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EP-24-D, Manual for Organization and Style of CTA Documents

1 SCOPE

These guidelines specify provisions for the structure and drafting of Consumer Technology Association (CTA) Documents (including standards, bulletins, and other deliverables). It is intended that all Document editors follow these guidelines when preparing CTA Documents. The use of these guidelines is intended to ensure that Documents prepared by different CTA formulating groups are drafted in as uniform a manner as possible regardless of technical content. Any formatting that cannot, for certain reasons, follow these guidelines, shall be brought to the attention of the CTA staff for review. CTA Document editors are encouraged to make use of the CTA Document template, which conforms with the provisions in these guidelines.

The instructions in this manual supplement information in the CTA Technology & Procedures Manual (EP-23), which defines the administrative and procedural steps to follow in the development, publication and maintenance of CTA Documents.

2 NORMATIVE REFERENCES

1. EP-23, *CTA Technology & Standards Procedures Manual*,
<https://standards.cta.tech/kwspub/rules/>.

3 TERMS AND DEFINITIONS

Bulletin	See EP-23.
Document	For the purposes of EP-24, Document refers to a standard, specification, American National Standard, bulletin, technical report, white paper, or any other deliverable of a CTA Committee.
Informative Element	Element of a document that assist in understanding, provide contextual information, or provide Recommendations.
Normative Element	Element of a document that set out provisions with which it is necessary to comply in order to be able to claim conformity with the Document.
Optional Element	An element that the writer of a document may choose to include or not is considered optional.
Recommendation	An expression in the normative content of a Document conveying advice or guidance without necessarily mentioning or excluding other possibilities.

Requirement	An expression in the content of a Document conveying criteria to be fulfilled if compliance with the Document is to be claimed and from which no deviation is permitted. Sections with requirements are always Normative Elements.
Standard	See EP-23.

4 GENERAL PRINCIPLES

4.1 Objectives

The objective of a Document is to define clear and unambiguous provisions in order to facilitate trade and communication. To achieve this objective, a Document should:

- be as complete as necessary within the limits specified by its scope,
- be consistent, clear, and accurate,
- take full account of the state of the art, and
- be comprehensible to qualified persons who have not participated in its preparation.

4.1.1 Homogeneity

During the development of Documents, it is important to maintain uniformity of structure, style, and terminology; within each Document and within a series of associated Documents. Editors should follow the provisions in this guideline to ensure uniformity of the structure of the Document under development and associated Documents.

4.2 Consistency of Documents

This guideline is provided as a tool to achieve consistency with the complete body of CTA Documents. This relates particularly to:

- standardized terminology,
- principles and methods,
- quantities, units and their symbols,
- abbreviations,
- bibliographic references,
- technical drawings, and
- graphical symbols.

4.3 Planning

Before detailed drafting begins, a general, high-level list of all aspects to be covered should be defined so that scope(s), structure(s), and interrelationships can be established. These rules for

the drafting and presentation of Documents should be applied from the very beginning of the work and through all subsequent stages.

5 STRUCTURE

5.1 Subdivision of the Subject Matter

5.1.1 General

As a general rule, an individual Document should be prepared for each subject to be standardized and published as a complete entity. In specific cases and for practical reasons, a Document may be split into separate parts under the same number. Such cases include:

- the Document is likely to become too voluminous,
- subsequent portions of the content are interlinked,
- portions of the Document could be referred to in regulations, and
- portions of the Document are intended to serve for certification purposes.

When considering the development of a series of parts, the editor should consider common and specific aspects, such as general requirements and specific requirements. For example, part one of a series may define “general requirements,” and part two of a series make requirements for common elements introduced in part one. Each part of a multipart Document shall be drafted in accordance with the rules for an individual Document.

5.1.2 General Arrangement of Subject Matter within an Individual Document

The elements that form a Document are classified by their normative or informative nature, and include:

- informative preliminary elements,
- normative general and technical elements, and
- informative supplementary elements.

These elements are described below. If appropriate, variations in section headings may be made.

A Document need not contain all the technical normative elements described, and it is possible that other technical normative elements not defined need to be included in a Document. The nature and order of the technical normative elements determined by the nature of the Document in question.

Tables and figures may be added to a Document as necessary to describe the material covered by the Document and should follow provisions defined below. A Document may also include notes (generally in the form of inline or callout text which begins with “Note:”) and footnotes as appropriate.

5.2 Descriptions and Numbering of Divisions and Subdivisions

5.2.1 Parts

A part is one of a series of Documents published separately under the same Document number.

The title of a part shall be composed in the same way as that of a normal Document and further defined below. All the individual titles in a series of parts shall contain the same introductory elements (if present) and main element, while the complementary element shall be different in each case in order to distinguish the parts from one another. The complementary element shall be preceded in each case by the designation “part” followed by its number.

If a Document is published in the form of several separate parts, the first part shall include in its foreword an explanation of the intended structure. In the foreword of each part belonging to the series, a reference shall be made to the titles of all other parts, if they are known.

5.2.2 Sections and Subsections

A section is the basic component in the text of a Document and may contain any number of subsections (but shall not contain exactly one subsection, for example there shall not be a section 5.1 unless there is also a section 5.2).

It is generally desirable to divide a lengthy Document, or a lengthy part of a Document, into numbered sections and subsections.

The sections in each Document or part shall be numbered beginning with 1 for the “Scope” section. The numbering shall be continuous up to but excluding any annexes. Do not follow the section number with a period or “.0”. Subsections are similarly numbered in ‘outline’ format (e.g., 5.1, 5.2, 5.2.1, 5.2.2, 5.3).

Each section and subsection shall have a title, placed immediately after its number, on a line separate from the text that follows it.

5.2.3 Paragraphs

A paragraph is an unnumbered subdivision of a clause or subclause. For example, this section is comprised of one paragraph.

5.2.4 Lists

Lists should be introduced by a sentence, a complete grammatical proposition followed by a colon, or by the first part of a proposition (without a colon), followed by the items in the list.

Each item in a list should be preceded by a bullet or, if necessary for identification, by a lower-case letter followed by a parenthesis. Here are two examples of lists:

- list element 1,
- list element 2, and/or
- list element 3.

or:

- a) list element 1,
- b) list element 2, and/or
- c) list element 3.

5.2.5 Figures

5.2.5.1 Usage

Figures should be used when they are the most efficient means of presenting information in an easily comprehensible form. Figures should be referenced within the text.

5.2.5.2 Form

Figures should be embedded in the document in their native format in order to allow for clear images and ease of editing. Figures should be embedded in a vector format when possible. Raster images such as photographs may be used only if it is not possible to convert them into line drawings (e.g., a figure comprised of a frame of video when describing video compression of the frame) and only if no text or vector data is added to the image. If a raster format must be used or if a raster image must be embedded in a vector image, the raster data should be stored in a lossless format at a size that will allow clear printing at 300dpi or higher. The native format of figures should be editable in widely available commercial or free software (e.g., not a proprietary internal-only software tool) and embeddable in Microsoft Word. Formats which are only editable with online tools should be avoided for maintainability. Commercial format examples include WordArt, PowerPoint, Visio, Graffle, and AutoCAD files. Free format examples include SVG, BRL-CAD, PostScript, PDF, XFIG, LaTeX, and DOT (graph description language).

If the inclusion of figures in their native formats causes the Document to grow beyond a size that permits for convenient sharing (e.g., via email attachment), editors may replace the figure with a static image. In this case, the CTA manager shall be provided with an editable version of the figure in case of the need for editing during later revisions.

Figures should be visually distinct from the surrounding text, be no wider than 6", and should be centered within the document.

5.2.5.3 Designation

Figures shall be designated "Figure" using the Word caption tool and numbered with Arabic numerals, beginning with 1. This numbering should be independent of the numbering of sections or tables.

The figure designation and title shall be centered horizontally below the figure. The figure designation and title shall be separated by a dash.

5.2.6 Tables

5.2.6.1 Usage

Tables should be used when they are the most efficient means of presenting information in an easily comprehensible form. Tables should be referenced within the text.

5.2.6.2 Form

Tables should be Microsoft Word tables, should be visually distinct from the surrounding text and should be centered within the Document.

5.2.6.3 Designation

Tables shall be designated “Table” using the Word caption tool and numbered with Arabic numerals, beginning with 1. This numbering is independent of the numbering of the clauses or figures.

The table designation and title shall be centered horizontally above the table. The table designation and title shall be separated by a dash.

5.2.7 Footnotes

Footnotes are preferred to end notes.

Footnotes may be included to give additional information, but their use should be kept to a minimum. They shall not contain requirements. Generally, information in footnotes should be limited to providing brief, supplemental information about the text or directing readers to additional information.

5.2.8 Annexes

Annexes should appear in the order in which they are cited in the text. Each annex shall be designated by a heading comprising the word “Annex” followed by a capital letter designating its serial order, beginning with “A” – e.g., “Annex A.” The annex heading shall be followed by the indication “(normative)” or “(informative)”, and by the title. Numbers given to the clauses, subclauses, tables, figures, and equations of an annex shall be preceded by the letter designated to that annex followed by a period. The numbering shall start afresh with each annex. When a document contains a single annex, it shall be designated “Annex A”.

EXAMPLE: Clauses in Annex A are designated “A.1”, “A.2”, “A.3”, etc.

6 STRUCTURE AND COMPOSITION OF THE CTA DOCUMENT TEMPLATE

Editors should refer to and use the CTA document template during drafting, which conforms with the provisions of this section.

6.1 Preliminary Informative Elements

Preliminary informative elements identify the Document, introduce its contents, and explain its background, development and relationship with other standards.

6.1.1 Cover Page

The cover page shall contain the title of the Document, a CTA Document number, and the date of publication. CTA Documents use the following numbering structure:

- CTA-XXXX.X (e.g., CTA-1234, CTA-1234.2, etc.) for standards,
- CTA-XXXX.X (e.g., CTA-1234.1, CTA-1234.2, etc.) for extensions or subsequent parts of a standard,
- CTA-CEBXX for bulletins, and
- CTA-TR-X for technical reports.

CTA committee managers will provide the editor with the Document number.

6.1.1.1 Draft Stages

During the development phase of a draft Document, certain information should appear on the cover page:

- the document editor's name, telephone number, and email address,
- the draft CTA Document number (e.g., CTA-XXXX), and
- a patent disclosure request on the proposed Document.

6.1.1.2 Prior to Final Publication

When the Document is ready to be published, staff will replace the drafting cover page with an official CTA cover page, CTA legal notice and frontmatter, as well as end pages regarding document improvement proposals. These elements shall not be included during the development phase of a draft Document.

6.1.2 Title

During the development phase, the wording of the title should be established with the greatest care. It should be as concise as possible, and shall indicate, without ambiguity, the subject matter of the Document in such a way as to distinguish it from other standards without going into unnecessary detail. Any necessary additional information shall be given in the scope.

A formulating group name or number shall not be included in the title of a Document.

6.1.3 Foreword

A foreword shall appear in every Document and consists of two parts: a general part giving information relating to the organization responsible and to standards in general, and a specific part giving as many of the following as are appropriate:

- the designation and name of the formulating group that prepared the Document,

- an indication of any other organization that has contributed to the preparation of the Document,
- a statement that the Document cancels and replaces other documents in whole or in part,
- a statement of significant technical changes from the previous edition of the Document, and
- the relationship of the Documents to other standards or documents.

The foreword shall not contain requirements.

6.1.4 Table of Contents

A table of contents shall be included in all Documents. CTA staff will insert the table of contents prior to publication, but the group developing the Document may insert a temporary one, if desired. This table should list the complete titles of the main sections, or the first series of subsections, and of the annexes if any are included in the Document. Additional levels may be included. Lists of tables and figures are optional but should be included when the document is lengthy, or the quantity of tables or figures is large.

6.1.5 Introduction

The introduction is an optional preliminary element that can be used to give specific information or commentary about the technical content of the Document and about the reasons prompting its preparation. It shall not contain requirements.

6.1.6 Scope

The scope states what is and, if appropriate, what is not covered by the Document and the intended applications or purpose of the Document. The scope of the Document shall not exceed the approved scope of the formulating group or project.

A scope shall appear in every Document and shall not contain requirements.

6.1.7 Terms and Definitions

This is an optional element giving definitions necessary for the understanding of certain terms used in the Document. The definitions shall be introduced by the following wording:

“For the purposes of this document, the following definitions apply.”

6.1.8 Symbols and Abbreviations

This is an optional element giving a list of the symbols and abbreviations necessary for the understanding of the Document.

6.2 General Normative Elements

Normative elements are those that set out provisions with which it is necessary to comply in order to be able to claim conformity with the Document.

6.2.1 Normative References

This optional element shall give a complete list of normative documents to which reference is made in the text in such a way as to make them indispensable for the application of the Document. The normative references element is optional if there are no normative references in the Document.

If a normative reference is included in the normative reference list, it shall be cited at least once in the body of the Document. As described in more detail below, all normative references shall be publicly available (either in ballot version or published) but are not required to be free of cost. If only part of the referenced document is needed to comply with the CTA Document, the appropriate sections shall be cited. Additionally, complete information shall be provided on how to get the referenced documents in the Normative References subsection.

The normative references list shall be introduced with the following wording:

“The following documents contain provisions that, through reference in this text, constitute normative provisions of this standard. At the time of publication, the editions indicated were valid. All documents are subject to revision. Users of this document are cautioned that newer editions of the referenced documents might or might not be compatible.”

References shall be in the form of a numbered list.

The normative reference list shall not include the following:

- documents that are not publicly available,
- documents to which only informative reference is made,
- documents that have merely served as references in the preparation of the standard, or
- documents that create a circular reference (i.e., two documents that normatively reference each other).

Normatively-referenced standards must come from international or nationally-accredited standards development organizations, or from industry consortia, forums or alliances operating in a manner substantially consistent with generally-accepted standards development rules. Exceptions to this sourcing policy may be made on a case-by-case basis. Such documents shall meet the following criteria:

- the document is publicly available under fair, reasonable and non-discriminatory commercial terms,
- the document is available without contractual obligation beyond simple commercial purchase,
- the content of the document is stable and under revision control with transparent revision plans, and
- the publishing organization permits the use of the document as a reference.

Normative references shall not be updated when a Document is being reaffirmed or stabilized. Such changes are considered substantive and require an active revision to a Document.

Note: Bulletins shall not contain normative references. See EP-23 Section 2, Definitions.

6.2.2 Informative References

This optional element shall give a list of informative references to which reference is made in the text in such a way that it provides understanding and context.

If an informative reference is included in the informative reference list, it should be cited at least once in the body of the Document. All informative references shall be publicly available (either in ballot version or published) but are not required to be free of cost. If only part of the referenced document is useful for understanding and context, the appropriate sections shall be cited. Additionally, complete information shall be provided on how to get the referenced documents in the Informative Reference subsection.

The informative references list shall be introduced with the following wording:

“The following documents contain provisions that, through reference in this text, constitute informative provisions of this standard/bulletin. At the time of publication, the editions indicated were valid. All standards are subject to revision. Users of this standard/bulletin are cautioned that newer editions of the referenced documents might or might not be compatible.”

References shall be in the form of a numbered list (continued from the normative references list, if any).

The informative reference list shall not include the following:

- documents that are not available without contractual obligation beyond simple commercial purchase,
- documents that are not publicly available, or
- documents to which normative reference is made.

Informative references shall not be updated when a standard or bulletin is being reaffirmed or stabilized.

6.2.3 Reference Style

When appropriate, references shall be formatted to conform with the Chicago Manual of Style for bibliographies.

References to standards should include the following information in order, if available: Standard Identifier, *Italicized Title*, (optionally) publication date, and URL. The URL should be either directly to the reference, to its purchase page or to the homepage of the authoring organization’s standards webstore; whichever option is selected, the URL should be as helpful as possible to the reader in finding the reference. URL shorteners shall not be used.

EXAMPLES of references:

1. ANSI/CTA-2034, *Standard Method of Measurement for In-Home Loudspeakers*, November 2013, <https://cta.tech/standards>.
2. RFC 3514, *The Security Flag in the IPv4 Header*, 1 April 2003, <https://www.ietf.org/standards/>.
3. IEEE 1394-2008, *IEEE Standard for a High-Performance Serial Bus*, <https://ieeexplore.ieee.org/document/4659233>.
4. *In the Matter of Wireless E911 Location Accuracy Requirements*, Third Further Notice of Proposed Rulemaking, PS Docket No. 07-114, FCC 14-13, Feb. 20, 2014. <https://www.federalregister.gov/documents/2014/06/10/2014-13533/wireless-e911-location-accuracy-requirements>.
5. Haskell, William L. "Guidelines for Physical Activity and Health in the United States: Evolution over 50 Years." *ACSM's Health & Fitness Journal* 23, no. 5 (2019): 5-8. <https://journals.lww.com/acsm-healthfitness/>.
6. Schmalstieg, Dieter and Tobias Hollerer. *Augmented Reality: Principles and Practice (Usability)*. Crawfordsville: Addison-Wesley Professional, 2016.

If the format of a particular reference cannot be determined from the guidance above, please contact CTA staff for assistance.

6.2.4 Compliance Notation

All CTA Documents shall include compliance notation section as defined below.

6.2.4.1 Compliance Notation for Standards

All standards shall include compliance notation that describes the language used to indicate mandatory and recommended provisions in the standard. If a document does not have at least one mandatory provision, it may be a bulletin. The following compliance notation shall be used:

"CTA defines the following compliance terms:

shall	This word indicates specific provisions that are to be followed strictly (no deviation is permitted).
shall not	This phrase indicates specific provisions that are absolutely prohibited.
should	This word indicates that a certain course of action is preferred but not required.
should not	This phrase means a certain possibility or course of action is undesirable but not prohibited.
may	This phrase indicates that a certain course of action is optional, and this document does not express a recommendation as to preference.
need not	This phrase indicates that a certain course of action is not required (i.e., optional), and this document does not express a recommendation as to preference."

6.2.4.2 Compliance Notation for Bulletins

All bulletins shall include a compliance notation section that describes the language used to indicate recommended provisions in the bulletin. Bulletins should not include any mandatory provisions. The following compliance notation should be used:

“CTA defines the following compliance terms:

- | | |
|-------------------|--|
| should | This word indicates that a certain course of action is preferred but not necessarily required. |
| should not | This phrase means a certain possibility or course of action is undesirable but not prohibited. |
| may | This phrase indicates that a certain course of action is optional.” |

6.2.4.3 Terms other than compliance terms

Bulletins and standards may include the following text after the appropriate compliance notation wording:

“The following terms are used to denote factual situations, distinct from normative requirements or normative options:

- | | |
|--------------|---|
| can | This word indicates the fact that something is possible. It also indicates ability. |
| might | This word indicates the fact that something is possible.” |

6.3 Technical Normative Elements

A Document need not contain all the technical normative elements shown below, and it may contain technical normative elements other than those shown. Both the nature of the technical normative elements and their sequence are determined by the nature of the Document in question.

6.3.1 Requirements

This optional element shall contain the following, if used:

- all characteristics relevant to the aspects of the products, processes, or services covered by the Document, either explicitly or by reference,
- the required limiting values of quantifiable characteristics,
- precautions to be observed, and
- allowable variations and quality or reliability information.

6.3.2 Test Methods

This optional element includes all the instructions concerning the procedure for determining the values of characteristics, or for checking compliance with stated requirements, and for

ensuring the reproducibility of the results. If appropriate, tests shall be identified to indicate whether they are type tests, routine tests, sampling tests and so on.

Instructions relating to the test methods may be subdivided in the following order (where appropriate):

- underlying principles,
- reagents or materials,
- apparatus,
- preparation and preservation of test samples and test pieces,
- procedure,
- expression of results, including method of calculation and precision of the test method, and
- test report.

Test methods may be presented as separate sections, annexes, separate parts, or incorporated in requirements. A test method shall be prepared as a separate standard if it is likely to be referred to in a number of other standards.

6.3.3 Classification and Designation

This optional element may establish a system of classification, designation, and/or coding of products, processes, or services that conform to stated requirements.

6.3.4 Annexes

6.3.4.1 Normative Annexes

Normative annexes are integral parts of the Document that, for reasons of convenience, are placed after all other normative elements. The fact that an annex is normative (as opposed to informative) shall be made clear by the way in which it is referred to in the text and by an indication at the head of the annex itself.

6.3.4.2 Informative Annexes

Informative annexes give additional information. They shall not contain requirements. The fact that an annex is informative (as opposed to normative – see 6.2.10) shall be made clear by the way in which it is referred to in the text and by an indication at the head of the annex itself.