Minutes of ANSI J16 and ISO WG21 Co-located Meeting, October 23-27, 2000

Motions are recorded as follows:

Motion (*mover*, *seconder*)
[passed|failed] J16 (*# in favor*, *# opposed*, *# abstaining*, *# not present or not voting*, *total eligible to vote*)
[passed|failed] WG21 (*# in favor*, *# opposed*, *# abstaining*)

Monday, October 23, 9:00am-5:30pm

1. Opening activities

Clamage called the meeting to order at 09:36 EDT on Monday, October 23, 2000 at the Novotel Toronto Centre in Toronto, Ontario, Canada.

1.1 Opening comments

Clamage thanked Crowfoot for providing the LAN with cable modem and AirConnect access. Klarer described meeting arrangements and breakout rooms.

1.2 Introductions

All participants introduced themselves. We have several guests. There are ten countries represented at this meeting, which is a first for this committee.

1.3 Membership, voting rights, and procedures for the meeting

Miller circulated the attendance list and membership list. Clamage stated that the major work this meeting is to have intended wording for Defect Reports (DRs) available on Friday.

1.4 Agenda review and approval

Motion to approve agenda.

> **Motion (Sutter, Chaney) passed (lots, 0, 0, 4, 26).**

1.5 Distribution of position papers, WG progress reports, WG work plans for the week, and other documents that were not distributed before the meeting.

Miller summarized the Core Working Group (CWG) issues list status; two or three issues fall on the line with Library Working Group (LWG) and a joint meeting has been arranged.

Austern reported that there are 91 issues in Defect Report (DR) status that he expects will make it into Technical Corrigendum 1 (TC1), three of which (2, 23, 160) might go back to Open status; 38 issues have Ready status, most of which should be voted into DR status at this meeting; 19 issues are in Review status; 43 new issues.

O'Riordan reported that there has been little activity on Performance Working Group (PWG) since the last (Tokyo) meeting.

1.6 Approval of the minutes of the previous meeting

Motion to approve minutes.

> **Motion (Kühl, Caves) passed (lots, 0, 0, 4, 26).**

1.7 Report on the WG21 Sunday meeting

Plum reported on WG21 meeting. WG21 discussed the work this week to produce TC1. The WG21 group also spent time discussing broadening the committee's scope of work, and the possibility of using extra time at this meeting to discuss whether to entertain more latitude to fix defects and/or discuss extensions.

Spicer asked about multiple issues that affect the same paragraphs. Plum suggested these be identified internally within the CWG and LWG. The two groups do not share responsibility for any paragraph in the standard.

Plauger reminded that we must also produce a Record of Response (RR) for each DR. Our discussion of both DRs and closed issues are available in the issues lists available via the committee's public website. Austern said we could go through the closed issues lists to see which are worth putting into a RR and to clean up wording, or we could decide this week not to do this unless something jumps out at us. Plauger suggested putting the issues lists into the RR to document the issues that have been considered. There was further discussion.

Clamage stated that the consensus was that the work of the subgroups will be to produce corrected wording for the standard for those issues which are agreed to be defects, and to attach a list of issues known to be closed, typically as Not a Defect (NAD) or Duplicate which presumably are in good enough shape so that little extra drafting work will be required on their resolutions.

1.8 Liaison reports

O'Riordan reported that last week's C committee meeting was a success. The TR will include something

along the lines of hardware I/O considerations. A TC will be completed soon.

Sutter reported no activity on SQL bindings.

1.9 New business requiring actions by the committee

None.

2. Organize subgroups, establish working procedures.

The Core and Library groups will work on Defect Reports. Performance will set its own agenda.

Subgroups will set their own schedules.

3. WG sessions (Core, Library, Performance).

The full committee was dismissed into subgroups at 10:36 EDT. We will reconvene as a full committee on Thursday morning.

Tuesday, October 24, 8:30am-5:30pm

4. WG sessions continue.

Wednesday, October 25, 8:30am-5:30pm

5. WG sessions continue.

Thursday, October 26, 8:30am-11:30am

6. General session.

The full committee resumed at 08:46 EDT on Thursday, October 26, 2000.

6.1 WG status and progress reports.

CWG and LWG have each produced a new version of its defect list (containing DRs) and closed list (containing NADs, extensions, and duplicates). On Friday we will have formal votes on these lists, and have the project editor turn these into a TC after the meeting. If everyone is in agreement after seeing today's presentations and reviewing the documents, we can do it this way; otherwise we will have a letter ballot.

Miller presented CWG's work. Primary focus had been on issues whose resolution could become part of the TC. There were 32 existing DR issues, and we added 61 at this meeting. Three issue resolutions previously approved by the Committee were partly or completely superseded by new issue resolutions: 20 => 185 (partial), 22 => 187, and 35 => 178. There were 2 issues closed as NADs.

Austern presented LWG's work. Most of what LWG has been doing this week is to work on DR list. The LWG subtracted four from the list, two as NAD and two as reopened to have more time to think about it. New issues were triaged. At the end of the day today LWG will discuss the possibility of a potential new work item for extensions to the standard library.

O'Riordan presented PWG's work. The audience of the Performance TR is now broader to be of interest not only to the embedded community but to general users. The next stage comes in Copenhagen, where PWG hopes to issue a draft TR in the post-Copenhagen mailings.

6.2 Presentation and discussion of DRs ready to be voted on. Straw votes taken.

The full committee was dismissed into subgroups at 09:10 EDT. We will reconvene as a full committee on Friday morning.

Thursday, October 26, 1:00pm-5:30pm

7. WG sessions continue. DR motions modified as needed, made available in printed form by the end of the day.

Thursday, October 26, evening

Social event hosted by IBM.

Friday, October 27, 8:30am-Noon

8. Review of the meeting

The full committee resumed at 08:49 EDT on Friday, October 27, 2000.

8.1 Formal motions, including DRs to be resolved.

Motion 1: "Documents N1273, *C++ Standard Core Language Defect Reports, Revision 15* and N1274, *C++ Standard Core Language Closed Issues, Revision 15* should be adopted as the recommended handling of reported potential defects, part 1. The Project Editor is requested to accept as Defect Reports those items in N1273, the resolutions of which are as specified. The items in N1274 are closed with no further handling."

> **Motion (Nelson, Caves) passed J16 (22, 0, 0, 4, 26) and WG21 (10, 0, 0).**

Motion 2: "Documents N1271, *C++ Standard Library Defect Report List (Revision 16)* and N1270, *C++ Standard Library Closed Issues List (Revision 16)*, should be adopted as the recommended handling of reported potential defects, part 2. The Project Editor is requested to accept as Defect Reports those items in N1271, the resolutions of which are as specified. The items in N1270 are closed with no further handling."

> **Motion (Sutter, Austern) passed J16 (22, 0, 0, 4, 26) and WG21 (10, 0, 0).**

Motion 3: "The Committee directs the Convenor and the Project Editor to produce a *Record of Response*

(RR) and a *Technical Corrigendum* (TC) to ISO/IEC 14882:1998 *Programming Languages -- C++*. The RR and the TC should be reviewed by a volunteer subcommittee, and upon their verification that the documents correspond to the specifications in documents N1273, N1274, N1270, and N1271, the Convenor should forward the RR and TC to SC22 for official acceptance and publication."

> **Motion (Dawes, Nelson) passed J16 (22, 0, 0, 4, 26) and WG21 (10, 0, 0).**

Koenig noted that typos and errors may be found in the material while being edited into TC and RR format, and that unless directed otherwise he would resolve them with notes documenting each such editing change; a review committee should check his changes for consistency with the intent of the proposed resolution for the issue in the document approved by the committee. There was discussion in support and no objection. Clamage opined that no motion is needed since we are continuing the existing practice of giving the Project Editor enough leeway to get his job done.

Josuttis presented the motion in document N1283 for a library TR. An earlier draft of this motion was discussed on Thursday in the LWG, with all CWG members having been invited and several attending, and there were questions but no one then present spoke against the proposal.

Plum noted that this motion is just to authorize us to write the actual proposal to SC22 which can then commented upon and voted upon. There was discussion. Miller asked whether we can pass this motion and later decide not to forward anything to SC22 after all; Plum said yes, if there is no consensus we can't forward anything to SC22. Clamage pointed out that we do not have a proposed new work item here; we have a proposal to produce a work item.

Clamage asked for a recount of J16 voting members present; there were 22.

> **Motion (Austern, Dawes) passed J16 (18, 3, 1, 4, 26) and WG21 (9, 0, 1).**

8.2 Review of action items, decisions made, and documents approved by the committee

Clamage said that we have an action item to create a voluntary review subcommittee to check the results of the Project Editor's work. Koenig summarized the work for such volunteers: In phase 1, a TC has to be produced from two HTML documents and proofreading and/or editing assistance is needed, with discussion probably to take place on the –edit reflector; in phase 2, the same process for a modified version of the standard incorporating the TC contents. The volunteers were: Adamczyk, Austern, Dawes, Kühl, Miller, Nelson, O'Riordan, Spicer, Vandevoorde.

Plum noted that someone proposed that people be identified to work on the library TR. The volunteers were: Austern, Dawes, Josuttis, Sutter.

8.3 Issues delayed until Friday

Dawes moved to thank the hosts. There was sustained applause. The committee in particular thanked Crowfoot for all his work on the excellent networking facilities.

O'Riordan called for discussion on the next revision of the C++ standard itself, beyond the library TR, including things like C99 compatibility. There was some discussion. O'Riordan requested an agenda item for this at the next (Copenhagen) meeting. Miller said that in the meantime we can have introductory and general discussion on the –core reflector, and if the discussion becomes more technically detailed or wide-ranging we can use the –extensions reflector. Clamage added that we also have the –admin reflector for purely bureaucratic discussion.

9. Plans for the future

9.1 Next meeting

The next WG21/J16 meeting is:

Copenhagen   April 29 - May 4, 2001

9.2 Mailings

Miller reported that the post-meeting mailing deadline is November 10, 2000.

The pre-meeting mailing deadline for Copenhagen is March 20, 2001.

9.3 Following meetings

Caves outlined the plans for the Seattle meeting, noting that OOPSLA is the week before. The Seattle meeting will take place on the Microsoft campus in their new conference center.

The following WG21/J16 meetings are:

Seattle   October 21-26, 2001

Curaçao   April 2002

Motion to adjourn.

> **Motion (Dawes, Wiegley) passed J16 (lots, 0, 0, 4, 26) and WG21 (lots, 0, 0).**

Meeting adjourned at 10:13 EDT.

J16 Attendance List

Name	Organization	Mon	Tue	Wed	Thu	Fri
William M. Miller	self	V	V	V	V	V
Greg Comeau	Comeau Computing	V	V	V	V	V
Reg Charney	Charney & Day	V	V	V	V	V
Liam Fitzpatrick	Programming Research Ltd	V	V	V	V	V
Per Andersson	Ipso Object Software	V	V	V	V	
Fredrik Jonsson	Ericsson Inc.	V	V	V	V	V
John Wiegley	Borland (Inprise)	V	V	V	V	V
David Vandevoorde	Edison Design Group	A	A	A	A	A
John Spicer	Edison Design Group	A	A	A	A	A
Steve Adamczyk	Edison Design Group	V	V	V	V	V
James Curran	e-Commerce Solution	A	A	A	A	A
Jonathan Caves	Microsoft Corporation	V	V	V	V	V
Thomas R. Wilcox	Rational Software Corp.	V	V	V	V	V
Martin Sebor	Rogue Wave Software	V				
Benjamin Kosnik	Red Hat	A	A	A	A	A
Jason Merrill	Red Hat	V	V	V	V	V
Lawrence Crowl	Sun Microsystems	V	V	V	V	V
Marc Paterno	Fermi National Accelerator Lab	A	A	A	A	A
Walter E. Brown	Fermi National Accelerator Lab	A	A	A	A	A
Jeremy Siek	University of Notre Dame	A				
Max Munch	Lex Hack & Associates	A	A	A	A	A
Yenjo Han	Mentor Graphics Corp.	V	V	V	V	V
Jamie Schmeiser	IBM	A	A	A	A	A
Tana L. Plauger	Dinkumware, Ltd.	A	A	A	A	A
P.J. Plauger	Dinkumware, Ltd.	V	V	V	V	V
Pete Becker	Dinkumware, Ltd.	A	A	A	A	A
Beman Dawes	Self	V	V	V	V	V
Judy Ward	Compaq Computer	V	V	V	V	V
Matt Austern	AT&T	A	A	A	A	A
Andrew Koenig	AT&T	V	V	V	V	V
Robert Klarer	IBM	V	V	V	V	V
Alain Miniussi	HP	A	A	A	A	A

Name	Organization	Mon	Tue	Wed	Thu	Fri
Norm Crowfoot	Xerox	V	V	V	V	V
Steve Clamage	Sun Microsystems	A	A	A	A	A
Herb Sutter	PeerDirect Inc.	V		V	V	V
Tom Plum	Plum Hall	V	V	V	V	V
Clark Nelson	Intel	V	V	V	V	V
Angelique Lippert	Perennial	V	V	V	V	V
David Abrahams	Lernout & Mauspie	V	V	V	V	V

WG21 Attendance List

Name	Country	Mon	Tue	Wed	Thu	Fri
Lois Goldthwaite	UK	X	X	X	X	X
Liam Fitzpatrick	Ireland	X	X	X	X	X
Jens Maurer	Germany	X	X	X	X	X
Dietmar Kühl	Germany (HoD)	X	X	X	X	X
Martin O'Riordan	Ireland (HoD)	X	X	X	X	X
Seiji Hayashida	Japan (HoD)	X	X	X	X	X
Detlef Vollman	Switzerland (HoD)	X	X	X	X	X
Mark Radford	UK	X	X	X	X	X
Kevlin Henney	UK	X	X	X	X	X
Andy Sawyer	UK	X	X	X	X	X
JC Van Winkel	Netherlands (HoD)	X	X	X	X	X
Howard Hinnant	Canada	X	X	X	X	X
Francis Glassborow	UK (HoD)	X	X	X	X	X
Jan Kristofferson	Denmark (HoD)	X	X	X	X	X
Vincent Lextrait	France (HoD)	X	X	X	X	
Georges Schuracher	France	X	X	X	X	
Andrew Koenig	Project Editor	X	X	X	X	X
Robert Klarer	Canada	X	X	X	X	X
Nicolai Josuttis	Germany	X	X	X	X	X
Fredrik Jensson	(Sweden)	X	X	X	X	X
Herb Sutter	Canada (HoD)	X	X	X	X	X
Jamie Schmeiser	Canada	X	X	X	X	X