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Minutes of ANSI J16 and ISO WG21 Co-located Meeting, 22-26 April 2002

Marriott Beach Resort, Curaçao, Netherlands Antilles

Motions are recorded as follows:

<p><i>Motion (mover, seconder)</i> [passed failed] J16 (# in favor, # opposed, # abstaining) [passed failed] WG21 (# in favor, # opposed, # abstaining)</p>

Monday, April 22, 9:00am-5:30pm

1. Opening activities

Clamage called the meeting to order on Monday, April 22, 2002, at 09:05 AST.

1.1 Opening comments

Clamage introduced the meeting host, Randy Marquez, who outlined the meeting arrangements.

1.2 Introductions

The attending participants introduced themselves.

1.3 Membership, voting rights, and procedures for the meeting

Nelson circulated the attendance list and membership list.

1.4 Agenda review and approval

Stroustrup wanted to use the Evolution WG (EWG) to discuss criteria to apply to what is a good idea and what isn't, and work through a feature list to hear people's opinions, and set tasks for the next meeting. Sutter requested that the EWG and the library TR work be done at different times so that those interested in C++0x could attend both. Clamage asked if anyone wanted an evening session; there were no responses. Agenda approved by unanimous consent.

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.

There were no papers or documents.

Adamczyk said that Core WG (CWG) had small attendance at this meeting and would best focus on smaller issues and draft wording rather than cover major tasks.

Dawes said that Library WG (LWG) would focus on existing DRs and new DR proposals.

O'Riordan said that Performance WG (PWG) hoped to get to a point where they could get the Performance TR into its final form at this meeting, or by the post-Curaçao meeting.

1.6 Approval of the minutes of the previous meeting

Clamage reviewed voting rules.

Motion to approve the minutes:

Motion (Nelson, Crowl) passed J16 (lots, 0, 0).
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1.7 Report on the WG21 Sunday meeting

Plum reported on the WG21 meeting. Plum is not a candidate for a third term as convener, and a volunteer is still needed.

Our new bidirectional liaisons with WG14 are Tana Plauger, Clark Nelson, and Keld Simonsen. The liaisons are now:

- Tana Plauger (Dinkumware, USA)
- Clark Nelson (Intel, USA)
- Keld Simonsen (RAP, Norway)
- Francis Glassborow (UK)
- Jan Kristofferson (Ramtex, Denmark)
- Robert Klarer (IBM, Canada)
- Greg Colvin (Oracle, USA)
- Steve Clamage (Sun, USA)
- Tom Plum (Plum Hall, Convener WG21)
- John Benito (Perennial, USA)

Plum reported that WG21 has decided to forward to JTC1 our TC1 which will consist of two parts: the corrected reprint of the standard, and the marked-up standard showing the TC changes.

Plum reported that although a final check of the corrected reprint is not needed, Simonsen and Adamczyk have volunteered to sanity-check the corrected reprint during the five days of this meeting, and that any further volunteers from J16 are welcome. There were no volunteers.

There was discussion about why we were now recommending a correct reprint when the work over the past few months has been to review the marked-up standard showing the TC changes, and on whether we might be obliged to submit the DR log as our record of response as well as either or both of the proposed documents.

Plum announced WG21's plan for future meetings:

Santa Cruz, CA, USA: October 20-25, 2002

Oxford, UK: April 6-11, 2003

Kona, HI, USA: October 2003

An invitation to meet in Oslo, Norway: April 2004

Glassborow reported that the Oxford meeting will be held in a high-end Holiday Inn that even has Internet connections at the bar that are free while you keep drinking. The C and C++ meetings are co-located with the ACCU spring conference, which takes place concurrently with the C meeting. Dawes asked whether the hotel was in Oxford proper; Glassborow answered that it was a 10-minute bus ride to the center of Oxford.

1.8 Liaison reports

Sutter reported that he is no longer attending H2 (SQL) and so the committee might want another liaison. Clamage asked if there were other volunteers; there were none. Clamage directed Sutter to send out a message on the –all reflector to see if there might be any volunteers.

Glassborow reported on the C meeting last week. There was a request for a New Work Item (NWI) for developing a new data type to handle Unicode, which extraordinarily failed its vote originally with a number of countries saying that yes this was a problem but they didn't want to work on it. By the end of the week there were seven votes in favor of going ahead and working on this issue, which represents all of the countries represented at the J11/WG14 meeting. Glassborow pointed out that this is a chance for cooperation and collaboration between J11/WG14 and J16/WG21, as well as a chance to address the larger issue of incompatibilities. There was discussion about the relationship between J11/WG14 and J16/WG21. Glassborow encouraged people to participate in this work, rather than to complain later about the C committee's creating types that are incompatible with C++. Plum noted that several companies present have representation on both J11/WG14 and J16/WG21. Plum scheduled a lunch meeting today for those who are interested in this.

Simonsen reported on activities within WG15 and WG20. It was proposed by the USA that WG20 be disbanded, which vote failed so we still have a WG20.

1.9 New business requiring actions by the committee

2. Organize subgroups, establish working procedures.

The Core, Library, and Performance working groups will work separately all day tomorrow and Wednesday. On Thursday we will discuss Evolution issues.

While we were waiting for information about room arrangements, Stroustrup summarized a draft agenda for the EWG. There was discussion about various views regarding the future directions for C++.

Tana Plauger provided a map about the Santa Cruz meeting location. Other details are in the email sent by Bill Plauger a week ago.

The committee broke into subgroups at 11:13 AST.

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

The working groups will work on Defect Reports and Technical Reports as appropriate. Each group sets its own detailed agenda.

Tuesday, April 23, 8:00am-5:30pm

4. WG sessions continue.

Wednesday, April 24, 8:00am-5:30pm

5. WG sessions continue.

The WG chairs will arrange for any DRs ready to be proposed for resolution to be written up in motion form, and made available in printed form by the end of the day.

Thursday, April 25, 8:30am-11:30am

6. General session.

Clamage called the meeting to order at 08:40 AST.

Dawes presented LWG status:

There were 24 Ready issues in the active issues list in the mailing (J16/02-0008 = N1350). Of the 24, one was struck (231) because more work was needed, but the other 23 are being brought forward as motions tomorrow. There are none that require any particular discussion; if any questions, ask now or ask the LWG. The LWG worked the issues list and moved the majority of the Review issues to Ready status for the next meeting.

There is a series of issues (225, 226, 299) that involve the problem of qualified or unqualified name lookup in the standard library. Because of language lookup rules, the interfaces to the standard library and other libraries is wider than we thought it was, and we need to decide what we want and specify it.

LWG also spent time on the Library TR. There are 15 proto-proposals, two of which are complete with at least a first draft of standardese. A couple of them are controversial, but at least 12 or 13 of those proposed additions seems to be of interest and the authors have been asked to come forward with formal proposals. There are no LWG issues of any type where we'd like guidance or a straw vote from the full committee; some questions have been forwarded to the EWG.

There were no questions for Dawes.

O'Riordan reported PWG status:

Coming into the meeting there were 56 issues, down to 22 at this moment, and expect to eliminate more. Four issues are editorial; 12 have to do with the C++ hardware I/O interface; the remaining six should be closed via an annex. There has been some drag-and-drop rearrangement of text for coherency. By 10:30am today the changes to the hardware I/O should be merged in for those who would like to review it. Since the text will not be ready this morning, the TR will be submitted for registration ballot only rather than for PDTR ballot. Ideally it would be submitted for PDTR ballot this week though, and the committee should consider whether we should submit it for ballot even though the full text will not be available until lunchtime.

Plum explained that combining the registration and the PDTR ballot would gain six months on the publication schedule, but that the correct thing was probably to submit the TR document for only the registration ballot at this time. There was discussion. The consensus was that it would be correct to submit the TR document for only the registration ballot. There will be a resolution on Friday to submit the TR for registration ballot.

Stroustrup reported EWG status:

EWG should have an overall statement of purpose and direction for the post-meeting mailing, including a list of general areas that are being focused on and a more substantive format for describing proposals. We expect to have 10 such example proposals ready for the next meeting, and that will be EWG's main task in between meetings. Two things came up at this meeting: name lookup (LWG issue) and generalization of literals (with respect to the C TR).

Adamczyk reported CWG status:

There will be one motion on Friday to move 10 issues with Ready status to be moved to DR status. There were 29 new CWG issues, all categorized. There was drafting work. There were no contentious issues. Some issues are not being moved forward because of the absence of some key experts at this meeting and because those issues were not time-critical.

The committee broke into subgroups at 09:14 AST.

6.1 WG status and progress reports.

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

Thursday, April 25, 1:00pm-5:30pm

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

Friday, April 26, 8:00am-11:00am

8. Review of the meeting

Clamage called the meeting to order at 08:42 AST.

8.1 Formal motions, including DRs to be resolved.

Core Motion

Adamczyk presented the CWG motion:

Move to forward all issues with "Ready" status in N1347 to the project editor for handling as possible defect reports. Issue numbers are 77, 119, 143, 158, 177, 180, 259, 270, 275, and 286.

Motion (Adamczyk, Sutter) passed J16 (15, 0, 0) and WG21 (9, 0, 0).

Library Motion

Becker presented the LWG motion:

Move that we submit to the Project Editor as Potential Defect Reports the following library issues in J16/02-0008==WG21/N1350 C++ "Standard Library Active Issues List (Revision 21)" 76, 198, 240, 270, 274, 276, 284, 310, 311, 315, 316, 317, 318, 319, 321, 322, 327, 328, 331, 335, 337, 345, 346.

Motion (Becker, Marcus) passed J16 (15, 0, 0) and WG21 (9, 0, 0).

Performance Motion

The document that will be put to registration is N1359. O'Riordan presented the PWG resolution:

WG21 instructs its convenor to submit the current version (as of 26 April 2002) of JTC1.22.18015 - C++ Performance to SC22 Secretariat for ballot for PDTR registration.

Motion (O'Riordan, Glassborow) passed J16 (15, 0, 0) and WG21 (8, 1, 0).

Nelson moved to thank the hosts. There was sustained applause. Clamage noted that this was the best Internet experience we'd ever had.

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

8.3 Issues delayed until Friday

Simonsen mentioned that SC22 is having an ad-hoc on character set issues at the plenary in August, and asked whether this committee has a position. Simonsen then summarized the state within SC22. Plum said he was satisfied to recognize that we don't have a committee position in this area, and we would require a lot of background before being able to form a position. Plum recommended that we not take a position. There was discussion. Sutter noted that this was a highly political debate and since we do not in fact have a position we should say nothing, lest anything we say be inadvertently construed as support for one side or another. Crowl noted that there has been an agreement made with the Unicode consortium to adopt features in WG14 and that WG21 would follow suit in a future standard.

WG21 instructs its convenor and liaisons to communicate to the SC22 Plenary that WG21 has no position on character set issues at this time.

Motion (Sutter, Glassborow) passed J16 (12, 0, 3) and WG21 (5, 2, 2).

9. Plans for the future

Glassborow announced that Microsoft had agreed to contribute to the costs of the Oxford meeting which would allow keeping down the room costs significantly for attendees. There was applause.

9.1 Next meeting

Tana Plauger had a paper map of the October meeting, which Nelson agreed to scan and include in the mailing.

9.2 Mailings

Nelson reported that the deadline for the post-meeting mailing for this meeting is May 10, and that the deadline for the pre-meeting mailing for the next meeting will be September 10.

Nelson said he would check with Koenig whether a copy of the TC would go into the post-meeting paper mailing. There was discussion. Plum summarized that everyone would like the revised standard in the mailing as a numbered committee document.

9.3 Following meetings

Clamage summarized the plan for future meetings:

Santa Cruz, CA, USA: October 20-25, 2002

Oxford, UK: April 6-11, 2003

Kona, HI, USA: October 2003

Oslo, Norway: April 2004

Motion to Adjourn:

Motion (Sutter, Nelson) passed J16 (lots, 0, 0) and WG21 (lots, 0, 0).

Meeting adjourned at 09:38.

J16 Attendance List

Organization	Representative	Mon	Tue	Wed	Thu	Fri
Adobe Systems	Mat Marcus	V	V	V	V	V
AT&T	Bjarne Stroustrup	V	V	V	V	
Atlantic International	David Miller	A	A	A	A	A
Comeau Computing	Greg Comeau	V	V	V	V	V
Compaq Computer	PremAnand M. Rao	V	V	V	V	V
Dinkumware, Ltd.	Pete Becker	V	V	V	V	V
Dinkumware, Ltd.	Tana Plauger	A	A	A	A	A
Edison Design Group	J. Stephen Adamczyk	V	V	V	V	V
Edison Design Group	Daveed Vandevoorde	A	A	A	A	A
Edison Design Group	John H. Spicer	A	A	A	A	A
Fermi National Accelerator Lab.	Walter Brown	V	V	V	V	V
Fermi National Accelerator Lab.	Marc Paterno	A	A	A	A	A
Gimpel Software	James Gimpel	A	A	A	A	A
Gimpel Software	Anneliese Gimpel	A	A	A	A	A
IBM	Robert Klarer	V	V	V	V	V
IBM	Jamie Schmeiser	A	A	A	A	A
Indiana University	Jeremy Siek	A	A	A	A	A
Indiana University	Jaakko Järvi	A	A	A	A	
Intel	Clark Nelson	V	V	V	V	V
Ipsos Object Software	Per Andersson		A	A	A	A
Metrowerks	Howard E. Hinnant	A	A	A	A	
Microsoft	Jonathan Caves	V	V	V	V	V
Microsoft	Herb Sutter	A	A	A	A	A
None (Abrahams)	David Abrahams	V	V	V	V	V
None (Dawes)	Beman Dawes	V	V	V	V	
None (Seymour)	Bill Seymour	V	V	V	V	V
Perennial	Habib Krit	V	V	V	V	V
Plum Hall	Tom Plum	V	V	V	V	V
Programming Research	Richard Corden	V	V	V	V	
Rational Software	Tom Wilcox	V	V	V	V	V
Sun Microsystems	Lawrence Crowl	V	V	V	V	V
Sun Microsystems	Stephen D. Clamage	A	A	A	A	A
Utah Valley State College	Chuck Allison	A	A	A	A	