

Recommendation A.3

ELABORATION AND PRESENTATION OF TEXTS AND DEVELOPMENT OF TERMINOLOGY AND OTHER MEANS OF EXPRESSION FOR RECOMMENDATIONS OF THE ITU TELECOMMUNICATION STANDARDIZATION SECTOR

(Geneva 1980; Helsinki, 1993, Geneva 1996)

Recommendation A.3 (formerly A.15) was approved in 1980 in order to rationalize and provide a standard format for texts prepared by Study Groups and other groups for publication. The goal was to arrive at a normalized paragraph numbering system and text presentation and to simplify working procedures within the Secretariats of both CCITT and ITU. The result was a standard final product for users and was the logical adjunct to electronic text storage and processing which was being introduced about the same time.

Between 1980 and 1996 the volume of text treated per study period has increased by a factor of five, treatment techniques (equipment, software, methods, and publication media) have greatly evolved and working methods within the Study Groups and the Secretariat have changed. Given the accelerating pace of change, it is both practical and logical to provide an "elaboration and presentation guide" which will be able to follow the evolution in this domain. The Guide is contained in Appendix I (see Note).

Accurate, up-to-date terminology has always been considered by ITU-T and its predecessors as a prerequisite for producing comprehensible standards. Over the years, working methods in terminology have been refined and the necessary procedures within Study Groups are now well established. The product of these efforts is collected and stored electronically by the TSB, provides the major vocabulary input to the ITU language services and constitutes the database for distribution or publication of this information by paper or electronic means. Consolidated procedures for dealing with terminology and other means of expression previously covered by ITU-T Recommendations A.10, A.12, A.13 and A.14 are described in Appendix II.

It is recommended:

- 1) that a procedure for rational elaboration, hierarchical numbering and standardized presentation and layout of texts be applied to all Recommendations of the ITU Telecommunication Standardization Sector;
- 2) that such a procedure be provided in the "Guide for the elaboration and presentation of texts for Recommendations of the ITU Telecommunication Standardization Sector" which constitutes Appendix I to this Recommendation;
- 3) that the Director of the Telecommunication Standardization Bureau ensure the application of this procedure;
- 4) that the Director of the Telecommunication Standardization Bureau ensure periodic updating of the "Guide for the elaboration and presentation of texts for Recommendations of the ITU Telecommunication Standardization Sector" in response to changes in the publications production environment;
- 5) that appropriate terminology and other means of expression be developed by ITU-T Study Groups and stored, maintained and distributed as required by the TSB.

NOTE – A similar Guide which deals exclusively with ITU-T | ISO/IEC common text has been elaborated jointly with ISO/IEC and can be found in Recommendation A.23.

APPENDIX I

GUIDE

FOR THE ELABORATION AND PRESENTATION OF TEXTS FOR RECOMMENDATIONS OF THE ITU TELECOMMUNICATION STANDARDIZATION SECTOR

Summary

This author's Guide for preparing ITU-T texts (e.g. draft Recommendations) permits uniform, efficient preparation of texts by the TSB for publication. It covers the rules for drafting a Recommendation in a standard manner. Its provisions should be applied in all instances where texts (such as draft Recommendations) are being prepared by Study Group authors for approval and publication. The methods presented in this Guide are the basis for a template and will remain stable until changes to current text treatment procedures necessitate their modification.

Recommendation A.1500 (Example of an ITU-T Recommendation)

**GUIDE FOR THE ELABORATION AND PRESENTATION OF TEXTS
FOR RECOMMENDATIONS OF THE ITU TELECOMMUNICATION
STANDARDIZATION SECTOR**

(Helsinki 1993, Geneva 1996)

1 Scope

This Guide is intended to provide a common approach to the preparation of ITU-T texts which are destined for publication, e.g. draft Recommendations. It attempts to cover the kind of questions likely to arise in the preparation of an ITU-T Recommendation and provides, through application of its own rules, an illustration using the normal order of the elements of drafting a typical Recommendation. To avoid confusion which may result from this approach for a first-time reader, detailed explanations of the contents of each heading are given in clause 2 **Elements of a Recommendation**, below. Table 1 shows the normal order and arrangement of the elements that may comprise a Recommendation.

Table 1/A.1500 – Arrangement of elements (typical)

Element	Clause number
Title page ^{a)}	None
Foreword ^{a)}	None
Contents ^{a)} (optional)	None
Summary ^{a)}	None
Introduction ^{a)} and Background (optional)	None
Keywords ^{a)} (optional)	None
Title	None
Scope	1 ^{b)}
References	2 ^{b)}
Definitions	3 ^{b)}
Abbreviations	4 ^{b)}
Conventions	5 ^{b)}
Text of Recommendation	6 onwards ^{b)}
Annexes (form an integral part of the Recommendation)	A onwards
Appendices (do not form an integral part of the Recommendation)	I onwards
Bibliography	None
Index (optional)	None
^{a)} These elements are considered as up-front material (outside the main body of the Recommendation).	
^{b)} These clause numbers are given for guidance and are not fixed since some of the elements may not be present.	

2 Elements of a Recommendation

2.1 Cover or title page

The cover or title page shall be supplied by the Telecommunication Standardization Bureau (TSB). It shall provide the title of the Recommendation as decided by the Study Group and, in addition, will provide the name of the hierarchically superior division of the Series into which the Recommendation falls.

2.2 Foreword

The TSB is responsible for this element, placed on the back of the title page which provides administrative, copyright and other information.

2.3 Contents (optional)

The contents element is provided to assist the reader and depending on the length and complexity of the Recommendation, may list all the subclauses of the main text and annexes, or only the main clause plus one level of the subclauses. The general rule is to keep it as short as possible while providing the necessary minimum of aid to the reader. The ITU Secretariat may generate a table of contents if none is included with the manuscript. All items listed shall be cited with their full titles.

2.4 Summary

This element is mandatory and is placed ahead of the main body of the Recommendation. It provides a brief overview of the purpose and contents of the Recommendation thus permitting readers to judge its usefulness for their work. It is also used as a guide to inform online clients about the Recommendation.

2.5 Introduction and Background (optional)

This element, placed ahead of the main body of the Recommendation, introduces the subject and may give, for example, the reasons leading to its preparation, the technical content of the text and any other information that the author deems appropriate. It may also include the history (for example, if the Recommendation was originally written a number of years ago and has since been modified a number of times) and describe any association with other Recommendations.

2.6 Keywords (optional)

This element, placed ahead of the main body of the Recommendation, lists a limited number of words or word combinations which identify the main topics in the Recommendation. A manual of accepted keywords may be used in the selection of appropriate words. Work on the use of keywords as a simple search tool for electronic texts is under investigation in the ITU.

2.7 Title

The title should not be unnecessarily long and should provide an indication of the main topics covered. The Recommendation proper commences on page 1 with the number and title. (Places and dates of approval are provided by the TSB and shown between brackets below the title.)

2.8 Scope

This element shall appear, as clause 1, at the beginning of every Recommendation, to define, without ambiguity, its intent or object and the aspects covered, thereby indicating the limits of its applicability.

2.9 References

This element permits the author to list the ITU-T or former CCITT Recommendations, ISO, IEC and other accepted standards referred to in the body of the Recommendation and which are considered to be incorporated by reference into the Recommendation. The references should be introduced with a standard text as follows:

The following ITU-T Recommendations, and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

Reference to any other texts may be made through a Bibliography in an appendix at the end of the Recommendation (see 2.20 below).

2.10 Terms and definitions

This element gives the definitions necessary for the understanding of certain terms used in the Recommendation. When present, it should be introduced by the following text: "This Recommendation defines the following terms".

The terms with their definitions used in the Recommendation shall be extracted from the text and listed. An example is given as follows:

This Recommendation defines the following terms:

clause: The word clause shall be used to denote the main (i.e. single digit numbered) text passages.

subclause: The word subclause shall be used to denote text passages that are subdivisions (i.e. multiple digit numbered parts) of a clause.

text: The "text" of Recommendations is understood in a broad sense. It may contain printed or coded text and/or data (such as test images, graphics, software, etc.).

annex: An annex to a Recommendation contains material (e.g. technical detail or explanation) which is necessary to its overall completeness and comprehensibility and is therefore considered an integral part of the Recommendation (in joint ITU-T | ISO/IEC texts the term integral annex is used).

appendix: An appendix to a Recommendation contains material which is supplementary to and associated with the subject matter of the Recommendation but is not essential to its completeness or comprehensibility and is therefore not considered to be an integral part of the Recommendation (in joint ITU-T | ISO/IEC texts the term non-integral annex is used) and thus does not imply any agreement on the part of ITU-T.

In order to associate defined terms in the different languages, it would be useful to give a subclause number to each term defined. If terms defined elsewhere are used, they shall be grouped in a subclause and introduced as in the following example: This Recommendation uses terms defined in Rec...., followed by a list of the terms used.

2.11 Abbreviations and acronyms

This element lists all the abbreviations and acronyms from throughout the Recommendation, in alphabetical order and with their complete text. The first letter of the first word of the text shall be capitalized; all other words shall not be capitalized unless they are special terms. An example is given as follows:

This Recommendation uses the following abbreviations:

CCITT	International Telegraph and Telephone Consultative Committee
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
ITU-T	International Telecommunication Union – Telecommunication Standardization Sector

2.12 Conventions

This element, which is optional, shall list particular notations, styles, presentation, etc. used within the Recommendation.

The unnecessary use of capitalized words shall be avoided. Special classes of terms or other texts which are to be capitalized throughout the Recommendation shall be listed in the Conventions.

2.13 Text of the Recommendation

The text of the first line of each clause or subclause shall start at the margin, except for lists.

2.13.1 Clause and subclause numbers

Subclauses shall be numbered with the digits of the number in bold and separated by periods. In the case of a clause number, no period shall be present.

The clause or subclause number shall appear (together with the title) on a line separate from the text.

2.13.2 Clause and subclause titles

The title, in bold, indicating the content of the clause or subclause, shall appear to the right of the subclause number. Untitled subclauses shall be avoided.

2.13.3 Lists

Lists allow associated short subclauses to be presented outside of the main paragraph numbering scheme thus avoiding excessively long subclause numbers (e.g. 2.13.3.3.2 is equivalent to point two of the third indent of subclause 2.13.3). Although a great number of forms are possible for multiple level lists, it is desirable to restrict the number of variants. In the interest of simplicity, authors should avoid lists with more than three levels. Two possible variants, used for one-level-only lists, are shown below (others may use letters/numbers):

- first item;
- second item;
- etc.

or

- first item;
- second item;
- etc.

The second form, which may apply to either one- or two-level lists is shown below:

- a) first item;
- b) second item;
- c) etc.

When sublists appear within a list as a second level, the list takes the following form:

- a) first item:
 - 1) first sub-item;
 - 2) second sub-item.
- b) second item:
 - 1) first sub-item;
 - 2) second sub-item.

Lists with three levels would use a combination of the above forms; lists with more than three levels should be avoided if possible.

2.14 Mathematical expressions and symbols (formulae, equations, etc.)

2.14.1 Presentation

Equations, formulae and other expressions shall be in the mathematically correct form and shall occupy one or more lines with no text, unless text is an integral part of the expression. For reference purposes, each expression shall be given a number (placed at the right margin) which contains the clause number plus a number in sequence from the beginning of the clause, e.g. Formula 6-3/K.35 is the third mathematical expression in clause 6 of Recommendation K.35. Given the complicated nature of mathematical expressions, great care shall be exercised to ensure that manuscripts are abundantly clear (e.g. for the vertical placement of subscribed or superscribed numbers or variables) and leave no room for misinterpretation by the Secretariat.

If the text treatment software used by the author has limited possibilities to produce mathematical expressions with the correct layout (giving relative positions and size of all elements), it is preferable to produce them accurately by hand.

2.14.2 Equations

Equations and other expressions shall start on a new line, indented from the left margin. Successive iterations of the right hand side of an equation (i.e. after the equals sign) shall occupy successive lines and the equals sign shall be aligned vertically.

2.14.3 Quantities, units and symbols

The use of quantities, units and symbols shall follow the International System of units (SI) as defined by ISO, in ISO 31 and ISO 1000, which give the standard name of physical quantities with their agreed symbol. Letter symbols used to express quantities in an expression shall be listed with their explanations below the expression, or group of expressions, using them. Symbols for variable quantities are written in italics, non variable or constant quantities are expressed by roman characters.

2.15 Figures and tables

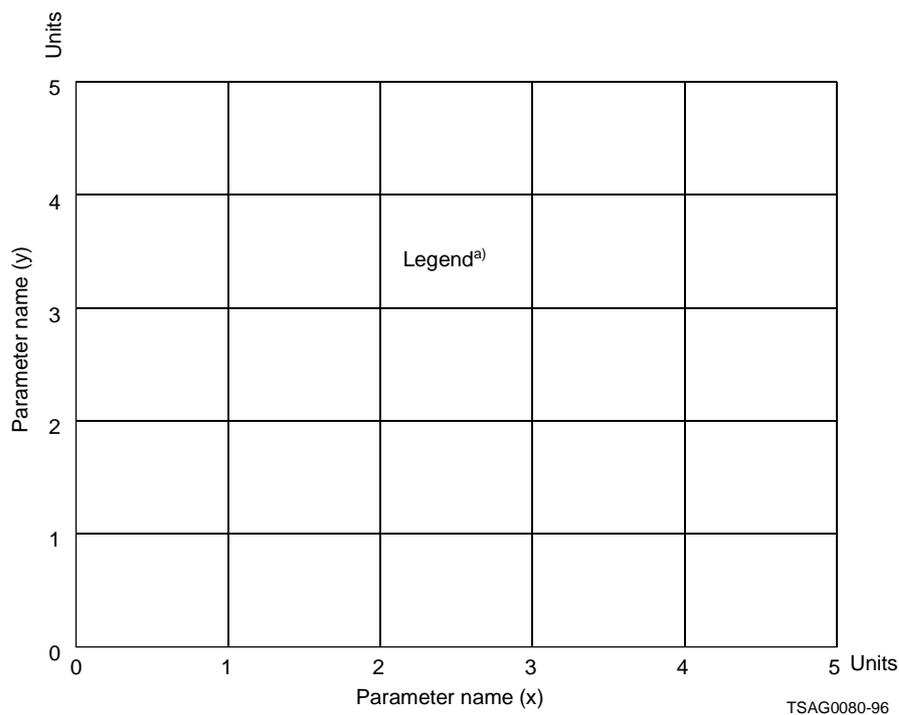
2.15.1 Figures

Each figure shall be referred to explicitly in the text.

Figures shall be numbered with arabic numerals, beginning with 1 (within annexes there will be a letter-plus-period prefix) followed by a fraction bar and the number of the Recommendation e.g. Figure 5/X.440, Figure A.3/G.121. This numbering shall normally be independent of the numbering of the clause and of any tables. For Recommendations which are very long or complex, however, the author may number figures sequentially with respect to the single digit clause number, e.g. Figure 4-3/M.450 which denotes the third figure in clause 4 of Recommendation M.450.

The number and title shall be placed on the same line and centred, below the figure. References in the text to specific figures (see 2.17) should use the word Figure with an uppercase F, e.g. see Figure 1. The first letter of the title shall be capitalized; all other words shall not be capitalized unless they are special terms that are capitalized throughout the Recommendation in accordance with the conventions given.

When a figure is continued over two or more pages, the following text shall appear on intermediate pages: Figure number + figure title (*continued*) and the following text shall appear on the last page: Figure number + figure title (*concluded*). SDL diagrams are an exception to this rule and use sheet numbers when two or more pages of the same figure occur.



a) Explanatory comments are placed immediately below the figure.

NOTE 1 – General notes to the figures are placed above the number and title of the figure.

NOTE 2 – Successive notes are numbered consecutively.

Figure 1/A.1500 – Example of presentation of figures

2.15.2 Tables

Each table shall be referred to explicitly in the text.

Tables shall be numbered with arabic numerals, beginning with 1 (within annexes there will be a letter-plus-period prefix) followed by a fraction bar and the number of the Recommendation e.g. Table 5/X.440, Table A.3/G.121. This numbering shall normally be independent of the numbering of the clause and of any figures. For Recommendations which are very long and complex,

the author may number sequentially with respect to the single digit clause number e.g. Table 4-3/M.450 which denotes the third table in clause 4 of Recommendation M.450.

The number and title shall be placed on the same line and centred, above the table. References in the text to specific tables (see 2.17) should use the word Table with an uppercase T, e.g. see Table 1. The first letter of the title shall be capitalized; all other words shall not be capitalized unless they are special terms that are capitalized throughout the Recommendation in accordance with the conventions given.

The first letter in the heading of each column shall be capitalized. Columns shall, if possible, be separated by vertical lines. The heading shall, if possible, be separated from the contents by a horizontal line. The table shall, if possible, be surrounded by lines forming a box.

When a table is continued over two or more pages, the following text shall appear on intermediate pages: Table number + table title (*continued*) and the following text shall appear on the last page: Table number + table title (*concluded*). Column headings shall be repeated on each page.

2.15.3 Text references to figures and tables

Table 2 explains the meaning of the text references to tables and figures.

Table 2/A.1500 – Text references to figures and tables

Reference term	Meaning
Table 1/W.1001	First table in Recommendation W.1001
Figure 2/W.1001	Second figure in Recommendation W.1001
Table A.3/W.1001	Third table in Annex A of Recommendation W.1001
Table II.2/W.1001	Second table in Appendix II of Recommendation W.1001
NOTE 1 – The notes of the tables are placed within its frame.	
NOTE 2 – Successive notes are numbered consecutively.	

2.16 Notes and footnotes

2.16.1 Notes and footnotes to the main text

Proliferation of notes should be avoided. If the text is written in a clear manner the need for notes should be minimal. If supplementary or complementary information is necessary, notes may be integrated in the text of a Recommendation. They shall not contain requirements. They shall normally be placed after the clause, subclause or paragraph to which they refer.

In a numbered subclause containing only one note, the note shall start with the word NOTE, placed at the beginning of the first line of the note and followed by a space and a dash (i.e. NOTE – this note is an example).

In a numbered subclause containing two or more notes, each note shall be preceded by the word NOTE, a space then an arabic numeral, a space and a dash at the beginning of its first line. Regardless of whether they occur singly or in one or more groups all notes within the same numbered subparagraph shall be numbered consecutively (i.e. NOTE 1 –, NOTE 2 –, NOTE 3 –, etc.).

Footnotes may be used to provide information regarding a particular item, word or concept. They shall be indicated by a superior positioned arabic numeral at the appropriate location in the text and

shall be numbered consecutively throughout the Recommendation. Both the indicator and the footnote itself shall be printed with a font one or two sizes lower than the main text.

2.16.2 Notes and footnotes to figures and tables

Notes and footnotes to tables and to figures shall be treated independently from footnotes and notes integrated in the text. They shall be located within the frame of the relevant table or immediately above the title of the relevant figure. Notes for each table and each figure shall be numbered independently. Such notes may contain requirements. Footnotes to a table or figure shall be indicated by a superior positioned lower case letter. Both the indicator and the footnote itself shall be printed in a font smaller than the main text.

2.17 Citing of references

When reference is made to other text passages, tables, figures, equations, etc. **within the same** Recommendation it is sufficient to cite the appropriate number without the Recommendation number e.g. see Table 4 or see 5.4.7. For references to **parts of another** Recommendation, its number should be included in the reference e.g. see Figure 6/Q.555, see clause 4/P.88 or see 3.8.2/Q.560.

2.18 Annexes

Annexes form an integral part of the Recommendation and shall appear immediately after the text of the Recommendation. The annexes shall be designated A, B, C etc. A single annex shall be designated Annex A.

Numbers given to the clauses, subclauses, tables, figures and equations of an annex shall be preceded by the letter assigned to that annex (e.g. see Figure B.3). The numbering shall start afresh with each annex.

2.19 Appendices

Appendices do not form an integral part of the Recommendation and shall appear immediately after the last (integral) annex of the Recommendation, or after the text, if there are no annexes. The appendices shall be designated with roman numerals (i.e. I, II, III...). A single appendix shall be designated Appendix I.

Numbers given to the clauses, subclauses, tables, figures and equations of an appendix shall be preceded by the numeral assigned to that appendix (e.g. see Table IV.2). The numbering shall start afresh with each appendix.

2.20 Bibliography (normally in an appendix)

This element may be present in order to cite references or sources not covered by the reference element and which are intended for background information (i.e. they are informative not normative).

2.21 Index

This element is optional, but can be a useful tool for users. If included, the index is the last element of the Recommendation. It is preferable that the index entries should provide clause or subclause number references and not page number references which are subject to change during processing in the Secretariat.

Annex A¹

Treatment of machine readable text

A.1 Electronic Document Handling (EDH)

The Resolution 18 ad hoc Group (Melbourne, 1988) and the WTSC Helsinki (1993) in Resolution 9 recommended the use of EDH in the operations of ITU-T and its Secretariat (TSB). These recommendations were based on the fact that EDH is a strategic tool for information exchange between participants in the activities of ITU-T and that the implementation of EDH capabilities provides significant benefits for resource limited individuals, organizations and countries. Due to these and other advantages described in Resolution 9, TSB has put in place the necessary infrastructure to receive documents electronically. Authors, Rapporteurs and others wishing to submit electronic documents should follow the guide given in Appendix I of Recommendation A.2.

A.2 Modifications to Recommendations and version identification

To avoid waste of time and resources, authors/Rapporteurs should ensure that when an existing Recommendation is modified, all changes to the existing version be clearly indicated. As a minimum, vertical margin bars should be used.

The means adopted by ITU-T for version identification of new or modified Recommendations when they are published is to indicate the date (month/year) of approval (e.g. 08/92) under the Recommendation number.

A.3 Data

Machine readable data (such as programmes, test sequences) can be a normative or informative part of ITU-T Recommendations. They always represent a constituent part of the Recommendation thus they shall be treated with all other parts of the Recommendation as a single entity (e.g. approval of such Recommendations shall include both text and data at the same time). In the text part of the Recommendation a Normative Reference shall be made to the data part of the Recommendation, identifying at least the title, version number and creation date of the data. Any other useful information such as size might be added as appropriate.

There is no difference from the procedural point of view between text and machine readable data when approving Recommendations or handling of defects.

Appendix I²

ITU-T | ISO/IEC joint Recommendations | International Standards

Collaboration between ITU-T and ISO/IEC takes place in the domain of information technology (covered by Recommendation A.23) and this results in joint Recommendations | International Standards which are published separately but have identical content. To facilitate preparation of identical text by authors from either the ITU-T or ISO/IEC side, a set of presentation rules has been prepared and is included as Appendix II to Recommendation A.23 under the title Information technology - rules for presentation of ITU-T | ISO/IEC common text.

¹ This annex belongs to fictive Recommendation A.1500.

² This appendix belongs to fictive Recommendation A.1500.

Appendix II³

Terminology and other means of expression

II.1 Terminology

II.1.1 ITU-T, in the interest of comprehensibility of ITU-T Recommendations, elaborates, approves, stores, maintains and diffuses the technical and operational terms and their definitions.

II.1.2 In the preparation of new or revised Recommendations, Study Groups shall develop and use the appropriate definitions for any new terms used. Each Study Group should designate a person responsible for coordinating its terminology activities and to act as a contact/liaison. This Rapporteur shall conduct liaison activities with other Study Groups and IEC or ISO as necessary.

II.1.3 All new terms and their definitions associated with a new or revised Recommendation shall be listed in a specifically labelled section of the Recommendation as outlined in 2.10 of Appendix I to Recommendation A.3 (the Guide for the elaboration and presentation of texts for Recommendations of the ITU Telecommunication Standardization Sector); the final decision on the definition of a "new term" rests with the Study Group.

II.1.4 To avoid unnecessary duplication, before finalizing the definition of a new term, the Rapporteur responsible for terminology shall examine the possible use of relevant definitions used or being developed by other Study Groups of ITU.

II.1.5 The TSB shall collect all new terms and their definitions from new or revised Recommendations and add them to the TSB terminology database. At the time of entry, any duplications or other anomalies or inconsistencies found shall be reported to the responsible Study Group(s).

II.1.6 The ITU-T terms and definitions contained in the terminology database shall be kept up to date by the TSB. All, or selected parts of the terminology database shall be made available to Rapporteurs, members of Study Groups and the general public by the TSB via the appropriate publication media.

II.2 Graphical Symbols and Diagrams

II.2.1 ITU-T Study Groups, in the elaboration of Recommendations, make use of graphical symbols, diagrams and other non-text means of expression. Most of these working tools are well established and need no special treatment but exceptionally, new symbols, diagrams, etc., may be required (e.g. to describe new devices, procedures, etc.) and a minimum of coordination is necessary.

II.2.2 It may prove necessary to introduce new symbols, diagrams or other means of expression in a new or revised Recommendation. In this case, and in an effort to normalize such tools, the Study Group Terminology Rapporteur should check whether similar means, used by another Study Group, exist and could be adapted to the situation. As a further measure to avoid duplication, a similar check should be made of symbols, diagrams etc., already normalized and published by IEC through its Technical Committee 3 (and subcommittees).

³ This appendix belongs to Recommendation A.3.