

STANDARDS AND INFORMATION DOCUMENTS

AES52-2006
(r2022)



STANDARDS

AES standard for digital audio engineering — Insertion of unique identifiers into the AES3 transport stream

Users of this standard are encouraged to determine if they are using the latest printing incorporating all current amendments and editorial corrections. Information on the latest status, edition, and printing of a standard can be found at:
<http://www.aes.org/standards>

AUDIO ENGINEERING SOCIETY, INC.

132 East 43rd St., Suite 405, New York, NY 10017 US. www.aes.org/standards



The AES Standards Committee is the organization responsible for the standards program of the Audio Engineering Society. It publishes technical standards, information documents and technical reports. Working groups and task groups with a fully international membership are engaged in writing standards covering fields that include topics of specific relevance to professional audio. Membership of any AES standards working group is open to all individuals who are materially and directly affected by the documents that may be issued under the scope of that working group.

Complete information, including working group scopes and project status is available at <http://www.aes.org/standards>. Enquiries may be addressed to standards@aes.org

STANDARDS

The AES Standards Committee is supported in part by those listed below who, as Standards Sustainers, make significant financial contribution to its operation.



audio-technica



CLAIR



WEISS



METRIC HALO



This list is current as of 2018/9/01

AES standard for digital audio engineering — Insertion of unique identifiers into the AES3 transport stream

Published by

Audio Engineering Society, Inc.

Copyright ©2005 by the Audio Engineering Society

Abstract

The AES3 transport stream continues to be used extensively in both discrete and network based audio systems alongside audio stored as files. Audio content is moving towards being handled by asset management systems and descriptive metadata associated with that content is also being stored within systems. In order to provide a mechanism for AES3 transport streams to have similar abilities to work with content management systems, some form of unique label is required which can provide the link with these systems. One of the unique labels currently standardised in the media industry is the SMPTE UMID while another commonly used in the Information Technology area is the IEC UUID.

This standard specifies the method for inserting unique identifiers into the user data area of an AES3 stream. This specifically covers the use of UUID as well as a basic or extended SMPTE UMID.

An AES standard implies a consensus of those directly and materially affected by its scope and provisions and is intended as a guide to aid the manufacturer, the consumer, and the general public. The existence of an AES standard does not in any respect preclude anyone, whether or not he or she has approved the document, from manufacturing, marketing, purchasing, or using products, processes, or procedures not in agreement with the standard. Prior to approval, all parties were provided opportunities to comment or object to any provision. Attention is drawn to the possibility that some of the elements of this AES standard or information document may be the subject of patent rights. AES shall not be held responsible for identifying any or all such patents. Approval does not assume any liability to any patent owner, nor does it assume any obligation whatever to parties adopting the standards document. This document is subject to periodic review and users are cautioned to obtain the latest edition. Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Audio Engineering Society Inc. 551 Fifth Avenue, New York, NY 10176, US.

www.aes.org/standards standards@aes.org



Contents

Introduction	4
1 Scope	4
2 Normative references	4
3 Definitions and abbreviations	5
4 Relationship between audio and identifier	5
4.1 UID symbol rate	5
4.2 System transparency	5
5 UID minimum implementation	5
6 UID data transport in AES3 streams	5
6.1 UID indication in AES3 channel status	5
6.2 UID transport.....	5
6.3 UID signaling.....	6
Annex A: (Normative) Block CRCC	7
Annex B: (Normative) UMID CRC	8
Annex C: (Informative) Real-time symbol rate	9
Annex D: (Informative) Informative references	10
Annex E: (Normative) Unique material identifiers (UMID)	11
E.1 UMID format	11
E.2 UMID data block format.....	11
Annex F: (Normative) Universal unique identifiers (UUID)	13
F.1 UUID format.....	13
F.2 UUID data block format	13



Foreword

[This foreword is not part of the document: AES52-2006 *Insertion of Unique Identifiers into the AES3 transport stream.*]

This document was developed under project AES-X111 *Transmission of a unique identifier on AES3*. It was initially written by task group SC-02-02-G led by C. Chambers.

The members of the task group were: D. Ackerman, R. Caine, C. Gaunt, J. Grant, A. Mason, T. Sheldon, J. Strawn, M. Yonge.

John Grant, chair
Robert A. Finger, vice-chair
SC-02-02 Working Group on Digital Audio Input/Output Interfacing

Addendum 2010-02-19

A new multi-part revision of AES3 was published in 2009. Its technical content is intended to be identical to the relevant parts of the 2003 edition as amended by Amendment 5 (2008) and Amendment 6 (2008). Where this document refers to clauses of earlier editions of AES3, equivalent references to AES3-2009 are also offered, *[identified by italic text in square brackets]*.

Note on normative language

In AES standards documents, sentences containing the word “shall” are requirements for compliance with the document. Sentences containing the verb “should” are strong suggestions (recommendations). Sentences giving permission use the verb “may”. Sentences expressing a possibility use the verb “can”.



AES standard for digital audio engineering — Insertion of unique identifiers into the AES3 transport stream

Introduction

A unique identifier is used for the automatic identification of a digital audio stream and to provide a key to related data, or metadata, held in a separate system. In order to maintain an accurate relationship between the audio content and the unique ID, it is recommended that the following points be considered when implementing this standard.

- The unique identifier should be capable of being inserted in a consistent way in synchronism with the audio data it applies to at any AES3 input interface.
- The unique identifier should be capable of being extracted and reinserted at any point where the content of the audio data may be changed or the ID data could be changed by processes acting on the AES3 transport stream. A different ID may be applied at this point in synchronism with new or changed audio content.
- Systems monitoring an AES3 interface should be able to automatically identify the audio data stream by extracting the globally unique reference from the data that can then be used as a look-up label in external systems.
- Interfaces which insert, extract, reinsert or monitor the ID "data stream" should not reduce the ID symbol rate (see clause 6) on any AES audio path.

1 Scope

This standard specifies a method for the insertion of a unique identifier into an AES3 digital audio signal.

This document does not cover unique ID usage policy.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. Clause and figure numbers in references apply to the edition cited. For undated references, the latest edition of the referenced document (including any amendments) applies.

AES3-2003, *AES Recommended Practice for Digital Audio Engineering — Serial transmission format for two-channel linearly represented digital audio data*. Audio Engineering Society, New York, NY. US.

SMPTE 330M-2004, *SMPTE Standard for Television — Unique Material Identifier (UMID)*

ISO/IEC 11578-1996, - *Information technology - Open Systems Interconnection - Remote Procedure Call (RPC) [Annex A: Universal Unique Identifier]*

