

INTERNATIONAL ELECTROTECHNICAL COMMISSION

TECHNICAL COMMITTEE No. 3: GRAPHICAL SYMBOLS

Unconfirmed Minutes of the meeting
held in Zurich
on 19th November 1970

Present:

Chairman: Mr. E. GEORGII (Switzerland)
Secretary: Mr. E. RUOSCH (Switzerland)

<u>COUNTRY</u>	<u>DELEGATES</u>
FINLAND	Mr. J. Jauhiainen Mr. R. Huttunen
FRANCE	Mr. P.J.M. Cornu Mr. J. Dubray Mr. Ch. A. Pannier Mr. B. Pouzols Mr. J.J. Thurwanger
GERMANY	Mr. R. Auerbach Mr. P. Funck Mr. R. Schmitt Mr. W.H. Schönfeld Mr. E. Teller
ITALY	Mr. V. Modoni Mr. G. Veglio
NETHERLANDS	Mr. L.R. Polis
NORWAY	Mr. J. Pettersen
SWEDEN	Mr. B. Akerberg Mr. J. Nordelöf
SWITZERLAND	Mr. H. Benninger Mr. M. Ducommun
UNITED KINGDOM	Mr. S.J. Aries Mr. P.M. Dolby
UNITED STATES OF AMERICA	Mr. Ch.A. Fricke Mr. L.A. Meadows Mr. G. Shapiro

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I. OPENING OF MEETING

Mr. Georgii, the Chairman of Technical Committee No. 3 opened the meeting and welcomed the delegates present. He expressed his cordial thanks to the Swiss National Committee for their hospitality and for the excellent organization of the meeting.

The draft agenda, Document 3(Central Office)543, was approved without amendments.

II. CONFIRMATION OF THE MINUTES OF THE MEETING HELD IN TEHERAN ON 3RD AND 13TH NOVEMBER 1969 : RM 1254/TC 3

The above Minutes were confirmed, subject to the correct writing of the name of Dr. P. Funck on page 4.

III. REPORT OF THE CHAIRMAN OF THE CCI/IEC JOINT WORKING GROUP

a) Chairmanship

Following the request from the Secretariat to the Director of the C.C.I.T.T. (see Appendix D to RM 1254/TC 3) Mr. Rouvière designated Mr. S.J. Aries Acting Chairman of the Group from 1st January 1970. This appointment was later confirmed by the Group at their meeting in Madrid.

b) Last Meeting

By kind invitation of Mr. Duran, C.C.I.T.T. member from Spain, the Group met in Madrid in April 1970. The primary purpose of the meeting was to carry out a comprehensive study of the proposals for simple symbols for contact units contained in Document 3(Secretariat)389 which had been referred back to the Group by TC 3. As recorded in RM 1254/TC 3, interested countries had been asked to nominate additional heavy current experts to assist the Group with its task. Five countries had responded and experts from France, Germany, Switzerland, the U.S.A. and the U.K. gave valuable assistance at the meeting.

Three documents had been drafted and later submitted to the parent organization. They have since been issued as Documents:

3A(Secretariat)8, Symbols for contact units and for switchgear.

3A(Secretariat)9, Symbols for telephone keys and similar switches.

3A(Secretariat)10 Symbols for multiposition switches.

c) Next meeting : April 1971.

IV. REPORT FROM SUB-COMMITTEE 3A: GRAPHICAL SYMBOLS FOR DIAGRAMS, AND ITS WORKING GROUPS

a) Report from SC 3A

As a result of the meeting of SC 3A, TC 3 agreed to the following:

- Publication of the following revised documents

3(Central Office)526: "Piezo-electric crystals and delay-lines" as follows:

"Piezo-electric crystals" as an amendment to IEC Publication 117-9 Symbols No. 951a... and "Delay-lines" as an Appendix to IEC Publication 117-13, Chapter VIII.

3(Central Office)538: "Symbols for control devices and methods of operating contacts and switchgear", as an amendment to IEC Publication 117-3.

3A(Central Office)3: "Graphical symbols for binary logic elements" as a new IEC Publication 117-15

- Circulation for approval under the Six Months' Rule of the following revised documents:

3A(Secretariat)5: "Symbols for measuring relays and related devices".

3A(Secretariat)4: "Threshold devices (e.g. clippers). Distortion correctors" as a new supplementary chapter to IEC Publication 117-13.

3A(Secretariat)399: "Symbols for polarized relays" as an amendment to IEC Publication 117-3, Symbol No. 288A...

3A(Secretariat)401: "Symbols for signalling lamps and indicators" as an amendment to IEC Publication 117-3, Symbol No. 233A...

3(Secretariat)403: "Symbols of ferrite cores and magnetic storage matrices" as a new supplementary chapter of IEC Publication 117-15.

- to be dealt with by the Joint Working Group:

3(Secretariat)400: "Symbols for counting devices" as supplement to IEC Publication 117-4, Chapter III.

3(Secretariat)402: "Symbols for plant details in local telephone networks".

b) Report from Working Group 1: Symbols for aircraft electrical systems

The Working Group considered a document prepared by Col. Reading. All but one of its IEC members agreed that the document should be circulated to TC 3. However, two ISO members of the Working Group have pressed for the inclusion of certain guiding principles and additional symbols which are included in ATA (Air Transport Association of America) and which are in worldwide use in the aircraft field.

In Col. Reading's view it was therefore necessary for these symbols to be shown to and voted upon by members of TC 3.

A further document prepared by Col. Reading would be forwarded to the TC 3 Secretariat in December 1970.

The French delegate protested at the method of working adopted by SC 3A/WG 1 and said that an early meeting would be preferable to continued work by correspondence. The United Kingdom delegate agreed to communicate this wish to the Chairman of WG 1 but pointed out that the Working Group had originally been instructed to conduct the work by correspondence. He added that he had been present as an observer at a meeting with the ISO representatives when it was evident that continued co-operation and progress depended on a certain amount of give-and-take by both sides. It was for this reason that the Chairman had suggested that the further document prepared by Col. Reading should be seen and voted on by TC 3. The United Kingdom's delegate suggested that the members of WG 1 should await the circulation of this document before deciding whether a meeting of the Working Group was required.

c) Report from Working Group 2: Graphical symbols for information processing

The basic Document 3(Secretariat)396: Graphical logic and functional symbols for diagrams of binary devices, was revised at the Teheran meeting of SC 3A, and then circulated under the Six Months' Rule as Document 3A (Central Office)3: Graphical symbols for binary logic elements.

At its Paris meeting from 16th to 22nd April 1969, WG 2 undertook to extend the basic document and prepared to that end Document 3A(Secretariat)2: Proposed additions and some amendments to Document 3(Secretariat)396: Draft - Graphical logic and functional symbols for diagrams of binary devices.

The Working Group prepared a further extension to the basic document at its Zurich meeting from 21st to 27th January 1970. However, the document resulting from that meeting was not circulated, since it also contained a great number of amendments to Document 3A(Secretariat)2. The Chairman of TC 3 expected the latter document to cause confusion in the National Committees when faced with the task of commenting on both documents, since the latter document would overrule most of the preceding document. It was then decided to integrate these two documents cancelling at the same time Document 3A(Secretariat)2. This integrated document would soon be circulated.

In order not to lose too much time, the Secretary of WG 2 proposed to the Chairman of TC 3 that a special meeting of SC 3A should be arranged directly preceding or succeeding the Munich meeting of WG 2 in May 1971, in order to deal with the comments on the integrated document. The Chairman agreed in principle to this proposal. His confirmation was kindly requested.

The publication of the basic document should not be delayed because of the additions to be expected.

It appeared not to be possible to conclude the work on binary logic elements at the Zurich meeting of WG 2 in January 1970. As a consequence, the work on analogue and hybrid computation could not be started. It might be expected that at the Munich meeting in May 1971 this work could be initiated parallel to the completion of the work on binary logic elements. The National Committees should therefore be asked to appoint additional members who are experts in the analogue and hybrid computing field.

WG 2 accepted to consider graphical symbols for integrated circuits. It was noticed that the symbols for binary logic elements, as proposed so far, in fact represent already integrated circuits or part of them.

The Chairman of TC 3 could not agree to the proposal of WG 2 to arrange for a special meeting of SC 3A immediately preceding or succeeding the Munich meeting of WG 2 in May 1971, since Technical Committee or Sub-Committee meetings which are not to be held as part of the IEC General meeting,

should preferably not be called within two months before or after, or during, the period of a General Meeting. The IEC General Meeting would be held in June 1971 in Brussels.

V. REPORT FROM SUB-COMMITTEE 3B: PREPARATION OF DIAGRAMS, CHARTS AND TABLES, ITEM DESIGNATION

a) Revision of IEC Publication 113

By correspondence the Central Office has agreed that the results of the work of SC 3B will be printed in IEC Publication 113 which will have the main title:

Schémas, diagrammes, tableaux

Diagrams, charts, tables

b) Classification and definitions for diagrams, charts and tables

Document 3(Central Office)528, amended as agreed at the meeting in Teheran on 17th November, 1969, has been forwarded to the Central Office for printing as IEC Publication 113-1 with the sub-title:

Définitions et classification

Definitions and classification

c) Item designation

Document 3B(Central Office)2 was circulated to the National Committee for approval under the Six Months' Rule.

Results of the voting:

For approval: 16 countries

Against approval: 2 countries

The comments from National Committees as well as those from the Chairman of TC 16 and the Secretary of SC 17B have been considered at the meeting of SC 3B on 17th November, 1970.

Certain amendments, most of which were of an editorial nature, had been agreed.

d) Working Group SC 3B/WG 1

In order to facilitate the preparatory work it has been found appropriate to continue such work on a Working Group level. Therefore, by agreement of the Central Office, the former Working Group is continuing its work, although with the new designation SC 3B/WG 1.

e) Guiding principles for the preparation of circuit diagrams

A draft on this subject has been prepared by SC 3B/WG 1 at a meeting in London, June 1970. It has been forwarded to the Central Office for circulation as Document 3B(Secretariat)3 to the National Committees for comment.

TC 3 agreed to the publication of the revised document 3B(Central Office)2: "Recommendation on item designation" as IEC Publication 113-2.

VI. REPORT FROM SUB-COMMITTEE 3C: GRAPHICAL SYMBOLS FOR USE ON EQUIPMENT

Work carried out since the Teheran meeting

The Secretariat collated the comments received on Document 3C(Secretariat)3A: Proposed additions for specialized purposes to the draft: Symbols for information on terminal devices and controls ...etc., into a survey of comments.

Document 3C(Central Office)3: Draft -"Graphical Symbols for general use" had been prepared and circulated by the Central Office. This document contains part of the approved symbols of Document 12(Central Office)211: Draft - Informative symbols for equipment. Part 1 : General.

Preparatory work had been undertaken for the composition of Central Office documents based on Documents 12(Central Office)212 to 218. These documents were expected to be issued early in 1971.

Results obtained at the Zurich meeting

The procedures to be followed on Documents 12(Central Office)211 to 218 were discussed and agreed.

The comments on Document 3C(Secretariat)3A had been dealt with. This work resulted in the decision that nine documents would be prepared for circulation under the Six Months' Rule, and that the CCI/IEC Joint Working Groups would make proposals for a number of symbols to be circulated in Secretariat documents.

It was decided to circulate a questionnaire requesting National Committees to supply information on symbols for equipments actually in use in their countries.

It was moreover decided that a liaison should be established with ISO/TC 145.

The setting up of Working Groups

No Working Groups were set up but decisions were taken on the setting up of two Consultative Groups, the task of which would be to advise the Secretary:

- a) one dealing with the non-approved symbols from Documents 12(Central Office)211 to 218, and to prepare Secretariat documents containing these symbols, amended according to the wishes expressed by the National Committees and as laid down in the relevant Reports on the Voting, Documents 12(Central Office)220 to 228.
- b) one dealing with the symbols appearing in all IEC Publications (excluding IEC Publication 117) in order to achieve an all-round co-ordination on graphical symbols within the IEC.

The Chairman of the CCI/IEC-JWG, Mr. Aries, kindly offered the assistance of the Joint Working Group for symbols intended to be used on telecommunication equipment.

Conclusion

The Secretary stated that for the meeting of only one day it could be stated that progress had been made in the international work.

He wished to thank all the delegates who were present and who had made it possible to obtain these satisfactory results.

The graphical symbols were filed in an alphabetical index, which would be rewritten every year. A systematic numerical index did not exist but would be a worthwhile task for the Secretariat. The question of single sheets or booklets was discussed once again; a good compromise was DIN 40 700 Sheet 13, and printing on one side only would be better.

VII. OTHER BUSINESS

The Chairman informed TC 3 that starting with the French Index of all graphical symbols made by the Secretary of the Swiss National Committee, an English Index would also be prepared.

The request from TC 44: Electrical equipment for machine tools, to TC 3/SC 3A concerning a symbol for "Signal lamp with incorporated signal lamp transformer" was transmitted to SC 3B in accordance with rules for combined symbols.

VIII. NEXT MEETING OF TC 3, SC 3A, SC 3B AND SC 3C

It was proposed that the next meeting should be held in Helsinki, if possible from 25th August to 10th September 1971, on invitation by the Finnish National Committee. Mr. Georgii, the Chairman of TC 3, on behalf of the Committee, cordially thanked Mr. J. Jauhiainen, the Finnish delegate.

Proposed Time-table of the sessions:

SC 3B	25th to 31st August
SC 3C	1st to 2nd September
SC 3A	3rd to 9th September
TC 3	10th September

IX. CLOSE OF MEETING

On behalf of all the delegates, Mr. Georgii expressed his sincere appreciation to the members of the Swiss National Committee, Mr. Marti and Mrs. Diacon, for their excellent hospitality as well as for the perfect organization of the meetings.

Mr. Georgii also thanked the Chairmen and Secretaries of the Sub-Committees and Working Groups, as well as all the delegates, for the very good work that had been done.

Mr. Georgii expressed their gratitude for the 18 years fruitful and most excellent service rendered to TC 3 and SC 3A by Mr. Benninger and presented him with a gift, as a mark of their appreciation.

Mr. Thurwanger, on behalf of the delegates, expressed his compliments to Mr. Georgii for having accomplished an often difficult task with such admirable authority and decision.

Mr. Jauhiainen, on behalf of the Finnish National Committee, repeated his offer to make arrangements according to the usual IEC procedure, for the next meeting of TC 3 and its Sub-Committees to be held in Helsinki, which offer was accepted with great satisfaction by the meeting.

The Chairman then declared the meeting closed.

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