**DRAFT**

**Document-title -**

**A template for AESSC standards documents**

AESSC Document Template, updated 2015-07-07

Abstract

An abstract is required here (the formal scope appears later). It is likely that important parts of the scope will also appear in the abstract, however the abstract can be less formal and is primarily intended to inform the reader whether the content of the document is of interest. This abstract will be used in descriptions of the eventually published document, on the Web and in the Journal. This template is formatted to ISO/IEC Directives 2011, and to AESSC style and structure.

An AES standard implies a consensus of those directly and materially affected by its scope and provisions and is intended as a guide to aid the manufacturer, the consumer, and the general public. The existence of an AES standard does not in any respect preclude anyone, whether or not he or she has approved the document, from manufacturing, marketing, purchasing, or using products, processes, or procedures not in agreement with the standard. Prior to approval, all parties were provided opportunities to comment or object to any provision. Attention is drawn to the possibility that some of the elements of this AES standard or information document may be the subject of patent rights. AES shall not be held responsible for identifying any or all such patents. Approval does not assume any liability to any patent owner, nor does it assume any obligation whatever to parties adopting the standards document. Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation. This document is subject to periodic review and users are cautioned to obtain the latest edition.

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Foreword

This foreword is not part of the *document-name*.

The purpose of the foreword is to set out the origins and authorship of the document. It is written by the Working Group chair.

The members of the writing group that developed this document in draft are: <list>

<N Name>

Chair, working group SC-xx-xx

## Corrigendum or addendum [if required]

in clause 4.2.2.13, “abc” corrected to “xyz~”;

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”.

**DRAFT**

**Document-title**

# 0 Intro

## 0.1 Introduction

A rationale for this document may appear here. It does not form part of the requirements of the document.

This AESSC document template is intended to complement the style guide notes at www.aes.org/standards/. The page setup and paragraph styles contain preferred values to ensure a consistent layout. You should be able simply to insert fresh text into the relevant clauses to produce a document in AESSC style.

The text in this template also contains information useful for the author. However, this text is unlikely to be directly relevant to your paper, so please delete that which is inapplicable.

## 0.2 Patents

***If no patent claims known***

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. AES shall not be held responsible for identifying any or all such patent rights.

***OR, if patent claims are known***

The AES draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning *(... subject matter ...)* given in *(... subclause ...)*.

The AES no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured the AES that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with the AES. Information may be obtained from:

*name of holder of patent right ... address ...*

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. The AES shall not be held responsible for identifying any or all such patent rights.

## 0.3 Documentation conventions

Any special notation needed to understand the document should be explained here. Some examples follow:

A Courier typeface may be used to identify computer listing examples to distinguish them from regular text.

Following ISO convention, decimal points are conventionally shown as commas (,) unless an alternative, such as a period (.), is expressly stated here, with justification.

## 0.4 Logical conventions and data types

Please don't assume that the conventions you're used to are meaningful to others. Spell them out here.

# 1 Scope

The scope for the project shall appear here. This should state the objective of the standard including what is specifically included and what is specifically excluded. We will know that the document is complete when the scope has been met.

# 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Normative references shall be provided here. A normative reference identifies any external requirements necessary for the implementation of this standard. Other references may be useful, or interesting, but they are merely informative and should be listed at the end of the document in an informative annex.

If there are no normative references, do not delete this clause but state instead, "No normative references are required to implement this standard."

Not all external specifications are equally acceptable as normative references. The following sources are ranked in order of preference.

|  |  |
| --- | --- |
| **Reference Document** | **Examples** |
| International Standard | Documents from ISO or IEC.  |
| International Treaty Recommendation | Documents from ITU-R and ITU-T |
| AES standard | AES standards (not Information Documents (id) or Reports) |
| National Standard | ANSI, BSI, DIN, JIS, for example. |
| Industry standard | SMPTE, ASA, IASA |
| Trade association or consortium document |  |

These notes are intended for convenience and are not intended as a substitute for the information to be found at: www.aes.org/standards/development/

**ISO/IEC Directives, Part 2:** *Rules for the structure and drafting of International Standards, 6th Edition, 2011*. International Standards Organisation, Geneva, Switzerland, www.iec.ch

# 3 Terms, definitions and abbreviations

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

**3.1**

**Terms and abbreviations**

**Abbrv**

Terms and abbreviations shall be defined here as separate numbered sub-clauses. These numbered subclauses are not included in the header scheme from which the Contents page is created. Headings are set in “Normal” style.

# 4 Normative clauses

## 4.1 The specification

This is where the specification itself begins. Please replace the following clauses with your own text.

## 4.2 Object of the document

The work should be organised in clauses and subclauses such that the requirements of the specification are clear and unambiguous. Matters which can be addressed independently should be segregated in separate clauses.

## 4.3 The reader

AES standards are written in English, however the reader may not have English as a first language. Remember that your reader may be using college-learned English and use plain English with short and simple sentences.

The reader of this standard will be expecting to understand how to implement the standard in order to be compliant. Readers can be expected to have an understanding of engineering principles, however they may not be completely familiar with the specific details addressed in this standard. Do not make assumptions; specify everything necessary for successful implementation of the standard.

## 4.4 Tutorial material

Resist the temptation to include additional tutorial material. While this may be interesting for someone new to the subject, it can only obscure the specification for an implementor. The golden rule is; include everything necessary for implementation, and nothing else!

Where practical, refer informatively to existing tutorial material instead of creating new material.

New tutorial material may be placed in an informative annex. Alternatively, the tutorial material may be suitable for publication independently as a Report.

# 5 Use of MS Word

## 5.1 Word version

Working and archive masters of AES standards documents are in the form of MS Word ".doc" files.

|  |  |
| --- | --- |
| Macintosh OS X | Word 98, 2001, X, and 2004  |
| Windows | Word 97, 2000, 2002, 2003 |

Files of ".docx" format - created by Word 2007 (Windows) or Word 2008 and Word 2011 (Macintosh) - are acceptable as document input formats.

## 5.2 Flexible but hard to control

MS Word is a fine word processor but its flexibility can cause problems when documents are, for example, exchanged between individuals whose system setups may differ substantially. There are many opportunities for error in finalising a draft and then formatting it for publication without changing the content of the document in some important way.

The following notes are intended as a guide for safe text and have been derived through much experience. In cases where problems have become uncontrollable, it has been necessary to render the word-processing document to plain ASCII text and re-build the document formatting from the beginning. This wastes everybody’s time.

# 6 Document structure

## 6.1 Clauses and heading levels

The Contents page will be derived automatically from the styles used for headings throughout the Word document. Top-level clauses ( 1 ) shall use the style “Heading 1”, second level clauses ( 1.1 ) shall use “Heading 2”, third level clauses ( 1.1.1 ) shall use “Heading 3”. Lower level clauses will not usually appear in the Table of Contents.

NOTE Outline view in MS Word is useful for visualising the overall structure of the document.

## 6.2 Automatic numbering

Automatic numbering should NOT be used when preparing standards documents. After a sequence of revisions, it becomes impossible to refer to text by using clause numbers. Using the Word menus, go to Insert/ Autotext/ Autotext/ Autoformat-as-you-type and check that “automatic bulleted lists” and “automatic numbered lists”, at least, are disabled.

It is strongly recommended that all other automatic correction and modification is disabled because of the real risk that the text, once approved, could be altered in an uncontrolled way as a result of simple interchange.

## 6.3 Tables

The use of tables in encouraged wherever appropriate. See annex D.

## 6.4 Figures

Figures in the form of line drawings are encouraged to clarify meaning and illustrate context. See annex C.

Embedded drawings in MS Word have proved difficult to maintain and archive consistently and they can even become irreparably damaged.

Line drawings should be provided as separate vector graphics files if at all possible. Encapsulated postscript format (.EPS, or .EPSF) files containing vector graphics are preferred. CAD files, such as those from AutoCad and similar software packages, will need to be converted. Other, bitmap-based, formats are very much harder to present acceptably in print and will probably need to be re-drawn.

Maximum width of any figure on the page is 145 mm. If initially drawn in a larger size with the intent to scale down for publication, ensure that lettering remains legible and line weights remain balanced when scaled.

Text to explain the content of the figure should not be included in that figure, but tabulated externally. Where necessary, identify figure elements with simple labels or letters. This makes it simpler to use these figures when the document is translated to a different language.

## 6.5 Sections

Do not insert Section Breaks into the document unless absolutely necessary. This will help to reduce problems in subsequent formatting.

## 6.6 Page layout

### 6.6.1 General

Draft documents will be printed and read in many countries around the world. US-based readers will expect to print copies for their own use onto ‘US Letter’ sized paper (216 x 279 mm approx.). European readers will use ISO A4 sized paper (210 x 297 mm) which is narrower and taller than ‘US Letter’. When word processor documents are exchanged, it is likely that pagination errors will occur so that references to the text by page number will be inaccurate. This makes it even more important that the text is clearly identified by clause number.

### 6.6.2 Page size

When the document is near to being a final draft, it makes sense to maintain a single Word document and post copies for comment in PDF format with the page setup based on ‘US Letter’ for consistent pagination worldwide. The side margins should be narrow enough to permit printing to A4 size paper without losing text at the ends of lines.

### 6.6.3 Headers & footers

Predictable header and footer dimensions are important for consistent pagination and print area. Insufficient footer space, for example, will lead to clipped text at the foot of the page, affecting the page number (drafts) and the printing date (published documents).

Both header and footer need to contain 4 lines of Helvetica font totaling 40 pt. The bottom line of the header and the top line of the footer should be blank to maintain a separation between the page text and the header and footer text.

Top margin = 1.19 cm

Bottom margin = 1.41 cm

# Annex A (informative): Informative annex

Informative annexes are used to convey information that, while not logically necessary for implementation of the standard, is useful. Examples include: references to tutorial material, methods for testing, practical implementation details, etc.

Each informative annex should stand independent of other text. More than one informative annex may be used if necessary.

# Annex B (normative): Normative annex

Normative annexes are used, where necessary, to convey information that is necessary for implementation but which is peripheral to the main specification, or conditional on implementation of an optional feature of the specification. Each normative annex should stand independent of other text. More than one normative annex may be used if necessary.

# Annex C (normative): Figures

## C.1 General

Figures should be used wherever they can communicate more clearly than words. When composing figures, remember that the final presentation of figures to our audience will be as screen displays and, very likely, as monochrome printouts.

Normative features of the figure shall be described in the accompanying text. It is dangerous to rely on the figure carrying this important information alone - in the event that the figures do not reproduce correctly, or someone is referring to a text-only summary, the meaning may be lost.

## C.2 Titles and references

Each figure shall be identified by an arabic number and a title centred BELOW the figure. Figures in the main body of the text are numbered consecutively, starting at Figure 1. Figures in each Annexes are also numbered consecutively, starting with Figure X.1, where X is the letter identifying the annex.

Each figure shall be referenced in the text and should appear as soon as convenient after that reference. The word “figure” should not be capitalised when used in the text (example: see figure C.1). The reference in the text should always appear before the figure itself.

## C.3 Content

### C.3.1 Size

Final reproduction width shall be 150 mm (6 in). Figures should be drawn to this size. The scale of any over-sized drawings will be reduced to this size during the preparation of the document. The maximum height should be less that 200 mm (8 in) to fit on a single page. Landscape-oriented pages can be used if really necessary but are otherwise deprecated.

### C.3.2 Content

Figures shall be in the form of black and white line drawings. Greys and colors shall not be used. Photographs or bitmap images may occasionally be used where line drawings are clearly inappropriate.

Use no line thinner than 1 point. Label text should be 10-point Helvetica or Arial. The figure shall not be surrounded by a box or border.

Layout should be clear and open so that the meaning of the figure will still be apparent even after photocopying or faxing, for example.



Figure C.1 - Example figure

### C.3.3 Keys, notes and footnotes

Text notes inside a drawing should be minimised or eliminated. Instead, identify the points of interest with a letter or symbol and add a note external to the drawing. This makes the information in the drawing less language-dependent and the external notes will be a easier to translate. Any supporting text shall be placed between the figure and the title in the order:

1. Key

2. Notes

3. Footnotes

## C.4 File types

### C.4.1 General

For the document master, we need figures that are capable of being updated when the document is revised in five or ten years’ time. Compatibility is a major issue and it is important that these figures can be used on a range of current and future computer platforms, operating systems, and software. These requirements impose some restrictions on how we handle figures.

Figures drawn directly in an MS Word document, for example, are difficult to revise predictably and there have been difficulties when upgrading to later versions of Word. It is better to draw the figures using separate software, then save them in an interchangeable graphics format, and then embed these graphics files into a Word master document.

There are many software applications that support line drawings. These typically save files in a proprietary format that preserves maximum flexibility at the cost of interchangeability. Most of these applications can also save a figure in one or more interchangeable formats.

To provide maximum clarity, and to support scaling without loss of detail, it is important that figures are saved in a vector graphics format. In contrast, bitmap formats tend to be bulky and present jagged or blurry outlines.

### C.4.2 Vector graphics formats

Drawing and CAD-type applications use an assembly of vector graphics objects to compose a completed picture. Each object describes a straight or curved line in an algorithmic way. Individual objects, object sets, or complete pictures may be manipulated and scaled without losing information. Curves are drawn to the maximum resolution of the display medium.

It is often easy to save files by converting them from vector to bitmap form - this is not ideal. Care should be taken to preserve the vector information.

Current software applications that support vector graphics formats include Adobe Illustrator, and CorelDraw.

Current CAD applications that support vector graphics formats include AutoCAD .dxf files.

Encapsulated PostScript Files (.eps, .epsf) files are preferred for interchange.

# Annex D (normative) Tables

## D.1 General

Tables should be used wherever they can communicate more clearly than plain text.

## D.2 Size

Tables should not exceed a width of 150 mm (6 in). Over-sized tables will be reduced to this size during the preparation of the document. The maximum height should be less that 200 mm (8 in) to fit on a single page. Tables may extend to more than one page, but the content of any table row should be kept together on a single page. Landscape-oriented pages can be used if really necessary but are normally deprecated.

## D.3 Headings

Columns and rows shall by clearly labelled. See example Table D.1

## D.4 Titles and references

Each table shall be identified by an arabic number and a title centred ABOVE the table. Tables in the main body of the text are numbered consecutively, starting at Table 1. Tables in each Annex are also numbered consecutively, starting with Table X.1, where X is the letter identifying the annex.

Each table shall be referenced in the text and should appear as soon as convenient after that reference.

## D.5 Keys, notes and footnotes

Any supporting text shall be placed within, and at the end of, the table in the order:

Table D.1 - Notes and footnotes

|  |  |
| --- | --- |
| 1. | Notes |
| 2. | Footnotes |

# Annex E (normative): Special characters

## General

While normal text characters map compatibly between different computers, many special characters do not. To avoid problems, you should use the interchangeable Symbol font for these special characters specifically. As a guide, here is a list of popular symbols, with their Times font equivalent.

|  |  |  |  |
| --- | --- | --- | --- |
| Usage | Times | Symbol | Monotype Sorts |
| Micro | m |  |  |
| Ohms | W |  |  |
| Delta | D |  |  |
| Lambda | l |  |  |
| Sigma (sum) | S |  |  |
| Theta | q |  |  |
| Phi | f |  |  |
| Nu | n |  |  |
| multiplication | 5 |  |  |
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ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz

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# Annex F (informative): Bibliographical citations

**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.

**AES-3id-2001** (revision of AES-3id-1995), *AES information document for Digital audio engineering - Transmission of AES3 formatted data by unbalanced coaxial cable*, Audio Engineering Society, New York, NY, US.

**IEC 60268-10 (1991)** *Sound system equipment - Part 10: Peak programme level meters*, International Electrotechnical Commission, Geneva, Switzerland.

**EBU R68-1992** *Alignment level in digital audio production equipment and in digital audio recorders*. EBU Technical Centre, Geneva, Switzerland.