

INTERNATIONAL ELECTROTECHNICAL COMMISSION

TECHNICAL COMMITTEE No. 3 : DOCUMENTATION AND GRAPHICAL SYMBOLS

**Unconfirmed Minutes of the meeting of TC 3 in Paris
on the 16th September 1991**

Present:

Chairman: Mr. P.D.C. Reefman (*Netherlands*)

Secretary: Mr. P.-Å. Svensson (*Sweden, Secretary SC3B*)

Central Office: Mr. H. Teichmann

<i>COUNTRY</i>	<i>DELEGATES</i>	<i>COUNTRY</i>	<i>DELEGATES</i>
CANADA	Mr. J. Kwan	JAPAN	Mr. S. Araki Mr. T. Araki
CHINA	Mr. J. Wei		Mr. Y. Nakamura (<i>Chairm. SC3C</i>) Mr. T. Takeichi
DENMARK	Mr. K. Jensen Mr. Ib G. Jørgensen	NETHERLANDS	Mr. A. Gehner Mr. F. van Noesel Mr. G.L. Walther (<i>Secr. SC3D</i>)
FINLAND	Mr. T. Viitanen	NORWAY	Mr. H. Hay (<i>Chairm. SC3B</i>) Mr. J. Pettersen Mr. E. Selvik
FRANCE	Mr. J. Bodin (<i>Secr. SC3A</i>) Mr. J. Dubray Mr. J. Lesur Mr. Muniesa	SWEDEN	Mr. B. Åkerberg
GERMANY	Mr. E. Abel (<i>Chairm. SC3A</i>) Mr. F. Reuter Mr. B. Schmitt	SWITZERLAND	Mr. A. Fornalski (<i>Secr. SC3A</i>)
ITALY	Mr. G. Piazzi	UNITED KINGDOM	Dr. D.E. Radley (<i>Chairm. SC3D</i>)
		UNITED STATES	Mr. T.R. Smith

Observers:

Mr. P. Diakonoff, Secretary ISO/TC184
Mr. R. Nerke, ISO/TC184/SC4/WG3
Mrs. S. Velander, Secretary ISO/TC10/SC10

Table of Contents

I	Opening.....	3
II	Approval of the Agenda, document 3(Central Office)560.....	3
III	Confirmation of the Minutes, document RM3299/TC3.....	3
IV	Report from the Chairman of TC 3	3
4.1	Meeting with Chairmen, Secretaries and WG Convenors	4
4.2	Chairmanship of SC 3B.....	4
4.3	Secretariat of SC 3C.....	4
V	Report from the Chairman of SC 3A - Graphical Symbols for Diagrams	4
5.1	Report.....	4
5.2	Task of IEC/TC3-ISO/TC10 JWG	4
5.3	Use of "multiple numbering"	4
VI	Report from the Chairman of SC 3B - Documentation	5
VII	Report from the Chairman of SC 3C - Graphical Symbols for Use on Equipment	5
VIII	Report from the Chairman of SC 3D - Data Sets for Libraries of Electric Component Data	5
IX	Review of document 3(Secretariat)432 - Organization of TC3 with Sub-Committees and Working Groups.....	5
X	Discussion of document 3(Secretariat)434 - Strategic Policy Statement for TC 3	5
XI	Report from the Chairman of CCI-IEC Joint Working Group on Symbols and Diagrams....	5
XII	Report from the Chairman of IEC/TC3-ISO/TC10 JWG - Graphical symbols for Use in Technical Documentation of Products, and Documentation, including Item Designation	5
XIII	Report from the Chairman of IEC/TC3-ISO/TC145 JWG - General Principles for the Creation of Graphical Symbols for Use in Diagrams.....	6
XIV	Discussion of document 3(Secretariat)433 - Common IEC-ISO Policy Statement on Technical Documentation of Products	6
XV	Discussion of document 3/3A/3B(Secretariat)429/228/77 - Lettering according to ISO 3098/1	6
XVI	Liaisons with other bodies.....	6
16.1	General.....	6
16.2	ISO/TC10 - Technical Drawings, Product Definition and Related Documentation	6
16.3	ISO/TC184/SC4 - Industrial Data and Global Manufacturing Languages	7
16.4	IEC/TC16 - Terminal Markings and Other Identifications.....	7
16.4.1	Symbol for "Range of values"	7
16.4.2	Document 3/16(Italy)495/214	8
16.5	IEC/TC44 - Electrical Equipment of Industrial Machines.....	8
16.6	IEC/TC52 - Printed Circuits.....	8
16.7	IEC/TC65 - Industrial-process Measurement and Control	8
16.8	Proposal for a new IEC Technical Committee on 'Design automation'	9
XVII	Information on the new IEC/ISO Directives	9
XVIII	Other business	9
18.1	Terminology	9
XIX	Programme of future work	9
XX	Next meeting	10
XXI	Close of the meeting.....	10
Annex A	Report from the Chairman of SC3A.....	11
Annex B	Report from the Chairman of SC3B	14
Annex C	Report from the Chairman of SC3C.....	18
Annex D	Report from the Chairman of SC3D.....	20
Annex E	Report from the Chairman of CCI-IEC JWG	21
Annex F	Report from the Chairman of IEC/TC3-ISO/TC10 JWG	23
Annex G	Report from the Chairman of IEC/TC3-ISO/TC145 JWG	24
Annex H	The new Directives of the IEC	25
Annex J	List of meeting documents	27

I Opening

The Chairman of TC 3, Mr. Reefman, opened the meeting and welcomed the delegates.

He expressed a special welcome to the guests :

- Mrs. Velander, Secretary of ISO/TC10/SC10 ; and
- Mr. Teichmann, representative of the Central Office.

On behalf of the French National Committee Mr. du Couëdic welcomed the delegates wishing them a successful meeting. He also told that the French National Committee had officially asked to be relieved from the Secretariat of SC3C.

II Approval of the Agenda, document 3(Central Office)560

The draft agenda, document 3(Central Office)560, was approved with the following changes :

- item 6.1 : Co-ordination with ISO/TC184/SC4, was added ;
- item 18 was deleted (duplication of item 10) ; and
- items 19, 20, 19, 20 were consequently renumbered 18 ... 21.

III Confirmation of the Minutes, document RM3299/TC3

The minutes from the last meeting of TC 3 in Los Angeles, document RM3299/TC3, were approved with the correction of the following spelling errors:

- page 1 : The name of the Chairman, Mr. Reefman, was misspelt.
- page 1 : The names of the US delegates should be spelt Mr. C.R. Muller and Mr. T.R. Smith.
- page 3, item V, third clause: ...to set up an Editing Committee
- page 4, item VII:SC 3C was not present
- page 6, item XI, second clause : This proposal ...

The following remarks were made to the minutes :

- **Item XI.b:** The Swedish proposal mentioned had so far not been forwarded. Mr. Åkerberg mentioned that most symbols required are already existing in IEC 617. Regarding the missing ones, Mr. Åkerberg undertook to make a list of ISO symbols required and forward to SC3A/WG1.
- **Item XII:** Mr. Åkerberg informed that ISO/TC10/SC10 had discussed this decision at its last meeting, but come to the conclusion that term rightfully ought to be "technical documentation of technical products". Although correct this was considered to be a clumsy expression and it was decided that we should continue to use "technical documentation of products", as decided at the last meeting in Los Angeles.
- **Item XVII:** Mr Jensen of the Danish National Committee asked for the distribution at the meeting of the Danish letter to the Central Office and the corresponding response. This was done.

IV Report from the Chairman of TC 3

The Chairman reported on the following items.

4.1 Meeting with Chairmen, Secretaries and WG Convenors

A meeting with Chairmen, Secretaries and WG Convenors was held in The Hague in March 1991. The purpose of this meeting was to give the participants an opportunity to discuss common matters as a preparation for the Paris meeting.

4.2 Chairmanship of SC 3B

With the meeting of SC 3B in Paris, the Chairman period for Mr. H. Hay will end. The Chairman of TC 3 thanked Mr. Hay for the work done in the last 10 years.

4.3 Secretariat of SC 3C

As already mentioned, the French National Committee has asked to be relieved from the Secretariat of SC 3C.

The Chairman thanked the French National Committee for the way they had fulfilled the duties of the Secretariat.

Decision: In accordance with the directives, the Secretary of TC 3 will issue an enquiry to the National Committees asking for offers to undertake the Secretariat.

V Report from the Chairman of SC 3A - Graphical Symbols for Diagrams

5.1 Report

The Chairman of SC 3A, Mr. E. Abel, reported in accordance with Annex A.

5.2 Task of IEC/TC3-ISO/TC10 JWG

In order to clearly include the work on a common IEC-ISO Standard on graphical symbols for diagrams in the task of IEC/TC3-IEC/TC10 JWG, it ought to be slightly supplemented. This had been discussed in SC3A and a proposal been prepared. After some further discussion, the following text was agreed upon:

....-to prepare proposals for working drafts for standards on graphical symbols for diagrams which are of common interest to IEC and ISO.

Remark : The proposals prepared by the JWG shall be reported to IEC/SC 3A and to ISO/TC 10/SC 10 for further action.

Decision: The supplement was agreed on by TC3. However, for the time being, it was only to be noted in these minutes, in order not to delay the further handling of the common IEC - ISO Policy statement,(with its present wording). (See also Item XIV.)

5.3 Use of "multiple numbering"

Mr Abel also brought to the attention of the meeting the uncertainty with regard to the responsibility that the "multiple numbering" of documents created, for example 3/3A/3B/3D(Secretariat)X/Y/Z/Q, and proposed that this kind of numbering should not be used.

Decision: It was concluded that multiple numbering will have to be used sometimes, in order to ensure proper circulation of a document. In those cases, we should always make clear in the Introduction of the document, which committee that is responsible for the compilation of comments and for discussion and further actions.

VI Report from the Chairman of SC 3B - Documentation

The Chairman of SC3B, Mr. H. Hay, reported in accordance with Annex B.

As this would be the last meeting of Mr. Hay as Chairman of SC 3B, the Chairman expressed his thanks to Mr. Hay for the work done for SC 3B during the 10 years period.

VII Report from the Chairman of SC 3C - Graphical Symbols for Use on Equipment

The Chairman of SC 3C, Dr. Y. Nakamura, reported in accordance with Annex C.

VIII Report from the Chairman of SC 3D - Data Sets for Libraries of Electric Component Data

The Chairman of SC 3D, Dr. Radley, reported in accordance with Annex D. In addition to this report he announced that the Secretary of SC 3D, Mr. Walther, will retire this year. He will be replaced by Mr. F. van Noesel.

The Chairman of TC 3 expressed his thanks to Mr. Walther for the work done for SC 3D.

IX Review of document 3(Secretariat)432 - Organization of TC3 with Sub-Committees and Working Groups

The document was reviewed. No changes were made. It was noted that a formal liaison should be established between ISO/TC10/SC10 and IEC/SC 3A.

Decision: The document will be updated taking into account all results of the Paris meeting and recirculated.

X Discussion of document 3(Secretariat)434 - Strategic Policy Statement for TC 3

The comments from the National Committees were compiled in document 3(Secretariat)437 .

During the discussion it was noted that:

- there were no real objections to the document;
- the Australian comment should be taken into account;
- the requirement to speed up of the work should be addressed;
- only strategic goals should be presented in the document.

Decision: With these notes, it was left to the Secretary to amalgamate this document and the corresponding documents for the Sub-Committees into one.

XI Report from the Chairman of CCI-IEC Joint Working Group on Symbols and Diagrams

The Chairman of the CCI-IEC JWG, Mr. Reefman, reported in accordance with Annex E.

XII Report from the Chairman of IEC/TC3-ISO/TC10 JWG - Graphical symbols for Use in Technical Documentation of Products, and Documentation, including Item Designation

The Chairman of the IEC/TC3-ISO/TC10 JWG, Mr. B. Åkerberg, reported in accordance with Annex F.

XIII Report from the Chairman of IEC/TC3-ISO/TC145 JWG - General Principles for the Creation of Graphical Symbols for Use in Diagrams

The Chairman of the IEC/TC3-ISO/TC145 JWG, Mr. B. Schmitt, reported in accordance with Annex G, however , with the correction, that due to late circulation of the prepared document within ISO, it would not be possible to start the final discussion of the comments until the beginning of 1992.

As Mr. Schmitt is to retire at the end of 1991, the problem with a successor was raised. Mr. Schmitt mentioned that Mr. Åkerberg had been asked to take over the Chairmanship and to get the job finished.

The Chairman of TC 3 thanked Mr. Schmitt for the work done in this JWG and also for other work done for SC3A, especially in the preparation of the last edition of IEC 617-12.

XIV Discussion of document 3(Secretariat)433 - Common IEC-ISO Policy Statement on Technical Documentation of Products

There were no comments to the contents of this document. Only the further handling and publication was discussed.

It was considered to be important that every possible step should be taken to make IEC and ISO publish it together.

Decision: Mr Teichmann of the Central Office was asked to investigate the possibilities to publish it in IEC Bulletin. Before such a publication the Secretariats of IEC/SC3A and ISO/TC10/SC10 should make sure that the two organizations work with identical wording.

XV Discussion of document 3/3A/3B(Secretariat)429/228/77 - Lettering according to ISO 3098/1

The comments to this document were compiled in document 3(Secretariat)439.

Decision: The document together with the comments should be forwarded to ISO/TC10, which is presently revising ISO 3098/1.

XVI Liaisons with other bodies

16.1 General

It was noted that the present list of liaisons in the Directory is correct.

16.2 ISO/TC10 - Technical Drawings, Product Definition and Related Documentation

It was noted that beside the existing cooperation with ISO/TC10 in IEC/TC3-ISO/TC10 JWG, there is Study Group on Documentation, in which representatives from SC3B have taken part in meetings.

This Study Group had now been transferred to ISO/TC10/SC1 following a decision at the last meeting of ISO/TC10.

Decision: It was considered to be important that the work in the Study Group is continuously followed by representatives from TC 3, at least as observers. The work in the group might have impacts, primarily on the work in SC 3B, but also SC 3D. Further actions will have to be decided on in these Sub-Committees.

16.3 ISO/TC184/SC4 - Industrial Data and Global Manufacturing Languages

To this item the Chairman welcomed Monsieur P. Diakonoff, Secretary of ISO/TC184 - Industrial Automation Systems and Integration, and Mr. R Nerke, ISO/TC184/SC4/WG3.

The Secretary of TC 3 introduced the subject with reference to document 3/3B/3D(Secretariat)438/90/17.

Monsieur Diakonoff made a presentation of ISO/TC184 with reference to a number of slides. He also informed about the Steering Committee on Industrial Automation (SCIA). To the next meeting of this group, to be held in Fribourg, Nov 18, TC 3 should be invited.

Further back ground information on ISO/TC184/SC4 with its WGs and Projects was given by Mr. T. Smith.

The proposal to set up a joint working group with ISO/TC184/SC4 was then discussed.

Decision: The Title and Scope given in Resolution 87 of the meeting of ISO/TC184/SC4 in Sapporo, reproduced below, were approved, with the editorial change that the name of the Standard ISO 10303 was written out in full:

Title: *IEC/TC3-ISO/TC184/SC4 Joint Working Group for electrical applications of ISO 10303 - Product Data Representation and Exchange*

CEI/CE3-ISO/TC184/SC4 Groupe de Travail Mixte pour les applications électriques de ISO 10303 - Echange et représentation de données relatives aux produits

Scope: *Develop resource models and application protocols using STEP methodologies taking into account documented efforts such as EDIF, IGES, SET, and VNS.*

Développer des modèles de conception ainsi que des protocoles d'application au moyen des méthodes STEP tout en prenant en compte les tentatives ayant fait l'objet de documents tels que EDIF, IGES, SET et VNS.

National Committees in favour were: Canada, China, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and USA, (=14, unanimous)

The Secretary informed that an Administrative Circular calling for additional members will be distributed. It was understood that the members of SC3B/WG2 were to be members also of this JWG.

The National Committees of Germany and USA had already both offered to provide a Convenor of the JWG. As the two persons in question in some respects supplement each other with regard to experience and competence, it would seem to be a suitable solution to appoint both Chairman and Secretary similar to what has been done for other Joint Working Groups.

Because of the late distribution of the document referenced above, it was decided that some further time should be given to the National Committees to respond to it. The time limit was set to the **15th October**. At that time the Chairman and Secretary of TC 3, in consultation with Chairmen and Secretaries of the SCs concerned (SC 3B and SC 3D) and the Chairman of ISO/TC184/SC4 will make the appointment. This would also be in sufficient time ahead of the next meeting of ISO/TC184/SC4 which will be held in Houston 21st - 25th October.

16.4 IEC/TC16 - Terminal Markings and Other Identifications

16.4.1 Symbol for "Range of values"

Mr. Theml, Secretary of TC16, had informed SC 3C about document 16(Secretariat)329 asking the National Committees of their opinion on how to indicate "range of values" with respect to the requirements for marking electrical equipment with ratings related to supply. Different practices exist unfortunately between different Technical Committees of IEC and an agreement had not been possible to reach at the last meeting of TC16.

The main alternatives for indication of a range are:

- an **ellipsis (...)**; and
- a **hyphen (-)**,

but also some other possible methods were presented in the document.

Decision: It was decided that TC16 should be informed through a letter about the reason for the selection of the ellipsis in all documentation standards, i.e. the possibility to include without ambiguity a negative value in the range, for example: +24V ... -24V.

Moreover, the delegates were advised to act accordingly through their National Committees when replying to the questionnaire from TC 16.

16.4.2 Document 3/16(Italy)495/214

This document had been noted at the last meeting of SC 3B in Los Angeles. Comments on the document were compiled by TC16 in document 16(Secretariat)320. According to information from TC16 the terminological needs had been transferred to WG195 of TC1.

TC3 will act, if and when the need for a revision of the associated symbols arise.

16.5 IEC/TC44 - Electrical Equipment of Industrial Machines

It was noted that a questionnaire, document is presently circulating asking the National Committees if a revision of IEC 204-2 - Electrical Equipment of Industrial Machines, Part 2: Item Designation and Examples of Diagrams, Tables and Instructions, would be required.

16.6 IEC/TC52 - Printed Circuits

The Secretary informed that we have been aware of documents prepared by TC 52, indicating that this committee is planning work that would be inside the Scope of TC 3 and also not in line with the work going on in ISO/TC184/SC4 or our planned joint work with this committee, see documents 52(Secretariat)307 and 335.

Work is done, not only for printed circuit boards, which would not cause any problems, but also for 'assemblies of circuit boards' and their documentation and interchange.

We have objected to this through a letter to the Central Office. The present situation is that a meeting will be arranged with participants from TC 52, TC 3 and the Central Office in which the situation will be further discussed.

16.7 IEC/TC65 - Industrial-process Measurement and Control

The Secretary informed that a working group TC65/WG7 had been set up on 'Documentation of programmable electronic systems'.

Co-operation with this is necessary to ensure that no rules conflicting with the new IEC1082 and those in preparation by SC3B/WG4 will occur.

So far, co-ordination has been ensured through SC 3B/WG 4 and by Dr. Fischbeck, and this will continue.

Mr. Smith pointed out that co-operation with JTC1 is also necessary.

The Secretary added that this is an area where we have been speaking at a number of meetings, but we have not seen very much happen. We need a stronger competence in this field either through new experts or co-operation, and the National Committees were asked to keep this in mind, for example when appointing experts to working groups.

16.8 Proposal for a new IEC Technical Committee on 'Design automation'

The Secretary informed about the development of this proposal:

Document 02(USA)74 was the first document proposing the setting up of a new Technical Committee for 'Design Automation'.

TC3 had prepared a comment to this document pointing out that the proposed Scope would cause conflicts with the Scope of TC3 and also with the Scopes of other Committees, including ISO/TC184/SC4.

The proposal had met support, but not sufficient for approval.

The situation had been discussed in ACET, where USA was advised to repeat the proposal with further explanations and justification. This had been done in document 02(USA)74A.

The voting on this document was closed at the end of August, but the result was not known.

Mr. Smith of the US delegation gave some information on the background for the proposal, mainly being that lack of an international 'home' for efforts like EDIF, VHDL, etc and the lack of co-ordination between these. In US this problem had been solved by a separate 'Harmonization body'.

This question need to be followed carefully by TC3, since it might have an impact on the work in TC3 and our co-operation with ISO/TC184/SC4.

XVII Information on the new IEC/ISO Directives

Mr. Teichmann informed about the new Directives and the proposal for shorter lead times. For a summary of the information, see Annex H.

XVIII Other business

18.1 Terminology

The Chairman noted that lack of, or inadequate, terminology seems to cause a number of problems within the TC and its Sub-Committees. There are two different terminological problems:

- 1. Terminology in our own field, relating to documentation, documents, symbols, etc. This we will have to harmonize within TC3, in co-operation with, for example ISO/TC10 and TC184/SC4; and
- 2. Terms needed from other fields, not yet included in IEC. This is especially evident for the standards on symbols. This problem we will have to express as a requirement, directed towards TC1.

Decision: The Secretaries of the Sub-Committees should prepare lists of terms defined within their own domain, including not only definitions in Standards, but also definitions and terms in working drafts, so that discrepancies are noted as early as possible.

These lists will be compiled by the Secretary of TC 3 and distributed within TC3. Further actions, for example together with TC1 will be decided on later.

XIX Programme of future work

The programme of work, based on document 3(Secretariat)436, updated with the result of this meetings is as follows:

Project	Document/Responsible	Target date
Organization of TC3 with Sub-Committees and Working Groups	CD/Secretary	1991-11
Strategic Policy Statement	CD/Secretary	1991-11
Terminology	1CD/Secretary/ Secretaries of SCs	1992-03

XX Next meeting

The next meeting is planned to be held in connection with the General Meeting 1992 in Rotterdam in the period 28th September to 10th October.

XXI Close of the meeting

The Chairman closed the meeting and thanked the delegates for their co-operation. He also thanked the French National Committee for the excellent facilities for the meeting.

Mr. Hay thanked, on behalf of the delegates, the Chairman for the able way in which the meeting had been conducted.

Annex A Report from the Chairman of SC3A

(pasted)

Annex B Report from the Chairman of SC3B

(pasted)

Annex C Report from the Chairman of SC3C

(pasted)

Annex D Report from the Chairman of SC3D

(pasted)

Annex E Report from the Chairman of CCI-IEC JWG

(pasted)

Annex F Report from the Chairman of IEC/TC3-ISO/TC10 JWG

(pasted)

Annex G Report from the Chairman of IEC/TC3-ISO/TC145 JWG

(pasted)

Annex H The new Directives of the IEC

(pasted)

Annex J List of meeting documents

<i>Document id</i>	<i>Title</i>
3(Paris/Secretariat)1	List of delegates
3(Paris/Secretariat)2	List of meeting documents (<i>Annex J</i>)
3(Paris/SC3A)3	Report from the Chairman of SC3A (<i>Annex A</i>)
3(Paris/SC3B)4	Report from the Chairman of SC3B (<i>Annex B</i>)
3(Paris/SC3C)5	Report from the Chairman of SC3C (<i>Annex C</i>)
3(Paris/SC3D)6	Report from the Chairman of SC3D (<i>Annex D</i>)
3(Paris/CCI-IEC JWG)7	Report from CCI/IEC JWG (<i>Annex E</i>)
3(Paris/IEC/TC3-ISO/TC10 JWG)8	Report from IEC/TC3-ISO/TC10 JWG (<i>Annex F</i>)
3(Paris/IEC/TC3-ISO/TC145 JWG)9	Report from IEC/TC3-ISO/TC145 JWG (<i>Annex G</i>)
3(Paris/Secretariat)10	Background information on ISO/TC184/SC4
3(Paris/Denmark)11	Danish correspondence about the meeting place
3(Paris/...)12	(<i>Not used</i>)
3(Paris/ISO/TC184)13	Transparencies "IEC/TC3 Plenary meeting)
3(Paris/Secretariat)14	Daily report from the meeting of TC3 in Paris on the 16th September 1991.
