IEC TC 100 AGS

Audio Engineering Society Standards
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AES Standards

History

Current Status

Future Directions

History
AES STANDARDS

1980s

➤ Digital audio fundamentals
- Sampling frequencies (AES5)
  - *1984, 1997, 2003, 2008*
- 2-channel interface (AES3)
  - *1985, 1992, 2003, 2009*

1990s

➢ Refinements (synchronous systems)

- Digital audio measurements (AES17)
    1991, 1996, 1998, 2015
- Studio synchronization (AES11)
    1991, 1997, 2003, 2009
- Multichannel interface, MADI (AES10)
    1991, 2003, 2008,

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2000s

➢ Various

- Digitally-interfaced microphone (AES42)
    2001, 2006, 2010
- Loudspeaker polar radiation measure (AES56)
    2008
- Connection of cable shields (AES48, AES54)
    2005, 2008

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2010s

➢ Audio networking & metadata

- Audio over IP networking (AES67)
  2013, 2015
- Streaming metadata (AES52, AES41)
  2006, 2009, 2012
- Metadata sets (AES57, AES60)
  2011, 2011
- Open Control Architecture (AES70)
  2016

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Current Status
AES STANDARDS

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Ongoing Project Status

AESSC WG	AESSC #	IEC #	Description
SC-04-03	AES2	IEC 60268-5, IEC 60268-21	Loudspeakers
SC-02-02	AES3	IEC 60958-4	Digital interface
SC-04-04	n/a	IEC 60268-4	Microphones
SC-02-01	AES17	IEC 61606-1, IEC 61606-3	Digital audio measurement
SC-02-12	AES58	IEC 61883-6	IEEE 1394 bus, Audio and music data
SC-04-04	n/a	IEC 61938	Matching values, phantom power
SC-02-02	AES47	IEC 62365	Audio over ATM networks
SC-02-02	AES3	IEC 62537	Loudspeakers with digital inputs
SC-02-08	AES31-2	IEC 62942	Broadcast Wave Format files

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Current Project Status

➢ AES31-2-2012 – IEC PT62942

- Broadcast Wave File
- Proposed in 2015 by AEC to IEC TC100
- CD comment period closes 2017-11-03
- AESSC SC-02-08 will propose to update AES31-2 in due course to harmonize with IEC 62942

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Current Project Status

➤ IEC 60268-21

- Acoustical Measurements (Output-based)
- IEC TC100 Work-In-Progress
- AES SC-04-03 Working Group providing input

Current Project Status

➤ IEC 62537

- Interface for loudspeakers based on IEC 60958-4
- IEC TC100 Work-In-Progress
- AES SC-02-02 Working Group providing input

Future
AES STANDARDS

Future

➢ Smarter audio networks

- Self-configuring audio networks
- Wide-area audio networks
- Virtualization of audio systems
- Opportunities using the Internet of Things (IoT)

Future Project Proposals

➢ AES67

- Currently being revised every 2 years or so
- Will propose to IEC when more stable

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Audio over IP
AES STANDARDS

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Existing Standards

➤ AES67 High-performance streaming – audio-over-IP interoperability

➤ AES70-1 Open Control Architecture – Part 1: Framework

➤ AES70-2 Open Control Architecture – Part 2: Class structure

➤ AES70-3 Open Control Architecture – Part 3: Protocol for TCP/IP Networks

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AES Group Structure

➤ Digital audio networking standards developed under Working Group SC-02-12

➤ SC-02-12-L Task group on Open Control Architecture

➤ SC-02-12M Task group on AES67 development

➤ SC-02-12N Task group on Media network directory architecture

Current work

- New revisions in development of both AES67 and AES70
- AES67 Plug-fests held every 1 - 1.5 years
- AES70 group working with OCA Alliance
- Both AES67 and AES70 groups actively working with SMPTE and ITU

New Projects

- New task group approved: method for transporting time synchronous metadata associated with audio in an AES67 stream
- Group is chaired by Kent Terry from Dolby
- Scope of this work will be refined and fixed during AES October meeting in NY
- First draft standard expected by 4Q 2018