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

ISO/IEC JTC1/SC22
N 1616

JUNE 1994

TITLE:	Draft Minutes of meeting of WG11 - Binding Techniques held in London UK, 1994-04-25/29
SOURCE:	Secretariat ISO/IEC JTC1/SC22
WORK ITEM:	JTC1.22.16, .17, .28, .33, .34
STATUS:	New
CROSS REFERENCE:	N/A
DOCUMENT TYPE:	Minutes of WG meeting
ACTION:	For information to SC22 Member Bodies.

Committee: ISO/IEC JTC1/SC22/WG11

Place: BSI, Green street
              London, United Kingdom

Date: April 25 - 29, 1994

Attendees: Mr. Jon Diamond   Hoskyns Group, UK
              Mr. Tony Hetherington   Prospero Software, UK
              Mr. Kent Karlsson   Chalmers University of Technology, Sweden
              Mr. Brian Meek   King's College London, UK
              Mr. Craig Schaffert   DEC, USA
              Mr. Keld Simonsen   Denmark
              Mr. Willem Wakker   ACE, Netherlands (Convener)
              Mr. Brian Wichmann   NPL, UK
By telephone:
              Mr. Paul Rabin   OSF, USA

1. Agenda (WG11/N379)

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.

2. Minutes of Previous Meeting (WG11/N372)

Mr. Keld Simonsen noted that the report in the minutes of the discussion on the documentation of Language-Independent standards, binding standards and service specifications, as held during the previous meeting was rather brief.

The minutes were approved.

3. Convenor Report

The main point of concern to report was the continuing small participation in WG11. This will be mentioned in the Conveners report to SC22.

4. National Activity Reports

4.1 BSI IST/5/11, Report by Jon Diamond

The UK panel has met twice since the last WG11 meeting to discuss the various ballots and also the emails that have been circulating. The UK has been active in considering WG11 work, through the BSI panel IT/5/-/11. Unfortunately one of our panel members, John Dawes, who was providing a major contribution has been ill and unable to participate during this period. This has brought the active participation down in the panel, except for consideration of LIA-1, in which there has been an active debate inside the UK.

We have made written comments on the LIPC and LIA-1 ballots, and although the vote was No to LIPC this was intended to indicate the importance to the UK of providing at least one draft binding as part of any language independent standard. We would expect all such future standards to take this into account.

With reference to LIA-1 the UK Fortran panel had recommended that the vote on this be No, with considerable discussion both by email and at the various IST/5 meetings. However, IST/5 finally decided to accept the UK panel's recommendation.

Brian Meek has produced a number of documents, including a draft Guidelines for Bindings to LID, to assist in the marketing of WG11 activities and he has been prominent in talking about WG11 to others groups, including DECUS, other UK panels and WG20.

4.2 ANSI X3T2, Report by Craig Schaffert

The following actions and positions have been taken in the US since the last meeting of WG11.

— The US has conducted a public review of LIA-1, and comments were received from 9 individuals and 1 programming language committee. These comments formed the basis for the comments accompanying the US vote to approve LIA-1.

— X3T2 has expanded on its official comments on LIA-1. Some suggested text for various points has been brought to London.

— IEEE is starting a project (P1076.2) entitled "Mathematical Procedures for VHDL" which overlaps the scope of LIA-2. X3T2 will request close liaison on this project.

— The US voted yes on the LISS NP at the SC22 level. However, this seems to have been reversed at a higher level. The US will participate in the project if it is approved internationally.

— X3T2 has noted that TR8507(?) "Conventions for Service Specifications for OSI" is probably of relevance for the LISS effort.

— The US approves of the current content of LIPC, however we are concerned that LIPC lacks a full time editor. We think that there needs to be a careful editorial review and revision of the document to remove apparent stylistic (and possibly semantic) inconsistencies. Ideally this should be done by a single author.

5. Work Item 22.16 - Language Independent Procedure Calling

LIPC WD#6.2 was registered as CD 13886, and distributed to SC22 (as SC22/N1507) for a DIS registration ballot. The result of this ballot (which closed on March 10, 1994) is in WG11/N394 (SC22/N1572). Only the UK voted against DIS registration, on the basis that at least one sample binding should be included in the document. There were further comments from the Netherlands, New Zealand and the UK.

In response to the UK comments, requesting a sample binding, it was decided that an attempt will be made to include a "framework for LIPC bindings", based on a rough outline by Brian Meek. The status of the draft Pascal binding (see WG11/N383) remains unclear: WG2 had questioned the usefulness of a binding to a programming language that has no separate compilation facility (WG11/N384).

All comments were reviewed, and the convener will produce the disposition of comments document, and communicate the comments with the project editor, Mr. Ken Edwards. It was agreed that a revised version of LIPC will first be distributed to WG11 for review before it is sent to SC22 for further progression.

Concern was expressed on the way in which the RPC specifications are progressed in SC21/WG8. It was noted that there is a chance that a (completely?) different specification will be used as DIS text, which could cause renewed problems with alignment. A liaison statement will be sent to SC21/WG8 (WG11/N396) to ask for clarification at this point.

Milestones for the LIPC project:

2.8	93-10	WD approved for registration as CD
3.0	93-11	CD registered

3.8   94-10   CD approved for registration as DIS

6. Work Item 22.17 - Language-Independent Data Types

The DIS ballot on LID WD#8 (DIS 11404, WG11/N370, SC22/N1577) will start by the end of April 1994. This will be a 6 months ballot. As the document is in ballot, and since the project editor was not present, there was no extensive discussion on the documents received on this topic.

On the issue of LID bindings it was noted that an outward mapping was also needed, just to show how this should be done. An informative annex on guidelines for LID bindings could be very useful. It was felt that the paper from Brian Meek (WG11/N387) could serve as an outline for such an annex.

The comments, received from WG2, on the Pascal LID bindings are forwarded to the LID editor for consideration with the DIS comments.

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	93-10	CD approved for registration as DIS
4.1	94-04	DIS ballot initiated

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

The DIS ballot on LIA Part 1 (DIS 10967-1) ended on March 30, 1994. The summary of voting and comments received on this ballot is in WG11/N381 (SC22/N1588). The DIS was approved with 18 countries in favour of the DIS, and 2 negative votes (from France and Sweden).

The French vote was easy to reverse, as the main objection was the incorrect translation of the title of the document. Unfortunately this was not possible for the Swedish votes: WG11 felt that, although the comments were considered to be valuable, the comments were not addressing issues that can be considered to be errors in the approved text which needs to be fixed. Accepting the comments would imply that the project would have to go back to DIS stage (or even to CD stage). It was suggested that the first comment from Sweden (on natural numbers and the monus operation) could very well be used as the basis for an NWI proposal for an amendment to LIA-1.

On US comment A.29 (on the rewrite of clause 6 on Notification) it was felt that newly proposed text was more clear, did not change the normative requirements (and thus was of editorial nature), but that the amount of text that was proposed to be changed was so large that it could be perceived to be more than allowed at this stage in the process, and that accepting this text might result in the need to reballot the document. As WG11 wants to avoid this to happen, it was agreed that the project editor will be allowed to check the acceptability of the change with ITTF. If the change would lead to a reballot, then the change will not be made, and the new text will be kept for a revision of LIA-1.

The project editor will produce the disposition of comments and a new version of LIA for publication as an IS.

By resolution (see WG11/N382) SC22/WG2 offered the text of the Pascal LIA-1 binding to

WG11 and X3T2, as the NWI proposal from WG2 to work on this project has failed to get sufficient participating NBs. Although it is still the belief of WG11 that language bindings should be prepared by language committees, and that it is not likely that a proposal for work in this area from WG11 would attract more participation, WG11 is prepared, while waiting for better times, to act as the custodian of the text already prepared by WG2.

Milestones for the LIA Part 1 project:

3.8   93-04   CD approved for registration as DIS
4.1   93-09   DIS ballot initiated
4.8   94-07   Full report circulated and DIS approved for publication as IS

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

Now that LIA-1 is approved, full attention can be given to the development of LIA-2. The project editors will seek participation from individual experts from various language groups (C, COBOL, Ada) to ensure a close alignment with existing work.

Milestones for the LIA Part 2 project:

2.1   91-09   WD study initiated
      94-11   First draft circulated
2.8   95-06   WD draft for CD registration

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

No progress made. The planning of this work follows the planning for LIA-2, with a delay of one year.

Milestones for the LIA Part 3 project:

2.1   91-09   WD study initiated
      95-11   First draft circulated
2.8   96-06   WD draft for CD registration

10. Language-Independent Service Specifications (LISS)

The NWI proposal on LISS was approved by JTC1 (WG11/N385, JTC1/N2976). Despite the support for the project, the convener noted that

— active participation for this project was indicated by six JTC1 P-members (seven if the YES from Canada on Q4 is taken to imply a yes to Q3), but that a number of these countries (Canada, Germany, Japan and Roumania) are not actively participating (according to the JTC1 interpretation of participation) in WG11;
— the US, one of the (few) active participating members in WG11, which was supposed to be able to offer the project editor for this project, voted NO on the NWI (although the US had voted YES during the SC22 indicative NWI ballot; and
— the project was not yet assigned by SC22 to WG11.

During the meeting it became clear that despite the NO vote from the US, once the work has started the US will participate. Also, a message was received that the originally planned project editor, Mr. Paul Rabin, had got permission from his management to act as project editor for this project. Therefore it was decided to start the work on the project.

The following actions were agreed upon:

1. a first skeleton of the document was produced, together with a number of issues that need to be addressed (WG11/N392).

2. the convener will ask those member bodies that indicated participation, but that were not present at the meeting, to inform WG11 of the names and addresses of the experts for this project in their countries.

3. it will be investigated whether it is useful to have a presentation during the next SC22 meeting (either at the plenary, or during an ad-hoc session) on the LISS concepts.

4. it will be investigated whether a WG11 meeting, mainly devoted to LISS, can be held in the Netherlands (Amsterdam?) in the weekend immediately following the SC22 plenary.

Milestones for the LISS project:

2.1	94-04	WD study initiated
	95-01	First draft circulated
2.8	95-10	WD draft for CD registration

11. Planning and Future Meetings

September 24-26, 1994	Amsterdam	Tentative dates and place. Main purpose is to review the LISS project.
January 23-27, 1994 or January 30 – February 3, 1994	USA ?	Date and place to be fixed. Main purpose will be the review of the ballot comments on LID, and the progression of LISS and LIA-2.

12. Close of Meeting

The host, BSI, and especially Mr. Jon Diamond, were thanked for organizing the meeting. BSI and DISC were thanked for their hospitality at the reception.

Special thanks goes to the BSI Conference Manager who kindly offered WG11 the use of his telephone for the trans-atlantic calls with Mr. Paul Rabin.

13. Documents identified since last mailing

WG11 Nbr	Other Nbrs	Author	Title
381	SC22/N1588		Summary of voting and comments on DIS 10967-1 (LIA-1)
382		SC22/WG2	WG2 resolution on Pascal-LIA binding
383		Wakker	Draft Pascal binding for LIPC
384		SC22/WG2	Comments on the draft Pascal binding for LIPC
385	JTC1/N2976		Summary of voting and comments on LISS
386		Diamond	LID-binding to MUMPS
387		Meek	How to bind a programming language to LID
388		SC22/WG2	Comments on LID (DIS 11404), Annex E
389			Comments from Barkmeyer on LID DIS, and following email messages
390		Meek	A taxonomy of datatypes
391	SC22/N1493	Rabin	Proposed Policies for the Management of Cross-Language, Language Binding, and Language-Independent Specification Projects within JTC1/SC22
392		Rabin	Issues to be considered in planning the Technical Report on Guidelines for Language-Independent Service Specifications
393		Meek	Binding Fortran 90 Datatypes to LID
394	SC22/N1572		Summary of voting and comments received on CD 13886 - LIPC
395		Convener	Minutes WG11 Meeting April 1994
396		Convener	Liaison statement to SC21/WG8 on RPC