**SMPTE ST 2xxx-1:202x**

SMPTE STANDARD

OSA Vocabulay

# Foreword

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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 TC-30MR.

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.

# Introduction

SMPTE ST 2117-1 (VC-6) is a versatile intra-frame compression scheme. This document maps the VC-6 bitstream into the MXF Generic Container. The usage of this mapping to synchronise with other components such as audio and video is outside the scope of this document.

The MXF Generic Container is a streamable Essence Container that can be placed on any suitable transport and stored. SMPTE ST 379-1 defines the MXF Generic Container as the native Essence Container in MXF files. SMPTE ST 379-2 defines the MXF Constrained Generic Container.

Other MXF mapping documents such as SMPTE ST 382 define how Audio can be mapped and synchronised with the video stream in the MXF Generic Container.

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.

# 1 Scope

This Standard constrains the MXF mapping of SMPTE ST-2117-1 into the MXF Generic Container or MXF Constrained Generic Container.

# 2 Normative References

REF, year, Title

# 3 Terms and Definitions

Chuck the T&Ds here

Chuck the T&Ds here

# 4 MXF File Structure and Mapping

## 4.1 General

SMPTE ST-2117-10 MXF files specified by this document shall have one of the two structures illustrated in Figure 1 and Figure 2 respectively. **HPP** is an shorthand for Header Partition Pack, **BPP** is an shorthand for Body Partition Pack and **FPP** is a shorthand for Footer Partition Pack.

In the source markdown - this shows how to do a figure



In the source markdown - this shows how to do a figure caption. In ISO, caption figures are below pictures and table captions are above figures. The syntax starting with ::: is known as a fence block and creates a section with a paragraph style in word.

Figure 1 - Single Essence Location Style

## 4.2 Heading 2

As shown in Figure 1, this style consists of a Header Partition, a Footer Partition, and a Random Index Pack.

A bulletted list.

* It is easy to handle because of a simple structure
* It is easy to edit while file transferring
* It is easy to select an extract, or a “Partial file”

A numbered list.

1. Index Table Segment::Single Index Location TRUE (Single Location)
2. Index Table Segment::Single Location TRUE (Single Location)
3. Index Table Segment::Forward Index Direction TRUE (Forward)
4. Preface:: is RIP present TRUE

## 4.3 Code example

Figure 2 below shows some raw JSON for the term Interoperability

{  
 "@id": "https://vocabulary.pbs.org/OSAGlossary/63",  
 "@type": ["http://www.w3.org/2004/02/skos/core#Concept"],  
 "http://purl.org/dc/terms/contributor": [{  
 "@id": "https://vocabulary.pbs.org/user/hubbards"  
 }],  
 "http://purl.org/dc/terms/created": [{  
 "@type": "http://www.w3.org/2001/XMLSchema#dateTime",  
 "@value": "2021-05-20T17:36:31.650Z"  
 }],  
 "http://purl.org/dc/terms/creator": [{  
 "@id": "https://vocabulary.pbs.org/user/hubbards"  
 }],  
 "http://purl.org/dc/terms/modified": [{  
 "@type": "http://www.w3.org/2001/XMLSchema#dateTime",  
 "@value": "2021-05-21T01:00:15.850Z"  
 }],  
 "http://www.w3.org/2004/02/skos/core#definition": [{  
 "@language": "en",  
 "@value": "NIST: The ability of two or more systems or applications to exchange information and to mutually use the information that has been exchanged."  
 }],  
 "http://www.w3.org/2004/02/skos/core#prefLabel": [{  
 "@language": "en",  
 "@value": "Interoperability"  
 }],  
 "http://www.w3.org/2004/02/skos/core#scopeNote": [{  
 "@language": "en",  
 "@value": "NIST SP 500-XXX: The NIST Cloud Federation Reference Architecture (Draft)"  
 }, {  
 "@language": "en",  
 "@value": "OSA Vocabulary Group (Proposed)"  
 }],  
 "http://www.w3.org/2004/02/skos/core#topConceptOf": [{  
 "@id": "https://vocabulary.pbs.org/OSAGlossary/0"  
 }]  
}

Figure 2 - JSON in the raw

Table 1 - Output from raw JSON

|  |  |
| --- | --- |
| Term | Definition (too complex with Pandoc} |
| Interoperability | No substitution possible |

Figure 3 below shows an alternative *smunched* version of the .jsonld file to make the documents easier to generate. Basically it rearranges the JSON so that it’s easy for a human to reference a term rather than manage an abstract list of terms with generic relationships.

{  
 "Interoperability": {  
 "@id": "63",  
 "contributor": "hubbards",  
 "definition": "NIST: The ability of two or more systems or applications to exchange information and to mutually use the information that has been exchanged.",  
 "label": "Interoperability",  
 "note": "NIST SP 500-XXX: The NIST Cloud Federation Reference Architecture (Draft)",  
 "status": "Proposed"  
 }  
}

Figure 3 - smunched JSON

Table 2 - Output from smunched JSON

|  |  |  |  |
| --- | --- | --- | --- |
| # | Term | Definition | Note |
| 63 | Interoperability | NIST: The ability of two or more systems or applications to exchange information and to mutually use the information that has been exchanged. | NIST SP 500-XXX: The NIST Cloud Federation Reference Architecture (Draft) |