1. Opening and introductions

Plum called the meeting to order at 17:59 MET, March 8, 1998.

1.1 Welcome from host

Rigault welcomed committee. ESSI is an extension of the University of Nice, and has about 320 students and 30-35 staff members. Internet connections are available via Sun workstations, and 50 email accounts have been provided. Details will be explained tomorrow. Rigault introduced the breakout rooms, and welcomed the committee.

1.2 Roll call of technical experts

In attendance were:

- Clark Nelson (US, Head of Delegation)
- Steve Clamage (US)
- Bjarne Stroustrup (US)
- JC van Winkel (Netherlands, Head of Delegation)
- Andrew Koenig (US)
- Dietmar Kühl (Germany)
- Valentin Bonnard (France)
- Vincent Lextrait (France, Head of Delegation)
- Lois Goldthwaite (UK)
- Robert Klarer (Canada)
- Francis Glassborow (UK, Head of Delegation)
- Beman Dawes (US)
- Herb Sutter (Canada, Head of Delegation)
- Nico Josuttis (Germany, Head of Delegation)
- Seiji Hayashick (Japan, Head of Delegation)
- Hiroshi Monden (Japan)
- Jean-Paul Rigault (France)
- Tom Plum (Convenor)

1.3 Select meeting chair

Plum was acclaimed.

1.4 Select meeting secretary

Sutter is serving as acting secretary due to Corfield’s injury. The committee sends condolences to Corfield.

1.5 Select language

Plum nominated English. Approved by acclamation.
1.6 Adopt agenda

Dawes asked to add an item about making the standard public in electronic form. The item was added. The agenda was adopted by acclamation.

1.7 Select drafting committee

Plum nominated Glassborow, who accepted. Klarer was also nominated, and accepted. There should be little or no drafting to be done.

1.8 Approve minutes from previous meeting

Plum said he has heard no objections to minutes of previous meeting. Plum asked if there were any, and no one objected. The minutes were approved by acclamation.

1.9 Review action items from previous meeting

Koenig reported that FDIS copy has been entrusted to ISO (and was completed on time in 1997!). At some point either the letter ballot will go out, or he will receive requests to make editorial changes, or both. Plum said that he’s been asking weekly by email, and the reply is always the same: it’s in some process in Geneva and should be ready within the week.

There were no action items.

1.10 Recognize documents

Monden brought forward a new project proposal, and Stroustrup brought forward a paper. Rigault went to make copies of these documents. Plum asked whether there were any additional documents. Klarer said he brought Lajoie’s action items, and this was deferred until the combined meeting with ANSI J16.

2. Status, liaison and action item reports

2.1 Small group status reports

(No discussion.)

2.2 Liaison Reports

(No discussion.)

2.2.1 SC22 report

Plum said we haven’t had any SC22 action since the last meeting.

2.2.2 SC22/WG11 (Binding Techniques) report

Deferred to Monday session.
2.2.3 SC22/WG14 (C) report
Deferred to Monday session.

2.2.4 SC22/WG15 (POSIX) report
Deferred to Monday session.

2.2.5 SC22/WG20 (Internationalization) report
Deferred to Monday session.

3. New business

Review FDIS ballot results (hopefully)
Plum reported that he has written communications from all five delegations that voted No on CD2, and all have said they intend to vote Yes. The FDIS has unfortunately not yet gone out for balloting.

Initiate Defect Report procedures
Plum reported that we are entitled to start addressing (but not voting on) these issues, and it is now appropriate to begin discussion in subgroups of issues that have already been raised. When the entire committee reconvenes, it will be time to review policy decisions. Plum said that Lajoie’s resignation as Core chair presented an issue; Steve Adamczyk and Bill Gibbons were the other Core chairs, and since only Gibbons is here he should be asked to act as Core group chair.

Future meeting schedules
Silicon Graphics has offered to host, in October, both the C and C++ committees at the same hotel at the same week.

Discuss ISO copyright and distribution issues
Plum suggested we discuss this in full session

Any new project proposals
Plum said that he had specifically invited the Japanese body to draft a new project proposal regarding Embedded C++. He said that he has been working with a group in Japan for several years to broaden existing Embedded C++ work to the ISO level. Plum turned this part of the session over to Monden.

Monden presented document J16/98-0008 WG21/N1151 to propose a new working group under WG21.
Plum moved to recess until 16:00, Wednesday, March 11, 1998.
Committee recessed at 20:06 MET, Sunday, March 8, 1998.
(WG21 and J16) Monday, March 9, 1998, 09:00 - 17:30

1. Opening activities
Clamage called the meeting to order at 09:18 MET, March 9, 1998.

1.1 Opening comments
Clamage distributed an updated agenda J16/98-0010 WG21/N1153.

1.2 Introductions
Clamage had everyone introduce themselves around the table.

1.3 Membership, voting rights, and procedures for the meeting
Clamage summarized voting rules and referred to Mike Miller anyone with question about their voting rights.

1.4 Agenda review and approval
Clamage reviewed the updated agenda. Approved by acclamation.

1.5 Distribution of any documents that were not distributed before the meeting.
Miller mentioned two: one about universal character names issues, and outstanding issues for core working group.

1.6 Approval of the minutes of the previous meeting
Moved by Charney, seconded by Gafter.
   J16: lots in favour, 0 opposed, 0 abstained
Minutes approved.

1.7 Report on the WG21 Sunday meeting, including FDIS status
Plum said that many WG21 issues had been deferred for discussion in full committee. Plum said the status of the FDIS is unfortunately reported to be the same every week: it’s still in Geneva, it’s somewhere within ISO, it hasn’t yet gone out for ballot, and it’s to go out the week after the inquiry. Plum confirmed that Koenig did complete the final draft for Geneva before the end of calendar 1997. Koenig said that ISO prefers to receive the document in electronic format, but after two weeks Reinhuls found that there was no address where such electronic copy could be sent, and it was finally submitted on paper. Plum said that DR procedures had been discussed at length and will be discussed in full committee on Wednesday. Monden had presented a paper and there was discussion about Embedded C++. There had been seven delegations present: Canada, France, Germany, Japan, Netherlands, UK and US.
1.8 Liaison reports

Clamage said that there is only one, namely with the C committee. Benito said that the C ballot period will close on April 7, and so in the last meeting the C committee worked on rationale and on comments received so far. Benito said they intended to produce a second CD this year and a DIS in 1999, on schedule.

Rigault summarized meeting facilities and introduced ESSI, our hosts, the computer engineering school of the University of Nice.

1.9 New business requiring actions by the committee

(No discussion.)

2. General Session.

2.1 Future meeting schedule

Clamage observed that the major purpose of this week’s meeting is to establish procedures for the next several meetings (for DRs and other things), and to that end we will be experimenting with possible procedures at this meeting. He suggested that when we’re done with that, on Thursday, we come back to this topic and take a formal vote then.

2.2 NCITS voting rules, possible changes to

Clamage said that NCITS has sent out a request for comments on potential changes to voting rules.

Clamage cut short discussion. Broke for lunch at 11:50 MET.

Reconvened at 13:36 MET.

Clamage suggested we have a vote on two proposals so far: Miller’s to allow voting immediately after attending one meeting (including a letter ballot), and Glassborow’s to not allow indefinite voting rights based only on attending one meeting ever. Miller will have the proposal drafted for tomorrow morning.

2.3 ISO copyright issues

Plum summarized copyright issues.

2.4 Proposals for new projects

Clamage asked for new project proposals, other than Embedded C++ which is on tomorrow’s agenda. There was discussion, but no additional formal proposal.

Lextrait brought and distributed copies of the papers for tomorrow’s session.

Clamage adjourned the meeting at 16:10 MET.
2.5 C++ for embedded systems

Clamage called the meeting to order at 08:50 MET, March 10, 1998.

Monden presented a proposal to set up a new working subgroup for embedded systems programming.

Plauger asked for a straw vote for sentiment in favour of inviting NBs to come to the next meeting with support for this. Clamage said that we will spend five minutes tomorrow to take such a straw vote.

Extra item: Discuss other procedural issues, and 98-0013/N1156

Clamage said that Rumsby had changed jobs and could no longer maintain the committee website. Kehoe offered that Cygnus could do it, and that they already have mirror sites in Europe and Asia.

Document 98-0013/N1156 was distributed and considered.

Broke for lunch at 11:47 MET, to resume at 13:30 MET sharp.

Reconvened at 13:32 MET.

No motion was on the floor, and Clamage insisted we move on.

Miller reminded Clamage of previous unfinished business regarding NCITS voting procedures. Miller summarized it briefly. The text of the motion was:

Move to instruct the chair to inform NCITS that the sense of the Committee regarding possible changes in requirements for obtaining and retaining voting membership on Technical Committees is as follows:

1) It is important to facilitate the full participation of new members of TCs that meet infrequently, without compromising the benefits of in-person long-term participation in the work of the committee that provide the rationale for the current membership rules.

2) New members of TCs should receive voting rights immediately after attending one full meeting of the TC. This would represent no change for voting rights at meetings but would allow earlier participation in letter ballots for TCs that conduct substantial business in this fashion.

3) The rules for retaining voting rights should remain unchanged for TCs that meet more than twice a year. For TCs that meet two or fewer times a year, members should lose their voting rights if they do not attend at least one meeting per year.

Moved by Miller. Seconded by Glassborow.

J16: 14 in favour, 0 opposed, 2 abstained

Clamage to forward to NCITS secretariat. Plauger asked informally whether there was a quorum, for informational purposes only. Miller confirmed that there was, that he was not certain of the exact number, but that we are well above it. (Miller later reported that there are 36 voting members of J16, with 12 required for a quorum, and that 19 voting members are represented at this meeting.)

2.6 Discuss DR procedural issues, no conclusions

Clamage asked Plum to clarify ISO requirements, which Plum did.
Clamage broke the meeting up into working groups. All of Core will meet together, and all of Library will meet together, and no other groups need to be formed for this purpose. Room arrangements were made. The full committee should meet together first thing tomorrow morning at 09:00 to review progress.

Clamage adjourned the full committee meeting at 14:15 MET.
(WG21 and J16) Wednesday, March 11, 1998, 09:00 - 17:30

Clamage called the meeting to order at 09:10 MET, March 11, 1998.

2.7 Appoint subgroups and chairs

(No discussion.)

2.8 Continue subgroup work

(No discussion.)

2.9 Finish setting DR procedures

Clamage reported that the conclusion of both Core and Library subgroups was that no further subgroup time was required.

Clamage summarized is that it sounds like we have decided to move the details of DR procedures to the -admin reflector over the coming months.

Broke for lunch at 11:48 MET, to resume at 13:30 MET sharp.

Reconvened at 13:33 MET.

Sutter asked for an informal show of hands for people who, if all C and C++ meetings were co-located, would consider attending both. About eight raised their hands, including at least three NBs.

Plum presented a resolution:

> In view of the number of new features in CD 9899 (“C9X”) which are orthogonal to the C++ features in FDIS 14882, WG21 requests that SC22 affirm that WG21 (C++) will not necessarily be required to adopt C9X features in future revisions of C++.

Moved by Plum. Seconded by Dawes.

J16: lots in favour, 0 opposed, 1 abstained
WG21: 7 in favour, 0 opposed, 0 abstained

Motion approved.

2.10 Future directions for C++

This topic has been discussed throughout. Further discussion was deferred.

3. Review of the meeting

3.1 Formal motions

The question for the straw vote was:
What is the sentiment in favour of having WG21 request a new work item to pursue a Technical Report addressing C++ space/time performance issues and techniques, including but not limited to the requirements of embedded systems?

J16: lots in favour, 1 opposed, 4 abstained

It is the sense of the committee that we pursue this.

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

(No discussion.)

4. Plans for the future

4.1 Next meeting

Plum said that he has received email confirmation that the October meeting dates are October 7-9, 1998.

4.2 Mailings

Miller said there are two mailings. The deadline for the post-meeting mailing for this meeting is March 27, 1998. The deadline for the pre-meeting mailing for the October meeting is Tuesday, August 11, 1998. Miller will send out email reminders.

4.3 Following meetings

Plum said that O’Riordan confirmed that 1999 is fine for a Dublin meeting, due to be the week of April 11-16, 1999. The following meeting will be October 20-26, 1999 in Hawaii.

Dawes moved to thank the host. Motion passed by acclamation. Lextrait thanked ILOG.

Dawes moved to adjourn. Seconded by Miller. Motion passed by acclamation.
(WG21) Wednesday, March 11, 1998, 14:45 - 15:00

4. Review and approve resolutions and issues
Motion to approve all the votes taken during the informal session.

Moved by Clark. Seconded by Josuttis.

WG21: 7 in favour, 0 opposed, 0 abstained

Motion approved.

5. Closing process

5.1 Select chair for next meeting
Plum to be chair.

5.2 Establish next agenda
Plum was asked to make an agenda much like this one.

5.3 Future meetings
Clark noted that the next J16 meeting will begin on a Wednesday. Plum said that the next WG21 meeting will be Tuesday, October 6, 1998, hosted by Silicon Graphics.

5.4 Future mailings
Handled in J16.

5.5 Assign document numbers
(No discussion.)

5.6 Review action items
Plum said that we are going to discuss the DR procedures on the -admin reflector. Those interested should ask Koenig to add them to the -admin reflector.

Plum said that the convenor should coordinate a new project proposal according to the straw vote to create a new subgroup.

Plum said that the convenor should convey the J16 motion that WG21 not be required to adopt C9X features.

5.7 Any other business
(No discussion.)
5.8 Thanks to host

Plum thanked the hosts. There was applause.

5.9 Adjournment

Motion to adjourn.

Moved by Clark. Seconded by Josuttis.

WG21: 7 in favour, 0 opposed, 0 abstained

Motion approved.
## J16 Attendance

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