



ISO/IEC JTC1/SC22  
Languages  
Secretariat: CANADA (SCC)

ISO/IEC JTC1/SC22

**N577**

NOVEMBER 1988

**TITLE:** Minutes of the First Meeting of  
ISO/IEC JTC1/SC22AG held in  
Tokyo Japan, 1988-10-17/19

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**ACTION:** For review and action as appropriate  
by SC22 Member Bodies.

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1. Opening of the Meeting

Mr. Akio Saitoh of the Japanese Standards Institute opened the first meeting of the ISO/IEC JTC1/SC22 Advisory Group by welcoming all delegates to Japan and wishing each one a good stay. He went on to state that SC22, with its large number of working groups was a very important subcommittee of JTC1. In closing, he invited all delegates and their spouses to attend a dinner in their honour on Tuesday, October 18, 1988.

2. Chairman's Remarks

Mr. Kearney, Chairman of the JTC1/SC22 Advisory Group thanked the Japanese Member Body for hosting this meeting and expressed his appreciation of the dinner invitation. He introduced Mr. T. Holka, Vice-Chairman of the Application and Elements Grouping, and welcomed all delegates to this meeting. He then went on to note that time may have come for SC22 to re-visit some broader aspects of Programming Languages.

3. Roll Call of Delegates

The Secretariat invited delegates to introduce themselves. The attendance list is contained in document SC22 N574.

4. Adoption of the Agenda

The agenda was adopted with the addition of the following items:

- 8.2.5 WG4 Report
- 8.4.1 WG9 Report
- 8.4.2 Ada/SQL Interface
- 8.4.3 Report from Project Editor on Guidelines for Programming Languages
- 8.5.1 WG12 Report
- 8.11 Report on PL/I
- 8.12 Status of WG18-FIMS
- 9.6 JTC1 Technical Study Group on Portability
- 10.3 Joint Meeting
- 11.1 National Standard Projects
- 12.2.5 Liaison to JTC1/SC2
- 12.2.6 Liaison to JTC1/SC1
- 12.4 Status of European Standards Activities
- 14.1 JTC1 Maintenance
- 14.2 JTC1 Procedures
- 14.3 Chinese Contribution on Word Processing in Ada

5. Appointment of Drafting Committee

The following delegates were appointed to the Drafting Committee:

Chairman	-	I. Korn	-	Denmark
	-	R. Henry	-	UK
	-	B. Leroy	-	France
	-	M. Vickers	-	USA
	-	J.V. Katwyk	-	Netherlands

6. Review of SC22 Project Information

The Secretariat indicated that, in addition to the Project Information document, an updated report on projects was contained in document N549. Working Group Conveners were asked to provide updating information on their projects, to the Secretariat by November 15, 1988. Recommendation 1 refers.

7. Review of SC22 Resolutions Adopted at the Second Plenary Meeting of TC97/SC22

Document N406 was reviewed and it was noted that there were no outstanding issues requiring action.

8. Project Review/Status Report

8.1 WG2 - project JTCl.22.19 - Pascal Extention

Mr. Meek, on behalf of Dr. Wichmann, Convenor of WG2, presented WG2's report which is contained in N535. Following WG2's report, the USA indicated that they would withdraw the US national Pascal standard in favour of the international Pascal standard.

8.2 WG3 - Project JTCl.22.24 - Extended APL

The Secretariat indicated that Dr. Dickey was excused from the meeting and referred delegates to WG3's report which is contained in N562.

Mr. Follett indicated that he was glad to note that the APL group was considering portability.

8.2.5 WG4 - Cobol

Ms. Vickers, Convenor of WG4 reported that the project on Cobol Intrinsic Functions was synchronized with the US national committee on Cobol. She went on to report that there was no duplication of work between the FIMS and Cobol working groups.

Mr. Holka asked whether SC22 should be concerned about the programme of work of the FIMS Working Group and other standards activities in Windowing techniques.

Ms. Vickers reported that the US national committees on Graphics and Windows were in liaison.

#### 8.3 WG5 - Project JTCl.22.03 - Fortran

Mr. Schmitt, on behalf of Ms. Martin convenor of WG5, presented WG5's report which is contained in N559. Following WG5's report, a lengthy discussion evolved centering mostly on the synchronization of work between WG5 and the US national committee on Fortran.

Following the discussion, and resulting from WG5's report, it was agreed that SC22 should strongly support WG5 in its discussions with the US national committee on Fortran. In support of the SC22AG position, recommendations 2, 5, 6, 26 were passed by the committee.

#### 8.4 WG8 - Project JTCl.22.11 - Basic

Since Mr. Kurtz, convenor of WG8, was not in attendance, Mr. Leroy (member of WG8) briefly reported on the status of this project. It was noted that a WG8 internal ballot, proposing two alternatives for an international standard for Basic, was carried out during the period of July-September 1988.

Mr. Follett later reported that, Mr. Kurtz would communicate to the SC22 Secretariat, likely in November, the outcome of the ballot and a recommendation from WG8.

##### 8.4.1 WG9 - Ada

It was noted that some SC22 Member Bodies do not receive WG9 documents and for this reason, the Secretariat was asked to remind all convenors of their obligations in regards to WG document distribution. Recommendation 4 refers.

Mr. Genuys expressed some concern about the delay by the US Member Body in appointing a replacement for Ms. Castor. It was noted that Ms. Castor had resigned as convenor of WG9 more than one year ago and a replacement had not yet been officially nominated.

##### 8.4.2 Ada/SQL Interface

The summary of voting on this NWI proposal, contained in N548 was reviewed. In the course of a discussion of this issue, it was generally felt that WG9 should be given responsibility for this project and that the SC22 Secretariat should be instructed to communicate the SC22AG position to SC21 and JTCl. It was also agreed that the broader issues on Binding to Programming Languages should be discussed further at our next Plenary Meeting. Recommendation 15 refers.

#### 8.4.3 Report from Project Editor on Guidelines for Programming Languages

Mr. Meek, project editor for project JTC1.22.13 explained the purpose of document N533 and reported that no response had yet been received from Member Bodies. The chairman then explained that SC22 expected Mr. Meek to produce the final document on this project since this was part of the responsibility associated with the Project Editor's role. It was agreed that SC22 should rely on Mr. Meek's expertise and judgement to resolve the Member Body comments and prepare the final version of the Draft and Technical Report, type 3 on 'Guidelines for the Preparation of Programming Language Standards'. Recommendation 25 refers.

#### 8.5 WG11 - Projects JTC1.22.16 - Specification for a Model for Common Language - Independent Procedure Calling Mechanism, and JTC1.22.17 - Specification for a Set of Common Language Independent Data Types

Mr. Meek, on behalf of Mr. Nelson convenor of WG11, presented WG11's report which is contained in N567. It was noted that if WG11's liaison responsibility is not completely fulfilled it was due to the low membership of WG11. It was also noted that some Member Bodies are not represented on this working group because the work of this group will result in technical reports and not international standards.

Mr. Meek then went on to explain the goal of the NWI proposal contained in N554. A number of questions were asked by Member Bodies to permit them to vote properly on the proposal.

The supplement to the WG report was then discussed, following which it was recommended that it be sent to JTC1 along with a SC22 recommendation to request the withdrawal of DIS10148 from the Fast Track procedure. Recommendation 7 refers.

#### 8.5.1 WG12 Report

Dr. Sidi, convenor of WG12 presented the WG12 convenor's report which is contained in N560.

#### 8.6 WG13 - Project JTC1.22.18 - Modula 2

Dr. Henry, convenor of WG13 presented the group's report which is contained in N565.

Dr. Henry then asked Heads of Delegations to contact their Modula 2 experts requesting that they communicate their position regarding the Modula 2 standard to the WG13 convenor.

It was noted that a Modula 2 Working Draft is expected to be submitted to the SC22 Secretariat for DP registration by summer/89. In closing, Dr. Henry indicated that the Guideline

documents on Conformity and Validation, and on the Preparation of Language Standards have been very useful to WG13. He also indicated that the use of VDM was helpful to WG13.

#### 8.7 WG14 - Project JTCl.22.20

The Convenor's report (Mr. Plauger) contained in N553 was tabled for discussion. The Secretariat reported that from his discussion with Mr. Plauger, it was expected that a second DP ballot, and not a DIS ballot, would be carried out in the next months.

Denmark expressed some concern about a possible lack of synchronization between the work of ISO and the US national committee on C.

#### 8.8 WG15 - Project JTCl.22.21 - POSIX

Mr. Isaak, convenor of WG15, presented his report which is contained in N570.

Following his report, Mr. Isaak went on to outline the content of the project subdivision proposal, contained in N545 and specifically explained the scope of subproject 3 and 4.

During a discussion of N545, some Member Bodies indicated that they felt that part of the project subdivision was outside the scope of the POSIX project.

To a question on providing an overall picture of the POSIX project, Mr. Isaak replied that a 'picture' document is currently being developed by the IEEE Posix committee, but he felt it was outside the scope of WG15.

It was then agreed that WG15 be asked to produce a document describing the overall POSIX project and the relationship between the subprojects. It was also agreed that WG15 would submit such document to SC22, for distribution to SC22 Member Bodies, before the closing of the letter ballot contained in N545. Recommendation 16 refers.

##### 8.8.1 Review/Status of OSCRL Project

The Secretariat reported that a JTCl ballot on this project is currently being circulated to JTCl Member Bodies (ref. JTC1N280).

It was then noted that if the OSCRL project is assigned to SC22, SC22 would assign it to WG15. To this point, SC22AG recommended that SC22 approve the creation of a Rapporteur Group, within WG15, on OSCRL.

8.9 WG16 - Project JTCl.22.22 - LISP

The Convenor's report (Mr. Queinnec) contained in N569 was tabled for discussion.

It was noted that different versions of LISP must be able to communicate and therefore close cooperation is required between WG16, the US national committee on LISP and the IEEE (SCHEME) committee on LISP.

8.10 WG17 - Project JTCl.22.23 - Prolog

Mr. Meek, on behalf of Mr. Scowen, convenor of WG17, presented WG17's report which is contained in N566. It was noted that the work on standardizing Prolog appears to be proceeding well.

8.11 Report on PL/I

The Secretariat referred delegates to the PL/I project editor's report contained in N552 and indicated that the PL/I document would be submitted to ISO/CS for DIS processing within the next few weeks.

8.12 Status of WG18 - FIMS

The Secretariat referred delegates to document N543 noting that WG18 has been created and Mr. D. Frantz appointed as its convenor, and invited Member Bodies to nominate experts to WG18.

9. Discussion of Member Body Contribution/Issues Raised

9.1 Extension of Comment Period for DP

In the course of a discussion on this issue, it was noted that, in general, Member Bodies felt that a 3 month comment period was not sufficient to adequately review a Programming Language Standard. At this point, Mr. Holka indicated that the Directives must be respected.

SC22AG then agreed that the ballot period should be determined by the Secretariat in consultation with the convenor. Recommendation 8 refers.

9.2 Status of Technical Reports

Mr. Genuys noted that the revised Directives does not allow a 'Guideline' type of document to be published as a Technical Report, type 3.

As SC22AG felt that a TR, type 3 should continue to be available for the publication of 'Guideline' documents, Recommendation 10 was passed.



### 9.3 Synchronization of ISO/ANSI Activities

Mr. Follett referred delegates to a USA contribution contained in N555 and indicated that it was meant to be a follow-up to document N404.

It was then agreed that document N555 be sent to Working Groups requesting that it be reviewed during a meeting of their working group and noting that further discussion of this issue will occur at our next Plenary Meeting.

### 9.4 Proposal to Hold SC22 Plenary Meetings at 9 Month Intervals

Following a discussion of this issue, it was agreed that the SC22 Secretariat be instructed to circulate a better ballot to SC22 Member Bodies to determine their preference. The ballot should also seek a host for SC22 meetings in 1990 and 1991. It was also suggested that the ballot investigate the possibility for contributions to help defray the cost of hosting a meeting. Recommendation 12 refers.

### 9.5 Conformity Issues - Pilot Project

Dr. Sidi, convenor of WG12, referred delegates to N560. There was some discussion of this proposal concerning its viability, usefulness, purpose and scope of WG12. As a result, it was agreed that a letter ballot be circulated to SC22 Member Bodies to determine if there was support for this project and for an expansion in the scope of the terms of reference of WG12. Recommendation 11 refers.

### 9.6 JTC1 Technical Study Group on Portability

Members of SC22 who attended a meeting of the Technical Study Group on Portability, tabled a document on 'Topics for Study of Interfaces for Application Portability'.

## 10. Discussion of Character Handling Requirements in Programming Languages

In opening the discussion on this issue, the Chairman asked members what they thought should be covered during this meeting. The following points were made:

- Guidance to convenors
- Pooling of expertise and knowledge
- Coordinated approach by working groups
- Instructions for working groups.

The Chairman summarized the points raised and briefly revisited the Resolutions passed at our last Plenary Meeting. It was then suggested that SC22 prepare a document outlining our requirements and that it be circulated to Member Bodies and Working Groups for further comments.

Following the discussion, it was agreed that an Ad Hoc Group be established to synthesize the inputs, to summarize the different positions and to prepare a document, by January 1989. This document will be sent to SC22 Member Bodies and Working Groups, along with a notice of the Ad Hoc Group Meeting (Paris, France 1989-03-6/8) and a request for nomination of experts, requesting their comments and contribution for the meeting of the Ad Hoc Group. The Ad Hoc Group will report its findings to SC22 for further discussion at our next Plenary Meeting. Recommendation 13 refers.

#### 10.1 Joint Meeting

The Chairman noted that SC22, had been invited to participate in a joint meeting of SC2, SC22 and SC18, organized by SC18. Following a brief discussion, it was agreed that SC22 should decline the SC18 invitation, but coordinate the scheduling of a joint meeting of SC2 and SC22 to discuss the Character Handling Requirements in Programming Languages. Recommendations 22 refers.

#### 11. Discussion of Potential NWI's for SC22

##### VDM

The Secretariat informed delegates that a fax message had been received from JTCl Secretariat informing him that the VDM NWI proposal had failed due to a lack of Member Body participation.

Mr. Genuys explained the French vote by stating that the proposal is not in accordance with the JTCl position on Formal Description Technique (FDT).

Mr. Bickle stated that Canada is willing to participate and that the Canadian vote must have been an oversight.

Mr. Follett stated that their vote was negative, mostly because their comments, submitted on the SC22 ballot, had not been resolved.

Mr. Meek was very concerned with the results of voting and felt it was a total shame that the NWI had been supported at the SC22 level, and then not supported by these same Member Bodies at the JTCl level.

At this point, the Chairman indicated that the situation may lead to problems since the Modula 2 and the Prolog Working Groups are making use of the VDM Specification Language to develop their respective standards.

The Vice-chair then suggested that VDM be submitted to JTCl, by the UK Member Body, for fast track processing. A number of other alternatives were discussed and then Member Bodies were asked, if under certain specific conditions, they would be prepared to

support and participate in this project. Six Member Bodies (Japan, Canada, Netherlands, Denmark, UK and France) agreed. As a result of this discussion, Recommendation 20 was passed.

### C ++

Following a brief discussion of this language, it was agreed that the Secretariat should ask WG14 to consider this issue and to advise the Secretariat of necessary action. Recommendation 21 refers.

#### 11.1 National Standard Project

Document N506 was briefly reviewed and several Member Bodies showed interest in MUMPS, FORTH and Smalltak.

It was then agreed that a consultative letter ballot should be circulated to SC22 Member Bodies. The ballot should also provide for a choice regarding the development process (Fasttrack versus normal procedure.) Recommendation 19 refers.

#### 12. Liaison

12.1 It was agreed that the Secretariat should send to SC22 Member Bodies a letter seeking the nomination of liaison representatives to JTC1/SC1 and to JTC1/SC21. Recommendation 23 refers.

#### 12.2 Liaison to JTC1/SC24

Mr. Korn stated that he was willing to replace Mr. Kolind as the SC22 liaison representative to SC24. Mr. Korn also indicated that he was prepared to act as liaison representative to SC21/WG3 - Database. Mr. Korn's offer was gratefully accepted.

#### 12.2.5 Liaison to JTC1/SC2

Although it was noted that Mr. Holka had to resign as our liaison representative to SC2, it was decided that a replacement was not immediately required since SC2 and SC22 will be working in cooperation, during the next few months, on the Character sets requirements issue.

#### 12.3 External Liaison

##### IFIP

The chairman agreed to send a letter to IFIP/TC2 to try to establish a technical liaison between SC22 and IFIP/TC2 - Programming Languages.

13. Review/Status of OJCRL

Was covered under item 8.8.1.

The following items could not be covered due to a lack of time:

14.1 JTCl Maintenance (JTCl N183)

14.2 JTCl Procedures (N531)

14.3 Chinese contribution on Word Processing in Ada (N573)

The Secretariat will distribute document N573 to SC22 Member Bodies for consideration and discussion, if necessary, at our next Plenary Meeting.

14. Recommendations and Statement of Results

The recommendations were passed as indicated in document N576.

15. Requirement Concerning a Subsequent Meeting

It was noted that the German Member Body had offered to host our next Plenary Meeting (ref. Resolution - in N406) and that the date had been confirmed to be September 25-29, 1989 in Berlin, Germany FR.

16 Adjournment

The Chairman thanked all members for being well prepared for this meeting and helping to find useful solutions to critical issues. He then thanked our host for the arrangements and apologized for not being able to finish all the business of the agenda.

The meeting was adjourned at 18:10 hours on October 19, 1988.

Respectfully submitted

J.L. Côté  
Secretariat JTCl/SC22