

SMPTE STANDARD

Interoperable Master Format — Application #4 Cinema Mezzanine



Table of Contents	Page
Foreword.....	2
Intellectual Property.....	2
1 Scope.....	3
2 Conformance Notation.....	3
3 Normative References.....	3
4 Basic Constraints.....	4
5 Image Essence.....	5
6 Track Files.....	7
7 Composition.....	12
Annex A XYZ Color Primaries.....	14
Annex B Active Area Rectangle Examples (Informative).....	15
Bibliography (Informative).....	16

Foreword

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SMPTE Engineering Documents are drafted in accordance with the rules given in its Standards Operations Manual.

SMPTE ST 2067-40 was prepared by Technology Committee 35PM.

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.

1 Scope

This document specifies compositions for IMF Application #4. IMF Application #4 is a specialization of the IMF Framework, and is intended to exchange content of cinematographic work after digital postproduction either sourced from film or from digital media and can be used in a preservation framework. It specifies:

- images encoded using 16-bit XYZ color primaries and a linear transfer function;
- maximum image frame width and height of 8192 and 6224 pixels, respectively; and
- a constrained Composition structure that mimics the segmentation of movie into individual reels.

To simplify implementation, IMF Application #4 reuses constraints from IMF Application #2 whenever appropriate.

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; followed by 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 standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.