T10/01-313r2

15 January 2002

Editor's Style Guide (ESG)

T10 Editor: Dennis P. Moore
IOI Consulting
1968 Lightland Ct.
Pleasanton, CA 94566
USA

Telephone: 925-417-0519
Facsimile: 925-417-0287
Email: dmoore@ix.netcom.com

POINTS OF CONTACT:

T10 Chair
John B. Lohmeyer
LSI
4420 ArrowsWest Drive
Colo Spgs, CO 80907-3444
Tel: (719) 533-7560
Fax: (719) 593-7183
Email: lohmeyer@t10.org

T10 Vice-Chair
George O. Penokie
Tivoli Systems
3605 Highway 52 N. MS 2C6
Rochester, MN 55901
Tel: (507) 253-5208
Fax: (507) 253-2880
Email: gop@us.ibm.com

INCITS Secretariat
INCITS Secretariat
1250 Eye Street, NW Suite 200
Washington, DC 20005
Telephone: 202-737-8888
Facsimile: 202-638-4922
Email: incits@itic.org

T10 Web Site http://www.t10.org/

T10 Reflector Internet address for subscription to the T10 reflector: majordomo@t10.org
The message body should be: subscribe t10
Internet address for distribution via T10 reflector: T10@t10.org
Internet address to unsubscribe from the T10 reflector: majordomo@t10.org
The message body should be: unsubscribe t10

Document Distribution
INCITS Online Store
managed by Techstreet
1327 Jones Drive
Ann Arbor, MI 48105
http://www.techstreet.com/incits.html
Telephone: 1-734-302-7801
or 1-800-699-9277
Facsimile: 1-734-302-7811

or

Global Engineering
15 Inverness Way East
Englewood, CO 80112-5704
Telephone: 303-792-2181 or
800-854-7179
Facsimile: 303-792-2192

ABSTRACT

This guide is intend for the use of T10 Technical Editors working on draft standards. Following the guidelines here will ensure that the 'look and feel' of the standard being developed will be the same as other T10 standards, minimize editorial letter ballot comments, and also ease the transition to ISO standard format.

Revision History

Revision 0 - This is the first revision of this document put together from the input gathered at the T10 Editor's meeting in July 2001.

Revision 1 - This revision contains changes generated during the November 2001 Technical Editor's meeting in Monterey, CA

Revision 2 - This revisioin contains changes generated during the January 2002 Technical Editor's meeting in Houston, TX.

Contents

Tables

Figures

Foreword

This working document is being developed by T10 for the purpose of aiding T10 Editor’s in the standards development process.

Introduction

The Editors' Style Guide (ESG) is divided into eight clauses:

Clause 1 is the scope.
Clause 2 enumerates the references used in the development of this guide.
Clause 3 describes the definitions, symbols, and abbreviations used in this guide.
Clause 4 describes the reasons for standards and the need for requiring consistency between standards.
Clause 5 describes the structure of a standards.
Clause 6 describes required elements and conventions in a standard.
Clause 7 describes those things to avoid in standard development.
Clause 8 describes document preparation

The annexes (if any) provide information to assist with implementation and understanding of the requirements and recommendations in this guide.

1 Scope

This Style Guide is intended to cover the style and conventions used for T10 Draft Standards and Technical Reports (i.e., working drafts). Using the guidelines outlined here will assist the editor in developing a working draft that will have the same 'look and feel' of other T10 standards. This will enable users that are familiar with other T10 standards a quicker understanding of your work.

An understanding of the information presented here, in conjunction with the working draft template (T10/01-314.pdf/zip for Frame and T10/-1-315.pdf/zip for Word) will enable the editor to concentrate on the technical aspect of the standard.

Following these guidelines should reduce the number of editorial comments during the letter ballot process and will also allow an easier transition to ISO Standard format for an international standard if the standard is going to be submitted to ISO.

2 References

The following references were used in the development of this guide:

ISO/IEC Directives, Part 3, *Rules for the structure and drafting of International Standards,* Third edition, 1997 which can be found at: www.iso.ch/iso/en/ISOOnline.frontpage

Chicago Manual of Style: The Essential Guide for Writers, Editors and Publishers, 13th Edition, by John Grossman

Merriam-Webster's Guide to Punctuation and Style, by Merriam-Webester.

A Pocket Style Manual, 3th Edition, by Dianne Hacker

ANSI style guidelines, X3T10.1/96a114r0 by John Scheible which can be found at: ftp://ftp.t10.org./t10.1/document.96/96a114r0.pdf

Reference was also made to various existing T10 working drafts (e.g., SPC-2, SPI-3, FCP-2) to determine common characteristics and conventions currently being used. Letter ballot comments against these working drafts were also used to identify common editorial comments.

3 Definitions, symbols, abbreviations, and conventions

3.1 Definitions

3.1.1 ISO definitions

3.1.1.1 ISO definition usage: The definitions in subclause 3.1.1.2 through subclause 3.1.1.9 are copied from the *ISO Directives, Part 3* and have the same meaning in both NCITS T10 and ISO documents.

3.1.1.2 informative element: Those elements that provide additional information intended to assist in the understanding or use of the standard.

3.1.1.3 international standard: Standard that is adopted by an international standardizing/standards organization

and made available to the public.

3.1.1.4 normative element: Those elements setting out the provisions to which it is necessary to conform in order to be able to claim compliance to the standard.

3.1.1.5 provision: Expression in the content of a normative document, that takes the form of a statement, an instruction, a recommendation, or a requirement.

3.1.1.6 recommendation: Provision that conveys advice or guidance.

3.1.1.7 requirement: Provision that conveys criteria to be fulfilled.

3.1.1.8 standard: Document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for the activities or their results, aimed at the achievement of optimum degree of order in a given context.

3.1.1.9 state of the art: Developed stage of technical capability at a given time as regards products, processes and services, based on the relevant consolidated findings of science, technology and experience.

3.1.2 Other definitions

3.1.2.1 Technical committee definition: The definitions in subclauses 3.1.2.2 through 3.1.2.3 are from INCITS

3.1.2.2 Technical Committee: A subgroup established under INCITS responsible for developing dpANS and/or draft TR's, submitting to OMC requests for new projects in its general area of interest, and serving as a U.S. TAG upon assignment by INCITS.

3.1.2.3 TC draft: A TC working document intended to be either a draft standard or technical report.

3.2 Symbols and Abbreviations

CDB	Command Descriptor Block
dpANS	Draft Proposed American National Standard
ISO	International Standards Organization
FCP-2	Fibre Channel Protocol - 2
INCITS	InterNational Committee for Information Technology Standards
OMC	Operational Management Committ
SAM-2	SCSI Architecture Model -2
SCSI	Small Computer System Interface
SPC-2	SCSI Primary Commands - 2
SPI-3	SCSI Parallel Interface - 3
TAG	Technical Advisory Group
TC	Technical Committee
TR	Technical Report

3.3 Keywords

3.3.1 expected: A keyword used to describe the behavior of the hardware or software in the design models assumed by this standard. Other hardware and software design models may also be implemented.

3.3.2 mandatory: A keyword indicating an item that is required to be implemented as defined in this standard to claim compliance with this standard.

3.3.3 may: A keyword that indicates flexibility of choice with no implied preference.

3.3.4 may not: Keywords that indicates flexibility of choice with no implied preference.

3.3.5 optional: A keyword that describes features that are not required to be implemented by this standard. However, if any optional feature defined by this standards is implemented, it shall be implemented as defined in this standard.

3.3.6 reserved: A keyword referring to bits, bytes, words, fields and code values that are set aside for future standardization. Their use and interpretation may be specified by future extensions to this or other standards. A reserved bit, byte, word or field shall be set to zero, or in accordance with a future extension to this standard. Recipients are not required to check reserved bits, bytes, words or fields for zero values. Receipt of reserved code values in defined fields shall be reported as an error.

3.3.7 shall: A keyword indicating a mandatory requirement. Designers are required to implement all such requirements to ensure inter-operability with other products that conform to this standard.

3.3.8 should: A keyword indicating flexibility of choice with a preferred alternative; equivalent to the phrase "it is recommended".

3.4 Conventions

Certain words and terms used in this guide have a specific meaning beyond the normal English meaning. These words and terms are defined either in clause 3 or in the text where they first appear. Some terms are in all uppercase (e.g., REQUEST SENSE), names of fields are in small uppercase (e.g., STATE OF SPARE), lower case is used for words having the normal English meaning.

Fields containing only one bit are usually referred to as the name bit instead of the name field.

Numbers that are not immediately followed by lower-case b or h are decimal values.

Numbers immediately followed by lower-case b (xxb) are binary values.

Numbers immediately followed by lower-case h (xxh) are hexadecimal values.

Decimals are indicated with a comma (e.g., two and one half is represented as 2,5).

Decimal numbers having a value exceeding 999 are represented with a space (e.g., 24 255).

An alphanumeric list (e.g., a,b,c or A,B,C) of items indicate the items in the list are unordered.

A numeric list (e.g., 1,2,3) of items indicate the items in the list are ordered (i.e., item 1 must occur or complete before item 2).

In the event of conflicting information the precedence for requirements defined in this standard is:

1) text,
2) tables, then
figures.

4 General

4.1 Overview

To a large extent this is a difference document to the *ISO Directives, Part 3* which defines standards requirements for ISO international standards. Parts of that document are reproduced here to make this guide easier to use. Those parts that are reproduced here are clearly indicated as being copied. Users of this document will need to obtain and use the *ISO Directive, Part 3* in conjunction with this guide. See clause 2 for information on obtaining ISO Directives.

4.2 Objective of a standard

A significant portion of clause 4.2 is reproduced from *ISO Directive, Part 3* for the convenience of the user of this guide. Please refer to *ISO Directive, Part 3* for full details.

The objective of a standard is to define provisions in order to facilitate design, test, and manufacture of interoperable products from various companies for the benefit of their customers. To achieve these objectives the standard should:

a) be complete as necessary within the limits specified by its scope,
b) be consistent, clear and accurate,
c) take full account of the state of the art,
d) provide a framework for future technological development, and,
e) be comprehensible to qualified persons who have not participated in its preparation.

While all the above are very important, the last point needs particular consideration since most of the users of the standard do not have the opportunity to participate in its development.

Uniformity of structure, style, and terminology throughout a particular standard and associated standards is essential. The structure of associated standards and numbering shall, as far as possible, be identical. Analogous wording shall be used to express analogous provisions; identical wording shall be used to express identical provisions.

The same term should be used throughout each standard or series of standards to designate a given concept. The use of an alternative term (i.e., synonym) for a concept already defined shall be avoided. As far as possible, only one meaning shall be attributed to each term chosen.

These requirements are important to ensure comprehension of the standard and to derive the maximum benefit available through automated text processing techniques and computer-aided translation.

Reference to the most current T10 working drafts (e.g., SPI-4, SPC-2) can provide valuable information regarding style, format, and layout (even content for areas like clause 3) during the development of other standards.

5 Document Structure

5.1 Front matter

The front matter of the T10 working draft consists of the following elements:

1) T10 cover page with document number and other standard information and contact information on the reverse,

2) An ANSI cover page giving a brief description of the standard and ANSI copyright and patent information on the reverse,
3) A revision history (removed prior to forwarding for first public review),
4) A table of contents,
5) A table of tables,
6) A table of figures,
7) Forward, and
8) Introduction.

The front matter is not part of the normative standard.

5.2 Actual standard

The body of normative standard consists of the following elements:

1) Clause 1: Scope (brief description of what this standard covers and how it relates to other standards within the SCSI family of standards),
2) Clause 2: Normative References (a list of other standards whose requirements are incorporated in this standard by reference),
3) Clause 3: Definitions, symbols, abbreviations, keywords, and conventions,
4) Clause 4: General (gives an overview of what the standard is covering with capabilities and limitations and other details that will help the user understand the rest of the information in the standard),
5) Clause 5 through n: provides normative information as necessary to understand the requirements for this standard, and
6) Annex A through n: provides supplemental normative information with requirements or informative information to aid in the understanding or use of the requirements defined in other parts of the standard. Providing annexes is optional.

A large portion of clauses 1 - 3 are boilerplate that is approximately the same content for all working drafts. The templates contain most of the boilerplate information. Changes and/or additions should be made as appropriate for your working draft.

The number and content of clauses and annexes depends on the requirements and other information that are necessary to convey the standard's scope and objectives.

5.3 Subdivision of working draft

5.3.1 ISO Definitions

Clauses 5.3.2 through 5.3.5 of this guide are paraphrased from of *ISO Directives, Part 3.*

The terms used to designate each division or subdivision of a working draft are shown in Table 1. For an example of the divisions and numbering of the elements of the standard refer to *ISO Directives, Part 3*.

Table 1 — Names of divisions and subdivision

Name	Example
clause	1
subclause	1.1
subclause	1.1.1
paragraph	no numbering
annex	A

Other elements of the standard may include tables, figures, notes, footnotes and or examples.

5.3.2 Clause

The clause is the basic component in the subdivision of the content of a standard. The clauses in each standard shall be numbered with arabic numerals, beginning with 1 for the ‘Scope’ clause. The numbering shall be continuous up to but excluding any annexes.

Each clause shall have a title, placed immediately after its number, on a line separate from the text that follows it. A new clause in not required to begin on a new page.

5.3.3 Subclause

A subclause is a numbered subdivision of a clause. A primary subclause (e.g., 5.1, 5.2) may be subdivided in secondary subclauses (e.g., 5.1.1, 5.1.2), and this process of subdivision may be continued as far as necessary.

Subclauses shall be numbered with arabic numerals (see *ISO Directives, Part 3*). A subclause shall not be created unless there is at least one further subclause at the same level (e.g., there shall be no 8.1 unless there is also an 8.2).

Each primary subclause shall be given a title, which shall be placed immediately after its number, on a line separate from the text that follows it. Secondary subclauses may be treated the same way. Within a clause or subclause, the use of titles shall be uniform for subclauses at the same level (e.g., if 8.1 has a title, 8.2 shall also have a title). In the absence of titles, key terms or phrases (composed of distinctive type) appearing at the beginning of the text of the subclause may be used to call attention to the subject matter dealt with. Such terms or phrases shall not be listed in the table of contents (e.g., the definitions subclauses).

5.3.4 Paragraph

A paragraph is an unnumbered subdivision of a clause or subclause.

“Hanging paragraphs” such as those shown in the figure 1 shall not occur since reference to them is ambiguous. Basically, if there are subclauses in the clause, there shall be no text between the clause title and the first subclause title.

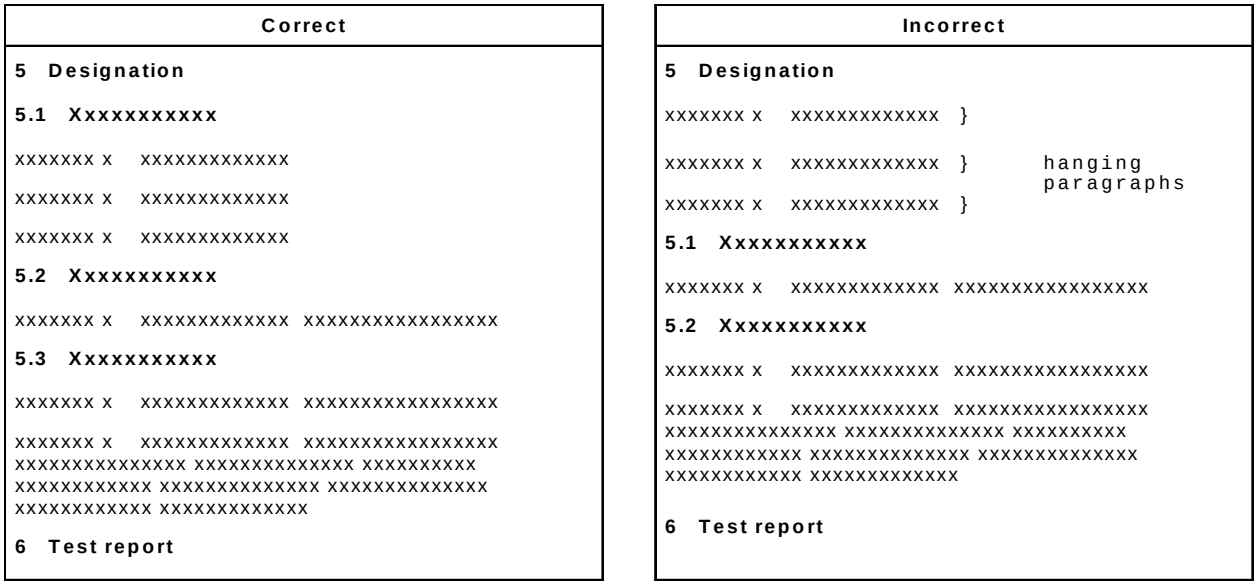

Figure 1 — Hanging paragraph example.

The hanging paragraphs indicated in figure 1 cannot be uniquely identified as being in ‘clause 5’ since strictly speaking the paragraphs in 5.1 and 5.2 are also in clause 5.

5.3.5 Lists

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

An unordered lists implies no priority between items in the list. Each item in an unordered list shall be preceded by an alpha character(s) as shown below.

This is an unordered list of items:

a) green
b) red
   A) light red
   B) dark red
c) yellow
d) blue

An ordered lists does imply priority between items in the list. Each item in an ordered list shall be preceded by a numeric value as shown below.

This is a list of ordered items:

1) get passport
2) get visa
3) get reservations
   1) airline tickets

   2) hotel
   3) rental car
4) buy new clothes

There shall be no line spaces between list entries.

5.3.6 Tables

5.3.6.1 Table usage

Tables shall follow one of two formats illustrated in table 2 and table 3. All tables shall have a double-line outline and either a single-line or double-line separator between the column headings and the items listed in the columns (see *ISO Directive, Part3* for additional details on table requirements). These requirements also apply to other data format layouts (e.g., CDB's). Tables shall be referenced in the text.

5.3.6.2 Table numbering

Tables are number with arabic numerals beginning with 1. Tables are numbered sequentially through the document without regard to clause numbers or figure numbers up to any annexes. The table number and title shall appear directly above the table. Numbering of tables in annexes are preceded with the annex letter (e.g., Table A.1) and begin with number 1 in each annex.

5.3.6.3 Table outline

5.3.6.3.1 Table outline usage

All tables shall be outline using double lines as shown in table 2. The separator between the table heading and table body will be determined by the separator used for the in the body. See 5.3.6.2.1 and 5.3.6.2.2.

5.3.6.3.2 Single-line separator table

Single-line separator tables are used to separate the headings from the items in the table when there are no lines used to separate the rows of items in the table. Table 2 is an example of a single-line separator table.

Table 2 — Single-line separator

Heading 1	Heading 2
Item1	Item 1description
Item 2	Item 2 description[a]
Item 3	Item 3 description
Item 4	Item 4 description[b]
NOTE 1 First table note about something NOTE 2 Second table note about something	
[a] Table footnote about Item 2 description [b] Table footnote about Item 4 description	

5.3.6.3.3 Double-line separator table

Double-line separator tables are used to separate the headings from the items in the table when there are lines used to separate the rows of items in the table. Table 3 is an example of a double-line separator table.

Table 3 — Double-line separator

Heading 1	Heading 2
Item 1	Item 1 description
Item 2	Item 2 description[a]
Item 3	Item 3 description
Item 4	Item 4 description[b]
NOTE 1 First table note about something NOTE 2 Second table note about something	
[a] Table footnote about Item 2 description [b] Table footnote about Item 4 description	

5.3.6.4 Tables positioning

Tables shall as far as possible be on a single page. Tables shall not float. If the table spans more than one page there shall be an indication of continuation in the table format. If the table continues on multiple pages the table notes and footnotes shall appear at the bottom of the table frame on each page.

5.3.6.5 Notes to tables

Notes to tables are only to give the user help in understanding or to give guidance to the material. No requirements (i.e., no ‘shall’) are allowed in the notes. Notes are preceded with the term ‘NOTE’ for a single note or ‘NOTE 1’, NOTE 2’, etc. for multiple notes (see *ISO Directive, Part 3* for additional detail on notes to tables). All notes are contained within the table frame (see table 3). Notes precede footnotes to tables.

5.3.6.6 Footnotes to tables

Footnotes to tables may specify requirements. Footnotes to tables are contained within the table (see table 3) and are treated separately from footnotes to text. Footnotes to tables are specified with superscript lowercase letters (e.g., [a], [b]). Footnotes to tables follow any notes to the table if present and are contained within the table frame (see *ISO Directive, Part 3* for additional details on footnotes to tables).

5.3.7 Figures

5.3.7.1 Figure usage

Figures are used to help explain information or give details to aid the user of the document (see *ISO Directives, Part 3* for additional detail on figures). Figures shall be referenced in the text.

5.3.7.2 Figure numbering

Figures are numbered with arabic numerals beginning with 1. Figures are numbered sequentially through the document without regard to clause numbers or table numbers up to any annexes. The figure number and title shall appear directly below the figure and if present any notes or footnotes. Numbering of figures in annexes is preceded by the annex letter (e.g., Figure B.3) and begin with the number 1 in each annex.

5.3.7.3 Figure positioning

Figures shall as far as possible be on a single page. Figures shall not float. If the figure spans more than one page there shall be an indication of continuation in the figure format. If the figure continues on multiple pages the figure notes and footnotes shall appear at the bottom of the figure frame on each page.

5.3.7.4 Notes to figures

Notes to figures are only to give the user help in understanding or to give guidance to the material. No requirements (i.e., no 'shall') are allowed in the notes. Notes are preceded with the term 'NOTE' for a single note or 'NOTE 1', NOTE 2', etc. for multiple notes (see *ISO Directive, Part 3* for additional detail on notes to figures). All notes are listed directly below the figure and above the figure number and title. Notes precede footnotes to figures if present.

5.3.7.5 Footnotes to figures

Footnotes to figures may specify requirements. Footnotes to figures are treated separately from footnotes to text. Footnotes to figures are specified with superscript lowercase letters (e.g., [a], [b]). Footnotes to figures follow any notes to the figure if present and are directly above the figure number and title (see clause 6.6.4.9 in *ISO Directive, Part 3* for additional details on footnotes to tables).

5.3.8 Notes, examples and footnotes to text

5.3.8.1 ISO on notes, examples and footnotes

The *ISO Directives, Part 3* goes into great detail on the requirements of different types of notes, footnotes, and examples. There are references to the ISO docs in the clauses here that will just summarize the requirements for each type of note, example, and footnote. T10 numbering is different than ISO

5.3.8.2 Notes to text and examples

Notes to text and examples are only there to give the user help in understanding or to give guidance in use of the material. No requirements (i.e., no 'shall') allowed in notes to text or examples.

Notes are indented and preceded with the term 'NOTE' and follow the text that they apply to. Notes shall use a smaller font than the main text (i.e., main text 10pt font, notes 9pt font). If there is more than one note in the document they are numbered sequentially throughout the document including annexes if present.

Examples follow the same rules as notes for indenting and numbering and are preceded with the term 'EXAMPLE' (see *ISO Directives, Part 3* for additional details on notes and examples).

5.3.8.3 Footnotes to text

Footnotes to text only give additional information and do not specify requirements. Footnotes are always on the bottom of the page and separated from the other text by a thin line. They are numbered sequentially through the document with superscript arabic numbers followed by a parenthesis at the referenced location in the text (see *ISO Directives, Part 3* for additional details on footnotes).

5.3.9 Annexes

5.3.9.1 Annex usage

Annexes provide supplemental information that can be either normative or informative. All normative annexes shall precede informative annexes. Annexes appear in the order that they are referenced in the document except that

normative appear before informative (see *ISO Directive, Part 3* for additional details). Each annex shall begin on a new page.

5.3.9.2 Normative annexes

Normative annexes are an integral part of the standard and include provisions required to comply with the standard (see 6.3.8 in *ISO Directive, Part 3* for additional details). Normative annexes are clearly labeled as such.

5.3.9.3 Informative annexes

Informative annexes provide information to assist the user in understanding or provide guidance in implementing the requirements of the standard (see *ISO Directive, Part 3* for additional details). Informative annexes are clearly labeled as such.

5.3.9.4 Annex numbering

Annexes are numbered as “Annex A”, “Annex B”, etc. followed with an indication of either “(normative)” or “(informative)” (see *ISO Directive, Part 3* for additional details). Tables and figures in annexes have the table or figure number preceded with the letter of the annex (e.g., Table A.1, Figure B.3).

6 Required Style Elements

6.1 Describing Requirements

When describing requirements the standard is placing on application clients, initiators, targets, logical units, etc. the editor shall use the following terms (see *ISO Directive, Part 3* for additional details):

a) shall - a keyword indicating a mandatory requirement.
b) should - a keyword indicating a flexibility of choice with a preferred alternative; equivalent to the phrase “it is recommended”.
c) may - a keyword indicating a flexibility of choice with no implied preference.
d) may not - keywords indicating a flexibility of choice with no implied preference.

Avoid other terms, especially those that may be inconsistent or ambiguous (see 7.1).

6.2 Fonts

Pick one font, either Arial or Helvetica, and stick with it for the body of text. It is acceptable to use Symbol font for formula and Courier font for things like code examples. Limit the use of these other fonts as much as possible. Mixing in other fonts makes PDF files larger and more complex. Also, an editor in the future may not have all the fonts you have chosen to use making maintenance difficult.

Font size shall be 10pt for normal paragraph text and 9pt for notes.

When using a proportional space font (e.g., Helvetica, Arial) do not add additional spaces between sentences. When using a mono space font (e.g., Courier for code examples), two spaces between sentences are OK.

6.3 Paragraph alignment

Full justification shall be enabled. Paragraph text shall be aligned on both left and right margins.

6.4 Number Representation

6.4.1 Decimal numbers

The decimal sign is a comma on the line between the whole and fractional numbers. Spaces are used to separate groups of three digits on either side of the decimal sign. A value less than 1 is written with a zero preceding the decimal sign (see *ISO Directives, Part 3* for additional details).

EXAMPLES 0,034 10,345 567 12 345 567 12 345,567 987

When indicating years (e.g., 1998, 2001) it is not necessary to make a group of three digits.

6.4.2 Zero or ‘0’?

Generally single digit numbers (i.e., 0 - 9) used to indicate quantities (as opposed to numerical values of physical quantities) are shown in alpha characters (e.g., zero, three, nine). Values of ten or greater are shown as numeric characters (e.g., 13, 42, 77). If for clarity it makes sense to do something different, do it.

EXAMPLE 1 Carry out the test with five cables, each cable 6 m long.

EXAMPLE 2 Additional testing with 20 cables, each cable 12 m long...

To express physical quantities use numeric characters with the appropriate international symbol for the unit being measured.

EXAMPLE 3 Use a 3 m cable...

EXAMPLE 4 Connector pins with 1,27 mm (0,05 in) spacing...

6.4.3 Binary numbers

Binary numbers are represented with a ‘b’ at the end of the value.

EXAMPLES 1011b 01b

6.4.4 Hexidecimal numbers

Hexidecimal numbers are represented with an ‘h’ at the end of the value.

EXAMPLES 34h FE3Dh FEDC BA98h

6.4.5 Number presentation

Decimal numbers are not shown with leading zeros unless it is a fractional number (see 6.4.1).

Numbers shall be shown as the correct number of digits required for the field being described.

EXAMPLE 1 A three bit field is shown as 010b

EXAMPLE 2 A two byte field is shown as 30DFh

6.5 Usage of i.e. and e.g.

Use ‘e.g.’ in place of ‘for example’. The format is: (e.g., item1, item2,...). There shall be no ‘etc.’ within the parentheses since ‘for example’ implies there are additional items that fit the category.

EXAMPLE 1 “Single digit numbers (e.g., one, three, five) are...”.

Use ‘i.e.’ in place of ‘that is’. The format is: (i.e., item1, item2,...).

EXAMPLE 2 “All single digit numbers (i.e., 0 - 9) are...”.

6.6 Table and figure reference

All tables and figures in the document shall be referenced somewhere in the text, preferably somewhere near the table or figure being referenced. References to tables and figures shall be explicit.

EXAMPLE 1 “Figure 3 is intended...” not “The above figure is intended...”.

References to multiple tables or figures shall also be explicit.

EXAMPLE 2 “Table 23, table 24, and table 26 show...” not “Tables 23, 24, and 26 show...”.

Tables and figure shall not float.

6.7 Describing bit values

When describing the state of bits be explicit. The bit is set to one or set to zero.

EXAMPLE 1 “When the EMDP bit is set to one the target...”

EXAMPLE 2 “When the DQUE bit is set to zero the target...”

Using the term ‘cleared’ or ‘reset’ is prohibited when describing bit states.

6.8 Acronyms

Specify acronyms in the acronyms subclause with their definition. Be consistent in their use. For example don’t switch back and forth indiscriminately between using ‘Command Descriptor Block’ and ‘CDB’. Pick one and stick with it. Acronym use should be minimized.

6.9 Nouns and verbs

Make sure that nouns and verbs match for the number of objects, tense, etc. in your sentences.

EXAMPLE “These five bits are used...” not “These five bits is used...”

6.10 This standard

When self reference is required within the document use the term “this standard” to avoid confusion.

6.11 In the standard or not

Often there are subjects (e.g., internal error recovery, operating system behavior) mentioned in the standard that are clearly beyond the scope the standard. When something is not within the scope of the standard, clearly state “outside the scope of this standard” for the referenced subject.

6.12 Use of SCSI object names

Use care when making reference to SCSI objects. Are your referring to the initiator or application client? Are you referring to the target or logical unit? Are you referring to the entire target device or a target port? Are you referring to the logical unit or device server? Or are you referring to some other object? There are layers in the SCSI Model. So, application clients interact with device servers and initiators interact with targets, but application clients do not interact with targets. Make sure you are using the term you really mean. Check the latest version of SAM, SPC, etc. to be sure.

6.13 Consistent terminology

Many terms (e.g., hard reset, initiator) are already defined in other standards (e.g., SAM-2, SPC-2). When using terms already defined in other standards make sure your usage is the same. If you need a term to define something different, use a different term and put it in clause 3 of your standard. Be sure to check other standards first to ensure you are not treading on some other use of the term.

6.14 Capitalized?

Don’t capitalize terms like initiator, target, logical unit, etc. unless they are the first word in a sentence.

Use all caps on terms like command names (e.g.,REQUEST SENSE command) and status names (e.g., BUSY status).

Small caps are used for bit and field names (e.g., EMPD). Bit or field names may use multiple words separated by spaces or underscores (e.g., LOGICAL BLOCK ADDRESS, QAS_REQ). When referencing the contents of a bit or field, use the bit or field name NOT in small caps. If the bit or field name has underscores then references to the values shall include underscores.

6.15 No requirements in “informative” annexes

There shall be no requirements in “informative” annexes. That is to say the word “shall” shall not appear in an “informative” annex.

6.16 Other checks

Also refer to *ISO Directives, Part 3* for an additional check list concerning quantities and units of measure for international standards.

7 Things to watch out for

7.1 Words

7.1.1 Word to avoid

There are certain words that may cause confusion or add no value and should be avoided in standards. In table 4 are some of these and suggested replacement words.

Table 4 — Words to Avoid

Words to Avoid	Suggested Replacement
must	shall
could	may
execute	process or perform
will	shall
can	may, or is able to

Avoid using non-quantitative words. If you cannot put a number on it, it is probably not right.

EXAMPLE 1 most, nearly, some, etc.

Avoid the use of superfluous adjectives and adverbs. The underlined words in EXAMPLE 2 provide no useful information.

EXAMPLE 2 shall always, exactly 16 bytes, effective progress, explicitly contains

7.1.2 Words to use carefully

Some words should be used cautiously.

“Which” should only be used as the object of a preposition. Otherwise you probably should use “that”.

“Reset” should never be used with bits or fields (see 6.7). To “reset a device” is OK.

“Require” should not be used in most cases. Usually you mean the keyword “shall”.

The term ‘disk’, ‘tape’, etc. should probably be ‘SCSI device’ or ‘disk device’, etc.

7.1.3 Guaranteed?

Using ‘guaranteed’ or its variants is almost always a mistake. Seldom is anything ‘guaranteed’ in a T10 standard.

7.1.4 Assume?

Using ‘assume’ or its variants is almost always a mistake. You know what it means.

7.2 Other word usage

7.2.1 Specify or indicate?

Generally initiators ‘specify’ parameter values to targets and targets ‘indicate’ parameter values to initiators. That is initiators place requirement on targets and targets report conditions.

7.2.2 What’s a ‘MB’?

If you use the term ‘MB’ do you mean a value that is 10^6 or 2^20? The term ‘MB’ means 10^6 or 1 000 000, where 2^20 is 1 048 576. The same applies to ‘KB’, ‘GB’, etc. Make sure you use the correct term for the value you mean. Refer to ISO/IEC 60027-2-am2 (1999-01) or http://physics.nist.gov/cuu/Units/binary.html for correct term usage. Table 5 shows the correct terms for various powers of two.

Table 5 — Term for powers of two

Meaning	Binary Multiplier Name	Multiplier to convert field to bytes
Bytes		1
Ki-bytes	Kilobinary	2^{10} or 1024
Mi-bytes	Megabinary	2^{20}
Gi-bytes	Giagbinary	2^{30}
Ti-bytes	Terabinary	2^{40}
Pi-bytes	Petabinary	2^{50}
Ei-bytes	Exabinary	2^{60}

7.2.3 Affected or effected?

Use caution with ‘affected’ vs. ‘effected’. Generally ‘affect’ is used as the verb of choice. ‘Effect’ is generally used as a noun. Make sure you know what you are trying to say.

7.2.4 Ensure or insure?

Use caution with ‘ensure’ vs. ‘insure’. Almost always ‘ensure’ is correct and ‘insure’ is wrong. Make sure you know what you are trying to say.

7.2.5 It’s or Its?

The term “it’s” is a contraction for ‘it is’. The term “its” is the possessive form of ‘it’. What do you really want to say?

7.2.6 Note?

Avoid using ‘note that...’. The term ‘note’ is only used for notes.

8 Document preparation

Document preparation is covered in the instructions with the templates for Frame (T10/01-314) and Word (T10/01-315). Take the time to review these to ensure that your document meets requirements.