Drafting and editing IEC publications

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Overview

- Keys to success
- Workflows and communication
- Rules and sources of information
- A few essential notions
A few keys to a successful IEC publication

- Technically correct
- Represents the consensus of opinion at the time it was published
- Written in a precise and simple style
- Qualified people who have not participated in the drafting have to be able to understand it
- Users have to be able to determine whether or not a product, process, system, etc., conforms to its requirements
A few keys to a successful drafting exercise

- Allow time for planning: there are many experts, many projects and many schedules to manage
- One designated document manager
- One reference version (can be a whole document or fragments of the document): no parallel versions!
- Traceability and tracking of issues and their resolution
- Communication: provide the next person in line with the necessary information (background to decisions, particularities in the text, IT issues…) for them to do their job properly
ISO/IEC Directives, Part 2

Provide a common framework for all IEC and ISO documents.

The aim is to ensure that each document

- is clear, precise and unambiguous
- contributes effectively to the consistent and interdependent body of knowledge that IEC and ISO produce

http://www.iec.ch/members_experts/refdocs/
Why do we need drafting rules?

- IEC publishes ~600 documents/year and maintains a catalogue of >7 000 publications
- ISO, regional and national bodies publish and maintain thousands of standards, too
- International Standards are highly inter-dependent
- Tens of thousands of experts participate in standardization efforts worldwide
Objectives of ISO/IEC Directives, Part 2

ISO/IEC Directives exist to ensure

- **Efficiency**: common work methods for experts mean that they can focus on the technical content
- **Ease of use**: common understanding for standards users
- **Interoperability**: standards can work together
- **Clarity and understanding**: common language and conventions
- **Translatability**: common language and conventions make standards easier to translate
Rules and sources of information

**Drafting IEC publications website:**
http://www.iec.ch/standardsdev/resources/draftingpublications

**Explanations concerning the rules**

**Recommendations for drafting, layout, graphics and figures**

**User guides on the IEC Std template**

**Tips and explanations on the use of MS Word**
Editing helpline

Your document will be edited thoroughly at the latter stages of its development (from CDV/DIS stages onwards), but if you have any questions
• before starting a new document, or
• whilst developing the document
…please contact your editor who will be happy to help.

For general questions:
editing@iec.ch    figures@iec.ch    layout@iec.ch
A few essential notions

- Common structure
- Language: conventions for the expression of provisions
- Writing a title (and scope)
- Normative references
- Terminology and graphical symbols
- Patent and copyright issues
## Common structure

<table>
<thead>
<tr>
<th>Section</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>Mandatory, unnumbered</td>
</tr>
<tr>
<td>Introduction</td>
<td>Only necessary if you decide to provide some background, or if patent declarations need to be listed</td>
</tr>
<tr>
<td>1 Scope</td>
<td>Mandatory, numbered as 1</td>
</tr>
<tr>
<td>2 Normative references</td>
<td>Mandatory, numbered as 2</td>
</tr>
<tr>
<td>3 Terms and definitions</td>
<td>Mandatory, numbered as 3</td>
</tr>
<tr>
<td># Symbols and abbreviated terms</td>
<td>Only needs to be present if symbols and abbreviated terms are used. Can be combined with Clause 3</td>
</tr>
<tr>
<td># Technical content</td>
<td>Test methods, specifications, etc.</td>
</tr>
<tr>
<td>Annexes</td>
<td>Optional, numbered as Annex A, Clause A.1, etc.</td>
</tr>
<tr>
<td>Bibliography</td>
<td>Conditional – If you provide some informative references</td>
</tr>
</tbody>
</table>
Very important elements: they provide a concise description and delimitation of the subject matter.

Titles:

• Is the title too wide-ranging? Or does it unintentionally limit the scope of the document?

Incorrect: Grindability with diamond pellets – Test method and classification

Correct: Raw optical glass – Grindability with diamond pellets – Test method and classification

• The title needs to proceed from the general to the particular
Writing a title (and scope)

Titles (continued):

• Documents belonging to a series require a common title

IEC 60947-1, *Low-voltage switchgear and controlgear – Part 1: General rules*

IEC 60947-2, *Low-voltage switchgear and controlgear – Part 2: Circuit-breakers*

Scope:

• Provides necessary additional details to the title (including any exclusions)

• Does not provide background information nor does it deal with the subject matter of other documents (these details go in the Introduction)
Language: conventions for the expression of provisions

Language is subject to varying interpretations, which is why conventions exist, even though they do not necessarily correspond to natural language.

• **shall** → requirement

Connectors **shall** conform to the electrical characteristics specified by IEC 60603-7-1.

• **should** → recommendation

Wiring of these connectors **should** take into account the wire and cable diameter of the cables defined in IEC 61156.
Language: conventions for the expression of provisions

- **may → permission**

  *IEC 60512-26-100 may be used as an alternative to IEC 60512-27-100 for connecting hardware that has been previously qualified to IEC 60603-7-3:2008.*

- **can → possibility**

  *Use of this connector in corrosive atmospheric conditions can lead to failure of the locking mechanism.*
The **Normative references** clause contains a list of the publications cited normatively in the text.

**Examples:**

*Connectors *shall* conform to the electrical characteristics specified by IEC 60603-7-1.*

→ **NORMATIVE:** list in the Normative references clause

*Wiring of these connectors *should* take into account the wire and cable diameter of the cables defined in IEC 61156.*

→ **INFORMATIVE:** list in the Bibliography
Normative references

• References shall be dated if a specific element in the referenced publication is cited – clause, subclause, figure, table, annex, etc.

The dimensions shall be according to IEC 60793-2-50:2012, Table B.1.

→ Reference to a specific element: DATED

The test methods of IEC 61300-2-2 shall be used.

→ General reference: UNDATED

• Only published, publicly available documents shall be cited: no drafts, private communications, etc.
Terminology

- Common language and terms are one of the keys to our system.
- Check whether an acceptable entry already exists: avoid the unnecessary multiplication of terminological variants.

http://www.electropedia.org

http://std.iec.ch/glossary

See ISO/IEC Directives, Part 2: 2016, Clause 16 for a more complete overview of the rules on terminology. Contact Joanna Goodwin (jgo@iec.ch) for further information and training on terminology.

3.15
case
table, bench or wall mounting enclosure in which electrical and/or electronic equipment can be housed
Graphical symbols

- Use internationally standardized symbols, e.g. from
  - IEC 60617 - Graphical Symbols for Diagrams
  - IEC 60417 and ISO 7000 - Graphical Symbols for Use on Equipment
- Circuit diagrams shall be prepared using IEC 61082-1.

If there is a need to create a new standardized symbol, contact IEC/TC 3 for symbols for diagrams and IEC/SC 3C and ISO/TC 145/SC 3 for symbols for use on equipment.
Patents

- Any potential patent declarations shall be submitted to the IEC as early as possible
- IEC shall not be held responsible for identifying any or all such patent rights
- The IEC maintains a database of patents relevant to its standards
  - [http://patents.iec.ch/](http://patents.iec.ch/)
- Details concerning the patents (holder, subject, licenses granted) are listed in the introduction of the publication
Copyright

- Do not reproduce any material from an exterior source without the permission of the relevant copyright holder.

- Forward the documented proof of any permissions obtained to the IEC Technical Officer.

- If permission to reproduce material has been obtained:
  - specify the source 'Source: Table 3 of BSI 12345:1997'
  - mention the source document in the Bibliography.
  - insert the following footnote:

  Reproduced from [document], with the permission of [organization].
Workflows and communication with the IEC Editing team

- Before the CDV
- CDV stage
- FDIS stage
- Publication stage
Before the CDV stage

• Documents are not edited by the IEC before the CDV stage.

• We can offer practical advice, if necessary.

• Reminders:
  • Use the IEC Std template to structure your text from the earliest stages.
  • If you are working on the maintenance of a previously published document, use the MS Word publication file of the previous edition as a starting point (we can provide this).
CDV stage

• Document is translated before vote (6 weeks).

• Document is edited during the voting period (12 weeks).
  • Formatted
  • Edited (using MS Word tracked changes)

• Once a document has been submitted for CDV vote, do not continue work on parallel versions: the reference version is at the IEC.

• Edited document is sent to the Secretary, who forwards it to Convenor/Project Leader.
CDV stage

At the end of the CDV vote:

1) Go through the edited copy.
   - Accept/reject the changes in the file
   - React to the Editor’s comments

   In order to reduce the risk of corrosion it is necessary for the strands of OPGW to be coated with grease. The type of grease to be applied shall be in accordance with IEC 61394.

   Comment [a ln20]: Please add this document to the Normative references.

2) Insert the changes resulting from the NC comments

<table>
<thead>
<tr>
<th>MB/NCσ</th>
<th>Line-number σ (e.g. 17α)</th>
<th>Clause/Subclause σ (e.g. 3.1)</th>
<th>Paragraph/Figure/Table σ (e.g. Table 1)</th>
<th>Type of comments</th>
<th>Comments σ</th>
<th>Proposedchanger</th>
<th>Observations of the secretariat</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP11 α</td>
<td>175 α</td>
<td>5.3 α</td>
<td>Table 1</td>
<td></td>
<td>No. 1</td>
<td>yes</td>
<td>The value 1-500 is too low for this application</td>
</tr>
</tbody>
</table>

3) Submit the resulting document as an FDIS
FDIS stage

Incoming draft FDIS documents go through an initial evaluation.

- Has the Editor’s work from the CDV stage been taken into account?
- Are there any obvious major problems?
- Are there any missing texts?
- Are any potentially challenging matters apparent (patent claims, copyright issues, etc.)?

→ Documents are accepted for Editing if no major problems are found.
FDIS stage

- Once accepted, draft FDIS documents are edited BEFORE being circulated (max. 12 weeks).
- Questions are sent to the Secretary, who is responsible for providing answers.
- Replies are expected within 10 working days.
- After approval by the IEC Technical Officer, the document is circulated.
Communication

In the Editing stages:

• All correspondence from the IEC is sent to the TC Secretary, using the Projects dashboard.
• TC Secretary is responsible for
  • formal submission of drafts to the IEC,
  • forwarding edited documents and any questions to the relevant Convenor/Project Leader and making sure that appropriate answers are sent back.
• Avoid copying the IEC Editor in your internal email communications. Only send answers once all issues have been resolved.
Thank you – Any questions?

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