

SMPTE STANDARD



SMPTE Core Metadata

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Foreword

SMPTE (the Society of Motion Picture and Television Engineers) is an internationally-recognized standards developing organization. Headquartered and incorporated in the United States of America, SMPTE has members in over 80 countries on six continents. SMPTE's Engineering Documents, including Standards, Recommended Practices, and Engineering Guidelines, are prepared by SMPTE's Technology Committees. Participation in these Committees is open to all with a bona fide interest in their work. SMPTE cooperates closely with other standards-developing organizations, including ISO, IEC and ITU.

SMPTE Engineering Documents are drafted in accordance with the rules given in its Standards Operations Manual. This SMPTE Engineering Document was prepared by Technology Committee 30MR.

Intellectual Property

At the time of publication no notice had been received by SMPTE claiming patent rights essential to the implementation of this Engineering Document. However, attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. SMPTE shall not be held responsible for identifying any or all such patent rights.

Introduction

This specification describes the SMPTECore Metadata Set.

SMPTECore is a set of definitions for common metadata elements proposed as a reference for SMPTE standardization work.

The SMPTECore elements have been defined as being complementary with other metadata specifications like AD-Id, AES60, Dublin Core, EBUCore, EIDR, EN 15907, MovieLabs' Common Metadata, PBCore, XMP and W3C's Media Ontology.

1 Scope

The SMPTECore standard provides definitions for a core set of descriptive (only) metadata as a reference to support interoperable use across diverse professional broadcast and feature motion picture workflows and user tasks.

The SMPTE Core set of elements is common to existing metadata standards in use in the broadcasting and feature motion picture communities.

Because the purpose of these metadata elements is to be adapted to various implementation frameworks, technical details (e.g. datatypes of each element) are out of scope. As a consequence, this standard proposes a set of definitions and is not a technical specification containing all details required for a corresponding compliant implementation.

The SMPTECore supports multi-lingual metadata.

The SMPTECore proposes mechanisms to use controlled vocabularies or classification schemes. The controlled vocabularies and classification schemes themselves are out of scope.

This standard provides an informative xml representation of SMPTECore to illustrate an example of implementation of the proposed metadata set.

2 Conformance Notation

Normative text is text that describes elements of the design that are indispensable or contains the conformance language keywords: "shall", "should", or "may". Informative text is text that is potentially helpful to the user, but not indispensable, and can be removed, changed, or added editorially without affecting interoperability. Informative text does not contain any conformance keywords.

All text in this document is, by default, normative, except: the Introduction, any section explicitly labeled as "Informative" or individual paragraphs that start with "Note:"

The keywords "shall" and "shall not" indicate requirements strictly to be followed in order to conform to the document and from which no deviation is permitted.

The keywords, "should" and "should not" indicate that, among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain possibility or course of action is deprecated but not prohibited.

The keywords "may" and "need not" indicate courses of action permissible within the limits of the document.

The keyword "reserved" indicates a provision that is not defined at this time, shall not be used, and may be defined in the future. The keyword "forbidden" indicates "reserved" and in addition indicates that the provision will never be defined in the future.

A conformant implementation according to this document is one that includes all mandatory provisions ("shall") and, if implemented, all recommended provisions ("should") as described. A conformant implementation need not implement optional provisions ("may") and need not implement them as described.

Unless otherwise specified, the order of precedence of the types of normative information in this document shall be as follows: Normative prose shall be the authoritative definition; Tables shall be next; then formal languages; then figures; and then any other language forms.

3 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this engineering document. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this engineering document are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.

IETF RFC 1738, Uniform Resource Locators (URL), December 1994.

IETF RFC 3986, Uniform Resource Identifier (URI): Generic Syntax, January 2005.

IETF RFC 5646, Tags for Identifying Languages, September 2009.

ST 335:2012 Metadata Element Dictionary Structure

ST 395:2014 Metadata Groups Register

ST 400:2012 SMPTE Labels Structure

ST 2003:2012 Types Dictionary Structure

ST 330:2011 Unique Material Identifier (UMID)

ISO 15706-1:2002, Information and documentation -- International Standard Audiovisual Number (ISAN) -- Part 1: Audiovisual work identifier

ISO 8601:2004, Data elements and interchange formats -- Information interchange -- Representation of dates and times

ISO 26324:2012, Information and documentation -- Digital object identifier system

4 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

4.1 Agent

Person or organization

4.2 Item

Manifestation of a Work as a file or media

4.3 Resource

Entity that can be either a Work or an Item

4.4 Work

Intellectual content.

Note: it can be manifested as various Items (e.g., file, DVD, video, Blu-Ray), but the underlying content remains the same.

5 SMPTE Core elements

5.1 Notation

5.1.1 Table Definitions

Table 1 provides the name and definitions of the line headers used in the remaining of the document for the tables describing the SMPTE Core elements.

Table 1 . Definitions

Field	Description
Name	Name of the SMPTE Core element
Cardinality	The cardinality of root elements is left to the decision of each implementer.
Properties	Properties characterizing the element
Definition	Definition of the attribute
Example	Examples (Informative)
Notes	Informative notes that provide additional informative contextual information

5.1.2 Controlled Vocabulary Set

The following attributes are used throughout the specification to facilitate the use of controlled vocabularies, which common features include a term identifier, a term name and a term definition defined by various authorities within their respective namespaces. These attributes are collectively referred to as “Controlled Vocabulary Set”.

- label [0..1] “a term name”
- link [0..1] “a link to a term id in a controlled vocabulary”
- definition [0..1] “a term definition”
- source [0..1] “to identify the authority managing the controlled vocabulary in use”
- namespace [0..1] “the domain within which the controlled vocabulary is defined, which may be used in the root of a link to a term id”

5.1.3 Cardinality

Cardinality of attributes and properties (used in the fields Cardinality and Properties)

0..1 – This item shall be optional with only one possible occurrence

0..* – This item shall be optional with zero to many possible occurrences

1..1 – This item shall be present once and only once

1..* – This item shall be present once or more

5.2 IDENTIFIER

IDENTIFIER is a unique, unambiguous reference to a Resource, Work or Item (other elements such as Agent and Subject have dedicated identifier sub-elements). IDENTIFIERS are regularly used for different reasons in various implementation contexts.

IDENTIFIER shall identify Resources, Works or Items during the process of content creation, post-production, rights clearance, distribution on a variety of media, or for the discoverability of Works.

IDENTIFIERS may take the following form:

- As provided by identification agencies or authorities in the format defined by these organizations.
- As defined 'in-house'.
- A UID (Unique Identifier), a UMID Unique Material identifier (SMPTE ST 330), an ISAN (ISO 15706 International Standard Audiovisual Number) or an EIDR (Entertainment ID Registry based on ISO 26324 (the international standard Digital Object Identifier) , as defined in the SMPTE metadata registers (SMPTE ST 335, SMPTE ST 400, SMPTE ST 395, and SMPTE 2003).
- User defined globally unique identifier managing discrete identifier behind their namespace.
- A unique title.

Note: a unique identifier associated to the 'smpte' namespace is globally unique provided that the 'smpte' namespace is uniquely registered (e.g. smpte: 1234-456).

Note: A unique title can also serve as an identifier in the IDENTIFIER element. This follows common practice in public archives and libraries, especially in cases where an organization might not have a unique alphanumeric identifier for the content.

More than one, different but still unique, identifier may be attributed for the same Resource, Work, or Item.

Note: The European film archives metadata standard prEN 15907 has a distinct element named Identifying Title. Libraries following AACR2, RDA, and *Archival Moving Image Materials (AMIM)* cataloguing rules can apply the concept of a Uniform Title as a type of IDENTIFIER, as shown in the following example. When a title is used as an identifier, it often includes form or date information for disambiguation. For example, the Library of Congress authorized uniform title *Superman (Motion picture: 1978)* uses "motion picture" to distinguish this particular Superman from the comic book or television series. The year 1978 distinguishes the film from the 1940s theatrical serial.

IDENTIFIER and subordinate objects shall comply with Tables 2-6.

Table 2: Identifier

Name	IDENTIFIER
Cardinality	Application/implementation specific.
Properties	identifier_value [1] identifier_attributor [0..1] identifier_format [0..1] identifier_kind [0..1]

Table 3: Identifier value

Name	Identifier_value
Definition	A unique, unambiguous reference to a Resource, Work, or Item.
Example	'Superman (Motion picture : 1978)' 'ISAN 0000-0000-6776-0000-8-0000-0000-D'

	'The Great Train Robbery (Motion picture : 1903)' 'EIDR 10.5240/7791-8534-2C23-9030-8610-5'
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Table 4: Identifier attributor

Name	Identifier_attributor
Definition	The identifier attributor shall be an Agent acting as an authority in charge of identifying the Resource, Work, Item.
Example	agentName: ISAN, EIDR

Table 5: Identifier format

Name	Identifier_format
Properties	Controlled Vocabulary Set as defined in Section 5.1.2
Definition	The format in which the identifier is provided. Additional information can be provided in the definition on the structure / syntax of the identifier for advanced parsing purposes.
Example	UID, UMID, EIDR, ISAN, Library of Congress Authorities, or the name of other identifiers as listed in RP210 or RP224.

Table 6: Identifier kind

Name	Identifier_kind
Properties	Controlled Vocabulary Set as defined in Section 5.1.2
Definition	The type of the identifier.
Example	Production Number, Instantiation Identifier, Record Identifier, Asset Id, Billing Id, Inventory Number

5.3 TITLE

TITLE shall be a name of a Resource, Work or Item. Generally, title is the 'main' name given to that Resource, Work or Item.

There is broad usage for TITLE ranging from an official name that also serves as an identifier (see identifier) to a utilitarian title used for searching or to catch common misspellings. TITLE can be specific to an organization or shared across organizations. Titles can be the name by which a Resource, Work, Item is formally known in which case the title shall be used to refer to this content.

In media production and distribution a work can have many titles, each with a different function.

TITLE can correspond to single Resources, Works, or Items such as a film or TV episode, or it can refer to a grouping such as a television season or series.

"Authorized" titles can be the name by which a Resource, Work, Item is formally known and that is used to refer to content.

TITLE and subordinate objects shall comply with Tables 7-13.

Table 7: Title

Name	TITLE
Cardinality	Application/implementation specific.
Properties	title_value [1] title_kind [1..*] title_length [0..1] title_temporal_scope [0..1] title_geographical_scope [0..1] title_geographical_exclusion_scope [0..1]

Table 8: Title value

Name	title_value
Definition	A word, phrase, character, or group of characters, naming specific content, a collection, a particular variant or manifestation of a Resource, or an individual Resource, Work, Item.
Example	'Gladiator', 'Game of Thrones', 'Game of Thrones Season 1', 'Christian Bale Project', 'Christmas Special.'
Notes	Titles can be assigned before production begins, and may be working titles as placeholders for works in production without final titles.

Table 9: Title kind

Name	title_kind
Properties	Controlled Vocabulary Set as defined in Section 5.1.2
Definition	Defines one or more types of title, typically defining its intended use. The type may be provided as free text or linking to a term in a controlled vocabulary.
Example	Original, display, search, B2B supply chain, alternative, secondary, working, Italian release

Table 10: Title value

Name	title_length
Definition	The maximum number of characters for a title or an indication on the length of a title
Example	'100' or 'short', 'medium', 'long',

Table 11: Title temporal scope

Name	title_temporal_scope
Properties	startDate [0..1] endDate [0..1]
Definition	A period of time from the date of attribution/modification (startDate) to the deprecation date (endDate), if relevant. The absence of endDate means the Title is valid.