SMPTE AG-16:2020

Administrative Guideline

Principles and rules for the structure and formatting of Engineering Documents

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Foreword

This Standards Administrative Guideline forms an adjunct to the use and interpretation of the SMPTE Standards Operations Manual. In the event of a conflict, the SMPTE Standards Operations Manual shall prevail.

# Scope

This Administrative Guideline specifies the principles and rules for the structure and formatting of Engineering Documents.

# Normative References

SMPTE Standards Operation Manual

SMPTE AG-02, Engineering Documents

SMPTE AG-03, Normative References

SMPTE AG-04, Standard Template

ISO/IEC Directives, Part 2, Principles and rules for the structure and drafting of ISO and IEC documents (Eighth edition, 2018)

ISO 80000 (all parts), Quantities and units

ISO 8601:2004-12-0, Data elements and interchange formats — Information interchange — Representation of dates and times

ISO/IEC 10646, Information technology — Universal Coded Character Set (UCS)

William Strunk, Jr. and E. B. White, Elements of Style, Fourth Edition, Longman, 1999

New Oxford American Dictionary, Third Edition, 2010

# Terms and Definitions

For the purposes of this document, the terms and definitions given in SMPTE Standards Operation Manual apply.

# General

Engineering Documents shall conform to ISO/IEC Directives, Part 2 and ISO 80000 (all parts), with the following exceptions, which shall take precedence:

* variances specified in Clause ‎6; and
* variances granted by the Director of Engineering or the Standards Vice President for a given Engineering Document.

In the event of a conflict with the provisions of ISO/IEC Directives, Part 2, the SMPTE Standards Operations Manual and Administrative Guidelines shall take precedence.

NOTE The Director of Engineering or the Standards Vice President can approve variances on a case-by-case basis. Modifying variances specified in this Administrative Guideline requires the approval of the Standards Committee.

# Templates

An Engineering Document shall use an appropriate template specified in SMPTE AG-04, unless:

* it is part of a multipart set of documents, in which case it may alternatively use the same structure and formatting as other members of the set; or
* it is a Revision, in which case it may alternatively use the same structure and formatting as the current edition of the Engineering Document.

The contents of an Amendment shall follow the structure and formatting of the amended document.

NOTE Modifying the structure and formatting of a document can change the numbering of elements, potentially invalidating references made to the document by other documents, published papers and books.

# Variances

## Foreword

The Foreword is fixed text provided by the SMPTE Director of Standards.

In addition to the information listed in ISO/IEC Directives, Part 2, the Foreword includes a definition of conformance terms, as specified in the SMPTE Standards Operations Manual.

## Introduction

In addition to the information listed in ISO/IEC Directives, Part 2, the Introduction shall include:

* the statement referred to at subclause 9.1.7 of the SMPTE Standards Operations Manual; and
* a statement that the clause is entirely informative and does not form an integral part of the Engineering Document.

NOTE The Introduction is a mandatory element in Engineering Documents since it is never empty.

## References

### Permitted referenced documents

The SMPTE Standards Operations Manual and SMPTE AG-03 specify requirements for normatively referenced documents.

### Presentation of references

Documents should be listed and referred to as recommended by their respective publishers.

Otherwise, the provisions of ISO/IEC Directives, Part 2 apply.

### Forms for making references

The following forms should be used to make references to a document, a part of a document or a non-prose element:

* imperative forms
  + "see"
* non-imperative forms
  + “according to”
  + “as defined in”
  + “as specified in”
  + “details as given in”
  + “in accordance with”

NOTE 1 Imperative forms are not used in informative parts of the document, such as examples, notes and footnotes.

NOTE 2 The terms clause and subclause, instead of the term "section", are used to refer to the subdivisions of a document.

### References to a non-prose element

A reference to a non-prose element shall be made using the following form:

*element x*

where *x* is the letter of the non-prose element, as defined in AG-02.

EXAMPLE "…as defined in element a of this document."

## Introductory wording of terms and definitions

One of the following sentences shall be used as introductory text to the Terms and Definitions clause:

* "For the purposes of this document, the following terms and definitions apply:", if all relevant terms and definitions are provided in Terms and Definitions clause.
* "For the purposes of this document, the terms and definitions given in [external reference(s)] apply.", if all relevant terms and definitions are provided in external references.
* "For the purposes of this document, the terms and definitions given in [external reference(s)] and the following apply:", if all relevant terms and definitions are provided in the Terms and Definitions clause and external documents.
* "No terms and definitions are listed in this document.", if no terms and definitions are provided.

NOTE The introductory text is not a hanging paragraph, as the Terms and definitions clause consists of a list of terminological entries and not subclauses.

## Symbols and abbreviated terms

### General

Symbols and abbreviated terms should remain consistent within a document or a family of documents

NOTE Consistency is particularly important when revising a document or adding a document to existing multipart documents or established families of documents, e.g. MXF documents.

### Bit

The term *bit* shall not be abbreviated.

### Imperial system of units

The unit of length *inch* shall not be abbreviated.

## Non-prose elements of the Engineering Document

All non-prose elements of the Engineering Document, as defined in AG-02, shall be explicitly referred to within the prose element.

All non-prose elements of the Engineering Document shall be listed in an informative annex titled *Additional elements*, which shall be the final annex of the document.

This annex shall be introduced by the following sentence:

*This annex lists non-prose elements of this document.*

The list shall include the letter designator, a brief description of the non-prose element, and an indication of whether the non-prose element is normative or informative.

EXAMPLE

|  |  |
| --- | --- |
| **Non-prose element** | **Description** |
| a | Example XML document conforming to the schema defined in this document (informative) |
| b | XML schema document (normative) |

## Verbal forms for expressions of provisions

The SMPTE Standards Operations Manual specifies the conformance language used in Engineering Documents.

## Language, spelling, style and basic reference works

### Language versions

All Engineering documents shall be written in United States English.

Translations into other languages by SMPTE (or by parties authorized by SMPTE) are encouraged but not required. In the event of a discrepancy, the original English language document shall be authoritative.

### Spelling reference works

The following reference works for spelling should be used:

"New Oxford American Dictionary", Third Edition, 2010

### Linguistic style

The following reference works for style should be used:

William Strunk, Jr. and E. B. White, “Elements of Style, Fourth Edition,” Longman, 1999

## Machine-readable languages

Machine-readable languages, including programming and markup languages, may be used by Engineering Documents, in which case they shall be defined either within the Engineering Document or via a reference.

## Numbers

### General

Engineering Documents shall use US number formats.

The decimal separator is ".".

A comma "," may be used to separate each group of three digits above the decimal point.

|  |
| --- |
| EXAMPLES  0.01 1,234.56 |

### Engineering notation

Numbers shall not use the E-notation, where a multiplication by powers of 10 is replaced by the letter *e*.

EXAMPLE The number 0.0003 can be written 3 × 10−4 but is never written 3e−4.

NOTE Number forms are specified in ISO 80000-1.

## Hexadecimal numbers

Numbers expressed in base 16 (hexadecimal numbers) should be written in the following form:

*0xdd…dd*

where each character *d* belongs to the set {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, a, b, c, d, e, f}.

## Calendar dates and times

Dates shall:

* be written as YYYY-MM-DD, e.g. 2009-04-23 to indicate April 23, 2009; or
* conform to ISO 8601, including additional time zone metadata.

Times shall:

* be written as one of hh:mm, hh:mm:ss, where hh is the hour (in a 24-hour day), mm are the minutes and ss are the seconds; or
* conform to ISO 8601.

The above only apply to calendar dates and time, and do not apply to timecode and other forms of media time. The latter can, for example, include an ff suffix to denote a frame count.

## Use of UTF-8 encoding for human-language text

Data that consist of human-language text should be encoded using UTF-8, as specified in ISO/IEC 10646.