



ISO / IEC JTC1 / SC22  
Programming languages, their environments and system software interfaces  
Secretariat: CANADA (SCC)

**ISO/IEC JTC1/SC22  
N 1460**

**SEPTEMBER 1993**

**TITLE:** Minutes of meeting of WG11 - Binding Techniques  
held in Cambridge Ma USA, 1993-04-26/30

**SOURCE:** Secretariat ISO/IEC JTC1/SC22

**WORK ITEM:** JTC1.22.14, .16, .17, .28, .33, .34

**STATUS:** New

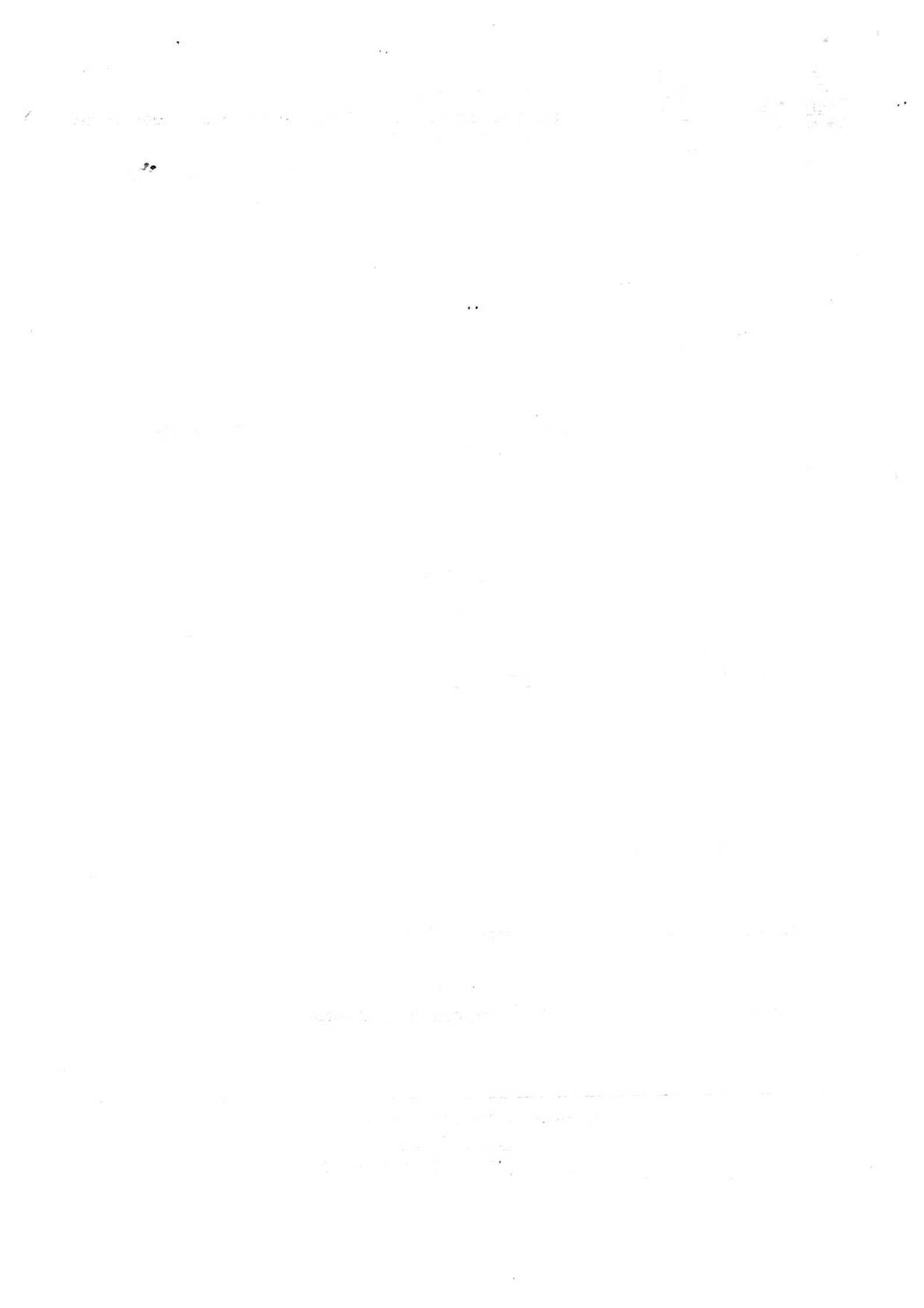
**CROSS REFERENCE:** N/A

**DOCUMENT TYPE:** WG Minutes of Meeting

**ACTION:** For information to SC22 Member Bodies.

---

Address reply to: ISO/IEC JTC1/SC22 Secretariat  
J.L. Côté  
Treasury Board Secretariat  
140 O'Connor St., 10th Floor, Ottawa, Ontario, Canada, K1A 0R5  
Tel.: (613)957-2496 Telex: 053-3336 Fax: (613)957-8700



Committee: ISO/IEC JTC1/SC22/WG11

Place: Sheraton Commander Hotel  
Cambridge (MA), U.S.A.

Date: April 26 - 30, 1993

Attendees: Mr. Ed Barkmeyer NIST, USA  
Mr. Jeff Dawson DEC, USA  
Mr. Ken Edwards IBM, USA  
Mr. Peter Farkas Sun, USA  
Mr. John Gough QUT, Australia  
Mr. Brian Meek King's College London, UK  
Mr. Paul Rabin OSF, USA (Liaison WG15)  
Mr. Craig Schaffert DEC, USA  
Mr. Willem Wakker ACE, Netherlands

Members SC21/WG8/RPC:  
Mr. Tony Hinxman DEC, USA  
Mr. Alistair Munro Bristol University, UK  
Mr. Dan Yellin IBM, USA

Observers:  
Mr. Bill Carlson Intermetrics, USA (Liaison WG9)

### 1. Agenda (WG11/N349)

It was noted that Tuesday afternoon and Wednesday morning were reserved for a combined meeting with SC21/WG8/RPC.

The agenda was adopted.

It was agreed that the order of business in the draft agenda would not be followed, but each item would be discussed at the most suitable time, considering the combined meetings with the RPC group.

### 2. Minutes of Previous Meeting (WG11/N341)

No changes were made to the minutes of the October 1992 meeting; the minutes were approved.

### 3. Convenor Report

The following issues were reported:

1. Since the last meeting both Australia and Austria have announced to become P-members of SC22, and to nominate experts to WG11; the expert from Australia was welcomed to the meeting. The interest of these two countries in the work of WG11 was noted as a positive sign.
2. The project editor of the LIPC document, Mr. Ken Edwards, had announced that he will not be able to attend any more meetings of WG11 (or X3T2). He offered to produce a new version of LIPC based on the outcome of this meeting, and to continue as long as possible to act as an 'off-line' editor.

During this meeting it became clear that the project editor for the LID document, Mr. Ed Barkmeyer, will be in the same position after the July 1993 meeting of WG11. The convenor will report the concern of WG11 in these matters to SC22.

#### 4. National Activity Reports

##### 4.1 BSI IST/5/11, Report by Brian Meek

The UK panel (IST/5/-/11) has met once after the October 1992 WG11 meeting and once before Easter to determine the recommendations of the panel to the UK "SC22" committee, IST/5, for the UK responses to the various letter ballots. The recommendations were accepted though with minor additions, in the form of additional comments, in two cases. A further meeting was scheduled for just after Easter but low attendance meant it became a discussion between the panel convenor, Jon Diamond, and the UK delegate to the April 1993 WG11 meeting, Brian Meek, to ensure there was nothing unclear about the UK positions on various issues.

The panel noted with concern the forthcoming resignation from WG11 of Ken Edwards, the LIPC editor, and wants to record its appreciation of his work. No names have been identified from the UK for any possible replacement as project editor for LIPC.

As part of the panel's continuing attempt to promote language independent standards, Brian Meek is giving a presentation to DECUS UK in May 1993 entitled "What is a procedure call?" A preprint is available, and comments on it from WG11 members will be welcome, preferably before the presentation on 13 May. Language-independent standards are also referred to in a contribution to a UK discussion on proliferation of language standards.

##### 4.2 ANSI X3T2, Report by Ken Edwards

Since the October SC22/WG11 meeting in Paris, France, X3T2 has met twice with the main focus of these meetings being the formulation of ballot comments on the LIA-1 2nd CD ballot, LID 2nd CD ballot, and the LIPC CD Registration ballot. The US position on the LIA-1 2nd CD ballot was NO with comments of which five of these comments were considered major. The US position on the LID 2nd CD ballot was NO with comments of which 2 of these comments were considered major. The US position on the LIPC CD Registration ballot was YES with comments.

There is concern within the US that participation on the LI projects within X3T2 is dropping dramatically. The individuals who no longer plan on attending the X3T2 meeting that were actively involved in the LI work are Ed Barkmeyer, Ken Edwards, Mark Hamilton, and Joe Treat. This leaves basically only a core group of people on the X3T2 LI ad hoc group and their focus is mainly on LIA.

Craig Schaffert will be assuming the the SC22 IR role for X3T2 that was previously held by Ken Edwards.

##### 4.3 AFNOR/CG 97/CN 22/GE 11

No report was received.

##### 4.4 DIN

No report was received.

#### 5. Work Item 22.14 - Language Bindings Guidelines

The editor has produced an updated version of the Guidelines, incorporating the editorial changes as specified in WG11/N340 in response to the JTC1 ballot comments. The document has been forwarded to the SC22 secretariat for publication by ITTF.

Milestones for the Language Bindings Guidelines project:

5.3 93-06 TR published

## 6. Work Item 22.16 - Language Independent Procedure Calling

Based on the agreements reached at the last WG11 meeting, the project editor had produced a new version: LIPC WD#6.0 (WG11/N344) which was sent to SC22 for registration as CD (SC22/N1289). The registration ballot was closed on March 19, 1993; the summary of voting and the comments are in SC22/N1347 (WG11/N357). The result was that 6 SC22 P-members voted Yes without comment (Belgium, Brazil, Denmark, Finland, Germany and the Netherlands), 3 SC22 P-members voted Yes with comments (New Zealand, UK and USA) and 2 SC22 P-members were abstaining (Canada and Italy). The SC22 secretariat forwarded the comments to WG11 for consideration.

The comments were discussed, and agreements were reached on changes that should be made to the document before it can be registered as a CD. The editor agreed to produce a revised version of LIPC and a document with the WG11 responses to the comments. The revised version will be sent to SC22 for registration after final approval of WG11 during the July 1993 meeting.

During a combined meeting with representatives from the RPC group, document N353 was discussed (changes to RPC proposed by WG11 during the October 1992 meeting in Paris), and agreement was reached on almost all comments on RPC part 2 (see WG11/N360). Unfortunately it was not possible to discuss the comments on RPC part 1 from N353, due to lack of time of the RPC group.

Milestones for the LIPC project:

2.8 93-07 WD approved for registration as CD

## 7. Work Item 22.17 - Language-Independent Data Types

Based on the agreements reached at the last WG11 meeting, the project editor had produced a new version: LID WD#7 (WG11/N345) which was sent to SC22 for registration as second CD (SC22/N1305). The ballot was closed on April 16, 1993; as the ballot comments were not yet available during the meeting it was decided to postpone the LID discussion until the July 1993 meeting of WG11.

Milestones for the LID project:

2.8 91-01 WD approved for registration as CD

3.0 91-05 CD registered

3.1 91-05 CD study initiated

3.8 93-07 CD approved for registration as DIS

## 8. Work Item 22.28 - Language-Independent Arithmetic, Part 1: Integer and Floating Point Arithmetic

The ballot on LIA part 1 (CD 10967-1, WG11/N318) closed on January 28th, 1993. The result of the ballot (10 YES votes, 1 NO vote from the USA) are in document WG11/N355 (SC22/N1325).

During the meeting an additional comment from The Netherlands on the status of appendix B.5 (Informative FORTRAN-77 binding) was noted.

During the discussion of the comments from the UK and the US, agreement was reached amongst the participants of the meeting on the resolution of the objections from the US. This effectively changes the US NO vote to a YES vote.

The project editor will produce a revised version which will be forwarded (subject to final approval of WG11 during the July 1993 meeting) to the SC22 secretariat for DIS registration. The project editor will also produce a document with the resolutions of the ballot comments.

The binding of LIA-1 to Modula-2 (a direct reference from the Modula-2 standard CD 10514 to LIA-1) was reviewed, and a ballot comment was drafted (WG11/N359). This comment supports the Modula-2 effort in this area, gives some comments and describes the changes to LIA-1, accepted by WG11 during this meeting, in order to ensure maximal alignment.

Milestones for the LIA Part 1 project:

3.8 93-04 CD approved for registration as DIS

### 9. Work Item 22.33 - Language-Independent Arithmetic, Part 2: Language Independent Mathematical Procedure Standard

Due to the work on LIA part 1 the work on LIA part 2 has been delayed; the milestones for Part 2 were shifted.

Milestones for the LIA Part 2 project:

2.1 91-09 WD study initiated  
 93-10 First draft circulated  
 2.8 94-08 WD draft for CD registration

### 10. Work Item 22.34 - Language-Independent Arithmetic, Part 3: Language Independent Complex Arithmetic and Procedure Standard

Due to the work on LIA part 1 and the resulting delay for LIA Part 2, the milestones for Part 3 were shifted.

Milestones for the LIA Part 3 project:

2.1 91-09 WD study initiated  
 94-11 First draft circulated  
 2.8 95-04 WD draft for CD registration

## 11. Cross language issues

### 11.1 POSIX

It was decided that a NWI proposal, titled 'Guidelines for the Preparation of Language Independent Service Specifications', with the justification from document WG11/N338, will be forwarded to the SC22 secretariat for JTC1 ballot.

It was reported that IEEE considers to stop the LI activities for POSIX. The consequences for such a step, which is first to be reviewed by WG15, for the LIS activities in ISO is unclear.

### 11.2 PCTE

There was nothing to report on PCTE.

### 11.3 IRDS

There was nothing to report on IRDS.

**11.4 ANDF**

Mr. Andy Johnson of OSF gave a presentation on the Architecture Neutral Description Format.

**12. Planning and Future Meetings**

The next meeting will be in Amsterdam on July 19-23 1993, hosted by ACE.

As it is the expectation that all documents (LIA-1, LIPC and LID) will go out for ballot shortly after the July meeting, it is useless to have another meeting in November 1993; the first quarter of 1994 seems to be a more appropriate period. A decision on a new date will be taken in July; the invitation to hold this meeting in London still stands (subject to availability of a meeting room).

— Second meeting 1993

Date: July 19-23 1993  
Place: Amsterdam (ACE)  
Status: Confirmed.

**13. Close of Meeting**

The host, OSF, and its representative, Mr. Paul Rabin, were thanked for organizing the meeting and offering dinner to WG11.

Mr. Ken Edwards was thanked for his contribution to the work of WG11, and especially for his effort in the difficult task of producing the first drafts of the LIPC document.

**Documents identified since last mailing**

WG11 Nbr	Other Nbrs	Date	Author	Title
355	SC22/N1325	9302xx		Summary of Voting and Comments on CD 10967-1
356	JTC1/N2319	930122		U.S. Contribution on API Specs.
357	SC22/N1347	9304xx		Summary of Voting and Comments on LIPC
358		9304xx	Van Wingen	Character Issues in CD 11404
359		9305xx	WG11	Liaison statement to SC22/WG13 - Modula-2
360		9305xx	WG11	Agreement between RPC and WG11 on N353
361	SC22/N1354	9305xx		Summary of Voting and Comments on LID
362		9305xx	Convener	Meeting announcement WG11 meeting July 1993
363		9305xx	Convener	Minutes WG11 Meeting April 1993

