

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

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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.

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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.

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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”.

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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]*

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