjaer test equipment.

—A band of 1 kHz at a reference level: 8 cm/sec 20 mm light band width as used on Ortofon Test Record OR1001.

—A band of 1 kHz at a reference level: 16cm/sec post war standard (DIN 45533 1953).

—A repeat of the track 1 sweep. This would be cut at a smaller diameter so that the effect of playback tracing losses for a particular stylus/arm combination could be measured.

—The same programme would be pressed on both sides. The set of discs will be accompanied by a manual describing their use.

The working group will produce a PWD describing these test materials with the intent to publish a call for comment.

AES-X65 Rosetta Tone for Transfer of Historical Mechanical Media

The current goal is review of status. This has been on the agenda since 1997, and yet no progress has been made since G. Brock-Nannestad posted his paper in July 1998. Unless proposals on the contents of such a Rosetta Tone are put forward for discussion, the meeting felt that the project should be withdrawn.

AES-X90 Analog Transfer of Audio Program Material

There has been no communication on this project. Unless a dedicated working chair for Task Group SC-03-02-A can be nominated, the meeting recommends that the project should be withdrawn.

AES-X106 Styli Shape and Size for Transfer of Records

Brock-Nannestad and F. Lechleitner have said they will provide input for the PTD.

AES-X107 Compilation of Technical Archives for Mechanical Media

There has been no input on this project, but relevant liaison bodies have been contacted describing the project and requesting cooperation in putting together a reference document.

New projects

No new projects were received or proposed.

New business

There was no new business.

The next meeting will be held in conjunction with the AES 113th Convention in Los Angeles, CA, US.

Report of the SC-03-04 Working Group on Storage and Handling of Media of the SC-03 Subcommittee on the Preservation and Restoration of Audio Recording meeting, held in conjunction with the AES 112th Convention in Munich, Germany, 2001-11-30

The meeting was convened by T. Sheldon.

The agenda were approved with the addition of a note to discuss the future of the working group under the topic of AES-X80.

The report of the previous meeting was approved with two changes. 1) D. Schueller asked that his name be spelled correctly, with the umlaut. 2) In the notes for AES35-R, the second sentence should be changed to read, "D. Schueller indicated that he would like to see included in AES38-R a plan to investigate the light sensitivity issue in the next revision."

Open projects

AES22-R Review of AES22-1997 AES recommended practice for audio preservation and restoration—Storage

of polyester-based magnetic tape

Schueller will lead the review of this document.

AES28-R Review of AES28-1997 AES standard for audio preservation and restoration—Method for estimating life expectancy of compact discs (CD-ROM), based on effects of temperature and relative humidity

No one at the meeting felt able to conduct the review of this document. Sheldon agreed to refer it to the Joint Technical Commission (JTC) where the document was authored for consideration at the next meeting of SC-03-04.

AES35-R Review of AES35-2000 AES standard for audio preservation and restoration—Method for estimating life expectancy of magneto-optical (M-O) disks, based on effects of temperature and relative humidity

No action was taken.

AES38-R Review of AES38-2000 AES standard for audio preservation and restoration—Life expectancy of information stored in recordable compact disc systems—Method for estimating, based on effects of temperature and relative humidity

Schueller said that it was of vital importance to include a section on light sensitivity of these media as soon as possible. It was noted that J. M. Fontaine and D. Kunej were knowledgeable and could draft a new section. G. Cyrener agreed to investigate possible changes to include the issue of light sensitivity.

AES-X51 Procedures for the Storage of Optical Discs, Including Read Only, Write-once, and Re-writable

Sheldon noted that the draft document is a standard in the imaging area, but he has not brought it to the working group for consideration because of questions about the AES-X80 liaison relationship within the AES Standards Committee.

AES-X54 Magnetic Tape Care and Handling

Sheldon explained the status of this document within the JTC where it is being authored by AES members and others as a part of AES-X80. It is being submitted by JTC within ISO TC42 to form a second Draft International Standard, ISO 18933 DIS. Sheldon will commence the discussion of the text of this second DIS ballot document by July 2002. Further discussion will be conducted by e-mail.

AES-X55 Projection of the Life Expectancy of Magnetic Tape

The investigation to determine a suite of tests to determine the life expectancy of various formulations of magnetic tape continues. It was noted that the International Association of Sound & Audiovisual Archives (IASA), with UNESCO support, has initiated a project to encourage tape manufacturers to take an interest in preserving the 200 million hours of information stored on magnetic tape. One goal is to find ways to measure the life expectancy of magnetic tape. This project should be continued as these initiatives promise to develop new methods to determine life expectancies. However, it was noted that the tape manufacturers currently

are not thriving, so actions need to happen quickly if they are to participate. Also creating a sense of urgency, the signs of tape instability in the world's archives are growing. This subject also is being discussed at the JTC; the minutes of the JTC in Montreal on the subject of magnetic tape life expectancy testing were read. The search continues for a breakthrough that will open possibilities for success.

AES-X80 Liaison with ANSI/PIMA IT9-5

The current goal is a review of the liaison relationship. The liaison arrangement is now with International Imaging Industry Association (I3A) which was the creation of the merger of Photographic Image Manufacturers Association (PIMA) and two other imaging associations. The title of the liaison should be changed to "AES-X80 Liaison with I3A IT9-5."

Sheldon asked whether the AES-X80 liaison arrangement should be continued with I3A. In reality, virtually all research and preparation of standards documents published by AES comes from the JTC. The JTC has many AES members on its membership list, and many AES SC-03-04 members participate in the development of standards as a part of the JTC. AES SC-03-04 has not undertaken in recent years any work of its own apart from the work being conducted by the Joint Technical Commission. The question also should be asked, "Should the AES SC-03-04 working group continue?"

New projects

No project requests were received or introduced.

Sheldon noted, however, that at the AES-X80 Joint Technical Commission meeting April 19-20, 2002 the topic of the care and handling of transportable magnetic discs was raised and discussed. The JTC received a report from J. Lindner surveying the current state of these media. The JTC also is beginning consideration of the care and handling of optical discs. E. Zwanafelt agreed to prepare an outline for consideration at the next meeting.

New business

There was no new business.

The next meeting is scheduled to be held in conjunction with the AES 113th Convention in Los Angeles, CA, US.

Report of the SC-05-02 Working Group on Single-Programme Connections of the SC-05 Subcommittee on Interconnections meeting, held in conjunction with the AES 112th Convention in Munich, Germany, 2002-05-09

J. Brown convened the meeting in the absence of Working Group Chair R. Rayburn and Vice Chair W. Bachmann.

The agenda and the report from the previous meeting were approved as written.

Current development projects

AES-X11 Fiber-Optic Audio Connections: Connectors ➔

THE PROCEEDINGS OF THE AES 22ND INTERNATIONAL CONFERENCE

2002 June 15-17

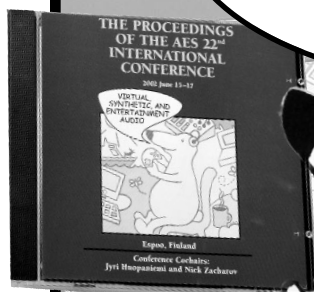
Espoo, Finland

These 45 papers are devoted to virtual and augmented reality, sound synthesis, 3-D audio technologies, audio coding techniques, physical modeling, subjective and objective evaluation, and computational auditory scene analysis.

You can purchase the book and CD-ROM online at www.aes.org. For more information contact the AES at

www.aes.org or
telephone +1 212 661 8528.

VIRTUAL,
SYNTHETIC, AND
ENTERTAINMENT
AUDIO



Also available on CD-ROM

and Cables Being Used and Considered for Audio

J. Woodgate reported on the meeting of Task Group SC-05-02-F held on 2002-05-09.

A proposed draft, AES32-TU, has been published as a Trial-Use Publication. The current goal is to monitor the trial use. Members present considered that a revision or amendment of the document is now necessary.

The draft specifies a high-quality connector, and there were suggestions that others should be included. It was suggested that the insistence on including only the SC connector had caused a loss of interest in the project. IEC SC 86C has standardized several new connectors and it is not known whether any of these are likely to be used for audio. R. Caine mentioned a connector designated as "ST1," recommended for use with MADI and FCDI, of interest to SC-02-02 as a connector already in use for AES3. A dual version has been adopted by an ISO committee. Caine was invited to submit a document on the subject, preferably with proposed texts for an amendment or a new document.

J. Gaunt considered that the type of connector was less important than the signal protocol. The chair suggested a set of tables showing which connectors, fiber types, and signal protocols worked together and which did not.

It appears unacceptable to let the existing AES32-tu draft go forward to publication as a full standard; it needs to be reviewed for further improvements. It was agreed that, at the present stage of technology, the document should be a report of what is actually being used, rather than a standard specifying what shall be used.

It was agreed that a user survey should be carried out to determine which connectors are actually in use. A form was designed and some responses were obtained during the Convention. Responses would be collected by the Standards Secretariat and sent to the Task Group. The closing date for the submission of responses was set at 31 July 2002. The draft was then reviewed in detail.

The following text was agreed: "This Report mainly deals with connectors for use with IR of wavelengths 1300 nm and 850 nm. 1300 nm is most widely used, while 850 nm is occasionally used for graded-index applications."

It is possible that more terms should be defined, if really necessary. The texts in the Glossary need not be as formal as that of a definition.

Additional connectors, ST1 and MTRJ should be mentioned, together with any others found to be in significant use according to the results of the survey. More information should be submitted on the ST1 (Caine) and the MTRJ (Gaunt) connectors.

It was stated that IEC MT 61806 looks to AES for input on professional applications of optical fiber.

AES-X40 Compatibility of Tip-Ring-Sleeve Connectors Conforming to Different Standards

AES-R3 has been issued as a project report. Current goal is review of this document with a target date of 2005-10. No further action is required.

AES-X105 Modified XLR-3 Connector for Digital Microphones

The work done by members of SC-04-04D on a digital microphone connector will be used by M. Natter to develop mechanical specifications for the connector. It is our hope to have that material prepared for inclusion in the IEC XLR standard as an amendment during the next maintenance cycle (roughly three years). The Secretary of IEC SC 48B has been notified. The digital connector should include the option of a capacitor for the concentric connection of the shield to the shell. The current goal is a standard. The target date is 2003-05.

AES-X113 Universal Female Phone Jack

The project intent is to develop a specification for a jack that will take both international IEC 60603-11 jacks and B-gauge plugs. The original project initiation form or a new one will be produced as soon as possible. A. Eckhart has previously indicated that such a connector exists and volunteered to document it.

AES-X123 XL Connectors to Improve Electromagnetic Compatibility

The new intent is a Performance Standard for both male and female connectors that includes performance limits, defines test fixtures and methods, and defines an objective for each generic type. The goal is a PTD. The target date is 2003-10.

At least six connector types were discussed, as set out in the draft X13 document. Two are cable-mounted types, both male and female, intended for the termination of both microphone and line level circuits. These connectors should contain a concentric capacitor to terminate the shield to the shell at radio frequencies. Two connector types, male and female, are intended for use within equipment, and according to the recommendations of SC-05-05, should offer greatly improved contact between the shells of mating connectors, greatly improved contact between pin 1, the shell, and the outside of the chassis (or shielding enclosure). It was expected that small radio frequency bypass capacitors would be fitted between pins 2 and 3 and the shell. Two connector types, male and female, are intended for use on wiring panels external to equipment.

M. Natter reported on research work on several pre-production prototypes of a male cable-mount connector incorporating a capacitor of concentric construction. B. Whitlock reported, via e-mail, on preliminary measurements of concentric capacitors. Measurement techniques, including suitable test fixtures, were discussed. The test jig should allow determination of the impedance of the capacitor over a wide frequency range by the measurement of the voltage divider ratio when a generator of known impedance drives the capacitor.

Woodgate described a test jig he has constructed that connects the center conductor of a coaxial connector from the generator to the shield connection of the concentric capacitor. The shell of the coaxial connector is connected nearly concentrically to the shell of the connector in which the concentric connector is mounted. The cable shield also connects to pin 1 through a suitable ferrite bead. The center

conductor of a coaxial feed to an rf voltmeter (spectrum analyzer, network analyzer, receiver) connects to pin 1 of a mating connector, and the shell of that coaxial connector is connected to the shell of the connector holding the capacitor being tested. The effectiveness of the test jig could be determined by replacing the capacitor with a copper disc that short circuits the generator but makes contact with pin 1 in the same manner as it would with the capacitor, and by measuring at the same point as before. Under the short circuit condition a very high value of attenuation should be measured over the frequency range of interest. Brown noted the need for measurements that test for detection of radio frequency energy by a differential input stage connected when a signal is injected in the same manner as in the Woodgate tests.

Natter and Woodgate will continue work on one or more prototypes of connectors that include a concentric capacitor and measurements of their performance.

Commonly used panel-mount connectors with mounting flanges that contact the outside of the chassis or panel were seen as nearly ideal for contact between the shell and the panel. Some redesign is needed to reduce the impedance (principally the inductance) of the connection between pin 1 and the chassis by shortening the signal path. This may be accomplished by connecting pin 1 to the shell within the connector.

Male and female connectors were described to meet the requirement of insulating XL connector shells from a mounting panel external to equipment. These connectors are expected to use a capacitor between pin 1 and the panel and another between the shell and the panel. Because of the way SC-05-05 expects these connectors to be used, these capacitors can be conventional types having good high frequency properties. It was noted that the capacitor between the shell and the chassis can be subjected to considerable stress from ESD, and should be of a type suitably rated for that condition.

AES-X130 Category-6 Data Connector in an XL Connector Shell

The intent of the standard to be developed needs clarification. J. Woodgate will put a summary of IEC SC 48B documents on CAT6 connectors on the reflector. The current goal is a PTD. The target date is 2003-05.

New projects

No project requests were received or introduced.

New business

There was a discussion of the changes in scope for SC-05-02 and SC-05-03 expressed in the minutes of the November 2001 meeting. It was felt that, although accurately reported in those minutes, the wording should be revised slightly for clarity.

Secretariat note: At the subsequent meeting of Subcommittee SC-05, the proposed clarifications were adopted with minor amendments so the the scopes now read:

“The scope of the SC-05-02 Working Group on Audio →

Connections shall include, within the bounds of the scope of SC-05, new usage, description, and contact designation for connectors for audio and ancillary functions.

“The scope of the SC-05-03 Working Group on Audio Connectors shall include, within the bounds of the scope of SC-05, documentation of established connector usages for audio and ancillary functions.”

The next meeting is scheduled to be held in conjunction with the AES 113th Convention in Los Angeles, CA, US.

Report of the SC-05-05, Working Group on Grounding and EMC Practices of the SC-05 Subcommittee on Interconnections, held in conjunction with the AES 112th Convention in Munich, Germany, 2002-05-10

The meeting was convened by Chair B. Olson.

The agenda order was revised by the chair to have the AES-X13 item appear at the end of Current Projects. The revised agenda was approved. The report of the meeting in November 2001 in New York City was accepted as written.

Current projects

AES-X27 Test Methods for Measuring Electromagnetic Interference

This document is intended to be an Engineering Report outlining useful procedures for measuring the electromagnetic interference created by real-world conditions.

A report called “Informal immunity testing of small microphone pre-amplifiers and mix consoles” was presented by J. Brown. This showed the general direction that we will need to go to produce a set of guidelines allowing users to determine the susceptibility of equipment to electromagnetic interference.

R. Caine pointed out that this testing could be much more stringent than the legal requirements and is intended to show the ability of equipment that is most suitable for the highest quality professional audio systems.

It is hoped that manufacturers will be encouraged to produce a low-cost test generator that will allow suitable testing of equipment using a variety of test fixtures.

Alternatively, the document will describe procedures that can be used with radios transmitters or cellular telephones as the interference source. These radios and cellular telephones would need to be used in their normal operation by licensed operators as required by relevant statute.

The following observations were made from initial experience of testing with radios and cellular telephones:

- 1) As frequency increased, the immunity improved.
- 2) As the distance from the device increased past a wavelength of the RF carrier, the cable attenuation reduced the level of the interference and therefore the immunity was also increased.
- 3) The headphone output stages of some mixers were often the most susceptible to interference.

This report on informal immunity testing was NOT directed only at AES-X27, but rather at demonstrating the

general level of immunity of some typical low cost products to a real-world interference source. Inclusion of such a test into AES-X27 was discussed and considered useful by those members present, but the need for cautions regarding the avoidance of interference to radio communications and conformance with national regulations was emphasized.

Caine pointed out that a coupling device would be useful for the radiated immunity tests.

J. Woodgate pointed out that this project originally started as a set of tests for low-frequency interference. He also pointed out that it should reference IEC 61004 as the primary test method.

Olson proposed a foreword for AES-X27 that clearly presents why these tests are different from either EN 55103-2 or IEC 61004. AES-X27 should address testing for pin 1 problems at both audio and radio frequencies, testing of excessive input and output bandwidth, and general RF immunity testing.

Brown offered to lead the writing effort for AES-X27.

The expectation is for a PWD for the Standards Project Report by 2002-09.

AES-X35 Installation Wiring Practices

Olson proposed an outline to guide further development of the document.

I. Cable Grouping

II. Grounding

- A. Mesh
- B. Star
- C. Hybrid
- D. Wrong

III. Safety

- A. Fire and Smoke

IV. Shielding

V. Cable Types

- A. Conduit
- B. Plenum requirements

VI. Wiring Practices

- A. Permanent installations
- B. Temporary installations

VII. Connectors

Woodgate pointed out the need for Normative References to the relevant safety standards and documents. This will be a substantial amount of work.

The chair will find help to merge the existing X35 document into the new outline.

AES-X112 Insulating Cable-Mount XL Connectors

A new, clearer title was proposed: “XLR free connectors with non-conducting shells.”

The intent is to create an Information Document on applications of connectors for facilities. This should include an explanation of stopgap measures using nonconductive covers to prevent inadvertent ground connections to the shielding contact. This work should appear as part of the X35 document. Woodgate offered to write a section for X35 regarding this.

AES-X125 Input Filtering for Electromagnetic Compatibility

Waldron indicated that K. Armstrong would write an information document for this project.

Brown proposed that the scope be expanded to include output and control port filtering. This need not be specific but should list the appropriate issues to be considered. The WG decided that just input and output filtering would be included at this stage.

AES-X13 Guidelines for Grounding

The scope of the document has been greatly simplified. Specific wording was discussed to remove performance requirements and clarify definitions. The meeting agreed on all the wording changes and decided that the PWD was ready to be progressed to a PCFC. The revised document will be posted to the reflector before being forwarded to the Secretariat to be formatted as a PCFC.

M. Natter presented preliminary results of measurements made on a connector prototype that incorporates some ideas for coaxial connection through a quasi-discoid capacitor to the shell of an XLR connector. The results look promising but need further investigation and testing.

Much discussion ensued about the need for protection from surges across the capacitor. More testing and measurement is required to show whether this is a problem. R. Cabot pointed out that, for the value of capacitance under consideration, it did not appear that a damaging voltage would appear across the capacitor in any configuration.

New projects

There were no new projects.

New business

There was no new business.

The next meeting will be held in conjunction with the AES 113th Convention in Los Angeles, CA, US.

Report of the SC-06-01 Working Group on Audio-File Transfer and Exchange of the SC-06 Subcommittee on Network and File Transfer of Audio meeting, held in conjunction with the AES 112th Convention in Munich, Germany, 2002-05-09

The meeting was convened by Chair M. Yonge.

The agenda was approved with the addition of a report on the progress of AES46-xxxx. The report of the previous meeting at 111th Convention in New York was approved as written.

Open projects

AES46-xxxx Radio Traffic Data Extension to Broadcast Wave Files

A Call for Comment was issued on 2002-03-07. M. Gerhardt had sent a comment requesting clarification of the order of RIFF chunks within a Broadcast Wave File (BWF) which had been satisfactorily addressed by an editorial change. There had been no other comments so far within the comment period which was due to close on 2002-06-08.

AES31-1-R AES Standard for Network and File Transfer of Audio, Part 1: Disk Format

No action was taken in this maintenance project.

AES31-3-R AES Standard for Network and File Transfer of Audio, Part 3: Simple Project Interchange

It was observed that the sampling frequencies supported within AES31-3-1999 did not include some of the higher frequencies anticipated in a revision of AES5, specifically 96 kHz and 192 kHz. These frequencies are important for record companies who wish to archive music recording, for instance. An amendment was proposed to include a multiplier parameter in the header chunk that would indicate multiples of the sampling frequencies already defined.

U. Henry is preparing a proposal document for Edit Automation.

The question of supporting video in AES31 was raised. There was a general feeling that this would be too complex for this body to handle, although there was no objection to working with some other body to assist the development of a complementary standard for simple video project interchange.

AES-X66 File Format for Transferring Digital Audio Data Between Systems of Different Type and Manufacture

There was a discussion of the filename extension to be used with Broadcast Wave Files. Some had assumed that “.bwf” would be used. It was pointed out that this was not part of the EBU specification and that the “.wav” extension was intended.

There was some concern that the usage of the Unique Material Identifier (UMID) was under renewed discussion within SMPTE with the potential to impact its use in AES-X66. More information will be sought.

The issue of higher sampling frequencies will be discussed with the EBU to avoid the risk of divergent specifications.

The document for AES-X66 still needs to be re-drafted in IEC style; the secretariat will arrange for this to happen.

AES-X68 A Format for Passing Edited Digital Audio Between Systems of Different Type and Manufacture that Is Based on Object Oriented Computer Techniques

No action was taken.

AES-X71 Liaison with SMPTE Registration Authority

No action was reported. It was felt that the AES should investigate registering a SMPTE label for the AES31-1 data format.

AES-X128 Liaison with AAF Association

No action was taken.

New projects

No new projects were received or proposed.

New business

There was no new business.

The next meeting is scheduled to be held in conjunction with the AES 113th Convention in Los Angeles, CA, US.